

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: 34299

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05072	S06-007	B1JL44	J6L010207-1	JKMQ41AA	9JKMQ410	6353567
		B1JL44	J6L010207-1	JKMQ41AC	9JKMQ410	6353568
		B1JL44	J6L010207-1	JKMQ41AD	9JKMQ410	6353579
		B1JL44	J6L010207-1	JKMQ41AE	9JKMQ410	6353582
		B1JL44	J6L010207-1	JKMQ41AG	9JKMQ410	6353566
		B1JL47	J6L010207-2	JKMR41AA	9JKMR410	6353567
		B1JL47	J6L010207-2	JKMR41AC	9JKMR410	6353566
		B1JLB3	J6L020185-1	JKPKA1AA	9JKPKA10	6353585
	S06-009	B1KCW8	J6L110134-1	JK70G1AA	9JK70G10	6353567
		B1KCW8	J6L110134-1	JK70G1AC	9JK70G10	6353568
		B1KCW8	J6L110134-1	JK70G1AD	9JK70G10	6353566
		B1KD09	J6L130181-1	JLDH51AA	9JLDH510	6353564
		B1KD09	J6L130181-1	JLDH51AC	9JLDH510	6353567
		B1KD09	J6L130181-1	JLDH51AD	9JLDH510	6353568
	S06-006	B1J999	J6L130191-1	JLDME1AA	9JLDME10	6353564

Comments:

Report Nbr: 34299

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05072	S06-006	B1J999	J6L130191-1	JLDME1AC	9JLDME10	6353567
		B1J999	J6L130191-1	JLDME1AD	9JLDME10	6353568

Comments:

STL Richland
 2800 George Washington Way
 Richland, WA 99354

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

Certificate of Analysis

Pacific Northwest National Laboratories
 Sigma V Building
 Richland, WA 99352

January 24, 2007

Attention: Dot Stewart

SAF Number	:	S06-007, S06-009, S06-006
Date SDG Closed	:	December 14, 2006
Number of Samples	:	Six (6)
Sample Type	:	Water
SDG Number	:	W05072
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between November 30, 2006 and December 13, 2006, six water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

<u>PGW ID#</u>	<u>STLR ID#</u>	<u>DATE OF RECEIPT</u>	<u>MATRIX</u>
B1JL47	JKMR4	11/30/06	WATER
B1JL44	JKMQ4	11/30/06	WATER
B1JLB3	JKPKA	11/30/06	WATER
B1KCW8	JK70G	12/08/06	WATER
B1KD09	JLDH5	12/08/06	WATER
B1J999	JLDME	12/13/06	WATER

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014

Gross Beta by method RICH-RC-5014

Strontium-90 by method RICH-RC-5006

Gamma Spectroscopy

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

Liquid Scintillation Counting

Enriched Tritium by method RICH-RC-5024

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 (B1J999) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

The LCS, batch blank, samples and sample duplicate (B1KD09) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1JLB3) results are within contractual requirements.

Gamma Spectroscopy

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

The LCS, batch blank, samples and sample duplicate (B1JL44) results are within contractual requirements.

Liquid Scintillation Counting

Pacific Northwest National Laboratories
January 24, 2007

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

The LCS, batch blank, samples, sample duplicate (B1JL44), and sample matrix spike (B1JL44) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1J999) results are within contractual requirements.

Enriched Tritium by method RICH-RC-5024

The enriched tritium analysis was not completed at the time of reporting.

Total Uranium

Total Uranium by method RICH-RC-5058:

On Jan. 18, 2007 during calibration of the KPA the final blank check was not analyzed. Each batch has a blank check run after counting the batch. Each of these blanks is acceptable. Data is accepted. Except as noted, the LCS, batch blank, samples, sample duplicate (B1KCW8), and sample matrix spike (B1KCW8) results are within contractual requirements.

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

Reviewed and approved:



Sherryl A. Adam
Project Manager

Drinking Water Method Cross References

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

Uncertainty Estimation

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

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

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

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) <i>u_c - Combined Uncertainty.</i>	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, <i>u_c, the combined uncertainty</i> . The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	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.

1/24/2007 9:22:24 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34299 File Name: h:\Reportdb\ledd\FeadI\Rad\W05072.Edd, h:\Reportdb\ledd\FeadI\Rad\34299.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:				
9JK70G10	B1KCW8		MW6-SBB-A1	S06-009	W05072					12/08/2006 10:13				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353567	ALPHA	12587-46-1	4.88E+01	pCi/L	6.4E+00	1.3E+01		2.00E+00	100.0	9310_ALPHABETA	2.00E-01	L	01/12/2007 16:02	I
6353568	BETA	12587-47-2	2.79E+01	pCi/L	2.8E+00	4.7E+00		2.84E+00	100.0	9310_ALPHABETA	2.012E-01	L	01/12/2007 15:18	I
6353566	Uranium	7440-61-1	1.09E+02	ug/L	1.3E+01	1.3E+01		8.45E-02		UTOT_KPA	2.48E-02	ML	01/17/2007 16:56	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:				
9JKMQ410	B1JL44		MW6-SBB-A1	S06-007	W05072					11/30/2006 12:39				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353567	ALPHA	12587-46-1	3.54E+00	pCi/L	1.9E+00	2.1E+00		2.41E+00	100.0	9310_ALPHABETA	9.64E-02	L	01/12/2007 17:37	I
6353568	BETA	12587-47-2	1.09E+01	pCi/L	2.7E+00	3.5E+00		4.45E+00	100.0	9310_ALPHABETA	8.44E-02	L	01/12/2007 16:09	I
6353579	I-129L	15046-84-1	-3.91E-02	pCi/L	1.5E-01	1.5E-01	U	2.62E-01	97.3	I129LL_SEP_LEPS	3.7125E+00	L	01/16/2007 15:41	I
6353582	TC-99	14133-76-7	-1.33E+00	pCi/L	4.0E+00	6.1E+00	U	9.95E+00	100.0	TC99_ETVDSK_LS	1.25E-01	L	01/12/2007 09:00	I
6353566	Uranium	7440-61-1	7.20E+00	ug/L	7.4E-01	7.4E-01		8.35E-02		UTOT_KPA	2.51E-02	ML	01/18/2007 10:33	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:				
9JKMR410	B1JL47		MW6-SBB-A1	S06-007	W05072					11/30/2006 11:55				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353567	ALPHA	12587-46-1	4.61E+00	pCi/L	2.0E+00	2.2E+00		2.19E+00	100.0	9310_ALPHABETA	1.287E-01	L	01/12/2007 19:33	I
6353566	Uranium	7440-61-1	8.43E+00	ug/L	1.0E+00	1.0E+00		8.32E-02		UTOT_KPA	2.52E-02	ML	01/17/2007 16:54	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9JKPKA10	B1JLB3		MW6-SBB-A1	S06-007	W05072					11/30/2006 10:59				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353585	SR-90	10098-97-2	4.45E+02	pCi/L	4.5E+00	6.4E+01		4.28E-01	76.8	SRISO_SEP_PRE	9.951E-01	L	01/17/2007 06:52	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:				
9JLDH510	B1KD09		MW6-SBB-A1	S06-009	W05072					12/13/2006 09:03				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353564	H-3	10028-17-8	3.42E+05	pCi/L	1.9E+03	1.3E+04		3.22E+02	100.0	906.0_H3_LSC	5.00E-03	L	01/08/2007 14:58	I
6353567	ALPHA	12587-46-1	4.83E+00	pCi/L	2.1E+00	2.4E+00		1.82E+00	100.0	9310_ALPHABETA	1.866E-01	L	01/12/2007 16:02	I
6353568	BETA	12587-47-2	6.04E+01	pCi/L	3.8E+00	8.7E+00		2.79E+00	100.0	9310_ALPHABETA	1.966E-01	L	01/12/2007 15:18	I

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U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

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J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

/

1/24/2007 9:22:24 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 34299 File Name: h:\Reportdb\edd\Fead\Rad\W05072.Edd, h:\Reportdb\edd\Fead\Rad\34299.Edd

Lab	Client	Test	Contract	SAF Nbr	Sdg	QC	Moisture/ Solids%*	Distilled Volume	Sample On Date:	Collection Date:				
9JLDME10	B1J999		MW6-SBB-A1	S06-006	W05072									
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
6353564	H-3	10028-17-8	-3.10E+01	pCi/L	1.3E+02	1.5E+02	U	3.19E+02	100.0	906.0_H3_LSC	5.00E-03	L	01/08/2007 16:21	I
6353567	ALPHA	12587-46-1	1.44E+00	pCi/L	9.6E-01	1.0E+00		1.39E+00	100.0	9310_ALPHABETA	1.662E-01	L	01/12/2007 19:33	I
6353568	BETA	12587-47-2	7.64E+00	pCi/L	1.8E+00	2.2E+00		2.94E+00	100.0	9310_ALPHABETA	2.008E-01	L	01/12/2007 15:18	I

Wednesday, January 24, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\W05072.Edd, h:\Reportdb\edd\Fead\W05072.Edd, h:\Reportdb\edd\Fead\W05072.Edd, h:\Reportdb\edd\Fead\W05072.Edd

Lab Sample Id: JLTC41AB

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/13/2006 08:25

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								AP	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353567 BLK	ALPHA 12587-46-1	1.31E-01	pCi/L	2.6E-01 2.6E-01	U	5.71E-01	100.0		9310_ALPHAB	1.999E-01 L	01/12/2007 19:33				D

STL Richland

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, January 24, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05072.Edd, h:\Reportdb\edd\Fead\I\Rad\34299.Edd

Lab Sample Id: JLTC91AB

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/13/2006 09:03

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp			
	MW6-SBB-A19981								AR	H			
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Tot/Cnt Unit Uncert 2S	Qu- al MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353568 BLK	BETA 12587-47-2	3.16E-01	pCi/L 9.7E-01 9.7E-01	U 1.94E+00	100.0		9310_ALPHAB	2.03E-01	01/12/2007 16:09				D

Wednesday, January 24, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTCN1AB

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/13/2006 08:25

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								AT	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353564 BLK	H-3 10028-17-8	-8.36E+01	pCi/L	1.5E+02 1.3E+02	U	3.23E+02	100.0		906.0_H3_LSC	5.00E-03 L	01/08/2007 09:28				D

STL Richland

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, January 24, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\eddd\FeadIV\Rad\W05072.Edd, h:\Reportdb\eddd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTCN1DX Sdg/Rept Nbr: W05072 34299 Collection Date: 12/13/2006 08:25
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								AV	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	ToI/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
6353564 BLK	H-3 10028-17-8	6.59E+01	pCi/L	1.5E+02 1.4E+02	U	3.23E+02	100.0		906.0_H3_LSC	5.00E-03 L	01/08/2007 12:13				D

Wednesday, January 24, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\Fead\W05072.Edd, h:\Reportdb\eddd\Fead\W05072.Edd, h:\Reportdb\eddd\Fead\W05072.Edd, h:\Reportdb\eddd\Fead\W05072.Edd

Lab Sample Id: JLTCX1AB

Sdg/Rept Nbr: W05072

34299

Collection Date: 12/08/2006 10:13

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 12/08/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								AX	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ ML	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353566 BLK	Uranium 7440-61-1	-7.15E-03	ug/L	1.0E-03 1.0E-03	U	8.35E-02			UTOT_KPA	2.51E-02	01/17/2007 16:37				D

Wednesday, January 24, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTD51AB Sdg/Rept Nbr: W05072 34299 Collection Date: 11/30/2006 12:39
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BLK Received Date: 11/30/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BA	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Allq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353579 BLK	I-129L 15046-84-1	-8.99E-02	pCi/L	1.5E-01 1.5E-01	U	2.58E-01	100.0		I129LL_SEP_L	3.6099E+00 L	01/16/2007 15:42				D

Wednesday, January 24, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\Fead\Rad\W05072.Edd, h:\Reportdb\eddd\Fead\Rad\34299.Edd

Lab Sample Id: JLTD91AB

Sdg/Rept Nbr: W05072 34299

Collection Date: 11/30/2006 12:39

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 11/30/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BC	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353582 BLK	TC-99 14133-76-7	-6.80E+00	pCi/L	5.7E+00 3.8E+00	U	9.86E+00	100.0		TC99_ETVDSK	1.258E-01 L	01/12/2007 09:01				D

STL Richland

rptFeadRadEdd v3.68

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

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Wednesday, January 24, 2007

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTEA1AB

Sdg/Rept Nbr: W05072

34299

Collection Date: 11/30/2006 10:59

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 11/30/2006

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
6353585 BLK	SR-90 10098-97-2	-8.65E-02	pCi/L	1.8E-01 1.6E-01	U	4.41E-01	73.8		SRISO_SEP_P	1.0022E+00 L 01/17/2007 06:53				D

Wednesday, January 24, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\FeadIV\Rad\W05072.Edd, h:\Reportdb\eddd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTC41CS

Sdg/Rept Nbr: W05072

34299

Collection Date: 12/13/2006 08:25

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								AQ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	ToI/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
6353567 BS	ALPHA 12587-46-1	2.29E+01	pCi/L	5.8E+00 2.2E+00		5.90E-01	100.0	2.25E+01 102.0	9310_ALPHAB	2.031E-01 L	01/12/2007 19:33			70 130	D

Wednesday, January 24, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTC91CS

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/13/2006 09:03

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								AS	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353568 BS	BETA 12587-47-2	2.28E+01	pCi/L	3.4E+00 1.7E+00		1.73E+00	100.0	2.26E+01 100.7	9310_ALPHAB	2.002E-01 L	01/12/2007 16:09			70 130	D

Wednesday, January 24, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\ledd\FeadIV\Rad\W05072.Edd, h:\Reportdb\ledd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTCN1CS **Sdg/Rept Nbr:** W05072 34299 **Collection Date:** 12/13/2006 08:25
Client Id: NA **Matrix:** WATER WATER **Sample On Date:**
Moisture/Solids%*: **QC Type:** BS **Received Date:** 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	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
6353564 BS	H-3 10028-17-8	2.79E+03	pCi/L	2.7E+02 2.2E+02		3.22E+02	100.0	2.72E+03 102.6	906.0_H3_LSC	5.00E-03 L	01/08/2007 10:50			70 130	D

Wednesday, January 24, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05072.Edd, h:\Reportdb\edd\Fead\I\Rad\34299.Edd

Lab Sample Id: JLTCN1EM

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/13/2006 08:25

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
	MW6-SBB-A19981								AW	H				
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353564 BS	H-3 10028-17-8	2.46E+03	pCi/L	2.6E+02 2.1E+02	3.27E+02	100.0	2.72E+03 90.6	906.0_H3_LSC	5.00E-03 L	01/08/2007 13:36			70 130	D

STL Richland

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, January 24, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTCX1CS

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/08/2006 10:13

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 12/08/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								AY	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/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
6353566 BS	Uranium 7440-61-1	3.80E+01	ug/L	4.5E+00 4.5E+00		8.19E-02		3.53E+01 107.8	UTOT_KPA	2.56E-02 ML	01/17/2007 16:44			70 130	D

STL Richland

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, January 24, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTCX1DS

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/08/2006 10:13

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 12/08/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								AZ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353566 BS	Uranium 7440-61-1	3.91E+00	ug/L	4.0E-01 4.0E-01		8.06E-02		3.47E+00 112.7	UTOT_KPA	2.60E-02 ML	01/17/2007 16:47			70 130	D

STL Richland

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

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Wednesday, January 24, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTD51CS

Sdg/Rept Nbr: W05072 34299

Collection Date: 11/30/2006 12:39

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 11/30/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BB	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353579 BS	I-129L 15046-84-1	7.54E+00	pCi/L	1.1E+00 1.1E+00		3.82E-01	99.1	1.00E+01 75.2	I129LL_SEP_L	3.8182E+00 L	01/16/2007 17:26			70 130	D

STL Richland

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

15

Wednesday, January 24, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLTD91CS

Sdg/Rept Nbr: W05072

34299

Collection Date: 11/30/2006 12:39

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 11/30/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BD	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	ToI/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
6353582 BS	TC-99 14133-76-7	4.94E+02	pCi/L	3.9E+01 1.3E+01		9.64E+00	100.0	5.26E+02 93.9	TC99_ETVDSK	1.282E-01 L	01/12/2007 09:01			70 130	D

STL Richland

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, January 24, 2007

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\Rad\W05072.Edd, h:\Reportdb\edd\Fead\Rad\34299.Edd

Lab Sample Id: JLTEA1CS Sdg/Rept Nbr: W05072 34299 Collection Date: 11/30/2006 10:59
 Client Id: NA Matrix: WATER WATER Sample On Date:
 Moisture/Solids%*: QC Type: BS Received Date: 11/30/2006

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	To/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
6353585 BS	SR-90 10098-97-2	1.38E+01	pCi/L	2.2E+00 8.6E-01		4.96E-01	68.5	1.36E+01 101.4	SRISO_SEP_P	1.0011E+00 L	01/17/2007 06:53			70 130	D

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

Wednesday, January 24, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05072.Edd, h:\Reportdb\edd\Fead\Rad\34299.Edd

Lab Sample Id: JK70G1FR

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/08/2006 10:13

Client Id: B1KCW8

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 12/08/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S06-009	MW6-SBB-A19981								AH	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/ ML	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353566 DUP	Uranium 7440-61-1	1.09E+02 1.09E+02	ug/L	1.3E+01 1.3E+01		7.70E-02			UTOT_KPA	2.72E-02	01/17/2007 17:00	.2 20.0	0. 3		D

STL Richland

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

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Wednesday, January 24, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JKMQ41HR

Sdg/Rept Nbr: W05072

34299

Collection Date: 11/30/2006 12:39

Client Id: B1JL44

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 11/30/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S06-007	MW6-SBB-A19981								AI	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
6353579 DUP	I-129L 15046-84-1	-7.81E-03 -3.91E-02	pCi/L	1.4E-01 1.4E-01	U	2.55E-01	94.9		I129LL_SEP_L	3.7065E+00 L	01/16/2007 15:42	0.0 20.0	0.3 3		D

Wednesday, January 24, 2007

STL Richland QC Duplicate Report

Lab Code: STLR

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JKMQ41LR

Sdg/Rept Nbr: W05072 34299

Collection Date: 11/30/2006 12:39

Client Id: B1JL44

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 11/30/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S06-007	MW6-SBB-A19981								AK	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353582	TC-99	-2.37E+00	pCi/L	5.9E+00	U	9.79E+00	100.0		TC99_ETVDSK	1.263E-01	01/12/2007	0.0	0.2		D
DUP	14133-76-7	-1.33E+00		4.0E+00						L	09:01	20.0	3		

Wednesday, January 24, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JKPKA1CR

Sdg/Rept Nbr: W05072 34299

Collection Date: 11/30/2006 10:59

Client Id: B1JLB3

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 11/30/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S06-007	MW6-SBB-A19981								AL	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
6353585 DUP	SR-90 10098-97-2	4.79E+02 4.45E+02	pCi/L	6.9E+01 4.8E+00		4.42E-01	71.1		SRISO_SEP_P	1.0017E+00 L	01/17/2007 06:53	7.4 20.0	0.7 3		D

STL Richland

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Wednesday, January 24, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05072.Edd, h:\Reportdb\edd\Fead\Rad\34299.Edd

Lab Sample Id: JLDH51ER

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/13/2006 09:03

Client Id: B1KD09

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S06-009	MW6-SBB-A19981								AM	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
6353568 DUP	BETA 12587-47-2	7.05E+01 6.04E+01	pCi/L	1.5E+01 4.1E+00		2.89E+00	100.0		9310_ALPHAB	1.971E-01 L	01/12/2007 15:18	15.5 20.0	0.9 3		D

Wednesday, January 24, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JLDME1ER

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/13/2006 08:25

Client Id: B1J999

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S06-006	MW6-SBB-A19981								AN	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353564 DUP	H-3 10028-17-8	-4.11E+01 -3.10E+01	pCi/L	1.5E+02 1.3E+02	U	3.17E+02	100.0		906.0_H3_LSC	5.00E-03	01/08/2007 17:44	0.0 20.0	0.1 3		D

Wednesday, January 24, 2007

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05072.Edd, h:\Reportdb\edd\Fead\Rad\34299.Edd

Lab Sample Id: JLDME1FR

Sdg/Rept Nbr: W05072

34299

Collection Date: 12/13/2006 08:25

Client Id: B1J999

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 12/13/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S06-006	MW6-SBB-A19981								AO	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353567	ALPHA	1.25E+00	pCi/L	9.8E-01	U	1.47E+00	100.0		9310_ALPHAB	1.663E-01	01/12/2007	14.2	0.3		D
DUP	12587-46-1	1.44E+00		9.4E-01						L	19:33	20.0	3		

Wednesday, January 24, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05072.Edd, h:\Reportdb\edd\FeadIV\Rad\34299.Edd

Lab Sample Id: JK70G1EW

Sdg/Rept Nbr: W05072 34299

Collection Date: 12/08/2006 10:13

Client Id: B1KCW8

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: MS

Received Date: 12/08/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S06-009	MW6-SBB-A19981								AG	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
6353566 MS	Uranium 7440-61-1	2.93E+01	ug/L	2.1E+01 2.1E+01		8.35E-02		3.61E+01 81.1	UTOT_KPA	2.51E-02 ML	01/18/2007 10:40			60 140	D

Wednesday, January 24, 2007

STL Richland Qc Matrix Spike Report

Lab Code: STLR

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\FeadIV\Rad\W05072.Edd, h:\Reportdb\eddd\FeadIV\Rad\34299.Edd

Lab Sample Id: JKMQ41KW

Sdg/Rept Nbr: W05072 34299

Collection Date: 11/30/2006 12:39

Client Id: B1JL44

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: MS

Received Date: 11/30/2006

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S06-007	MW6-SBB-A19981								AJ	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/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
6353582 MS	TC-99 14133-76-7	3.32E+03	pCi/L	2.3E+02 3.2E+01		9.91E+00	100.0	3.67E+03 90.5	TC99_ETVDSK	1.248E-01	01/12/2007 09:00			60 140	D

Lot No., Due Date: J6L110134,J6L010207,J6L130181,J6L130191; 01/29/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6353567; RALPHA-A Alpha by GPC-Am

SDG, Matrix: W05072; WATER

8.0	Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01	The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02	Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03	Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04	The Correct Tracer and QC Vials Where Used in the Samples OK	Yes	No	N/A
8.05	Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06	At Least the Minimum Sample Volume Was Used Analysis Volume => JKMQ41AA 96.40<200.00 JKMR41AA 128.70<200.00 JLDH51AC 186.60<200.00 JLDME1AC 166.20<200.00 Q:VB	Yes	No	N/A
8.07	The Correct Count Geometry was Used. OK	Yes	No	N/A
8.08	The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09	Method Blank is within Control Limits. OK	Yes	No	N/A
8.1	Comments:			
8.11	Matrix Blank is within Control Limits. No Matrix Blanks (MBIks) found in Batch!	Yes	No	N/A
8.12	Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13	QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14	LCS within Control Limits. OK	Yes	No	N/A
8.15	MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A
8.16	MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17	Tracer within Control Limits. OK	Yes	No	N/A
8.18	Samples are above Minimum Tracer Yield (No Failed Samples) OK	Yes	No	N/A
8.19	Sample Specific MDC <= CRDL. OK	Yes	No	N/A
8.2	Comments:			
8.21	Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22	Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JKMQ41AA ALPHA 3.5E+00 L:2.4E+00 JKMR41AA ALPHA 4.6E+00 L:2.2E+00 JK70G1AA ALPHA 4.9E+01 L:2.0E+00 JLDH51AC ALPHA 4.8E+00 L:1.8E+00	Yes	No	N/A
8.23	Result <= Action Level, when Defined. OK; No Action Level Found => ALPHA OK; No Callin Level Found => ALPHA	Yes	No	N/A

8.24	Result + 3s >=0, Not Too Negative. OK	Yes	No	N/A
8.25	Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	Yes	No	N/A
8.26	Instruments have Current Calibrations.	Yes	No	N/A
8.27	Correct Count Library Used. No Count Library found in Batch Data!	Yes	No	N/A
8.28	Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later version)	Yes	No	N/A
8.29	Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later version)	Yes	No	N/A
8.3	Comments:			
8.31	Results Blank Subtracted as Appropriate. OK	Yes	No	N/A

First Level Review

Lisa Anderson *Pam Anderson*

Date

1/16/07



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

QC Batch Number:

6253567
W05072

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

Comments on any "No" response:

Second Level Review: Sheryl A. Adams

Date: 1-16-07

Lot No., Due Date: J6L110134,J6L010207,J6L130181,J6L130191; 01/29/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 6353568; RBETA-SR Beta by GPC-Sr/Y

SDG, Matrix: W05072; WATER

8.0 Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02 Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03 Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	Yes	No	N/A
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JKMQ41AC 84.40<200.00 Q:VB	Yes	No	N/A
8.07 The Correct Count Geometry was Used. OK	Yes	No	N/A
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09 Method Blank is within Control Limits. OK	Yes	No	N/A
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBIks) found in Batch!	Yes	No	N/A
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14 LCS within Control Limits. OK	Yes	No	N/A
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17 Tracer within Control Limits. OK	Yes	No	N/A
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	Yes	No	N/A
8.19 Sample Specific MDC <= CRDL. MDC/MDA > CRDL => JKMQ41AC BETA 4.4E+00>4.0E+00 Q:C1	Yes	No	N/A
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => JKMQ41AC BETA 1.1E+01 L:4.4E+00 JK70G1AC BETA 2.8E+01 L:2.8E+00 JLDH51AD BETA 6.0E+01 L:2.8E+00 JLDME1AD BETA 7.6E+00 L:2.9E+00	Yes	No	N/A
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => BETA OK; No Callin Level Found => BETA	Yes	No	N/A
8.24 Result + 3s >=0, Not Too Negative. OK	Yes	No	N/A

- 8.25 Counting Spectrum are within FWHM Limits.
No FWHM found in Batch Data! Yes No N/A
 N/A
- 8.26 Instruments have Current Calibrations. Yes No N/A
 N/A
- 8.27 Correct Count Library Used.
No Count Library found in Batch Data! Yes No N/A
 N/A
- 8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later version) Yes No N/A
 N/A
- 8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later version) Yes No N/A
 N/A
- 8.3 Comments: *NCM 10-09280*
- 8.31 Results Blank Subtracted as Appropriate. Yes No N/A
OK

First Level Review

Pam Anderson *Pam Anderson*

Date

11/16/07



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

QC Batch Number: 6353568
W05072

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

Comments on any "No" response: _____

Second Level Review: Sherryl A. Adams Date: 1-16-07

Clouseau Nonconformance Memo

**SEVERN
TRENT
SERVICES**

NCM #: 10-09280 NCM Initiated By: Lisa Antonson Date Opened: 01/15/2007 Date Closed:	Classification: Anomaly Status: GLREVIEW Production Area: Environmental - Prep Tests: Beta by GPC-Sr/Y Lot #'s (Sample #'s): J6L010207 (1), J6L110134 (1), J6L130181 (1), J6L130191 (1), J6L190000 (568), QC Batches: 6353568
Nonconformance: MDA not met Subcategory: Sample size reduced due to high residue mass	

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	01/15/2007	MDA was not met for JKMQ41AC due to reduced aliquot based on weight screening. Sample result exceeds MDA, data accepted.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	01/15/2007	NA

Client Notification Summary

<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>Note</u>
			<u>Response</u>	<u>Response Note</u>	

Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes</u>
			This section not yet completed by QA.

Approval History

<u>Date Approved</u>	<u>Approved By</u>	<u>Position</u>
----------------------	--------------------	-----------------

Lot No., Due Date: J6L020185; 01/29/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 6353585; RSR85907 Sr-85/90 by GPC-7
 SDG, Matrix: W05072; WATER

1.0 COC

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

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review Pam Anderson

Date 1-17-07



STL

Data Review Checklist RADIOCHEMISTRY Second Level Review

QC Batch Number:

6353585
WC5072

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

Comments on any "No" response:

Second Level Review:

Sheryl A. Adams

Date: 1-14-07

Lot No., Due Date: J6L010207; 01/29/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 6353579; RGAMLEPS Gamma by LEPS
 SDG, Matrix: W05072; WATER

1.0 COC

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

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review Pam Anderson

Date 1-17-07



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6353579
W05072

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

Comments on any "No" response: _____

Second Level Review: Sherryl A Adam Date: 1-18-07

Lot No., Due Date: J6L010207; 01/29/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 6353582; RTC99 Tc-99 by LSC
 SDG, Matrix: W05072; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	✓		
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	✓		
8.02 Final Results Are in the Appropriate Activity Units OK	✓		
8.03 Batch Contains the Required QC Appropriate for the Method OK	✓		
8.04 The Correct Tracer and QC Vials Where Used in the Samples Incorrect Tracer/Vial => JKMQ41AK TCSG<>TCSE Q:V9	✓		✓
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	✓		
8.06 At Least the Minimum Sample Volume Was Used OK	✓		
8.07 The Correct Count Geometry was Used. OK	✓		
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	✓		
8.09 Method Blank is within Control Limits. OK	✓		
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBIs) found in Batch!	✓		✓
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	✓		
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	✓		
8.14 LCS within Control Limits. OK	✓		
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	✓		✓
8.16 MS within Control Limits. OK	✓		
8.17 Tracer within Control Limits. No Tracers found in Batch!	✓		✓
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	✓		✓
8.19 Sample Specific MDC <= CRDL. OK	✓		
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	✓		✓
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	✓		
8.23 Result <= Action Level, when Defined. OK; No Action Level Found => TC-99 OK; No Callin Level Found => TC-99	✓		
8.24 Result + 3s >=0, Not Too Negative. OK	✓		
8.25 Counting Spectrum are within FWHM Limits. No FWHM found in Batch Data!	✓		✓

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

First Level Review *Pam Anderson* *Pam Anderson* Date *1-15-07* *1115707*



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

6353582
W05072

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

Sherry A. Adams

Date:

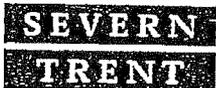
1-15-07

Lot No., Due Date: J6L130181,J6L130191; 01/29/2007
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 6353564; RTRITIUM H-3 by LSC
 SDG, Matrix: W05072; WATER

8.0 Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02 Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03 Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	Yes	No	N/A
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => JLDH51AA 5.00<10.00 JLDME1AA 5.00<10.00 Q:VB	Yes	No	N/A
8.07 The Correct Count Geometry was Used. Count Geometry => JLTCN1AF SVP15/5<>SVP10/10 JLTCN1AG SVP15/5<>SVP10/10 JLTCN1AA SVP15/5<>SVP10/10 JLTCN1AC SVP15/5<>SVP10/10 JLTCN1AD SVP15/5<>SVP10/10 JLTCN1AE SVP15/5<>SVP10/10 JLDH51AA SVP15/5<>SVP10/10 JLDME1AA SVP15/5<>SVP10/10 JLDME1AE SVP15/5<>SVP10/10 Q:VC	Yes	No	N/A
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	Yes	No	N/A
8.09 Method Blank is within Control Limits. OK	Yes	No	N/A
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. OK	Yes	No	N/A
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14 LCS within Control Limits. OK	Yes	No	N/A
8.15 MLCS within Control Limits. OK	Yes	No	N/A
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17 Tracer within Control Limits. No Tracers found in Batch!	Yes	No	N/A
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	Yes	No	N/A
8.19 Sample Specific MDC <= CRDL. OK	Yes	No	N/A
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22 Result < Mdc, Activity Not Detected, U Flag. No Positive Results OK Calc_IDL Not Calculated	Yes	No	N/A

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

First Level Review Pam Anderson Date 1-10-07



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6353564
W03072

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

Comments on any "No" response: _____

Second Level Review: Sheryl A Adams Date: 1-10-07



STL

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

1/19/2007 11:49:37 AM

Lot No., Due Date: J6L110134,J6L010207; 01/29/2007
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 6353566; RUNAT UNat by KPA
SDG, Matrix: W05072; WATER

8.0	Correction Calculation Protocol Used. OK	Yes	No	N/A
8.01	The Appropriate Methods Were Used To Analyze the Samples OK	Yes	No	N/A
8.02	Final Results Are in the Appropriate Activity Units OK	Yes	No	N/A
8.03	Batch Contains the Required QC Appropriate for the Method OK	Yes	No	N/A
8.04	The Correct Tracer and QC Vials Were Used in the Samples Incorrect Tracer/Vial => JLTCX1AD UNSC<->UNSF Q:V9	Yes	No	N/A
8.05	Sample was Appropriately Traced Before or After Fractionating the Sample OK	Yes	No	N/A
8.06	At Least the Minimum Sample Volume Was Used No Count Analysis Size found in Batch Data!	Yes	No	N/A
8.07	The Correct Count Geometry was Used. No Count Geometry found in Batch Data!	Yes	No	N/A
8.08	The Sample was Counted for the Minimum Count Time or CRDL was Achieved. No Count Duration Field Found in Batch Data!	Yes	No	N/A
8.09	Method Blank is within Control Limits. OK	Yes	No	N/A
8.1	Comments:			
8.11	Matrix Blank is within Control Limits. No Matrix Blanks (MBIs) found in Batch!	Yes	No	N/A
8.12	Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13	QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14	LCS within Control Limits. OK	Yes	No	N/A
8.15	MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A
8.16	MS within Control Limits. OK	Yes	No	N/A
8.17	Tracer within Control Limits. No Tracers found in Batch!	Yes	No	N/A
8.18	Samples are above Minimum Tracer Yield (No Failed Samples) No Tracers found in Batch!	Yes	No	N/A
8.19	Sample Specific MDC <= CRDL. OK	Yes	No	N/A
8.2	Comments:			
8.21	Result < Lc. Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22	Result < Mdc. Activity Not Detected, U Flag. Batch Positive Result => JK70G1AD Uranium 1.1E+02 L:8.5E-02 JKMR41AC Uranium 8.4E+00 L:8.3E-02 JKMQ41AG Uranium 7.2E+00 L:8.3E-02	Yes	No	N/A
8.23	Result <= Action Level, when Defined. OK; No Action Level Found => Uranium OK; No Callin Level Found => Uranium	Yes	No	N/A
8.24	Result + 3s >=0, Not Too Negative. Result + 3s < 0 JLTCX1AA Uranium -5.6E-03	Yes	No	N/A

ncm 10-09311

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

First Level Review Pami Anderson

Date 1-19-07



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 6353566
W05072

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

Comments on any "No" response: See NCM

Second Level Review: Sherry A. Adams Date: 1-19-07

Clouseau Nonconformance Memo



NCM #: 10-09311	Classification: Deficiency
NCM Initiated By: Pam Anderson	Status: CHREVIEW
Date Opened: 01/19/2007	Production Area: Counting
Date Closed:	Tests: UNat by KPA
	Lot #'s (Sample #'s): J6K210272 (1,2,3,4), J6K220197 (1), J6K220374 (1,2), J6K270175 (1,2,3,4,5), J6K300000 (458), J6L010207 (1,2), J6L110134 (1), J6L110164 (1), J6L110178 (1), J6L120216 (1), J6L180164 (1,2,3), J6L180181 (1), J6L190000 (566,599), J6L200317 (1), J6L210000 (249), J6L290000 (132),
	QC Batches: 6334458, 6353566, 6353599, 6355249, 6363132
Nonconformance: Technician Error	
Subcategory: Laboratory error: analytical error	

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	01/19/2007	On Jan. 18, 2007 during calibration of the KPA the final blank check was not analyzed. Each batch has a blank check run after counting the batch. Each of these blanks are acceptable. The data will be accepted.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	01/19/2007	Technician was alerted to the error. He will not make the error again.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
			<u>Response</u>		<u>Response Note</u>

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

PNNL 96 L 010207
W05072
Aug 01-15-07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
S06-007-176
Page 1 of 1

Collected at FLUOR HANFORD M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. S06-007	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV JULY 2006	<i>HNF-N-506-4</i>	Ice Chest No. <i>5HW-115</i> Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
* * *

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JL47		W	<i>11-30-06</i>	<i>1155</i>	1x20-mL P	Activity Scan	None
B1JL47		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1JL47		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Gross Alpha (1)	HNO3 to pH <2
						<i>JKMR4</i>	

Relinquished By FLUOR HANFORD M.R. WEIL	Print	Sign <i>[Signature]</i>	Date/Time <i>1345</i> NOV 30 2006	Received By <i>[Signature]</i>	Print	Sign <i>[Signature]</i>	Date/Time <i>1345</i> NOV 30 2006	Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By	Date/Time

S T U R I C H I A N D

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

PNNL 06L010207
 W05072
 Rec 01-15-07

C.O.C. #
S06-007-170
 Page 1 of 1

Collector HANFORD M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. S06-007	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title SURV. JULY 2006	HNF-N-506-4	Ice Chest No. 5A05-115	Temp.	
Shipped To (Lab) (Severn Trent Incorporated, Richland)	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol SURV	Priority: 45 Days	Offsite Property No.		

POSSIBLE SAMPLE HAZARDS/REMARKS * * *	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days. Submit invoices & deliverables to DL Stewart, PNNL
--	---

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JL44		W	11-30-06	1239	1x20-mL P	Activity Scan	None
B1JL44		W	↓	↓	3x1000-mL P	TRITIUM_ELECT_LSC_LL: H-3 (1)	None
B1JL44		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1JL44		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1JL44		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1JL44		W	↓	↓	2x4000-mL G/P	1129LL_SEP_LEPS_GS_LL: I-129 (1)	None

Relinquished By M.R. WEIL Print Sign Date/Time NOV 30 2006 1345	Received By D. Smith S. Smith Print Sign Date/Time NOV 30 2006 1345	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Received By	
Relinquished By	Received By	
Relinquished By	Received By	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By
		Date/Time

STL RICHLAND



STL

Sample Check-in List

Date/Time Received: 11-30-06 1345

Client: P6W SDG #: W05073 NA SAF #: 306-007 NA

Work Order Number: V6L010207 Chain of Custody # 306-007-170, 176

Shipping Container ID: SAWS-115 Air Bill # N/A

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

Sample Custodian: S. Smith Date: 11-30-06 1345

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 *1620185*
1005072
Dec 01-15 07
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S06-007-78**
 Page 1 of 1

Collector *D.P. CONNOLLY* Contact/Requester *Dot Stewart* Telephone No. **MSIN FAX**
 509-376-5056
 SAF No. **S06-007** Sampling Origin **Hanford Site** Purchase Order/Charge Code
 Project Title **SURY JULY 2006** *Logbook: HNF-W-506-1* Ice Chest No. *SAWS-336* Temp.
 Shipped To (Lab) **Seyern Trent Incorporated, Richland** Method of Shipment **Govt. Vehicle** Bill of Lading/Air Bill No.
 Protocol **SURY** Priority: **45 Days** Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** **

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes No
 Batch all PNNL GW samples submitted under "W", "S", "I", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
 Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1JLB3		W	<i>11/30/06</i>	<i>1059</i>	1x20-mL P	Activity Scan	None
B1JLB3		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
<i>JKPKA</i>							
<i>f. wall 11/30/06</i>							
<i>2.W. 11/30/06</i>							

Relinquished By *D.P. CONNOLLY* *1515* Date/Time **NOV 30 2006** Received By *S. Smith* *1515* Date/Time **NOV 30 2006**

Relinquished By _____ Date/Time _____ Received By _____ Date/Time _____

Relinquished By _____ Date/Time _____ Received By _____ Date/Time _____

Relinquished By _____ Date/Time _____ Received By _____ Date/Time _____

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

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



STL

Sample Check-in List

Date/Time Received: 11-30-06 1515
 Client: PDW SDG #: W0.5072 NA SAF #: 506-007 NA

Work Order Number: 164030185 Chain of Custody # 506-007-78

Shipping Container ID: SAWS-336 Air Bill # N/A

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

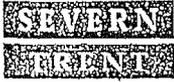
Sample Custodian: S. Smith Date: 11-30-06 1515

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

No action necessary; process as is.

Project Manager _____ Date _____



STL

Sample Check-in List

Date/Time Received: 12-08-06 1352
 Client: POW SDG #: W05072 NA [] SAE #: 806-009 NA []
 Work Order Number: U6L110134 Chain of Custody #: 806-009-35
 Shipping Container ID: ROSS Air Bill #: N/A

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

Sample Custodian: S. Smith Date: 12-08-06 1352

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____



STL

Sample Check-in List

Date/Time Received: 12.13.06 0925

Client: PFW SDG #: W05072 NA [] SAF #: 806-009 NA []

Work Order Number: U6L130181 Chain of Custody #: 806-009-53

Shipping Container ID: ROSS Air Bill #: N/A

- 1. Custody Seals on shipping container intact? NA [] Yes [x] No []
- 2. Custody Seals dated and signed? NA [] Yes [x] No []
- 3. Chain of Custody record present? Yes [x] No []
- 4. Cooler temperature: _____ NA [x] 5. Vermiculite/packing materials is NA [x]; Wet [] Dry []
- 6. Number of samples in shipping container: 1
- 7. Sample holding times exceeded? NA [x] Yes [] No []
- 8. Samples have:
 - _____ tape
 - _____ custody seals
 - _____ hazard labels
 - [x] appropriate samples labels
- 9. Samples are:
 - [x] in good condition
 - _____ broken
 - _____ leaking
 - _____ have air bubbles
 - (Only for samples requiring head space)
- 10. Sample pH taken? NA [] pH<2 [x] pH>2 [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): N/A

Sample Custodian: S. Smith Date: 12.13.06 0925

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

Collector Fluor Hanford	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF R.T. SICKLE S06-006	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV. JUNE 2006	HNF-N-506 1	Ice Chest No. ROSS Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
* * *

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
 Batch all PNNL GW samples submitted under "W", "S", "T", "A" or "G" 06 SAFs into one SDG, not to exceed SDG closure of 14 days.
 Submit invoices & deliverables to DL Stewart, PNNL

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1J999		W	12-13-06	0825	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1J999		W	↓	↓	1x20-mL P	Activity Scan	None
B1J999		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
<i>JLDME</i>							

Relinquished By R. T. SICKLE	Date/Time DEC 13 2006	Received By <i>[Signature]</i>	Date/Time DEC 13 2006	Matrix * S = Soil DS = Drum Solid SF = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wire W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By	Date/Time



STL

Sample Check-in List

Date/Time Received: 12/13/06 0925
 Client: PBW SDG #: W05072 NA SAF #: 5-06-006 NA
 Work Order Number: 162130191 Chain of Custody # 5-06-006-248
 Shipping Container ID: W05072 Air Bill # N/A

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

Sample Custodian: J. Smith Date: 12-13-06 0925

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____
 No action necessary; process as is.
 Project Manager _____ Date _____

STL RICHLAND

1/10/2007 8:36:53 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: 235

AnalyDueDate: 01/15/2007 W05072

Sep1 DT/Tm Tech:

Batch: 6353567 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

Prep Tech: BockJ / APet

Work Order, Lot, Sample Date/Time	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 JKM4-1-AA J6L010207-1-SAMP 11/30/2006 12:39 AmtRec: 20ML,2X500ML,4XLP,2X4LP #Containers: 9	96.40g,in					100	10F	1828	1/12/07 OR	
2 JKMR4-1-AA J6L010207-2-SAMP 11/30/2006 11:55 AmtRec: 20ML,500ML,LP #Containers: 3	128.70g,in					100	B	2024		
3 JK70G-1-AA J6L110134-1-SAMP 12/08/2006 10:13 AmtRec: 20ML,500ML,LP #Containers: 3	200.00g,in					50	10D	1628	1/10/07 OR	
4 JLDH5-1-AC J6L130181-1-SAMP 12/13/2006 09:03 AmtRec: 20ML,2XLP #Containers: 3	186.60g,in						10F	1628		
5 JLDME-1-AC J6L130191-1-SAMP 12/13/2006 08:25 AmtRec: 20ML,2XLP #Containers: 3	166.20g,in						10C	2024		
6 JLDME-1-AF-X J6L130191-1-DUP 12/13/2006 08:25 AmtRec: 20ML,2XLP #Containers: 3	166.30g,in						10D			
7 JLTC4-1-AA-B J6L190000-567-BLK 12/13/2006 08:25 AmtRec: #Containers: 1	199.90g,in									

STL RICHLAND

1/10/2007 8:36:55 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 01/15/2007

Sep1 DT/Tm Tech:

Batch: 6353567

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample Date/Time	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 JLTC4-1-AC-C J6L190000-567-LCS		203.10g,in	asd4086 12/18/06,pd 02/09/06,r	1.5	0.6	100	10A	2024	1/12/07 OR	
										
12/13/2006 08:25	AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

Comments: PH L20 931-10-07
 JLDMEIAC/JLDMEIAF was counted for 100 minutes to fill Quad10. 1/12/07 OR
 1% collodion added to ev. samp. 11/2/07 APH

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

JKMQ41AA-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JLTC41AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
JLTC41AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JKMQ41AA-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JLTC41AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JLTC41AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

STL RICHLAND

1/10/2007 8:29:00 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: 235

AnalyDueDate: 01/15/2007 *W05072*

Sep1 DT/Tm Tech:

Batch: 6353568 WATER pCi/L

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: BockJ / A P H



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On (24hr) Circle	Off	CR Analyst, Init/Date	Comments:
1 JKMQ4-1-AC J6L010207-1-SAMP 11/30/2006 12:39	84.40g,in										
<p style="text-align: center;">1.5 79.1 200 32A 1749 1/2/0700</p> <p>AmtRec: 20ML,2X500ML,4XLP,2X4LP #Containers: 9 Scr: Alpha: 6.52E-04 uCi/Sa Beta: 2.80E-04 uCi/Sa</p>											
2 JK70G-1-AC J6L110134-1-SAMP 12/08/2006 10:13	201.20g,in										
<p style="text-align: center;">68.5 100 28B 1608</p> <p>AmtRec: 20ML,500ML,LP #Containers: 3 Scr: Alpha: 1.59E-04 uCi/Sa Beta: 1.37E-04 uCi/Sa</p>											
3 JLDH5-1-AD J6L130181-1-SAMP 12/13/2006 09:03	196.60g,in										
<p style="text-align: center;">86.2 27D 1608</p> <p>AmtRec: 20ML,2XLP #Containers: 3 Scr: Alpha: 1.42E-05 uCi/Sa Beta: 5.47E-05 uCi/Sa</p>											
4 JLDH5-1-AE-X J6L130181-1-DUP 12/13/2006 09:03	197.10g,in										
<p style="text-align: center;">82.9 28A</p> <p>AmtRec: 20ML,2XLP #Containers: 3 Scr: Alpha: 1.42E-05 uCi/Sa Beta: 5.47E-05 uCi/Sa</p>											
5 JLDME-1-AD J6L130191-1-SAMP 12/13/2006 08:25	200.80g,in										
<p style="text-align: center;">78.5 28C</p> <p>AmtRec: 20ML,2XLP #Containers: 3 Scr: Alpha: -2.06E-04 uCi/Sa Beta: 4.78E-04 uCi/Sa</p>											
6 JLTC9-1-AA-B J6L190000-568-BLK 12/13/2006 09:03	203.00g,in										
<p style="text-align: center;">0.1 200 32B 1749</p> <p>AmtRec: #Containers: 1 Scr: Alpha: Beta:</p>											
7 JLTC9-1-AC-C J6L190000-568-LCS 12/13/2006 09:03	200.20g,in										
<p style="text-align: center;">0.5 200 32C</p> <p>besb2982 12/21/06,pd 08/08/06,r AmtRec: #Containers: 1 Scr: Alpha: Beta:</p>											

STL RICHLAND

1/10/2007 8:29:02 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 01/15/2007

Sep1 DT/Tm Tech: _____

Batch: 6353568
SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech: _____

Prep Tech: ,BockJ



Work Order, Lot, Sample Date/Time	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:
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Comments: PH L2.0 9B 1-10-07

10% collodion added to ea. samp. 1/12/07 APA

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

JKM41AC-SAMP Constituent List:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
JLTC91AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
JLTC91AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

JKM41AC-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JLTC91AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
JLTC91AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____ Date: _____

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STL RICHLAND

1/3/2007 3:27:51 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: DRM

AnalyDueDate: 01/15/2007 W05072

Sep1 DT/Tm Tech: 1/8/07 2:15 PM

Batch: 6353585 WATER pCi/L PM, Quote: SA, 57671
SEQ Batch, Test: None

Sep2 DT/Tm Tech: 1/15/07 8:52 AM
DRM

Prep Tech: ,BockJ

Work Order, Lot, Sample Date/Time	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 JPKA-1-AA J6L020185-1-SAMP	995.10g,in	SRTB14357	12/21/06, pd 09/11/06, r	1.789 2.0816	1.0	28.8	100	3"	1903	1/8/07 CD	
		YTA16819		0.8553				3C	6857	1/6/07	
		Ex: 7/23/2007						2D	6738	1/7/07	
11/30/2006 10:59		AmtRec: 20ML,3XLP		#Containers: 4				Scr:	Alpha: 1.60E-04 uCi/Sa	Beta: 1.10E-03 uCi/Sa	
2 JPKA-1-AC-X J6L020185-1-DUP	1001.70g,in	SRTB14358	12/21/06, pd 09/11/06, r	1.548 2.0816		28.6		9"	1903	1/8/07 CD	
		YTA16820		0.7657				3D	6851	1/6/07	
		Ex: 7/23/2007						3A	6738	1/7/07	
11/30/2006 10:59		AmtRec: 20ML,3XLP		#Containers: 4				Scr:	Alpha: 1.60E-04 uCi/Sa	Beta: 1.10E-03 uCi/Sa	
3 JLTEA-1-AA-B J6L190000-585-BLK	1002.20g,in	SRTB14359	12/21/06, pd 09/11/06, r	1.585 2.0816		28.9		3"	1936	1/8/07 CD	
		YTA16821		0.7840				YA	6851	1/6/07	
		Ex: 7/23/2007						3B	6738	1/7/07	
11/30/2006 10:59		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:	
4 JLTEA-1-AC-C J6L190000-585-LCS	1001.10g,in	SRSG1298	12/20/06, pd 09/11/06, r	1.427 2.0860		24.7		9"	1936	1/8/07 CD	
		YTA16822		0.7043				4B	6851	1/6/07	
		Ex: 7/23/2007						3C	6738	1/7/07	
11/30/2006 10:59		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:	

STL RICHLAND

1/3/2007 3:27:52 PM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 01/15/2007

Sep1 DT/Tm Tech:

Batch: 6353585

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ



Work Order, Lot, Sample Date/Time	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:
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Comments: PA L2.0 95 1-3.07

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

JKPKA1AA-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
JLTEA1AA-BLK:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
JLTEA1AC-LCS:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20
JKPKA1AA-SAMP Calc Info:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			
JLTEA1AA-BLK:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			
JLTEA1AC-LCS:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			

Approved By _____ Date: _____

STL RICHLAND

1/8/2007 2:27:35 PM

Sample Preparation/Analysis

Balance Id:2113224201

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

BN I-129 Prp/SepRC5025
TB Gamma by LEPD

Pipet #: _____

AnalyDueDate: 01/15/2007

W55072

5I CLIENT: HANFORD

Sep1 DT/Tm Tech: _____

Batch: 6353579

WATER

pCi/L

PM, Quote: SA, 57671

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None All Tests: 6353566 DHSS, 6353567 AZS7, 6353568 BCS8, 6353579 BNTB, 6353581 ASU3, 6353582 FPS5,

Prep Tech: ,BostedD

Work Order, Lot, Sample Date/Time	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 JKM04-1-AD J6L010207-1-SAMP 11/30/2006 12:39	3712.50g,in	3712.50g,in	ITA5903 12/28/06		36.0	100	L4	1742	1/14/07	
AmtRec: 20ML,2X500ML,4XLP,2X4LP #Containers: 9								Scr: Alpha: 6.52E-04 uCi/Sa	Beta: -2.80E-04 uCi/Sa	
2 JKM04-1-AH-X J6L010207-1-DUP 11/30/2006 12:39	3706.50g,in	3706.50g,in	ITA5902 12/28/06		35.1		L5	1722		
AmtRec: 20ML,2X500ML,4XLP,2X4LP #Containers: 9								Scr: Alpha: 6.52E-04 uCi/Sa	Beta: -2.80E-04 uCi/Sa	
3 JLTD5-1-AA-B J6L190000-579-BLK 11/30/2006 12:39	3609.90g,in	3609.90g,in	ITA5901 12/28/06		37.0		L2	1722		
AmtRec: #Containers: 1								Scr: Alpha:	Beta:	
4 JLTD5-1-AC-C J6L190000-579-LCS 11/30/2006 12:39	3818.20g,in	3818.20g,in	ISD0707 12/14/06,pd 11/17/04,r		40.0V		L4	1906		
AmtRec: #Containers: 1								Scr: Alpha:	Beta:	

Comments:

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

JKMQ41AD-SAMP Constituent List:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
JLTD51AA-BLK:
I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
JLTD51AC-LCS:
I-129 RDL:5 pCi/L LCL:70 UCL:130 RPD:20
JKMQ41AD-SAMP Calc Info:

STL RICHLAND

1/8/2007 9:17:22 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Pipet #: _____

AnalyDueDate: 01/15/2007 *W05012*

Sep1 DT/Tm Tech: _____

Batch: 6353582 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA, 57671

Sep2 DT/Tm Tech: _____

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JKMQ4-1-AE J6L010207-1-SAMP  11/30/2006 12:39			125.00g,in	125.00g						
<i>60</i>										
AmtRec: 20ML,2X500ML,4XLP,2X4LP #Containers: 9 Scr: Alpha: 6.52E-04 uCi/Sa Beta: -2.80E-04 uCi/Sa										
2 JKMQ4-1-AK-S J6L010207-1-MS  11/30/2006 12:39			124.80g,in	124.80g	tcsG1737 12/06/06,pd 01/10/06,r					
AmtRec: 20ML,2X500ML,4XLP,2X4LP #Containers: 9 Scr: Alpha: 6.52E-04 uCi/Sa Beta: -2.80E-04 uCi/Sa										
3 JKMQ4-1-AL-X J6L010207-1-DUP  11/30/2006 12:39			126.30g,in	126.30g						
AmtRec: 20ML,2X500ML,4XLP,2X4LP #Containers: 9 Scr: Alpha: 6.52E-04 uCi/Sa Beta: -2.80E-04 uCi/Sa										
4 JLTD9-1-AA-B J6L190000-582-BLK  11/30/2006 12:39			125.80g,in	125.80g						
AmtRec: #Containers: 1 Scr: Alpha: Beta:										
5 JLTD9-1-AC-C J6L190000-582-LCS  11/30/2006 12:39			128.20g,in	128.20g	tcse2046 12/20/06,pd 01/10/06,r					
AmtRec: #Containers: 1 Scr: Alpha: Beta:										
6 JLTD9-1-AD-BN J6L190000-582-IBLK  11/30/2006 12:39										
AmtRec: #Containers: 1 Scr: Alpha: Beta:										

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STL RICHLAND

1/8/2007 9:17:25 AM

Sample Preparation/Analysis

Balance Id: _____

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

Pipet #: _____

AnalyDueDate: 01/15/2007

Sep1 DT/Tm Tech: _____

Batch: 6353582

pCi/L

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None

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:
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Comments: PH 2.0 QB 1-8-07

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

JKMQ41AE-SAMP Constituent List:						
Tc-99	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	
JKMQ41AK-MS Constituent List:						
JLTD91AA-BLK:						
Tc-99	RDL:15	pCi/L	LCL:	UCL:	RPD:	
JLTD91AC-LCS:						
Tc-99	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	
JLTD91AD-IBLK:						
Tc-99	RDL:15	pCi/L	LCL:	UCL:	RPD:	
JKMQ41AE-SAMP Calc Info:						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
JKMQ41AK-MS Calc Info:						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
JLTD91AA-BLK:						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
JLTD91AC-LCS:						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
JLTD91AD-IBLK:						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

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STL RICHLAND

12/19/2006 3:58:00 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

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

Balance Id: 12445

Pipet #:

AnalyDueDate: 01/26/2007 WO 5872

Sep1 DT/Tm Tech: 12 28 06 PM

Batch: 6353564 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

Prep Tech:



Work Order, Lot, Sample Date/Time	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 JLDH5-1-AA J6L130181-1-SAMP 12/13/2006 09:03								
		AmtRec: 20ML,2XLP	#Containers: 3			Scr:	Alpha:	Beta:
2 JLDME-1-AA J6L130191-1-SAMP 12/13/2006 08:25								
		AmtRec: 20ML,2XLP	#Containers: 3			Scr:	Alpha:	Beta:
3 JLDME-1-AE-X J6L130191-1-DUP 12/13/2006 08:25								
		AmtRec: 20ML,2XLP	#Containers: 3			Scr:	Alpha:	Beta:
4 JLTCN-1-AA-B J6L190000-564-BLK 12/13/2006 08:25								
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 JLTCN-1-AC-C J6L190000-564-LCS 12/13/2006 08:25								
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 JLTCN-1-AD-BX J6L190000-564-MBLK 12/13/2006 08:25								
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
7 JLTCN-1-AE-CM J6L190000-564-MLCS 12/13/2006 08:25								
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

STL RICHLAND

12/19/2006 3:58:02 PM

Sample Preparation/Analysis

Balance Id: *12445*

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

Pipet #:

AnalyDueDate: 01/26/2007

Sep1 DT/Tm Tech: *12/28/06 pm*

Batch: 6353564 pCi/L
 SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:



Work Order, Lot, Sample Date/Time	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 JLTCN-1-AF-BN J6L190000-564-IBLK								
12/13/2006 08:25		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
9 JLTCN-1-AG-BN J6L190000-564-IBLK								
12/13/2006 08:25		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

JLDH51AA-SAMP Constituent List:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JLTCN1AA-BLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
JLTCN1AC-LCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JLTCN1AD-MBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
JLTCN1AE-MLCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
JLTCN1AF-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
JLTCN1AG-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
JLDH51AA-SAMP Calc Info:					
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N
		Sci.Not.:	Y	ODRs:	B
JLTCN1AA-BLK:					
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N
		Sci.Not.:	Y	ODRs:	B
JLTCN1AC-LCS:					
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N
		Sci.Not.:	Y	ODRs:	B

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2
 Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 9
 ICOC v4.8.26

STL RICHLAND

1/5/2007 11:25:36 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

DH UNat_Laser PrpRC5015
SS Total Uranium by KPA

Pipet #: _____

AnalyDueDate: 01/15/2007 *W05072*

5I CLIENT: HANFORD

Sep1 DT/Tm Tech: _____

Batch: 6353566 WATER ug/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None

Prep Tech: ,BockJ



Work Order, Lot, Sample Date/Time	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 JKMQ4-1-AG J6L010207-1-SAMP 11/30/2006 12:39	25.10g,in							
			AmtRec: 20ML,2X500ML,4XLP,2X4LP #Containers: 9			Scr: Alpha: 6.52E-04 uCi/Sa	Beta: -2.80E-04 uCi/Sa	
2 JKMR4-1-AC J6L010207-2-SAMP 11/30/2006 11:55	25.20g,in							
			AmtRec: 20ML,500ML,LP #Containers: 3			Scr: Alpha: 8.86E-05 uCi/Sa	Beta: 1.09E-04 uCi/Sa	
3 JK70G-1-AD J6L110134-1-SAMP 12/08/2006 10:13	24.80g,in							
			AmtRec: 20ML,500ML,LP #Containers: 3			Scr: Alpha: 1.59E-04 uCi/Sa	Beta: -1.37E-04 uCi/Sa	
4 JK70G-1-AE-S J6L110134-1-MS 12/08/2006 10:13	25.10g,in		UNSF3518 12/18/06,pd 03/22/05,r					
			AmtRec: 20ML,500ML,LP #Containers: 3			Scr: Alpha: 1.59E-04 uCi/Sa	Beta: -1.37E-04 uCi/Sa	
5 JK70G-1-AF-X J6L110134-1-DUP 12/08/2006 10:13	27.20g,in							
			AmtRec: 20ML,500ML,LP #Containers: 3			Scr: Alpha: 1.59E-04 uCi/Sa	Beta: -1.37E-04 uCi/Sa	
6 JLTCX-1-AA-B J6L190000-566-BLK 12/08/2006 10:13	25.10g,in							
			AmtRec: #Containers: 1			Scr: Alpha:	Beta:	
7 JLTCX-1-AC-C J6L190000-566-LCS 12/08/2006 10:13	25.60g,in		UNSF3519 12/18/06,pd 03/22/05,r					
			AmtRec: #Containers: 1			Scr: Alpha:	Beta:	

STL RICHLAND

1/5/2007 11:25:39 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: _____

AnalyDueDate: 01/15/2007

Sep1 DT/Tm Tech:

Batch: 6353566 ug/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

Work Order, Lot, Sample Date/Time	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:
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8 JLTCX-1-AD-C		26.00g,in	UNSC1451					
J6L190000-566-LCS			12/18/06,pd 04/28/06,r					

								
12/08/2006 10:13	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments: *24 L2-0 9B 1-5-07*

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

JKMQ41AG-SAMP Constituent List:						
Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:	
JK70G1AE-MS:						
JLTCX1AA-BLK:						
Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:	
JLTCX1AC-LCS:						
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20	
JLTCX1AD-LCS:						
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20	
JKMQ41AG-SAMP Calc Info:						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
JK70G1AE-MS:						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
JLTCX1AA-BLK:						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
JLTCX1AC-LCS:						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
JLTCX1AD-LCS:						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

1/16/2007 8:48:50 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/16/2006, 1/21/2007, Batch: '6353567', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
6353567				
AC	CalcC	BockJ	1/10/2007 8:29:27	
SC		wagarr	isBatched	12/19/2006 4:02:33 PM
SC		BockJ	InPrep	1/10/2007 8:29:27 AM
SC		BockJ	Prep1C	1/10/2007 8:37:33 AM
SC		AshworthA	InPrep2	1/12/2007 8:46:59 AM
SC		AshworthA	Prep2C	1/12/2007 1:48:45 PM
SC		DAWKINSO	InCnt1	1/12/2007 3:17:01 PM
SC		DAWKINSO	CalcC	1/12/2007 8:47:14 PM
AC		BockJ	1/10/2007 8:37:33	
AC		BockJ	1/10/2007 8:41:56	
AC		AshworthA	1/12/2007 8:46:59	
AC		AshworthA	1/12/2007 1:48:45 PM	
AC		DAWKINSO	1/12/2007 3:17:01 PM	
AC		DAWKINSO	1/12/2007 8:47:14 PM	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

1/16/2007 8:52:07 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/16/2006, 1/21/2007, Batch: '6353568', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
6353568				
AC		CalcC	BockJ	1/10/2007 8:22:10
SC			wagarr	IsBatched 12/19/2006 4:02:33 PM
SC			BockJ	InPrep 1/10/2007 8:22:10 AM
SC			BockJ	Prep1C 1/10/2007 8:29:08 AM
SC			AshworthA	InPrep2 1/12/2007 8:47:07 AM
SC			AshworthA	Prep2C 1/12/2007 1:48:52 PM
SC			DAWKINSO	InCnt1 1/12/2007 1:58:51 PM
SC			DAWKINSO	CalcC 1/12/2007 8:46:57 PM
AC			BockJ	1/10/2007 8:29:08
AC			BockJ	1/10/2007 8:41:48
AC			AshworthA	1/12/2007 8:47:07
AC			AshworthA	1/12/2007 1:48:52 PM
AC			DAWKINSO	1/12/2007 1:58:51 PM
AC			DAWKINSO	1/12/2007 8:46:57 PM

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

1/17/2007 4:05:55 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/17/2006, 1/22/2007, Batch: '6353585', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
6353585				
AC	CalcC	BockJ	1/3/2007 3:21:56 PM	
SC		wagarr	IsBatched 12/19/2006 4:02:33 PM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep 1/3/2007 3:21:56 PM	rich-rc-5017 REVISION 5
SC		BockJ	Prep1C 1/3/2007 3:27:55 PM	RICH-RC-5016 REVISION 6
SC		ManisD	InSep1 1/3/2007 4:07:58 PM	RICH-RC-5006 REV 6
SC		ManisD	Sep1C 1/8/2007 3:37:54 PM	RICH-RC-5006 REV 6
SC		DAWKINSO	InCnt1 1/8/2007 3:53:04 PM	RICH-RD-0007 REVISION 5
SC		DAWKINSO	Cnt1C 1/8/2007 7:43:51 PM	RICH-RD-0007 REVISION 5
SC		ManisD	Sep2C 1/15/2007 3:58:39 PM	RICH-RC-5071 REV 4
SC		DAWKINSO	InCnt2 1/15/2007 4:23:36 PM	RICH-RD-0003 REVISION 4
SC		BlackCL	CalcC 1/17/2007 8:19:42 AM	RICH-RD-0003 REVISION 4
AC		BockJ	1/3/2007 3:27:55 PM	
AC		ManisD	1/3/2007 4:07:58 PM	
AC		ManisD	1/8/2007 3:37:54 PM	
AC		DAWKINSO	1/8/2007 3:53:04 PM	
AC		DAWKINSO	1/8/2007 7:09:15 PM	
AC		DAWKINSO	1/8/2007 7:43:51 PM	
AC		ManisD	1/15/2007 3:58:39 PM	
AC		DAWKINSO	1/15/2007 4:23:36 PM	
AC		BlackCL	1/17/2007 8:19:42	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

1/17/2007 4:26:11 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/17/2006, 1/22/2007, Batch: '6353579', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
6353579				
AC	CalcC	BostedD	1/8/2007 2:02:58 PM	
SC		wagarr	IsBatched	12/19/2006 4:02:33 PM
SC		BostedD	InPrep	1/8/2007 2:02:58 PM
SC		BostedD	Prep1C	1/16/2007 3:30:38 PM
SC		DAWKINSO	InCnt1	1/16/2007 3:41:14 PM
SC		DAWKINSO	CalcC	1/16/2007 7:40:40 PM
AC		BostedD		1/15/2007 3:30:38 PM
AC		DAWKINSO		1/16/2007 3:41:14 PM
AC		DAWKINSO		1/16/2007 7:40:40 PM

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

1/15/2007 9:48:45 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/15/2006, 1/20/2007, Batch: '6353582', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
6353582				
AC	CalcC	BockJ	1/8/2007 9:12:00 AM	
SC		wagarr	IsBatched 12/19/2006 4:02:33 PM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep 1/8/2007 9:12:00 AM	RICH-RC-5016 Revision 6
SC		BockJ	Prep1C 1/8/2007 9:17:31 AM	RICH-RC-5016 REVISION 6
SC		FABREM	Sep1C 1/11/2007 3:38:54 PM	RICH-RC-5065 REVISION 5
SC		DAWKINSO	InCnt1 1/11/2007 3:43:51 PM	RICH-RD-0001 REVISION 3
SC		DAWKINSO	CalcC 1/12/2007 1:13:02 PM	RICH-RD-0001 REVISION 3
AC		BockJ	1/8/2007 9:17:31 AM	
AC		BockJ	1/8/2007 9:19:04 AM	
AC		FABREM	1/11/2007 3:38:54 PM	
AC		DAWKINSO	1/11/2007 3:43:51 PM	
AC		DAWKINSO	1/12/2007 1:13:02 PM	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

1/9/2007 4:21:56 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/9/2006, 1/14/2007, Batch: '6353564', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
6353564				
AC	CalcC	McDowellD	12/28/2006 11:13:46	
SC		wagarr	IsBatched 12/19/2006 4:02:33 PM	ICOC_RADCALC v4.8.26
SC		McDowellD	InSep1 12/28/2006 11:13:46 AM	RICH-RC-5007 REVISION 6
SC		McDowellD	Sep1C 1/5/2007 3:32:48 PM	RICH-RC-5007 REVISION 6
SC		DAWKINSO	InCnt1 1/5/2007 3:39:30 PM	RICH-RD-0001 REVISION 3
SC		BlackCL	CalcC 1/9/2007 7:35:48 AM	RICH-RD-0001 REVISION 3
AC		McDowellID	1/5/2007 3:32:48 PM	
AC		DAWKINSO	1/5/2007 3:39:30 PM	
AC		BlackCL	1/9/2007 7:35:48 AM	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

1/19/2007 11:27:39 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/19/2006, 1/24/2007, Batch: '6353566', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
6353566				
AC		Cnt1C	BockJ 1/5/2007 11:20:54	
SC		wagarr	IsBatched 12/19/2006 4:02:33 PM	ICOC_RADCALC v4.8.26
SC		BockJ	InPrep 1/5/2007 11:20:54 AM	RICH-RC-5014 Revision 6
SC		BockJ	Prep1C 1/5/2007 11:26:03 AM	RICH-RC-5015 REVISION 4
SC		AntonsonL	Sep1C 1/12/2007 3:37:21 PM	RICH-RC-5015 REVISION 4
SC		NelsonT	Cnt1C 1/17/2007 5:42:58 PM	RICH-RC-5058 REV 7
AC		BockJ	1/5/2007 11:26:03	
AC		AntonsonL	1/12/2007 3:37:21 PM	
AC		NelsonT	1/17/2007 5:42:58 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.