STL RICHLAND

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Analytical Data Package Prepared For

Fluor Handord

Radiochemical Analysis By

TAL Richland STLRL

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

Data Package Contains _____ Pages

Report Nbr: 35979

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05179	I07-044	B1N2Y2	J7E290177-1	JXWPQ1AC	9JXWPQ10	7159329
		B1N2Y2	J7E290177-1	JXWPQ2AD	9JXWPQ20	7180303
		B1N341	J7E290177-2	JXWPW2AC	9JXWPW20	7180303
		B1N336	J7E290177-3	JXWQE1AC	9JXWQE10	7159329
		B1N331	J7E290182-1	JXWQ51AC	9JXWQ510	7159329
		B1N331	J7E290182-1	JXWQ52AD	9JXWQ520	7180303
		B1N2X7	J7E290182-3	JXWT11AC	9JXWT110	7159329
		B1N2X7	J7E290182-3	JXWT12AD	9JXWT120	7180303
		B1N2Y7	J7E290182-4	JXWT21AC	9JXWT210	7159329
		B1N2Y7	J7E290182-4	JXWT22AD	9JXWT220	7180303
		B1N2V7	J7E290182-5	JXWT41AC	9JXWT410	7159329
		B1N2V7	J7E290182-5	JXWT42AD	9JXWT420	7180303
	G07-005	B1N238	J7E310192-1	JX1621AA	9JX16210	7159328
		B1N237	J7E310192-2	JX17H1AA	9JX17H10	7159328
		B1N225	J7E310192-3	JX17J1AA	9JX17J10	7159328

Comments:

0077293

Report Nbr: 35979

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05179	G07-005	B1N236	J7E310192-4	JX2H81AA	9JX2H810	7159328
	W07-005	B1N5Y6	J7E310328-1	JX3DP1AA	9JX3DP10	7159339
		B1N5Y6	J7E310328-1	JX3DP1AC	9JX3DP10	7159338
		B1N5Y6	J7E310328-1	JX3DP1AE	9JX3DP10	7159337
		B1N5Y6	J7E310328-1	JX3DP2AD	9JX3DP20	7180303
	S07-005	B1N3W7	J7F040169-1	JX8E81AC	9JX8E810	7159337
		B1N3W8	J7F040169-2	JX8JP1AC	9JX8JP10	7159337
	I07-044	B1N326	J7F040202-1	JX8RM1AA	9JX8RM10	7159329
		B1N326	J7F040202-1	JX8RM2AC	9JX8RM20	7180303
	I07-042	B1N2L9	J7F050213-1	J0AP61AA	9J0AP610	7159328
		B1N2L9	J7F050213-1	J0AP61AC	9J0AP610	7159329

Comments:

SEVERN TRENT STL

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Richland, WA 99354

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Certificate of Analysis

Fluor Hanford
1200 Jadwin Ave.
Richland, WA 99352

July 20, 2007

Attention: Steve Trent

SAF Number	:	I07-044, G07-005, W07-005, S07-005, I07-043, I07-042
Date SDG Closed	:	June 4, 2007
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05179
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between May 24, 2007 and June 4, 2007 twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	DATE OF RECEIPT	MATRIX
B1N2Y2	JXWPQ	5/24/07	WATER
B1N341	JXWPW	5/24/07	WATER
B1N336	JXWQE	5/24/07	WATER
B1N331	JXWQ5	5/24/07	WATER
B1N362	JXWRJ	5/24/07	WATER
B1N2X7	JXWT1	5/24/07	WATER
B1N2Y7	JXWT2	5/24/07	WATER
B1N2V7	JXWT4	5/24/07	WATER
B1N238	JX162	5/30/07	WATER
B1N237	JX17H	5/30/07	WATER
B1N225	JX17J	5/30/07	WATER
B1N236	JX2H8	5/30/07	WATER
B1N5Y6	JX3DP	5/31/07	WATER

B1N3W7	JX8E8	6/01/07	WATER
B1N3W8	JX8JP	6/01/07	WATER
B1N2M1	JX8M7	6/01/07	WATER
B1N2M7	JX8NH	6/01/07	WATER
B1N2M2	JX8NP	6/01/07	WATER
B1N326	JX8RM	6/01/07	WATER
B1N2L9	J0AP6	6/04/07	WATER

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Gas Proportional Counting
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 Counter
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
Total Uranium
Total Uranium by method RICH-RC-5058

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Beta by method RICH-RC-5014:

Samples B1N238 and B1N238 (DUP) were analyzed with reduced aliquots due to high weight screens. Sample B1N238 did not meet the CRDL due to the reduced aliquot size. The result exceeded the MDA achieved. Except as noted, the LCS, batch blank, sample and sample duplicate (B1N238) results are within contractual requirements.

Strontium 90 by method RICH-RC-5006:

The LCS, batch blank, sample and sample duplicate (B1N2Y2) results are within contractual requirements.

Gamma Spectroscopy

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

The LCS, batch blank, sample and sample duplicate (B1N5Y6) results are within contractual requirements.

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

The LCS, batch blank, sample and sample duplicate (B1N5Y6) results are within contractual requirements.

Liquid Scintillation Counter

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

The original results could not be calculated due to the TSIE being outside of acceptable limits. The samples were agitated and submitted for a recount. The reanalysis results were acceptable.
The LCS, batch blank, samples, sample duplicate (B1N326), and sample matrix spike (B1N5Y6) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, sample and sample duplicate (B1N5Y6) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1N3W7), and sample matrix spike (B1N3W8) results are within contractual requirements.

Pacific Northwest National Laboratories
July 20, 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:

Sandra Segen

Sherryl A. Adam
for 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.

7/20/2007 9:53:51 AM

TAL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35979 File Name: h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.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:
9J0AP610	B1N2L9		MW6-SBB-A1	I07-042	W05179					06/04/2007 10:49

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159328	BETA	12587-47-2	4.18E+02	pCi/L	9.4E+00	5.5E+01		2.76E+00	100.0	9310_ALPHABETA	1.984E-01	L	07/16/2007 11:23	I
7159329	SR-90	10098-97-2	2.21E+02	pCi/L	3.1E+00	3.3E+01		4.09E-01	78.8	SRISO_SEP_PRE	1.0025E+00	L	07/07/2007 11:04	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:
9JX16210	B1N238		MW6-SBB-A1	G07-005	W05179					05/30/2007 09:22

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159328	BETA	12587-47-2	2.47E+03	pCi/L	2.7E+01	3.2E+02		4.19E+00	100.0	9310_ALPHABETA	1.438E-01	L	07/16/2007 11:23	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JX17H10	B1N237		MW6-SBB-A1	G07-005	W05179					05/30/2007 09:22

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159328	BETA	12587-47-2	2.63E+03	pCi/L	2.4E+01	3.3E+02		2.74E+00	100.0	9310_ALPHABETA	2.001E-01	L	07/16/2007 11:23	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JX17J10	B1N225		MW6-SBB-A1	G07-005	W05179					05/30/2007 09:59

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159328	BETA	12587-47-2	5.10E+02	pCi/L	1.0E+01	6.6E+01		2.66E+00	100.0	9310_ALPHABETA	1.969E-01	L	07/16/2007 11:23	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JX2H810	B1N236		MW6-SBB-A1	G07-005	W05179					05/30/2007 13:09

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159328	BETA	12587-47-2	6.88E+00	pCi/L	1.7E+00	1.9E+00		2.62E+00	100.0	9310_ALPHABETA	1.99E-01	L	07/16/2007 11:23	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JX3DP10	B1N5Y6		MW6-SBB-A1	W07-005	W05179					05/31/2007 11:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159339	H-3	10028-17-8	6.93E+03	pCi/L	3.4E+02	4.2E+02		3.64E+02	100.0	906.0_H3_LSC	5.00E-03	L	06/22/2007 13:21	I
7159338	BE-7	13966-02-4	1.79E+00	pCi/L	3.1E+01	3.1E+01	U	5.56E+01		GAMMALL_GS	1.9754E+00	L	07/13/2007 13:15	I
7159338	CO-60	10198-40-0	2.75E+01	pCi/L	7.8E+00	7.8E+00		5.68E+00		GAMMALL_GS	1.9754E+00	L	07/13/2007 13:15	I
7159338	CS-134	13967-70-9	-1.35E+00	pCi/L	3.1E+00	3.1E+00	U	5.47E+00		GAMMALL_GS	1.9754E+00	L	07/13/2007 13:15	I
7159338	CS-137	10045-97-3	3.77E-01	pCi/L	2.9E+00	2.9E+00	U	5.32E+00		GAMMALL_GS	1.9754E+00	L	07/13/2007 13:15	I

TAL 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.

7/20/2007 9:53:51 AM

TAL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35979 File Name: h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

7159338	EU-152	14683-23-9	-2.13E+00	pCi/L	6.9E+00	6.9E+00	U	1.21E+01	GAMMALL_GS	1.9754E+00	L	07/13/2007	13:15	I
7159338	EU-154	15585-10-1	-2.53E-02	pCi/L	6.3E+00	6.3E+00	U	1.24E+01	GAMMALL_GS	1.9754E+00	L	07/13/2007	13:15	I
7159338	EU-155	14391-16-3	1.42E+00	pCi/L	5.2E+00	5.2E+00	U	9.43E+00	GAMMALL_GS	1.9754E+00	L	07/13/2007	13:15	I
7159338	K-40	13966-00-2	-1.90E+01	pCi/L	6.2E+01	6.2E+01	U	1.36E+02	GAMMALL_GS	1.9754E+00	L	07/13/2007	13:15	I
7159338	RU-106	13967-48-1	-1.43E+01	pCi/L	2.5E+01	2.5E+01	U	4.29E+01	GAMMALL_GS	1.9754E+00	L	07/13/2007	13:15	I
7159338	SB-125	14234-35-6	3.85E+00	pCi/L	6.7E+00	6.7E+00	U	1.28E+01	GAMMALL_GS	1.9754E+00	L	07/13/2007	13:15	I
7159337	Uranium	7440-61-1	7.84E+02	ug/L	9.2E+01	9.2E+01		8.03E-02	UTOT_KPA	2.61E-02	ML	07/16/2007	09:11	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:
9JX3DP20	B1N5Y6		MW6-SBB-A1	W07-005	W05179					05/31/2007 11:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7180303	TC-99	14133-76-7	6.71E+03	pCi/L	4.4E+01	4.1E+02		9.64E+00	100.0	TC99_ETVDSK_LS	1.247E-01	L	06/30/2007 07:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JX8E810	B1N3W7		MW6-SBB-A1	S07-005	W05179					06/01/2007 12:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159337	Uranium	7440-61-1	3.10E+01	ug/L	3.6E+00	3.6E+00		8.19E-02		UTOT_KPA	2.56E-02	ML	07/16/2007 09:13	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JX8JP10	B1N3W8		MW6-SBB-A1	S07-005	W05179					06/01/2007 12:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159337	Uranium	7440-61-1	3.05E+01	ug/L	3.6E+00	3.6E+00		8.42E-02		UTOT_KPA	2.49E-02	ML	07/16/2007 09:17	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:
9JX8RM10	B1N326		MW6-SBB-A1	I07-044	W05179					06/01/2007 12:43

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159329	SR-90	10098-97-2	1.79E-01	pCi/L	1.7E-01	1.8E-01	U	3.70E-01	81.4	SRISO_SEP_PRE	1.0063E+00	L	07/07/2007 11:04	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:
9JX8RM20	B1N326		MW6-SBB-A1	I07-044	W05179					06/01/2007 12:43

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7180303	TC-99	14133-76-7	1.50E+02	pCi/L	7.6E+00	1.4E+01		9.55E+00	100.0	TC99_ETVDSK_LS	1.257E-01	L	06/30/2007 07:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:

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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.

TAL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 35979 File Name: h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

9JXWPQ10 B1N2Y2 MW6-SBB-A1 I07-044 W05179 05/24/2007 09:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159329	SR-90	10098-97-2	-2.81E-02	pCi/L	2.0E-01	2.0E-01	U	4.53E-01	76.6	SRISO_SEP_PRE	1.0032E+00	L	07/07/2007 11:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JXWPQ20	B1N2Y2		MW6-SBB-A1	I07-044	W05179					05/24/2007 09:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7180303	TC-99	14133-76-7	3.27E+01	pCi/L	5.0E+00	7.2E+00		9.61E+00	100.0	TC99_ETVDSK_LS	1.251E-01	L	06/30/2007 07:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JXWPW20	B1N341		MW6-SBB-A1	I07-044	W05179					05/24/2007 11:31

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7180303	TC-99	14133-76-7	6.63E+01	pCi/L	5.9E+00	9.2E+00		9.59E+00	100.0	TC99_ETVDSK_LS	1.254E-01	L	06/30/2007 07:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JXWQ510	B1N331		MW6-SBB-A1	I07-044	W05179					05/24/2007 09:17

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159329	SR-90	10098-97-2	0.00E+00	pCi/L	1.9E-01	1.9E-01	U	4.22E-01	81.8	SRISO_SEP_PRE	1.0029E+00	L	07/07/2007 11:08	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:
9JXWQ520	B1N331		MW6-SBB-A1	I07-044	W05179					05/24/2007 09:17

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7180303	TC-99	14133-76-7	1.28E+02	pCi/L	7.2E+00	1.3E+01		9.46E+00	100.0	TC99_ETVDSK_LS	1.268E-01	L	06/30/2007 07:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JXWQE10	B1N336		MW6-SBB-A1	I07-044	W05179					05/24/2007 10:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159329	SR-90	10098-97-2	-8.17E-02	pCi/L	1.8E-01	1.8E-01	U	4.34E-01	78.8	SRISO_SEP_PRE	1.003E+00	L	07/07/2007 11:08	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:
9JXWT110	B1N2X7		MW6-SBB-A1	I07-044	W05179					05/24/2007 11:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159329	SR-90	10098-97-2	3.76E-02	pCi/L	1.5E-01	1.8E-01	U	3.96E-01	76.7	SRISO_SEP_PRE	1.0038E+00	L	07/07/2007 11:08	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.

7/20/2007 9:53:51 AM

TAL Richland Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 35979 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.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:
9JXWT120	B1N2X7		MW6-SBB-A1	I07-044	W05179					05/24/2007 11:27

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7180303	TC-99	14133-76-7	9.27E+01	pCi/L	6.5E+00	1.1E+01		9.60E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	06/30/2007 07:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JXWT210	B1N2Y7		MW6-SBB-A1	I07-044	W05179					05/24/2007 08:46

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159329	SR-90	10098-97-2	-1.20E-01	pCi/L	1.5E-01	1.5E-01	U	3.71E-01	88.0	SRISO_SEP_PRE	1.0061E+00	L	07/07/2007 11:08	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:
9JXWT220	B1N2Y7		MW6-SBB-A1	I07-044	W05179					05/24/2007 08:46

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7180303	TC-99	14133-76-7	1.36E+02	pCi/L	7.4E+00	1.3E+01		9.57E+00	100.0	TC99_ETVDSK_LS	1.255E-01	L	06/30/2007 07:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9JXWT410	B1N2V7		MW6-SBB-A1	I07-044	W05179					05/24/2007 13:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7159329	SR-90	10098-97-2	-2.80E-02	pCi/L	1.7E-01	1.9E-01	U	4.36E-01	76.7	SRISO_SEP_PRE	1.0061E+00	L	07/07/2007 11:04	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:
9JXWT420	B1N2V7		MW6-SBB-A1	I07-044	W05179					05/24/2007 13:57

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7180303	TC-99	14133-76-7	2.13E+01	pCi/L	4.7E+00	6.6E+00		9.63E+00	100.0	TC99_ETVDSK_LS	1.247E-01	L	06/30/2007 07:39	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, July 20, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: J0K9F1AB **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 05/30/2007 09:22

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 05/30/2007

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
7159328	BETA	2.17E+00	pCi/L	1.3E+00	U	2.46E+00	100.0		9310_ALPHAB	1.978E-01	07/16/2007				D
BLK	12587-47-2			1.3E+00						L	11:23				

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, July 20, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id:	J0K9L1AB	**Sdg/Rept Nbr:**	W05179	35979	**Collection Date:** 05/24/2007 09:30
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 05/24/2007

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
7159329	SR-90	-1.73E-01	pCi/L	1.8E-01	U	4.55E-01	80.2		SRISO_SEP_P	9.989E-01	07/07/2007				D
BLK	10098-97-2			1.8E-01						L	11:10				

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, July 20, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id:	J0K9R2AB	**Sdg/Rept Nbr:**	W05179	35979	**Collection Date:** 06/01/2007 12:43
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 06/01/2007

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
7180303	TC-99	1.16E+00	pCi/L	5.2E+00	U	9.38E+00	100.0		TC99_ETVDSK	1.281E-01	06/30/2007				D
BLK	14133-76-7			3.9E+00						L	07:40				

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, July 20, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id:	J0LAK1AB	**Sdg/Rept Nbr:**	W05179 35979	**Collection Date:**	06/01/2007 12:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	06/01/2007

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
7159337	Uranium	-2.89E-02	ug/L	7.8E-03	U	8.25E-02			UTOT_KPA	2.54E-02	07/16/2007				D
BLK	7440-61-1			7.8E-03						ML	08:59				

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

Friday, July 20, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: J0LAP1AB **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 05/31/2007 11:00

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 05/31/2007

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
7159338	BE-7	8.65E+00	pCi/L	1.8E+01	U	3.53E+01			GAMMALL_GS	1.995E+00	07/13/2007				D
BLK	13966-02-4			1.8E+01						L	14:07				
7159338	CO-60	1.08E-01	pCi/L	2.0E+00	U	3.86E+00			GAMMALL_GS	1.995E+00	07/13/2007				D
BLK	10198-40-0			2.0E+00						L	14:07				
7159338	CS-134	-4.76E-01	pCi/L	1.5E+00	U	2.77E+00			GAMMALL_GS	1.995E+00	07/13/2007				D
BLK	13967-70-9			1.5E+00						L	14:07				
7159338	CS-137	8.26E-01	pCi/L	1.6E+00	U	3.06E+00			GAMMALL_GS	1.995E+00	07/13/2007				D
BLK	10045-97-3			1.6E+00						L	14:07				
7159338	EU-152	-1.20E+00	pCi/L	3.7E+00	U	6.32E+00			GAMMALL_GS	1.995E+00	07/13/2007				D
BLK	14683-23-9			3.7E+00						L	14:07				
7159338	EU-154	-5.13E-01	pCi/L	3.4E+00	U	6.82E+00			GAMMALL_GS	1.995E+00	07/13/2007				D
BLK	15585-10-1			3.4E+00						L	14:07				
7159338	EU-155	2.22E-01	pCi/L	2.9E+00	U	5.34E+00			GAMMALL_GS	1.995E+00	07/13/2007				D
BLK	14391-16-3			2.9E+00						L	14:07				
7159338	K-40	1.69E+00	pCi/L	3.4E+01	U	7.50E+01			GAMMALL_GS	1.995E+00	07/13/2007				D
BLK	13966-00-2			3.4E+01						L	14:07				
7159338	RU-106	-9.90E+00	pCi/L	1.4E+01	U	2.37E+01			GAMMALL_GS	1.995E+00	07/13/2007				D
BLK	13967-48-1			1.4E+01						L	14:07				
7159338	SB-125	2.24E-01	pCi/L	4.1E+00	U	7.46E+00			GAMMALL_GS	1.995E+00	07/13/2007				D
BLK	14234-35-6			4.1E+00						L	14:07				

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

Friday, July 20, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id:	J0LAX1AB	**Sdg/Rept Nbr:**	W05179 35979	**Collection Date:**	05/31/2007 11:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	05/31/2007

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
7159339	H-3	-1.78E+02	pCi/L	1.5E+02	U	3.63E+02	100.0		906.0_H3_LSC	5.00E-03	06/22/2007				D
BLK	10028-17-8			1.4E+02						L	07:51				

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, July 20, 2007

TAL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id:	J0LAX1DX	**Sdg/Rept Nbr:**	W05179 35979	**Collection Date:**	05/31/2007 11:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	05/31/2007

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
7159339	H-3	-7.36E+01	pCi/L	1.6E+02	U	3.82E+02	100.0		906.0_H3_LSC	5.00E-03	06/22/2007				D
BLK	10028-17-8			1.5E+02						L	10:36				

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, July 20, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: J0K9F1CS **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 05/30/2007 09:22
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/30/2007

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
7159328	BETA	2.13E+01	pCi/L	3.6E+00		2.51E+00	100.0	2.28E+01	9310_ALPHAB	1.989E-01	07/16/2007			70	D
BS	12587-47-2			2.3E+00				93.4		L	11:23			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, July 20, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id:	J0K9L1CS	**Sdg/Rept Nbr:**	W05179 35979	**Collection Date:**	05/24/2007 09:30
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	05/24/2007

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
7159329	SR-90	1.64E+01	pCi/L	2.6E+00		4.76E-01	69.8	1.38E+01	SRISO_SEP_P	9.987E-01	07/07/2007			70	D
BS	10098-97-2			9.3E-01				118.3		L	11:10			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, July 20, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: J0K9R2CS **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 06/01/2007 12:43

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/01/2007

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
7180303	TC-99	5.32E+02	pCi/L	3.7E+01		9.67E+00	100.0	5.50E+02	TC99_ETVDSK	1.241E-01	06/30/2007			75	D
BS	14133-76-7			1.3E+01				96.8		L	07:40			125	

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, July 20, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: J0LAK1CS **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 06/01/2007 12:00

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/01/2007

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
7159337	Uranium	3.67E+01	ug/L	4.3E+00		8.38E-02		3.61E+01	UTOT_KPA	2.50E-02	07/16/2007			70	D
BS	7440-61-1			4.3E+00				101.9		ML	09:04			130	

TAL 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, July 20, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: J0LAK1DS **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 06/01/2007 12:00

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 06/01/2007

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
7159337	Uranium	3.56E+00	ug/L	3.6E-01		8.32E-02		3.57E+00	UTOT_KPA	2.52E-02	07/16/2007			70	D
BS	7440-61-1			3.6E-01				99.6		ML	09:06			130	

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

Friday, July 20, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: J0LAP1CS **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 05/31/2007 11:00

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/31/2007

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
7159338	CO-60	4.06E+01	pCi/L	9.7E+00		7.48E+00		3.86E+01	GAMMALL_GS	1.9993E+00	07/13/2007			75	D
BS	10198-40-0			9.7E+00				105.2		L	14:07			125	
7159338	CS-137	2.49E+01	pCi/L	5.7E+00		5.35E+00		2.46E+01	GAMMALL_GS	1.9993E+00	07/13/2007			70	D
BS	10045-97-3			5.7E+00				101.4		L	14:07			130	
7159338	EU-152	7.14E+01	pCi/L	1.8E+01		1.14E+01		7.74E+01	GAMMALL_GS	1.9993E+00	07/13/2007			70	D
BS	14683-23-9			1.8E+01				92.2		L	14:07			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, July 20, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: J0LAX1CS **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 05/31/2007 11:00

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/31/2007

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
7159339	H-3	2.46E+03	pCi/L	2.6E+02		3.63E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	06/22/2007			75	D
BS	10028-17-8			2.3E+02				90.7		L	09:13			125	

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, July 20, 2007

TAL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: J0LAX1EM **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 05/31/2007 11:00

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 05/31/2007

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
7159339	H-3	2.43E+03	pCi/L	2.6E+02		3.77E+02	100.0	2.72E+03	906.0_H3_LSC	5.00E-03	06/22/2007			75	D
BS	10028-17-8			2.4E+02				89.4		L	11:59			125	

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, July 20, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id:	JX1621CR	**Sdg/Rept Nbr:**	W05179	35979	**Collection Date:** 05/30/2007 09:22
Client Id:	B1N238	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 05/30/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
G07-005	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
7159328	BETA	2.49E+03	pCi/L	3.2E+02		3.92E+00	100.0		9310_ALPHAB	1.398E-01	07/16/2007	.9	0.1		D
DUP	12587-47-2	2.47E+03		2.7E+01						L	11:23	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, July 20, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: JX3DP1GR **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 05/31/2007 11:00

Client Id: B1N5Y6 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 05/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-005	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
7159338	BE-7	-2.35E+00	pCi/L	2.6E+01	U	4.62E+01			GAMMALL_GS	1.9504E+00	07/13/2007	0.0	0.2		D
DUP	13966-02-4	1.79E+00		2.6E+01						L	14:06	20.0	3		
7159338	CO-60	2.25E+01	pCi/L	5.8E+00		3.80E+00			GAMMALL_GS	1.9504E+00	07/13/2007	20.1	1.2		D
DUP	10198-40-0	2.75E+01		5.8E+00						L	14:06	20.0	3		
7159338	CS-134	-2.92E-01	pCi/L	2.4E+00	U	4.30E+00			GAMMALL_GS	1.9504E+00	07/13/2007	0.0	0.6		D
DUP	13967-70-9	-1.35E+00		2.4E+00						L	14:06	20.0	3		
7159338	CS-137	2.23E+00	pCi/L	2.3E+00	U	4.53E+00			GAMMALL_GS	1.9504E+00	07/13/2007	142.1	1.1		D
DUP	10045-97-3	3.77E-01		2.3E+00						L	14:06	20.0	3		
7159338	EU-152	7.33E-01	pCi/L	5.3E+00	U	9.63E+00			GAMMALL_GS	1.9504E+00	07/13/2007	0.0	0.8		D
DUP	14683-23-9	-2.13E+00		5.3E+00						L	14:06	20.0	3		
7159338	EU-154	3.45E-01	pCi/L	6.2E+00	U	1.18E+01			GAMMALL_GS	1.9504E+00	07/13/2007	231.7	0.1		D
DUP	15585-10-1	-2.53E-02		6.2E+00						L	14:06	20.0	3		
7159338	EU-155	6.94E-01	pCi/L	5.5E+00	U	9.71E+00			GAMMALL_GS	1.9504E+00	07/13/2007	68.3	0.2		D
DUP	14391-16-3	1.42E+00		5.5E+00						L	14:06	20.0	3		
7159338	K-40	-2.82E+00	pCi/L	2.7E+01	U	5.96E+01			GAMMALL_GS	1.9504E+00	07/13/2007	0.0	0.8		D
DUP	13966-00-2	-1.90E+01		2.7E+01						L	14:06	20.0	3		
7159338	RU-106	-2.03E+00	pCi/L	1.7E+01	U	3.10E+01			GAMMALL_GS	1.9504E+00	07/13/2007	0.0	1.		D
DUP	13967-48-1	-1.43E+01		1.7E+01						L	14:06	20.0	3		
7159338	SB-125	2.03E+00	pCi/L	5.2E+00	U	9.64E+00			GAMMALL_GS	1.9504E+00	07/13/2007	62.2	0.5		D
DUP	14234-35-6	3.85E+00		5.2E+00						L	14:06	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, July 20, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id:	JX3DP1HR	**Sdg/Rept Nbr:**	W05179 35979	**Collection Date:**	05/31/2007 11:00
Client Id:	B1N5Y6	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	05/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-005	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
7159339	H-3	6.70E+03	pCi/L	4.1E+02		3.65E+02	100.0		906.0_H3_LSC	5.00E-03	06/22/2007	3.3	0.8		D
DUP	10028-17-8	6.93E+03		3.3E+02						L	14:44	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, July 20, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: JX8E81DR **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 06/01/2007 12:00

Client Id: B1N3W7 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-005	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
7159337	Uranium	2.96E+01	ug/L	3.5E+00		8.28E-02			UTOT_KPA	2.53E-02	07/16/2007	4.8	0.6		D
DUP	7440-61-1	3.10E+01		3.5E+00						ML	09:15	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, July 20, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id:	JX8RM2DR	**Sdg/Rept Nbr:**	W05179	35979	**Collection Date:** 06/01/2007 12:43
Client Id:	B1N326	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-044	MW6-SBB-A19981								BS	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7180303	TC-99	1.38E+02	pCi/L	1.3E+01		9.54E+00	100.0		TC99_ETVDSK	1.259E-01	06/30/2007	8.1	1.2		D
DUP	14133-76-7	1.50E+02		7.4E+00						L	07:39	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.

STL RICHLAND

Friday, July 20, 2007

TAL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: JXWPQ1ER **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 05/24/2007 09:30

Client Id: B1N2Y2 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 05/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
I07-044	MW6-SBB-A19981								BT	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7159329	SR-90	-2.48E-02	pCi/L	1.9E-01	U	4.40E-01	79.2		SRISO_SEP_P	1.0054E+00	07/07/2007	0.0	0.		D
DUP	10098-97-2	-2.81E-02		1.9E-01						L	11:10	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, July 20, 2007

TAL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: JX3DP2FW **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 05/31/2007 11:00

Client Id: B1N5Y6 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 05/31/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-005	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
7180303	TC-99	1.03E+04	pCi/L	6.2E+02		9.53E+00	100.0	3.62E+03	TC99_ETVDSK	1.261E-01	06/30/2007			60	D
MS	14133-76-7			5.4E+01				283.6		L	07:39			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.

STL RICHLAND

Friday, July 20, 2007

TAL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W05179.Edd, h:\Reportdb\edd\FeadIV\Rad\35979.Edd

Lab Sample Id: JX8JP1DW **Sdg/Rept Nbr:** W05179 35979 **Collection Date:** 06/01/2007 12:00

Client Id: B1N3W8 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 06/01/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S07-005	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
7159337	Uranium	3.69E+01	ug/L	8.7E+00		8.25E-02		3.56E+01	UTOT_KPA	2.54E-02	07/16/2007			60	D
MS	7440-61-1			8.7E+00				103.8		ML	09:19			140	

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

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/17/2007 11:16:33 AM

Lot No., Due Date: J7F050213,J7E310192; 07/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7159328; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05179; 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 => JX1621AA 143.80<200.00 Q:VB		✓	
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: NCM 10-10390			
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. MDC/MDA > CRDL => JX1621AA BETA 4.2E+00>4.0E+00 Q:C1		✓	
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 => JX1621AA BETA 2.5E+03 L:4.2E+00 JX17H1AA BETA 2.6E+03 L:2.7E+00 JX17J1AA BETA 5.1E+02 L:2.7E+00 JX2H81AA BETA 6.9E+00 L:2.6E+00 J0AP61AA BETA 4.2E+02 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: NCM 10-10390

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

First Level Review Tina Anderson **Date** 7/17/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7159328
W05179

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: 7-17-07

Clouseau
Nonconformance Memo

STL

NCM #:	10-10390		
NCM Initiated By:	Lisa Antonson	Classification:	**Anomaly**
Date Opened:	07/17/2007	Status:	**GLREVIEW**
Date Closed:		Production Area:	Environmental - Prep
		Tests:	Beta by GPC-Sr/Y
		Lot #'s (Sample #'s):	J7E310192 (1,2,3,4), J7F050213 (1), J7F080000 (328),
		QC Batches:	7159328,
Nonconformance:	MDA not met		
Subcategory:	Data accepted		

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	07/17/2007	In this Beta batch, sample JX162 didn't meet CRDL. The sample had a reduced aliquot based on acitivity screening, and had a result that exceeds the MDA achieved.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	07/17/2007	NA

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

7/9/2007 2:43:04 PM

Lot No., Due Date: J7F050213,J7F040202,J7E290177,J7E290182; 07/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7159329; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W05179; 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 Lisa Antonson **Date** 7/9/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7H59329
8/7/17

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: Eirlo Gado Date: 7/12/7

STL RICHLAND

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/19/2007 3:44:07 PM

Lot No., Due Date: J7E310328; 07/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7159338; RGAMMA Gamma by GER

SDG, Matrix: W05179; 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 Lisa Autenson **Date** 7/19/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7159338
W05179

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: 7-20-07

LS-038B, Rev. 10, 8/02
STL RICHLAND

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/13/2007 10:27:47 AM

Lot No., Due Date: J7E310328,J7F040202,J7E290177,J7E290182; 07/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7180303; RTC99 Tc-99 by LSC

SDG, Matrix: W05179; WATER

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

PLease see NCM#10-10365

First Level Review John Worth **Date** 7-13-7

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7180303

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 Non

Second Level Review: Erika Jordan Date: 7/13/7

STL RICHLAND

Clouseau
Nonconformance Memo

STL

NCM #: **10-10365**
NCM Initiated By: John Norton
Date Opened: 07/13/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Tc-99 by LSC
Lot #'s (Sample #'s): J7E290177 (1,2), J7E290182 (1,3,4,5), J7E310328 (1), J7F040202 (1), J7F080000 (331),
QC Batches: 7159331,

Nonconformance: QC data exceeded criteria
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
John Norton	07/13/2007	The results of the counting of this batch could not be calculated due to the TSIE, which was outside of acceptable limits.

Corrective Action

Name	Date	Corrective Action
John Norton	07/13/2007	The samples were agitated and submitted for counting a second time (batch#7180303), the TSIE is now acceptable.

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

6/25/2007 2:15:52 PM

Lot No., Due Date: J7E310328; 07/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7159339; RTRITIUM H-3 by LSC

SDG, Matrix: W05179; 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 => JX3DP1AA 5.00<10.00 Q:VB		✓	
8.07 The Correct Count Geometry was Used. Count Geometry => J0LAX1AF SVP15/5<>SVP10/10 J0LAX1AG SVP15/5<>SVP10/10 J0LAX1AA SVP15/5<>SVP10/10 J0LAX1AC SVP15/5<>SVP10/10 J0LAX1AD SVP15/5<>SVP10/10 J0LAX1AE SVP15/5<>SVP10/10 JX3DP1AA SVP15/5<>SVP10/10 JX3DP1AH SVP15/5<>SVP10/10 Q:VC		✓	
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!			✓
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 => H-3	✓		

OK AL 6/25/07

OK AL 6/25/07

OK; No Callin Level Found => H-3

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

OK

8.25 Counting Spectrum are within FWHM Limits. Yes No N/A ✓

No FWHM found in Batch Data!

8.26 Instruments have Current Calibrations. Yes No N/A

8.27 Correct Count Library Used. Yes No N/A ✓

No Count Library found in Batch Data!

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

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

8.3 Comments:

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

OK

First Level Review Angela Kong **Date** 6/25/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7159339
W05179

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: 6-25-07

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

7/19/2007 2:46:06 PM

Lot No., Due Date: J7E310328,J7F040169; 07/19/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7159337; RUNAT UNat by KPA

SDG, Matrix: W05179; WATER

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

6.0 Comments on any No response:

First Level Review Lisa Antonson **Date** 7/19/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7159337
W05179

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: 7-20-07

STL RICHLAND

PNNL J7E290177 W05179 Due 07.09.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-044-38

Page 1 of 1

Collector Fluor Hanford F. M. HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. I07-044	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 2ZP1-LOI, MAY 2007	HNF-N-506-7	Ice Chest No. 562 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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N2Y2		W	5/24/7	0930	1x20-mL P	Activity Scan	None
B1N2Y2		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N2Y2		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1N2Y2		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JXWPQ	

Relinquished By	Received By
Print Fluor Hanford F. M. HALL Sign MAY 24 2007 Date/Time 1530	Print LINDSEY ANDERSON Sign MAY 24 2007 Date/Time 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 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 J7E290177
W05179
Due 07.09.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-044-98**

Page 1 of 1

Collector: Fluor Hanford F. M. HALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-044	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2ZP1-LOI MAY 2007	HNF-N-506-7	Ice Chest No.: 562 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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N341		W	5/24/7	1131	1x20-mL P	Activity Scan	None
B1N341		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N341		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

JXWPW

Relinquished By	Received By
Print: Fluor Hanford F. M. HALL Sign: MAY 24 2007 Date/Time: 1530	Print: LINDSEY ANDERSON Sign: MAY 24 2007 Date/Time: 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

STL RICHLAND

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STL RICHLAND

PNNL J7E290177
W05179
Due 07.09.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-044-90

Page 1 of 1

Collector: Fluor Hanford F. M. HALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-044	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2ZP1-LOI MAY 2007	HNF-N-506-7	Ice Chest No.: 562 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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N336		W	5/24/7	1015	1x20-mL P	Activity Scan	None
B1N336		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N336		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JXWQE	

Relinquished By: Fluor Hanford F. M. HALL Print Sign MAY 24 2007	Date/Time 1530	Received By: LINDSEY ANDERSON Print Sign MAY 24 2007	Date/Time 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 = 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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5/24/07

Client: PNNL SDG #: W05179 NA [ ] SAF #: I07-044 NA [ ]

Work Order Number: J7E290177 Chain of Custody # I07-044-38,98,90

Shipping Container ID: _____ Air Bill # _____

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

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

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

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

6. Number of samples in shipping container: 3 1X20 mL 2X4000 mL 3X1000 mL

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: RW Date: 05-24-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date 5/24/07

LS-023, 9/03, Rev. 5

STL RICHLAND

PNNL J7E290182
WO 5179
Due 07-09-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-044-82

Page 1 of 1

Collector D. Wall	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. I07-044	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 2ZP1-LOI, MAY 2007	HNF-N-526-8	Ice Chest No. SML-24 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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N331		W	5-24-07	0917	1x20-mL P	Activity Scan	None
B1N331		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N331		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1N331		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JXWR5	

Relinquished By	Date/Time	Received By	Date/Time
Print D. Wall Sign D. Wall	MAY 24 2007 1530	Print LINDSAY ANDERSON Sign	MAY 24 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 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

PNNL J7E290182
W05179
Due 07-09-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-044-130

Page 1 of 1

Collector D. WALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. I07-044	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 2ZP1-LOI, MAY 2007	HNF-N-506	Ice Chest No. SHIL 24 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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N362		W	5-24-07	1230	1x20-mL P	Activity Scan	None
B1N362		W	↓		2x~~4000~~-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
					25 gal 5-24-07		
						JXWRJ	

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
L. D. WALL	R.D. Wall	MAY 24 2007 1530	LINDSEY ANDERSON	[signature]	MAY 24 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

STL RICHLAND

PNNL

L.D. Wall 5/24/07

J7E290182 W05179 Due 07-09-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# **I07-044-34**

Page 1 of 1

Collector ~~Fluor Hanford~~ L. D. WALL ~~D. P. BREWINGTON~~	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-044	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, MAY 2007	HNF-N-526-8	**Ice Chest No.** BMC-24 **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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N2X7		W	5-24-07	1127	1x20-mL ~~P~~	Activity Scan	None
B1N2X7		W	↓	↓	2x~~4000-mL~~ 2.5 G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N2X7		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1N2X7		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JXWTI	

Rev. 5/24/07 L.D. WALL

Relinquished By ~~Fluor Hanford~~ ~~D. P. BREWINGTON~~ Print Sign L.D. Wall Date/Time 1530 MAY 24 2007	Received By Print Sign LINDSEY ANDERSON Date/Time 1530 MAY 24 2007	Matrix *
Relinquished By Date/Time	Received By Date/Time	S = Soil, SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air, DS = Drum Solid, DL = Drum Liquid, T = Tissue, WI = Wipe, L = Liquid, V = Vegetation, X = Other
Relinquished By Date/Time	Received By Date/Time	
Relinquished By Date/Time	Received By Date/Time	

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

PNNL J7E290182
W05179
Due 07-09-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-044-42

Page 1 of 1

Collector: L. D. WALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-044	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2ZP1-LOL MAY 2007	HNF-N-506 8	Ice Chest No.: 8444 24 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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N2Y7		W	5-24-07	0840	1x20-mL P	Activity Scan	None
B1N2Y7		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N2Y7		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1N2Y7		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

JXWT2

Relinquished By	Received By
Print: L. D. WALL Sign: L.D. Wall Date/Time: MAY 24 2007 1530	Print: LINDSEY ANDERSON Sign: Date/Time: MAY 24 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 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

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PNNL J7E290182
W05179
Due 07-09-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I07-044-18**

Page 1 of 1

Collector D. WALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-044	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2ZP1-LOI, MAY 2007	HNF-N-566-8	**Ice Chest No.** **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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N2V7		W	5-24-07	1357	1x20-mL P	Activity Scan	None
B1N2V7		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N2V7		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1N2V7		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JXWT4	

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
	D. Wall	MAY 24 2007 1530	LINDSEY ANDERSON		MAY 24 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 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: 5/24/07 3:30PM

Client: PNNL SDG #: W05179 NA [ ] SAF #: I07044 NA [ ]

Work Order Number: JTE290182 Chain of Custody # I07044-82, 130, 34, 42, 18,

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: 5 1 X 20 ML 2 X 4000 ML 1 X 500 ML 3 X 1000 ML
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   - ____ tape
   - X custody seals
   - ____ hazard labels
   - X appropriate samples labels
9. Samples are:
   - X in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [ ] pH>2 [X] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [ ] No [X]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: RW S. Smith Date: 05/24/07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date 5/24/07

LS-023, 9/03, Rev. 5

PNNL JTE 310192
W05179
Due 07.13.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-005-21

Page 1 of 1

Collector: Fluor Hanford, J. BREWINGTON	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: G07-005	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 1NR2-RB, MAY 2007	Logbook: HNF-N-506-8	Ice Chest No.: SKINS 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 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
B1N238		W	5/30/07	0922	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1N238		W	↓	↓	1x20-mL P	Activity Scan	None

JX162

J. Wall 5/30/07

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Fluor Hanford J. BREWINGTON	J. R. Brewington	MAY 30 2007 1530	S. Smith	S. Smith	MAY 30 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 = 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

PNNL JTE 310192
W05179

Fluor Hanford due 07-13-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-005-20

Page 1 of 1

Collector D. R. BREWINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G07-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, MAY 2007	Logbook: HNF-N-506-8	**Ice Chest No.** SKINS **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 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
B1N237		W	5/30/07	0922	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1N237		W	↓	↓	1x20-mL P	Activity Scan	None

JX17H

R. Wade 5/30/07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D. R. BREWINGTON		DR Brewington	MAY 30 2007 1530	S. Smith		S. SMITH	MAY 30 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 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 J7E310192
WO5179
Due 07-13-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-005-2

Page 1 of 1

Collector Fluor Hanford D R BREWINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G07-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, MAY 2007	Logbook: HNF-N-506-8	**Ice Chest No.** SKINS **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 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
B1N225		W	5/30/07	0959	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1N225		W	↓	↓	1x20-mL P	Activity Scan	None

JXIZJ

K. Wall 5/30/07

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D R BREWINGTON	D R Brewington		MAY 30 2007 1530	A. Smith	A. Smith		MAY 30 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

STL RICHLAND

STL RICHLAND

PNNL J7E 310192
W05179
due 6/13/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # G07-005-16

Page 1 of 1

Collector Fluor Hanford D.R. BREWINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. G07-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 1NR2-RB, MAY 2007	Logbook: HNF-N-506-8	**Ice Chest No.** SKINS **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 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
B1N236		W	5/30/07	1309	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1N236		W	↓	↓	1x20-mL P	Activity Scan	None
						~~JX1975~~ SS	
						JX2148	
						R. Wall 5/30/07	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford D.R. BREWINGTON	D.R. Brewington		MAY 30 2007 1530		S. Smith	S. Smith	MAY 30 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 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: 05/30/07 1530

Client: PGW SDG #: WC5179 NA [ ] SAF #: G07-005 NA [ ]

Work Order Number: 07E310192 Chain of Custody # G07-005-2120, 2, 16

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: 4
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____tape _____hazard labels
   _____custody seals ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition _____leaking
   _____broken _____have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: S. Smith Date: 05/30/07

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 JTE 310328
W05179
Due 07-16-07

Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W07-005-222**

Page 1 of 1

Collector F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MAY 2007	HNF-N-506-7	**Ice Chest No.** 562 **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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N5Y6		W	5/31/7	1100	1x20-mL P	Activity Scan	None
B1N5Y6		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1N5Y6		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1N5Y6		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1N5Y6		W			1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
						JX3DP	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford F. M. HALL		MAY 3 1 2007	1310			MAY 3 1 2007	1310
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

SIL RICHLAND

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 5/31/07 1310

Client: PGW SDG #: W05179 NA [ ] SAF #: W07-005 NA [ ]

Work Order Number: J7E310328 Chain of Custody # W07-005-222

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: S. Smith Date: 05/31/07

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 J7F040169
W05179
Due 07/6/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-005-54

Page 1 of 1

Collector Fluor Hanford BREWINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, MAY 2007	HNF-N-506-8	**Ice Chest No.** SMLZ4 **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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N3W7		W	6-1-07	1200	1x20-mL P	Activity Scan	None
B1N3W7		W	↓	↓	2x~~4000~~ 2.5 Gal mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N3W7		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

JX8E8

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford BREWINGTON			1525 JUN 01 2007				1525 JUN 01 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

STL RICHLAND

69

PNNL J7F040169
W05179
Due 07-16-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S07-005-55

Page 1 of 1

Collector Fluor Hanford D. R. BREWINGTON	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, MAY 2007	HNF-N-506-8	**Ice Chest No.** SmL 24 **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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N3W8		W	6-1-07	1200	1x20-mL P	Activity Scan	None
B1N3W8		W	↓	↓	2x~~1000~~ 2x500-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1N3W8		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
						JX8JP	

Relinquished By	Received By
Print: Fluor Hanford D. R. BREWINGTON; Sign: D R Brewington; Date/Time: 1525 JUN 01 2007	Print: S. Smith; Sign: S. Smith; Date/Time: 1525 JUN 01 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

70

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 6/1/07 3:30PM

Client: PNNL SDG #: W05179 NA [ ] SAF #: 807-005 NA [ ]

Work Order Number: J7F040169 Chain of Custody # 807-005-54,55, ~~206~~, 58, ~~190~~, ~~214~~, 148

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: 16 + 2 = 18
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - ____ tape
   - ____ custody seals
   - ____ hazard labels
   - ✓ appropriate samples labels
9. Samples are:
   - ✓ in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: S. Smith Date: 06.01.07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date 6/1/07

LS-023, 9/03, Rev. 5

STL RICHLAND

PNNL J7F040187 W05179 Due 07/16/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-043-2

Page 1 of 1

Collector K.B. HULSE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-043	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UP1-LOI, MAY 2007	HWF-N-506 6	**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 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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N2M1		W	6-1-07	1146	1x20-mL P	Activity Scan	None
B1N2M1		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
						JX8M7	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K.B. HULSE			JUN 0 1 2007 1525		J. Smith	J. Smith	JUN 0 1 2007 1525
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 JTF040137 W05179 Due 07 16 07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-043-8

Page 1 of 1

Collector: K.B. HULSE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-043	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2UP1-LOI, MAY 2007	HMF-N-506 6	Ice Chest No.: SML 545 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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N2M7		W	6-1-07	1030	1x20-mL P	Activity Scan	None
B1N2M7		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
						~~JX8MM~~ SA	
						JX8NH	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K.B. HULSE			JUN 01 2007 1525		S. Smith	S. Smith	JUN 01 2007 1525
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

SHT RECEIVING

PNNL J7F040187
W05179
Due 07-16-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-043-3

Collector K.B. HULSE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. I07-043	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title 2UP1-LOL MAY 2007	HNF-N-506 6	**Ice Chest No.** SUL 595 **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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N2M2		W	6-1-07	1146	1x20-mL P	Activity Scan	None
B1N2M2		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
						JXENP	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K.B. HULSE			1525 JUN 01 2007		S. Smith	S. Smith	1525 JUN 01 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 6/1/07 3:30pm

Client: PNNL SDG #: W05179 NA [ ] SAF #: 107-043 NA [ ]

Work Order Number: J7F040187 Chain of Custody # 107-043-2,8,3

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 3 → 1X20ML 2X4000ML EACH
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   _____ tape
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? NA [ ] pH<2 [ ] pH>2 [✓] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: S. Smith Date: 06.01.07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date 6/1/07

LS-023, 9/03, Rev. 5

PNNL J7F040202
SDG#W05179
DUE 7/16/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-044-74

Page 1 of 1

Collector: K.B. HULSE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-044	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2ZP1-LOI, MAY 2007	HNF-N-506 6	Ice Chest No.: SIML 595 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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N326		W	6-1-07	1243	1x20-mL P	Activity Scan	None
B1N326		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1N326		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

JX8RM

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
K.B. HULSE		KB Hulse	JUN 01 2007 1525			LINDSEY ANDERSON	JUN 01 2007 1525
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

76

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 6/1/07 8:30PM

Client: PNNL SDG #: W05179 NA [ ] SAF #: 107-044 NA [ ]

Work Order Number: J7F040202 Chain of Custody # 107-044-74

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1 1X20ML 1X500ML 3X1000ML
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: 06-01-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date 6/1/07

LS-023, 9/03, Rev. 5

PNNL J7F080213
W05179
Due 07.19.07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I07-042-6

Page 1 of 1

Collector: L.D. WALL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-042	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 100NR2IAM-LOI MAY 2007	HWF-N-506 B	Ice Chest No.: SML 125 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 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 GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1N2L9		W	6-4-07	1049	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
B1N2L9		W	↓	↓	1x20-mL P	Activity Scan	None
B1N2L9		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						JOAP6	

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
L.D. WALL	L.D. Wall		JUN 04 2007 151	LINDSEY ANDERSON			JUN 04 2007 15:15
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

78

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 6/4/07 3:15P

Client: PNNL SDG #: W05179 NA [ ] SAF #: I07-042 NA [ ]

Work Order Number: J7F050213 Chain of Custody # I07-042-6

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 (1x1000mL, 1x20mL, 3x1000mL)
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] for C. Ackson Date: 6/4/07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date 6/4/07

LS-023, 9/03, Rev. 5

STL RICHLAND

7/6/2007 12:41:43 PM

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: 07/13/2007 W05179

Sep1 DT/Tm Tech:

Batch: 7159328 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 JX162-1-AA J7E310192-1-SAMP 05/30/2007 09:22		143.80g,in AmtRec: 20ML,LP	#Containers: 2	1.5	41.1	100	JCA	1209	7/16/07	Scr: Alpha: 1.94E-04 uCi/Sa Beta: 6.34E-04 uCi/Sa 1.4E-01L
2 JX162-1-AC-X J7E310192-1-DUP 05/30/2007 09:22		139.80g,in AmtRec: 20ML,LP	#Containers: 2		36.7		JCB			Scr: Alpha: 1.94E-04 uCi/Sa Beta: 6.34E-04 uCi/Sa 1.4E-01L
3 JX17H-1-AA J7E310192-2-SAMP 05/30/2007 09:22		200.10g,in AmtRec: 20ML,LP	#Containers: 2		57.1		JCC			Scr: Alpha: 3.09E-04 uCi/Sa Beta: 4.49E-04 uCi/Sa
4 JX17J-1-AA J7E310192-3-SAMP 05/30/2007 09:59		196.90g,in AmtRec: 20ML,LP	#Containers: 2		46.3		JCD			Scr: Alpha: 6.39E-05 uCi/Sa Beta: 1.16E-04 uCi/Sa
5 JX2H8-1-AA J7E310192-4-SAMP 05/30/2007 13:09		199.00g,in AmtRec: 20ML,LP	#Containers: 2		41.8		JCA			Scr: Alpha: -7.87E-05 uCi/Sa Beta: 6.19E-05 uCi/Sa
6 J0AP6-1-AA J7F050213-1-SAMP 06/04/2007 10:49		198.40g,in AmtRec: 20ML,4XLP	#Containers: 5		46.4		JCB			Scr: Alpha: 2.37E-04 uCi/Sa Beta: 8.66E-04 uCi/Sa
7 J0K9F-1-AA-B J7F080000-328-BLK 05/30/2007 09:22		197.80g,in AmtRec:	#Containers: 1		0.7		JCC			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

80

STL RICHLAND

7/6/2007 12:41:45 PM

Sample Preparation/Analysis

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

Balance Id:1120482733
Pipet #:

AnalyDueDate: 07/13/2007

Sep1 DT/Tm Tech:

Batch: 7159328 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 J0K9F-1-AC-C J7F080000-328-LCS		198.90g,in	BESB3079 06/13/07,pd 08/08/06,r	1.5	1.0	100	2711	1209	7/16/07	
05/30/2007 09:22		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

Comments: J0AP6-SAMP "Comments. Accidently used sample originally labeled for SR-90."
PH<2.0 JS 7-6-07
#1 JX162 and #2 JX162 DUP, reduced aliquot due to high screen results. JS 7-6-07

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

JX1621AA-SAMP Constituent List:
BETA RDL:4.00E+00 pCi/L LCL: UCL: RPD:
J0K9F1AA-BLK:
BETA RDL:4.00E+00 pCi/L LCL: UCL: RPD:
J0K9F1AC-LCS:
Sr-90 RDL: pCi/L LCL:70 UCL:130 RPD:20

JX1621AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
J0K9F1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
J0K9F1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

7/17/2007 11:15:49 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/17/2006, 7/22/2007, Batch: '7159328', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7159328						
AC		CalcC	BockJ	7/6/2007 12:41:49 PM		
SC			wagarr	IsBatched	6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC			BockJ	Prep1C	7/6/2007 12:41:49 PM	RICH-RC-5014 REVISION 7
SC			AshworthA	InPrep2	7/13/2007 10:23:20 AM	RICH-RC-5014 REVISION 7
SC			AshworthA	Prep2C	7/16/2007 9:39:55 AM	RICH-RC-5014 REVISION 7
SC			BlackCL	InCnt1	7/16/2007 10:28:40 AM	RICH-RD-0003 REVISION 5
SC			BlackCL	CalcC	7/16/2007 12:43:35 PM	RICH-RD-0003 REVISION 5
AC			AshworthA	7/13/2007 10:23:20		
AC			AshworthA	7/16/2007 9:39:55		
AC			BlackCL	7/16/2007 10:28:40		
AC			BlackCL	7/16/2007 12:43:35		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.27

STL RICHLAND

STL RICHLAND

7/5/2007 4:07:28 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 07/09/2007

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

Balance Id:1120482733,1120373922,1120

Pipet #: _____

Sep1 DT/Tm Tech: 06/28/2007 10:48,ManisD

Sep2 DT/Tm Tech: 07/05/2007 09:59,ManisD

Prep Tech: ManisD

Batch: 7159329 **WATER** **pCi/L** **PM, Quote: SA , 57671**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JXWPQ-1-AC J7E290177-1-SAMP		1003.20g,in	SRTB14935 06/18/07,pd 05/22/07,r		1.0	24.6	100	2A	0644	7/6/07	
						~~06/28/2007 10:48,s1, 07/05/2007~~		4C	1156	7/7/07 r	
05/24/2007 09:30		AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7					Scr:	Alpha: -3.63E-03 uCi/Sa	Beta: 3.19E-03 uCi/Sa	
2 JXWPQ-1-AE-X J7E290177-1-DUP		1005.40g,in	SRTB14936 06/18/07,pd 05/22/07,r		1.0	23.9	100	2B	0644	7/6/07	
						~~06/28/2007 10:48,s1, 07/05/2007~~		4D	1156	7/7/07 r	
05/24/2007 09:30		AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7					Scr:	Alpha: -3.63E-03 uCi/Sa	Beta: 3.19E-03 uCi/Sa	
3 JXWQE-1-AC J7E290177-3-SAMP		1003.00g,in	SRTB14937 06/18/07,pd 05/22/07,r		1.0	24.7	100	2C	0644	7/6/07	
						~~06/28/2007 10:48,s1, 07/05/2007~~		2A	1156	7/7/07 r	
05/24/2007 10:15		AmtRec: 20ML,3XLP,2X4LP	#Containers: 6					Scr:	Alpha: -4.52E-04 uCi/Sa	Beta: -5.03E-04 uCi/Sa	
4 JXWQ5-1-AC J7E290182-1-SAMP		1002.90g,in	SRTB14938 06/18/07,pd 05/22/07,r		1.0	24.1	100	2D	0644	7/6/07	
						~~06/28/2007 10:48,s1, 07/05/2007~~		2B	1156	7/7/07 r	
05/24/2007 09:17		AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7					Scr:	Alpha: 8.55E-04 uCi/Sa	Beta: -1.14E-03 uCi/Sa	

STL RICHLAND

7/5/2007 4:07:30 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 07/09/2007

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

Batch: 7159329 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

Balance Id:1120482733,1120482733,1120
Pipet #: _____
Sep1 DT/Tm Tech: 06/28/2007 10:48,ManisD
Sep2 DT/Tm Tech: 07/05/2007 09:59,ManisD
Prep Tech: ,ManisD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 JXWT1-1-AC J7E290182-3-SAMP		1003.80g,in	SRTB14939 06/18/07,pd 05/22/07,r		1.0	24.4	100	3A	0644	7/6/07	
						~~06/28/2007 10:48;s1, 07/05/2007~~		2C	1156	7/7/07 r	
05/24/2007 11:27		AmtRec: 20ML,2X7LP,500MLP,3XLP	#Containers: 7					Scr:	Alpha: -3.00E-04 uCi/Sa		Beta: -2.90E-04 uCi/Sa
6 JXWT2-1-AC J7E290182-4-SAMP		1006.10g,in	SRTB14940 06/18/07,pd 05/22/07,r		1.0	24.8	100	3B	0644	7/6/07	
						~~06/28/2007 10:48;s1, 07/05/2007~~		2D	1156	7/7/07 r	
05/24/2007 08:46		AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7					Scr:	Alpha: -3.15E-04 uCi/Sa		Beta: 1.08E-03 uCi/Sa
7 JXWT4-1-AC J7E290182-5-SAMP		1006.10g,in	SRTB14941 06/18/07,pd 05/22/07,r		1.0	24.5	100	3C	0644	7/6/07	
						~~06/28/2007 10:48;s1, 07/05/2007~~		3A	1156	7/7/07 r	
05/24/2007 13:57		AmtRec: 20ML,500ML,3XLP,2X7LP	#Containers: 7					Scr:	Alpha: 6.35E-04 uCi/Sa		Beta: -1.19E-03 uCi/Sa
8 JX8RM-1-AA J7F040202-1-SAMP		1006.30g,in	SRTB14942 06/18/07,pd 05/22/07,r		1.0	24.7	100	3D	0644	7/6/07	
						~~06/28/2007 10:48;s1, 07/05/2007~~		3C	1156	7/7/07 r	
06/01/2007 12:43		AmtRec: 20ML, 500ML, 3XLP	#Containers: 5					Scr:	Alpha: -6.33E-04 uCi/Sa		Beta: 1.06E-03 uCi/Sa

STL RICHLAND

7/5/2007 4:07:30 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 07/09/2007

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

Balance Id:1120482733,1120482733,1120

Pipet #: _____

Sep1 DT/Tm Tech: 06/28/2007 10:48,ManisD

Sep2 DT/Tm Tech: 07/05/2007 09:59,ManisD

Prep Tech: ,ManisD

Batch: 7159329 **WATER** **pCi/L** **PM, Quote: SA , 57671**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
9 J0AP6-1-AC J7F050213-1-SAMP		1002.50g,in	SRTB14943 06/18/07,pd 05/22/07,r		1.0	24.8	100	4A 3d	dayy 1156	7/6/03 7/7/07 r	
						~~06/28/2007 10:48,s1, 07/05/2007~~					
06/04/2007 10:49		AmtRec: 20ML,4XLP	#Containers: 5					Scr:	Alpha: 2.37E-04 uCi/Sa		Beta: 8.66E-04 uCi/Sa
10 J0K9L-1-AA-B J7F080000-329-BLK		998.90g,in	SRTB14944 06/18/07,pd 05/22/07,r		1.0	25.4	100	4B 4A	dayy 1156	7/6/03 7/7/07 r	
						~~06/28/2007 10:48,s1, 07/05/2007~~					
05/24/2007 09:30		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:
11 J0K9L-1-AC-C J7F080000-329-LCS		998.70g,in	SRSG1350 05/24/07,pd 09/11/06,r		1.0	24.3	100	4C 4B	dayy 1156	7/6/03 7/7/07 r	
						~~06/28/2007 10:48,s1, 07/05/2007~~					
05/24/2007 09:30		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

Comments:

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

JXWPQ1AC-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

7/9/2007 2:40:19 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/9/2006, 7/14/2007, Batch: '7159329', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7159329						
AC		CalcC	BockJ	6/25/2007 2:00:37 PM		
SC			wagarr	IsBatched	6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	6/25/2007 2:00:37 PM	RICH-RC-5016 Revision 7
SC			BockJ	Prep1C	6/25/2007 2:19:45 PM	RICH-RC-5016 REVISION 7
SC			ManisD	InSep1	6/25/2007 3:58:41 PM	RICH-RC-5006 REV 7
SC			ManisD	Sep1C	6/28/2007 3:31:07 PM	RICH-RC-5006 REVISION 7
SC			DAWKINSO	InCnt1	6/28/2007 3:33:01 PM	RICH-RD-0007 REVISION 6
SC			DAWKINSO	Cnt1C	6/28/2007 7:18:22 PM	RICH-RD-0007 REVISION 6
SC			ManisD	InSep2	7/5/2007 8:02:01 AM	RICH-RC-5071 REVISION 5
SC			ManisD	Sep2C	7/5/2007 4:08:34 PM	RICH-RC-5071 REVISION 5
SC			DAWKINSO	InCnt2	7/5/2007 4:40:17 PM	RICH-RD-0003 REVISION 5
SC			StringerR	CalcC	7/7/2007 12:33:53 PM	RICH-RD-0003 REVISION 5
AC			BockJ	6/25/2007 2:19:45 PM		
AC			ManisD	6/25/2007 3:58:41 PM		
AC			ManisD	6/28/2007 3:31:07 PM		
AC			DAWKINSO	6/28/2007 3:33:01 PM		
AC			DAWKINSO	6/28/2007 7:18:22 PM		
AC			ManisD	7/5/2007 8:02:01 AM		
AC			ManisD	7/5/2007 4:08:34 PM		
AC			DAWKINSO	7/5/2007 4:40:17 PM		
AC			StringerR	7/7/2007 12:33:53 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 10

ICOCFractions v4.8.27

PGW WATER

STL RICHLAND

7/9/2007 12:45:54 PM

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: 07/16/2007 W05179

Sep1 DT/Tm Tech:

Batch: 7159338 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 JX3DP-1-AC J7E310328-1-SAMP 05/31/2007 11:00		1975.40g,in AmtRec: 20ML,2X500ML,LP,4LP #Containers: 5			100mL	100	G15	1455	7/13/07 DN Scr: Alpha: 4.11E-03 uCi/Sa 2.6E-01L Beta: 3.71E-04 uCi/Sa	
2 JX3DP-1-AG-X J7E310328-1-DUP 05/31/2007 11:00		1950.40g,in AmtRec: 20ML,2X500ML,LP,4LP #Containers: 5					G10	1546	7/13/07 DN Scr: Alpha: 4.11E-03 uCi/Sa 2.6E-01L Beta: 3.71E-04 uCi/Sa	
3 J0LAP-1-AA-B J7F080000-338-BLK 05/31/2007 11:00		1995.00g,in AmtRec: #Containers: 1					G11	1547	7/13/07 DN Scr: Alpha: Beta:	
4 J0LAP-1-AC-C J7F080000-338-LCS 05/31/2007 11:00		1999.30g,in AmtRec: #Containers: 1	QCAG1377 06/25/07,pd 03/29/04,r				G13	1547	Scr: Alpha: Beta:	

Comments: pH<2.0 JB 7-9-07

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

JX3DP1AC-SAMP Constituent List:

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

J0LAP1AA-BLK:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:

87

STL RICHLAND

7/9/2007 12:45:58 PM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

AnalyDueDate: 07/16/2007

Batch: 7159338 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:

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

J0LAP1AC-LCS:
 Cs-137      RDL:15         pCi/L   LCL:70    UCL:130   RPD:20    Cs-137DA   RDL:15         pCi/L   LCL:70    UCL:130   RPD:20
 K-40        RDL:6          pCi/L   LCL:70    UCL:130   RPD:20    Ra-226     RDL:--         pCi/L   LCL:70    UCL:130   RPD:20
 RA-228      RDL:--         pCi/L   LCL:70    UCL:130   RPD:20    RA-228DA   RDL:--         pCi/L   LCL:70    UCL:130   RPD:20
 U-238       RDL:--         pCi/L   LCL:70    UCL:130   RPD:20

JX3DP1AC-SAMP Calc Info:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
J0LAP1AA-BLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
J0LAP1AC-LCS:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

Approved By _____ Date: _____

8
8

7/19/2007 3:43:30 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/19/2006, 7/24/2007, Batch: '7159338', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7159338						
AC		CalcC	BockJ	7/9/2007 12:39:57 PM		
SC			wagarr	IsBatched	6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	7/9/2007 12:39:57 PM	RICH-RC-5015 Revision 6
SC			BockJ	Prep1C	7/9/2007 12:45:53 PM	RICH-RC-5017 REVISION 6
SC			AshworthA	InPrep2	7/12/2007 9:33:00 AM	RICH-RC-5017 REVISION 6
SC			AshworthA	Prep2C	7/13/2007 12:54:10 PM	RICH-RC-5017 REVISION 6
SC			StringerR	InCnt1	7/13/2007 12:58:21 PM	RICH-RD-0007 REVISION 6
SC			DAWKINSO	CalcC	7/13/2007 4:01:23 PM	RICH-RD-0007 REVISION 6
AC			BockJ	7/9/2007 12:45:53 PM		
AC			AshworthA	7/12/2007 9:33:00		
AC			AshworthA	7/13/2007 12:54:10		
AC			StringerR	7/13/2007 12:58:21		
AC			DAWKINSO	7/13/2007 4:01:23 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 6

ICOCFractions v4.8.27

STL RICHLAND

SEVERN TRENT STL

*** RE-ANALYSIS REQUEST ***

DUE DATE 7-9-7

CUSTOMER PGW

ANALYSIS 7-99

MATRIX H_2O

LOT NUMBER JTE 290177, 290182, 310328, 040202

SAMPLE DELIVERY GROUP WO 5179

OLD BATCH NUMBER 715-9331

NEW BATCH NUMBER 7180303

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) JXWPQ IAD	
2) JXWPW IAC	TSIE OOL
3) JXWQ5 IAD	
4) JXWT1 IAD	
5) JXWT2 IAD	
6) JXWT4 IAD	
7) JX3DP IAD	
8) JX3DP IMFS	
9) JX8RM IAC	
10) JX8RM IAD X	
11) JCK9R IAAB	
12) JOK9R IAC	
13) JOK9R IAD BN	
14) JOK9R IAEBN	
15)	
16)	
17)	
18)	
19)	
20)	
LAB QC ID	Assigned with new batch.

RC-048, 10/03, Rev 7

STL RICHLAND

6/29/2007 10:38:42 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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: 07/09/2007

Batch: 7180303 WATER pCi/L PM, Quote: SA , 57671

SEQ Batch, Test: None All Tests: 7159329 CLTL, 7159331 FPS5, 7159335 BNTB, 7180303 FPS5,

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 JXWPQ-2-AD J7E290177-1-SAMP 05/24/2007 09:30	AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7						Scr:	Alpha: -3.63E-03 uCi/Sa	Beta: 3.19E-03 uCi/Sa
2 JXWPW-2-AC J7E290177-2-SAMP 05/24/2007 11:31	AmtRec: 20ML,500ML,2X4LP	#Containers: 4						Scr:	Alpha: 6.14E-04 uCi/Sa	Beta: 1.61E-04 uCi/Sa
3 JXWQ5-2-AD J7E290182-1-SAMP 05/24/2007 09:17	AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7						Scr:	Alpha: 8.55E-04 uCi/Sa	Beta: -1.14E-03 uCi/Sa
4 JXWT1-2-AD J7E290182-3-SAMP 05/24/2007 11:27	AmtRec: 20ML,2X7LP,500MLP,3XLP	#Containers: 7						Scr:	Alpha: -3.00E-04 uCi/Sa	Beta: -2.90E-04 uCi/Sa
5 JXWT2-2-AD J7E290182-4-SAMP 05/24/2007 08:46	AmtRec: 20ML,500ML,3XLP,2X4LP	#Containers: 7						Scr:	Alpha: -3.15E-04 uCi/Sa	Beta: 1.08E-03 uCi/Sa
6 JXWT4-2-AD J7E290182-5-SAMP 05/24/2007 13:57	AmtRec: 20ML,500ML,3XLP,2X7LP	#Containers: 7						Scr:	Alpha: 6.35E-04 uCi/Sa	Beta: -1.19E-03 uCi/Sa
7 JX3DP-2-AD J7E310328-1-SAMP 05/31/2007 11:00	AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5						Scr:	Alpha: 4.11E-03 uCi/Sa 2.6E-01L	Beta: 3.71E-04 uCi/Sa

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STL RICHLAND

6/29/2007 10:38:44 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

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

AnalyDueDate: 07/09/2007

Batch: 7180303 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA , 57671

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

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 JX3DP-2-AF-S J7E310328-1-MS 05/31/2007 11:00	AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5						Scr: Alpha: 4.11E-03 uCi/Sa	2.6E-01L	Beta: 3.71E-04 uCi/Sa
9 JX8RM-2-AC J7F040202-1-SAMP 06/01/2007 12:43	AmtRec: 20ML, 500ML, 3XLP	#Containers: 5						Scr: Alpha: -6.33E-04 uCi/Sa		Beta: 1.06E-03 uCi/Sa
10 JX8RM-2-AD-X J7F040202-1-DUP 06/01/2007 12:43	AmtRec: 20ML, 500ML, 3XLP	#Containers: 5						Scr: Alpha: -6.33E-04 uCi/Sa		Beta: 1.06E-03 uCi/Sa
11 J0K9R-2-AA-B J7F080000-331-BLK 06/01/2007 12:43	AmtRec:	#Containers: 1						Scr: Alpha:		Beta:
12 J0K9R-2-AC-C J7F080000-331-LCS 06/01/2007 12:43	AmtRec:	#Containers: 1						Scr: Alpha:		Beta:
13 J0K9R-2-AD-B J7F080000-331-BLK 06/01/2007 12:43	AmtRec:	#Containers: 1						Scr: Alpha:		Beta:
14 J0K9R-2-AE-B J7F080000-331-BLK 06/01/2007 12:43	AmtRec:	#Containers: 1						Scr: Alpha:		Beta:

Sample Preparation/Analysis

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

AnalyDueDate: 07/09/2007

Batch: 7180303 pCi/L
SEQ Batch, Test: None

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

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:

Comments:

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

JXWPQ2AD-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
JX3DP2AF-MS:

J0K9R2AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
J0K9R2AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
J0K9R2AD-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
J0K9R2AE-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

JXWPQ2AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JX3DP2AF-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
J0K9R2AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
J0K9R2AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
J0K9R2AD-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
J0K9R2AE-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

STL RICHLAND

7/13/2007 10:13:30 AM

ICOC Fraction Transfer/Status Report

ByDate: 7/13/2006, 7/18/2007, Batch: '7180303', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7180303						
AC		**CalcC**	**StringerR**	6/29/2007 11:17:51		
SC			nortonj	IsBatched	6/29/2007 10:38:37 AM	ICOC_RADCALC v4.8.26
SC			StringerR	InCnt1	6/29/2007 11:17:51 AM	RICH-RD-0001 REVISION 4
SC			StringerR	CalcC	7/1/2007 1:10:53 PM	RICH-RD-0001 REVISION 4
AC			**StringerR**	7/1/2007 1:10:53 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 2

ICOCFractions v4.8.27

STL RICHLAND

6/8/2007 11:35:17 AM

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: 07/16/2007 WO5179

Batch: 7159339 **WATER** **pCi/L** **PM, Quote: SA , 57671**
SEQ Batch, Test: None

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 6-21-07 Tom
Sep2 DT/Tm Tech:
Prep Tech:

STL RICHLAND

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 JX3DP-1-AA J7E310328-1-SAMP 05/31/2007 11:00		AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5			Scr:	Alpha:	Beta:
2 JX3DP-1-AH-X J7E310328-1-DUP 05/31/2007 11:00		AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5			Scr:	Alpha:	Beta:
3 J0LAX-1-AA-B J7F080000-339-BLK 05/31/2007 11:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
4 J0LAX-1-AC-C J7F080000-339-LCS 05/31/2007 11:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 J0LAX-1-AD-BX J7F080000-339-MBLK 05/31/2007 11:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 J0LAX-1-AE-CM J7F080000-339-MLCS 05/31/2007 11:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
7 J0LAX-1-AF-BN J7F080000-339-IBLK 05/31/2007 11:00		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

STL RICHLAND

6/8/2007 11:35:25 AM

Sample Preparation/Analysis

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

Balance Id: 13445
Pipet #:
Sep1 DT/Tm Tech: 6-21-07 Dm
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 07/16/2007

Batch: 7159339 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 J0LAX-1-AG-BN J7F080000-339-IBLK 05/31/2007 11:00	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments:

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

JX3DP1AA-SAMP Constituent List:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
J0LAX1AA-BLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
J0LAX1AC-LCS:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
J0LAX1AD-MBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
J0LAX1AE-MLCS:
  H-3          RDL:400          pCi/L     LCL:70      UCL:130     RPD:20
J0LAX1AF-IBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
J0LAX1AG-IBLK:
  H-3          RDL:400          pCi/L     LCL:        UCL:        RPD:
JX3DP1AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
J0LAX1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
J0LAX1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
J0LAX1AD-MBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
J0LAX1AE-MLCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
J0LAX1AF-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


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STL RICHLAND

6/8/2007 11:35:26 AM

Sample Preparation/Analysis

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

Balance Id: 12445
Pipet #:
Sep1 DT/Tm Tech: 6/21 07 Dm
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 07/16/2007

Batch: 7159339 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:

J0LAX1AG-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

97

6/25/2007 2:15:33 PM

ICOC Fraction Transfer/Status Report

ByDate: 6/25/2006, 6/30/2007, Batch: '7159339', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7159339						
AC		**CalcC**	**McDowellD**	6/21/2007 9:20:51		
SC			wagarr	IsBatched	6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC			McDowellD	InSep1	6/21/2007 9:20:51 AM	RICH-RC-5007 REVISION 6
SC			McDowellD	Sep1C	6/21/2007 3:01:55 PM	RICH-RC-5007 REVISION 6
SC			DAWKINSO	InCnt1	6/21/2007 3:13:27 PM	RICH-RD-0001 REVISION 4
SC			StringerR	CalcC	6/22/2007 3:25:38 PM	RICH-RD-0001 REVISION 4
AC			**McDowellD**	6/21/2007 3:01:55 PM		
AC			**DAWKINSO**	6/21/2007 3:13:27 PM		
AC			**StringerR**	6/22/2007 3:25:38 PM		

AC: Accepting Entry, SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.27

STL RICHLAND

7/9/2007 10:12:55 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: 07/16/2007 WD5179

Sep1 DT/Tm Tech:

Batch: 7159337 **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 JX3DP-1-AE J7E310328-1-SAMP 05/31/2007 11:00		26.10g,in AmtRec: 20ML,2X500ML,LP,4LP	#Containers: 5				Scr: Alpha: 4.11E-03 uCi/Sa 2.6E-01L	Beta: 3.71E-04 uCi/Sa
2 JX8E8-1-AC J7F040169-1-SAMP 06/01/2007 12:00		25.60g,in AmtRec: 20ML,500ML,2X4LP	#Containers: 4				Scr: Alpha: 9.60E-04 uCi/Sa	Beta: 1.14E-03 uCi/Sa
3 JX8E8-1-AD-X J7F040169-1-DUP 06/01/2007 12:00		25.30g,in AmtRec: 20ML,500ML,2X4LP	#Containers: 4				Scr: Alpha: 9.60E-04 uCi/Sa	Beta: 1.14E-03 uCi/Sa
4 JX8JP-1-AC J7F040169-2-SAMP 06/01/2007 12:00		24.90g,in AmtRec: 20ML,500ML,2X4LP	#Containers: 4				Scr: Alpha: 1.46E-03 uCi/Sa	Beta: -1.70E-03 uCi/Sa
5 JX8JP-1-AD-S J7F040169-2-MS 06/01/2007 12:00		25.40g,in AmtRec: 20ML,500ML,2X4LP	UNSF3805 06/27/07,pd 01/23/07,r #Containers: 4				Scr: Alpha: 1.46E-03 uCi/Sa	Beta: -1.70E-03 uCi/Sa
6 J0LAK-1-AA-B J7F080000-337-BLK 06/01/2007 12:00		25.40g,in AmtRec:	#Containers: 1				Scr: Alpha:	Beta:
7 J0LAK-1-AC-C J7F080000-337-LCS 06/01/2007 12:00		25.00g,in AmtRec:	UNSF3806 06/27/07,pd 01/23/07,r #Containers: 1				Scr: Alpha:	Beta:

69

STL RICHLAND

7/9/2007 10:12:57 AM

Sample Preparation/Analysis

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

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

AnalyDueDate: 07/16/2007

Batch: 7159337 ug/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 J0LAK-1-AD-C J7F080000-337-LCS 06/01/2007 12:00		25.20g,in AmtRec:	UNSC1763 06/14/07,pd 04/28/06,r #Containers: 1			Scr:	Alpha:	Beta:

Comments: pH <2.0 JB 7-9-07

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

JX3DP1AE-SAMP Constituent List:

Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:
JX8JP1AD-MS:					
J0LAK1AA-BLK:					
Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:
J0LAK1AC-LCS:					
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20
J0LAK1AD-LCS:					
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20

JX3DP1AE-SAMP Calc Info:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JX8JP1AD-MS:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J0LAK1AA-BLK:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J0LAK1AC-LCS:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J0LAK1AD-LCS:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

7/19/2007 2:51:59 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/19/2006 7/24/2007, Batch: '7159337', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7159337						
AC		Cnt1C	**BockJ**	7/9/2007 10:07:36		
SC			wagarr	IsBatched	6/8/2007 11:39:37 AM	ICOC_RADCALC v4.8.26
SC			BockJ	InPrep	7/9/2007 10:07:36 AM	RICH-RC-5015 Revision 6
SC			BockJ	Prep1C	7/9/2007 10:13:00 AM	RICH-RC-5015 REVISION 6
SC			AshworthA	InPrep2	7/11/2007 2:43:44 PM	RICH-RC-5015 REVISION 6
SC			AshworthA	Prep2C	7/12/2007 7:43:35 PM	RICH-RC-5015 REVISION 6
SC			NelsonT	Cnt1C	7/16/2007 10:10:08 AM	RICH-RC-5058 REV 7
AC			**BockJ**	7/9/2007 10:13:00		
AC			**AshworthA**	7/11/2007 2:43:44 PM		
AC			**AshworthA**	7/12/2007 7:43:35 PM		
AC			**NelsonT**	7/16/2007 10:10:08		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.27