Analytical Data Package Prepared For

Pacific Northwest National Lab

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Radiochemical Analysis By

STL Richland STLRL

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

Data Package Contains 122 Pages

Report Nbr: 35012

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05126	W07-002	B1M8W3	J7B260113-1	JP4CL1AA	9JP4CL10	7071527
		B1M8W3	J7B260113-1	JP4CL1AC	9JP4CL10	7071526
		B1M8W8	J7B260113-2	JP4CP1AA	9JP4CP10	7071527
		B1M8W8	J7B260113-2	JP4CP1AC	9JP4CP10	7071526
	S07-002	B1ML73	J7B270185-1	JP5281AA	9JP52810	7071529
	I07-027	B1M6R4	J7B270191-1	JP53V1AA	9JP53V10	7071530
		B1M6R4	J7B270191-1	JP53V1AC	9JP53V10	7071529
		B1M6R4	J7B270191-1	JP53V1AD	9JP53V10	7071526
		B1M6P9	J7B270191-2	JP5351AA	9JP53510	7071530
		B1M6P9	J7B270191-2	JP5351AC	9JP53510	7071529
		B1M6P9	J7B270191-2	JP5352AD	9JP53520	7080288
		B1M6P4	J7B270191-3	JP5361AA	9JP53610	7071530
		B1M6P4	J7B270191-3	JP5361AC	9JP53610	7071529
		B1M6P4	J7B270191-3	JP5362AD	9JP53620	7080288
		B1M6X7	J7B270191-4	JP5381AA	9JP53810	7071526

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Comments:

Report Nbr: 35012

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05126	I07-026	B1M6C7	J7B270196-1	JP5471AA	9JP54710	7071530
	I07-027	B1M6T7	J7B280116-1	JP7R11AA	9JP7R110	7071530
		B1M6T7	J7B280116-1	JP7R11AC	9JP7R110	7071529
		B1M6T7	J7B280116-1	JP7R11AD	9JP7R110	7071526
		B1M6R9	J7B280116-2	JP7R41AA	9JP7R410	7071530
		B1M6R9	J7B280116-2	JP7R41AC	9JP7R410	7071529
		B1M6R9	J7B280116-2	JP7R41AD	9JP7R410	7071526
	I07-026	B1M6J6	J7B280118-1	JP7TM1AA	9JP7TM10	7071530
		B1M6J7	J7B280118-2	JP7VE1AA	9JP7VE10	7071530
	S07-002	B1M7K3	J7B280125-1	JP7WL1AA	9JP7WL10	7071531
		B1M7K3	J7B280125-1	JP7WL1AC	9JP7WL10	7071530
		B1M7K3	J7B280125-1	JP7WL1AD	9JP7WL10	7071529
	S07-001	B1LP24	J7B280129-1	JP7XF1AA	9JP7XF10	7071531
		B1LP24	J7B280129-1	JP7XF1AD	9JP7XF10	7071529
		B1LP24	J7B280129-1	JP7XF1AE	9JP7XF10	7071526
		B1LP24	J7B280129-1	JP7XF1AF	9JP7XF10	7071530
		B1LP24	J7B280129-1	JP7XF2AC	9JP7XF20	7081277
	I07-026	B1M6F2	J7B280130-1	JP7XP1AA	9JP7XP10	7071530
		B1M6F2	J7B280130-1	JP7XP1AC	9JP7XP10	7071526
	W07-002	B1M991	J7B280155-1	JP7311AA	9JP73110	7071532
		B1M991	J7B280155-1	JP7311AC	9JP73110	7071533
		B1M991	J7B280155-1	JP7311AD	9JP73110	7071531
		B1M991	J7B280155-1	JP7311AE	9JP73110	7071526

Comments:

SEVERN TRENT STL

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Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

April 20, 2007

Attention: Dot Stewart

SAF Number	:	W07-002, S07-002, I07-027, I07-026, S07-001
Date SDG Closed	:	March 9, 2007
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05126
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between February 23, 2007 and February 27, 2007, twenty 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:

PGW ID#	STLR ID#	MATRIX	DATE OF RECEIPT
B1M8W3	JP4CL	WATER	2/23/07
B1M8W8	JP4CP	WATER	2/23/07
B1ML73	JP528	WATER	2/26/07
B1M6R4	JP53V	WATER	2/26/07
B1M6P9	JP535	WATER	2/26/07
B1M6P4	JP536	WATER	2/26/07
B1M6X7	JP538	WATER	2/26/07
B1M6C7	JP547	WATER	2/26/07
B1M6T7	JP7R1	WATER	2/27/07
B1M6R9	JP7R4	WATER	2/27/07
B1M6J6	JP7TM	WATER	2/27/07
B1M6J7	JP7VE	WATER	2/27/07
B1M7K3	JP7WL	WATER	2/27/07

B1L924	JP7XF	WATER	2/27/07
B1M6F2	JP7XP	WATER	2/27/07
B1M991	JP731	WATER	2/27/07

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:

Alpha Spectroscopy
Plutonium-238, -239/240 by method RICH-RC-5010
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

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

Alpha Spectroscopy
Plutonium-238, -239/240 by method RICH-RC-5010
The LCS, batch blank, samples and sample duplicate (B1LP24) results are within contractual requirements.

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014:

The LCS, batch blank, samples and sample duplicate (B1M991) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:
The LCS, batch blank, samples and sample duplicate (B1M991) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006
The LCS, batch blank, samples and sample duplicate (B1ML73) results are within contractual requirements.

Gamma Spectroscopy
Gamma Spec (LL) by method RICH-RC-5017:
The LCS, batch blank, samples and sample duplicate (B1M7K3) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025:
The LCS, batch blank, samples and sample duplicate (B1M6J6) results are within contractual requirements.

Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065:
Samples B1M6P9 and B1M6P4 did not calculate as the TSIE was out of the calibration limits. This is most likely an indication of some quench. The samples were reanalyzed and the data is acceptable. Except as noted, the LCS, batch blank, samples, sample duplicate (B1M6F2), and sample matrix spike (B1M6T7) results are within contractual requirements.

Tritium by method RICH-RC-5007:
The LCS, batch blank, samples and sample duplicate (B1M8W3) results are within contractual requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

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 = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/vn), 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) ***u_c - Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty.*** The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or 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 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by 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.

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STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35012 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.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:
9JP4CL10	B1M8W3		MW6-SBB-A1	W07-002	W05126					02/23/2007 08:39

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071527	H-3	10028-17-8	1.15E+04	pCi/L	3.7E+02	5.9E+02		3.10E+02	100.0	906.0_H3_LSC	5.00E-03	L	03/17/2007 07:58	I
7071526	TC-99	14133-76-7	1.53E+03	pCi/L	1.9E+01	9.7E+01		8.13E+00	100.0	TC99_ETVDSK_LS	1.256E-01	L	03/20/2007 07:48	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:
9JP4CP10	B1M8W8		MW6-SBB-A1	W07-002	W05126					02/23/2007 09:40

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071527	H-3	10028-17-8	1.23E+04	pCi/L	3.8E+02	6.2E+02		3.09E+02	100.0	906.0_H3_LSC	5.00E-03	L	03/17/2007 10:41	I
7071526	TC-99	14133-76-7	7.99E+03	pCi/L	4.6E+01	4.9E+02		8.89E+00	100.0	TC99_ETVDSK_LS	1.256E-01	L	03/20/2007 08:51	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JP52810	B1ML73		MW6-SBB-A1	S07-002	W05126					02/26/2007 11:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071529	SR-90	10098-97-2	3.48E-01	pCi/L	2.8E-01	2.9E-01	U	5.76E-01	70.5	SRISO_SEP_PRE	1.0043E+00	L	03/30/2007 05:57	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:
9JP53510	B1M6P9		MW6-SBB-A1	I07-027	W05126					02/26/2007 09:03

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071530	I-129L	15046-84-1	1.02E-01	pCi/L	1.3E-01	1.3E-01	U	2.69E-01	100.0	I129LL_SEP_LEPS	3.9277E+00	L	03/30/2007 11:52	I
7071529	SR-90	10098-97-2	3.21E-01	pCi/L	2.3E-01	2.4E-01	U	4.71E-01	80.8	SRISO_SEP_PRE	1.0011E+00	L	03/30/2007 05:57	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:
9JP53520	B1M6P9		MW6-SBB-A1	I07-027	W05126					02/26/2007 09:03

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7080288	TC-99	14133-76-7	1.24E+02	pCi/L	6.8E+00	1.3E+01		9.02E+00	100.0	TC99_ETVDSK_LS	1.252E-01	L	03/23/2007 19:00	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:
9JP53610	B1M6P4		MW6-SBB-A1	I07-027	W05126					02/26/2007 09:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071530	I-129L	15046-84-1	1.31E-01	pCi/L	1.1E-01	1.1E-01	U	2.35E-01	99.5	I129LL_SEP_LEPS	3.9651E+00	L	03/30/2007 11:52	I
7071529	SR-90	10098-97-2	1.07E-01	pCi/L	1.9E-01	2.0E-01	U	4.37E-01	72.6	SRISO_SEP_PRE	1.0019E+00	L	03/30/2007 05:58	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.

4/19/2007 10:25:27 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35012 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.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:
9JP53620	B1M6P4		MW6-SBB-A1	I07-027	W05126					02/26/2007 09:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7080288	TC-99	14133-76-7	9.68E+01	pCi/L	6.3E+00	1.1E+01		9.11E+00	100.0	TC99_ETVDSK_LS	1.258E-01	L	03/23/2007 20:03	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JP53810	B1M6X7		MW6-SBB-A1	I07-027	W05126					02/26/2007 11:38

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071526	TC-99	14133-76-7	2.46E+01	pCi/L	4.4E+00	6.4E+00		8.77E+00	100.0	TC99_ETVDSK_LS	1.251E-01	L	03/20/2007 13:02	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:
9JP53V10	B1M6R4		MW6-SBB-A1	I07-027	W05126					02/26/2007 08:32

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071530	I-129L	15046-84-1	-4.90E-02	pCi/L	1.3E-01	1.3E-01	U	2.24E-01	100.0	I129LL_SEP_LEPS	3.9431E+00	L	03/30/2007 11:51	I
7071529	SR-90	10098-97-2	3.64E-01	pCi/L	2.7E-01	2.7E-01	U	5.24E-01	73.9	SRISO_SEP_PRE	1.0002E+00	L	03/30/2007 05:57	I
7071526	TC-99	14133-76-7	3.03E+01	pCi/L	4.5E+00	6.7E+00		8.65E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	03/20/2007 09:54	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:
9JP54710	B1M6C7		MW6-SBB-A1	I07-026	W05126					02/26/2007 12:39

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071530	I-129L	15046-84-1	1.67E+00	pCi/L	3.8E-01	3.8E-01	U	6.33E-01	96.8	I129LL_SEP_LEPS	3.9437E+00	L	03/30/2007 13:37	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JP73110	B1M991		MW6-SBB-A1	W07-002	W05126					02/27/2007 11:41

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071532	ALPHA	12587-46-1	6.82E-01	pCi/L	8.7E-01	8.9E-01	U	1.65E+00	100.0	9310_ALPHABETA	2.003E-01	L	03/28/2007 19:40	I
7071533	BETA	12587-47-2	2.03E+01	pCi/L	2.3E+00	4.6E+00		2.65E+00	100.0	9310_ALPHABETA	2.025E-01	L	03/28/2007 18:06	I
7071531	BE-7	13966-02-4	1.29E+01	pCi/L	1.6E+01	1.6E+01	U	3.13E+01		GAMMALL_GS	2.0054E+00	L	03/29/2007 05:19	I
7071531	CO-60	10198-40-0	-4.20E-01	pCi/L	1.4E+00	1.4E+00	U	2.66E+00		GAMMALL_GS	2.0054E+00	L	03/29/2007 05:19	I
7071531	CS-134	13967-70-9	4.38E-01	pCi/L	1.6E+00	1.6E+00	U	3.12E+00		GAMMALL_GS	2.0054E+00	L	03/29/2007 05:19	I
7071531	CS-137	10045-97-3	-3.28E-02	pCi/L	1.4E+00	1.4E+00	U	2.55E+00		GAMMALL_GS	2.0054E+00	L	03/29/2007 05:19	I
7071531	EU-152	14683-23-9	4.63E+00	pCi/L	3.8E+00	3.8E+00	U	7.58E+00		GAMMALL_GS	2.0054E+00	L	03/29/2007 05:19	I
7071531	EU-154	15585-10-1	6.64E+00	pCi/L	5.2E+00	5.2E+00	U	1.17E+01		GAMMALL_GS	2.0054E+00	L	03/29/2007 05:19	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.

4/19/2007 10:25:27 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35012 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

7071531	EU-155	14391-16-3	5.96E-02	pCi/L	2.8E+00	2.8E+00	U	5.17E+00		GAMMALL_GS	2.0054E+00	L	03/29/2007	05:19	I
7071531	K-40	13966-00-2	-2.20E+01	pCi/L	3.4E+01	3.4E+01	U	7.05E+01		GAMMALL_GS	2.0054E+00	L	03/29/2007	05:19	I
7071531	RU-106	13967-48-1	-7.00E-01	pCi/L	1.2E+01	1.2E+01	U	2.23E+01		GAMMALL_GS	2.0054E+00	L	03/29/2007	05:19	I
7071531	SB-125	14234-35-6	2.30E+00	pCi/L	3.4E+00	3.4E+00	U	6.77E+00		GAMMALL_GS	2.0054E+00	L	03/29/2007	05:19	I
7071526	TC-99	14133-76-7	3.72E+01	pCi/L	5.0E+00	7.3E+00		9.77E+00	100.0	TC99_ETVDSK_LS	1.255E-01	L	03/20/2007	21:24	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:
9JP7R110	B1M6T7		MW6-SBB-A1	I07-027	W05126					02/27/2007 12:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071530	I-129L	15046-84-1	-1.03E-01	pCi/L	1.3E-01	1.3E-01	U	2.17E-01	99.2	I129LL_SEP_LEPS	3.8716E+00	L	03/30/2007 13:38	I
7071529	SR-90	10098-97-2	2.01E-01	pCi/L	1.7E-01	1.9E-01	U	3.68E-01	82.5	SRISO_SEP_PRE	1.005E+00	L	03/30/2007 05:58	I
7071526	TC-99	14133-76-7	5.07E+00	pCi/L	3.8E+00	5.3E+00	U	8.84E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	03/20/2007 14:05	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JP7R410	B1M6R9		MW6-SBB-A1	I07-027	W05126					02/27/2007 11:10

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071530	I-129L	15046-84-1	1.52E-01	pCi/L	1.2E-01	1.2E-01	U	2.61E-01	100.0	I129LL_SEP_LEPS	3.9471E+00	L	03/30/2007 13:39	I
7071529	SR-90	10098-97-2	2.46E-01	pCi/L	2.2E-01	2.2E-01	U	4.38E-01	71.3	SRISO_SEP_PRE	1.0068E+00	L	03/30/2007 05:58	I
7071526	TC-99	14133-76-7	7.63E+01	pCi/L	5.9E+00	9.6E+00		9.29E+00	100.0	TC99_ETVDSK_LS	1.266E-01	L	03/20/2007 16:10	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:
9JP7TM10	B1M6J6		MW6-SBB-A1	I07-026	W05126					02/27/2007 09:20

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071530	I-129L	15046-84-1	8.38E-01	pCi/L	4.3E-01	4.3E-01	U	5.10E-01	98.4	I129LL_SEP_LEPS	3.9662E+00	L	03/30/2007 15:24	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:
9JP7VE10	B1M6J7		MW6-SBB-A1	I07-026	W05126					02/27/2007 09:20

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071530	I-129L	15046-84-1	9.40E-01	pCi/L	2.3E-01	2.3E-01	U	4.75E-01	98.9	I129LL_SEP_LEPS	3.9079E+00	L	03/30/2007 15:25	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JP7WL10	B1M7K3		MW6-SBB-A1	S07-002	W05126					02/27/2007 09:18

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071531	BE-7	13966-02-4	2.20E+00	pCi/L	1.9E+01	1.9E+01	U	3.38E+01		GAMMALL_GS	1.9901E+00	L	03/29/2007 05:18	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.

4/19/2007 10:25:27 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35012 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

7071531	CO-60	10198-40-0	5.08E-01	pCi/L	1.7E+00	1.7E+00	U	3.45E+00		GAMMALL_GS	1.9901E+00	L	03/29/2007	05:18	I
7071531	CS-134	13967-70-9	1.08E-01	pCi/L	1.9E+00	1.9E+00	U	3.61E+00		GAMMALL_GS	1.9901E+00	L	03/29/2007	05:18	I
7071531	CS-137	10045-97-3	-4.99E-01	pCi/L	1.6E+00	1.6E+00	U	2.80E+00		GAMMALL_GS	1.9901E+00	L	03/29/2007	05:18	I
7071531	EU-152	14683-23-9	1.36E+00	pCi/L	4.2E+00	4.2E+00	U	7.66E+00		GAMMALL_GS	1.9901E+00	L	03/29/2007	05:18	I
7071531	EU-154	15585-10-1	-8.37E-01	pCi/L	5.1E+00	5.1E+00	U	9.54E+00		GAMMALL_GS	1.9901E+00	L	03/29/2007	05:18	I
7071531	EU-155	14391-16-3	6.49E-01	pCi/L	3.7E+00	3.7E+00	U	6.72E+00		GAMMALL_GS	1.9901E+00	L	03/29/2007	05:18	I
7071531	K-40	13966-00-2	-1.63E+01	pCi/L	2.6E+01	2.6E+01	U	5.26E+01		GAMMALL_GS	1.9901E+00	L	03/29/2007	05:18	I
7071531	RU-106	13967-48-1	9.39E+00	pCi/L	1.5E+01	1.5E+01	U	2.99E+01		GAMMALL_GS	1.9901E+00	L	03/29/2007	05:18	I
7071531	SB-125	14234-35-6	8.89E-01	pCi/L	4.2E+00	4.2E+00	U	7.76E+00		GAMMALL_GS	1.9901E+00	L	03/29/2007	05:18	I
7071530	I-129L	15046-84-1	2.11E-02	pCi/L	1.2E-01	1.2E-01	U	2.30E-01	101.6	I129LL_SEP_LEPS	3.9474E+00	L	03/30/2007	17:11	I
7071529	SR-90	10098-97-2	4.97E-02	pCi/L	1.7E-01	1.7E-01	U	3.76E-01	80.3	SRISO_SEP_PRE	1.0007E+00	L	03/30/2007	05:58	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:
9JP7XF10	B1LP24		MW6-SBB-A1	S07-001	W05126					02/27/2007 12:44

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
7071531	BE-7	13966-02-4	9.01E-01	pCi/L	1.8E+01	1.8E+01	U	3.40E+01		GAMMALL_GS	2.0021E+00	L	03/29/2007	05:18	I
7071531	CO-60	10198-40-0	1.38E+00	pCi/L	1.6E+00	1.6E+00	U	4.11E+00		GAMMALL_GS	2.0021E+00	L	03/29/2007	05:18	I
7071531	CS-134	13967-70-9	5.26E-01	pCi/L	2.2E+00	2.2E+00	U	4.38E+00		GAMMALL_GS	2.0021E+00	L	03/29/2007	05:18	I
7071531	CS-137	10045-97-3	-2.49E+00	pCi/L	1.9E+00	1.9E+00	U	2.70E+00		GAMMALL_GS	2.0021E+00	L	03/29/2007	05:18	I
7071531	EU-152	14683-23-9	-4.71E+00	pCi/L	4.9E+00	4.9E+00	U	7.69E+00		GAMMALL_GS	2.0021E+00	L	03/29/2007	05:18	I
7071531	EU-154	15585-10-1	2.33E-01	pCi/L	6.2E+00	6.2E+00	U	1.23E+01		GAMMALL_GS	2.0021E+00	L	03/29/2007	05:18	I
7071531	EU-155	14391-16-3	2.19E+00	pCi/L	3.3E+00	3.3E+00	U	6.33E+00		GAMMALL_GS	2.0021E+00	L	03/29/2007	05:18	I
7071531	K-40	13966-00-2	-1.18E+01	pCi/L	2.7E+01	2.7E+01	U	5.53E+01		GAMMALL_GS	2.0021E+00	L	03/29/2007	05:18	I
7071531	RU-106	13967-48-1	1.10E+00	pCi/L	1.5E+01	1.5E+01	U	2.86E+01		GAMMALL_GS	2.0021E+00	L	03/29/2007	05:18	I
7071531	SB-125	14234-35-6	-2.35E+00	pCi/L	4.4E+00	4.4E+00	U	7.55E+00		GAMMALL_GS	2.0021E+00	L	03/29/2007	05:18	I
7071530	I-129L	15046-84-1	7.21E-01	pCi/L	2.5E-01	2.5E-01	U	4.49E-01	97.8	I129LL_SEP_LEPS	3.8751E+00	L	03/30/2007	17:12	I
7071529	SR-90	10098-97-2	2.96E-01	pCi/L	1.8E-01	2.0E-01	U	3.71E-01	72.8	SRISO_SEP_PRE	1.0068E+00	L	03/30/2007	05:58	I
7071526	TC-99	14133-76-7	8.59E+01	pCi/L	6.1E+00	1.0E+01		9.27E+00	100.0	TC99_ETVDSK_LS	1.252E-01	L	03/20/2007	17:13	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:
9JP7XF20	B1LP24		MW6-SBB-A1	S07-001	W05126					02/27/2007 12:44

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
7081277	PU-238	13981-16-3	-3.09E-02	pCi/L	8.8E-02	8.8E-02	U	2.85E-01	78.3	PUISO_PLATE_AE	1.994E-01	L	03/28/2007	18:42	I

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

4/19/2007 10:25:28 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35012 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

7081277	PU-239	PU-239/240	1.29E-01	pCi/L	1.5E-01	1.5E-01	U	1.72E-01	78.3	PUISO_PLATE_AE	1.994E-01	L	03/28/2007	18:42	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:
9JP7XP10	B1M6F2		MW6-SBB-A1	I07-026	W05126					02/27/2007 09:31

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7071530	I-129L	15046-84-1	1.84E+00	pCi/L	4.1E-01	4.1E-01		3.07E-01	98.9	I129LL_SEP_LEPS	3.8538E+00	L	03/30/2007 17:13	I
7071526	TC-99	14133-76-7	3.71E+01	pCi/L	4.8E+00	7.2E+00		8.82E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	03/20/2007 18:16	I

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

Thursday, April 19, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JQWX11AB	**Sdg/Rept Nbr:**	W05126	35012	**Collection Date:** 02/26/2007 11:57
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 02/26/2007

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
7071529	SR-90	1.94E-01	pCi/L	1.6E-01	U	3.19E-01	81.8		SRISO_SEP_P	9.998E-01	03/30/2007				D
BLK	10098-97-2			1.6E-01						L	05:58				

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.

Thursday, April 19, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JQWX41AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: BLK

Collection Date: 02/27/2007 09:20
Sample On Date:
Received Date: 02/27/2007

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
7071530	I-129L	1.18E-01	pCi/L	1.4E-01	U	2.89E-01	99.7		I129LL_SEP_L	3.7678E+00	03/30/2007				
BLK	15046-84-1			1.4E-01						L	19:00				D

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

Thursday, April 19, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JQWX51AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: BLK

Collection Date: 02/27/2007 09:18
Sample On Date:
Received Date: 02/27/2007

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
7071531 BLK	BE-7 13966-02-4	2.15E+00	pCi/L	2.2E+01 2.2E+01	U	4.08E+01			GAMMALL_GS	2.00E+00 L	03/29/2007 06:43				D
7071531 BLK	CO-60 10198-40-0	-1.32E+00	pCi/L	2.6E+00 2.6E+00	U	4.45E+00			GAMMALL_GS	2.00E+00 L	03/29/2007 06:43				D
7071531 BLK	CS-134 13967-70-9	-2.43E-01	pCi/L	2.0E+00 2.0E+00	U	3.71E+00			GAMMALL_GS	2.00E+00 L	03/29/2007 06:43				D
7071531 BLK	CS-137 10045-97-3	-7.18E-01	pCi/L	2.2E+00 2.2E+00	U	3.97E+00			GAMMALL_GS	2.00E+00 L	03/29/2007 06:43				D
7071531 BLK	EU-152 14683-23-9	8.19E-01	pCi/L	5.5E+00 5.5E+00	U	1.01E+01			GAMMALL_GS	2.00E+00 L	03/29/2007 06:43				D
7071531 BLK	EU-154 15585-10-1	-1.75E+00	pCi/L	5.6E+00 5.6E+00	U	1.05E+01			GAMMALL_GS	2.00E+00 L	03/29/2007 06:43				D
7071531 BLK	EU-155 14391-16-3	1.48E-01	pCi/L	4.2E+00 4.2E+00	U	7.33E+00			GAMMALL_GS	2.00E+00 L	03/29/2007 06:43				D
7071531 BLK	K-40 13966-00-2	-8.44E+00	pCi/L	4.8E+01 4.8E+01	U	1.06E+02			GAMMALL_GS	2.00E+00 L	03/29/2007 06:43				D
7071531 BLK	RU-106 13967-48-1	-6.36E+00	pCi/L	1.9E+01 1.9E+01	U	3.40E+01			GAMMALL_GS	2.00E+00 L	03/29/2007 06:43				D
7071531 BLK	SB-125 14234-35-6	-5.14E-02	pCi/L	5.7E+00 5.7E+00	U	1.04E+01			GAMMALL_GS	2.00E+00 L	03/29/2007 06:43				D

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

Thursday, April 19, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JQWX71AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: BLK

Collection Date: 02/27/2007 11:41
Sample On Date:
Received Date: 02/27/2007

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
7071532	ALPHA	3.20E-01	pCi/L	4.8E-01	U	9.40E-01	100.0		9310_ALPHAB	2.003E-01	03/28/2007				
BLK	12587-46-1			4.7E-01						L	19:40				D

STL Richland
rptFeadRadEdd v3.68

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

Thursday, April 19, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JQWX91AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: BLK

Collection Date: 02/27/2007 11:41
Sample On Date:
Received Date: 02/27/2007

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
7071533	BETA	4.84E-01	pCi/L	1.2E+00	U	2.54E+00	100.0		9310_ALPHAB	2.015E-01	03/28/2007				
BLK	12587-47-2			1.2E+00						L	18:06				D

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

Thursday, April 19, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JQWXJ1AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: BLK

Collection Date: 02/27/2007 09:31
Sample On Date:
Received Date: 02/27/2007

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
7071526	TC-99	4.32E+00	pCi/L	5.3E+00	U	9.31E+00	100.0		TC99_ETVDSK	1.257E-01	03/20/2007				
BLK	14133-76-7			3.9E+00						L	22:26				D

STL Richland
rptFeadRadEdd v3.68

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

Thursday, April 19, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JQWXW1AB	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/23/2007 08:39
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	02/23/2007

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
7071527	H-3	-7.30E+01	pCi/L	1.4E+02	U	3.10E+02	100.0		906.0_H3_LSC	5.00E-03	03/17/2007				D
BLK	10028-17-8			1.2E+02						L	02:31				

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

Thursday, April 19, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JQWXW1DX
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: BLK

Collection Date: 02/23/2007 08:39
Sample On Date:
Received Date: 02/23/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7071527	H-3	-5.18E+01	pCi/L	1.4E+02	U	3.17E+02	100.0		906.0_H3_LSC	5.00E-03	03/17/2007				
BLK	10028-17-8			1.3E+02						L	05:14				D

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

Thursday, April 19, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JRFQT1AB
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: BLK

Collection Date: 02/26/2007 09:03
Sample On Date:
Received Date: 02/26/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7080288	TC-99	3.20E+00	pCi/L	5.5E+00	U	9.31E+00	100.0		TC99_ETVDSK	1.253E-01	03/23/2007				
BLK	14133-76-7			3.9E+00						L	21:05				D

STL Richland
rptFeadRadEdd v3.68

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

Thursday, April 19, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JRJLG1AB	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/27/2007 12:44
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	02/27/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7081277	PU-238	2.41E-02	pCi/L	8.2E-02	U	2.27E-01	80.9		PUISO_PLATE	1.996E-01	03/28/2007				D
BLK	13981-16-3			8.1E-02						L	18:42				
7081277	PU-239	-1.28E-02	pCi/L	8.1E-02	U	2.14E-01	80.9		PUISO_PLATE	1.996E-01	03/28/2007				D
BLK	PU-239/240			8.1E-02						L	18:42				

STL Richland
rptFeadRadEdd v3.68

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

Thursday, April 19, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JQWX11CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: BS

Collection Date: 02/26/2007 11:57
Sample On Date:
Received Date: 02/26/2007

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
7071529	SR-90	1.54E+01	pCi/L	2.4E+00		4.40E-01	70.6	1.36E+01	SRISO_SEP_P	1.0005E+00	03/30/2007			70	D
BS	10098-97-2			8.5E-01				113.2		L	05:58			130	

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

Thursday, April 19, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JQWX41CS	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/27/2007 09:20
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	02/27/2007

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
7071530	I-129L	7.75E+00	pCi/L	1.1E+00		3.28E-01	92.9	9.65E+00	I129LL_SEP_L	3.9857E+00	03/30/2007			70	D
BS	15046-84-1			1.1E+00				80.3		L	19:01			130	

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

Thursday, April 19, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JQWX51CS **Sdg/Rept Nbr:** W05126 35012 **Collection Date:** 02/27/2007 09:18

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 02/27/2007

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
7071531	CO-60	4.07E+01	pCi/L	8.4E+00		5.13E+00		3.75E+01	GAMMALL_GS	1.9994E+00	03/29/2007			70	D
BS	10198-40-0			8.4E+00				108.4		L	06:44			130	
7071531	CS-137	2.93E+01	pCi/L	7.4E+00		5.41E+00		2.49E+01	GAMMALL_GS	1.9994E+00	03/29/2007			70	D
BS	10045-97-3			7.4E+00				117.4		L	06:44			130	
7071531	EU-152	7.97E+01	pCi/L	1.6E+01		1.11E+01		7.67E+01	GAMMALL_GS	1.9994E+00	03/29/2007			70	D
BS	14683-23-9			1.6E+01				103.9		L	06:44			130	

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

Thursday, April 19, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JQWX71CS	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/27/2007 11:41
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	02/27/2007

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
7071532	ALPHA	1.86E+01	pCi/L	5.2E+00		9.02E-01	100.0	2.26E+01	9310_ALPHAB	2.015E-01	03/28/2007			70	D
BS	12587-46-1			2.8E+00				82.3		L	19:40			130	

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

Thursday, April 19, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JQWX91CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: BS

Collection Date: 02/27/2007 11:41
Sample On Date:
Received Date: 02/27/2007

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
7071533	BETA	2.88E+01	pCi/L	5.7E+00		2.87E+00	100.0	2.29E+01	9310_ALPHAB	1.994E-01	03/28/2007			70	D
BS	12587-47-2			2.7E+00				125.8		L	18:06			130	

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

Thursday, April 19, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JQWXJ1CS
Client Id: NA
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: BS

Collection Date: 02/27/2007 09:31
Sample On Date:
Received Date: 02/27/2007

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
7071526	TC-99	4.60E+02	pCi/L	3.3E+01		9.10E+00	100.0	5.46E+02	TC99_ETVDSK	1.252E-01	03/20/2007			70	D
BS	14133-76-7			1.2E+01				84.2		L	23:29			130	

STL Richland
rptFeadRadEdd v3.68

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

Thursday, April 19, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JQWXW1CS	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/23/2007 08:39
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	02/23/2007

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
7071527	H-3	2.41E+03	pCi/L	2.4E+02		3.10E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	03/17/2007			70	D
BS	10028-17-8			2.0E+02				88.7		L	03:53			130	

STL Richland

rptFeadRadEdd v3.68

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

Thursday, April 19, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JQWXW1EM	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/23/2007 08:39
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	02/23/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7071527	H-3	2.56E+03	pCi/L	2.5E+02		3.17E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	03/17/2007			70	D
BS	10028-17-8			2.1E+02				94.1		L	06:36			130	

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

Thursday, April 19, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JRFQT1CS	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/26/2007 09:03
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	02/26/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7080288	TC-99	4.42E+02	pCi/L	3.2E+01		8.65E+00	100.0	5.28E+02	TC99_ETVDSK	1.275E-01	03/23/2007			70	D
BS	14133-76-7			1.1E+01				83.7		L	22:08			130	

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

Thursday, April 19, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JRJLG1CS	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/27/2007 12:44
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	02/27/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7081277	PU-239	4.30E+00	pCi/L	1.1E+00		2.79E-01	72.7	4.55E+00	PUISO_PLATE	2.019E-01	03/28/2007			70	D
BS	PU-239/240			8.8E-01				94.6		L	18:43			130	

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

Thursday, April 19, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JP4CL1DR
Client Id: B1M8W3
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: DUP

Collection Date: 02/23/2007 08:39
Sample On Date:
Received Date: 02/23/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-002	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
7071527	H-3	1.11E+04	pCi/L	5.8E+02		3.10E+02	100.0		906.0_H3_LSC	5.00E-03	03/17/2007	4.3	1.2		D
DUP	10028-17-8	1.15E+04		3.6E+02						L	09:20	20.0	3		

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

Thursday, April 19, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JP5281CR	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/26/2007 11:57
Client Id:	B1ML73	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	02/26/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-002	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
7071529	SR-90	3.40E-01	pCi/L	2.6E-01	U	5.10E-01	77.6		SRISO_SEP_P	1.0056E+00	03/30/2007	2.5	0.		D
DUP	10098-97-2	3.48E-01		2.5E-01						L	05:57	20.0	3		

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

Thursday, April 19, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JP7311FR	**Sdg/Rept Nbr:**	W05126	35012	**Collection Date:** 02/27/2007 11:41
Client Id:	B1M991	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 02/27/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-002	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
7071532	ALPHA	1.11E+00	pCi/L	1.1E+00	U	1.60E+00	100.0		9310_ALPHAB	2.008E-01	03/28/2007	47.9	0.6		D
DUP	12587-46-1	6.82E-01		1.0E+00						L	19:40	20.0	3		

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

Thursday, April 19, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JP7311GR	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/27/2007 11:41
Client Id:	B1M991	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	02/27/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-002	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
7071533	BETA	2.03E+01	pCi/L	3.9E+00		2.73E+00	100.0		9310_ALPHAB	2.001E-01	03/28/2007	.4	0.		D
DUP	12587-47-2	2.03E+01		2.4E+00						L	18:06	20.0	3		

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

Thursday, April 19, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JP7TM1CR
Client Id: B1M6J6
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: DUP

Collection Date: 02/27/2007 09:20
Sample On Date:
Received Date: 02/27/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-026	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
7071530	I-129L	9.20E-01	pCi/L	2.9E-01	U	4.76E-01	99.5		I129LL_SEP_L	3.9625E+00	03/30/2007	9.3	0.4		D
DUP	15046-84-1	8.38E-01		2.9E-01						L	15:25	20.0	3		

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

Thursday, April 19, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JP7WL1ER
Client Id: B1M7K3
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: DUP

Collection Date: 02/27/2007 09:18
Sample On Date:
Received Date: 02/27/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-002	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
7071531	BE-7	-1.42E+01	pCi/L	2.4E+01	U	4.16E+01			GAMMALL_GS	1.9607E+00	03/29/2007	0.0	1.		D
DUP	13966-02-4	2.20E+00		2.4E+01						L	05:18	20.0	3		
7071531	CO-60	2.02E+00	pCi/L	2.6E+00	U	5.68E+00			GAMMALL_GS	1.9607E+00	03/29/2007	119.7	0.8		D
DUP	10198-40-0	5.08E-01		2.6E+00						L	05:18	20.0	3		
7071531	CS-134	3.17E-01	pCi/L	2.3E+00	U	4.47E+00			GAMMALL_GS	1.9607E+00	03/29/2007	98.1	0.1		D
DUP	13967-70-9	1.08E-01		2.3E+00						L	05:18	20.0	3		
7071531	CS-137	1.78E+00	pCi/L	2.3E+00	U	4.62E+00			GAMMALL_GS	1.9607E+00	03/29/2007	356.5	1.4		D
DUP	10045-97-3	-4.99E-01		2.3E+00						L	05:18	20.0	3		
7071531	EU-152	-8.54E-01	pCi/L	5.6E+00	U	9.83E+00			GAMMALL_GS	1.9607E+00	03/29/2007	877.4	0.6		D
DUP	14683-23-9	1.36E+00		5.6E+00						L	05:18	20.0	3		
7071531	EU-154	-3.17E+00	pCi/L	7.3E+00	U	1.28E+01			GAMMALL_GS	1.9607E+00	03/29/2007	0.0	0.5		D
DUP	15585-10-1	-8.37E-01		7.3E+00						L	05:18	20.0	3		
7071531	EU-155	-3.47E-01	pCi/L	4.0E+00	U	6.93E+00			GAMMALL_GS	1.9607E+00	03/29/2007	659.7	0.4		D
DUP	14391-16-3	6.49E-01		4.0E+00						L	05:18	20.0	3		
7071531	K-40	-4.83E+01	pCi/L	5.0E+01	U	1.04E+02			GAMMALL_GS	1.9607E+00	03/29/2007	0.0	0.9		D
DUP	13966-00-2	-1.63E+01		5.0E+01						L	05:18	20.0	3		
7071531	RU-106	-3.22E+00	pCi/L	2.0E+01	U	3.58E+01			GAMMALL_GS	1.9607E+00	03/29/2007	408.5	0.9		D
DUP	13967-48-1	9.39E+00		2.0E+01						L	05:18	20.0	3		
7071531	SB-125	-3.64E+00	pCi/L	5.5E+00	U	9.10E+00			GAMMALL_GS	1.9607E+00	03/29/2007	0.0	1.2		D
DUP	14234-35-6	8.89E-01		5.5E+00						L	05:18	20.0	3		

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

Thursday, April 19, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id: JP7XF1HR
Client Id: B1LP24
Moisture/Solids%*:

Sdg/Rept Nbr: W05126 35012
Matrix: WATER WATER
QC Type: DUP

Collection Date: 02/27/2007 12:44
Sample On Date:
Received Date: 02/27/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-001	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
7081277	PU-238	8.73E-03	pCi/L	9.0E-02	U	3.01E-01	77.8		PUISO_PLATE	2.005E-01	03/28/2007	0.0	0.6		D
DUP	13981-16-3	-3.09E-02		9.0E-02						L	18:42	20.0	3		
7081277	PU-239	2.63E-02	pCi/L	8.9E-02	U	2.48E-01	77.8		PUISO_PLATE	2.005E-01	03/28/2007	132.1	1.6		D
DUP	PU-239/240	1.29E-01		8.9E-02						L	18:42	20.0	3		

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

Thursday, April 19, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JP7XP1DR	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/27/2007 09:31
Client Id:	B1M6F2	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	02/27/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-026	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
7071526	TC-99	4.62E+01	pCi/L	7.8E+00		9.31E+00	100.0		TC99_ETVDSK	1.256E-01	03/20/2007	21.9	1.7		D
DUP	14133-76-7	3.71E+01		5.1E+00						L	20:21	20.0	3		

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

Thursday, April 19, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05126.Edd, h:\Reportdb\edd\FeadIV\Rad\35012.Edd

Lab Sample Id:	JP7R11EW	**Sdg/Rept Nbr:**	W05126 35012	**Collection Date:**	02/27/2007 12:00
Client Id:	B1M6T7	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	MS	**Received Date:**	02/27/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-027	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
7071526	TC-99	2.82E+03	pCi/L	1.8E+02		8.68E+00	100.0	3.57E+03	TC99_ETVDSK	1.257E-01	03/20/2007			60	D
MS	14133-76-7			2.7E+01				79.0		L	15:07			140	

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

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/29/2007 11:57:53 AM

Lot No., Due Date: J7B280155; 04/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7071532; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W05126; 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 3-29-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 071532
W27126

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: 9-29-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/29/2007 11:56:35 AM

Lot No., Due Date: J7B280155; 04/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7071533; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05126; WATER

		Yes	No	N/A
8.0	Correction Calculation Protocol Used. OK	✓		
8.01	The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02	Final Results Are in the Appropriate Activity Units OK	✓		
8.03	Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04	The Correct Tracer and QC Vials Where Used in the Samples OK	✓		
8.05	Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06	At Least the Minimum Sample Volume Was Used OK	✓		
8.07	The Correct Count Geometry was Used. OK	✓		
8.08	The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09	Method Blank is within Control Limits. OK	✓		
8.1	Comments:			
8.11	Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12	Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13	QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14	LCS within Control Limits. OK	✓		
8.15	MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16	MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!			✓
8.17	Tracer within Control Limits. OK	✓		
8.18	Samples are above Minimum Tracer Yield (No Failed Samples) OK	✓		
8.19	Sample Specific MDC <= CRDL. OK	✓		
8.2	Comments:			
8.21	Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22	Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JP7311AC BETA 2.0E+01 L:2.6E+00		✓	
8.23	Result <= Action Level, when Defined. OK; No Action Level Found => BETA OK; No Callin Level Found => BETA	✓		
8.24	Result + 3s >=0, Not Too Negative. OK	✓		
8.25	Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

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 3-29-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7071533

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: 3-29-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/3/2007 11:15:20 AM

Lot No., Due Date: J7B270185,J7B270191,J7B280116,J7B280125,J7B280129; 04/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7071529; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W05126; 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 Angela Long **Date** 4/3/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7071529
W05126

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: 4-4-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/4/2007 4:31:06 PM

Lot No., Due Date:	J7B280155,J7B280125,J7B280129; 04/23/2007
Client, Site:	384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test:	7071531; RGAMMA Gamma by GER
SDG, Matrix:	W05126; WATER

1.0 COC

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

2.0 QC Batch

	Yes	No	N/A
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓

3.0 QC & Samples

	Yes	No	N/A
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		

4.0 Raw Data

	Yes	No	N/A
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?			✓
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		

5.0 Other

	Yes	No	N/A
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level Review Lisa Autonson Date 4/4/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7071531
W05126

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 R Adam Date: 4-5-07

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/2/2007 4:51:03 PM

Lot No., Due Date:	J7B270191,J7B270196,J7B280116,J7B280118,J7B280125,J7B280129,J7B280130; 04/23/2007
Client, Site:	384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test:	7071530; RGAMLEPS Gamma by LEPS
SDG, Matrix:	W05126; 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 Lisa Antonson Date 4/2/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7071530
W05126

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 R Adam Date: 4-4-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/30/2007 2:57:28 PM

Lot No., Du Date: J7B280129; 04/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch N o., Method Test: 7081277; RPUISO Pulso by ALP

SDG, Matri:: W05126; WATER

8.0 Correctio Calculation Protocol Used. OK	Yes ✓	No	N/A
8.01 The Ap opriate Methods Were Used To Analyze the Samples OK	Yes ✓	No	N/A
8.02 Final R sults Are in the Appropriate Activity Units OK	Yes ✓	No	N/A
8.03 Batch C ntains the Required QC Appropriate for the Method OK	Yes ✓	No	N/A
8.04 The Co ect Tracer and QC Vials Where Used in the Samples OK	Yes ✓	No	N/A
8.05 Sample vas Appropriately Traced Before or After Fractionating the Sample OK	Yes ✓	No	N/A
8.06 At Leas the Minimum Sample Volume Was Used OK	Yes ✓	No	N/A
8.07 The Co ect Count Geometry was Used. OK	Yes ✓	No	N/A
8.08 The Sa ple 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 Commen s:			
8.11 Matrix E ank 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 Sp cified Duplicate Equation Value within Control Limits. RPD > U : 20.0=> JP7XF1AH PU-239 130.0 (RPD)	Yes	No ✓	N/A
8.14 LCS wit n Control Limits. OK	Yes ✓	No	N/A
8.15 MLCS v thin Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A ✓
8.16 MS with Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A ✓
8.17 Tracer v thin Control Limits. OK	Yes ✓	No	N/A
8.18 Sample 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 Commen s:			
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 tion Level Found => PU-238 PU-239 OK; No allin Level Found => PU-238 PU-239	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. Yes No N/A
FWHM > maxFWHM => JRJLG1AC PU-239 37.1>0 Q:V1 ✓

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A
Library Not Specified => JP7XF1AH I:[NUC_LIBR]AR_PU Q:
JP7XF2AC I:[NUC_LIBR]AR_PU Q:
JRJLG1AA I:[NUC_LIBR]AR_PU Q:
JRJLG1AC I:[NUC_LIBR]AR_PU Q:

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 Lisa Antonsen **Date** 5/30/07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/26/2007 3:24:17 PM

Lot No., Due Date: J7B260113,J7B270191,J7B280155,J7B280116,J7B280129,J7B280130; 04/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7071526; RTC99 Tc-99 by LSC

SDG, Matrix: W05126; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => JP7R11AE TCSG<>TCSE Q:V9		✓	
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBlks) found in Batch!			✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> JP7XP1AD TC-99 30.0 (RPD)		✓	
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!			✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!			✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!			✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!			✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99 OK; No Callin Level Found => TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!			✓

See NCM w/ Batch 7080288 10-09633

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 version.) 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 version.) Yes No N/A

8.3 Comments:

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

First Level Review Tom Gerlachson Date 3-26-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7071526
W052126

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: See NCM

Second Level Review: Sheryl R Adam Date: 5-27-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/26/2007 3:23:48 PM

Lot No., Due Date: J7B270191; 04/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7080288; RTC99 Tc-99 by LSC

SDG, Matrix: W05126; WATER

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

NCM # 10-09637

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 _____ Date _____

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7080281
W05126

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: See NCM

Second Level Review: Sheryl A Adam Date: 3-27-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09633
NCM Initiated By: Pam Anderson
Date Opened: 03/26/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Tc-99 by LSC
Lot #'s (Sample #'s): J7B270191 (2,3),
QC Batches: 7080288

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

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	03/26/2007	In batch 7071526, a technicium in water batch, two samples did not calculate as the TSIE was out of the calibration limits, JP5351AD and JP5361AD. This is probably an indication of some quench. The samples were reanalyzed in this batch. The data is accepted.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	03/26/2007	The samples were reanalyzed.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 3/26/2007

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/19/2007 9:06:19 AM

Lot No., Due Date: J7B260113; 04/23/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7071527; RTRITIUM H-3 by LSC

SDG, Matrix: W05126; WATER

8.0 Correction Calculation Protocol Used. — Yes ✓ No N/A
OK

8.01 The Appropriate Methods Were Used To Analyze the Samples — Yes ✓ No N/A
OK

8.02 Final Results Are in the Appropriate Activity Units — Yes ✓ No N/A
OK

8.03 Batch Contains the Required QC Appropriate for the Method — Yes ✓ No N/A
OK

8.04 The Correct Tracer and QC Vials Where Used in the Samples — Yes ✓ No N/A
OK

8.05 Sample was Appropriately Traced Before or After Fractionating the Sample — Yes ✓ No N/A
OK

8.06 At Least the Minimum Sample Volume Was Used — Yes No ✓ N/A
Analysis Volume => JP4CL1AA 5.00<10.00
JP4CP1AA 5.00<10.00 Q:VB

8.07 The Correct Count Geometry was Used. — Yes No ✓ N/A
Count Geometry => JQWXW1AF SVP15/5<>SVP10/10
JQWXW1AG SVP15/5<>SVP10/10
JQWXW1AA SVP15/5<>SVP10/10
JQWXW1AC SVP15/5<>SVP10/10
JQWXW1AD SVP15/5<>SVP10/10
JQWXW1AE SVP15/5<>SVP10/10
JP4CL1AA SVP15/5<>SVP10/10
JP4CL1AD SVP15/5<>SVP10/10
JP4CP1AA SVP15/5<>SVP10/10 Q:VC

8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. — Yes ✓ No N/A
OK

8.09 Method Blank is within Control Limits. — Yes ✓ No N/A
OK

8.1 Comments:

8.11 Matrix Blank is within Control Limits. — Yes ✓ No N/A
OK

8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). — Yes ✓ No N/A
OK

8.13 QAS Specified Duplicate Equation Value within Control Limits. — Yes ✓ No N/A
OK (RPD)

8.14 LCS within Control Limits. — Yes ✓ No N/A
OK

8.15 MLCS within Control Limits. — Yes ✓ No N/A
OK

8.16 MS within Control Limits. — Yes ✓ No N/A
No Matrix Spike Samples (MS) found in Batch!

8.17 Tracer within Control Limits. — Yes No ✓ N/A
No Tracers found in Batch!

8.18 Samples are above Minimum Tracer Yield (No Failed Samples) — Yes No ✓ N/A
No Tracers found in Batch!

8.19 Sample Specific MDC <= CRDL. — Yes ✓ No N/A
OK

8.2 Comments:

8.21 Result < Lc, Activity Not Detected, U Flag. — Yes No ✓ N/A
No Limit Specified!

8.22 Result < Mdc, Activity Not Detected, U Flag. — Yes ✓ No N/A
No Positive Results
OK Calc_IDL Not Calculated

8.23 Result <= Action Level, when Defined. Yes No N/A
OK; No Action Level Found => H-3 ✓

OK; No Callin Level Found => H-3

8.24 Result + 3s >=0, Not Too Negative. Yes No N/A
OK ✓

8.25 Counting Spectrum are within FWHM Limits. Yes No N/A
No FWHM found in Batch Data! ✓

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 Pami Anderson Date 3-19-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7071527
W05126

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: 3-20-07

SIL RECEIVED

PNNL J7B260113
W05126
Due 04-09-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-318**

Page 1 of 1

Collector Fluor Hanford K. B. HULSE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-002	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, FEBRUARY 2007	HNF-N-506 S	**Ice Chest No.** **Temp.**
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
B1M8W3		W	2-23-07	0839	1x20-mL P	Activity Scan	None
B1M8W3		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1M8W3		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JP4CL	

Relinquished By	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford K. B. HULSE	K B Hulse	FEB 2 3 2007 12 45	Eric Darby	Eric Darby		2/23/07 12 45
Relinquished By		Date/Time	Received By			Date/Time
Relinquished By		Date/Time	Received By			Date/Time
Relinquished By		Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum 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	

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

PNNL J7B260113
W05126
Due 04-09-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-326**

Page 1 of 1

Collector Fluor Hanford K. B. HULSE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-002	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, FEBRUARY 2007	1HWF-W-506-3	**Ice Chest No.** **Temp.**
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
B1M8W8		W	2-23-07	0940	1x20-mL P	Activity Scan	None
B1M8W8		W	↓		1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1M8W8		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None

JP4CP

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Fluor Hanford K. B. HULSE	[signature]	FEB 2 3 2007 1245	[signature]	Eric Darby	[signature]	2/23/07 1245
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

SIL RICHLAND

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 2/23/07 1245

Client: PNL SDG #: W05126 NA [ ] SAF #: W07-002 NA [ ]

Work Order Number: J7B260113 Chain of Custody # W07-002-318,326

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 [ ] adjusted pH [ ]
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: [illegible] Date: 2/23/07 1245

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, 12/05, Rev. 6

PNNL J7B270185
W05126
Due 04-12-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-002-110

Page 1 of 1

Collector: Fluor Hanford F. M. HALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-002	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, FEBRUARY 2007	HHF-M-506-2	Ice Chest No.: 12 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
B1ML73		W	2/26/7	1157	1x20-mL P	Activity Scan	None
B1ML73		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JP528	

Relinquished By: Fluor Hanford F. M. HALL Print Sign FEB 26 2007 Date/Time 1315		Received By: Eric Dudley Print Sign FEB 26 2007 Date/Time 1315	
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

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

SIL RICHLAND

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 2/26/07 1315

Client: PNL SDG #: W05126 NA [ ] SAF #: 807-002 NA [ ]

Work Order Number: J7B270185 Chain of Custody # 807-002-110

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 [ ] adjusted pH [ ]
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: E. Daly Date: 2/26/07 1315

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, 12/05, Rev. 6

PNNL J7B270191
W05-126
due 04.12.07

Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-027-47

Page 1 of 1

Collector: R. T. SICKLE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-027	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2ZP1-LOI, FEBRUARY 2007	HNF-N-506-4	Ice Chest No.: WM-1 Temp.
Shipped To (Lab): Severn Trent Incomorated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: CERCLA	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
B1M6R4		W	2-26-07	0832	1x20-mL P	Activity Scan	None
B1M6R4		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1M6R4		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1M6R4		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1) JP53V	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			FEB 2 6 2007 1405				FEB 2 6 2007 1405
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

SIL RICHLAND

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PNNL J7B270191
W05126
Due 04-12-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-027-51

Page 1 of 1

Collector Fluor Hanford ~~R. T. SICKLE~~	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-027	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI FEBRUARY 2007	HNFN-506-4	**Ice Chest No.** WM-1 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**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
B1M6P9		W	22607	2903	1x20-mL P	Activity Scan	None
B1M6P9		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1M6P9		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1M6P9		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JP535	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			FEB 26 2007 1405				FEB 26 2007 1405
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum 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	

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

SHL RICHLAND

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PNNL J7B270191
W05126
Due 04-12-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-027-55

Page 1 of 1

SIL RICHLAND

Collector: Fluor Hanford R. T. SICKLE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-027	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2ZP1-LOL FEBRUARY 2007	HNF-N-506-4	Ice Chest No.: WM-1 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: CERCLA	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)

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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
B1M6P4		W	22607	0927	1x20-mL P	Activity Scan	None
B1M6P4		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1M6P4		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1M6P4		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JP536	

Relinquished By	Date/Time	Received By	Date/Time
Print: Fluor Hanford R. T. SICKLE Sign:	FEB 26 2007 1405	Print: Sign: S. Smith	FEB 26 2007 1405

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	

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

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PNNL J7B270191
W05126
Fluor Hanford Due 04-12-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-027-39

Page 1 of 1

Collector R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-027	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOL FEBRUARY 2007	HNF-N-506-2	**Ice Chest No.** WM-1 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol CERCLA	**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
B1M6X7		W	2260 7	1138	1x20-mL P	Activity Scan	None
B1M6X7		W	1	1	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

JP538

Relinquished By	Received By
Fluor Hanford R. T. SICKLE Print Sign Date/Time FEB 26 2007 1405	L. Smith S. Smith Print Sign Date/Time FEB 26 2007 1405
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time

Matrix *

S	= Soil	DS	= Drum 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

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

SIL RICHLAND

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[redacted] **STL**

Sample Check-in List

Date/Time Received: 02-26-07 1405

Client: PGW SDG #: W05126 NA [ ] SAF #: I07-027 NA [ ]

Work Order Number: J7B270191 Chain of Custody # I07-027-47,51,55,39

Shipping Container ID: _____ Air Bill # _____ SKS 7/24/07

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: 4
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 [✓] adjusted pH [ ]
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: 02-26-07 1405

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, 12/05, Rev. 6

REVISED
Spowell
6/9/08

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SIL RECEIVED

PNNL I7B270196
W05126
Due 04-12-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-026-10

Page 1 of 1

Collector: Fluor Hanford R. T. SICKLE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-026	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2UP1-LOL FEBRUARY 2007	HNF-N506-4	Ice Chest No.: WM-1 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
B1M6C7		W	22607	1239	1x20-mL P	Activity Scan	None
B1M6C7		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
						JP547	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			FEB 26 2007 1405				FEB 26 2007 1405
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum 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	

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

75

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: PGW 02 26 07 1405

Client: PGW SDG #: W05126 NA [ ] SAF #: I07-026 NA [ ]

Work Order Number: J7B270196 Chain of Custody # I07-026-10

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
   1 appropriate samples labels
9. Samples are:
   1 in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [ ] pH>2 [✓] adjusted pH [ ]
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: 02 26 07 1405

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

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PNNL J7B280116
WO 5126
Due 04-13-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-027-138

Page 1 of 1

Collector: L.D. WALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-027	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2ZP1-LOI FEBRUARY 2007	HNF-N-506	Ice Chest No.: SAWS-109 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: CERCLA	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
B1M6T7		W	2-27-07	1200	1x20-mL P	Activity Scan	None
B1M6T7		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1M6T7		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1M6T7		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

JP7R1

2-27-07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
L.D. WALL		L.D. Wall	1445 FEB 27 2007		Eric Darby	Eric Darby	1445 FEB 27 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

FILE RIGHT ON TOP

PNNL J7B280116
W05126
Due 04/13/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-027-43

Page 1 of 1

Collector: L.D. WALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-027	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2ZP1-LOI FEBRUARY 2007	HNF-N-506 1	Ice Chest No.: SAWS-109 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: CERCLA	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
B1M6R9		W	2-27-07	1110	1x20-mL P	Activity Scan	None
B1M6R9		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1M6R9		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1M6R9		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

JP7R4

2-27-07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
L.D. WALL	L.D. Wall		1445 FEB 27 2007	Eric Darby	Eric Darby		1445 FEB 27 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum 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	

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

SIL RICHLAND

STL

Sample Check-In List

Date/Time Received 2/27/07 1445

Client: PNL

SDG # W05126 NA ( ) SAF #. I07-027 NA ( )

Work Order Number: J7B280116

Chain of Custody # I07-027-43,138

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? NA ( ) Yes (✓) No ( )

4 Cooler temperature _____ NA (✓) 5 Vermiculite/packaging materials is NA (✓) Yes ( ) No ( )

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?*
*For documentation only. No corrective action needed. Yes (✓) No ( )

12 Were any anomalies identified in sample receipt? Yes ( ) No (✓)

13 Description of anomalies (include sample numbers): _____

Sample Custodian: Eric Darby Date 2/27/07 1445

Client Sample ID	Analysis Requested	Condition	Comments/Actions

Client Informed on _____ by _____ Person contacted _____

( ) No action necessary, process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev 5

PNNL J7B280118
W05126
Due 04-13-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-026-4

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Collector: L.D. WALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-026	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2UP1-LOI FEBRUARY 2007	HNF-N-506 1	Ice Chest No.: SAWS-109 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
B1M6J6		W	2-27-07	0920	1x20-mL P	Activity Scan	None
B1M6J6		W	↓		2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

JP7TM

DJP 2-27-07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
L.D. WALL	L.D. Wall		FEB 27 2007 1445	Eric Darby	Eric Darby		FEB 27 2007 1445
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

STL RICHLAND

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PNNL J7B280118 W051286 Due 04-13-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-026-5

Page 1 of 1

Collector: L.D. WALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-026	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2UP1-LOI, FEBRUARY 2007	HNF-N-506 1	Ice Chest No.: SAWS-109 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
B1M6J7		W	2-27-07	0920	1x20-mL P	Activity Scan	None
B1M6J7		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
						JP7VE	
						2-27-07	

Relinquished By	Date/Time	Received By	Date/Time
Print: L.D. WALL Sign: L.D. Wall	1445 FEB 27 2007	Print: Eric Darby Sign: Eric Darby	1445 FEB 27 2007

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	

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

SIL RICHLAND

STL

Sample Check-in List

Date/Time Received: 2/27/07 1445

Client: PNL SDG #: W05126 NA [ ] SAF #: I07-026 NA [ ]

Work Order Number: J7B280118 Chain of Custody #: I07-026-4,5

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? NA [ ] Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] Yes [✓] No [ ]
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? *
    *For documentation only. No corrective action needed. Yes [✓] No [ ]
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 2/27/07 1445

Client Sample ID	Analysis Requested	Condition	Comments/Discrepancies

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary, process as is.

Project Manager _____ Date _____

LS-023 9/03, Rev 5

STL RICHLAND

PNNL J7B280125
W05126
Due 04-13-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-002-82

Page 1 of 1

Collector: Fluor Hanford D. P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-002	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, FEBRUARY 2007	HNF-N-506-4	Ice Chest No. WM-1 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
B1M7K3		W	2-27-07	0918	1x20-mL P	Activity Scan	None
B1M7K3		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1M7K3		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1M7K3		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JP7WL	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			FEB 27 2007 1445		Eric Darby	Eric Darby	FEB 27 2007 1445
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 2/27/07 1445

Client: PNL SDG #: W05126 NA [ ] SAF #: 507-002 NA [ ]

Work Order Number: J7B280125 Chain of Custody # 507-002-82

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 [ ] adjusted pH [ ]
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: Eu Darby Date: 2/27/07 1445

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, 12/05, Rev. 6

PNNL JTB280129
W05126
Due 04-13-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-001-330

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Collector: Fluor Hanford D. P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-001	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, JANUARY 2007	HNF-N-506-4	Ice Chest No.: WM-1 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
B1LP24		W	2-27-07	1744	1x20-mL P	Activity Scan	None
B1LP24		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LP24		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1LP24		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1LP24		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1LP24		W			1x1000-mL G/P	PUISO_PLATE_AEA: Pu-238 + 239/240 (2)	HNO3 to pH <2
						JP7XF	

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
Fluor Hanford D. P. CONNOLLY	FEB 27 2007 1445	Eric Darby / ERIC DARBY	FEB 27 2007 1445
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

S = Soil		DS = Drum 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	

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

SIL RICHLAND

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 2/27/07 1445

Client: PNL SDG #: W05126 NA [ ] SAF #: 507-001 NA [ ]

Work Order Number: J7B280129 Chain of Custody # 507-001-330

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 [ ] adjusted pH [ ]
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: Ev Darby Date: 2/27/07 1445

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, 12/05, Rev. 6

PNNL J7B280130
W05126
Due 04-13-07
FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-026-54**

Page 1 of 1

Collector M.R. WEIL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-026	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UP1-LOL FEBRUARY 2007	HWF-N-506 6	**Ice Chest No.** GRP06-005 **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
B1M6F2		W	2-27-07	0931	1x20-mL P	Activity Scan	None
B1M6F2		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1M6F2		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JP7XP	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD	M.R. WEIL	[signature]	1445 FEB 27 2007	Eric Dooley	Eric Dooley	[signature]	1445 FEB 27 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

87

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 2/27/07 1445

Client: PNL SDG #: W05126 NA [ ] SAF #: I07-026 NA [ ]

Work Order Number: J7B280130 Chain of Custody # I07-026-54

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 [ ] adjusted pH [ ]
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: Eric Darby Date: 2/27/07 1445

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, 12/05, Rev. 6

PNNL J7B280155
W05126
due 07-13-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-002-482**

Page 1 of 1

Collector FLUOR HANFORD M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA, FEBRUARY 2007	HNF-IN-506 6	Ice Chest No. GRP06-005 Temp.
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
B1M991		W	2-27-07	1141	1x20-mL P	Activity Scan	None
B1M991		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1M991		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1M991		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
						JP731	

Relinquished By	Received By
FLUOR HANFORD M.R. WEIL Print Sign Date/Time 1445 FEB 27 2007	Eric Dunby Print Eric Dunby Sign Date/Time 1445 FEB 27 2007
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time

Matrix *

S = Soil		DS = Drum 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	

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

89

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 2/27/07 1445

Client: PNL SDG #: W05126 NA [ ] SAF #: W07-002 NA [ ]

Work Order Number: JTB280155 Chain of Custody # W07-002-482

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 [ ] adjusted pH [ ]
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: Em Darby Date: 2/27/07 1445

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, 12/05, Rev. 6

STL RICHLAND

3/28/2007 2:20:43 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:1120482733
Pipet #: 245

AnalyDueDate: 04/13/2007

Sep1 DT/Tm Tech:

Batch: 7071532 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 7071526 FPS5, 7071531 AWTA, 7071532 AZS7, 7071533 BCS8,

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JP731-1-AA J7B280155-1-SAMP 02/27/2007 11:41		200.30g,in AmtRec: 20ML,500ML,LP,4LP	#Containers: 4		35mg	50	10A Scr:	2005 Alpha: -6.42E-04 uCi/Sa	3/28/07 AD	Beta: 1.69E-03 uCi/Sa
2 JP731-1-AF-X J7B280155-1-DUP 02/27/2007 11:41		200.80g,in AmtRec: 20ML,500ML,LP,4LP	#Containers: 4		35.5mg	50	10B Scr:	Alpha: -6.42E-04 uCi/Sa		Beta: 1.69E-03 uCi/Sa
3 JQWX7-1-AA-B J7C120000-532-BLK 02/27/2007 11:41		200.30g,in AmtRec:	#Containers: 1		1.7mg	50	10C Scr:	Alpha:		Beta:
4 JQWX7-1-AC-C J7C120000-532-LCS 02/27/2007 11:41		201.50g,in AmtRec:	ASD4151 02/14/07,pd 02/09/06,r #Containers: 1		3.8mg	50	10D Scr:	Alpha:		Beta:

Comments:

3/28/2007

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

JP7311AA-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JQWX71AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JQWX71AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JP7311AA-SAMP Calc Info:

91

3/28/2007 2:20:48 PM

Sample Preparation/Analysis

AZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 04/13/2007

Sep1 DT/Tm Tech:

Batch: 7071532 pCi/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

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

Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JQWX71AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JQWX71AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

3/29/2007 11:43:59 AM

ICOC Fraction Transfer/Status Report

ByDate: 3/29/2006, 4/3/2007, Batch: '7071532', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7071532						
AC		InCnt1	BockJ	3/21/2007 11:49:47		
SC			wagarr	IsBatched	3/12/2007 4:43:30 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	3/21/2007 11:49:47 AM	rich-rc-5014 rEVISION 6
SC			BockJ	Prep1C	3/21/2007 11:52:49 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	3/27/2007 1:35:43 PM	RICH-RC-5014 REVISION 6
SC			HARBINSOND	Prep1C	3/28/2007 2:09:43 PM	RICHRC5014 REV6
SC			StringerR	InCnt1	3/28/2007 2:51:24 PM	RICH-RD-0003 REVISION 4
AC			BockJ	3/21/2007 11:52:49		
AC			AshworthA	3/27/2007 1:35:43 PM		
AC			HARBINSOND	3/28/2007 2:09:43 PM		
AC			StringerR	3/28/2007 2:51:24 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

STL RICHLAND

3/28/2007 2:24:40 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Balance Id:1120482733
Pipet #: 285

AnalyDueDate: 04/13/2007

Sep1 DT/Tm Tech:

Batch: 7071533 **WATER** **pCi/L** **PM, Quote: SA , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 7071526 FPS5, 7071531 AWTA, 7071532 AZS7, 7071533 BCS8,

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JP731-1-AC J7B280155-1-SAMP 02/27/2007 11:41		202.50g,in AmtRec: 20ML,500ML,LP,4LP	#Containers: 4		65.7mg	100	32A Scr:	1855 Alpha: 6.42E-04 uCi/Sa	3/28/07 DD Beta: 1.69E-03 uCi/Sa	
2 JP731-1-AG-X J7B280155-1-DUP 02/27/2007 11:41		200.10g,in AmtRec: 20ML,500ML,LP,4LP	#Containers: 4		62.9	100	32B Scr:	Alpha: 6.42E-04 uCi/Sa	Beta: 1.69E-03 uCi/Sa	
3 JQWX9-1-AA-B J7C120000-533-BLK 02/27/2007 11:41		201.50g,in AmtRec:	#Containers: 1		0.4mg	100	32C Scr:	Alpha:	Beta:	
4 JQWX9-1-AC-C J7C120000-533-LCS 02/27/2007 11:41		199.40g,in AmtRec:	BESB3032 02/26/07,pd 08/08/06,r #Containers: 1		0.7mg	100	32D Scr:	Alpha:	Beta:	

Comments:

DH 3/28/2007

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

JP7311AC-SAMP Constituent List:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
JQWX91AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
JQWX91AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JP7311AC-SAMP Calc Info:

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STL RICHLAND

3/28/2007 2:24:45 PM

Sample Preparation/Analysis

BC Gross Beta PrpRC5014
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Balance Id:1120482733
Pipet #: 245

AnalyDueDate: 04/13/2007

Sep1 DT/Tm Tech:

Batch: 7071533
SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

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

Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JQWX91AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JQWX91AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

95

3/29/2007 11:43:21 AM

ICOC Fraction Transfer/Status Report

ByDate: 3/29/2006, 4/3/2007, Batch: '7071533', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7071533						
AC		CalcC	**BockJ**	3/21/2007 11:38:28		
SC			wagarr	IsBatched	3/12/2007 4:43:30 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	3/21/2007 11:38:28 AM	rich-rc-5014 rEVISION 6
SC			BockJ	Prep1C	3/21/2007 11:52:55 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	3/27/2007 1:35:35 PM	RICH-RC-5014 REVISION 6
SC			HARBINSOND	Prep1C	3/28/2007 2:10:20 PM	RICHRC5014 REV6
SC			StringerR	InCnt1	3/28/2007 2:58:30 PM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	3/28/2007 7:29:17 PM	RICH-RD-0003 REVISION 4
AC			**BockJ**	3/21/2007 11:52:55		
AC			**AshworthA**	3/27/2007 1:35:35 PM		
AC			**HARBINSOND**	3/28/2007 2:10:20 PM		
AC			**StringerR**	3/28/2007 2:58:30 PM		
AC			**DAWKINSO**	3/28/2007 7:29:17 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

03/28/2007 5:05:10 PM

Sample Preparation/Analysis

Balance Id:1120482733,E32905

384868. Pacific Northwest National Laboratory .
Pacific Northwest National Lab

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 04/12/2007

Sep1 DT/Tm Tech: 03/20/2007 14:44,ManisD

Batch: 7071529 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech: 03/28/2007 09:00,ManisD

SEQ Batch, Test: None All Tests: 7071529 CLTL,

Prep Tech: ManisD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JP528-1-AA J7B270185-1-SAMP		1004.30g,in	SRTB14573 03/15/07,pd 09/11/06,r	0.7310	1.0	24.5	100	1A 1A	0746 0643	3/29/07 3/30/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~					
02/26/2007 11:57		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: -8.35E-05 uCi/Sa	Beta: 1.20E-03 uCi/Sa	
2 JP528-1-AC-X J7B270185-1-DUP		1005.60g,in	SRTB14574 03/15/07,pd 09/11/06,r	0.840	1.0	24.2	100	1B 1B	0746 0643	3/29/07 3/30/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~					
02/26/2007 11:57		AmtRec: 20ML,3XLP	#Containers: 4					Scr:	Alpha: -8.35E-05 uCi/Sa	Beta: 1.20E-03 uCi/Sa	
3 JP53V-1-AC J7B270191-1-SAMP		1000.20g,in	SRTB14575 03/15/07,pd 09/11/06,r	0.7662	1.0	24.5	100	1C 1C	0746 0643	3/29/07 3/30/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~					
02/26/2007 08:32		AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7					Scr:	Alpha: -1.58E-03 uCi/Sa	Beta: 3.78E-03 uCi/Sa	
4 JP535-1-AC J7B270191-2-SAMP		1001.10g,in	SRTB14576 03/15/07,pd 09/11/06,r	0.8409	1.0	24.4	100	1D 1D	0746 0643	3/29/07 3/30/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~					
02/26/2007 09:03		AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7					Scr:	Alpha: 1.43E-03 uCi/Sa	Beta: -3.27E-05 uCi/Sa	

STL RICHLAND

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STL RICHLAND

3/28/2007 5:05:12 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Balance Id:1120482733,1120482733,1120

Pipet #: _____

AnalyDueDate: 04/12/2007

Sep1 DT/Tm Tech: 03/20/2007 14:44,ManisD

Batch: 7071529 WATER pCi/L PM, Quote: SA , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech: 03/28/2007 09:00,ManisD

Prep Tech: ,ManisD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 JP536-1-AC J7B270191-3-SAMP		1001.90g,in	SRTB14577 03/15/07,pd 09/11/06,r	0.7812	1.0	23.6	100	JA	0746	3/29/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~		JA	0943	3/30/07	
02/26/2007 09:27		AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7					Scr:	Alpha: -1.32E-03 uCi/Sa	Beta: 4.32E-03 uCi/Sa	1.6E-01L
6 JP7R1-1-AC J7B280116-1-SAMP		1005.00g,in	SRTB14578 03/15/07,pd 09/11/06,r	0.8556	1.0	24.5	100	JB	0746	3/29/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~		JB	0943	3/30/07	
02/27/2007 12:00		AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7					Scr:	Alpha: -1.46E-04 uCi/Sa	Beta: 1.56E-03 uCi/Sa	
7 JP7R4-1-AC J7B280116-2-SAMP		1006.80g,in	SRTB14540 02/15/07,pd 09/11/06,r	0.7484	1.0	24.2	100	JC	0746	3/29/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~		JC	0943	3/30/07	
02/27/2007 11:10		AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7					Scr:	Alpha: 4.64E-05 uCi/Sa	Beta: 5.17E-03 uCi/Sa	
8 JP7WL-1-AD J7B280125-1-SAMP		1000.70g,in	SRTB14541 02/15/07,pd 09/11/06,r	0.8484	1.0	24.2	100	JD	0746	3/29/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~		JD	0943	3/30/07	
02/27/2007 09:18		AmtRec: 20ML,3XLP,3X4LP	#Containers: 7					Scr:	Alpha: 1.85E-03 uCi/Sa	Beta: 5.65E-03 uCi/Sa	

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 8

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

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STL RICHLAND

3/28/2007 5:05:12 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Balance Id:1120482733,1120482733,1120

Pipet #: _____

AnalyDueDate: 04/12/2007

Sep1 DT/Tm Tech: 03/20/2007 14:44,ManisD

Batch: 7071529 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech: 03/28/2007 09:00,ManisD

SEQ Batch, Test: None

Prep Tech: ,ManisD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
9 JP7XF-1-AD J7B280129-1-SAMP		1006.80g,in	SRTB14542 02/15/07,pd 09/11/06,r	0.7765	1.0	23.8	100	3A 3A	0744 0843	3/28/07 3/30/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~					
02/27/2007 12:44		AmtRec: 20ML,500ML,4XLP,3X4LP	#Containers: 9					Scr:	Alpha: 8.23E-04 uCi/Sa		Beta: 8.12E-05 uCi/Sa
10 JQWX1-1-AA-B J7C120000-529-BLK		999.80g,in	SRTB14543 02/15/07,pd 09/11/06,r	0.8656	1.0	24	100	3B 3B	0746 0842	3/28/07 3/30/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~					
02/26/2007 11:57		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:
11 JQWX1-1-AC-C J7C120000-529-LCS		1000.50g,in	SRSG1323 02/12/07,pd 09/11/06,r	0.7630	1.0	23.5	100	3C 3C	0744 0843	3/28/07 3/30/07	
						~~03/20/2007 14:44;s1, 03/28/2007~~					
02/26/2007 11:57		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

Comments: JP7WL-SAMP ""

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

JP5281AA-SAMP Constituent List:

3/28/2007 5:05:15 PM

Sample Preparation/Analysis

CL Sr-90 Prp/SepRC5006(5071)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Balance Id:1120482733,1120482733,1120

Pipet #: _____

AnalyDueDate: 04/12/2007

Sep1 DT/Tm Tech: 03/20/2007 14:44,ManisD

Batch: 7071529 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech: 03/28/2007 09:00,ManisD

Prep Tech: ManisD

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

```
 Sr-85      RDL:          pCi/L    LCL:20    UCL:105    RPD:20    Sr-90    RDL:2    pCi/L    LCL:70    UCL:130    RPD:20

JQWX11AA-BLK:
 Sr-85      RDL:          pCi/L    LCL:20    UCL:105    RPD:20    Sr-90    RDL:2    pCi/L    LCL:      UCL:       RPD:

JQWX11AC-LCS:
 Sr-85      RDL:          pCi/L    LCL:20    UCL:105    RPD:20    Sr-90    RDL:2    pCi/L    LCL:70    UCL:130    RPD:20

JP5281AA-SAMP Calc Info:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
JQWX11AA-BLK:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
JQWX11AC-LCS:
     Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

Approved By _____ _____ Date: _____

4/3/2007 11:13:38 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/3/2006, 4/8/2007, Batch: '7071529', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7071529						
AC		CalcC	BockJ	3/19/2007 2:01:20 PM		
SC			wagarr	IsBatched	3/12/2007 4:43:30 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	3/19/2007 2:01:20 PM	rich-rc-5014 rEVISION 6
SC			BockJ	Prep1C	3/19/2007 2:23:22 PM	RICH-RC-5016 REVISION 6
SC			ManisD	Sep1C	3/20/2007 2:45:48 PM	RICH-RC-5006 REV 6
SC			DAWKINSO	InCnt1	3/20/2007 3:17:49 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	Cnt1C	3/20/2007 7:40:54 PM	RICH-RD-0007 REVISION 5
SC			ManisD	Sep2C	3/28/2007 5:10:04 PM	RICH-RC-5071 REV 4
SC			DAWKINSO	InCnt2	3/28/2007 5:21:41 PM	RICH-RD-0003 REVISION 4
SC			BlackCL	CalcC	3/30/2007 7:10:58 AM	RICH-RD-0003 REVISION 4
AC			BockJ	3/19/2007 2:23:22 PM		
AC			ManisD	3/20/2007 2:45:48 PM		
AC			DAWKINSO	3/20/2007 3:17:49 PM		
AC			DAWKINSO	3/20/2007 7:40:54 PM		
AC			ManisD	3/28/2007 5:10:04 PM		
AC			DAWKINSO	3/28/2007 5:21:41 PM		
AC			BlackCL	3/30/2007 7:10:58		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 8

ICOCFractions v4.8.26

STL RICHLAND

3/26/2007 11:17:14 AM

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 04/13/2007 W05126

Batch: 7071531 **WATER** **pCi/L**
SEQ Batch, Test: None

Sample Preparation/Analysis

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

PM, Quote: SA , 57671

Balance Id:1120482733

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: BockJ/APA

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 **JP7WL-1-AA** J7B280125-1-SAMP 02/27/2007 09:18		1990.10g,in AmtRec: 20ML,3XLP,3X4LP #Containers: 7			100..L	100	~~G8~~ CWC 3/29/05 Scr:	0658 Alpha: 1.85E-03 uCi/Sa	3/29/05 Beta: 5.65E-03 uCi/Sa	
2 **JP7WL-1-AE-X** J7B280125-1-DUP 02/27/2007 09:18		1960.70g,in AmtRec: 20ML,3XLP,3X4LP #Containers: 7					66 Scr:	0658 Alpha: 1.85E-03 uCi/Sa	Beta: 5.65E-03 uCi/Sa	
3 **JP7XF-1-AA** J7B280129-1-SAMP 02/27/2007 12:44		2002.10g,in AmtRec: 20ML,500ML,4XLP,3X4LP #Containers: 9					68 Scr:	0658 Alpha: 8.23E-04 uCi/Sa	Beta: 8.12E-05 uCi/Sa	
4 **JP731-1-AD** J7B280155-1-SAMP 02/27/2007 11:41		2005.40g,in AmtRec: 20ML,500ML,LP,4LP #Containers: 4					~~610~~ 3/29/05 612 Scr:	0659 Alpha: -6.42E-04 uCi/Sa	Beta: 1.69E-03 uCi/Sa	
5 **JQWX5-1-AA-B** J7C120000-531-BLK 02/27/2007 09:18		2000.00g,in AmtRec: #Containers: 1					~~612~~ 3/29/05 05 Scr:	0823 Alpha:	3/29/05 Beta:	
6 **JQWX5-1-AC-C** J7C120000-531-LCS 02/27/2007 09:18		1999.40g,in AmtRec: #Containers: 1	QCAG1346 01/23/07,pd 03/07/05,r		✓	✓	~~613~~ 3/29/05 07 Scr:	0824 Alpha:	Beta:	

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 6
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

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STL RICHLAND

3/26/2007 11:17:20 AM

Sample Preparation/Analysis

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 04/13/2007

Sep1 DT/Tm Tech:

Batch: 7071531 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

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

Comments: JP7WL-SAMP "Comments. Aliquot not 2000 ml. due to insuffiecient sample amount JB 03/26/07"

pH < 2.0 JB 3-26-07

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

JP7WL1AA-SAMP Constituent List:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:

JQWX51AA-BLK:

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

JQWX51AC-LCS:

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

JP7WL1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JQWX51AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JQWX51AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

4/4/2007 4:27:49 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/4/2006, 4/9/2007, Batch: '7071531', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
7071531							
AC			CalcC	BockJ	3/26/2007 11:07:26		
SC				wagarr	IsBatched	3/12/2007 4:43:30 PM	ICOC_RADCALC v4.8.26
SC				BockJ	InPrep	3/26/2007 11:07:26 AM	RICH-RC-5017 Revision 5
SC				BockJ	Prep1C	3/26/2007 11:17:19 AM	RICH-RC-5017 REVISION 5
SC				AshworthA	InPrep2	3/27/2007 1:37:05 PM	RICH-RC-5017 REVISION 4
SC				AshworthA	Prep2C	3/28/2007 2:27:49 PM	RICH-RC-5017 REVISION 4
SC				StringerR	InCnt1	3/28/2007 2:35:20 PM	RICH-RD-0007 REVISION 5
SC				StringerR	CalcC	3/29/2007 9:25:33 AM	RICH-RD-0007 REVISION 5
AC				BockJ	3/26/2007 11:17:19		
AC				AshworthA	3/27/2007 1:37:05 PM		
AC				AshworthA	3/28/2007 2:27:49 PM		
AC				StringerR	3/28/2007 2:35:20 PM		
AC				StringerR	3/29/2007 9:25:33		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt:6

ICOCFractions v4.8.26

STL RICHLAND

3/27/2007 8:12:48 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

BN I-129 Prp/SepRC5025
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 04/12/2007 WO 5126

Sep1 DT/Tm Tech:

Batch: 7071530 **WATER** **pCi/L** **PM, Quote: SA , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 7071526 FPS5, 7071529 CLTL, 7071530 BNTB, 7080288 FPS5,

Prep Tech: ,BockJ, BosredD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JP53V-1-AA J7B270191-1-SAMP		3943.10g,in	ITA6126 03/15/07		37.0	100	L2	1331	3/30/07 R	
02/26/2007 08:32		AmtRec: 20ML,500ML,3XLP,2X4LP #Containers: 7					Scr:	Alpha: -1.58E-03 uCi/Sa	Beta: 3.78E-03 uCi/Sa	
2 JP535-1-AA J7B270191-2-SAMP		3927.70g,in	ITA6127 03/15/07		37.0		L4	1332	3/30/07 R	
02/26/2007 09:03		AmtRec: 20ML,500ML,3XLP,2X4LP #Containers: 7					Scr:	Alpha: 1.43E-03 uCi/Sa	Beta: -3.27E-05 uCi/Sa	
3 JP536-1-AA J7B270191-3-SAMP		3965.10g,in	ITA6128 03/15/07		36.8		L5	1332	3/30/07 R	
02/26/2007 09:27		AmtRec: 20ML,500ML,3XLP,2X4LP #Containers: 7					Scr:	Alpha: -1.32E-03 uCi/Sa	Beta: 4.32E-03 uCi/Sa 1.6E-01L	
4 JP547-1-AA J7B270196-1-SAMP		3943.70g,in	ITA6129 03/15/07		35.8		L2	1517	3/30/07 R	
02/26/2007 12:39		AmtRec: 20ML,2X4LP #Containers: 3					Scr:	Alpha: 3.76E-03 uCi/Sa	Beta: 2.40E-04 uCi/Sa	
5 JP7R1-1-AA J7B280116-1-SAMP		3871.60g,in	ITA6130 03/15/07		36.7		L4	1518	3/30/07 R	
02/27/2007 12:00		AmtRec: 20ML,500ML,3XLP,2X4LP #Containers: 7					Scr:	Alpha: -1.46E-04 uCi/Sa	Beta: 1.56E-03 uCi/Sa	
6 JP7R4-1-AA J7B280116-2-SAMP		3947.10g,in	ITA6131 03/15/07		37.0		L5	1519	3/30/07 R	
02/27/2007 11:10		AmtRec: 20ML,500ML,3XLP,2X4LP #Containers: 7					Scr:	Alpha: 4.64E-05 uCi/Sa	Beta: 5.17E-03 uCi/Sa	
7 JP7TM-1-AA J7B280118-1-SAMP		3966.20g,in	ITA6132 03/15/07		36.4		L2	1704	3/30/07 RO	
02/27/2007 09:20		AmtRec: 20ML,2X4LP #Containers: 3					Scr:	Alpha: 1.94E-03 uCi/Sa	Beta: 1.86E-03 uCi/Sa	

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3/27/2007 8:12:51 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

BN I-129 Prp/SepRC5025
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 04/12/2007

Sep1 DT/Tm Tech:

Batch: 7071530 WATER pCi/L PM, Quote: SA , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ, BestedD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JP7TM-1-AC-X J7B280118-1-DUP 02/27/2007 09:20		3962.50g,in AmtRec: 20ML,2X4LP	ITA6133 03/15/07 #Containers: 3		36.8	100	L4	1705 Scr: Alpha: 1.94E-03 uCi/Sa	3/30/07 OTOL Beta: 1.86E-03 uCi/Sa	
9 JP7VE-1-AA J7B280118-2-SAMP 02/27/2007 09:20		3907.90g,in AmtRec: 20ML,2X4LP	ITA6134 03/15/07 #Containers: 3		36.6		L5	Scr: Alpha: -7.76E-04 uCi/Sa	Beta: 5.01E-03 uCi/Sa 1.4E-01L	
10 JP7WL-1-AC J7B280125-1-SAMP 02/27/2007 09:18		3947.40g,in AmtRec: 20ML,3XLP,3X4LP	ITA6135 03/15/07 #Containers: 7		37.6		L2	1851 Scr: Alpha: 1.85E-03 uCi/Sa	Beta: 5.65E-03 uCi/Sa	
11 JP7XF-1-AF J7B280129-1-SAMP 02/27/2007 12:44		3875.10g,in AmtRec: 20ML,500ML,4XLP,3X4LP	ITA6136 03/15/07 #Containers: 9		36.2		L1	1852 Scr: Alpha: 8.23E-04 uCi/Sa	Beta: 8.12E-05 uCi/Sa	
12 JP7XP-1-AA J7B280130-1-SAMP 02/27/2007 09:31		3853.80g,in AmtRec: 20ML,500ML,2X4LP	ITA6137 03/15/07 #Containers: 4		36.6		L5	1853 Scr: Alpha: -1.32E-03 uCi/Sa	Beta: 3.61E-03 uCi/Sa	
13 JQWX4-1-AA-B J7C120000-530-BLK 02/27/2007 09:20		3767.80g,in AmtRec:	ITA6138 03/15/07 #Containers: 1		36.9		L2	2040 Scr: Alpha:	Beta:	
14 JQWX4-1-AC-C J7C120000-530-LCS 02/27/2007 09:20		3985.70g,in AmtRec:	ISD0737 12/20/06 #Containers: 1		37.5		L4	2041 Scr: Alpha:	Beta:	

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 14

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

SILRICHLAND

106

STL RICHLAND

3/27/2007 8:12:54 AM

Sample Preparation/Analysis

BN I-129 Prp/SepRC5025
TB Gamma by LEPD
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #:

AnalyDueDate: 04/12/2007

Sep1 DT/Tm Tech:

Batch: 7071530 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

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

Comments: ~~JP7WL-SAMP~~ "" pH-neutral JB 3-27-07

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

JP53V1AA-SAMP Constituent List:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
JQWX41AA-BLK:					
I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
JQWX41AC-LCS:					
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

JP53V1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JQWX41AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JQWX41AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

4/2/2007 4:48:46 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/2/2006, 4/7/2007, Batch: '7071530', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7071530						
AC		CalcC	BockJ	3/26/2007 11:48:42		
SC			wagarr	IsBatched	3/12/2007 4:43:30 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	3/26/2007 11:48:42 AM	RICH-RC-5017 Revision 5
SC			BostedD	InPrep2	3/27/2007 8:23:46 AM	RICHRC5025 REV3
SC			BostedD	Prep2C	3/30/2007 11:41:25 AM	RICHRC5025 REV3
SC			StringerR	InCnt1	3/30/2007 11:44:36 AM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	3/30/2007 9:19:58 PM	RICH-RD-0007 REVISION 5
AC			BostedD	3/27/2007 8:23:46		
AC			BostedD	3/30/2007 11:41:25		
AC			StringerR	3/30/2007 11:44:36		
AC			StringerR	3/30/2007 11:47:36		
AC			DAWKINSO	3/30/2007 9:19:58 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions v4.8.26

3/22/2007 12:20:23 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

6D Pu PrpRC5016, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 04/13/2007

Sep1 DT/Tm Tech:

Batch: 7081277 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JP7XF-1-AH-X J7B280129-1-DUP 02/27/2007 12:44		200.50g,in AmtRec: 20ML,500ML,4XLP,3X4LP #Containers: 9	putc10571 03/13/07,pd 08/04/06,r	200		Scr:	Alpha: 8.23E-04 uCi/Sa	Beta: 8.12E-05 uCi/Sa
2 JP7XF-2-AC J7B280129-1-SAMP 02/27/2007 12:44		199.40g,in AmtRec: 20ML,500ML,4XLP,3X4LP #Containers: 9	putc10572 03/13/07,pd 08/04/06,r			Scr:	Alpha: 8.23E-04 uCi/Sa	Beta: 8.12E-05 uCi/Sa
3 JRJLG-1-AA-B J7C220000-277-BLK 02/27/2007 12:44		199.60g,in AmtRec:	putc10573 03/13/07,pd 08/04/06,r #Containers: 1			Scr:	Alpha:	Beta:
4 JRJLG-1-AC-C J7C220000-277-LCS 02/27/2007 12:44		201.90g,in AmtRec:	pusg0914 02/28/07,pd 08/04/06,r #Containers: 1			Scr:	Alpha:	Beta:

Comments: pH < 2.0 3-22-07

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

JP7XF1AH-DUP Constituent List:

PU-238	RDL:1	pCi/L	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/L	LCL:70	UCL:130	RPD:20
Pu-242	RDL:	pCi/L	LCL:20	UCL:105	RPD:20						

JRJLG1AA-BLK:

PU-238	RDL:1	pCi/L	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/L	LCL:	UCL:	RPD:
Pu-242	RDL:	pCi/L	LCL:20	UCL:105	RPD:20						

JRJLG1AC-LCS:

PU-239	RDL:1	pCi/L	LCL:70	UCL:130	RPD:20	Pu-242	RDL:	pCi/L	LCL:20	UCL:105	RPD:20

STL RICHLAND

2/5 2/6 2/7 2/8 109

3/22/2007 12:20:28 PM

Sample Preparation/Analysis

6D Pu PrpRC5016, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 04/13/2007

Sep1 DT/Tm Tech:

Batch: 7081277 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

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

```
JP7XF1AH-DUP Calc Info:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
JRJLG1AA-BLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
JRJLG1AC-LCS:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

Approved By _____ Date: _____

3/30/2007 2:56:30 PM

ICOC Fraction Transfer/Status Report

ByDate: 3/30/2006, 4/4/2007, Batch: '7081277', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7081277						
AC		CalcC	BockJ	3/22/2007 12:12:12		
SC			antonsonl	IsBatched	3/22/2007 11:29:14 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	3/22/2007 12:12:12 PM	rich-rc-5014 rEVISION 6
SC			BockJ	Prep1C	3/22/2007 12:21:27 PM	RICH-RC-5016 REVISION 6
SC			HarveyK	InSep1	3/22/2007 2:37:20 PM	RICH-RC-5010 REV4
SC			HarveyK	Sep1C	3/27/2007 6:07:03 PM	RICH-RC-5010 REV4
SC			FABREM	Sep2C	3/28/2007 4:28:35 PM	RICH-RC-5039 REV 5
SC			DAWKINSO	InCnt1	3/28/2007 5:23:14 PM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC	3/28/2007 8:45:22 PM	RICH-RD-0007 REVISION 5
AC			BockJ	3/22/2007 12:21:27		
AC			HarveyK	3/22/2007 2:37:20 PM		
AC			HarveyK	3/27/2007 6:07:03 PM		
AC			FABREM	3/28/2007 4:28:35 PM		
AC			DAWKINSO	3/28/2007 5:23:14 PM		
AC			DAWKINSO	3/28/2007 8:45:22 PM		

AC: Accepting Entry, SC: Status Change

STL RICHLAND

3/19/2007 12:30:07 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 04/09/2007 W05126

Sep1 DT/Tm Tech:

Batch: 7071526 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JP4CL-1-AC J7B260113-1-SAMP 02/23/2007 08:39			125.60g,in	125.60g		60				
			AmtRec: 20ML,500ML,LP	#Containers: 3				Scr:	Alpha: 3.52E-05 uCi/Sa	Beta: 3.16E-04 uCi/Sa
2 JP4CP-1-AC J7B260113-2-SAMP 02/23/2007 09:40			125.60g,in	125.60g						
			AmtRec: 20ML,500ML,LP	#Containers: 3				Scr:	Alpha: 4.24E-04 uCi/Sa	Beta: 6.39E-04 uCi/Sa
3 JP53V-1-AD J7B270191-1-SAMP 02/26/2007 08:32			125.00g,in	125.00g						
			AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7				Scr:	Alpha: -1.58E-03 uCi/Sa	Beta: 3.78E-03 uCi/Sa
4 JP535-1-AD J7B270191-2-SAMP 02/26/2007 09:03			124.90g,in	124.90g						
			AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7				Scr:	Alpha: 1.43E-03 uCi/Sa	Beta: -3.27E-05 uCi/Sa
5 JP536-1-AD J7B270191-3-SAMP 02/26/2007 09:27			125.00g,in	125.00g						
			AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7				Scr:	Alpha: -1.32E-03 uCi/Sa	Beta: 4.32E-03 uCi/Sa 1.6E-01L
6 JP538-1-AA J7B270191-4-SAMP 02/26/2007 11:38			125.10g,in	125.10g						
			AmtRec: 20ML,500ML	#Containers: 2				Scr:	Alpha: -1.28E-04 uCi/Sa	Beta: 2.66E-04 uCi/Sa 1.7E-01L
7 JP7R1-1-AD J7B280116-1-SAMP 02/27/2007 12:00			125.00g,in	125.00g						
			AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7				Scr:	Alpha: -1.46E-04 uCi/Sa	Beta: 1.56E-03 uCi/Sa

STL RICHLAND

3/19/2007 12:30:10 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 04/09/2007

Sep1 DT/Tm Tech:

Batch: 7071526 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JP7R1-1-AE-S J7B280116-1-MS 02/27/2007 12:00			125.70g,in	125.70g	TCSG1782 02/28/07,pd 01/10/06,r	60				
			AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7				Scr:	Alpha: -1.46E-04 uCi/Sa	Beta: 1.56E-03 uCi/Sa
9 JP7R4-1-AD J7B280116-2-SAMP 02/27/2007 11:10			126.60g,in	126.60g						
			AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7				Scr:	Alpha: 4.64E-05 uCi/Sa	Beta: 5.17E-03 uCi/Sa
10 JP7XF-1-AE J7B280129-1-SAMP 02/27/2007 12:44			125.20g,in	125.20g						
			AmtRec: 20ML,500ML,4XLP,3X4LP	#Containers: 9				Scr:	Alpha: 8.23E-04 uCi/Sa	Beta: 8.12E-05 uCi/Sa
11 JP7XP-1-AC J7B280130-1-SAMP 02/27/2007 09:31			125.00g,in	125.00g						
			AmtRec: 20ML,500ML,2X4LP	#Containers: 4				Scr:	Alpha: -1.32E-03 uCi/Sa	Beta: 3.61E-03 uCi/Sa
12 JP7XP-1-AD-X J7B280130-1-DUP 02/27/2007 09:31			125.60g,in	125.60g						
			AmtRec: 20ML,500ML,2X4LP	#Containers: 4				Scr:	Alpha: -1.32E-03 uCi/Sa	Beta: 3.61E-03 uCi/Sa
13 JP731-1-AE J7B280155-1-SAMP 02/27/2007 11:41			125.50g,in	125.50g						
			AmtRec: 20ML,500ML,LP,4LP	#Containers: 4				Scr:	Alpha: -6.42E-04 uCi/Sa	Beta: 1.69E-03 uCi/Sa
14 JQWXJ-1-AA-B J7C120000-526-BLK 02/27/2007 09:31			125.70g,in	125.70g						
			AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

113

STL RICHLAND

3/19/2007 12:30:14 PM

Sample Preparation/Analysis

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 04/09/2007

Sep1 DT/Tm Tech:

Batch: 7071526 pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 JQWXJ-1-AC-C J7C120000-526-LCS 02/27/2007 09:31			125.20g,in	125.20g	TCSE2086 02/21/07,pd 01/10/06,r	60				
16 JQWXJ-1-AD-BN J7C120000-526-IBLK 02/27/2007 09:31										
17 JQWXJ-1-AE-BN J7C120000-526-IBLK 02/27/2007 09:31										

AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments: pH < 2.0 JS 3-19-07

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

JP4CL1AC-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JP7R11AE-MS:

JQWXJ1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JQWXJ1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JQWXJ1AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JQWXJ1AE-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JP4CL1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

3/26/2007 12:13:18 PM

ICOC Fraction Transfer/Status Report

ByDate: 3/26/2006, 3/31/2007, Batch: '7071526', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7071526						
AC		CalcC	BockJ	3/19/2007 12:18:45		
SC			wagarr	IsBatched	3/12/2007 4:43:30 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	3/19/2007 12:18:45 PM	rich-rc-5014 rEVISION 6
SC			BockJ	Prep1C	3/19/2007 12:30:18 PM	RICH-RC-5016 REVISION 6
SC			HarveyK	InSep1	3/19/2007 12:48:18 PM	RICH-RC-5065 REV5
SC			HarveyK	Sep1C	3/19/2007 4:23:02 PM	RICH-RC-5065 REV5
SC			DAWKINSO	InCnt1	3/19/2007 4:36:02 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	3/21/2007 7:09:20 AM	RICH-RD-0001 REVISION 3
AC			BockJ	3/19/2007 12:30:18		
AC			HarveyK	3/19/2007 12:48:18		
AC			HarveyK	3/19/2007 4:23:02 PM		
AC			DAWKINSO	3/19/2007 4:36:02 PM		
AC			BlackCL	3/21/2007 7:09:20		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

SEVERN TRENT STL

*** RE-ANALYSIS REQUEST ***

DUE DATE 4-9-04

CUSTOMER PG-W

ANALYSIS Te

MATRIX water

LOT NUMBER J7B270191

SAMPLE DELIVERY GROUP W05126

OLD BATCH NUMBER 7071526

NEW BATCH NUMBER 7080288

	LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)	JP5351AD	TSIE out – won't calc.
2)	JP5341AD	
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
	LAB QC ID	Assigned with new batch.

RC-048, 10/03, Rev 7

STL RICHLAND

3/21/2007 3:35:06 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

Sep1 DT/Tm Tech:

AnalyDueDate: 04/12/2007

Batch: 7080288 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JP535-2-AD J7B270191-2-SAMP 02/26/2007 09:03		AmtRec: 20ML,500ML,3XLP,2X4LP #Containers: 7	125.20g,in	125.20g		60		Scr:	Alpha: 1.43E-03 uCi/Sa	Beta: -3.27E-05 uCi/Sa
2 JP536-2-AD J7B270191-3-SAMP 02/26/2007 09:27		AmtRec: 20ML,500ML,3XLP,2X4LP #Containers: 7	125.80g,in	125.80g				Scr:	Alpha: -1.32E-03 uCi/Sa	Beta: 4.32E-03 uCi/Sa 1.6E-01L
3 JRFQT-1-AA-B J7C210000-288-BLK 02/26/2007 09:03		AmtRec: #Containers: 1	125.30g,in	125.30g				Scr:	Alpha:	Beta:
4 JRFQT-1-AC-C J7C210000-288-LCS 02/26/2007 09:03		AmtRec: #Containers: 1	127.50g,in	127.50g	TCSE2089 02/28/07,pd 01/10/06,r			Scr:	Alpha:	Beta:
5 JRFQT-1-AD-BN J7C210000-288-IBLK 02/26/2007 09:03		AmtRec: #Containers: 1						Scr:	Alpha:	Beta:

Comments: PH <2-0 3-21-07

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

JP5352AD-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 5
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

Sample Preparation/Analysis

FP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 04/12/2007

Batch: 7080288 pCi/L
SEQ Batch, Test: None

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

```
JRFQT1AA-BLK:
  Tc-99        RDL:15          pCi/L     LCL:        UCL:        RPD:
JRFQT1AC-LCS:
  Tc-99        RDL:15          pCi/L     LCL:70      UCL:130     RPD:20
JRFQT1AD-IBLK:
  Tc-99        RDL:15          pCi/L     LCL:        UCL:        RPD:
JP5352AD-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JRFQT1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JRFQT1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JRFQT1AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

STL RICHLAND

3/26/2007 12:12:36 PM

ICOC Fraction Transfer/Status Report

ByDate: 3/26/2006, 3/31/2007, Batch: '7080288', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7080288						
AC		CalcC	BockJ	3/21/2007 3:32:46 PM		
SC			andersonp	IsBatched	3/21/2007 10:40:01 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	3/21/2007 3:32:46 PM	rich-rc-5014 rEVISION 6
SC			BockJ	Prep1C	3/21/2007 3:35:39 PM	RICH-RC-5016 REVISION 6
SC			HarveyK	Sep1C	3/23/2007 11:59:56 AM	RICH-RC-5065 REV5
SC			StringerR	CalcC	3/24/2007 10:48:19 AM	RICH-RD-0001 REVISION 3
AC			BockJ	3/21/2007 3:35:39 PM		
AC			HarveyK	3/23/2007 11:59:56		
AC			StringerR	3/24/2007 10:48:19		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.26

3/12/2007 4:40:53 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 3-16-07 Tam
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 04/09/2007 W05126

Batch: 7071527 WATER pCi/L PM, Quote: SA , 57671

SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JP4CL-1-AA J7B260113-1-SAMP 02/23/2007 08:39		AmtRec: 20ML,500ML,LP	#Containers: 3			Scr:	Alpha: 3.52E-05 uCi/Sa	Beta: 3.16E-04 uCi/Sa
2 JP4CL-1-AD-X J7B260113-1-DUP 02/23/2007 08:39		AmtRec: 20ML,500ML,LP	#Containers: 3			Scr:	Alpha: 3.52E-05 uCi/Sa	Beta: 3.16E-04 uCi/Sa
3 JP4CP-1-AA J7B260113-2-SAMP 02/23/2007 09:40		AmtRec: 20ML,500ML,LP	#Containers: 3			Scr:	Alpha: 4.24E-04 uCi/Sa	Beta: 6.39E-04 uCi/Sa
4 JQWXW-1-AA-B J7C120000-527-BLK 02/23/2007 08:39		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 JQWXW-1-AC-C J7C120000-527-LCS 02/23/2007 08:39		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 JQWXW-1-AD-BX J7C120000-527-MBLK 02/23/2007 08:39		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
7 JQWXW-1-AE-CM J7C120000-527-MLCS 02/23/2007 08:39		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

STL RICHLAND

3/12/2007 4:41:01 PM

Sample Preparation/Analysis

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 3-16-07 Tan
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 04/09/2007

Batch: 7071527 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 JQWXW-1-AF-BN J7C120000-527-IBLK 02/23/2007 08:39	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
9 JQWXW-1-AG-BN J7C120000-527-IBLK 02/23/2007 08:39	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments:

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

JP4CL1AA-SAMP Constituent List:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20
JQWXW1AA-BLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:
JQWXW1AC-LCS:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20
JQWXW1AD-MBLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:
JQWXW1AE-MLCS:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20
JQWXW1AF-IBLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:
JQWXW1AG-IBLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:

JP4CL1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JQWXW1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JQWXW1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

STL RICHLAND

3/19/2007 9:01:47 AM

ICOC Fraction Transfer/Status Report

ByDate: 3/19/2006, 3/24/2007, Batch: '7071527', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7071527						
AC		CalcC	McDowellD	3/16/2007 11:21:46		
SC			wagarr	IsBatched	3/12/2007 4:43:30 PM	ICOC_RADCALC v4.8.26
SC			McDowellD	InSep1	3/16/2007 11:21:46 AM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	3/16/2007 3:37:50 PM	RICH-RC-5007 REVISION 6
SC			DAWKINSO	InCnt1	3/16/2007 3:56:16 PM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	3/18/2007 9:06:57 AM	RICH-RD-0001 REVISION 3
AC			McDowellD	3/16/2007 3:37:50 PM		
AC			DAWKINSO	3/16/2007 3:56:16 PM		
AC			StringerR	3/18/2007 9:06:57		

AC: Accepting Entry; SC: Status Change