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W05103

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Analytical Data Package Prepared For

Pacific Northwest National Lab

Radiochemical Analysis By

STL Richland STLRL

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

Data Package Contains _____ Pages

Report Nbr: 34697

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05103	W07-012	B1LHB1	J7A250174-1	JNC9Q1AA	9JNC9Q10	7031474
		B1LHB1	J7A250174-1	JNC9Q1AC	9JNC9Q10	7031483
		B1LHB1	J7A250174-1	JNC9Q1AD	9JNC9Q10	7031482
		B1LHB1	J7A250174-1	JNC9Q1AE	9JNC9Q10	7031480
		B1LHB1	J7A250174-1	JNC9Q1AF	9JNC9Q10	7031481
		B1LHB1	J7A250174-1	JNC9Q1AG	9JNC9Q10	7031472
		B1LHH5	J7A250174-2	JNC901AA	9JNC9010	7031483
		B1LHH5	J7A250174-2	JNC901AC	9JNC9010	7031482
		B1LHH5	J7A250174-2	JNC901AD	9JNC9010	7031480
	I07-016	B1LK83	J7A300193-1	JNK4D1AA	9JNK4D10	7031471
	S07-011	B1L397	J7A300198-1	JNK431AA	9JNK4310	7031392
	A07-001	B1LN44	J7A300207-1	JNK6G1AA	9JNK6G10	7031474
		B1LN44	J7A300207-1	JNK6G1AC	9JNK6G10	7031471
		B1LN44	J7A300207-1	JNK6G1AD	9JNK6G10	7031472
		B1LN44	J7A300207-1	JNK6G1AE	9JNK6G10	7031470

Comments:

Report Nbr: 34697

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05103	S07-001	B1LP47	J7A300209-1	JNK651AA	9JNK6510	7031474
		B1LP47	J7A300209-1	JNK651AC	9JNK6510	7031483
		B1LP47	J7A300209-1	JNK651AD	9JNK6510	7031482
		B1LP47	J7A300209-1	JNK651AE	9JNK6510	7031471
		B1LP47	J7A300209-1	JNK651AF	9JNK6510	7031481
	W07-012	B1LJ73	J7A300212-1	JNK761AA	9JNK7610	7031472
		B1LH44	J7A300217-1	JNK9E1AA	9JNK9E10	7031483
	A07-001	B1LN40	J7A300249-1	JNLG11AA	9JNLG110	7031474
		B1LN40	J7A300249-1	JNLG11AC	9JNLG110	7031471
		B1LN40	J7A300249-1	JNLG11AD	9JNLG110	7031472
		B1LN30	J7A300249-2	JNLG31AA	9JNLG310	7031474
		B1LN30	J7A300249-2	JNLG31AC	9JNLG310	7031471
		B1LN30	J7A300249-2	JNLG31AD	9JNLG310	7031472
		B1LN30	J7A300249-2	JNLG32AD	9JNLG320	7043331
		B1LN29	J7A300249-3	JNLG61AA	9JNLG610	7031474
		B1LN29	J7A300249-3	JNLG61AC	9JNLG610	7031471
		B1LN29	J7A300249-3	JNLG61AD	9JNLG610	7031472
	W07-001	B1LRF1	J7A300259-1	JNLJG1AA	9JNLJG10	7031483
		B1LRF1	J7A300259-1	JNLJG1AC	9JNLJG10	7031482
		B1LRC9	J7A300259-2	JNLJP1AA	9JNLJP10	7031483
		B1LRC9	J7A300259-2	JNLJP1AC	9JNLJP10	7031482

Comments:

SEVERN TRENT STL

STL Richland
2800 George Washington Way
Richland, WA 99354

Tel: 509 375 3131 Fax: 509 375 5590
www.stl-inc.com

Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

March 16, 2007

Attention: Dot Stewart

SAF Number	:	W07-001, I07-016, S07-001, W07-012, A07-001, S07-011
Date SDG Closed	:	January 10, 2007
Number of Samples	:	Thirteen (13)
Sample Type	:	Water
SDG Number	:	W05103
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between January 16, 2007 and January 29, 2007, thirteen 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
B1LHB1	JNC9Q	WATER	1/16/07
B1LHH5	JNC90	WATER	1/16/07
B1LK83	JNK4D	WATER	1/26/07
B1L397	JNK43	WATER	126/07
B1LN44	JNK6G	WATER	1/26/07
B1LP47	JNK65	WATER	1/26/07
B1LJ73	JNK76	WATER	1/26/07
B1LH44	JNK9E	WATER	1/29/07
B1LN40	JNLG1	WATER	1/29/07
B1LN30	JNLG3	WATER	1/29/07
B1LN29	JNLG6	WATER	1/29/07
B1LRF1	JNLJG	WATER	1/29/07
B1LRC9	JNLJP	WATER	1/29/07

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014
Gross Beta by method RICH-RC-5014
Strontium-90 by method RICH-RC-5006
Gamma Spectroscopy
Gamma Spec (LL) by method RICH-RC-5017
Iodine-129 (LL) by method RICH-RC-5025
Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
Carbon-14 by method RICH-RC-5022
Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058
Chemical Analysis
Total Coliform by method 9223
Hexavalent Chromium by EPA method 7196A

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014:
The original analysis showed the duplicates slightly out. A recount did not help. The samples were rerun but the LCS failed with a 32% recovery. There is no more sample to rerun. The original sample and duplicate are within 1 CRDL. The data will be accepted from the original analysis. Except as noted,

the LCS, batch blank, samples and sample duplicate (B1LRF1) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:
The LCS, batch blank, samples and sample duplicate (B1LHH5) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006
The LCS, batch blank, samples and sample duplicate (B1LP47) results are within contractual requirements.

Gamma Spectroscopy
Gamma Spec (LL) by method RICH-RC-5017:
the LCS, batch blank, samples and sample duplicate (B1LHB1) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025:
The LCS, batch blank, samples and sample duplicate (B1LN30) results are within contractual requirements.

Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065:
At the time of review it was noticed that this batch was run without a duplicate. A sample and duplicate were rerun with good results. Data is accepted. Except as noted, the LCS, batch blank, samples, sample duplicate (B1LN30), and sample matrix spike (B1LN40) results are within contractual requirements.

Tritium by method RICH-RC-5007:
The LCS, batch blank, samples and sample duplicate (B1LP47) results are within contractual requirements.

Total Uranium
Total Uranium by method RICH-RC-5058:
The LCS, batch blank, samples, sample duplicate (B1LN44), and sample matrix spike (B1LN44) results are within contractual requirements.

Chemical Analysis
Hexavalent Chromium by EPA method 7196A
Sample B1L397 was received for a hexavalent chromium. There were only about 125 mls of sample. The sample was split and ran as a sample and duplicate. It was then combined and ran as a matrix spike. The LCS, batch blank, samples, sample duplicate (B1L397), sample matrix spike (B1L397), and matrix spike duplicate results (B1L397) are within contractual requirements.

Pacific Northwest National Laboratories
March 16, 2007

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.

3/16/2007 1:46:39 PM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34697 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.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:
9JNC9010	B1LHH5		MW6-SBB-A1	W07-012	W05103					01/16/2007 12:45

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031483	ALPHA	12587-46-1	1.33E+00	pCi/L	1.4E+00	1.4E+00	U	2.38E+00	100.0	9310_ALPHABETA	1.796E-01	L	02/22/2007 08:35	I
7031482	BETA	12587-47-2	8.96E+01	pCi/L	4.5E+00	1.2E+01		2.84E+00	100.0	9310_ALPHABETA	1.999E-01	L	02/22/2007 06:58	I
7031480	BE-7	13966-02-4	-6.77E+00	pCi/L	3.0E+01	3.0E+01	U	5.22E+01		GAMMALL_GS	2.0005E+00	L	02/20/2007 05:11	I
7031480	CO-60	10198-40-0	-5.41E-01	pCi/L	2.7E+00	2.7E+00	U	5.03E+00		GAMMALL_GS	2.0005E+00	L	02/20/2007 05:11	I
7031480	CS-134	13967-70-9	1.31E+00	pCi/L	2.5E+00	2.5E+00	U	5.00E+00		GAMMALL_GS	2.0005E+00	L	02/20/2007 05:11	I
7031480	CS-137	10045-97-3	1.12E+00	pCi/L	2.1E+00	2.1E+00	U	4.24E+00		GAMMALL_GS	2.0005E+00	L	02/20/2007 05:11	I
7031480	EU-152	14683-23-9	-2.27E+00	pCi/L	5.5E+00	5.5E+00	U	9.56E+00		GAMMALL_GS	2.0005E+00	L	02/20/2007 05:11	I
7031480	EU-154	15585-10-1	9.63E-01	pCi/L	9.0E+00	9.0E+00	U	1.71E+01		GAMMALL_GS	2.0005E+00	L	02/20/2007 05:11	I
7031480	EU-155	14391-16-3	-8.30E-01	pCi/L	3.5E+00	3.5E+00	U	6.27E+00		GAMMALL_GS	2.0005E+00	L	02/20/2007 05:11	I
7031480	K-40	13966-00-2	-2.13E+01	pCi/L	5.2E+01	5.2E+01	U	1.12E+02		GAMMALL_GS	2.0005E+00	L	02/20/2007 05:11	I
7031480	RU-106	13967-48-1	2.28E+01	pCi/L	2.5E+01	2.5E+01	U	4.99E+01		GAMMALL_GS	2.0005E+00	L	02/20/2007 05:11	I
7031480	SB-125	14234-35-6	-4.49E+00	pCi/L	5.0E+00	5.0E+00	U	8.03E+00		GAMMALL_GS	2.0005E+00	L	02/20/2007 05:11	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:
9JNC9Q10	B1LHB1		MW6-SBB-A1	W07-012	W05103					01/16/2007 11:45

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031474	H-3	10028-17-8	3.58E+03	pCi/L	2.4E+02	3.0E+02		3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/10/2007 03:49	I
7031483	ALPHA	12587-46-1	1.79E+00	pCi/L	1.5E+00	1.6E+00	U	2.46E+00	100.0	9310_ALPHABETA	2.001E-01	L	02/22/2007 08:35	I
7031482	BETA	12587-47-2	1.78E+02	pCi/L	6.3E+00	2.4E+01		2.94E+00	100.0	9310_ALPHABETA	1.996E-01	L	02/22/2007 06:58	I
7031480	BE-7	13966-02-4	2.13E+01	pCi/L	2.6E+01	2.6E+01	U	5.08E+01		GAMMALL_GS	1.9799E+00	L	02/20/2007 05:10	I
7031480	CO-60	10198-40-0	4.63E-01	pCi/L	1.8E+00	1.8E+00	U	4.04E+00		GAMMALL_GS	1.9799E+00	L	02/20/2007 05:10	I
7031480	CS-134	13967-70-9	8.79E-01	pCi/L	2.8E+00	2.8E+00	U	5.37E+00		GAMMALL_GS	1.9799E+00	L	02/20/2007 05:10	I
7031480	CS-137	10045-97-3	-4.12E-01	pCi/L	2.2E+00	2.2E+00	U	4.04E+00		GAMMALL_GS	1.9799E+00	L	02/20/2007 05:10	I
7031480	EU-152	14683-23-9	7.63E-01	pCi/L	5.4E+00	5.4E+00	U	1.02E+01		GAMMALL_GS	1.9799E+00	L	02/20/2007 05:10	I
7031480	EU-154	15585-10-1	-1.43E+00	pCi/L	6.7E+00	6.7E+00	U	1.26E+01		GAMMALL_GS	1.9799E+00	L	02/20/2007 05:10	I
7031480	EU-155	14391-16-3	4.15E+00	pCi/L	4.9E+00	4.9E+00	U	9.61E+00		GAMMALL_GS	1.9799E+00	L	02/20/2007 05:10	I
7031480	K-40	13966-00-2	-2.12E+01	pCi/L	5.5E+01	5.5E+01	U	1.24E+02		GAMMALL_GS	1.9799E+00	L	02/20/2007 05:10	I
7031480	RU-106	13967-48-1	-1.29E+01	pCi/L	2.0E+01	2.0E+01	U	3.34E+01		GAMMALL_GS	1.9799E+00	L	02/20/2007 05:10	I
7031480	SB-125	14234-35-6	1.77E+00	pCi/L	5.7E+00	5.7E+00	U	1.08E+01		GAMMALL_GS	1.9799E+00	L	02/20/2007 05:10	I
7031481	SR-90	10098-97-2	-9.79E-02	pCi/L	2.7E-01	2.7E-01	U	6.02E-01	75.2	SRISO_SEP_PRE	1.0038E+00	L	02/22/2007 07:46	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.

7031472	TC-99	14133-76-7	5.64E+02	pCi/L	1.3E+01	4.4E+01		9.78E+00	100.0	TC99_ETVDSK_LS	1.268E-01	L	02/10/2007 04:02	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:
9JNK4D10	B1LK83		MW6-SBB-A1	I07-016	W05103					01/26/2007 11:39

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031471	I-129L	15046-84-1	3.45E-01	pCi/L	1.8E-01	1.8E-01	U	3.64E-01	98.6	I129LL_SEP_LEPS	3.9178E+00	L	02/23/2007 14:44	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:
9JNK6510	B1LP47		MW6-SBB-A1	S07-001	W05103					01/26/2007 13:12

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031474	H-3	10028-17-8	4.52E+04	pCi/L	7.1E+02	1.9E+03		3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/10/2007 06:34	I
7031483	ALPHA	12587-46-1	2.44E+00	pCi/L	1.6E+00	1.7E+00		2.19E+00	100.0	9310_ALPHABETA	2.016E-01	L	02/22/2007 08:35	I
7031482	BETA	12587-47-2	6.77E+00	pCi/L	1.7E+00	1.9E+00		2.77E+00	100.0	9310_ALPHABETA	2.023E-01	L	02/22/2007 06:58	I
7031471	I-129L	15046-84-1	4.79E+00	pCi/L	7.2E-01	7.2E-01		3.38E-01	96.2	I129LL_SEP_LEPS	3.934E+00	L	02/23/2007 14:46	I
7031481	SR-90	10098-97-2	-1.04E-01	pCi/L	2.3E-01	2.4E-01	U	5.39E-01	85.8	SRISO_SEP_PRE	1.005E+00	L	02/22/2007 07:46	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:
9JNK6G10	B1LN44		MW6-SBB-A1	A07-001	W05103					01/26/2007 10:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031474	H-3	10028-17-8	6.70E+01	pCi/L	1.4E+02	1.6E+02	U	3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/10/2007 05:12	I
7031471	I-129L	15046-84-1	-2.92E-02	pCi/L	1.3E-01	1.3E-01	U	2.30E-01	98.6	I129LL_SEP_LEPS	3.9077E+00	L	02/23/2007 14:45	I
7031472	TC-99	14133-76-7	5.50E+00	pCi/L	4.2E+00	6.4E+00	U	9.77E+00	100.0	TC99_ETVDSK_LS	1.266E-01	L	02/10/2007 04:02	I
7031470	Uranium	7440-61-1	1.12E+00	ug/L	1.2E-01	1.2E-01		8.12E-02		UTOT_KPA	2.58E-02	ML	02/28/2007 15:07	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:
9JNK7610	B1LJ73		MW6-SBB-A1	W07-012	W05103					01/26/2007 09:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031472	TC-99	14133-76-7	1.34E+03	pCi/L	2.0E+01	9.6E+01		9.62E+00	100.0	TC99_ETVDSK_LS	1.277E-01	L	02/10/2007 04:02	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:
9JNK9E10	B1LH44		MW6-SBB-A1	W07-012	W05103					01/29/2007 13:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031483	ALPHA	12587-46-1	7.14E-01	pCi/L	8.7E-01	8.8E-01	U	1.59E+00	100.0	9310_ALPHABETA	2.002E-01	L	02/22/2007 08:35	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.

3/16/2007 1:46:40 PM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34697 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.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:
9JNLG110	B1LN40		MW6-SBB-A1	A07-001	W05103					01/29/2007 12:44

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031474	H-3	10028-17-8	1.08E+03	pCi/L	1.7E+02	2.1E+02		3.30E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/10/2007 09:18	I
7031471	I-129L	15046-84-1	-1.15E-01	pCi/L	1.2E-01	1.2E-01	U	1.85E-01	97.8	I129LL_SEP_LEPS	3.9049E+00	L	02/23/2007 16:30	I
7031472	TC-99	14133-76-7	1.06E+02	pCi/L	6.9E+00	1.3E+01		9.84E+00	100.0	TC99_ETVDSK_LS	1.249E-01	L	02/10/2007 04:02	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:
9JNLG310	B1LN30		MW6-SBB-A1	A07-001	W05103					01/29/2007 10:58

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031474	H-3	10028-17-8	1.75E+03	pCi/L	1.9E+02	2.3E+02		3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/10/2007 10:41	I
7031471	I-129L	15046-84-1	-1.20E-01	pCi/L	1.4E-01	1.4E-01	U	2.21E-01	99.5	I129LL_SEP_LEPS	3.9427E+00	L	02/23/2007 16:30	I
7031472	TC-99	14133-76-7	1.50E+02	pCi/L	7.8E+00	1.6E+01		9.79E+00	100.0	TC99_ETVDSK_LS	1.256E-01	L	02/10/2007 04:02	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:
9JNLG320	B1LN30		MW6-SBB-A1	A07-001	W05103					01/29/2007 10:58

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7043331	TC-99	14133-76-7	1.52E+02	pCi/L	7.8E+00	1.6E+01		9.65E+00	100.0	TC99_ETVDSK_LS	1.266E-01	L	02/14/2007 04:30	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:
9JNLG610	B1LN29		MW6-SBB-A1	A07-001	W05103					01/29/2007 10:58

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031474	H-3	10028-17-8	1.66E+03	pCi/L	1.9E+02	2.3E+02		3.31E+02	100.0	906.0_H3_LSC	5.00E-03	L	02/10/2007 12:03	I
7031471	I-129L	15046-84-1	9.88E-02	pCi/L	1.3E-01	1.3E-01	U	2.58E-01	100.8	I129LL_SEP_LEPS	3.9656E+00	L	02/23/2007 18:22	I
7031472	TC-99	14133-76-7	1.57E+02	pCi/L	7.9E+00	1.6E+01		9.84E+00	100.0	TC99_ETVDSK_LS	1.248E-01	L	02/10/2007 04:02	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:
9JNLJG10	B1LRF1		MW6-SBB-A1	W07-001	W05103					01/29/2007 13:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031483	ALPHA	12587-46-1	3.81E+00	pCi/L	1.6E+00	1.9E+00		1.34E+00	100.0	9310_ALPHABETA	2.029E-01	L	02/22/2007 08:35	I
7031482	BETA	12587-47-2	7.13E+00	pCi/L	1.7E+00	2.3E+00		2.66E+00	100.0	9310_ALPHABETA	2.011E-01	L	02/22/2007 06:58	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:

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.

3/16/2007 1:46:40 PM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34697 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

9JNLJP10 B1LRC9 MW6-SBB-A1 W07-001 W05103 01/29/2007 12:22

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7031483	ALPHA	12587-46-1	1.75E+00	pCi/L	1.2E+00	1.3E+00		1.58E+00	100.0	9310_ALPHABETA	2.017E-01	L	02/22/2007 09:45	I
7031482	BETA	12587-47-2	5.21E+00	pCi/L	1.6E+00	1.8E+00		2.79E+00	100.0	9310_ALPHABETA	2.012E-01	L	02/22/2007 06:58	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.

Friday, March 16, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNR81AB	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/26/2007 13:12
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/26/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	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
7031474	H-3	-1.10E+02	pCi/L	1.6E+02	U	3.30E+02	100.0		906.0_H3_LSC	5.00E-03	02/09/2007				D
BLK	10028-17-8			1.3E+02						L	22:20				

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.

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Friday, March 16, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNR81DX	**Sdg/Rept Nbr:**	W05103	34697	**Collection Date:** 01/26/2007 13:12
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 01/26/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7031474	H-3	-3.31E+01	pCi/L	1.6E+02	U	3.36E+02	100.0		906.0_H3_LSC	5.00E-03	02/10/2007				D
BLK	10028-17-8			1.4E+02						L	01:04				

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

Friday, March 16, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNRH1AB	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/26/2007 10:15
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/26/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7031470	Uranium	0.00E+00	ug/L	0.0E+00	U	2.10E-01			UTOT_KPA	2.57E-02	02/28/2007				D
BLK	7440-61-1			0.0E+00						ML	14:58				

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.

Friday, March 16, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNRM1AB	**Sdg/Rept Nbr:**	W05103	34697	**Collection Date:** 01/29/2007 10:58
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 01/29/2007

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
7031471	I-129L	-4.34E-02	pCi/L	1.2E-01	U	2.22E-01	100.0		I129LL_SEP_L	3.95E+00	02/23/2007				D
BLK	15046-84-1			1.2E-01						L	18:22				

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

Friday, March 16, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNRX1AB	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/29/2007 12:44
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/29/2007

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
7031472	TC-99	-2.16E+00	pCi/L	5.9E+00	U	9.82E+00	100.0		TC99_ETVDSK	1.252E-01	02/10/2007				D
BLK	14133-76-7			4.0E+00						L	04:02				

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.

Friday, March 16, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNTG1AB	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/16/2007 11:45
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/16/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								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
7031480	BE-7	-4.10E-01	pCi/L	2.1E+01	U	3.85E+01			GAMMALL_GS	1.9994E+00	02/20/2007				D
BLK	13966-02-4			2.1E+01						L	05:11				
7031480	CO-60	1.60E+00	pCi/L	2.2E+00	U	4.91E+00			GAMMALL_GS	1.9994E+00	02/20/2007				D
BLK	10198-40-0			2.2E+00						L	05:11				
7031480	CS-134	-1.18E+00	pCi/L	2.1E+00	U	3.60E+00			GAMMALL_GS	1.9994E+00	02/20/2007				D
BLK	13967-70-9			2.1E+00						L	05:11				
7031480	CS-137	7.58E-01	pCi/L	2.1E+00	U	4.05E+00			GAMMALL_GS	1.9994E+00	02/20/2007				D
BLK	10045-97-3			2.1E+00						L	05:11				
7031480	EU-152	-1.71E+00	pCi/L	5.1E+00	U	8.90E+00			GAMMALL_GS	1.9994E+00	02/20/2007				D
BLK	14683-23-9			5.1E+00						L	05:11				
7031480	EU-154	-3.27E-01	pCi/L	6.4E+00	U	1.23E+01			GAMMALL_GS	1.9994E+00	02/20/2007				D
BLK	15585-10-1			6.4E+00						L	05:11				
7031480	EU-155	7.08E-01	pCi/L	3.5E+00	U	6.44E+00			GAMMALL_GS	1.9994E+00	02/20/2007				D
BLK	14391-16-3			3.5E+00						L	05:11				
7031480	K-40	5.50E+00	pCi/L	2.9E+01	U	6.47E+01			GAMMALL_GS	1.9994E+00	02/20/2007				D
BLK	13966-00-2			2.9E+01						L	05:11				
7031480	RU-106	-5.33E+00	pCi/L	1.6E+01	U	2.84E+01			GAMMALL_GS	1.9994E+00	02/20/2007				D
BLK	13967-48-1			1.6E+01						L	05:11				
7031480	SB-125	1.02E+00	pCi/L	4.7E+00	U	8.80E+00			GAMMALL_GS	1.9994E+00	02/20/2007				D
BLK	14234-35-6			4.7E+00						L	05:11				

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

Friday, March 16, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNTK1AB	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/26/2007 13:12
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/26/2007

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
7031481	SR-90	-2.67E-01	pCi/L	2.3E-01	U	5.46E-01	79.5		SRISO_SEP_P	9.992E-01	02/22/2007				D
BLK	10098-97-2			2.3E-01						L	07:46				

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

Friday, March 16, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNTM1AB	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/16/2007 12:45
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/16/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7031482	BETA	-6.46E-01	pCi/L	1.2E+00	U	2.74E+00	100.0		9310_ALPHAB	2.004E-01	02/22/2007				D
BLK	12587-47-2			1.2E+00						L	06:58				

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.

Friday, March 16, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNTP1AB	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/29/2007 13:11
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/29/2007

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
7031483	ALPHA	1.41E-01	pCi/L	4.2E-01	U	1.03E+00	100.0		9310_ALPHAB	2.01E-01	02/22/2007				D
BLK	12587-46-1			4.1E-01						L	09:45				

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.

Friday, March 16, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JPADV1AB	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/29/2007 10:58
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	01/29/2007

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
7043331	TC-99	-4.12E+00	pCi/L	5.9E+00	U	9.67E+00	100.0		TC99_ETVDSK	1.267E-01	02/14/2007				D
BLK	14133-76-7			3.9E+00						L	04:30				

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.

Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNR81CS	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/26/2007 13:12
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/26/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7031474	H-3	2.61E+03	pCi/L	2.7E+02		3.32E+02	100.0	2.71E+03	906.0_H3_LSC	5.00E-03	02/09/2007			70	D
BS	10028-17-8			2.2E+02				96.3		L	23:42			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.

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Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNR81EM	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/26/2007 13:12
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/26/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7031474	H-3	2.68E+03	pCi/L	2.7E+02		3.38E+02	100.0	2.71E+03	906.0_H3_LSC	5.00E-03	02/10/2007			70	D
BS	10028-17-8			2.2E+02				98.8		L	02:27			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.

Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNRH1CS	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/26/2007 10:15
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/26/2007

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
7031470	Uranium	3.32E+01	ug/L	4.0E+00		8.38E-02		3.60E+01	UTOT_KPA	2.50E-02	02/28/2007			70	D
BS	7440-61-1			4.0E+00				92.0		ML	15:02			130	

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

Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNRH1DS	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/26/2007 10:15
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/26/2007

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
7031470	Uranium	3.63E+00	ug/L	3.7E-01		8.15E-02		3.53E+00	UTOT_KPA	2.57E-02	02/28/2007			70	D
BS	7440-61-1			3.7E-01				102.7		ML	15:04			130	

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

Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNRM1CS	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/29/2007 10:58
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/29/2007

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
7031471	I-129L	8.55E+00	pCi/L	1.1E+00		2.78E-01	97.8	9.80E+00	I129LL_SEP_L	3.9155E+00	02/23/2007			70	D
BS	15046-84-1			1.1E+00				87.2		L	18:23			130	

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

Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNRX1CS	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/29/2007 12:44
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/29/2007

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
7031472	TC-99	5.35E+02	pCi/L	4.2E+01		9.83E+00	100.0	5.41E+02	TC99_ETVDSK	1.25E-01	02/10/2007			70	D
BS	14133-76-7			1.3E+01				98.9		L	04:02			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.

Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNTG1CS	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/16/2007 11:45
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/16/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								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
7031480	CO-60	4.07E+01	pCi/L	9.6E+00		5.40E+00		3.81E+01	GAMMALL_GS	2.0018E+00	02/20/2007			70	D
BS	10198-40-0			9.6E+00				106.7		L	05:11			130	
7031480	CS-137	2.45E+01	pCi/L	7.1E+00		5.24E+00		2.49E+01	GAMMALL_GS	2.0018E+00	02/20/2007			70	D
BS	10045-97-3			7.1E+00				98.1		L	05:11			130	
7031480	EU-152	6.80E+01	pCi/L	1.6E+01	U	2.57E+01		7.67E+01	GAMMALL_GS	2.0018E+00	02/20/2007			70	D
BS	14683-23-9			1.6E+01				88.7		L	05:11			130	

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

Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNTK1CS	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/26/2007 13:12
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/26/2007

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
7031481	SR-90	1.46E+01	pCi/L	2.3E+00		4.83E-01	69.8	1.35E+01	SRISO_SEP_P	9.991E-01	02/22/2007			70	D
BS	10098-97-2			9.1E-01				108.6		L	08:46			130	

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

Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNTM1CS	**Sdg/Rept Nbr:**	W05103	34697	**Collection Date:** 01/16/2007 12:45
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 01/16/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7031482	BETA	2.32E+01	pCi/L	4.2E+00		2.73E+00	100.0	2.26E+01	9310_ALPHAB	1.999E-01	02/22/2007			70	D
BS	12587-47-2			2.5E+00				102.6		L	06:58			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.

Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNNTP1CS	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/29/2007 13:11
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	01/29/2007

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
7031483	ALPHA	2.20E+01	pCi/L	5.9E+00		9.32E-01	100.0	2.23E+01	9310_ALPHAB	2.021E-01	02/22/2007			70	D
BS	12587-46-1			3.0E+00				98.6		L	09:45			130	

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

Friday, March 16, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JPADV1CS	**Sdg/Rept Nbr:**	W05103	34697	**Collection Date:** 01/29/2007 10:58
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BS**		**Received Date:** 01/29/2007

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
7043331	TC-99	5.00E+02	pCi/L	4.0E+01		9.69E+00	100.0	5.38E+02	TC99_ETVDSK	1.263E-01	02/14/2007			70	D
BS	14133-76-7			1.3E+01				93.0		L	04:30			130	

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

Friday, March 16, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNC901ER	**Sdg/Rept Nbr:**	W05103	34697	**Collection Date:** 01/16/2007 12:45
Client Id:	B1LHH5	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 01/16/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-012	MW6-SBB-A19981								AN	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
7031482	BETA	9.64E+01	pCi/L	1.3E+01		2.74E+00	100.0		9310_ALPHAB	2.012E-01	02/22/2007	7.3	0.7		D
DUP	12587-47-2	8.96E+01		4.7E+00						L	06:58	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.

Friday, March 16, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNC9Q1HR	**Sdg/Rept Nbr:**	W05103	34697	**Collection Date:** 01/16/2007 11:45
Client Id:	B1LHB1	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 01/16/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-012	MW6-SBB-A19981								AO	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
7031480	BE-7	-2.91E+00	pCi/L	2.9E+01	U	5.21E+01			GAMMALL_GS	1.9567E+00	02/20/2007	263.2	1.2		D
DUP	13966-02-4	2.13E+01		2.9E+01						L	05:06	20.0	3		
7031480	CO-60	-1.09E+00	pCi/L	2.4E+00	U	4.28E+00			GAMMALL_GS	1.9567E+00	02/20/2007	0.0	0.9		D
DUP	10198-40-0	4.63E-01		2.4E+00						L	05:06	20.0	3		
7031480	CS-134	-5.40E-01	pCi/L	2.5E+00	U	4.60E+00			GAMMALL_GS	1.9567E+00	02/20/2007	836.0	0.8		D
DUP	13967-70-9	8.79E-01		2.5E+00						L	05:06	20.0	3		
7031480	CS-137	-1.01E+00	pCi/L	2.6E+00	U	4.62E+00			GAMMALL_GS	1.9567E+00	02/20/2007	0.0	0.3		D
DUP	10045-97-3	-4.12E-01		2.6E+00						L	05:06	20.0	3		
7031480	EU-152	-6.06E-01	pCi/L	5.8E+00	U	1.05E+01			GAMMALL_GS	1.9567E+00	02/20/2007	1737.6	0.3		D
DUP	14683-23-9	7.63E-01		5.8E+00						L	05:06	20.0	3		
7031480	EU-154	7.95E+00	pCi/L	6.6E+00	U	1.58E+01			GAMMALL_GS	1.9567E+00	02/20/2007	287.9	2.		D
DUP	15585-10-1	-1.43E+00		6.6E+00						L	05:06	20.0	3		
7031480	EU-155	-2.42E+00	pCi/L	4.7E+00	U	7.83E+00			GAMMALL_GS	1.9567E+00	02/20/2007	758.7	2.		D
DUP	14391-16-3	4.15E+00		4.7E+00						L	05:06	20.0	3		
7031480	K-40	-1.82E+01	pCi/L	4.8E+01	U	1.07E+02			GAMMALL_GS	1.9567E+00	02/20/2007	0.0	0.1		D
DUP	13966-00-2	-2.12E+01		4.8E+01						L	05:06	20.0	3		
7031480	RU-106	-1.11E+01	pCi/L	2.2E+01	U	3.81E+01			GAMMALL_GS	1.9567E+00	02/20/2007	0.0	0.1		D
DUP	13967-48-1	-1.29E+01		2.2E+01						L	05:06	20.0	3		
7031480	SB-125	-1.25E+00	pCi/L	5.9E+00	U	1.04E+01			GAMMALL_GS	1.9567E+00	02/20/2007	1149.0	0.7		D
DUP	14234-35-6	1.77E+00		5.9E+00						L	05:06	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.

Friday, March 16, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNK651GR	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/26/2007 13:12
Client Id:	B1LP47	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/26/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-001	MW6-SBB-A19981								AP	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
7031474	H-3	4.51E+04	pCi/L	1.9E+03		3.31E+02	100.0		906.0_H3_LSC	5.00E-03	02/10/2007	.1	0.		D
DUP	10028-17-8	4.52E+04		7.1E+02						L	07:56	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.

Friday, March 16, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNK651HR	**Sdg/Rept Nbr:**	W05103	34697	**Collection Date:** 01/26/2007 13:12
Client Id:	B1LP47	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 01/26/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-001	MW6-SBB-A19981								AQ	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
7031481	SR-90	-1.35E-01	pCi/L	2.4E-01	U	5.46E-01	79.8		SRISO_SEP_P	9.972E-01	02/22/2007	0.0	0.2		D
DUP	10098-97-2	-1.04E-01		2.1E-01						L	07:46	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.

Friday, March 16, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNK6G1GR	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/26/2007 10:15
Client Id:	B1LN44	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/26/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
A07-001	MW6-SBB-A19981								AS	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7031470	Uranium	1.12E+00	ug/L	1.1E-01		8.12E-02			UTOT_KPA	2.58E-02	02/28/2007	.3	0.		D
DUP	7440-61-1	1.12E+00		1.1E-01						ML	15:11	20.0	3		

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J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Friday, March 16, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNLG31ER	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/29/2007 10:58
Client Id:	B1LN30	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/29/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
A07-001	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
7031471	I-129L	7.30E-03	pCi/L	1.2E-01	U	2.32E-01	93.8		I129LL_SEP_L	3.944E+00	02/23/2007	0.0	1.5		D
DUP	15046-84-1	-1.20E-01		1.2E-01						L	16:31	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.

Friday, March 16, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNLG31FR	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/29/2007 10:58
Client Id:	B1LN30	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/29/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
A07-001	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
7043331	TC-99	1.55E+02	pCi/L	1.6E+01		9.69E+00	100.0		TC99_ETVDSK	1.26E-01	02/14/2007	3.0	0.4		D
DUP	14133-76-7	1.50E+02		7.9E+00						L	04:30	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.

Friday, March 16, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNLJG1DR	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/29/2007 13:11
Client Id:	B1LRF1	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	01/29/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-001	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
7031483	ALPHA	3.03E+00	pCi/L	1.7E+00		1.75E+00	100.0		9310_ALPHAB	2.014E-01	02/22/2007	22.7	0.7		D
DUP	12587-46-1	3.81E+00		1.5E+00						L	09:45	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.

Friday, March 16, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNK6G1FW	**Sdg/Rept Nbr:**	W05103	34697	**Collection Date:** 01/26/2007 10:15
Client Id:	B1LN44	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**MS**		**Received Date:** 01/26/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
A07-001	MW6-SBB-A19981								AR	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
7031470	Uranium	3.26E+01	ug/L	4.1E+00		8.19E-02		3.52E+01	UTOT_KPA	2.56E-02	02/28/2007			60	D
MS	7440-61-1			4.1E+00				92.6		ML	15:09			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.

Friday, March 16, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05103.Edd, h:\Reportdb\edd\FeadIV\Rad\34697.Edd

Lab Sample Id:	JNLG11EW	**Sdg/Rept Nbr:**	W05103 34697	**Collection Date:**	01/29/2007 12:44
Client Id:	B1LN40	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	MS	**Received Date:**	01/29/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
A07-001	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
7031472	TC-99	3.39E+03	pCi/L	2.4E+02		9.79E+00	100.0	3.59E+03	TC99_ETVDSK	1.256E-01	02/10/2007			60	D
MS	14133-76-7			3.2E+01				94.2		L	04:02			140	

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.

FormNI	FormS	Recd	FormatTy	Versio	SampleNbr	Contract	LabCode	LabC	Case	SAS	SDGNbr
W	AA	H	FEAD	05	B1L397	MW6-SBB-A19981	STLRL				W05103
W	AB	H	FEAD	05	B1L397 DUP	MW6-SBB-A19981	STLRL				W05103
W	AC	H	FEAD	05	B1L397	MW6-SBB-A19981	STLRL				W05103
W	AD	H	FEAD	05	NA	MW6-SBB-A19981	STLRL				W05103

AnalyticalMatrix	LabReceivedDate	CollectedDate	PercentSo	Decante	LabSampleId	LabFileI	SafNbr
WATER	01/26/2007	01/26/2007			9JNK4310		
WATER	01/26/2007	01/26/2007			JNK431ER		
WATER	01/26/2007	01/26/2007			JNK43CW		
WATER	01/26/2007				JNNFQ1AC		

CollectedTime	PercentM	Filename	SpecificMat
10:13		h:\Reportdb\edd\FeadIV\Wet\W0510	
10:13		h:\Reportdb\edd\FeadIV\Wet\W0510	
10:13		h:\Reportdb\edd\FeadIV\Wet\W0510	
		h:\Reportdb\edd\FeadIV\Wet\W0510	

FormNbr	FormSuffix	RecordType	CASNbr	Isotope	Result
W	AA	D	18540-29-9	HEXCHROME	+1.75E-01
W	AB	D	18540-29-9	HEXCHROME	+1.78E-01
W	AC	D	18540-29-9	HEXCHROME	+4.33E-01
W	AD	D	18540-29-9	HEXCHROME	+5.10E-01

OrigResult	ConcentrationUr	ActionCode	AnalysisMethod	SampleAliquotS	SampleAliquotU
	mg/l	I	7196 CR6	+1.00E+02	ML
	mg/l	I	7196 CR6	+1.00E+02	ML
	mg/l	I	7196 CR6	+1.00E+02	ML
	mg/l	I	7196 CR6	+1.00E+02	ML

LabQualifier	DilutionFactor	DateAnalyzed	TimeAnalyzed	BatchNbr	QcType
	1	01/27/2007	00:00	7031392	
	1	01/27/2007	00:00	7031392	DUP
	1	01/27/2007	00:00	7031392	MS
	1	01/27/2007	00:00	7031392	BS

SpikeConc	PercentRecover	Rpd	RpdMaximum	Rpd_UCL	LCSMS_LCL
		1 7			
+2.63E-01	193.9				70

LCS_UCL	TracerYield	DetectionLimit	RL	RLType	CommentCode
		2.00E-03	2.00E-03	RDL	
		2.00E-03	2.00E-03	RDL	
		2.00E-03	2.00E-03	RDL	
130		2.00E-03	2.00E-03	RDL	

SEVERN TRENT **STL**

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/28/2007 11:05:16 AM

Lot No., Due Date: J7A250174,J7A300209,J7A300217,J7A300259; 03/02/2007,03/12/2007,03/15/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7031483; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W05103; WATER

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

6.0 Comments on any No response:
NCM 10-09496

First Level Review Pam Rucker Lisa Antonson **Date** 3/5/07

3-5-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7031483
W05103

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: 3-5-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09496
NCM Initiated By: Lisa Antonson
Date Opened: 02/28/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J7A250174 (1,2), J7A300209 (1), J7A300217 (1), J7A300259 (1,2), J7A310000 (483),
QC Batches: 7031483

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

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	02/28/2007	In this Alpha batch, the dups were slightly out at 22.81 RPD. A recount did not bring them within acceptance limits. The batch was rerun. This batch 7057264 had a low LCS recovery of 32%. A recount didn't improve the recovery. There is no more sample to rerun. Data from the original batch will be accepted.
Pam Anderson	03/05/2007	The sample and duplicate in the first analysis was within 1 CRDL and therefore, acceptable. A duplicate of another sample had been run and was also acceptable. This data was not reported.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	02/28/2007	We are investigating possible causes for QC failure.
Pam Anderson	03/05/2007	

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: 3/5/2007

STL RICHLAND

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/22/2007 10:10:55 AM

Lot No., Due Date: J7A250174,J7A300209,J7A300259; 03/02/2007,03/12/2007,03/15/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7031482; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05103; 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 => JNC9Q1AD BETA 1.8E+02 L:2.9E+00 JNC901AC BETA 9.0E+01 L:2.8E+00 JNK651AD BETA 6.8E+00 L:2.8E+00 JNLJG1AC BETA 7.1E+00 L:2.7E+00 JNLJP1AC BETA 5.2E+00 L:2.8E+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. 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 Lisa Anderson Date 2/22/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7031482
W05103

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

Comments on any "No" response: _____

Second Level Review: Sheryl A Adam Date: 2-23-07

SEVERN TRENT **STL**

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/27/2007 12:44:16 PM

Lot No., Due Date: J7A250174,J7A300209; 03/02/2007,03/12/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7031481; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W05103; WATER

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

6.0 Comments on any No response:

First Level Review Kim Anderson / Trent Lardy **Date** 2/27/07 / 2-27-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7031481
WO 3103

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: 2-28-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/20/2007 12:47:55 PM

Lot No., Due Date: J7A250174; 03/02/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7031480; RGAMMA Gamma by GER

SDG, Matrix: W05103; 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 [signature] **Date** 2/20/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7031480
W05103

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

Comments on any "No" response: _____

Second Level Review: Sheryl A. Adam Date: 2-20-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/28/2007 11:11:59 AM

Lot No., Due Date: J7A300193,J7A300209,J7A300207,J7A300249; 03/12/2007,03/15/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7031471; RGAMLEPS Gamma by LEPS

SDG, Matrix: W05103; 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 Thomas E. Michael **Date** 2/28/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7031471
W05103

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: 2-28-07

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/14/2007 11:10:40 AM

Lot No., Due Date: J7A250174,J7A300207,J7A300212,J7A300249; 03/02/2007,03/12/2007,03/15/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7031472; RTC99 Tc-99 by LSC

SDG, Matrix: W05103; 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 => JNLG11AE 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. 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. 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!			✓

NCMW / Batch 7043331

8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson Date 2-14-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 703147Z
WC5103

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: 2-20-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09442
NCM Initiated By: Pam Anderson
Date Opened: 02/14/2007
Date Closed:

Classification: **Deficiency**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Tc-99 by LSC
Lot #'s (Sample #'s): J7A300249 (2), J7B120000 (331),
QC Batches: 7043331

Nonconformance: Technician Error
Subcategory: Laboratory error: data entry/transfer

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	02/14/2007	In water batch 7031472 for Tc 99 there was no duplicate added at the time of batching. At review this was noticed and a reanalysis of a sample and a duplicate was started. The reanalysis sample and dup agree well, as did the original batch sample. Data accepted.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	02/14/2007	The batching person will be more careful.

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

SEVERN STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/14/2007 11:10:59 AM

Lot No., Due Date: J7A300249; 03/15/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7043331; RTC99 Tc-99 by LSC

SDG, Matrix: W05103; 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. 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 # 10-09442

STL RICHLAND

68

8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.3 Comments:			
8.31 Results Blank Subtracted as Appropriate. OK	Yes ✓	No	N/A

First Level Review Pam Anderson Date 2-14-07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7043331
W05103

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: Cheryl A Adam Date: 2-20-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09442
NCM Initiated By: Pam Anderson
Date Opened: 02/14/2007
Date Closed:

Classification: **Deficiency**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: Tc-99 by LSC
Lot #'s (Sample #'s): J7A300249 (2), J7B120000 (331),
QC Batches: 7043331

Nonconformance: Technician Error
Subcategory: Laboratory error: data entry/transfer

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	02/14/2007	In water batch 7031472 for Tc 99 there was no duplicate added at the time of batching. At review this was noticed and a reanalysis of a sample and a duplicate was started. The reanalysis sample and dup agree well, as did the original batch sample. Data accepted.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	02/14/2007	The batching person will be more careful.

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

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/12/2007 9:28:01 AM

Lot No., Due Date: J7A250174,J7A300209,J7A300207,J7A300249; 03/02/2007,03/12/2007,03/15/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7031474; RTRITIUM H-3 by LSC

SDG, Matrix: W05103; 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 Analysis Volume => JNC9Q1AA 5.00<10.00 JNK6G1AA 5.00<10.00 JNK651AA 5.00<10.00 JNLG11AA 5.00<10.00 JNLG31AA 5.00<10.00 JNLG61AA 5.00<10.00 Q:VB ok AL 2/12/07		✓	
8.07 The Correct Count Geometry was Used. Count Geometry => JNNR81AF SVP15/5<>SVP10/10 JNNR81AA SVP15/5<>SVP10/10 JNNR81AC SVP15/5<>SVP10/10 JNNR81AD SVP15/5<>SVP10/10 JNNR81AE SVP15/5<>SVP10/10 JNC9Q1AA SVP15/5<>SVP10/10 JNK6G1AA SVP15/5<>SVP10/10 JNK651AA SVP15/5<>SVP10/10 JNK651AG SVP15/5<>SVP10/10 JNLG11AA SVP15/5<>SVP10/10 JNLG31AA SVP15/5<>SVP10/10 JNLG61AA SVP15/5<>SVP10/10 Q:VC ok AL 2/12/07		✓	
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. OK	✓		
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. OK	✓		
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!	Yes	No	N/A ✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	Yes ✓	No	N/A
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => H-3 OK; No Callin Level Found => H-3	Yes ✓	No	N/A
8.24 Result + 3s >=0, Not Too Negative. OK	Yes ✓	No	N/A
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A ✓
8.26 Instruments have Current Calibrations.	Yes	No	N/A
8.27 Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A ✓
8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A
8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versions)	Yes	No	N/A

8.3 Comments:

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

First Level Review Angela Long **Date** 2/12/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7031474
W03103

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 Wilson Date: 2-13-07

SEVERN TRENT **STL**

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

2/28/2007 4:05:51 PM

Lot No., Due Date: J7A300207; 03/12/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7031470; RUNAT UNat by KPA

SDG, Matrix: W05103; WATER

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

6.0 Comments on any No response:

First Level Review _____ **Date** 2/28/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 703470
W05103

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: 3-1-07

SEVERN TRENT STL

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Work Order Number(s): **JNNFQ, JNK43**

Lab Sample Numbers or SDG: WC5103

Method/Test/Parameter: **Cr+6 in Water / RICH-WC-5003**

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

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

Comments on any "No" response:

Due to insufficient sample the MSD was not run as per client

Analyst: [illegible] Date: 1/31/07

Second-Level Review Cheryl R Adam Date: 2-23-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-09388**
NCM Initiated By: Steven Wheland
Date Opened: 01/31/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Classical Chemistry
Tests: 7196A
Lot #'s (Sample #'s): J7A300198 (1), J7A310000 (392),
QC Batches: 7031392

Nonconformance: Analysis Not Performed
Subcategory: Insufficient sample volume to prepare MS/MSD or duplicate

Problem Description / Root Cause

Name	Date	Description
Steven Wheland	01/31/2007	Only 125 mL of sample was received. As a result only the sample and a duplicate were run. Afterwards the remaining preparation of the sample and duplicate were combined and spiked as a MS. No MSD was run. Normally the sample is 500 mL. This was done as per client instructions.

Corrective Action

Name	Date	Corrective Action
Steven Wheland	01/31/2007	All performed QA samples were acceptable and thus report data

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

STL RICHLAND

PNNL J7A250174 W05103 Due 03.02.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-012-48**

Page 1 of 1

Collector Fluor Hanford ~~D. P. CONNOLLY~~	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, DECEMBER 2006	HNF-N-5064	**Ice Chest No.** SML-442 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol 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
B1LHB1		W	1-16-07	1145	1x20-mL P	Activity Scan	None
B1LHB1		W			1x500-mL P	9223_COLIFORM: Coliform (1)	Na2S2O3 Cool 4C
B1LHB1		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1LHB1		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1LHB1		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1LHB1		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1LHB1		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
						JNC99	
						1-16-07	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Fluor Hanford D. P. CONNOLLY		JAN 16 2007 14:15		DAVID HARBINSON		JAN 16 2007 14:15
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

PNNL J7A250174
W05103
Due 03-02-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-012-72

Page 1 of 1

Collector: Fluor Hanford D. P. CONNOLLY	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: W07-012	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, DECEMBER 2006	HNF-N-5064	Ice Chest No.: SML-442 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: 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
B1LHH5		W	1-16-07	1245	1x20-mL P	Activity Scan	None
~~B1LHH5~~		~~W~~			~~1x1000-mL P~~	~~906.0_H3_LSC: Tritium (1)~~ 12-10-06 DF	None
B1LHH5		W	1-16-07	1245	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1LHH5		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2

JNC90

1-16-07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			14:15 JAN 16 2007	DAVID HARBINSON			10:15 JAN 16 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 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

STL RICHLAND

SEVERN TRENT STL

Sample Check-in List

Date/Time Received 1/16/07 1430

Client PNL SDG # W05103 NA [ ] SAF # W07-012 NA [ ]

Work Order Number: J7A250174 Chain of Custody # W07-012-48, 72

Shipping Container ID: _____ Air Bill # _____

1 Custody Seals on shipping container intact? NA [✓] Yes [✓] No [ ]

2 Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]

3. Chain of Custody record present? Yes [✓] No [ ]

4 Cooler temperature: _____ NA [✓] 5 Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]

6 Number of samples in shipping container 2

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

8. Samples have:
_____tape
_____custody seals
_____hazard labels
✓ appropriate samples labels

9 Samples are
✓ in good condition
_____broken
_____leaking
_____have air bubbles
(Only for samples requiring head space)

10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>9 [ ]

11 Sample Location, Sample Collector Listed? *
*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) Coliform Sample wasn't run in time so tests were cancelled per attached e-mail SS - 01/25/07

Sample Custodian [signature] Date: 1/16/07 1430

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023 9/03, Rev. 5

Smith, Summer

From: Adam, Sherryl
Sent: Wednesday, January 24, 2007 10:01 AM
To: Smith, Summer
Subject: RE: pgw

Summer,
They said to cancel the tests. Please log them in. Thanks.

From: Smith, Summer
Sent: Tuesday, January 23, 2007 1:53 PM
To: Adam, Sherryl
Subject: RE: pgw

I DON'T HAVE WO NUMBERS ON SAMPLES THAT HAVEN'T BEEN LOGGED IN YET. THE COC #'S ARE W07-012-48, SAMPLE # B1LHB1 AND THE OTHER COC THAT CAME IN WITH THAT IS #W07-012-72 SAMPLE# B1LHH5. THE SECOND COC HAS NO COLIFORM SAMPLES. THANKS

From: Adam, Sherryl
Sent: Tuesday, January 23, 2007 1:47 PM
To: Smith, Summer
Subject: RE: pgw

I need some numbers. W0 #. SDG#. Something.

From: Smith, Summer
Sent: Tuesday, January 23, 2007 11:29 AM
To: Adam, Sherryl
Subject: pgw

Did we ever hear back from Dot Stewart on the Coliform that was missed on the 16th of Jan? Do you want me to log the rest of the samples in or what?

Adam, Sherryl

From: Hampt, Heidi [heidi.hampt@pnl.gov]
Sent: Wednesday, January 24, 2007 9:32 AM
To: Adam, Sherryl; Stewart, Dorothy L
Cc: Felmy, Diana
Subject: RE: IRFs
Attachments: 07-017.DOC; 07-016.DOC

Sherryl,

Here are the responses.

Heidi

From: Adam, Sherryl [mailto:SAdam@stl-inc.com]
Sent: Tuesday, January 23, 2007 3:44 PM
To: Stewart, Dorothy L
Cc: Hampt, Heidi; Felmy, Diana
Subject: IRFs

Dot,
Attached are a couple of IRFs for you to look at. Thank you.

<<IRFW05090.DOC>> <<IRFW07-012.DOC>>

Sherryl A. Adam
Project Manager
Severn Trent Laboratories Richland
(509) 375 - 3131 ext. 164

Confidentiality Notice: The information contained in this message is intended only for the use of the addressee, and may be confidential and/or privileged. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

STL RICHLAND ISSUE RESOLUTION FORM
FOR CONTRACT 615 WITH BHI/FH/PNNL

PNNL Tracking Number: 07-016
SAF No.: W07-012
Date: January 23, 2007
SDG: W05090
Sample No.(s) B1LHB1

Submitted By: Sherryl Adam

Phone No. 509-375-3131 x164
Fax No. 509-375-5590

Submitted To: **Dot Stewart (PNNL)**

Phone No. **509-376-5056**
Fax No. 509-372-1704

ISSUE	PROPOSED RESOLUTION
This sample had a coliform request on it. It was missed in sample receiving and was not given to the analyst before the holding time was up. Therefore, it was not analyzed.	Resample and reanalyze.

BHI/FH/PNNL COMMENTS -
Cancel analysis.

Heidi Hampt for Dot Stewart 1/24/07
Signature and date

PNNL J7A300193
W05103
Due 03.12.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-016-6

Page 1 of 1

Collector: Fluor Hanford R. T. SICKLE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-016	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2ZP1-LOI, DECEMBER 2006	HNF-N-506-4	Ice Chest No.: TJ-2 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
B1LK83		W	1/26/7	1139	1x20-mL P	Activity Scan	None
B1LK83		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

JNK4D

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			JAN 26 2007 1453		ERIC Durby		JAN 26 2007 1453
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: 07.26.07 1453

Client: PGW SDG #: W05103 NA [ ] SAF #: I07-016 NA [ ]

Work Order Number: J7A300193 Chain of Custody # I07-016-6

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 [✓] pH>9 [ ]

11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.

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

13. Description of anomalies (include sample numbers): _____

Sample Custodian: ED S. Smith for [illegible] Date: 07.26.07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 9/03, Rev. 5

PNNL J1A300198
W05103
Due 03.12.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-011-172

Page 1 of 1

Collector: Fluor Hanford K. B. HULSE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: S07-011	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: SURV, NOVEMBER 2006	HNF-N-506 2	Ice Chest No.: GW0-06-12 Temp.
Shipped To (Lab): ~~PNL Sigma 5~~ SEVERN TRENT Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: SURV 12RF 1-26-07	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
B1L397		W	1-26-07	1013	1x125-mL aGs*	COLOR_TK_FLD: Hexavalent Chromium (1)	None
						JNK43	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford K. B. HULSE			JAN 26 2007 1453		Eric Darby		JAN 26 2007 1453
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

STL RICHLAND

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 1/26/07 1453

Client: PNL SDG #: W05103 NA [ ] SAF #: S07-011 NA [ ]

Work Order Number: J7A300198 Chain of Custody #: S07 011-172

Shipping Container ID: _____ Air Bill # _____

1 Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]

2 Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]

3 Chain of Custody record present? Yes [✓] No [ ]

4 Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]

6 Number of samples in shipping container: 1

7 Sample holding times exceeded? NA [✓] Yes [ ] No [ ]

8. Samples have:
_____ tape
_____ custody seals
_____ hazard labels
✓ appropriate samples labels

9 Samples are:
✓ in good condition
_____ broken
_____ leaking.
_____ have air bubbles
(Only for samples requiring head space)

10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>9 [ ]

11 Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
*For documentation only. No corrective action needed

12 Were any anomalies identified in sample receipt? Yes [ ] No [✓]

13. Description of anomalies (include sample numbers). _____

Sample Custodian: Eric Darby Date: 1/26/07 1453

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023 9/03, Rev 5

STL RICHLAND

STL RICHLAND ISSUE RESOLUTION FORM
FOR CONTRACT 615 WITH BHI/FH/PNNL

PNNL Tracking Number: 07-024
SAF No.: S07-011
Date: January 31, 2007
SDG: W05090
Sample No.(s) B1L397

Submitted By: Sherryl Adam

Phone No. 509-375-3131 x164
Fax No. 509-375-5590

Submitted To: **Dot Stewart (PNNL)**

Phone No. **509-376-5056**
Fax No. 509-372-1704

ISSUE	PROPOSED RESOLUTION
We received a Cr-VI on 1/26/07. There was only about 125 mls of sample. The COC asked for COLOR_TK-FIELD: Hexavalent Chromium (1).	The sample was split to run as a sample and duplicate. It was then combined to run as a matrix spike. The sample was run by our method 7196_CR6: Hexavalent Chromium (1).

BHI/FH/PNNL COMMENTS -
Accept proposed resolution.

Heidi Hampt for Dot Stewart 1/31/07
Signature and date

Adam, Sherryl

From: Hampt, Heidi [heidi.hampt@pnl.gov]
Sent: Wednesday, January 31, 2007 10:51 AM
To: Adam, Sherryl; Stewart, Dorothy L
Cc: Felmy, Diana
Subject: RE: Chromium VI
Attachments: 07-024.DOC

Sherryl,

Response is attached.

Heidi

From: Adam, Sherryl [mailto:SAdam@stl-inc.com]
Sent: Wednesday, January 31, 2007 9:39 AM
To: Stewart, Dorothy L
Cc: Hampt, Heidi; Felmy, Diana; Thompson, Christopher J
Subject: Chromium VI

Dot,
Please see the attached IRF. Thanks.

<<IRF-S07-011.DOC>>

Sherryl A. Adam
Project Manager
Severn Trent Laboratories Richland
(509) 375 - 3131 ext. 164

Confidentiality Notice: The information contained in this message is intended only for the use of the addressee, and may be confidential and/or privileged. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

STL RICHLAND

PNNL JTA300207
W05103
Due 03/12/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A07-001-27

Collector: Fluor Hanford R. T. SICKLE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: A07-001	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: LLWMA(4)-PA, JANUARY 2007	HNF-N-506-4	Ice Chest No.: TJ-2 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: Other	Priority: 45 Days	Offsite Property No.

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
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
B1LN44		W	1/26/7	1015	1x20-mL P	Activity Scan	None
B1LN44		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LN44		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1LN44		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1LN44		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

JNK6G

Relinquished By	Date/Time	Received By	Date/Time
Fluor Hanford R. T. SICKLE (Print) (Sign) JAN 26 2007	1453	Eric Dorley (Print) Eric Dorley (Sign) JAN 26 2007	1453
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: 1/26/07 1453

Client: PNL

SDG #: W05103 NA [ ] SAF #: A07-001- NA [ ]

Work Order Number: PNL J7A300207

Chain of Custody #: A07-001-27

Shipping Container ID: _____ Air Bill # _____

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

Sample Custodian: Eric Darby Date: 1/26/07 1453

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023 9/03, Rev. 5

PNNL J7A300209
WOF103
Due 03.12.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-001-144

Page 1 of 1

Collector: Fluor Hanford R. T. SICKLE	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.: TJ-2 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
B1LP47		W	1/26/7	1312	1x20-mL P	Activity Scan	None
B1LP47		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LP47		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1LP47		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1LP47		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2

JNK65

Relinquished By	Received By
Print: Fluor Hanford R. T. SICKLE Sign: JAN 26 2007 Date/Time: 1453	Print: Eric Dailey Sign: Eric Dailey JAN 26 2007 Date/Time: 1453
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

STL RICHLAND

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 1/26/07 1453

Client: PNL SDG #: W05103 NA [ ] SAF # 507-001 NA [ ]

Work Order Number: J7A300209 Chain of Custody # 507-001-144

Shipping Container ID: _____ Air Bill # _____

1 Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]

2 Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]

3. Chain of Custody record present? Yes [✓] No [ ]

4 Cooler temperature _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]

6 Number of samples in shipping container: 1

7 Sample holding times exceeded? NA [✓] Yes [ ] No [ ]

8 Samples have:
_____ tape
_____ custody seals
_____ hazard labels
✓ appropriate samples labels

9 Samples are:
✓ in good condition
_____ broken
✓ leaking
_____ have air bubbles
(Only for samples requiring head space)

10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>9 [ ]

11 Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
*For documentation only. No corrective action needed.

12 Were any anomalies identified in sample receipt? Yes [ ] No [✓]

13. Description of anomalies (include sample numbers). _____

Sample Custodian: Eu Dooby Date: 1/26/07 1453

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023 9/03, Rev. 5

STL RICHLAND

PNNL J7A300212
W05103
Due 03/12/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-012-302**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. W07-012	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA, DECEMBER 2006	HNF-N-506-4	Ice Chest No. TJ-2 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
B1LJ73		W	1/26/7	0941	1x20-mL P	Activity Scan	None
B1LJ73		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

JNK76

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			JAN 26 2007 1453	Eric Darby	Eric Darby		JAN 26 2007 1453
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 = 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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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 1/26/07 1453

Client: PNL SDG #: W05103 NA [ ] SAF #: W07-012 NA [ ]

Work Order Number: J7A300212 Chain of Custody # W07-012-302

Shipping Container ID: _____ Air Bill # _____

1 Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]

2 Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]

3. Chain of Custody record present? Yes [✓] No [ ]

4 Cooler temperature: _____ NA [✓] 5 Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]

6 Number of samples in shipping container: 1

7 Sample holding times exceeded? NA [✓] Yes [ ] No [ ]

8 Samples have:
_____tape
_____custody seals
_____hazard labels
✓ appropriate samples labels

9 Samples are:
✓ in good condition
_____broken
_____leaking
_____have air bubbles
(Only for samples requiring head space)

10 Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>9 [ ]

11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
*For documentation only. No corrective action needed.

12 Were any anomalies identified in sample receipt? Yes [ ] No [✓]

13. Description of anomalies (include sample numbers): _____

Sample Custodian: Eric Darby Date: 1/26/07 1453

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary, process as is.

Project Manager _____ Date _____

LS-022, 9/03, Rev. 5

PNNL J7H300217
W05-103
due 03-12-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # 54
W07-012-442

Collector Fluor Hanford D. E. PARCHEN	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, DECEMBER 2006	HNF-N-506-1	**Ice Chest No.** SMC 595 **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
B1LH44		W	1-29-07	1316	1x1000-mL P	9310_ALPHABETA_GPC: Gross Alpha (1)	HNO3 to pH <2
B1LH44		W	↓	↓	1x20-mL P	Activity Scan	None
						JNK9E	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. E. PARCHEN			JAN 29 2007 1530		Eric Darby		JAN 29 2007 1530
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

98

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 1/29/07 1530 SS 01.30.07

Client: PNL SDG #: WC5103 NA [ ] SAF #: W07-~~59~~ 012-442

Work Order Number: J7A300217 Chain of Custody #: W07-~~59~~ 012 SS 01.30.07

Shipping Container ID: _____ Air Bill # _____

1 Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]

2 Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]

3 Chain of Custody record present? Yes [✓] No [ ]

4 Cooler temperature: _____ NA [✓] 5 Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]

6 Number of samples in shipping container: 1

7 Sample holding times exceeded? NA [✓] Yes [ ] No [ ]

8. Samples have:
_____tape
_____custody seals
_____hazard labels
[✓] appropriate samples labels

9 Samples are:
[✓] in good condition
_____broken
_____leaking
_____have air bubbles
(Only for samples requiring head space)

10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>9 [ ]

11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
*For documentation only. No corrective action needed.

12 Were any anomalies identified in sample receipt? Yes [ ] No [✓]

13. Description of anomalies (include sample numbers) _____

Sample Custodian: [signature] Date: 1/29/07 1530

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client informed on _____ by _____ Person contacted _____

[ ] No action necessary, process as is.

Project Manager _____ Date _____

LS-022, 9/03, Rev 5

STL RICHLAND

PNNL J7A.300249
WO5103
due 03.15.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **A07-001-21**

Page 1 of 1

Collector Fluor Hanford D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. A07-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA, JANUARY 2007	HNC-N-506-2	**Ice Chest No.** SAWS-115 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**Priority:** 45 Days	**Offsite Property No.**

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
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
B1LN40		W	1/29/07	1244	1x20-mL P	Activity Scan	None
B1LN40		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LN40		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1LN40		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JNL61	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Fluor Hanford D. P. CONNOLLY		JAN 29 2007 1421		Eric Darby		1-29-07 1425
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

STL RICHLAND

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PNNL J7A300249
W05103
Due 03-15-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **A07-001-4**

Collector Fluor Hanford D. P. CONNOLLY	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. A07-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA, JANUARY 2007	HNF-N-506-2	**Ice Chest No.** SAWJ-115 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**Priority:** 45 Days	**Offsite Property No.**

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
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
B1LN30		W	1/29/07	1038	1x20-mL P	Activity Scan	None
B1LN30		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LN30		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1LN30		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JNLG3	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			JAN 29 2007 1425		Eric Dorsey		1-29-07 1425
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 = 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

101

PNNL J7A300249
W05103
Due 03-15-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **A07-001-3**

Page 1 of 1

Collector Fluor Hanford ~~D. P. CONNOLLY~~	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. A07-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title LLWMA(4)-PA, JANUARY 2007		**Ice Chest No.** 5-AWS-115 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol Other	**Priority:** 45 Days	**Offsite Property No.**

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
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
B1LN29		W	1/29/07	1058	1x20-mL P	Activity Scan	None
B1LN29		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1LN29		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1LN29		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JNL66	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. P. CONNOLLY			JAN 29 2007 1425		ERC Dunlay		1-29-07 1425
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

STL RICHLAND

102

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 11/29/07 1425

Client: PNL SDG #: W05103 NA ( ) SAF #: A07-001 NA ( )

Work Order Number: J7A300249 Chain of Custody #: A07-001-21, 3, 4

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 (✓) Yes ( ) Dry ( )

6 Number of samples in shipping container: 3

7 Sample holding times exceeded? NA (✓) Yes ( ) No ( )

8 Samples have:
_____ tape
_____ custody seals
✓ hazard labels
_____ appropriate samples labels

9 Samples are:
✓ in good condition
_____ broken
_____ leaking
_____ have air bubbles
(Only for samples requiring head space)

10. Sample pH taken? NA ( ) pH<2 (✓) pH>2 (✓) pH>9 ( )

11 Sample Location, Sample Collector Listed? *
*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: 11/29/07 1425

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

( ) No action necessary; process as is.

Project Manager _____ Date _____

LS-023 9/03, Rev 5

PNNL J7A300259
W05103
Due 03.15.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W07-001-185

Page 1 of 1

Collector: Fluor Hanford K. B. HULSE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: W07-001	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, JANUARY 2007	HNF-N-506 3	Ice Chest No.: RUSS 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
B1LRF1		W	1-29-07	1311	1x20-mL P	Activity Scan	None
B1LRF1		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
						JNLJG	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford K. B. HULSE			JAN 29 2007 1510		Eric Darley		JAN 29 2007 1510
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

STL RICHLAND

104

PNNL JTA 300259
W05103
Due 03.15.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-001-177**

Page 1 of 1

Collector Fluor Hanford K. B. HULSE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-001	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, JANUARY 2007	HNF-N-506 3	**Ice Chest No.** Ross **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
B1LRC9		W	1-29-07	1222	1x20-mL P	Activity Scan	None
B1LRC9		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
						JNL JP	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford K. B. HULSE			JAN 29 2007 1510		Eric Dailey		JAN 29 2007 1510
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

105

STL

Sample Check-in List

Date/Time Received 1/29/07 1510

Client: PNL SDG #: W05103 NA [ ] SAF #: W07-001 NA [ ]

Work Order Number: J7A300259 Chain of Custody # W07-001, 177, 185

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 [ ]
5. Number of samples in shipping container: 2
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - ____ tape
   - ____ custody seals
   - ____ hazard labels
   - [✓] appropriate samples labels
9. Samples are:
   - [✓] in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers) _____

Sample Custodian: Eric Darby Date: 1/29/07 1510

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary, process as is.

Project Manager _____ Date _____

LS-023 9/03, Rev. 5

STL RICHLAND

2/13/2007 7:17:31 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: 335

AnalyDueDate: 03/02/2007 WC5103

Sep1 DT/Tm Tech:

Batch: 7031483 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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 JNC9Q-1-AC J7A250174-1-SAMP 01/16/2007 11:45		200.10g,in AmtRec: 20ML,2X500ML,5XLP,4LP #Containers: 9		1.5	55.1	.50	1A Scr:	0901 Alpha: -2.38E-03 uCi/Sa	2/23/07 s Beta: 1.74E-03 uCi/Sa	
2 JNC90-1-AA J7A250174-2-SAMP 01/16/2007 12:45		179.60g,in AmtRec: 20ML,LP,4LP #Containers: 3			55.3		1B Scr:	Alpha: 2.28E-07 uCi/Sa	Beta: 3.99E-07 uCi/Sa	
3 JNK65-1-AC J7A300209-1-SAMP 01/26/2007 13:12		201.60g,in AmtRec: 20ML,5XLP,2X4LP #Containers: 8			52.7		1C Scr:	Alpha: 1.46E-04 uCi/Sa	Beta: -8.39E-04 uCi/Sa	
4 JNK9E-1-AA J7A300217-1-SAMP 01/29/2007 13:16		200.20g,in AmtRec: 20ML,LP #Containers: 2			34.3		1D Scr:	Alpha: 2.52E-04 uCi/Sa	Beta: -1.71E-04 uCi/Sa	
5 JNLJG-1-AA J7A300259-1-SAMP 01/29/2007 13:11		202.90g,in AmtRec: 20ML,LP #Containers: 2			33.9		1F Scr:	Alpha: 1.05E-04 uCi/Sa	Beta: -1.67E-05 uCi/Sa	
6 JNLJG-1-AD-X J7A300259-1-DUP 01/29/2007 13:11		201.40g,in AmtRec: 20ML,LP #Containers: 2			29.6		1A Scr:	1111 Alpha: 1.05E-04 uCi/Sa	2/23/07 s Beta: -1.67E-05 uCi/Sa	
7 JNLJP-1-AA J7A300259-2-SAMP 01/29/2007 12:22		201.70g,in AmtRec: 20ML,LP #Containers: 2			33.5		1B Scr:	Alpha: -3.16E-04 uCi/Sa	Beta: 1.63E-04 uCi/Sa	

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: 7
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

2/13/2007 7:17:33 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

AnalyDueDate: 03/02/2007

Batch: 7031483 pCi/L
SEQ Batch, Test: None

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 JNNTP-1-AA-B J7A310000-483-BLK 01/29/2007 13:11	AmtRec:	201.00g,in	#Containers: 1	1.5	0.3	50	10C	1011	2/20/07 JB	Scr: Alpha: Beta:
9 JNNTP-1-AC-C J7A310000-483-LCS 01/29/2007 13:11	AmtRec:	202.10g,in	ASD4119 01/18/07,pd 02/09/06,r #Containers: 1		0.8		10D			Scr: Alpha: Beta:

Comments: JNC90-SAMP "Comments. Aliquot reduced due to weight screen activity. JB 02/13/07"

pH <2.0 JB 02-13-07

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

JNC9Q1AC-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JNNTP1AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JNNTP1AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JNC9Q1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JNNTP1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JNNTP1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

2/13/2007 7:05:51 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: 235

AnalyDueDate: 03/02/2007 WC5103

Sep1 DT/Tm Tech:

Batch: 7031482 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 7031472 FPS5, 7031474 ARS6, 7031480 AWTA, 7031481 CLTL, 7031482 BCS8, 7031483 AZS7,

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 JNC9Q-1-AD J7A250174-1-SAMP 01/16/2007 11:45		199.60g,in AmtRec: 20ML,2X500ML,5XLP,4LP #Containers: 9		1.5	68.7	100	27A Scr:	0749 Alpha: -2.38E-03 uCi/Sa	2/22/07 Beta: 1.74E-03 uCi/Sa	
2 JNC90-1-AC J7A250174-2-SAMP 01/16/2007 12:45		199.90g,in AmtRec: 20ML,LP,4LP #Containers: 3			71.5		27B Scr:	Alpha: 2.28E-07 uCi/Sa	Beta: 3.99E-07 uCi/Sa	
3 JNC90-1-AE-X J7A250174-2-DUP 01/16/2007 12:45		201.20g,in AmtRec: 20ML,LP,4LP #Containers: 3			74.7		27C Scr:	Alpha: 2.28E-07 uCi/Sa	Beta: 3.99E-07 uCi/Sa	
4 JNK65-1-AD J7A300209-1-SAMP 01/26/2007 13:12		202.30g,in AmtRec: 20ML,5XLP,2X4LP #Containers: 8			65.4		27D Scr:	Alpha: 1.46E-04 uCi/Sa	Beta: -8.39E-04 uCi/Sa	
5 JNLJG-1-AC J7A300259-1-SAMP 01/29/2007 13:11		201.10g,in AmtRec: 20ML,LP #Containers: 2			50.8		28A Scr:	Alpha: 1.05E-04 uCi/Sa	Beta: -1.67E-05 uCi/Sa	
6 JNLJP-1-AC J7A300259-2-SAMP 01/29/2007 12:22		201.20g,in AmtRec: 20ML,LP #Containers: 2			50.5		28B Scr:	Alpha: -3.16E-04 uCi/Sa	Beta: 1.63E-04 uCi/Sa	
7 JNNTM-1-AA-B J7A310000-482-BLK 01/16/2007 12:45		200.40g,in AmtRec: #Containers: 1			Ø		28C Scr:	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: 7
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

2/13/2007 7:05:56 AM

Sample Preparation/Analysis

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

Balance Id:1120482733
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,BockJ

AnalyDueDate: 03/02/2007

Batch: 7031482 pCi/L
SEQ Batch, Test: None

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 JNNTM-1-AC-C J7A310000-482-LCS 01/16/2007 12:45		199.90g,in	BESB2998 01/23/07,pd 08/08/06,r	1.5	0.7	100	28D	0749	2/13/07	

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

Comments: PH <2.0 JB 02-13-07

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

JNC9Q1AD-SAMP Constituent List:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
JNNTM1AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
JNNTM1AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JNC9Q1AD-SAMP Calc Info:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JNNTM1AA-BLK:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JNNTM1AC-LCS:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

STL RICHLAND

2/9/2007 11:18:48 AM

Sample Preparation/Analysis

Balance Id:1120482733

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 #: DRM

AnalyDueDate: 03/02/2007 W05103

Sep1 DT/Tm Tech: 2/12/07 2:37:52 PM

Batch: 7031481 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech: 2/20/07 7:50:09 AM

SEQ Batch, Test: None

Prep Tech: ,BockJ DRM

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 JNC9Q-1-AF J7A250174-1-SAMP		1003.80g,in	srtb14483 02/06/07,pd 09/11/06,r	1.622 1.9969 0.8123	1"	23.5	100	9"	0821	2/14/07	
								1A	0744	2/21/07	
								1A	0836	2/22/07	
01/16/2007 11:45		AmtRec: 20ML,2X500ML,5XLP,4LP	#Containers: 9					Scr:	Alpha: -2.38E-03 uCi/Sa	Beta: 1.74E-03 uCi/Sa	
2 JNK65-1-AF J7A300209-1-SAMP		1005.00g,in	srtb14484 02/06/07,pd 09/11/06,r	1.831 2.0241 0.9046		24.1		3"	0821	2/14/07	
								1B	0744	2/21/07	
								1B	0836	2/22/07	
01/26/2007 13:12		AmtRec: 20ML,5XLP,2X4LP	#Containers: 8					Scr:	Alpha: 1.46E-04 uCi/Sa	Beta: -8.39E-04 uCi/Sa	
3 JNK65-1-AH-X J7A300209-1-DUP		997.20g,in	srtb14485 02/06/07,pd 09/11/06,r	1.652 1.9969 0.8273		24.5		9"	0832	2/14/07	
								1C	0744	2/21/07	
								1C	0836	2/22/07	
01/26/2007 13:12		AmtRec: 20ML,5XLP,2X4LP	#Containers: 8					Scr:	Alpha: 1.46E-04 uCi/Sa	Beta: -8.39E-04 uCi/Sa	
4 JNNTK-1-AA-B J7A310000-481-BLK		999.20g,in	srtb14486 02/06/07,pd 09/11/06,r	1.691 1.9930 0.8485		23.8		3"	0853	2/14/07	
								1D	0744	2/21/07	
								1D	0836	2/22/07	
01/26/2007 13:12		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:	

STL RICHLAND

2/9/2007 11:18:51 AM

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
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,BockJ

AnalyDueDate: 03/02/2007

Batch: 7031481 pCi/L
SEQ Batch, Test: None

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 JNNTK-1-AC-C J7A310000-481-LCS		999.10g,in	srsg1315 02/06/07,pd 09/11/06,r	1.532 1.9889 0.7603	1"	23.0	100	9"	0924	2/14	
			A16984 Ex:1/3/2008					2A	0944	2/21/07	
								2A	0934	2/26/07	

01/26/2007 13:12 AmtRec: #Containers: 1 Scr: Alpha: Beta:

Comments: PH <2.0 JB 2-9-07

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

JNC9Q1AF-SAMP Constituent List:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20
JNNTK1AA-BLK:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
JNNTK1AC-LCS:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

JNC9Q1AF-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JNNTK1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JNNTK1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

2/14/2007 9:00:41 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

Pipet #:

AnalyDueDate: 03/02/2007 W05103

Sep1 DT/Tm Tech:

Batch: 7031480 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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 JNC9Q-1-AE J7A250174-1-SAMP 01/16/2007 11:45		1979.90g,in AmtRec: 20ML,2X500ML,5XLP,4LP #Containers: 9			100mL	100	64 Scr:	0648 Alpha: -2.38E-03 uCi/Sa	2/20/07 Beta: 1.74E-03 uCi/Sa	
2 JNC9Q-1-AH-X J7A250174-1-DUP 01/16/2007 11:45		1956.70g,in AmtRec: 20ML,2X500ML,5XLP,4LP #Containers: 9					65 Scr:	0647 Alpha: -2.38E-03 uCi/Sa	Beta: 1.74E-03 uCi/Sa	
3 JNC90-1-AD J7A250174-2-SAMP 01/16/2007 12:45		2000.50g,in AmtRec: 20ML,LP,4LP #Containers: 3					66 Scr:	0651 Alpha: 2.28E-07 uCi/Sa	Beta: 3.99E-07 uCi/Sa	
4 JNNTG-1-AA-B J7A310000-480-BLK 01/16/2007 11:45		1999.40g,in AmtRec: #Containers: 1					68 Scr:	0651 Alpha:	Beta:	
5 JNNTG-1-AC-C J7A310000-480-LCS 01/16/2007 11:45		2001.80g,in AmtRec: #Containers: 1	qcag1334 01/23/07,pd 03/07/05,r				67 Scr:	0651 Alpha:	Beta:	

Comments: ~~JNC90-SAMP~~ ""
pH<2.0 JB 2-14-07

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

JNC9Q1AE-SAMP Constituent List:

113

STL RICHLAND

2/22/2007 10:55:29 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: 03/12/2007 W05103

Sep1 DT/Tm Tech:

Batch: 7031471 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	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JNK4D-1-AA J7A300193-1-SAMP 01/26/2007 11:39		3917.80g,in AmtRec: 20ML,2X4LP	ITA6034 01/17/07 #Containers: 3		36.5	100	L2 Scr:	1624 Alpha: -7.51E-04 uCi/Sa	2/23/07 R Beta: 5.33E-04 uCi/Sa	
2 JNK6G-1-AC J7A300207-1-SAMP 01/26/2007 10:15		3907.70g,in AmtRec: 20ML,2X500ML,LP,2X4LP	ITA6035 01/17/07 #Containers: 6		36.5		L4 Scr:	1625 Alpha: 3.03E-04 uCi/Sa	2/23/07 R Beta: -2.88E-04 uCi/Sa	
3 JNK65-1-AE J7A300209-1-SAMP 01/26/2007 13:12		3934.00g,in AmtRec: 20ML,5XLP,2X4LP	ITA6036 01/17/07 #Containers: 8		35.6		L5 Scr:	1626 Alpha: 1.46E-04 uCi/Sa	2/23/07 R Beta: -8.39E-04 uCi/Sa	
4 JNLG1-1-AC J7A300249-1-SAMP 01/29/2007 12:44		3904.90g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA6037 01/17/07 #Containers: 5		36.2		L2 Scr:	1810 Alpha: 1.92E-03 uCi/Sa	2/23/07 R Beta: -1.31E-03 uCi/Sa	
5 JNLG3-1-AC J7A300249-2-SAMP 01/29/2007 10:58		3942.70g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA6038 01/17/07 #Containers: 5		36.8		L4 Scr:	1810 Alpha: -5.35E-04 uCi/Sa	Beta: 1.32E-03 uCi/Sa	
6 JNLG3-1-AE-X J7A300249-2-DUP 01/29/2007 10:58		3944.00g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA6039 01/17/07 #Containers: 5		34.7		L5 Scr:	1811 Alpha: -5.35E-04 uCi/Sa	Beta: 1.32E-03 uCi/Sa	
7 JNLG6-1-AC J7A300249-3-SAMP 01/29/2007 10:58		3965.60g,in AmtRec: 20ML,500ML,LP,2X4LP	ITA6040 01/17/07 #Containers: 5		37.3		L2 Scr:	2002 Alpha: -3.15E-05 uCi/Sa	Beta: -1.60E-04 uCi/Sa	

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: 7

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

2/22/2007 10:55:30 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #:

AnalyDueDate: 03/12/2007

Sep1 DT/Tm Tech:

Batch: 7031471 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:
8 JNNRM-1-AA-B J7A310000-471-BLK 01/29/2007 10:58		3950.00g,in AmtRec:	ITA6041 02/20/07 #Containers: 1		37.0	100	L4	2002 Scr:	2/23/07 OK Alpha:	Beta:
9 JNNRM-1-AC-C J7A310000-471-LCS 01/29/2007 10:58		3915.50g,in AmtRec:	ISD0729 12/20/06 #Containers: 1		39.5		L5	2003 Scr:	Alpha:	Beta:

Comments: PH - neutral QB 2-22-07

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

JNK4D1AA-SAMP Constituent List:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
JNNRM1AA-BLK:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
JNNRM1AC-LCS:
I-129 RDL:5 pCi/L LCL:70 UCL:130 RPD:20

JNK4D1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JNNRM1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JNNRM1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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STL RICHLAND

2/8/2007 2:29:29 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: 03/02/2007 W05103

Sep1 DT/Tm Tech:

Batch: 7031472 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 JNC9Q-1-AG J7A250174-1-SAMP 01/16/2007 11:45			126.80g,in	126.80g		.60				
		AmtRec: 20ML,2X500ML,5XLP,4LP	#Containers: 9				Scr:	Alpha: -2.38E-03 uCi/Sa		Beta: 1.74E-03 uCi/Sa
2 JNK6G-1-AD J7A300207-1-SAMP 01/26/2007 10:15			126.60g,in	126.60g						
		AmtRec: 20ML,2X500ML,LP,2X4LP	#Containers: 6				Scr:	Alpha: 3.03E-04 uCi/Sa		Beta: -2.88E-04 uCi/Sa
3 JNK76-1-AA J7A300212-1-SAMP 01/26/2007 09:11			127.70g,in	127.70g						
		AmtRec: 20ML,500ML	#Containers: 2				Scr:	Alpha: 1.20E-04 uCi/Sa		Beta: -8.57E-05 uCi/Sa
4 JNLG1-1-AD J7A300249-1-SAMP 01/29/2007 12:44			124.90g,in	124.90g						
		AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha: 1.92E-03 uCi/Sa		Beta: -1.31E-03 uCi/Sa
5 JNLG1-1-AE-S J7A300249-1-MS 01/29/2007 12:44			125.60g,in	125.60g	TCSG1766 01/03/07,pd 01/10/06,r					
		AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha: 1.92E-03 uCi/Sa		Beta: -1.31E-03 uCi/Sa
6 JNLG3-1-AD J7A300249-2-SAMP 01/29/2007 10:58			125.60g,in	125.60g						
		AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha: -5.35E-04 uCi/Sa		Beta: 1.32E-03 uCi/Sa
7 JNLG6-1-AD J7A300249-3-SAMP 01/29/2007 10:58			124.80g,in	124.80g						
		AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha: -3.15E-05 uCi/Sa		Beta: -1.60E-04 uCi/Sa

STL RICHLAND

2/8/2007 2:29:33 PM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 03/02/2007

Sep1 DT/Tm Tech:

Batch: 7031472 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:
8 JNNRX-1-AA-B J7A310000-472-BLK 01/29/2007 12:44			125.20g,in	125.20g		60				
		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:
9 JNNRX-1-AC-C J7A310000-472-LCS 01/29/2007 12:44			125.00g,in	125.00g	TCSE2067 01/24/07,pd 01/10/06,r					
		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:
10 JNNRX-1-AD-BN J7A310000-472-IBLK 01/29/2007 12:44										
		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:

Comments: PH 12.0 9B2-8-07

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

JNC9Q1AG-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JNLG11AE-MS:

JNNRX1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JNNRX1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JNNRX1AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
JNC9Q1AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JNLG11AE-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

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2/8/2007 2:29:38 PM

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: 03/02/2007

Batch: 7031472 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:

```
JNNRX1AA-BLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
JNNRX1AC-LCS:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
JNNRX1AD-IBLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

Approved By _____ Date: _____

STL RICHLAND

2/13/2007 9:52:42 AM

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: 03/15/2007

Sep1 DT/Tm Tech:

Batch: 7043331 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 JNLG3-1-AF-X J7A300249-2-DUP			126.00g,in	126.00g		60				
01/29/2007 10:58		AmtRec: 20ML,500ML,LP,2X4LP		#Containers: 5			Scr:	Alpha: -5.35E-04 uCi/Sa		Beta: 1.32E-03 uCi/Sa
2 JNLG3-2-AD J7A300249-2-SAMP			126.60g,in	126.60g						
01/29/2007 10:58		AmtRec: 20ML,500ML,LP,2X4LP		#Containers: 5			Scr:	Alpha: -5.35E-04 uCi/Sa		Beta: 1.32E-03 uCi/Sa
3 JPADV-1-AA-B J7B120000-331-BLK			126.70g,in	126.70g						
01/29/2007 10:58		AmtRec:		#Containers: 1			Scr:	Alpha:		Beta:
4 JPADV-1-AC-C J7B120000-331-LCS			126.30g,in	126.30g	tcse2069 01/24/07,pd 01/10/06,r					
01/29/2007 10:58		AmtRec:		#Containers: 1			Scr:	Alpha:		Beta:
5 JPADV-1-AD-BN J7B120000-331-IBLK										
01/29/2007 10:58		AmtRec:		#Containers: 1			Scr:	Alpha:		Beta:

Comments: pH < 2.0 gs 2-13-07

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

JNLG31AF-DUP 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

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1/31/2007 1:43:11 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

AnalyDueDate: 03/02/2007 W05103

Batch: 7031474 WATER pCi/L PM, Quote: SA , 57671

SEQ Batch, Test: None

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 2-9-07 Dm
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JNC9Q-1-AA J7A250174-1-SAMP 01/16/2007 11:45	AmtRec: 20ML,2X500ML,5XLP,4LP	#Containers: 9				Scr:	Alpha:	Beta:
2 JNK6G-1-AA J7A300207-1-SAMP 01/26/2007 10:15	AmtRec: 20ML,2X500ML,LP,2X4LP	#Containers: 6				Scr:	Alpha:	Beta:
3 JNK65-1-AA J7A300209-1-SAMP 01/26/2007 13:12	AmtRec: 20ML,5XLP,2X4LP	#Containers: 8				Scr:	Alpha:	Beta:
4 JNK65-1-AG-X J7A300209-1-DUP 01/26/2007 13:12	AmtRec: 20ML,5XLP,2X4LP	#Containers: 8				Scr:	Alpha:	Beta:
5 JNLG1-1-AA J7A300249-1-SAMP 01/29/2007 12:44	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha:	Beta:
6 JNLG3-1-AA J7A300249-2-SAMP 01/29/2007 10:58	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha:	Beta:
7 JNLG6-1-AA J7A300249-3-SAMP 01/29/2007 10:58	AmtRec: 20ML,500ML,LP,2X4LP	#Containers: 5				Scr:	Alpha:	Beta:

STL RICHLAND

120

STL RICHLAND

1/31/2007 1:43:13 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: J.G.O Tom
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 03/02/2007

Batch: 7031474 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 JNNR8-1-AA-B J7A310000-474-BLK 01/26/2007 13:12		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
9 JNNR8-1-AC-C J7A310000-474-LCS 01/26/2007 13:12		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
10 JNNR8-1-AD-BX J7A310000-474-MBLK 01/26/2007 13:12		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
11 JNNR8-1-AE-CM J7A310000-474-MLCS 01/26/2007 13:12		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
12 JNNR8-1-AF-BN J7A310000-474-IBLK 01/26/2007 13:12		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

JNC9Q1AA-SAMP Constituent List:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20

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Sample Preparation/Analysis

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

AnalyDueDate: 03/02/2007

Batch: 7031474 pCi/L
SEQ Batch, Test: None

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 2-9-07 Tam
Sep2 DT/Tm Tech:
Prep Tech:

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

```
JNNR81AA-BLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JNNR81AC-LCS:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
JNNR81AD-MBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JNNR81AE-MLCS:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
JNNR81AF-IBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JNC9Q1AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JNNR81AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JNNR81AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JNNR81AD-MBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JNNR81AE-MLCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JNNR81AF-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

STL RICHLAND

STL RICHLAND

2/19/2007 9:01:45 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/12/2007

Sep1 DT/Tm Tech:

Batch: 7031470 WATER ug/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 JNK6G-1-AE J7A300207-1-SAMP 01/26/2007 10:15		25.80g,in AmtRec: 20ML,2X500ML,LP,2X4LP	#Containers: 6			Scr:	Alpha: 3.03E-04 uCi/Sa	Beta: -2.88E-04 uCi/Sa
2 JNK6G-1-AF-S J7A300207-1-MS 01/26/2007 10:15		25.60g,in AmtRec: 20ML,2X500ML,LP,2X4LP	UNSF3589 02/05/07,pd 01/23/07,r #Containers: 6			Scr:	Alpha: 3.03E-04 uCi/Sa	Beta: -2.88E-04 uCi/Sa
3 JNK6G-1-AG-X J7A300207-1-DUP 01/26/2007 10:15		25.80g,in AmtRec: 20ML,2X500ML,LP,2X4LP	#Containers: 6			Scr:	Alpha: 3.03E-04 uCi/Sa	Beta: -2.88E-04 uCi/Sa
4 JNNRH-1-AA-B J7A310000-470-BLK 01/26/2007 10:15		25.70g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 JNNRH-1-AC-C J7A310000-470-LCS 01/26/2007 10:15		25.00g,in AmtRec:	UNSF3590 02/05/07,pd 01/23/07,r #Containers: 1			Scr:	Alpha:	Beta:
6 JNNRH-1-AD-C J7A310000-470-LCS 01/26/2007 10:15		25.70g,in AmtRec:	UNSC1488 01/23/07,pd 04/28/06,r #Containers: 1			Scr:	Alpha:	Beta:

STL RICHLAND

1/31/2007 11:43:41 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

AnalyDueDate: 03/12/2007

Batch: 7031392 WATER mg/L
SEQ Batch, Test: None All Tests: 7031392 88EA,

PM, Quote: SA , 57671

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

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JNK43-1-AA J7A300198-1-SAMP 01/26/2007 10:13		AmtRec: 125ML	#Containers: 1			Scr:	Alpha:	Beta:
2 JNK43-1-AC-S J7A300198-1-MS 01/26/2007 10:13		AmtRec: 125ML	#Containers: 1			Scr:	Alpha:	Beta:
3 JNK43-1-AD-X J7A300198-1-DUP 01/26/2007 10:13		AmtRec: 125ML	#Containers: 1			Scr:	Alpha:	Beta:
4 JNNFQ-1-AA-B J7A310000-392-BLK 01/26/2007 10:13		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 JNNFQ-1-AC-C J7A310000-392-LCS 01/26/2007 10:13		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

JNK431AA-SAMP Constituent List:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20

1/31/2007 11:43:48 AM

Sample Preparation/Analysis

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

AnalyDueDate: 03/12/2007

Batch: 7031392 mg/L
SEQ Batch, Test: None

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

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

```
JNK431AC-MS Constituent List:
  HEXCHROME   RDL:0.002      mg/L      LCL:85      UCL:115      RPD:20
JNNFQ1AA-BLK:
  HEXCHROME   RDL:0.002      mg/L      LCL:        UCL:         RPD:
JNNFQ1AC-LCS:
  HEXCHROME   RDL:0.002      mg/L      LCL:85      UCL:115      RPD:20
JNK431AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JNK431AC-MS Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JNNFQ1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JNNFQ1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

2/28/2007 11:03:44 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/28/2006, 3/5/2007, Batch: '7031483', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7031483						
AC		CalcC	BockJ	2/13/2007 7:06:21		
SC			andersonp	IsBatched	1/31/2007 1:46:22 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/13/2007 7:06:21 AM	RICH-RC-5014 Revision 6
SC			BockJ	Prep1C	2/13/2007 7:17:36 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	2/20/2007 11:55:14 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	Prep2C	2/21/2007 7:26:30 PM	RICH-RC-5014 REVISION 6
SC			DAWKINSO	InCnt1	2/21/2007 8:41:35 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	2/22/2007 10:27:28 AM	RICH-RD-0003 REVISION 4
SC			BlackCL	InCnt1	2/23/2007 10:41:53 AM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	2/23/2007 2:14:10 PM	RICH-RD-0003 REVISION 4
AC			BockJ	2/13/2007 7:17:36		
AC			BockJ	2/13/2007 7:23:33		
AC			AshworthA	2/20/2007 11:55:14		
AC			AshworthA	2/21/2007 7:26:30 PM		
AC			DAWKINSO	2/21/2007 8:41:35 PM		
AC			StringerR	2/22/2007 10:27:28		
AC			BlackCL	2/23/2007 10:41:53		
AC			StringerR	2/23/2007 2:14:10 PM		

AC: Accepting Entry; SC: Status Change

2/22/2007 10:09:21 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/22/2006, 2/27/2007, Batch: '7031482', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7031482						
AC		CalcC	BockJ	2/13/2007 6:58:33		
SC			andersonp	IsBatched	1/31/2007 1:46:22 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/13/2007 6:58:33 AM	RICH-RC-5014 Revision 6
SC			BockJ	Prep1C	2/13/2007 7:06:00 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	InPrep2	2/20/2007 11:55:07 AM	RICH-RC-5014 REVISION 6
SC			AshworthA	Prep2C	2/21/2007 7:26:39 PM	RICH-RC-5014 REVISION 6
SC			DAWKINSO	InCnt1	2/21/2007 8:41:27 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	2/22/2007 8:35:39 AM	RICH-RD-0003 REVISION 4
AC			BockJ	2/13/2007 7:06:00		
AC			BockJ	2/13/2007 7:23:45		
AC			AshworthA	2/20/2007 11:55:07		
AC			AshworthA	2/21/2007 7:26:39 PM		
AC			DAWKINSO	2/21/2007 8:41:27 PM		
AC			StringerR	2/22/2007 8:35:39		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

2/27/2007 12:43:10 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/27/2006, 3/4/2007, Batch: '7031481', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7031481						
AC		CalcC	BockJ	2/9/2007 11:05:36		
SC			andersonp	IsBatched	1/31/2007 1:46:22 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/9/2007 11:05:36 AM	RICH-RC-5016 Revision 6
SC			BockJ	Prep1C	2/9/2007 11:18:54 AM	RICH-RC-5016 REVISION 6
SC			ManisD	InSep1	2/12/2007 8:28:23 AM	RICH-RC-5006 REV 6
SC			ManisD	Sep1C	2/13/2007 3:16:47 PM	RICH-RC-5006 REV 6
SC			DAWKINSO	InCnt1	2/13/2007 4:36:44 PM	RICH-RD-0007 REVISION 5
SC			StringerR	Cnt1C	2/14/2007 11:23:31 AM	RICH-RD-0007 REVISION 5
SC			ManisD	Sep2C	2/20/2007 1:44:47 PM	RICH-RC-5071 REV 4
SC			BlackCL	InCnt1	2/20/2007 1:46:05 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	2/22/2007 10:04:44 AM	RICH-RD-0003 REVISION 4
AC			BockJ	2/9/2007 11:18:54		
AC			ManisD	2/12/2007 8:28:23		
AC			ManisD	2/13/2007 3:16:47 PM		
AC			DAWKINSO	2/13/2007 4:36:44 PM		
AC			StringerR	2/14/2007 11:23:31		
AC			ManisD	2/20/2007 1:44:47 PM		
AC			BlackCL	2/20/2007 1:46:05 PM		
AC			StringerR	2/22/2007 10:04:44		

AC: Accepting Entry; SC: Status Change

2/20/2007 12:47:20 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/20/2006, 2/25/2007, Batch: '7031480', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting				Comments
7031480							
AC		CalcC	BockJ	2/14/2007 8:49:57			
SC			andersonp	IsBatched	1/31/2007 1:42:48 PM	ICOC_RADC	ALC v4.8.26
SC			BockJ	InPrep	2/14/2007 8:49:57 AM	RICH-RC-	5016 Revision 6
SC			BockJ	Prep1C	2/14/2007 9:00:47 AM	RICH-RC-	5017 REVISION 5
SC			AshworthA	InPrep2	2/14/2007 11:37:33 AM	RICH-RC-	5017 REVISION 4
SC			AshworthA	Prep2C	2/19/2007 10:40:11 AM	RICH-RC-	5017 REVISION 4
SC			BlackCL	InCnt1	2/19/2007 10:42:47 AM	RICH-RD-	0007 REVISION 5
SC			BlackCL	CalcC	2/20/2007 7:05:39 AM	RICH-RD-	0007 REVISION 5
AC			BockJ	2/14/2007 9:00:47			
AC			AshworthA	2/14/2007 11:37:33			
AC			AshworthA	2/19/2007 10:40:11			
AC			BlackCL	2/19/2007 10:42:47			
AC			BlackCL	2/20/2007 7:05:39			

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

2/28/2007 11:11:14 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/28/2006, 3/5/2007, Batch: '7031471', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7031471						
AC		**CalcC**	**BockJ**	2/22/2007 10:24:58		
SC			andersonp	IsBatched	1/31/2007 1:42:48 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/22/2007 10:24:58 AM	rich-rc-5017 rEVISION 5
SC			BockJ	Prep1C	2/22/2007 10:55:37 AM	RICH-RC-5017 REVISION 5
SC			BostedD	InSep1	2/22/2007 11:11:06 AM	RICHRC5025 REV3
SC			BostedD	Sep1C	2/23/2007 2:36:29 PM	RICHRC5025 REV3
SC			StringerR	InCnt1	2/23/2007 2:39:25 PM	RICH-RD-0007 REVISION 5
SC			DAWKINSO	CalcC	2/23/2007 8:27:31 PM	RICH-RD-0007 REVISION 5
AC			**BockJ**	2/22/2007 10:55:37		
AC			**BostedD**	2/22/2007 11:11:06		
AC			**BostedD**	2/23/2007 2:36:29 PM		
AC			**StringerR**	2/23/2007 2:39:25 PM		
AC			**DAWKINSO**	2/23/2007 8:27:31 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

2/14/2007 11:02:15 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/14/2006, 2/19/2007, Batch: '7031472', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7031472						
AC		**CalcC**	**BockJ**	2/8/2007 2:18:28 PM		
SC			andersonp	IsBatched	1/31/2007 1:42:48 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/8/2007 2:18:28 PM	RICH-RC-5016 Revision 6
SC			BockJ	Prep1C	2/8/2007 2:29:56 PM	RICH-RC-5016 REVISION 6
SC			HarveyK	InSep1	2/9/2007 9:15:35 AM	RICH-RC-5065 REV5
SC			HarveyK	Sep1C	2/9/2007 11:52:54 AM	RICH-RC-5065 REV5
SC			StringerR	InCnt1	2/9/2007 11:54:08 AM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	2/11/2007 12:22:14 PM	RICH-RD-0001 REVISION 3
AC			**BockJ**	2/8/2007 2:29:56 PM		
AC			**HarveyK**	2/9/2007 9:15:35 AM		
AC			**HarveyK**	2/9/2007 11:52:54		
AC			**StringerR**	2/9/2007 11:54:08		
AC			**StringerR**	2/11/2007 12:22:14		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.26

STL RICHLAND

2/14/2007 11:02:43 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/14/2006, 2/19/2007, Batch: '7043331', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting				Comments
7043331							
AC		CalcC	BockJ	2/13/2007 9:47:01			
SC			andersonp	IsBatched	2/12/2007 11:22:47 AM	ICOC_RADCALC v4.8.26	
SC			BockJ	InPrep	2/13/2007 9:47:01 AM	RICH-RC-5014 Revision 6	
SC			BockJ	Prep1C	2/13/2007 9:52:46 AM	RICH-RC-5016 REVISION 6	
SC			FABREM	Sep1C	2/13/2007 4:50:33 PM	RICH-RC-5065 REVISION 5	
SC			DAWKINSO	InCnt1	2/13/2007 5:28:12 PM	RICH-RD-0001 REVISION 3	
SC			StringerR	CalcC	2/14/2007 9:17:47 AM	RICH-RD-0001 REVISION 3	
AC			BockJ	2/13/2007 9:52:46			
AC			FABREM	2/13/2007 4:50:33 PM			
AC			DAWKINSO	2/13/2007 5:28:12 PM			
AC			StringerR	2/14/2007 9:17:47			

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26

2/12/2007 9:27:40 AM

ICOC Fraction Transfer/Status Report

ByDate: 2/12/2006, 2/17/2007, Batch: '7031474', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7031474						
AC		**CalcC**	**McDowellD**	2/8/2007 4:14:08 PM		
SC			andersonp	IsBatched	1/31/2007 1:42:48 PM	ICOC_RADCALC v4.8.26
SC			McDowellD	InSep1	2/8/2007 4:14:08 PM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	2/9/2007 2:31:44 PM	RICH-RC-5007 REVISION 6
SC			StringerR	InCnt1	2/9/2007 2:43:00 PM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	2/11/2007 12:40:20 PM	RICH-RD-0001 REVISION 3
AC			**McDowellD**	2/9/2007 2:31:44 PM		
AC			**StringerR**	2/9/2007 2:43:00 PM		
AC			**StringerR**	2/11/2007 12:40:20		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.26

STL RICHLAND

2/28/2007 4:05:03 PM

ICOC Fraction Transfer/Status Report

ByDate: 2/28/2006, 3/5/2007, Batch: '7031470', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7031470						
AC		Cnt1C	BockJ	2/8/2007 1:51:53 PM		
SC			andersonp	IsBatched	1/31/2007 1:42:48 PM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	2/8/2007 1:51:53 PM	rich-rc-5015 rEVISION 4
SC			BockJ	Prep1C	2/8/2007 1:57:12 PM	RICH-RC-5015 REVISION 4
SC			AshworthA	InPrep2	2/21/2007 1:27:39 PM	RICH-RC-5015 REVISION 4
SC			AshworthA	Prep2C	2/22/2007 2:47:30 PM	RICH-RC-5015 REVISION 4
SC			AntonsonL	Prep2C	2/22/2007 2:48:00 PM	RICH-RC-5015 REVISION 4
SC			NelsonT	Cnt1C	2/28/2007 3:26:46 PM	RICH-RC-5058 REV 7
AC			BockJ	2/8/2007 1:57:12 PM		
AC			BockJ	2/8/2007 1:57:24 PM		
AC			AshworthA	2/21/2007 1:27:39 PM		
AC			AshworthA	2/22/2007 2:47:30 PM		
AC			AntonsonL	2/22/2007 2:48:00 PM		
AC			NelsonT	2/28/2007 3:26:46 PM		

AC: Accepting Entry, SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.26

STL RICHLAND

SEVERN TRENT STL

STL Richland
Hexavalent Chromium - Water

Analyst:	S. Wheland	Calibration Curve Information				SOP Information		BATCH #	7031392
Start Date:	1/27/2007		Amount	Conc.(mg/L)	ABS.	RICH-WC-5003		SDG #	
Start Time:	7:15	Blank	0.000	0.000	0.000	Revision 7		Matrix	Water
End Date:	1/27/2007	Std. 1	0.100	0.050	0.094				
End Time	8:30	Std. 2	0.500	0.250	0.470			Instrument Information	
		Std. 3	0.750	0.375	0.702	MDL (mg/L)	0.002	Instrument:	Hach DR2010
Analyst Signature:		Std. 4	1.500	0.750	1.383			Wavelength:	540
		Std 5	2.000	1.000	1.822			R Squared	0.99986
Date:	01/29/07	Standard Volume (mL):			100.000			Slope:	1.82441
		Date of Curve:			1/27/2007			Intercept:	0.00780

		Calibration Information:	ICV Information:		LCS Information:		Matrix Spike Information:	
Dilution ID #		Cr-07-0007	Cr-0008		Cr-07-0007		Cr-07-0007	
Prep Date:		01/27/07	01/27/07		01/27/07		01/27/07	
Concentration (mg/L)		50	50		50		50	
Expiration Date:		01/28/07	01/28/07		01/28/07		01/28/07	
Pipettor(s)		70,190	190		190		190	
Volume Used (	Expected Value		1.000	0.50000	1.00	0.50000	0.50	0.26316

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

Sample ID	Client ID	Type	Sample Volume (mL)	Sample ABS.	Blank ABS.	Corrected ABS.	Dilution Factor	Curve Conc. (mg/L)	Final Conc. (mg/L)	% Rec.
n/a	n/a	ICV	100.000	0.937	0.000	0.937	1	0.5093	0.509	101.86%
n/a	n/a	ICB	100.000	0.003	0.000	0.003	1	-0.0026	<MDL	
JNNFQ-1AA-B	n/a	Prep Blank	100.000	0.002		0.002	1	-0.0032	<MDL	
JNNFQ-1AC-C	n/a	LCS	100.000	0.939		0.939	1	0.5104	0.510	102.08%
JNK43-1AA	B1L397	Sample	100.000	0.327		0.327	1	0.1750	0.175	
JNK43-1AC-S	B1L397-MS	MS	100.000	0.798		0.798	1	0.4331	0.433	98.10%
JNK43-1AD-D	B1L397-MSD	MSD	100.000				1			
JNK43-1AE-X	B1L397-DUP	Duplicate	100.000	0.332		0.332	1	0.1777	0.178	
			100.000				1			
			100.000				1			
			100.000				1			
n/a	n/a	CCV	100.000	0.941		0.941	1	0.5115	0.512	102.30%
n/a	n/a	CCB	100.000	0.006		0.006	1	-0.0010	<MDL	
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			
			100.000				1			