Analytical Data Package Prepared For

Pacific Northwest National Lab

Radiochemical Analysis By

STL Richland STLRL

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

Data Package Contains _____ Pages

Report Nbr: 30216

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04728	X05-050	B1DKM1	J5H050363-1	HG3VT1AC	9HG3VT10	5238475
		B1DKM1	J5H050363-1	HG3VT1AD	9HG3VT10	5238470
		B1DKM1	J5H050363-1	HG3VT2AA	9HG3VT20	5283595
	X05-041	B1DB19	J5H100375-1	HHAQW1A	9HHAQW10	5238472
		B1DB19	J5H100375-1	HHAQW1A	9HHAQW10	5238473
		B1DB19	J5H100375-1	HHAQW1A	9HHAQW10	5238476
		B1DB19	J5H100375-1	HHAQW1A	9HHAQW10	5238470
	X04-056	B1B9L2	J5H160342-1	HHL5L1AC	9HHL5L10	5238472
		B1B9L2	J5H160342-1	HHL5L1AD	9HHL5L10	5238473
		B1B9L2	J5H160342-1	HHL5L1AE	9HHL5L10	5238474
		B1B9L2	J5H160342-1	HHL5L1AF	9HHL5L10	5238476
		B1B9L2	J5H160342-1	HHL5L1AG	9HHL5L10	5238477
		B1B9L2	J5H160342-1	HHL5L1AH	9HHL5L10	5238470
		B1B9L2	J5H160342-1	HHL5L2AA	9HHL5L20	5283595
		B1B9L2	J5H160342-1	HHL5L2AJ	9HHL5L20	5278310

Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04728	X04-056	B1B9D8	J5H170388-1	HHPMA1AC	9HHPMA10	5238472
		B1B9D8	J5H170388-1	HHPMA1AD	9HHPMA10	5238473
		B1B9D8	J5H170388-1	HHPMA1AE	9HHPMA10	5238474
		B1B9D8	J5H170388-1	HHPMA1AF	9HHPMA10	5238476
		B1B9D8	J5H170388-1	HHPMA1AG	9HHPMA10	5238477
		B1B9D8	J5H170388-1	HHPMA1AH	9HHPMA10	5238470
		B1B9D8	J5H170388-1	HHPMA2AA	9HHPMA20	5283595
		B1B9D8	J5H170388-1	HHPMA2AJ	9HHPMA20	5278310
		B1B9F2	J5H180346-1	HHTGQ1AC	9HHTGQ10	5238472
		B1B9F2	J5H180346-1	HHTGQ1AD	9HHTGQ10	5238473
		B1B9F2	J5H180346-1	HHTGQ1AE	9HHTGQ10	5238474
		B1B9F2	J5H180346-1	HHTGQ1AF	9HHTGQ10	5238476
		B1B9F2	J5H180346-1	HHTGQ1AG	9HHTGQ10	5238477
		B1B9F2	J5H180346-1	HHTGQ1AH	9HHTGQ10	5238470
		B1B9F2	J5H180346-1	HHTGQ2AA	9HHTGQ20	5283595
		B1B9F2	J5H180346-1	HHTGQ2AJ	9HHTGQ20	5278310
		B1B9H4	J5H180346-2	HHTGV1AC	9HHTGV10	5238472
		B1B9H4	J5H180346-2	HHTGV1AD	9HHTGV10	5238473
		B1B9H4	J5H180346-2	HHTGV1AE	9HHTGV10	5238474
		B1B9H4	J5H180346-2	HHTGV1AF	9HHTGV10	5238476
		B1B9H4	J5H180346-2	HHTGV1AG	9HHTGV10	5238477
		B1B9H4	J5H180346-2	HHTGV1AH	9HHTGV10	5238470
		B1B9H4	J5H180346-2	HHTGV2AA	9HHTGV20	5283595
		B1B9H4	J5H180346-2	HHTGV2AJ	9HHTGV20	5278310
		B1B9K8	J5H180346-3	HHTGW1A	9HHTGW10	5238472
		B1B9K8	J5H180346-3	HHTGW1A	9HHTGW10	5238473

Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04728	X04-056	B1B9K8	J5H180346-3	HHTGW1AE	9HHTGW10	5238474
		B1B9K8	J5H180346-3	HHTGW1AF	9HHTGW10	5238476
		B1B9K8	J5H180346-3	HHTGW1A	9HHTGW10	5238477
		B1B9K8	J5H180346-3	HHTGW1A	9HHTGW10	5238470
		B1B9K8	J5H180346-3	HHTGW2A	9HHTGW20	5283595
		B1B9K8	J5H180346-3	HHTGW2AJ	9HHTGW20	5278310
		B1B9H8	J5H190283-1	HHWNV1A	9HHWNV10	5238472
		B1B9H8	J5H190283-1	HHWNV1A	9HHWNV10	5238473
		B1B9H8	J5H190283-1	HHWNV1AE	9HHWNV10	5238474
		B1B9H8	J5H190283-1	HHWNV1AF	9HHWNV10	5238476
		B1B9H8	J5H190283-1	HHWNV1A	9HHWNV10	5238477
		B1B9H8	J5H190283-1	HHWNV1A	9HHWNV10	5238470
		B1B9H8	J5H190283-1	HHWNV2A	9HHWNV20	5283595
		B1B9H8	J5H190283-1	HHWNV2AJ	9HHWNV20	5278310
		B1B9F6	J5H190283-2	HHWPA1AC	9HHWPA10	5238472
		B1B9F6	J5H190283-2	HHWPA1AD	9HHWPA10	5238473
		B1B9F6	J5H190283-2	HHWPA1AE	9HHWPA10	5238474
		B1B9F6	J5H190283-2	HHWPA1AF	9HHWPA10	5238476
		B1B9F6	J5H190283-2	HHWPA1AG	9HHWPA10	5238477
		B1B9F6	J5H190283-2	HHWPA1AH	9HHWPA10	5238470
		B1B9F6	J5H190283-2	HHWPA2AA	9HHWPA20	5283595
		B1B9F6	J5H190283-2	HHWPA2AJ	9HHWPA20	5278310
		B1B9H0	J5H190283-3	HHWPD1AC	9HHWPD10	5238472
		B1B9H0	J5H190283-3	HHWPD1AD	9HHWPD10	5238473
		B1B9H0	J5H190283-3	HHWPD1AE	9HHWPD10	5238474
		B1B9H0	J5H190283-3	HHWPD1AF	9HHWPD10	5238476

Comments:

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		B1B9H0	J5H190283-3	HHWPD1AH	9HHWPD10	5238470
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		B1B9H0	J5H190283-3	HHWPD2AJ	9HHWPD20	5278310

Comments:

Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

October 18, 2005

Attention: Dot Stewart

SAF Number	:	X05-041, X05-050, X04-056
Date SDG Closed	:	August 19, 2005
Number of Samples	:	Ten (10)
Sample Type	:	Water
SDG Number	:	W04728
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between August 5, 2005 and August 19, 2005, ten water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

PGW ID#	STLR ID#	MATRIX	DATE OF RECEIPT
B1DKM1	HG3VT	WATER	8/05/05
B1DB19	HHAQW	WATER	8/10/05
BIB9L2	HHL5L	WATER	8/16/05
B1B9D8	HHPMA	WATER	8/17/05
B1B9F2	HHTGQ	WATER	8/18/05
B1B9H4	HHTGV	WATER	8/18/05
B1B9K8	HHTGW	WATER	8/18/05
B1B9H8	HHWNV	WATER	8/19/05
B1B9F6	HHWPA	WATER	8/19/05
B1B9H0	HHWPD	WATER	8/19/05

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Gas Proportional Counting
Gross Alpha by method RICH-RC-5014
Gross Beta by method RICH-RC-5014
Strontium-90 by method RICH-RC-5006
Gamma Spectroscopy
Gamma Spec (LL) by method RICH-RC-5017
Iodine-129 (LL) by method RICH-RC-5025
Liquid Scintillation Counting
Technetium-99 by TEVA method RICH-RC-5065
Tritium by method RICH-RC-5007
Laser Induced Phosphorimetry
Total Uranium by method RICH-RC-5058

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:
The LCS, batch blank, samples and sample duplicate (B1DB19) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:
The LCS, batch blank, samples and sample duplicate (B1B9L2) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006
The LCS, batch blank, samples and sample duplicate (B1B9H2) results are within contractual requirements.

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October 18, 2005

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017:
The LCS, batch blank, samples and sample duplicate (B1B9D8) results are within contractual requirements.

Gamma Spec by method RICH-RC-5017:
The sample volumes for this batch were reduced, based upon the screening result, which lead to MDAs which were higher than the CRDL. Other than as noted, the LCS, batch blank, samples and sample duplicate (B1DKM1) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025
The LCS, batch blank, samples and sample duplicate (B1B9F2) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by TEVA method RICH-RC-5065:
The achieved MDAs for sample B1BKM1 and duplicate are greater than the CRDL due to reduced volumes being analyzed based on an elevated screening results. The detected activities exceed the achieved MDAs. Other than as noted, the LCS, batch blank, samples, sample duplicate (B1DKM1), and sample matrix spike (B1B9H0) results are within contractual requirements

Tritium by method RICH-RC-5007:
The initial batch failed to achieve acceptable MDAs so the batch was recounted with a longer count time and the MDAs met the CRDL. The LCS, batch blank, samples and sample duplicate (B1B9H8) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:
The initial batch for this analysis failed and the batch was rerun. The LCS, batch blank, samples, sample duplicate (B1B9D8), and sample matrix spike (B1B9L2) results are within contractual requirements.

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

Reviewed and approved:

Hans Carman
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.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30216 File Name: h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.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:
9HG3VT10	B1DKM1		MW6-SBB-A1	X05-050	W04728					08/05/2005 12:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5238475	CO-60	10198-40-0	-1.18E+01	pCi/L	3.6E+01	3.6E+01	U	6.52E+01		GAMMA_GS	1.001E-01	L	09/24/200 16:05	I
5238475	CS-134	13967-70-9	-1.19E+01	pCi/L	3.6E+01	3.6E+01	U	6.47E+01		GAMMA_GS	1.001E-01	L	09/24/200 16:05	I
5238475	CS-137	10045-97-3	-2.80E-01	pCi/L	3.5E+01	3.5E+01	U	6.28E+01		GAMMA_GS	1.001E-01	L	09/24/200 16:05	I
5238475	EU-152	14683-23-9	8.33E+00	pCi/L	8.5E+01	8.5E+01	U	1.54E+02		GAMMA_GS	1.001E-01	L	09/24/200 16:05	I
5238475	EU-154	15585-10-1	7.40E+01	pCi/L	9.7E+01	9.7E+01	U	2.11E+02		GAMMA_GS	1.001E-01	L	09/24/200 16:05	I
5238475	EU-155	14391-16-3	4.22E+01	pCi/L	7.1E+01	7.1E+01	U	1.34E+02		GAMMA_GS	1.001E-01	L	09/24/200 16:05	I
5238475	K-40	13966-00-2	-3.10E+02	pCi/L	5.2E+02	5.2E+02	U	1.07E+03		GAMMA_GS	1.001E-01	L	09/24/200 16:05	I
5238475	RU-106	13967-48-1	1.45E+02	pCi/L	3.0E+02	3.0E+02	U	5.80E+02		GAMMA_GS	1.001E-01	L	09/24/200 16:05	I
5238475	SB-125	14234-35-6	2.46E+01	pCi/L	8.1E+01	8.1E+01	U	1.55E+02		GAMMA_GS	1.001E-01	L	09/24/200 16:05	I
5238470	TC-99	14133-76-7	3.60E+04	pCi/L	1.6E+02	2.1E+03		2.44E+01	100.0	TC99_ETVDSK_LS	5.44E-02	L	09/30/200 00:56	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:
9HG3VT20	B1DKM1		MW6-SBB-A1	X05-050	W04728					08/05/2005 12:30

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5283595	H-3	10028-17-8	8.65E+03	pCi/L	3.4E+02	5.2E+02		3.39E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/11/200 21:29	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HHAQW10	B1DB19		MW6-SBB-A1	X05-041	W04728					08/10/2005 09:14

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5238472	ALPHA	12587-46-1	4.88E+00	pCi/L	1.7E+00	1.9E+00		1.60E+00	100.0	9310_ALPHABETA	1.976E-01	L	09/24/200 12:23	I
5238473	BETA	12587-47-2	1.38E+01	pCi/L	2.1E+00	2.9E+00		2.59E+00	100.0	9310_ALPHABETA	1.967E-01	L	09/24/200 11:46	I
5238476	I-129L	15046-84-1	1.09E+00	pCi/L	3.6E-01	3.6E-01	U	4.97E-01	100.5	I129LL_SEP_LEPS	3.9377E+00	L	09/28/200 15:41	I
5238470	TC-99	14133-76-7	1.40E+01	pCi/L	4.7E+00	6.7E+00		1.04E+01	100.0	TC99_ETVDSK_LS	1.306E-01	L	09/30/200 03:01	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:
9HHL5L10	B1B9L2		MW6-SBB-A1	X04-056	W04728					08/16/2005 10:45

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5238472	ALPHA	12587-46-1	2.07E+00	pCi/L	1.2E+00	1.2E+00		1.59E+00	100.0	9310_ALPHABETA	2.01E-01	L	09/24/200 12:23	I
5238473	BETA	12587-47-2	8.46E+00	pCi/L	1.8E+00	2.1E+00		2.58E+00	100.0	9310_ALPHABETA	1.973E-01	L	09/24/200 11:46	I
5238474	CO-60	10198-40-0	-9.28E-01	pCi/L	2.1E+00	2.1E+00	U	3.71E+00		GAMMALL_GS	1.9937E+00	L	09/24/200 17:39	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.

5238474	CS-134	13967-70-9	4.38E-01	pCi/L	2.0E+00	2.0E+00	U	4.10E+00		GAMMALL_GS	1.9937E+00	L	09/24/200	17:39	I
5238474	CS-137	10045-97-3	1.09E+00	pCi/L	2.1E+00	2.1E+00	U	4.21E+00		GAMMALL_GS	1.9937E+00	L	09/24/200	17:39	I
5238474	EU-152	14683-23-9	-1.97E+00	pCi/L	5.8E+00	5.8E+00	U	1.01E+01		GAMMALL_GS	1.9937E+00	L	09/24/200	17:39	I
5238474	EU-154	15585-10-1	-9.14E-01	pCi/L	6.6E+00	6.6E+00	U	1.27E+01		GAMMALL_GS	1.9937E+00	L	09/24/200	17:39	I
5238474	EU-155	14391-16-3	-9.93E-01	pCi/L	4.8E+00	4.8E+00	U	8.49E+00		GAMMALL_GS	1.9937E+00	L	09/24/200	17:39	I
5238474	K-40	13966-00-2	-1.32E+01	pCi/L	5.4E+01	5.4E+01	U	1.19E+02		GAMMALL_GS	1.9937E+00	L	09/24/200	17:39	I
5238474	RU-106	13967-48-1	-2.24E+00	pCi/L	2.1E+01	2.1E+01	U	3.77E+01		GAMMALL_GS	1.9937E+00	L	09/24/200	17:39	I
5238474	SB-125	14234-35-6	7.68E-01	pCi/L	5.0E+00	5.0E+00	U	9.36E+00		GAMMALL_GS	1.9937E+00	L	09/24/200	17:39	I
5238476	I-129L	15046-84-1	4.56E-02	pCi/L	1.0E-01	1.0E-01	U	2.13E-01	98.1	I129LL_SEP_LEPS	3.8151E+00	L	09/28/200	15:42	I
5238477	SR-90	10098-97-2	3.90E-01	pCi/L	1.9E-01	2.1E-01		3.65E-01	75.7	SRISO_SEP_PRE	1.0142E+00	L	09/25/200	09:01	I
5238470	TC-99	14133-76-7	-2.22E+00	pCi/L	4.2E+00	5.8E+00	U	1.02E+01	100.0	TC99_ETVDSK_LS	1.292E-01	L	09/30/200	04:03	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HHL5L20	B1B9L2		MW6-SBB-A1	X04-056	W04728					08/16/2005 10:45

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
5283595	H-3	10028-17-8	1.82E+02	pCi/L	1.5E+02	1.6E+02	U	3.38E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/11/200	22:51	I
5278310	Uranium	7440-61-1	3.78E+00	ug/L	3.9E-01	3.9E-01		8.22E-02		UTOT_KPA	2.55E-02	ML	10/10/200	09:21	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HHPMA10	B1B9D8		MW6-SBB-A1	X04-056	W04728					08/17/2005 08:35

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
5238472	ALPHA	12587-46-1	1.69E+00	pCi/L	1.0E+00	1.1E+00		1.40E+00	100.0	9310_ALPHABETA	1.966E-01	L	09/24/200	12:23	I
5238473	BETA	12587-47-2	7.49E+00	pCi/L	1.8E+00	2.3E+00		2.77E+00	100.0	9310_ALPHABETA	1.945E-01	L	09/24/200	11:46	I
5238474	CO-60	10198-40-0	8.42E-01	pCi/L	1.8E+00	1.8E+00	U	4.19E+00		GAMMALL_GS	2.0048E+00	L	09/24/200	17:39	I
5238474	CS-134	13967-70-9	1.62E+00	pCi/L	2.3E+00	2.3E+00	U	4.93E+00		GAMMALL_GS	2.0048E+00	L	09/24/200	17:39	I
5238474	CS-137	10045-97-3	1.60E-01	pCi/L	2.0E+00	2.0E+00	U	3.90E+00		GAMMALL_GS	2.0048E+00	L	09/24/200	17:39	I
5238474	EU-152	14683-23-9	-7.36E-01	pCi/L	5.1E+00	5.1E+00	U	9.36E+00		GAMMALL_GS	2.0048E+00	L	09/24/200	17:39	I
5238474	EU-154	15585-10-1	-1.71E+00	pCi/L	4.6E+00	4.6E+00	U	8.62E+00		GAMMALL_GS	2.0048E+00	L	09/24/200	17:39	I
5238474	EU-155	14391-16-3	-9.78E-01	pCi/L	4.4E+00	4.4E+00	U	7.81E+00		GAMMALL_GS	2.0048E+00	L	09/24/200	17:39	I
5238474	K-40	13966-00-2	-4.92E+01	pCi/L	4.5E+01	4.5E+01	U	9.37E+01		GAMMALL_GS	2.0048E+00	L	09/24/200	17:39	I
5238474	RU-106	13967-48-1	-5.80E+00	pCi/L	1.7E+01	1.7E+01	U	3.07E+01		GAMMALL_GS	2.0048E+00	L	09/24/200	17:39	I
5238474	SB-125	14234-35-6	-3.88E-01	pCi/L	5.6E+00	5.6E+00	U	1.02E+01		GAMMALL_GS	2.0048E+00	L	09/24/200	17:39	I
5238476	I-129L	15046-84-1	-8.22E-02	pCi/L	1.4E-01	1.4E-01	U	2.29E-01	99.2	I129LL_SEP_LEPS	3.9161E+00	L	09/28/200	17:47	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.

5238477	SR-90	10098-97-2	8.65E-02	pCi/L	1.5E-01	1.8E-01	U	3.81E-01	77.9	SRISO_SEP_PRE	1.0103E+00	L	09/25/200	09:01	I
5238470	TC-99	14133-76-7	3.79E+00	pCi/L	4.7E+00	6.4E+00	U	1.09E+01	100.0	TC99_ETVDSK_LS	1.229E-01	L	09/30/200	05:06	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:
9HHPMA20	B1B9D8		MW6-SBB-A1	X04-056	W04728					08/17/2005 08:35

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
5283595	H-3	10028-17-8	1.48E+02	pCi/L	1.4E+02	1.6E+02	U	3.34E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/12/200	00:13	I
5278310	Uranium	7440-61-1	3.03E+00	ug/L	3.1E-01	3.1E-01		8.70E-02		UTOT_KPA	2.41E-02	ML	10/10/200	10:14	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:
9HHTGQ10	B1B9F2		MW6-SBB-A1	X04-056	W04728					08/18/2005 10:54

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
5238472	ALPHA	12587-46-1	3.66E+00	pCi/L	1.4E+00	1.6E+00		1.34E+00	100.0	9310_ALPHABETA	1.946E-01	L	09/24/200	12:23	I
5238473	BETA	12587-47-2	6.64E+00	pCi/L	1.8E+00	2.0E+00		2.89E+00	100.0	9310_ALPHABETA	1.988E-01	L	09/24/200	11:46	I
5238474	CO-60	10198-40-0	-2.84E-01	pCi/L	2.7E+00	2.7E+00	U	5.19E+00		GAMMALL_GS	1.9946E+00	L	09/24/200	17:40	I
5238474	CS-134	13967-70-9	1.84E+00	pCi/L	2.6E+00	2.6E+00	U	5.25E+00		GAMMALL_GS	1.9946E+00	L	09/24/200	17:40	I
5238474	CS-137	10045-97-3	-2.24E-01	pCi/L	1.9E+00	1.9E+00	U	3.47E+00		GAMMALL_GS	1.9946E+00	L	09/24/200	17:40	I
5238474	EU-152	14683-23-9	1.35E+00	pCi/L	4.7E+00	4.7E+00	U	8.87E+00		GAMMALL_GS	1.9946E+00	L	09/24/200	17:40	I
5238474	EU-154	15585-10-1	-1.78E+00	pCi/L	7.4E+00	7.4E+00	U	1.36E+01		GAMMALL_GS	1.9946E+00	L	09/24/200	17:40	I
5238474	EU-155	14391-16-3	-6.73E-01	pCi/L	3.6E+00	3.6E+00	U	6.33E+00		GAMMALL_GS	1.9946E+00	L	09/24/200	17:40	I
5238474	K-40	13966-00-2	-1.47E+02	pCi/L	5.4E+01	5.4E+01	U	1.04E+02		GAMMALL_GS	1.9946E+00	L	09/24/200	17:40	I
5238474	RU-106	13967-48-1	1.02E+01	pCi/L	2.2E+01	2.2E+01	U	4.25E+01		GAMMALL_GS	1.9946E+00	L	09/24/200	17:40	I
5238474	SB-125	14234-35-6	-2.28E+00	pCi/L	5.3E+00	5.3E+00	U	9.34E+00		GAMMALL_GS	1.9946E+00	L	09/24/200	17:40	I
5238476	I-129L	15046-84-1	1.44E-01	pCi/L	1.1E-01	1.1E-01	U	2.44E-01	94.3	I129LL_SEP_LEPS	4.00E+00	L	09/28/200	17:48	I
5238477	SR-90	10098-97-2	4.33E-02	pCi/L	1.7E-01	1.7E-01	U	3.79E-01	78.0	SRISO_SEP_PRE	9.901E-01	L	09/25/200	09:01	I
5238470	TC-99	14133-76-7	2.40E+00	pCi/L	4.5E+00	6.2E+00	U	1.05E+01	100.0	TC99_ETVDSK_LS	1.263E-01	L	09/30/200	06:08	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:
9HHTGQ20	B1B9F2		MW6-SBB-A1	X04-056	W04728					08/18/2005 10:54

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
5283595	H-3	10028-17-8	8.63E+01	pCi/L	1.4E+02	1.6E+02	U	3.38E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/12/200	01:35	I
5278310	Uranium	7440-61-1	3.21E+00	ug/L	3.3E-01	3.3E-01		7.38E-02		UTOT_KPA	2.84E-02	ML	10/10/200	10:18	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.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30216 File Name: h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.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:
9HHTGV10	B1B9H4		MW6-SBB-A1	X04-056	W04728					08/18/2005 09:43

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5238472	ALPHA	12587-46-1	1.67E+00	pCi/L	1.0E+00	1.1E+00		1.25E+00	100.0	9310_ALPHABETA	1.719E-01	L	09/24/200 12:23	I
5238473	BETA	12587-47-2	8.00E+00	pCi/L	1.7E+00	2.1E+00		2.50E+00	100.0	9310_ALPHABETA	2.026E-01	L	09/24/200 11:46	I
5238474	CO-60	10198-40-0	-2.54E-01	pCi/L	2.2E+00	2.2E+00	U	4.18E+00		GAMMALL_GS	2.017E+00	L	09/24/200 17:40	I
5238474	CS-134	13967-70-9	-1.81E+00	pCi/L	2.2E+00	2.2E+00	U	3.58E+00		GAMMALL_GS	2.017E+00	L	09/24/200 17:40	I
5238474	CS-137	10045-97-3	8.50E-01	pCi/L	1.9E+00	1.9E+00	U	3.81E+00		GAMMALL_GS	2.017E+00	L	09/24/200 17:40	I
5238474	EU-152	14683-23-9	3.24E-02	pCi/L	5.4E+00	5.4E+00	U	9.73E+00		GAMMALL_GS	2.017E+00	L	09/24/200 17:40	I
5238474	EU-154	15585-10-1	-9.05E-01	pCi/L	5.2E+00	5.2E+00	U	1.02E+01		GAMMALL_GS	2.017E+00	L	09/24/200 17:40	I
5238474	EU-155	14391-16-3	8.48E-01	pCi/L	3.8E+00	3.8E+00	U	6.97E+00		GAMMALL_GS	2.017E+00	L	09/24/200 17:40	I
5238474	K-40	13966-00-2	-9.35E+00	pCi/L	3.0E+01	3.0E+01	U	6.34E+01		GAMMALL_GS	2.017E+00	L	09/24/200 17:40	I
5238474	RU-106	13967-48-1	1.46E+01	pCi/L	1.7E+01	1.7E+01	U	3.56E+01		GAMMALL_GS	2.017E+00	L	09/24/200 17:40	I
5238474	SB-125	14234-35-6	1.37E+00	pCi/L	5.3E+00	5.3E+00	U	9.88E+00		GAMMALL_GS	2.017E+00	L	09/24/200 17:40	I
5238476	I-129L	15046-84-1	-9.71E-02	pCi/L	1.1E-01	1.1E-01	U	1.72E-01	99.2	I129LL_SEP_LEPS	3.8462E+00	L	09/28/200 19:35	I
5238477	SR-90	10098-97-2	6.34E-02	pCi/L	1.8E-01	1.8E-01	U	3.94E-01	79.3	SRISO_SEP_PRE	9.938E-01	L	09/25/200 09:01	I
5238470	TC-99	14133-76-7	-2.41E+00	pCi/L	4.4E+00	6.0E+00	U	1.08E+01	100.0	TC99_ETVDSK_LS	1.237E-01	L	09/30/200 07:10	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:
9HHTGV20	B1B9H4		MW6-SBB-A1	X04-056	W04728					08/18/2005 09:43

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5283595	H-3	10028-17-8	1.70E+02	pCi/L	1.4E+02	1.6E+02	U	3.37E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/12/200 02:58	I
5278310	Uranium	7440-61-1	3.07E+00	ug/L	3.2E-01	3.2E-01		8.62E-02		UTOT_KPA	2.43E-02	ML	10/10/200 10:22	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:
9HHTGW10	B1B9K8		MW6-SBB-A1	X04-056	W04728					08/18/2005 08:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5238472	ALPHA	12587-46-1	1.28E+00	pCi/L	9.4E-01	9.8E-01	U	1.55E+00	100.0	9310_ALPHABETA	2.01E-01	L	09/24/200 12:23	I
5238473	BETA	12587-47-2	7.35E+00	pCi/L	1.8E+00	2.1E+00		3.01E+00	100.0	9310_ALPHABETA	1.989E-01	L	09/24/200 13:36	I
5238474	CO-60	10198-40-0	6.85E-02	pCi/L	2.4E+00	2.4E+00	U	4.79E+00		GAMMALL_GS	1.9875E+00	L	09/24/200 19:27	I
5238474	CS-134	13967-70-9	-3.97E-01	pCi/L	2.6E+00	2.6E+00	U	4.76E+00		GAMMALL_GS	1.9875E+00	L	09/24/200 19:27	I
5238474	CS-137	10045-97-3	1.29E+00	pCi/L	2.0E+00	2.0E+00	U	4.22E+00		GAMMALL_GS	1.9875E+00	L	09/24/200 19:27	I
5238474	EU-152	14683-23-9	1.87E+00	pCi/L	6.3E+00	6.3E+00	U	1.17E+01		GAMMALL_GS	1.9875E+00	L	09/24/200 19:27	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.

5238474	EU-154	15585-10-1	-1.33E+00	pCi/L	6.4E+00	6.4E+00	U	1.22E+01		GAMMALL_GS	1.9875E+00	L	09/24/200	19:27	I
5238474	EU-155	14391-16-3	-9.73E-01	pCi/L	4.2E+00	4.2E+00	U	7.19E+00		GAMMALL_GS	1.9875E+00	L	09/24/200	19:27	I
5238474	K-40	13966-00-2	-7.70E-01	pCi/L	3.7E+01	3.7E+01	U	8.67E+01		GAMMALL_GS	1.9875E+00	L	09/24/200	19:27	I
5238474	RU-106	13967-48-1	6.34E+00	pCi/L	1.9E+01	1.9E+01	U	3.68E+01		GAMMALL_GS	1.9875E+00	L	09/24/200	19:27	I
5238474	SB-125	14234-35-6	-1.50E+00	pCi/L	5.4E+00	5.4E+00	U	9.50E+00		GAMMALL_GS	1.9875E+00	L	09/24/200	19:27	I
5238476	I-129L	15046-84-1	-1.05E-01	pCi/L	1.6E-01	1.6E-01	U	2.69E-01	100.3	I129LL_SEP_LEPS	3.8663E+00	L	09/28/200	21:18	I
5238477	SR-90	10098-97-2	1.23E-01	pCi/L	1.8E-01	1.9E-01	U	4.05E-01	76.9	SRISO_SEP_PRE	1.0046E+00	L	09/25/200	08:56	I
5238470	TC-99	14133-76-7	2.77E+00	pCi/L	4.4E+00	6.0E+00	U	1.05E+01	100.0	TC99_ETVDSK_LS	1.305E-01	L	09/30/200	08:13	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:
9HHTGW20	B1B9K8		MW6-SBB-A1	X04-056	W04728					08/18/2005 08:16

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
5283595	H-3	10028-17-8	1.68E+02	pCi/L	1.4E+02	1.6E+02	U	3.37E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/12/200	04:20	I
5278310	Uranium	7440-61-1	1.97E+00	ug/L	2.0E-01	2.0E-01		8.62E-02		UTOT_KPA	2.43E-02	ML	10/10/200	10:25	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HHWNV10	B1B9H8		MW6-SBB-A1	X04-056	W04728					08/19/2005 08:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time		Act
5238472	ALPHA	12587-46-1	2.02E+00	pCi/L	1.2E+00	1.3E+00		1.37E+00	100.0	9310_ALPHABETA	1.321E-01	L	09/24/200	12:23	I
5238473	BETA	12587-47-2	6.07E+00	pCi/L	1.7E+00	1.9E+00		2.82E+00	100.0	9310_ALPHABETA	1.948E-01	L	09/24/200	13:36	I
5238474	CO-60	10198-40-0	2.85E-01	pCi/L	2.2E+00	2.2E+00	U	4.49E+00		GAMMALL_GS	2.0183E+00	L	09/24/200	19:34	I
5238474	CS-134	13967-70-9	-8.83E-01	pCi/L	2.4E+00	2.4E+00	U	4.29E+00		GAMMALL_GS	2.0183E+00	L	09/24/200	19:34	I
5238474	CS-137	10045-97-3	-2.22E+00	pCi/L	2.2E+00	2.2E+00	U	3.39E+00		GAMMALL_GS	2.0183E+00	L	09/24/200	19:34	I
5238474	EU-152	14683-23-9	-1.45E+00	pCi/L	4.7E+00	4.7E+00	U	8.35E+00		GAMMALL_GS	2.0183E+00	L	09/24/200	19:34	I
5238474	EU-154	15585-10-1	-5.58E-01	pCi/L	7.5E+00	7.5E+00	U	1.43E+01		GAMMALL_GS	2.0183E+00	L	09/24/200	19:34	I
5238474	EU-155	14391-16-3	-3.61E-01	pCi/L	4.1E+00	4.1E+00	U	7.19E+00		GAMMALL_GS	2.0183E+00	L	09/24/200	19:34	I
5238474	K-40	13966-00-2	-1.68E+02	pCi/L	5.0E+01	5.0E+01	U	9.26E+01		GAMMALL_GS	2.0183E+00	L	09/24/200	19:34	I
5238474	RU-106	13967-48-1	-1.02E+01	pCi/L	1.8E+01	1.8E+01	U	3.11E+01		GAMMALL_GS	2.0183E+00	L	09/24/200	19:34	I
5238474	SB-125	14234-35-6	-1.72E+00	pCi/L	5.1E+00	5.1E+00	U	9.02E+00		GAMMALL_GS	2.0183E+00	L	09/24/200	19:34	I
5238476	I-129L	15046-84-1	2.52E-02	pCi/L	1.3E-01	1.3E-01	U	2.56E-01	99.2	I129LL_SEP_LEPS	3.8691E+00	L	09/28/200	21:19	I
5238477	SR-90	10098-97-2	4.76E-02	pCi/L	1.7E-01	1.7E-01	U	3.75E-01	78.1	SRISO_SEP_PRE	9.945E-01	L	09/25/200	08:56	I
5238470	TC-99	14133-76-7	1.40E+00	pCi/L	4.3E+00	6.0E+00	U	1.02E+01	100.0	TC99_ETVDSK_LS	1.291E-01	L	09/30/200	09:15	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.

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30216 File Name: h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.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:
9HHWNV20	B1B9H8		MW6-SBB-A1	X04-056	W04728					08/19/2005 08:15

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5283595	H-3	10028-17-8	3.25E+02	pCi/L	1.5E+02	1.7E+02	U	3.37E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/12/200 05:42	I
5278310	Uranium	7440-61-1	3.57E+00	ug/L	3.7E-01	3.7E-01		9.23E-02		UTOT_KPA	2.27E-02	ML	10/10/200 10:29	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HHWPA10	B1B9F6		MW6-SBB-A1	X04-056	W04728					08/19/2005 10:51

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5238472	ALPHA	12587-46-1	6.27E-01	pCi/L	9.9E-01	1.0E+00	U	2.06E+00	100.0	9310_ALPHABETA	1.16E-01	L	09/24/200 14:15	I
5238473	BETA	12587-47-2	1.07E+00	pCi/L	1.5E+00	1.5E+00	U	3.17E+00	100.0	9310_ALPHABETA	1.589E-01	L	09/24/200 13:36	I
5238474	CO-60	10198-40-0	2.04E-01	pCi/L	2.5E+00	2.5E+00	U	4.88E+00		GAMMALL_GS	1.9902E+00	L	09/24/200 19:35	I
5238474	CS-134	13967-70-9	6.94E-01	pCi/L	2.1E+00	2.1E+00	U	4.29E+00		GAMMALL_GS	1.9902E+00	L	09/24/200 19:35	I
5238474	CS-137	10045-97-3	-9.09E-01	pCi/L	2.0E+00	2.0E+00	U	3.43E+00		GAMMALL_GS	1.9902E+00	L	09/24/200 19:35	I
5238474	EU-152	14683-23-9	2.56E+00	pCi/L	5.3E+00	5.3E+00	U	1.01E+01		GAMMALL_GS	1.9902E+00	L	09/24/200 19:35	I
5238474	EU-154	15585-10-1	-1.52E+00	pCi/L	4.6E+00	4.6E+00	U	8.70E+00		GAMMALL_GS	1.9902E+00	L	09/24/200 19:35	I
5238474	EU-155	14391-16-3	-1.93E+00	pCi/L	3.7E+00	3.7E+00	U	6.37E+00		GAMMALL_GS	1.9902E+00	L	09/24/200 19:35	I
5238474	K-40	13966-00-2	1.75E+00	pCi/L	2.7E+01	2.7E+01	U	6.26E+01		GAMMALL_GS	1.9902E+00	L	09/24/200 19:35	I
5238474	RU-106	13967-48-1	-1.18E+00	pCi/L	2.1E+01	2.1E+01	U	3.80E+01		GAMMALL_GS	1.9902E+00	L	09/24/200 19:35	I
5238474	SB-125	14234-35-6	2.08E+00	pCi/L	4.7E+00	4.7E+00	U	9.17E+00		GAMMALL_GS	1.9902E+00	L	09/24/200 19:35	I
5238476	I-129L	15046-84-1	-1.07E-01	pCi/L	1.6E-01	1.6E-01	U	2.59E-01	96.2	I129LL_SEP_LEPS	3.884E+00	L	09/29/200 01:57	I
5238477	SR-90	10098-97-2	6.05E-01	pCi/L	2.9E-01	2.9E-01		4.81E-01	68.3	SRISO_SEP_PRE	1.0017E+00	L	09/25/200 08:56	I
5238470	TC-99	14133-76-7	-6.71E-01	pCi/L	4.5E+00	6.2E+00	U	1.11E+01	100.0	TC99_ETVDSK_LS	1.228E-01	L	09/30/200 10:17	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:
9HHWPA20	B1B9F6		MW6-SBB-A1	X04-056	W04728					08/19/2005 10:51

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5283595	H-3	10028-17-8	1.44E+02	pCi/L	1.4E+02	1.6E+02	U	3.40E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/12/200 12:33	I
5278310	Uranium	7440-61-1	3.53E-02	ug/L	9.2E-03	9.2E-03	U	9.03E-02		UTOT_KPA	2.32E-02	ML	10/10/200 10:32	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HHWPD10	B1B9H0		MW6-SBB-A1	X04-056	W04728					08/19/2005 09:20

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 Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30216 File Name: h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5238472	ALPHA	12587-46-1	3.76E-01	pCi/L	6.3E-01	6.3E-01	U	1.33E+00	100.0	9310_ALPHABETA	1.515E-01	L	09/24/200 14:15	I
5238473	BETA	12587-47-2	2.44E+00	pCi/L	1.3E+00	1.4E+00	U	2.49E+00	100.0	9310_ALPHABETA	1.984E-01	L	09/24/200 13:36	I
5238474	CO-60	10198-40-0	-3.68E-01	pCi/L	1.5E+00	1.5E+00	U	2.81E+00		GAMMALL_GS	1.9775E+00	L	09/24/200 19:48	I
5238474	CS-134	13967-70-9	-1.74E+00	pCi/L	1.7E+00	1.7E+00	U	2.60E+00		GAMMALL_GS	1.9775E+00	L	09/24/200 19:48	I
5238474	CS-137	10045-97-3	8.17E-01	pCi/L	1.5E+00	1.5E+00	U	3.01E+00		GAMMALL_GS	1.9775E+00	L	09/24/200 19:48	I
5238474	EU-152	14683-23-9	2.17E-01	pCi/L	4.3E+00	4.3E+00	U	7.73E+00		GAMMALL_GS	1.9775E+00	L	09/24/200 19:48	I
5238474	EU-154	15585-10-1	5.66E-01	pCi/L	4.6E+00	4.6E+00	U	9.23E+00		GAMMALL_GS	1.9775E+00	L	09/24/200 19:48	I
5238474	EU-155	14391-16-3	-7.76E-01	pCi/L	4.0E+00	4.0E+00	U	6.97E+00		GAMMALL_GS	1.9775E+00	L	09/24/200 19:48	I
5238474	K-40	13966-00-2	-1.81E+01	pCi/L	2.6E+01	2.6E+01	U	5.30E+01		GAMMALL_GS	1.9775E+00	L	09/24/200 19:48	I
5238474	RU-106	13967-48-1	-9.09E+00	pCi/L	1.5E+01	1.5E+01	U	2.44E+01		GAMMALL_GS	1.9775E+00	L	09/24/200 19:48	I
5238474	SB-125	14234-35-6	-7.13E-02	pCi/L	4.0E+00	4.0E+00	U	7.44E+00		GAMMALL_GS	1.9775E+00	L	09/24/200 19:48	I
5238476	I-129L	15046-84-1	-9.15E-02	pCi/L	1.1E-01	1.1E-01	U	1.86E-01	100.0	I129LL_SEP_LEPS	3.95E+00	L	09/29/200 01:57	I
5238477	SR-90	10098-97-2	1.11E-01	pCi/L	2.6E-01	2.6E-01	U	5.30E-01	64.4	SRISO_SEP_PRE	9.985E-01	L	09/25/200 08:57	I
5238470	TC-99	14133-76-7	4.78E-01	pCi/L	4.3E+00	6.0E+00	U	1.04E+01	100.0	TC99_ETVDSK_LS	1.289E-01	L	09/30/200 11:20	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:
9HHWPD20	B1B9H0		MW6-SBB-A1	X04-056	W04728					08/19/2005 09:20

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5283595	H-3	10028-17-8	1.86E+02	pCi/L	1.5E+02	1.6E+02	U	3.39E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/12/200 13:55	I
5278310	Uranium	7440-61-1	1.89E-01	ug/L	2.0E-02	2.0E-02		8.15E-02		UTOT_KPA	2.57E-02	ML	10/10/200 10:43	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.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDM52AB **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/19/2005 08:15

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 08/19/2005

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
5283595	H-3	1.04E+01	pCi/L	1.5E+02	U	3.33E+02	100.0		906.0_H3_LSC	5.00E-03	10/11/2005				D
BLK	10028-17-8			1.4E+02						L	18:44				

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 QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id:	HJDM52DX	**Sdg/Rept Nbr:**	W04728 30216	**Collection Date:**	08/19/2005 08:15
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	08/19/2005

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
5283595	H-3	3.96E+00	pCi/L	1.5E+02	U	3.37E+02	100.0		906.0_H3_LSC	5.00E-03	10/12/2005				D
BLK	10028-17-8			1.4E+02						L	09:49				

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 QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id:	HJDMX1AB	**Sdg/Rept Nbr:**	W04728	30216	**Collection Date:** 08/05/2005 12:30
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BLK**		**Received Date:** 08/05/2005

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
5238470	TC-99	-3.78E-01	pCi/L	5.8E+00	U	1.01E+01	100.0		TC99_ETVDSK	1.319E-01	09/30/2005				D
BLK	14133-76-7			4.2E+00						L	14:27				

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 QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDN61AB **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/17/2005 08:35

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 08/17/2005

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
5238474	CO-60	3.68E-01	pCi/L	1.7E+00	U	3.38E+00			GAMMALL_GS	1.9537E+00	09/24/2005				D
BLK	10198-40-0			1.7E+00						L	19:49				
5238474	CS-134	-2.85E-02	pCi/L	1.6E+00	U	2.96E+00			GAMMALL_GS	1.9537E+00	09/24/2005				D
BLK	13967-70-9			1.6E+00						L	19:49				
5238474	CS-137	4.32E+00	pCi/L	2.7E+00		2.82E+00			GAMMALL_GS	1.9537E+00	09/24/2005				D
BLK	10045-97-3			2.7E+00						L	19:49				
5238474	EU-152	3.61E-01	pCi/L	3.5E+00	U	6.51E+00			GAMMALL_GS	1.9537E+00	09/24/2005				D
BLK	14683-23-9			3.5E+00						L	19:49				
5238474	EU-154	-2.73E+00	pCi/L	4.7E+00	U	8.13E+00			GAMMALL_GS	1.9537E+00	09/24/2005				D
BLK	15585-10-1			4.7E+00						L	19:49				
5238474	EU-155	1.01E+00	pCi/L	2.8E+00	U	5.48E+00			GAMMALL_GS	1.9537E+00	09/24/2005				D
BLK	14391-16-3			2.8E+00						L	19:49				
5238474	K-40	3.79E+00	pCi/L	3.3E+01	U	1.72E+01			GAMMALL_GS	1.9537E+00	09/24/2005				D
BLK	13966-00-2			3.3E+01						L	19:49				
5238474	RU-106	-6.52E+00	pCi/L	1.3E+01	U	2.21E+01			GAMMALL_GS	1.9537E+00	09/24/2005				D
BLK	13967-48-1			1.3E+01						L	19:49				
5238474	SB-125	-1.22E+00	pCi/L	3.9E+00	U	6.74E+00			GAMMALL_GS	1.9537E+00	09/24/2005				D
BLK	14234-35-6			3.9E+00						L	19:49				

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 QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDN91AB **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/05/2005 12:30
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 08/05/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238475	CO-60	7.95E-01	pCi/L	1.6E+00	U	3.37E+00			GAMMA_GS	2.0288E+00	09/24/2005				D
BLK	10198-40-0			1.6E+00						L	18:05				
5238475	CS-134	5.72E-01	pCi/L	1.6E+00	U	3.19E+00			GAMMA_GS	2.0288E+00	09/24/2005				D
BLK	13967-70-9			1.6E+00						L	18:05				
5238475	CS-137	5.58E-01	pCi/L	1.6E+00	U	3.07E+00			GAMMA_GS	2.0288E+00	09/24/2005				D
BLK	10045-97-3			1.6E+00						L	18:05				
5238475	EU-152	-6.35E-01	pCi/L	4.3E+00	U	7.60E+00			GAMMA_GS	2.0288E+00	09/24/2005				D
BLK	14683-23-9			4.3E+00						L	18:05				
5238475	EU-154	1.18E+00	pCi/L	4.4E+00	U	9.10E+00			GAMMA_GS	2.0288E+00	09/24/2005				D
BLK	15585-10-1			4.4E+00						L	18:05				
5238475	EU-155	1.44E+00	pCi/L	3.4E+00	U	6.35E+00			GAMMA_GS	2.0288E+00	09/24/2005				D
BLK	14391-16-3			3.4E+00						L	18:05				
5238475	K-40	1.42E+01	pCi/L	2.8E+01	U	6.14E+01			GAMMA_GS	2.0288E+00	09/24/2005				D
BLK	13966-00-2			2.8E+01						L	18:05				
5238475	RU-106	-1.82E+00	pCi/L	1.5E+01	U	2.70E+01			GAMMA_GS	2.0288E+00	09/24/2005				D
BLK	13967-48-1			1.5E+01						L	18:05				
5238475	SB-125	4.08E-01	pCi/L	3.8E+00	U	7.21E+00			GAMMA_GS	2.0288E+00	09/24/2005				D
BLK	14234-35-6			3.8E+00						L	18:05				

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 QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDNK1AB **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/10/2005 09:14
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BLK **Received Date:** 08/10/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238472	ALPHA	3.30E-01	pCi/L	3.3E-01	U	5.87E-01	100.0		9310_ALPHAB	2.092E-01	09/24/2005				D
BLK	12587-46-1			3.3E-01						L	14:15				

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 QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDNN1AB **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/16/2005 10:45

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 08/16/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238473	BETA	2.84E-01	pCi/L	1.1E+00	U	2.50E+00	100.0		9310_ALPHAB	1.981E-01	09/24/2005				D
BLK	12587-47-2			1.1E+00						L	13:36				

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.

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDPA1AB **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/18/2005 10:54

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 08/18/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238476	I-129L	1.91E-02	pCi/L	1.6E-01	U	2.58E-01	97.6		I129LL_SEP_L	3.8948E+00	09/29/2005				D
BLK	15046-84-1			1.6E-01						L	03:46				

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

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id:	HJDPJ1AB	**Sdg/Rept Nbr:**	W04728	30216	**Collection Date:** 08/18/2005 09:43
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BLK**		**Received Date:** 08/18/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238477	SR-90	1.21E-02	pCi/L	2.0E-01	U	4.36E-01	77.5		SRISO_SEP_P	1.0181E+00	09/25/2005				D
BLK	10098-97-2			1.4E-01						L	08:57				

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 QC Blank Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id:	HL27C1AB	**Sdg/Rept Nbr:**	W04728 30216	**Collection Date:**	08/16/2005 10:45
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	08/16/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BW	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
5278310	Uranium	0.00E+00	ug/L	0.0E+00	U	2.10E-01			UTOT_KPA	2.60E-02	10/10/2005				D
BLK	7440-61-1			0.0E+00						ML	09:08				

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 QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDM52CS **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/19/2005 08:15

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/19/2005

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
5283595	H-3	2.80E+03	pCi/L	2.8E+02		3.38E+02	100.0	2.81E+03	906.0_H3_LSC	5.00E-03	10/11/2005			70	D
BS	10028-17-8			2.3E+02				99.5		L	20:07			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id:	HJDM52EM	**Sdg/Rept Nbr:**	W04728	30216	**Collection Date:** 08/19/2005 08:15
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**BS**		**Received Date:** 08/19/2005

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
5283595	H-3	2.86E+03	pCi/L	2.8E+02		3.38E+02	100.0	2.81E+03	906.0_H3_LSC	5.00E-03	10/12/2005			70	D
BS	10028-17-8			2.3E+02				101.6		L	11:11			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDMX1CS **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/05/2005 12:30

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/05/2005

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
5238470	TC-99	4.67E+02	pCi/L	3.3E+01		1.03E+01	100.0	5.24E+02	TC99_ETVDSK	1.285E-01	09/30/2005			70	D
BS	14133-76-7			1.2E+01				89.2		L	15:29			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDN61CS **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/17/2005 08:35
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/17/2005

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
5238474	CO-60	3.85E+01	pCi/L	1.1E+01		4.65E+00		3.82E+01	GAMMALL_GS	1.9705E+00	09/24/2005			70	D
BS	10198-40-0			1.1E+01				100.9		L	19:35			130	
5238474	CS-137	2.70E+01	pCi/L	6.2E+00		5.00E+00		2.58E+01	GAMMALL_GS	1.9705E+00	09/24/2005			70	D
BS	10045-97-3			6.2E+00				104.6		L	19:35			130	
5238474	EU-152	6.98E+01	pCi/L	2.0E+01	U	2.62E+01		7.63E+01	GAMMALL_GS	1.9705E+00	09/24/2005			70	D
BS	14683-23-9			2.0E+01				91.5		L	19:35			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDN91CS **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/05/2005 12:30

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/05/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238475	CO-60	3.55E+01	pCi/L	7.2E+00		3.41E+00		3.56E+01	GAMMA_GS	2.1284E+00	09/24/2005			70	D
BS	10198-40-0			7.2E+00				99.7		L	18:06			130	
5238475	CS-137	2.13E+01	pCi/L	5.6E+00		3.00E+00		2.39E+01	GAMMA_GS	2.1284E+00	09/24/2005			70	D
BS	10045-97-3			5.6E+00				88.9		L	18:06			130	
5238475	EU-152	5.82E+01	pCi/L	1.5E+01		6.73E+00		7.20E+01	GAMMA_GS	2.1284E+00	09/24/2005			70	D
BS	14683-23-9			1.5E+01				80.8		L	18:06			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDNK1CS **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/10/2005 09:14

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/10/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238472	ALPHA	1.76E+01	pCi/L	4.0E+00		5.62E-01	100.0	2.35E+01	9310_ALPHAB	1.989E-01	09/24/2005			70	D
BS	12587-46-1			1.8E+00				75.0		L	14:15			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDNN1CS **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/16/2005 10:45

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/16/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238473	BETA	2.44E+01	pCi/L	4.4E+00		2.33E+00	100.0	2.28E+01	9310_ALPHAB	1.99E-01	09/24/2005			70	D
BS	12587-47-2			2.4E+00				107.3		L	13:36			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDPA1CS **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/18/2005 10:54

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/18/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238476	I-129L	5.29E+00	pCi/L	8.7E-01		3.24E-01	92.6	5.72E+00	I129LL_SEP_L	3.9658E+00	09/29/2005			70	D
BS	15046-84-1			8.7E-01				92.5		L	03:46			130	

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

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HJDPJ1CS **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/18/2005 09:43

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/18/2005

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238477	SR-90	1.52E+01	pCi/L	2.4E+00		5.50E-01	69.9	1.42E+01	SRISO_SEP_P	9.611E-01	09/25/2005			70	D
BS	10098-97-2			8.6E-01				106.8		L	08:57			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.

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HL27C1CS **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/16/2005 10:45

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

Moisture/Solids%*: **QC Type:** BS **Received Date:** 08/16/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								BX	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
5278310	Uranium	3.60E+01	ug/L	4.3E+00		8.45E-02		3.64E+01	UTOT_KPA	2.48E-02	10/10/2005			70	D
BS	7440-61-1			4.3E+00				99.0		ML	09:14			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.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id:	HG3VT1ER	**Sdg/Rept Nbr:**	W04728	30216	**Collection Date:**	08/05/2005 12:30
Client Id:	B1DKM1	**Matrix:**	WATER	WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:**	08/05/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X05-050	MW6-SBB-A19981								AT	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238470	TC-99	3.75E+04	pCi/L	2.2E+03		2.39E+01	100.0		TC99_ETVDSK	5.58E-02	09/30/2005	4.2	1.		D
DUP	14133-76-7	3.60E+04		1.6E+02						L	01:59	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 QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HG3VT1FR **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/05/2005 12:30
Client Id: B1DKM1 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/05/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X05-050	MW6-SBB-A19981								AU	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238475	CO-60	-4.30E+00	pCi/L	3.3E+01	U	6.35E+01			GAMMA_GS	9.98E-02	09/24/2005	0.0	0.3		D
DUP	10198-40-0	-1.18E+01		3.3E+01						L	16:05	20.0	3		
5238475	CS-134	-4.07E+01	pCi/L	3.5E+01	U	5.11E+01			GAMMA_GS	9.98E-02	09/24/2005	0.0	1.2		D
DUP	13967-70-9	-1.19E+01		3.5E+01						L	16:05	20.0	3		
5238475	CS-137	8.48E+01	pCi/L	5.8E+01		4.80E+01			GAMMA_GS	9.98E-02	09/24/2005	201.3	2.1		D
DUP	10045-97-3	-2.80E-01		5.8E+01						L	16:05	20.0	3		
5238475	EU-152	-5.32E+01	pCi/L	6.9E+01	U	1.14E+02			GAMMA_GS	9.98E-02	09/24/2005	0.0	1.3		D
DUP	14683-23-9	8.33E+00		6.9E+01						L	16:05	20.0	3		
5238475	EU-154	9.73E+01	pCi/L	9.6E+01	U	2.15E+02			GAMMA_GS	9.98E-02	09/24/2005	27.1	0.3		D
DUP	15585-10-1	7.40E+01		9.6E+01						L	16:05	20.0	3		
5238475	EU-155	-8.69E+01	pCi/L	7.2E+01	U	9.12E+01			GAMMA_GS	9.98E-02	09/24/2005	0.0	2.5		D
DUP	14391-16-3	4.22E+01		7.2E+01						L	16:05	20.0	3		
5238475	K-40	-5.40E+02	pCi/L	6.1E+02	U	1.30E+03			GAMMA_GS	9.98E-02	09/24/2005	0.0	0.5		D
DUP	13966-00-2	-3.10E+02		6.1E+02						L	16:05	20.0	3		
5238475	RU-106	-1.09E+02	pCi/L	2.5E+02	U	4.29E+02			GAMMA_GS	9.98E-02	09/24/2005	1422.1	1.4		D
DUP	13967-48-1	1.45E+02		2.5E+02						L	16:05	20.0	3		
5238475	SB-125	-2.68E+01	pCi/L	7.1E+01	U	1.22E+02			GAMMA_GS	9.98E-02	09/24/2005	0.0	1.		D
DUP	14234-35-6	2.46E+01		7.1E+01						L	16:05	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 QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HHAQW1FR **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/10/2005 09:14

Client Id: B1DB19 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/10/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X05-041	MW6-SBB-A19981								AV	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238472	ALPHA	4.21E+00	pCi/L	1.9E+00		1.94E+00	100.0		9310_ALPHAB	1.953E-01	09/24/2005	14.9	0.5		D
DUP	12587-46-1	4.88E+00		1.7E+00						L	12:23	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.

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HHL5L1KR **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/16/2005 10:45

Client Id: B1B9L2 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/16/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X04-056	MW6-SBB-A19981								AW	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5238473	BETA	7.35E+00	pCi/L	2.0E+00		2.54E+00	100.0		9310_ALPHAB	2.048E-01	09/24/2005	13.9	0.8		D
DUP	12587-47-2	8.46E+00		1.7E+00						L	11:46	20.0	3		

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

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HHPMA1KR **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/17/2005 08:35
Client Id: B1B9D8 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/17/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X04-056	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
5238474	CO-60	7.96E-01	pCi/L	2.0E+00	U	4.50E+00			GAMMALL_GS	2.0048E+00	09/24/2005	5.7	0.		D
DUP	10198-40-0	8.42E-01		2.0E+00						L	19:33	20.0	3		
5238474	CS-134	1.07E+00	pCi/L	2.2E+00	U	4.60E+00			GAMMALL_GS	2.0048E+00	09/24/2005	41.2	0.3		D
DUP	13967-70-9	1.62E+00		2.2E+00						L	19:33	20.0	3		
5238474	CS-137	-4.04E-01	pCi/L	2.2E+00	U	3.89E+00			GAMMALL_GS	2.0048E+00	09/24/2005	0.0	0.4		D
DUP	10045-97-3	1.60E-01		2.2E+00						L	19:33	20.0	3		
5238474	EU-152	-2.98E-02	pCi/L	5.3E+00	U	9.62E+00			GAMMALL_GS	2.0048E+00	09/24/2005	0.0	0.2		D
DUP	14683-23-9	-7.36E-01		5.3E+00						L	19:33	20.0	3		
5238474	EU-154	-5.44E-01	pCi/L	6.7E+00	U	1.29E+01			GAMMALL_GS	2.0048E+00	09/24/2005	0.0	0.2		D
DUP	15585-10-1	-1.71E+00		6.7E+00						L	19:33	20.0	3		
5238474	EU-155	1.85E+00	pCi/L	5.5E+00	U	1.02E+01			GAMMALL_GS	2.0048E+00	09/24/2005	647.1	0.7		D
DUP	14391-16-3	-9.78E-01		5.5E+00						L	19:33	20.0	3		
5238474	K-40	-3.31E+01	pCi/L	4.8E+01	U	1.09E+02			GAMMALL_GS	2.0048E+00	09/24/2005	0.0	0.5		D
DUP	13966-00-2	-4.92E+01		4.8E+01						L	19:33	20.0	3		
5238474	RU-106	-7.19E+00	pCi/L	2.0E+01	U	3.48E+01			GAMMALL_GS	2.0048E+00	09/24/2005	0.0	0.1		D
DUP	13967-48-1	-5.80E+00		2.0E+01						L	19:33	20.0	3		
5238474	SB-125	-1.17E+00	pCi/L	5.3E+00	U	9.31E+00			GAMMALL_GS	2.0048E+00	09/24/2005	0.0	0.2		D
DUP	14234-35-6	-3.88E-01		5.3E+00						L	19:33	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 QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HHPMA1LR **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/17/2005 08:35
Client Id: B1B9D8 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/17/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X04-056	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
5278310	Uranium	3.08E+00	ug/L	3.2E-01		8.99E-02			UTOT_KPA	2.33E-02	10/10/2005	1.6	0.2		D
DUP	7440-61-1	3.03E+00		3.2E-01						ML	09:25	20.0	3		

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

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HHTGQ1KR **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/18/2005 10:54

Client Id: B1B9F2 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/18/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X04-056	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
5238476	I-129L	2.28E-02	pCi/L	1.5E-01	U	2.44E-01	99.5		I129LL_SEP_L	3.7487E+00	09/28/2005	145.5	1.2		D
DUP	15046-84-1	1.44E-01		1.5E-01						L	19:34	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 QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HHTGV1KR **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/18/2005 09:43

Client Id: B1B9H4 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/18/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X04-056	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
5238477	SR-90	1.80E-01	pCi/L	1.8E-01	U	3.50E-01	80.6		SRISO_SEP_P	1.0282E+00	09/25/2005	95.8	0.9		D
DUP	10098-97-2	6.34E-02		1.8E-01						L	08:56	20.0	3		

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

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HHWNV2LR **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/19/2005 08:15
Client Id: B1B9H8 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** DUP **Received Date:** 08/19/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X04-056	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
5283595	H-3	2.12E+02	pCi/L	1.6E+02	U	3.37E+02	100.0		906.0_H3_LSC	5.00E-03	10/12/2005	41.8	1.		D
DUP	10028-17-8	3.25E+02		1.5E+02						L	07:04	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 Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HHL5L1LW **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/16/2005 10:45
Client Id: B1B9L2 **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** MS **Received Date:** 08/16/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X04-056	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
5278310	Uranium	4.06E+01	ug/L	5.3E+00		9.36E-02		4.04E+01	UTOT_KPA	2.24E-02	10/10/2005			60	D
MS	7440-61-1			5.3E+00				100.6		ML	09:18			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 Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W04728.Edd, h:\Reportdb\edd\FeadIV\Rad\30216.Edd

Lab Sample Id: HHWPD1KW **Sdg/Rept Nbr:** W04728 30216 **Collection Date:** 08/19/2005 09:20

Client Id: B1B9H0 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** MS **Received Date:** 08/19/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X04-056	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
5238470	TC-99	3.02E+03	pCi/L	1.8E+02		1.01E+01	100.0	3.43E+03	TC99_ETVDSK	1.306E-01	09/30/2005			60	D
MS	14133-76-7			3.0E+01				88.0		L	13:24			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

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

9/29/2005 10:00:21 AM

Lot No., Due Date: J5H100375,J5H160342,J5H170388,J5H180346,J5H190283; 10/03/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5238476; RGAMLEPS Gamma by LEPS

SDG, Matrix: W04728; 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 [signature] Date 9/29/05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5238476

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: [signature] Date: 10-18-05

STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

9/26/2005 2:17:47 PM

Lot No., Due Date: J5H160342,J5H170388,J5H180346,J5H190283; 10/03/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5238474; RGAMMA Gamma by GER

SDG, Matrix: W04728; WATER

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

6.0 Comments on any No response:

First Level Review [signature] Date 9/26/05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5238474

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: [signature] Date: 10-17-05

STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

9/26/2005 2:10:56 PM

Lot No., Due Date: J5H050363; 10/03/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5238475; RGAMMA Gamma by GER

SDG, Matrix: W04728; 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:

Sample aliquants reduced due to screening. Therefore the MDA's are elevated.

First Level Review [signature] Date 9/26/05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5238475

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: Low Sample Vol., Based off of Screening, high MDA's

Second Level Review: [signature] Date: 10-18-05

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

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-06650
NCM Initiated By: Steven Wheland
Date Opened: 09/26/2005
Date Closed:

Classification: Anomaly
Status: GLREVIEW
Production Area: Environmental - Prep
Tests: Gamma by GER
Lot #'s (Sample #'s): J5H050363 (1),
QC Batches: 5238475

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Steven Wheland	09/26/2005	Sample aliquants were reduced to high screening results. Therefore the achieved MDA's were higher than normal.

Corrective Action

Name	Date	Corrective Action
Steven Wheland	09/26/2005	Report data

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

9/28/2005 4:56:04 PM

Lot No., Due Date: J5H100375,J5H160342,J5H170388,J5H180346,J5H190283; 10/03/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5238472; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W04728; 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 Pam Anderson **Date** 9-29-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5238472

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: [signature] Date: 10-17-05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

9/28/2005 4:55:32 PM

Lot No., Due Date: J5H100375,J5H160342,J5H170388,J5H180346,J5H190283; 10/03/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5238473; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W04728; 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 Pam Anderson **Date** 9-29-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5238473

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: [signature] Date: 10-17-05

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

9/27/2005 4:09:13 PM

Lot No., Due Date: J5H160342,J5H170388,J5H180346,J5H190283; 10/03/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5238477; RSR85907 Sr-85/90 by GPC-7

SDG, Matrix: W04728; 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 Pam Anderson **Date** 9-28-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5238477

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: [signature] Date: 10-17-05

STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

10/3/2005 11:46:28 AM

Lot No., Due Date: J5H050363,J5H100375,J5H160342,J5H170388,J5H180346,J5H190283; 10/03/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5238470; RTC99 Tc-99 by LSC

SDG, Matrix: W04728; WATER

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

6.0 Comments on any No response:

First Level Review [signature] Date 10/3/05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5238470

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?	✓		✓ HMC
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: HG3VT (DID KMI) reduced volume based on screening Sample 7MDA7CRDL

Second Level Review: [signature] Date: 10-18-05

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

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-06777
NCM Initiated By: Steven Wheland
Date Opened: 10/18/2005
Date Closed:

Classification: Anomaly
Status: GLREVIEW
Production Area: Environmental - Prep
Tests: Tc-99 by LSC
Lot #'s (Sample #'s): J5H050363 (1), J5H100375 (1), J5H160342 (1), J5H170388 (1), J5H180346 (1,2,3), J5H190283 (1,2,3), J5H260000 (470),
QC Batches: 5238470

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Steven Wheland	10/18/2005	Sample and duplicate did not meet the MDA requirements due to screening. This is a non-issue since the sample and duplicate were at around 36000 pCi/L and thus the MDA is without meaning at this point.

Corrective Action

Name	Date	Corrective Action
Steven Wheland	10/18/2005	report data

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

10/13/2005 11:33:56 AM

Lot No., Due Date: J5H050363,J5H160342,J5H170388,J5H180346,J5H190283; 10/03/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5283595; RTRITIUM H-3 by LSC

SDG, Matrix: W04728; WATER

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

6.0 Comments on any No response:

First Level Review [signature] Date 10/13/05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5283595

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: [signature] Date: 10-18-05

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-06768
NCM Initiated By: Steven Wheland
Date Opened: 10/13/2005
Date Closed:

Classification: Anomaly
Status: GLREVIEW
Production Area: Environmental - Prep
Tests: H-3 by LSC
Lot #'s (Sample #'s): J5H050363 (1), J5H160342 (1), J5H170388 (1), J5H180346 (1,2,3), J5H190283 (1,2,3), J5H260000 (471),
QC Batches: 5283595

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Steven Wheland	10/13/2005	Initial count failed to meet requirements for MDA. The recount did with a longer counting time.

Corrective Action

Name	Date	Corrective Action
Steven Wheland	10/13/2005	Report recount data

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

10/12/2005 10:32:29 AM

Lot No., Due Date: J5H160342,J5H170388,J5H180346,J5H190283; 10/03/2005

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 5278310; RUNAT UNat by KPA

SDG, Matrix: W04728; 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:
See NCM. 10-06759

First Level Review Pam Anderson **Date** 10-12-05

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5278310

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?	✓		✓ HMC
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: [signature] Date: 10-18-05

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: **10-06759**
NCM Initiated By: Pam Anderson
Date Opened: 10/12/2005
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Sep
Tests: UNat by KPA
Lot #'s (Sample #'s): J5H160342 (1), J5H170388 (1), J5H180346 (1,2,3), J5H190283 (1,2,3), J5J050000 (310),
QC Batches: 5278310

Nonconformance: Dups not within acceptance limits
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	10/12/2005	The original batch had matrix difficulties when counting. Even the blank required dilution. The duplicate was out. So the batch was rerun.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	10/12/2005	Rerun of the batch is 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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # X05-050-1

Page 1 of 1

Collector: B. HELGESON	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: X05-050	Sampling Origin	Purchase Order/Charge Code
Project Title: RCRA	DTS-SAWS-H93	Ice Chest No.: SAWS 212 Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland	Method of Shipment: Govt Truck	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** PUMP INTAKE 264' bgs
WO4728
J5H050363
Due 091905

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DKM1		W	8/5/05	1230	1x1000-mL P	906.0_H3_LSC: Tritium (1) HG3VT	None
B1DKM1		W	8/5/05	1230	1x20-mL P	Activity Scan	None
B1DKM1		W	8/5/05	1230	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2
B1DKM1		W	8/5/05	1230	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
B. HELGESON / B. Hel	8/5/05 1300	JG HOGAN / J Hogan	1300 8-5-05
JG HOGAN / J Hogan	8-5-05 1330	D.R. Brewington / D.R. Brewington	1330 8-5-05
D.R. Brewington / D.R. Brewington	8-5-05 1405	Jeff Jensen / JJ	1405 8-5-05
Relinquished By	Date/Time	Received By	Date/Time

<100 CPM

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

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X05-041-17
		Page 1 of 1

Collector DURATEK R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. X05-041	**Sampling Origin** Hanford	**Purchase Order/Charge Code**
Project Title IDF June 2005	DTJ - SAW - H96	**Ice Chest No.** SML 595 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt Truck	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
W04728
J5H100375
Due 09 23 05

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DB19		W	8-10-05	0917	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) HHAQW	HNO3 to pH <2
B1DB19		W			1x20-mL P	Activity Scan	None
B1DB19		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DB19		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK R. T. SICKLE			1500 AUG 10 2005		Jeff Jensen		1500 AUG 10 2005
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 08/10/05 1500

Client: PGW SDG #: W09728 NA [ ] SAF #: W05-008 NA [ ] X05-091 I05-049

Work Order Number: J5H100375 Chain of Custody # W05-008-105, I05-049-1, 6, X05-091-17

Shipping Container ID: SML 595 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: 14
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: 08/10/05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

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PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X04-056-37
		Page 1 of 1

Collector DURATEK F. M. HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. X04-056	Sampling Origin	Purchase Order/Charge Code
Project Title Special 2-PO1-C Sept 04 Sampling	SAWS-496	Ice Chest No. SAWS-117 Temp.
Shipped To (Lab) Severn Trent Incorporated Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
W04728
J5H160342
Due 09 30 05

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1B9L2 (F)		W	8-16-05	1045	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1B9L2 (F)		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) HHLSL	HNO3 to pH <2
B1B9L2 (F)		W			1x20-mL P	Activity Scan	None
B1B9L2 (F)		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1B9L2 (F)		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1B9L2 (F)		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1B9L2 (F)		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1B9L2 (F)		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK F. M. HALL		AUG 16 2005	1400	Jeff Jensen		AUG 16 2005	1400
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 *

<100 CPM

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: 08 16 05 1400

Client: PGW SDG #: W04728 NA [ ] SAF #: X04-056 NA [ ]

Work Order Number: J5H160342 Chain of Custody # X04-056 -37

Shipping Container ID: SAWS 113 Air Bill # _____

1. Custody Seals on shipping container intact? NA [X] Yes [ ] No [ ]
2. Custody Seals dated and signed? NA [X] Yes [ ] No [ ]
3. Chain of Custody record present? Yes [X] No [ ]
4. Cooler temperature: _____ NA [X] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [X]
6. Number of samples in shipping container: 11
7. Sample holding times exceeded? NA [X] 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 [X] pH>2 [X] pH>9 [ ]
11. Sample Location, Sample Collector Listed? * Yes [X] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [signature] Date: 08 16 05

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	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X04-056-4
		Page 1 of 1

Collector DURATEK F. M. HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. X04-056	Sampling Origin Hanford	Purchase Order/Charge Code
Project Title Special 2-PO1-C Sept 04 Sampling	DTS-SAWS-H96	Ice Chest No. SAWS-113 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
W04728
JSH170388
Dm 043005

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1B9D8 (F)		W	8-17-05	0835	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1B9D8 (F)		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2) HHPMA	HNO3 to pH <2
B1B9D8 (F)		W			1x20-mL P	Activity Scan	None
B1B9D8 (F)		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1B9D8 (F)		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1B9D8 (F)		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1B9D8 (F)		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1B9D8 (F)		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK F. M. HALL		[signature]	1325 AUG 17 2005	Jeff Jensen		[signature]	1325 AUG 17 2005
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 *
<100 CPM

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

SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 08 17 05 1325

Client: PGW SDG #: W09728 NA [ ] SAF #: X04-056 NA [ ]

Work Order Number: J5170388 Chain of Custody # X04-056-4

Shipping Container ID: SAWS 113 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: 11
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 [✓] 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: 08 17 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

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PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # X04-056-7

Page 1 of 1

Collector DURATEK F. M. HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. X04-056	Sampling Origin	Purchase Order/Charge Code
Project Title Special 2-PO1-C Sept 04 Sampling	SACW-H96	Ice Chest No. SAWS 113 Temp.
Shipped To (Lab) Severn Trent Incorporated Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

W04728
JSH180346
Due 100305

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1B9F2 (F)		W	8-18-05	1054	1x1000-mL P	906.0_H3_LSC: Tritium (1) HHTGQ	None
B1B9F2		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1B9F2		W			1x20-mL P	Activity Scan	None
B1B9F2		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1B9F2		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1B9F2		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1B9F2		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1B9F2		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK F. M. HALL			AUG 18 2005 KKK	Jeff Jensen			AUG 18 2005 KKK
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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X04-056-16**

Page 1 of 1

Collector DURATEK F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. X04-056	**Sampling Origin**	**Purchase Order/Charge Code**
Project Title Special 2-PO1-C Sept 04 Sampling	SAWS-H96	**Ice Chest No.** SAWS 113 **Temp.**
Shipped To (Lab) Severn Trent Incorporated Richland	**Method of Shipment** Govt Truck	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W04728

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1B9H4 (F)		W	8-18-05	0943	1x1000-mL P	906.0_H3_LSC: Tritium (1) HHTG V	None
B1B9H4 (F)		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1B9H4 (F)		W			1x20-mL P	Activity Scan	None
B1B9H4 (F)		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1B9H4 (F)		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1B9H4 (F)		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1B9H4 (F)		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1B9H4 (F)		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK F. M. HALL			AUG 18 2005 1445		Jeff Jensen		AUG 18 2005 1445
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X04-056-34
		Page 1 of 1

Collector DURATEK F. M. HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. X04-056	Sampling Origin	Purchase Order/Charge Code
Project Title Special 2-PO1-C Sept 04 Sampling	SAWS-486	Ice Chest No. SAWS-113 Temp.
Shipped To (Lab) Severn Trent Incorporated Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** W04728

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1B9K8 (F)		W	8-8-05	0816	1x1000-mL P	906.0_H3_LSC: Tritium (1) HHTGW	None
B1B9K8 (F)		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1B9K8 (F)		W			1x20-mL P	Activity Scan	None
B1B9K8 (F)		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1B9K8 (F)		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1B9K8 (F)		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1B9K8 (F)		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1B9K8 (F)		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Received By
Print DURATEK F. M. HALL Sign AUG 1 8 2005 Date/Time 1995	Print Jeff Jensen Sign AUG 1 8 2005 Date/Time 1995
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: 08 18 05 1445

Client: PWW SDG #: W04728 NA [ ] SAF #: X04-056 NA [ ]

Work Order Number: J5H180346 Chain of Custody # X04-056-7, 16, 34

Shipping Container ID: SAW S 113 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: 33
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 [✓] 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: 08 18 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

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PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X04-056-19**

Page 1 of 1

Collector DURATEK F. M. HALL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. X04-056	**Sampling Origin**	**Purchase Order/Charge Code**
Project Title Special 2-PO1-C Sept 04 Sampling	SAWS-H96	**Ice Chest No.** SAWS-113 **Temp.**
Shipped To (Lab) Severn Trent Incorporated, Richland	**Method of Shipment** Govt Truck	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS ** **

W04728
J5H190283
Due 10 03 05

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	-*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1B9H8 (F)		W	8-19-05	0815	1x1000-mL P	906.0_H3_LSC: Tritium (1) HHWNV	None
B1B9H8		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1B9H8		W			1x20-mL P	Activity Scan	None
B1B9H8		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1B9H8		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1B9H8		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1B9H8		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1B9H8		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Received By
Print: DURATEK F. M. HALL Sign: AUG 19 2005 Date/Time: 1400	Print: Jeff Jensen Sign: AUG 19 2005 Date/Time: 1400
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time

<100 CPM

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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X04-056-10**

Page 1 of 1

Collector DURATEK F.M.HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. X04-056	Sampling Origin	Purchase Order/Charge Code
Project Title Special 2-PO1-C Sept 04 Sampling	SAWS-496	Ice Chest No. SAWS-113 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** W04728

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1B9F6 (F)		W	8-19-05	1051	1x1000-mL P	906.0_H3_LSC: Tritium (1) HHWPA	None
B1B9F6		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1B9F6		W			1x20-mL P	Activity Scan	None
B1B9F6		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1B9F6		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1B9F6		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1B9F6		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1B9F6		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Received By
Relinquished By: DURATEK F.M.HALL; Print; Sign; Date/Time 1400 AUG 19 2005	Received By: Jeff Jensen; Print; Sign; Date/Time 1400 AUG 19 2005
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 *

<100 CPM

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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # X04-056-13

Page 1 of 1

Collector DURATEK F.M. HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. X04-056	Sampling Origin	Purchase Order/Charge Code
Project Title Special 2-PO1-C Sept 04 Sampling	SAWS-H96	Ice Chest No. SAWS-113 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt Truck	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** **
W04728

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1B9H0 (F)		W	8-19-05	0920	1x1000-mL P	906.0_H3_LSC: Tritium (1) HHWPD	None
B1B9H0		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1B9H0		W			1x20-mL P	Activity Scan	None
B1B9H0		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	None
B1B9H0		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1B9H0		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1B9H0		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1B9H0		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
DURATEK F.M. HALL			AUG 19 2005		Jeff Jensen		AUG 19 2005 1400
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

<100 CPM

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: 08 19 05 1400

Client: PGW SDG #: W09728 NA [ ] SAF #: X04-056 J05-095 NA [ ]

Work Order Number: J5H190283 Chain of Custody # X04-056-13, 10, 19 J05-095-71

Shipping Container ID: SMC 137, SMWS 113 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: 6.5 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 35
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 [✓] 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: 08 19 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

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9/22/2005 12:44:56 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Balance Id:1120482733

Pipet #: _____

Report Due: 10/03/2005 1004728

Sep1 DT/Tm Tech:

Batch: 5238476 WATER pCi/L **PM, Quote: SS , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

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 HHAQW-1-AD J5H100375-1-SAMP 08/10/2005 09:14	AmtRec: 20ML,500P,LP,2X4LP #Containers: 5	3937.70g,in	ITA4607 07/27/05,pd 01/03/05,r	IFA	37.2	100	L4	1721	9/28/05 DR	Scr Rst: Alpha: -1.88E+01 pCi/L Beta: -2.17E+01 pCi/L
2 HHL5L-1-AF J5H160342-1-SAMP 08/16/2005 10:45	AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11	3815.10g,in	ITA4608 07/27/05,pd 01/03/05,r		36.3		L5	1722	9/28/05 DR	Scr Rst: Alpha: 3.96E+01 pCi/L Beta: 2.90E+01 pCi/L
3 HHPMA-1-AF J5H170388-1-SAMP 08/17/2005 08:35	AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11	3916.10g,in	ITA4609 07/27/05,pd 01/03/05,r		36.7		L4	1928	9/28/05 DR	Scr Rst: Alpha: 1.40E+02 pCi/L Beta: 5.87E+01 pCi/L
4 HHTGQ-1-AF J5H180346-1-SAMP 08/18/2005 10:54	AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11	4000.00g,in	ITA4610 07/27/05,pd 01/03/05,r		34.9		L5	1928		Scr Rst: Alpha: 1.65E+01 pCi/L Beta: 1.95E+01 pCi/L
5 HHTGQ-1-AK-X J5H180346-1-DUP 08/18/2005 10:54	AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11	3748.70g,in	ITA4611 07/27/05,pd 01/03/05,r		36.8		L4	2115		Scr Rst: Alpha: 1.65E+01 pCi/L Beta: 1.95E+01 pCi/L
6 HHTGV-1-AF J5H180346-2-SAMP 08/18/2005 09:43	AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11	3846.20g,in	ITA4612 07/27/05,pd 01/03/05,r		36.7		L5	2115		Scr Rst: Alpha: 2.00E+01 pCi/L Beta: 7.83E+00 pCi/L
7 HHTGW-1-AF J5H180346-3-SAMP 08/18/2005 08:16	AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11	3866.30g,in	ITA4614 07/27/05,pd 01/03/05,r		37.1		L4	2258		Scr Rst: Alpha: 5.80E+01 pCi/L Beta: 4.56E+01 pCi/L

9/22/2005 12:44:59 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: _____

Report Due: 10/03/2005

Sep1 DT/Tm Tech:

Batch: 5238476 WATER pCi/L **PM, Quote: SS , 57671**

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

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 HHWNV-1-AF J5H190283-1-SAMP 08/19/2005 08:15		3869.10g,in	ITA4615 07/27/05,pd 01/03/05,r	IFA	36.7	100	L5	2259	9/28/05 [illegible]	
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11					Scr Rst:	Alpha: -8.52E+00 pCi/L	Beta: 5.10E+00 pCi/L
9 HHWPA-1-AF J5H190283-2-SAMP 08/19/2005 10:51		3884.00g,in	ITA4616 07/27/05,pd 01/03/05,r		35.6		L4	0337	9/29/05 [illegible]	
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11					Scr Rst:	Alpha: -2.43E+01 pCi/L	Beta: -3.42E+01 pCi/L
10 HHWPD-1-AF J5H190283-3-SAMP 08/19/2005 09:20		3950.00g,in	ITA4617 07/27/05,pd 01/03/05,r		37.0		L5	0337		
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11					Scr Rst:	Alpha: 2.49E+01 pCi/L	Beta: 3.09E+01 pCi/L
11 HJDPA-1-AA-B J5H260000-476-BLK 08/18/2005 10:54		3894.80g,in	ITA4618 07/27/05,pd 01/03/05,r		36.1		L4	0526	9/29/05 [illegible]	
		AmtRec:	#Containers: 1					Scr Rst:	Alpha:	Beta:
12 HJDPA-1-AC-C J5H260000-476-LCS 08/18/2005 10:54		3965.80g,in	ISB0140 02/15/05,pd 01/03/05,r		36.1		L5	0524		
		AmtRec:	#Containers: 1					Scr Rst:	Alpha:	Beta:

Comments:
pH verified @ ≤7 [illegible] 9-22-05

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

HHAQW1AD-SAMP Constituent List:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:

9/29/2005 10:01:07 AM

ICOC Fraction Transfer/Status Report

ByDate: 9/29/2004, 10/4/2005, Batch: '5238476', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			Comments
5238476							
AC			CalcC	GiroirB	9/22/2005 12:55:01		
SC				wagarr	IsBatched	8/26/2005 3:02:35 PM	ICOC_RADCALC v4.8.08
SC				GiroirB	Prep1C	9/22/2005 12:55:01 PM	RICH-RC-5016 REVISION 5
SC				NortonJ	Prep2C	9/28/2005 3:26:45 PM	RICH-RC-5025 REVISION3
SC				DAWKINSO	InCnt1	9/28/2005 3:45:36 PM	RICH-RD-0007 REVISION 5
SC				BlackCL	CalcC	9/29/2005 6:04:40 AM	RICH-RD-0007 REVISION 5
AC				NortonJ	9/28/2005 3:26:45 PM		
AC				DAWKINSO	9/28/2005 3:45:36 PM		
AC				BlackCL	9/29/2005 6:04:40		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.09

9/23/2005 5:27:20 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #:

Report Due: 10/03/2005 W04728

Sep1 DT/Tm Tech:

Batch: 5238474 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB LS COUT

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 HHL5L-1-AE J5H160342-1-SAMP 08/16/2005 10:45		1993.70g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11			100	100	G4	1919	9/29/05	Scr Rst: Alpha: 3.96E+01 pCi/L Beta: 2.90E+01 pCi/L
2 HHPMA-1-AE J5H170388-1-SAMP 08/17/2005 08:35		2004.80g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11					G7	1919		Scr Rst: Alpha: 1.40E+02 pCi/L Beta: 5.87E+01 pCi/L
3 HHPMA-1-AK-X J5H170388-1-DUP 08/17/2005 08:35		2004.80g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11					G4	2113		Scr Rst: Alpha: 1.40E+02 pCi/L Beta: 5.87E+01 pCi/L
4 HHTGQ-1-AE J5H180346-1-SAMP 08/18/2005 10:54		1994.60g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11					G6	1920		Scr Rst: Alpha: 1.65E+01 pCi/L Beta: 1.95E+01 pCi/L
5 HHTGV-1-AE J5H180346-2-SAMP 08/18/2005 09:43		2017.00g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11					G8	1920		Scr Rst: Alpha: 2.00E+01 pCi/L Beta: 7.83E+00 pCi/L
6 HHTGW-1-AE J5H180346-3-SAMP 08/18/2005 08:16		1987.50g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11					G5	2107		Scr Rst: Alpha: 5.80E+01 pCi/L Beta: 4.56E+01 pCi/L
7 HHWNV-1-AE J5H190283-1-SAMP 08/19/2005 08:15		2018.30g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11					G6	2114		Scr Rst: Alpha: -8.52E+00 pCi/L Beta: 5.10E+00 pCi/L

9/23/2005 5:27:22 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: _____

Report Due: 10/03/2005

Sep1 DT/Tm Tech:

Batch: 5238474 **WATER** **pCi/L** **PM, Quote: SS , 57671**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

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 HHWPA-1-AE J5H190283-2-SAMP 08/19/2005 10:51		1990.20g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11			100	100	G8	2115	9/24/05	Scr Rst: Alpha: -2.43E+01 pCi/L Beta: -3.42E+01 pCi/L
9 HHWPD-1-AE J5H190283-3-SAMP 08/19/2005 09:20		1977.50g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11					G10	2128		Scr Rst: Alpha: 2.49E+01 pCi/L Beta: 3.09E+01 pCi/L
10 HJDN6-1-AA-B J5H260000-474-BLK 08/17/2005 08:35		1953.70g,in AmtRec: #Containers: 1					G11	2129		Scr Rst: Alpha: Beta:
11 HJDN6-1-AC-C J5H260000-474-LCS 08/17/2005 08:35		1970.50g,in AmtRec: #Containers: 1	QCAG1129 08/22/05,pd 06/08/05,r				G7	2115		Scr Rst: Alpha: Beta:

Comments: HHPMA-SAMP "Comments: gamma count dup on dif det. Bg"

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

HHL5L1AE-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:

HJDN61AA-BLK:

ICOC Fraction Transfer/Status Report

ByDate: 9/26/2004, 10/1/2005, Batch: '5238474', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5238474						
AC		CalcC	GiroirB	9/23/2005 5:29:05		
SC			wagarr	IsBatched	8/26/2005 3:02:35 PM	ICOC_RADCALC v4.8.08
SC			GiroirB	Prep1C	9/23/2005 5:29:05 AM	RICH-RC-5017 REVISION 4
SC			ScottM	InPrep2	9/23/2005 8:10:31 AM	RICH-RC-5017 REVISION 4
SC			ScottM	Prep2C	9/24/2005 2:59:36 PM	RICH-RC-5017 REVISION 4
SC			DAWKINSO	InCnt1	9/24/2005 3:33:05 PM	RICH-RD-0007 REVISION 5
SC			StringerR	CalcC	9/25/2005 9:28:52 AM	RICH-RD-0007 REVISION 5
AC			ScottM	9/23/2005 8:10:31		
AC			ScottM	9/24/2005 2:59:36 PM		
AC			ScottM	9/24/2005 3:00:00 PM		rEVISION 4
AC			DAWKINSO	9/24/2005 3:33:05 PM		
AC			StringerR	9/25/2005 9:28:52		

AC: Accepting Entry; SC: Status Change

9/22/2005 11:11:25 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: _____

Report Due: 10/03/2005 W04728

Sep1 DT/Tm Tech:

Batch: 5238475 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

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 HG3VT-1-AC J5H050363-1-SAMP 08/05/2005 12:30	direct	100.10g,in AmtRec: 20ML,500P,4XLP	#Containers: 6		100	100	G10	1745	9/23/05	Scr Rst: Alpha: 3.89E+04 pCi/L Beta: 1.64E+04 pCi/L
2 HG3VT-1-AF-X J5H050363-1-DUP 08/05/2005 12:30	direct	99.80g,in AmtRec: 20ML,500P,4XLP	#Containers: 6				G11			Scr Rst: Alpha: 3.89E+04 pCi/L Beta: 1.64E+04 pCi/L
3 HJDN9-1-AA-B J5H260000-475-BLK 08/05/2005 12:30		2028.80g,in AmtRec:	#Containers: 1				G10	1945		Scr Rst: Alpha: Beta:
4 HJDN9-1-AC-C J5H260000-475-LCS 08/05/2005 12:30		2128.40g,in AmtRec:	QCAG1128 08/22/05,pd 06/08/05,r #Containers: 1				G11	1946		Scr Rst: Alpha: Beta:

Comments:
Dt verified @ L2 in prep

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

HG3VT1AC-SAMP Constituent List:

Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						

HJDN91AA-BLK:

Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:

9/22/2005 11:11:27 AM

Sample Preparation/Analysis

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

Balance Id:1120482733

Pipet #: _____

Report Due: 10/03/2005

Sep1 DT/Tm Tech:

Batch: 5238475 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

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:1.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						
HJDN91AC-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						

HG3VT1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HJDN91AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HJDN91AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

9/26/2005 2:09:45 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/26/2004, 10/1/2005, Batch: '5238475', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5238475						
AC		CalcC	GiroirB	9/22/2005 1:10:04 PM		
SC			wagarr	IsBatched	8/26/2005 3:02:35 PM	ICOC_RADCALC v4.8.08
SC			GiroirB	Prep1C	9/22/2005 1:10:04 PM	RICH-RC-5017 REVISION 4
SC			ScottM	InPrep2	9/23/2005 8:10:51 AM	RICH-RC-5017 REVISION 4
SC			ScottM	Prep2C	9/24/2005 2:58:01 PM	RICH-RC-5021 REVISION 3
SC			ScottM	Prep2C	9/24/2005 2:58:41 PM	RICH-RC-5017 REVISION 4
SC			DAWKINSO	InCnt1	9/24/2005 3:33:11 PM	RICH-RD-0007 REVISION 5
SC			StringerR	CalcC	9/25/2005 9:17:40 AM	RICH-RD-0007 REVISION 5
AC			ScottM	9/23/2005 8:10:51		
AC			ScottM	9/24/2005 2:58:01 PM		
AC			ScottM	9/24/2005 2:58:41 PM		
AC			DAWKINSO	9/24/2005 3:33:11 PM		
AC			StringerR	9/25/2005 9:17:40		

AC: Accepting Entry; SC: Status Change

9/22/2005 10:51:16 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: 229

Report Due: 10/03/2005 W04728

Sep1 DT/Tm Tech:

Batch: 5238472 WATER pCi/L **PM, Quote: SS , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB Scott

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 HHAQW-1-AA J5H100375-1-SAMP 08/10/2005 09:14		197.60g,in AmtRec: 20ML,500P,LP,2X4LP #Containers: 5			1.5	53.2 ~~50~~ 100	11A	13/4	9/24/05	Scr Rst: Alpha: -1.88E+01 pCi/L Beta: -2.17E+01 pCi/L
2 HHAQW-1-AF-X J5H100375-1-DUP 08/10/2005 09:14		195.30g,in AmtRec: 20ML,500P,LP,2X4LP #Containers: 5			56.8		11B			Scr Rst: Alpha: -1.88E+01 pCi/L Beta: -2.17E+01 pCi/L
3 HHL5L-1-AC J5H160342-1-SAMP 08/16/2005 10:45		201.00g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11			52.6		11C			Scr Rst: Alpha: 3.96E+01 pCi/L Beta: 2.90E+01 pCi/L
4 HHPMA-1-AC J5H170388-1-SAMP 08/17/2005 08:35		196.60g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11			47.8		11D			Scr Rst: Alpha: 1.40E+02 pCi/L Beta: 5.87E+01 pCi/L
5 HHTGQ-1-AC J5H180346-1-SAMP 08/18/2005 10:54		194.60g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11			45.8		12A			Scr Rst: Alpha: 1.65E+01 pCi/L Beta: 1.95E+01 pCi/L
6 HHTGV-1-AC J5H180346-2-SAMP 08/18/2005 09:43		171.90g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11			41.5		12B			Scr Rst: Alpha: 2.00E+01 pCi/L Beta: 7.83E+00 pCi/L
7 HHTGW-1-AC J5H180346-3-SAMP 08/18/2005 08:16		201.00g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11			36.9		12C			Scr Rst: Alpha: 5.80E+01 pCi/L Beta: 4.56E+01 pCi/L

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 v4.8.08

9/22/2005 10:51:18 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #: 229

Report Due: 10/03/2005

Sep1 DT/Tm Tech:

Batch: 5238472 WATER pCi/L PM, Quote: SS , 57671
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

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 HHWNV-1-AC J5H190283-1-SAMP 08/19/2005 08:15		132.10g,in			1.5	28.1/60	DD	13/4	9/24/05	
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11					Scr Rst:	Alpha: -8.52E+00 pCi/L	Beta: 5.10E+00 pCi/L
9 HHWPA-1-AC J5H190283-2-SAMP 08/19/2005 10:51		116.00g,in			26.4		11A	1506		
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11					Scr Rst:	Alpha: -2.43E+01 pCi/L	Beta: -3.42E+01 pCi/L
10 HHWPD-1-AC J5H190283-3-SAMP 08/19/2005 09:20		151.50g,in			12.8		11B			
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11					Scr Rst:	Alpha: 2.49E+01 pCi/L	Beta: 3.09E+01 pCi/L
11 HJDNK-1-AA-B J5H260000-472-BLK 08/10/2005 09:14		209.20g,in			0.1		11C			
		AmtRec:	#Containers: 1					Scr Rst:	Alpha:	Beta:
12 HJDNK-1-AC-C J5H260000-472-LCS 08/10/2005 09:14		198.90g,in	ASD3657 08/18/05,pd 03/25/05,r		✓ 0.7	✓	11D			
		AmtRec:	#Containers: 1					Scr Rst:	Alpha:	Beta:

Comments:
pH is verified @ 2m prep

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

HHAQW1AA-SAMP Constituent List:
ALPHA RDL:3 pCi/L LCL: UCL: RPD:

9/28/2005 1:54:14 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/28/2004, 10/3/2005, Batch: '5238472', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5238472						
AC		**CalcC**	**GiroirB**	9/22/2005 10:54:23		
SC			wagarr	IsBatched	8/26/2005 3:02:35 PM	ICOC_RADCALC v4.8.08
SC			GiroirB	Prep1C	9/22/2005 10:54:23 AM	RICH-RC-5014 REVISION 6
SC			ScottM	InPrep2	9/23/2005 8:10:03 AM	RICH-RC-5014 REVISION 6
SC			ScottM	Prep2C	9/24/2005 10:49:38 AM	RICH-RC-5014 REVISION 6
SC			BlackCL	InCnt1	9/24/2005 10:58:24 AM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	9/24/2005 7:23:55 PM	RICH-RD-0003 REVISION 4
AC			**ScottM**	9/23/2005 8:10:03		
AC			**ScottM**	9/24/2005 10:49:38		
AC			**BlackCL**	9/24/2005 10:58:24		
AC			**DAWKINSO**	9/24/2005 7:23:55 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.09

9/22/2005 10:51:19 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: 229

Report Due: 10/03/2005 W04728

Sep1 DT/Tm Tech:

Batch: 5238473 WATER pCi/L **PM, Quote: SS , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

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 HHAQW-1-AC J5H100375-1-SAMP 08/10/2005 09:14		196.70g,in AmtRec: 20ML,500P,LP,2X4LP #Containers: 5			1.5	98.2100	2K	1234 ~~13~~ 9/24/05	9/24/05	Scr Rst: Alpha: -1.88E+01 pCi/L Beta: -2.17E+01 pCi/L
2 HHL5L-1-AD J5H160342-1-SAMP 08/16/2005 10:45		197.30g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11				86.2	2TD			Scr Rst: Alpha: 3.96E+01 pCi/L Beta: 2.90E+01 pCi/L
3 HHL5L-1-AK-X J5H160342-1-DUP 08/16/2005 10:45		204.80g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11				86.8	2RL			Scr Rst: Alpha: 3.96E+01 pCi/L Beta: 2.90E+01 pCi/L
4 HHPMA-1-AD J5H170388-1-SAMP 08/17/2005 08:35		194.50g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11				87.4	2RB			Scr Rst: Alpha: 1.40E+02 pCi/L Beta: 5.87E+01 pCi/L
5 HHTGQ-1-AD J5H180346-1-SAMP 08/18/2005 10:54		198.80g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11				89.1	2RC			Scr Rst: Alpha: 1.65E+01 pCi/L Beta: 1.95E+01 pCi/L
6 HHTGV-1-AD J5H180346-2-SAMP 08/18/2005 09:43		202.60g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11				85.6 ~~85.0~~ 9/24/05	2RD			Scr Rst: Alpha: 2.00E+01 pCi/L Beta: 7.83E+00 pCi/L
7 HHTGW-1-AD J5H180346-3-SAMP 08/18/2005 08:16		198.90g,in AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11				25.6	2RA	1423		Scr Rst: Alpha: 5.80E+01 pCi/L Beta: 4.56E+01 pCi/L

9/22/2005 10:51:20 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Balance Id:1120482733
Pipet #: 229

Report Due: 10/03/2005

Sep1 DT/Tm Tech:

Batch: 5238473 WATER pCi/L PM, Quote: SS , 57671
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

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 HHWNV-1-AD J5H190283-1-SAMP 08/19/2005 08:15		194.80g,in			1.5	76.8	100.0	26B	1423	9/24/05
AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11									Scr Rst: Alpha: -8.52E+00 pCi/L	Beta: 5.10E+00 pCi/L
9 HHWPA-1-AD J5H190283-2-SAMP 08/19/2005 10:51		158.90g,in				37.5		26C		
AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11									Scr Rst: Alpha: -2.43E+01 pCi/L	Beta: -3.42E+01 pCi/L
10 HHWPD-1-AD J5H190283-3-SAMP 08/19/2005 09:20		198.40g,in				34.9		26D		
AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11									Scr Rst: Alpha: 2.49E+01 pCi/L	Beta: 3.09E+01 pCi/L
11 HJDNN-1-AA-B J5H260000-473-BLK 08/16/2005 10:45		198.10g,in				0.2		27B		
AmtRec: #Containers: 1									Scr Rst: Alpha:	Beta:
12 HJDNN-1-AC-C J5H260000-473-LCS 08/16/2005 10:45		199.00g,in	BESB2527 09/09/05,pd 09/21/04,r			0.6		27C		
AmtRec: #Containers: 1									Scr Rst: Alpha:	Beta:

Comments:
pH is verified @ ≤2 in prep

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

HHAQW1AC-SAMP Constituent List:
BETA RDL:4 pCi/L LCL: UCL: RPD:

9/28/2005 1:53:55 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/28/2004, 10/3/2005, Batch: '5238473', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5238473						
AC		**CalcC**	**GiroirB**	9/22/2005 10:54:28		
SC			wagarr	IsBatched	8/26/2005 3:02:35 PM	ICOC_RADCALC v4.8.08
SC			GiroirB	Prep1C	9/22/2005 10:54:28 AM	RICH-RC-5014 REVISION 6
SC			ScottM	InPrep2	9/23/2005 8:10:12 AM	RICH-RC-5014 REVISION 6
SC			BlackCL	InCnt1	9/24/2005 10:11:14 AM	RICH-RD-0003 REVISION 4
SC			DAWKINSO	CalcC	9/24/2005 7:24:01 PM	RICH-RD-0003 REVISION 4
AC			**ScottM**	9/23/2005 8:10:12		
AC			**BlackCL**	9/24/2005 10:11:14		
AC			**DAWKINSO**	9/24/2005 7:24:01 PM		

AC: Accepting Entry; SC: Status Change

9/14/2005 10:01:51 AM

Sample Preparation/Analysis

Balance Id:1120482733 101

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: NA

Report Due: 10/03/2005 W04728

Sep1 DT/Tm Tech: 9-16-05 8:25 AM

Batch: 5238477 **WATER** **pCi/L** **PM, Quote: SS , 57671**
SEQ Batch, Test: None

Sep2 DT/Tm Tech: 9-23-05 1:40 PM

Prep Tech: ,GiroirB

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 HHL5L-1-AG		1014.20g,in	SRTB12196	1.763				3"	0952	9/17/05 R	
J5H160342-1-SAMP			07/08/05,pd								
			05/31/05,r	1.9928			30				
			YTA14142	~~.8847~~ 0.8823		21.8	100	3B	0750	9/24/05	
			Ex:7/10/2006					2a	0946	9/25/05 R	
08/16/2005 10:45		AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11						Scr Rst:	Alpha: 3.96E+01 pCi/L		Beta: 2.90E+01 pCi/L
2 HHPMA-1-AG		1010.30g,in	SRTB12197	1.781				3"	1033	9/17/05 R	
J5H170388-1-SAMP			07/08/05,pd								
			05/31/05,r	1.9994							
			YTA14143	.8908				3C	0750	9/24/05	
			Ex:7/10/2006			22.2		2b	0946	9/25/05 R	
08/17/2005 08:35		AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11						Scr Rst:	Alpha: 1.40E+02 pCi/L		Beta: 5.87E+01 pCi/L
3 HHTGQ-1-AG		990.10g,in	SRTB12198	1.726				3"	1107	9/17/05 R	
J5H180346-1-SAMP			07/08/05,pd								
			05/31/05,r	1.9941							
			YTA14144	.8654				3D	0750	9/24/05	
			Ex:7/10/2006			22.9		2c	0946	9/25/05 R	
08/18/2005 10:54		AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11						Scr Rst:	Alpha: 1.65E+01 pCi/L		Beta: 1.95E+01 pCi/L
4 HHTGV-1-AG		993.80g,in	SRTB12199	1.834				3"	1145	9/17/05 R	
J5H180346-2-SAMP			07/08/05,pd								
			05/31/05,r	1.9948							
			YTA14145	.9194				4D	0750	9/24/05	
			Ex:7/10/2006			21.9		2d	0946	9/25/05 R	
08/18/2005 09:43		AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11						Scr Rst:	Alpha: 2.00E+01 pCi/L		Beta: 7.83E+00 pCi/L

9/14/2005 10:01:53 AM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

Report Due: 10/03/2005

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 pl

Pipet #: NA

Sep1 DT/Tm Tech: 9-16-05 8:25 AM

Sep2 DT/Tm Tech: 9-23-05 1:40 PM

Prep Tech: ,GiroirB

Batch: 5238477 WATER pCi/L PM, Quote: SS , 57671
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 HHTGV-1-AK-X		1028.20g,in	SRTB12200	1.825				3"	1220	9/17/05 R	
J5H180346-2-DUP			07/08/05,pd	1.9974			30				
			05/31/05,r								
			YTA14146	.9137				4B	0750	9/24/05	
			Ex:7/10/2006			22.4	100	3A	0946	9/25/05 R	
08/18/2005 09:43		AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11						Scr Rst:	Alpha: 2.00E+01 pCi/L	Beta: 7.83E+00 pCi/L	
6 HHTGW-1-AG		1004.60g,in	SRTB12201	1.813				3"	1309	9/17/05 R	
J5H180346-3-SAMP			07/08/05,pd	1.9947							
			05/31/05,r								
			YTA14147	.9089				3B 4C	0750	9/24/05	
			Ex:7/10/2006			21.5		3b	0946	9/25/05 R	
08/18/2005 08:16		AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11						Scr Rst:	Alpha: 5.80E+01 pCi/L	Beta: 4.56E+01 pCi/L	
7 HHWNV-1-AG		994.50g,in	SRTB12202	1.788				3"	1348	9/17/05 R	
J5H190283-1-SAMP			07/08/05,pd	1.9927							
			05/31/05,r								
			YTA14148	.8973				4D	0750	9/24/05	
			Ex:7/10/2006			22.1		3c	0946	9/25/05 R	
08/19/2005 08:15		AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11						Scr Rst:	Alpha: -8.52E+00 pCi/L	Beta: 5.10E+00 pCi/L	
8 HHWPA-1-AG		1001.70g,in	SRTB12203	1.558				3"	0800	9/24/05	
J5H190283-2-SAMP			07/08/05,pd	1.9927							
			05/31/05,r								
			YTA14149	.7819				7A	0846	9/24/05	
			Ex:7/10/2006			22.2		3d	0946	9/25/05 R	
08/19/2005 10:51		AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11						Scr Rst:	Alpha: -2.43E+01 pCi/L	Beta: -3.42E+01 pCi/L	

9/14/2005 10:01:53 AM

Sample Preparation/Analysis

Balance Id:1120482733 101

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: NA

Report Due: 10/03/2005

Sep1 DT/Tm Tech: 9-16-05 8:25 AM

Sep2 DT/Tm Tech: 9-23-05 1:40 PM

Batch: 5238477 WATER pCi/L PM, Quote: SS , 57671

SEQ Batch, Test: None

Prep Tech: ,GiroirB

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 HHWPD-1-AG		998.50g,in	SRTB12204	1.802				3?	0634	9/18/05	
J5H190283-3-SAMP			07/08/05,pd								
			05/31/05,r	1.9940			30				
			YTA14150	.9037				7B	0844	9/21/05	
			Ex:7/10/2006			18.1	100	4A	0946	9/25/05	
08/19/2005 09:20		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11					Scr Rst:	Alpha: 2.49E+01 pCi/L		Beta: 3.09E+01 pCi/L
10HJDPJ-1-AA-B		1018.10g,in	SRTB12205	1.822						9/18/05	
J5H260000-477-BLK			07/08/05,pd					3?	0702		
			05/31/05,r	1.9993							
			YTA14151	.9113				1A	0844	9/21/05	
			Ex:7/10/2006			21.6		4b	0946	9/25/05	
08/18/2005 09:43		AmtRec:	#Containers: 1					Scr Rst:	Alpha:		Beta:
11HJDPJ-1-AC-C		961.10g,in	SRSG1125	1.705						9/18/05	
J5H260000-477-LCS			09/14/05,pd					3?	0737		
			09/06/05,r	2.0072							
			YTA14152	.8494				1C	0846	9/21/05	
			Ex:7/10/2006			20.9		4C	0946	9/25/05	
08/18/2005 09:43		AmtRec:	#Containers: 1					Scr Rst:	Alpha:		Beta:

Comments:

~~Samples pH adjusted to ≤2 in prep~~ By 9-14-05
Sample pH verified @ ≤2 in prep. By 9-14-05
~~Client aware of Ins. Vol for complete 10L pour up.~~ By 9-14-05

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

HHL5L1AG-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

9/27/2005 1:27:39 PM

ICOC Fraction Transfer/Status Report

ByDate: 9/27/2004, 10/2/2005, Batch: '5238477', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5238477						
AC		**CalcC**	**GiroirB**	9/13/2005 11:06:10		
SC			wagarr	IsBatched	8/26/2005 3:02:35 PM	ICOC_RADCALC v4.8.08
SC			GiroirB	InPrep	9/13/2005 11:06:10 AM	RICH-RC-5016 REVISION 5
SC			GiroirB	Prep1C	9/14/2005 9:58:08 AM	RICH-RC-5016 REVISION 5
SC			FABREM	InSep1	9/14/2005 10:36:12 AM	RICH-RC-5006 REVISION 6
SC			FABREM	Sep1C	9/17/2005 9:11:09 AM	RICH-RC-5006 REVISION 6
SC			StringerR	InCnt1	9/17/2005 9:20:18 AM	RICH-RD-0007 REVISION 5
SC			BlackCL	Cnt1C	9/18/2005 9:47:19 AM	RICH-RD-0007 REVISION 5
SC			FABREM	InSep2	9/21/2005 2:12:55 PM	RICH-RC-5071 REVISION 4
SC			FABREM	Sep2C	9/23/2005 9:39:43 PM	RICH-RC-5071 REVISION 4
SC			DAWKINSO	InCnt2	9/23/2005 9:46:47 PM	RICH-RD-0003 REVISION 4
SC			StringerR	CalcC	9/25/2005 11:37:33 AM	RICH-RD-0003 REVISION 4
AC			**GiroirB**	9/14/2005 9:58:08		
AC			**FABREM**	9/14/2005 10:36:12		
AC			**FABREM**	9/17/2005 9:11:09		
AC			**StringerR**	9/17/2005 9:20:18		
AC			**BlackCL**	9/18/2005 9:47:19		
AC			**FABREM**	9/21/2005 2:12:55 PM		
AC			**FABREM**	9/23/2005 9:39:43 PM		
AC			**DAWKINSO**	9/23/2005 9:46:47 PM		
AC			**StringerR**	9/25/2005 11:37:33		

AC: Accepting Entry; SC: Status Change

9/22/2005 11:19:33 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: _____

Report Due: 10/03/2005 W04728

Sep1 DT/Tm Tech:

Batch: 5238470 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

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 HG3VT-1-AD J5H050363-1-SAMP SeeRWP 08/05/2005 12:30	AmtRec: 20ML,500P,4XLP	#Containers: 6	54.40g,in	54.40g				Scr Rst:	Alpha: 3.89E+04 pCi/L	Beta: 1.64E+04 pCi/L
2 HG3VT-1-AE-X J5H050363-1-DUP SeeRWP 08/05/2005 12:30	AmtRec: 20ML,500P,4XLP	#Containers: 6	55.80g,in	55.80g				Scr Rst:	Alpha: 3.89E+04 pCi/L	Beta: 1.64E+04 pCi/L
3 HHAQW-1-AE J5H100375-1-SAMP 08/10/2005 09:14	AmtRec: 20ML,500P,LP,2X4LP	#Containers: 5	130.60g,in	130.60g				Scr Rst:	Alpha: -1.88E+01 pCi/L	Beta: -2.17E+01 pCi/L
4 HHL5L-1-AH J5H160342-1-SAMP 08/16/2005 10:45	AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11	129.20g,in	129.20g				Scr Rst:	Alpha: 3.96E+01 pCi/L	Beta: 2.90E+01 pCi/L
5 HHPMA-1-AH J5H170388-1-SAMP 08/17/2005 08:35	AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11	122.90g,in	122.90g				Scr Rst:	Alpha: 1.40E+02 pCi/L	Beta: 5.87E+01 pCi/L
6 HHTGQ-1-AH J5H180346-1-SAMP 08/18/2005 10:54	AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11	126.30g,in	126.30g				Scr Rst:	Alpha: 1.65E+01 pCi/L	Beta: 1.95E+01 pCi/L
7 HHTGV-1-AH J5H180346-2-SAMP 08/18/2005 09:43	AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11	123.70g,in	123.70g				Scr Rst:	Alpha: 2.00E+01 pCi/L	Beta: 7.83E+00 pCi/L

9/22/2005 11:19:35 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: _____

Report Due: 10/03/2005

Sep1 DT/Tm Tech:

Batch: 5238470 WATER pCi/L PM, Quote: SS , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

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 HHTGW-1-AH J5H180346-3-SAMP 08/18/2005 08:16			130.50g,in	130.50g						
AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11								Scr Rst:	Alpha: 5.80E+01 pCi/L	Beta: 4.56E+01 pCi/L
9 HHWNV-1-AH J5H190283-1-SAMP 08/19/2005 08:15			129.10g,in	129.10g						
AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11								Scr Rst:	Alpha: -8.52E+00 pCi/L	Beta: 5.10E+00 pCi/L
10 HHWPA-1-AH J5H190283-2-SAMP 08/19/2005 10:51			122.80g,in	122.80g						
AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11								Scr Rst:	Alpha: -2.43E+01 pCi/L	Beta: -3.42E+01 pCi/L
11 HHWPD-1-AH J5H190283-3-SAMP 08/19/2005 09:20			128.90g,in	128.90g						
AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11								Scr Rst:	Alpha: 2.49E+01 pCi/L	Beta: 3.09E+01 pCi/L
12 HHWPD-1-AK-S J5H190283-3-MS 08/19/2005 09:20			130.60g,in	130.60g	TCSG1217 07/12/05,pd 02/15/05,r					
AmtRec: 20ML,2X500P,5XLP,3X4LP #Containers: 11								Scr Rst:	Alpha: 2.49E+01 pCi/L	Beta: 3.09E+01 pCi/L
13 HJDMX-1-AA-B J5H260000-470-BLK 08/05/2005 12:30			131.90g,in	131.90g						
AmtRec: #Containers: 1								Scr Rst:	Alpha:	Beta:
14 HJDMX-1-AC-C J5H260000-470-LCS 08/05/2005 12:30			128.50g,in	128.50g	TCSE1820 09/15/05,pd 03/10/05,r					
AmtRec: #Containers: 1								Scr Rst:	Alpha:	Beta:

9/22/2005 11:19:36 AM

Sample Preparation/Analysis

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

Report Due: 10/03/2005

Batch: 5238470 **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:

15HJDMX-1-AD-B
J5H260000-470-BLK
08/05/2005 12:30 AmtRec: #Containers: 1 Scr Rst: Alpha: Beta:

16HJDMX-1-AE-B
J5H260000-470-BLK
08/05/2005 12:30 AmtRec: #Containers: 1 Scr Rst: Alpha: Beta:

Comments:
pH verified @≤2 in prep
BJ

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

HG3VT1AD-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
HHWPD1AK-MS:

HJDMX1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
HJDMX1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
HJDMX1AD-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
HJDMX1AE-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

HG3VT1AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HHWPD1AK-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HJDMX1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
HJDMX1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

9/22/2005 11:19:37 AM

Sample Preparation/Analysis

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

Report Due: 10/03/2005

Batch: 5238470 **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:

```
HJDMX1AD-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HJDMX1AE-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

10/3/2005 11:45:39 AM

ICOC Fraction Transfer/Status Report

ByDate: 10/3/2004, 10/8/2005, Batch: '5238470', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5238470						
AC		CalcC	GiroirB	9/22/2005 11:21:57		
SC			wagarr	IsBatched	8/26/2005 3:02:35 PM	ICOC_RADCALC v4.8.08
SC			GiroirB	Prep1C	9/22/2005 11:21:57 AM	RICH-RC-5016 REVISION 5
SC			GreekA	InSep1	9/29/2005 5:37:56 PM	RICH-RC-5065 REVISION 5
SC			GreekA	Sep1C	9/29/2005 5:38:15 PM	RICH-R5065 REVISION 5
SC			DAWKINSO	InCnt1	9/29/2005 5:59:57 PM	RICH-RD-0001 REVISION 3
SC			StringerR	CalcC	10/1/2005 3:44:05 PM	RICH-RD-0001 REVISION 3
AC			GreekA	9/29/2005 5:37:56 PM		
AC			GreekA	9/29/2005 5:38:15 PM		
AC			DAWKINSO	9/29/2005 5:59:57 PM		
AC			StringerR	10/1/2005 3:44:05 PM		

AC: Accepting Entry; SC: Status Change

SEVERN TRENT STL

*** RE-COUNT REQUEST ***

DUE DATE 10/3/05

CUSTOMER PGW

ANALYSIS #3

MATRIX H_2O

LOT NUMBER

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 5238471

recount 5283595

	LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)		
2)	entire Batch	Recount Batch
3)		
4)		
5)		80 mins
6)		
7)		
8)		not on LSC#3
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

10/10/2005 4:40:25 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Report Due: 10/03/2005

Batch: 5283595 **WATER** **pCi/L** **PM, Quote: SS , 57671**
SEQ Batch, Test: None

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

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HG3VT-2-AA J5H050363-1-SAMP 08/05/2005 12:30	AmtRec: 20ML,500P,4XLP	#Containers: 6				Scr:	Alpha: 3.89E+04pCi/L 4.6E-03L	Beta: 1.64E+04pCi/L 5.5E-03L
2 HHL5L-2-AA J5H160342-1-SAMP 08/16/2005 10:45	AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11				Scr:	Alpha: 3.96E+01pCi/L	Beta: 2.90E+01pCi/L
3 HHPMA-2-AA J5H170388-1-SAMP 08/17/2005 08:35	AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11				Scr:	Alpha: 1.40E+02pCi/L	Beta: 5.87E+01pCi/L
4 HHTGQ-2-AA J5H180346-1-SAMP 08/18/2005 10:54	AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11				Scr:	Alpha: 1.65E+01pCi/L	Beta: 1.95E+01pCi/L
5 HHTGV-2-AA J5H180346-2-SAMP 08/18/2005 09:43	AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11				Scr:	Alpha: 2.00E+01pCi/L	Beta: 7.83E+00pCi/L
6 HHTGW-2-AA J5H180346-3-SAMP 08/18/2005 08:16	AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11				Scr:	Alpha: 5.80E+01pCi/L	Beta: 4.56E+01pCi/L
7 HHWNV-2-AA J5H190283-1-SAMP 08/19/2005 08:15	AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11				Scr:	Alpha: -8.52E+00pCi/L	Beta: 5.10E+00pCi/L

10/10/2005 4:40:27 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Report Due: 10/03/2005

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

Batch: 5283595 **WATER** **pCi/L** **PM, Quote: SS , 57671**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HHWNV-2-AL-X J5H190283-1-DUP 08/19/2005 08:15		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: -8.52E+00pCi/L	Beta: 5.10E+00pCi/L
9 HHWPA-2-AA J5H190283-2-SAMP 08/19/2005 10:51		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: -2.43E+01pCi/L	Beta: -3.42E+01pCi/L
10 HHWPD-2-AA J5H190283-3-SAMP 08/19/2005 09:20		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: 2.49E+01pCi/L	Beta: 3.09E+01pCi/L
11 HJDM5-2-AA-B J5H260000-471-BLK 08/19/2005 08:15		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
12 HJDM5-2-AC-C J5H260000-471-LCS 08/19/2005 08:15		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
13 HJDM5-2-AD-B J5H260000-471-BLK 08/19/2005 08:15		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
14 HJDM5-2-AE-C J5H260000-471-LCS 08/19/2005 08:15		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

10/10/2005 4:40:34 PM

Sample Preparation/Analysis

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

Balance Id:

Pipet #:

Report Due: 10/03/2005

Sep1 DT/Tm Tech:

Batch: 5283595 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 HJDM5-2-AF-B J5H260000-471-BLK 08/19/2005 08:15	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
16 HJDM5-2-AG-B J5H260000-471-BLK 08/19/2005 08:15	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
17 HJDM5-2-AH-B J5H260000-471-BLK 08/19/2005 08:15	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments: HHPMA-SAMP "Comments: gamma count dup on dif det. Bg"

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

```
HG3VT2AA-SAMP Constituent List:
  H-3          RDL:400          pCi/L     LCL:70       UCL:130      RPD:20
HJDM52AA-BLK:
  H-3          RDL:400          pCi/L     LCL:         UCL:         RPD:
HJDM52AC-LCS:
  H-3          RDL:400          pCi/L     LCL:70       UCL:130      RPD:20
HJDM52AD-BLK:
  H-3          RDL:400          pCi/L     LCL:         UCL:         RPD:
HJDM52AE-LCS:
  H-3          RDL:400          pCi/L     LCL:70       UCL:130      RPD:20
HJDM52AF-BLK:
  H-3          RDL:400          pCi/L     LCL:         UCL:         RPD:
HJDM52AG-BLK:
```

10/10/2005 4:40:39 PM

Sample Preparation/Analysis

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

Report Due: 10/03/2005

Batch: 5283595 pCi/L
SEQ Batch, Test: None

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

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

```
 H-3          RDL:400          pCi/L     LCL:          UCL:          RPD:
HJDM52AH-BLK:
 H-3          RDL:400          pCi/L     LCL:          UCL:          RPD:
HG3VT2AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HJDM52AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HJDM52AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HJDM52AD-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HJDM52AE-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HJDM52AF-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HJDM52AG-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
HJDM52AH-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

ICOC Fraction Transfer/Status Report

ByDate: 10/13/2004, 10/18/2005, Batch: '5283595', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5283595						
AC		CalcC	BlackCL	10/11/2005 10:04:28		
SC			andersonp	IsBatched	10/10/2005 4:40:23 PM	ICOC_RADCALC v4.8.14
SC			BlackCL	InCnt1	10/11/2005 10:04:28 AM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	10/13/2005 6:08:13 AM	RICH-RD-0001 REVISION 3
AC			BlackCL	10/13/2005 6:08:13		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 2

ICOCFractions v4.8.09

SEVERN TRENT STL

*** RE-ANALYSIS REQUEST ***

DUE DATE 10-3-05

CUSTOMER PGW

ANALYSIS U mod

MATRIX water

LOT NUMBER J5H160390, J5H170388, J5H180346, J5H190283

SAMPLE DELIVERY GROUP W04128

OLD BATCH NUMBER 5238468

NEW BATCH NUMBER 5278310

LAB SAMPLE ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)	dup out
2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	
LAB QC ID	Assigned with new batch.

10/7/2005 5:43:01 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: 229

Report Due: 10/03/2005 W04728

Sep1 DT/Tm Tech:

Batch: 5278310 WATER ug/L **PM, Quote: SS , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 5238468 DHSS, 5238470 FPS5, 5238471 ARS6, 5238472 AZS7, 5238473 BCS8, 5238474 AWTA, 5238476 BNTB, 5238477 CLTL, 5278310 DHSS,

Prep Tech: ,GiroirB Scott

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 HHL5L-1-AL-S J5H160342-1-MS 08/16/2005 10:45	Final Vol 10 ml	22.40g,in	UNSF2650 09/30/05,pd					
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: 3.96E+01pCi/L	Beta: 2.90E+01pCi/L
2 HHL5L-2-AJ J5H160342-1-SAMP 08/16/2005 10:45		25.50g,in						
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: 3.96E+01pCi/L	Beta: 2.90E+01pCi/L
3 HHPMA-1-AL-X J5H170388-1-DUP 08/17/2005 08:35		23.30g,in						
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: 1.40E+02pCi/L	Beta: 5.87E+01pCi/L
4 HHPMA-2-AJ J5H170388-1-SAMP 08/17/2005 08:35		24.10g,in						
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: 1.40E+02pCi/L	Beta: 5.87E+01pCi/L
5 HHTGQ-2-AJ J5H180346-1-SAMP 08/18/2005 10:54		28.40g,in						
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: 1.65E+01pCi/L	Beta: 1.95E+01pCi/L
6 HHTGV-2-AJ J5H180346-2-SAMP 08/18/2005 09:43		24.30g,in						
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: 2.00E+01pCi/L	Beta: 7.83E+00pCi/L
7 HHTGW-2-AJ J5H180346-3-SAMP 08/18/2005 08:16		24.30g,in						
		AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: 5.80E+01pCi/L	Beta: 4.56E+01pCi/L

10/7/2005 5:43:04 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

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

Pipet #: 229

Report Due: 10/03/2005

Sep1 DT/Tm Tech:

Batch: 5278310 WATER ug/L PM, Quote: SS , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GiroirB

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 HHWNV-2-AJ J5H190283-1-SAMP 08/19/2005 08:15	Final vol 10ml	22.70g,in AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: -8.52E+00pCi/L	Beta: 5.10E+00pCi/L
9 HHWPA-2-AJ J5H190283-2-SAMP 08/19/2005 10:51		23.20g,in AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: -2.43E+01pCi/L	Beta: -3.42E+01pCi/L
10 HHWPD-2-AJ J5H190283-3-SAMP 08/19/2005 09:20		25.70g,in AmtRec: 20ML,2X500P,5XLP,3X4LP	#Containers: 11			Scr:	Alpha: 2.49E+01pCi/L	Beta: 3.09E+01pCi/L
11 HL27C-1-AA-B J5J050000-310-BLK 08/16/2005 10:45		26.00g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
12 HL27C-1-AC-C J5J050000-310-LCS 08/16/2005 10:45		24.80g,in AmtRec:	UNSF2651 09/30/05,pd #Containers: 1			Scr:	Alpha:	Beta:

Comments: HHPMA-DUP "Comments: gamma count dup on dif det. Bg"

pH verified @ Lab prep.
Req'd another ~~spk~~ LCS be added
via Email

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

HHL5L1AL-MS Constituent List:

10/11/2005 4:59:52 PM

ICOC Fraction Transfer/Status Report

ByDate: 10/11/2004, 10/16/2005, Batch: '5278310', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5278310						
AC		**Cnt1C**	**GiroirB**	10/7/2005 5:49:57		
SC			andersonp	IsBatched	10/5/2005 11:09:27 AM	ICOC_RADCALC v4.8.14
SC			GiroirB	Prep1C	10/7/2005 5:49:57 AM	RICH-RC-5015 REVISION 4
SC			ScottM	Prep2C	10/7/2005 1:02:25 PM	RICH-RC-5015 REVISION 4
SC			BarbosaH	Cnt1C	10/10/2005 10:31:56 AM	RICH-RC-5058 REVISION 6
SC			BarbosaH	Cnt1C	10/10/2005 1:55:42 PM	RICH-RC-5058 REVISION 6
AC			**ScottM**	10/7/2005 1:02:25 PM		
AC			**BarbosaH**	10/10/2005 10:31:56		
AC			**BarbosaH**	10/10/2005 1:55:42		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.09