

W05222

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**RECEIVED**  
MAY 05 2008  
EDMC

Analytical Data Package Prepared For

**Fluor Hanford**

Radiochemical Analysis By

**TAL Richland TARL***2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.**Data Package Contains \_\_\_\_\_ Pages***Report Nbr: 37045**

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05222	W07-008	B1PB09	J7H220200-1	J5DNF1AA	9J5DNF10	7240443
		B1PB09	J7H220200-1	J5DNF1AC	9J5DNF10	7240432
		B1PB09	J7H220200-1	J5DNF1AD	9J5DNF10	7240439
		B1PB00	J7H220200-2	J5DN21AA	9J5DN210	7240443
		B1PB00	J7H220200-2	J5DN21AC	9J5DN210	7240432
		B1PB00	J7H220200-2	J5DN22AD	9J5DN220	7278260
		B1P9Y9	J7H220200-3	J5DN81AA	9J5DN810	7240443
		B1P9Y9	J7H220200-3	J5DN81AC	9J5DN810	7240432
		B1P9Y9	J7H220200-3	J5DN81AD	9J5DN810	7240439
		B1P9Y0	J7H220200-4	J5DPA1AA	9J5DPA10	7240443
		B1P9Y0	J7H220200-4	J5DPA1AC	9J5DPA10	7240432
		B1P9Y0	J7H220200-4	J5DPA2AD	9J5DPA20	7278260
		B1PB14	J7H220200-5	J5DPD1AA	9J5DPD10	7240443
		B1PB14	J7H220200-5	J5DPD1AC	9J5DPD10	7240439
		B1P9Y5	J7H220200-6	J5DPG1AA	9J5DPG10	7240443

Comments:

## Report Nbr: 37045

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05222	W07-008	B1P9Y5	J7H220200-6	J5DPG1AC	9J5DPG10	7240432
		B1P9Y5	J7H220200-6	J5DPG1AD	9J5DPG10	7240439
		B1P9C8	J7H220210-1	J5DR91AA	9J5DR910	7240441
		B1P9C8	J7H220210-1	J5DR91AC	9J5DR910	7240431
		B1P9C8	J7H220210-1	J5DR91AD	9J5DR910	7240438
		B1P9C8	J7H220210-1	J5DR91AE	9J5DR910	7240428
		B1P9C3	J7H220210-2	J5DTE1AA	9J5DTE10	7240431
		B1P9C3	J7H220210-2	J5DTE1AC	9J5DTE10	7240439
		B1P9C3	J7H220210-2	J5DTE1AD	9J5DTE10	7240428
		B1P9D3	J7H220210-3	J5DTK1AA	9J5DTK10	7240431
		B1P9D3	J7H220210-3	J5DTK1AC	9J5DTK10	7240439
		B1P9D3	J7H220210-3	J5DTK1AD	9J5DTK10	7240428
		B1P9P4	J7H220290-1	J5EGR2AA	9J5EGR20	7278260
		B1P9W3	J7H220290-2	J5EHC1AA	9J5EHC10	7240443
		B1P9W3	J7H220290-2	J5EHC1AC	9J5EHC10	7240439
		B1P9V8	J7H220290-3	J5EHD1AD	9J5EHD10	7240443
		B1P9V8	J7H220290-3	J5EHD1AE	9J5EHD10	7240439
		B1P9J3	J7H240273-1	J5KGQ1AA	9J5KGQ10	7240438
		B1P9J3	J7H240273-1	J5KGQ1AC	9J5KGQ10	7240428
		B1P9H8	J7H240273-2	J5KG71AA	9J5KG710	7240438
		B1P9H8	J7H240273-2	J5KG71AC	9J5KG710	7240428
		B1P8P5	J7H240273-3	J5KHG1AA	9J5KHG10	7240431
		B1P8P5	J7H240273-3	J5KHG1AC	9J5KHG10	7240439
		B1P8P5	J7H240273-3	J5KHG1AD	9J5KHG10	7240428
		B1P8P5	J7H240273-3	J5KHG2AA	9J5KHG20	7240431
		B1P9F8	J7H240273-4	J5KH11AA	9J5KH110	7240431

Comments:

## Report Nbr: 37045

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH	
W05222	W07-008	B1P9F8	J7H240273-4	J5KH11AC	9J5KH110	7240439	
		B1P9F8	J7H240273-4	J5KH11AD	9J5KH110	7240428	
		B1P9F3	J7H240273-5	J5KH91AA	9J5KH910	7240431	
		B1P9F3	J7H240273-5	J5KH91AC	9J5KH910	7240439	
		B1P9F3	J7H240273-5	J5KH91AD	9J5KH910	7240428	
		B1P9H3	J7H240273-6	J5KJD1AA	9J5KJD10	7240438	
	I07-061		B1P9H3	J7H240273-6	J5KJD1AC	9J5KJD10	7240428
			B1P5C8	J7H270157-1	J5NPR1AA	9J5NPR10	7240436
			B1P5C8	J7H270157-1	J5NPR1AC	9J5NPR10	7240442
			B1P5C8	J7H270157-1	J5NPR1AD	9J5NPR10	7240431
			B1P5C8	J7H270157-1	J5NPR1AE	9J5NPR10	7240432
			B1P5C8	J7H270157-1	J5NPR1AF	9J5NPR10	7240434
			B1P5C8	J7H270157-1	J5NPR1AG	9J5NPR10	7240437
			B1P5C0	J7H270157-2	J5NP12AA	9J5NP120	7240432

Comments:

## Certificate of Analysis

Fluor Hanford  
1200 Jadwin Ave.  
Richland, WA 99352

October 17, 2007

Attention: Steve Trent

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SAF Number	:	I07-061, W07-008
Date SDG Closed	:	August 24, 2007
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W05222
Data Deliverable	:	45-Day / Summary

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### CASE NARRATIVE

#### I. Introduction

Between August 20, 2007 and August 24, 2007 twenty water samples were received at TestAmerica Laboratories Richland (TALR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Fluor Hanford specific IDs:

<u>PGW ID#</u>	<u>STLR ID#</u>	<u>DATE OF RECEIPT</u>	<u>MATRIX</u>
B1PB09	J5DNF	8/20/07	WATER
B1PB00	J5DN2	8/20/07	WATER
B1P9Y9	J5DN8	8/20/07	WATER
B1P9Y0	J5DPA	8/20/07	WATER
B1PB14	J5DPD	8/20/07	WATER
B1P9Y5	J5DPG	8/20/07	WATER
B1P9C8	J5DR9	8/21/07	WATER
B1P9C3	J5DTE	8/21/07	WATER
B1P9D3	J5DTK	8/21/07	WATER
B1P9P4	J5EGR	8/21/07	WATER
B1P9W3	J5EHC	8/21/07	WATER
B1P9V8	J5EHD	8/21/07	WATER
B1P9J3	J5KGQ	8/23/07	WATER

Fluor Hanford  
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B1P9H8	J5KG7	8/23/07	WATER
B1P8P5	J5KHG	8/23/07	WATER
B1P9F8	J5KH1	8/23/07	WATER
B1P9F3	J5KH9	8/23/07	WATER
B1P9H3	J5KJD	8/23/07	WATER
B1P5C8	J5NPR	8/24/07	WATER
B1P5C0	J5NPI	8/24/07	WATER

## II. Sample Receipt

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

## III. Analytical Results/Methodology

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

The requested analyses were:

### **Alpha Spectroscopy**

Neptunium-237 by method RICH-RC-5009

### **Gas Proportional Counting**

Gross Beta by method RICH-RC-5014

Strontium-90 by method RICH-RC-5006

### **Gamma Spectroscopy**

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

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

### **Liquid Scintillation Counting**

Selenium-79 by method RICH-RC-5043

Technetium-99 by TEVA method RICH-RC-5065

Technetium-99 by method RICH-RC-5078

Tritium by method RICH-RC-5007

Carbon-14 by method RICH-RC-5022

### **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

### **Alpha Spectroscopy**

#### Neptunium-237 by method RICH-RC-5009:

The LCS, batch blank, sample and sample duplicate (B1P5C8) results are within contractual requirements.

### **Gas Proportional Counting**

#### Gross Beta by method RICH-RC-5014:

The samples did not meet CRDL due to sample matrix effects; reduced volumes were analyzed based on an elevated screen results. The detected activities exceed the achieved MDAs. Except as noted, the LCS, batch blank, samples and sample duplicate (B1P9C8) results are within contractual requirements.

#### Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1P5C8) results are within contractual requirements.

### **Gamma Spectroscopy**

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

In the original analysis sample B1P8P5 would not un-split. It was recounted with good results. Except as noted, the LCS, batch blank, samples and sample duplicate (B1P9D3) results are within contractual requirements.

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

The sample and duplicate are out of limits at 36% RPD. The samples were recounted to verify the results. The difference in the results was less than 1 CRDL. The client was contacted and accepted the results. Except as noted, the LCS, batch blank, samples and sample duplicate (B1P5C0) results are within contractual requirements.

### **Liquid Scintillation Counting**

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

The TSIE was outside of acceptable limits on these samples. The samples were recounted and now provide acceptable results. The sample and duplicate are now in separate batches but are in agreement. Except as noted, the LCS, batch blank, samples, sample duplicate (B1P9P4), and sample matrix spike (B1P9W3) results are within contractual requirements.

#### Technetium-99 by method RICH-RC-5078:

The LCS, batch blank, samples, sample duplicate (B1P9H8), and sample matrix spike (B1P9H3) results are within contractual requirements.

#### Selenium-79 by method RICH-RC-5043:

There is no LCS for selenium-79. Except as noted, the LCS, batch blank, samples and sample duplicate (B1P5C8) results are within contractual requirements.

#### Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1PB09) results are within contractual requirements.

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Carbon-14 by method RICH-RC-5022:

The LCS, batch blank, samples and sample duplicate (B1P5C8) results are within contractual requirements.

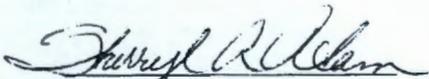
**Total Uranium**

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1P9J3), and sample matrix spike (B1P9H8) 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:



Sherry A. Adam  
Project Manager

**Adam, Sherryl**

**From:** Hampt, Heidi [Heidi\_Hampt@RL.gov]  
**Sent:** Wednesday, October 17, 2007 11:08 AM  
**To:** Adam, Sherryl; Trent, Stephen J; Anastos, Heather L; Felmy, Diana  
**Subject:** RE: IRF for W05222/07-105  
**Attachments:** 07-105.DOC

Response is attached.

Heidi

**From:** Adam, Sherryl [mailto:Sherryl.Adam@testamericainc.com]  
**Sent:** Tuesday, October 16, 2007 10:33 AM  
**To:** Trent, Stephen J; Hampt, Heidi; Anastos, Heather L; Felmy, Diana  
**Subject:** IRF for W05222

Steve et al,

Here is an IRF for W05222. Please advise us on how to proceed. Thanks.

<<IRFW05222.DOC>>

**Sherryl A. Adam**  
Project Manager

**TestAmerica**

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

IRF Tracking No.: 07-105

SAF No.: I07-061

Date: October 16, 2007

SDG: W05222

Sample No.(s) B1P5C0

Submitted By: Sherryl Adam

Submitted To: Steve Trent (FH)

Phone No. 509-375-3131 x164

Phone No. 509-373-5869

Fax No. 509-375-5590

Fax No. 866-252-5816

**ISSUE**

The above mentioned samples have I-129 (LL) requested. The sample and duplicate have results of 1.34 and 0.9296 with an RPD of 36%. The DL is 1. The results have a difference of less than 1 CRDL.

**PROPOSED RESOLUTION**

Accept the results.

**BHI/FH/PNNL COMMENTS -**

Accept proposed resolution.

Heidi Hampt 10/17/07

Signature and date

## 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 00-02	Gross Alpha (Coprecipitation)	RICH-RC-5021
EPA 903.0	Total Alpha Radium (Ra-226)	RICH-RC-5027
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr-89/90	RICH-RC-5006
ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007

## Uncertainty Estimation

Test America 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,  $R = \text{constants} * f(x,y,z,...)$ . 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

<b>Action Lev</b>	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.
<b>Batch</b>	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
<b>Bias</b>	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
<b>COC No</b>	Chain of Custody Number assigned by the Client or STL Richland.
<b>Count Error (#s)</b>	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.
<b>Total Uncert (#s) <i>u<sub>c</sub> Combined Uncertainty.</i></b>	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<sub>c</sub> the combined uncertainty.</i> The uncertainty is absolute and in the same units as the result.
<b>(#s), Coverage Factor</b>	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
<b>CRDL (RL)</b>	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)
<b>Lc</b>	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%. $L_c = 1.645 * \text{Sqrt}(2 * (\text{BkgrndCnt}/\text{BkgrndCntMin}) / \text{SCntMin}) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$ . 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.
<b>Lot-Sample No</b>	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.
<b>MDC MDA</b>	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%. $MDC = (4.65 * \text{Sqrt}((\text{BkgrndCnt}/\text{BkgrndCntMin}) / \text{SCntMin}) + 2.71 / \text{SCntMin}) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$ . For LSC methods the batch blank is used as a measure of the background variability.
<b>Primary Detector</b>	The instrument identifier associated with the analysis of the sample aliquot.
<b>Ratio U-234/U-238</b>	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.
<b>Rst/MDC</b>	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.
<b>Rst/TotUcert</b>	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.
<b>Report DB No</b>	Sample Identifier used by the report system. The number is based upon the first five digits of the <b>Work Order</b> Number.
<b>RER</b>	The equation Replicate Error Ratio = $(S-D) / [\text{sqrt}(TPUs^2 + TPUD^2)]$ 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.
<b>SDG</b>	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
<b>Sum Rpt Alpha Spec Rst(s)</b>	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.
<b>Work Order</b>	The LIMS software assign test specific identifier.
<b>Yield</b>	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

10/17/2007 2:29:15 PM

## TAL Richland Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 37045 File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.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:				
9J5DN210	B1PB00		MW6-SBB-A1	W07-008	W05222					08/20/2007 12:02				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240443	H-3	10028-17-8	3.28E+03	pCi/L	2.2E+02	2.8E+02		3.06E+02	100.0	906.0_H3_LSC	5.00E-03	L	09/21/2007 08:46	I
7240432	I-129L	15046-84-1	1.30E-01	pCi/L	1.5E-01	1.5E-01	U	2.94E-01	99.2	I129LL_SEP_LEPS	3.919E+00	L	10/05/2007 13:52	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:				
9J5DN220	B1PB00		MW6-SBB-A1	W07-008	W05222					08/20/2007 12:02				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7278260	TC-99	14133-76-7	3.42E+02	pCi/L	1.1E+01	2.7E+01		1.06E+01	100.0	TC99_ETVDSK_LS	1.258E-01	L	10/05/2007 16:55	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:				
9J5DN810	B1P9Y9		MW6-SBB-A1	W07-008	W05222					08/20/2007 12:02				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240443	H-3	10028-17-8	3.70E+03	pCi/L	2.3E+02	2.9E+02		3.06E+02	100.0	906.0_H3_LSC	5.00E-03	L	09/21/2007 10:08	I
7240432	I-129L	15046-84-1	1.37E-01	pCi/L	1.6E-01	1.6E-01	U	3.09E-01	98.4	I129LL_SEP_LEPS	3.9295E+00	L	10/05/2007 15:35	I
7240439	TC-99	14133-76-7	3.35E+02	pCi/L	1.1E+01	2.6E+01		1.04E+01	100.0	TC99_ETVDSK_LS	1.265E-01	L	10/01/2007 22:57	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J5DNF10	B1PB09		MW6-SBB-A1	W07-008	W05222					08/20/2007 14:12				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240443	H-3	10028-17-8	6.76E+03	pCi/L	2.9E+02	4.1E+02		3.05E+02	100.0	906.0_H3_LSC	5.00E-03	L	09/21/2007 06:03	I
7240432	I-129L	15046-84-1	3.49E-01	pCi/L	1.7E-01	1.7E-01	U	3.51E-01	98.6	I129LL_SEP_LEPS	3.9354E+00	L	10/05/2007 12:07	I
7240439	TC-99	14133-76-7	6.03E+02	pCi/L	1.4E+01	4.2E+01		1.07E+01	100.0	TC99_ETVDSK_LS	1.251E-01	L	10/01/2007 20:52	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:				
9J5DPA10	B1P9Y0		MW6-SBB-A1	W07-008	W05222					08/20/2007 09:48				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240443	H-3	10028-17-8	1.71E+05	pCi/L	1.3E+03	6.5E+03		3.07E+02	100.0	906.0_H3_LSC	5.00E-03	L	09/21/2007 11:30	I
7240432	I-129L	15046-84-1	6.89E+00	pCi/L	9.4E-01	9.4E-01		3.63E-01	98.9	I129LL_SEP_LEPS	3.9507E+00	L	10/05/2007 17:21	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9J5DPA20	B1P9Y0		MW6-SBB-A1	W07-008	W05222					08/20/2007 09:48

TAL Richland

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.

rptFeadRadSummaryEdd v3.48

10/17/2007 2:29:15 PM

## TAL Richland Report

Lab Code: TARL

FormNbr:	R	FormatType:	FEAD	Version:	05	Rpt Nbr:	37045	File Name:	h:\Reportdb\edd\FeadIV\Rad\W05222.Edd, h:\Reportdb\edd\FeadIV\Rad\37045.Edd						
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
7278260	TC-99	14133-76-7	2.76E+03	pCi/L	2.9E+01	1.7E+02		1.06E+01	100.0	TC99_ETVDSK_LS	1.255E-01	L	10/05/2007 17:57	I	
<b>Lab Sample Id:</b>	<b>Client Id:</b>	<b>Test User</b>	<b>Contract Nbr</b>	<b>SAF Nbr</b>	<b>Sdg Nbr:</b>	<b>QC Type:</b>	<b>Moisture/Solids%*:</b>	<b>Distilled Volume</b>	<b>Sample On Date:</b>	<b>Collection Date:</b>					
9J5DPD10	B1PB14		MW6-SBB-A1	W07-008	W05222								08/20/2007 10:54		
7240443	H-3	10028-17-8	4.77E+03	pCi/L	2.6E+02	3.4E+02		3.05E+02	100.0	906.0_H3_LSC	5.00E-03	L	09/21/2007 12:51	I	
7240439	TC-99	14133-76-7	5.49E+02	pCi/L	1.4E+01	3.9E+01		1.05E+01	100.0	TC99_ETVDSK_LS	1.259E-01	L	10/02/2007 01:02	I	
<b>Lab Sample Id:</b>	<b>Client Id:</b>	<b>Test User</b>	<b>Contract Nbr</b>	<b>SAF Nbr</b>	<b>Sdg Nbr:</b>	<b>QC Type:</b>	<b>Moisture/Solids%*:</b>	<b>Distilled Volume</b>	<b>Sample On Date:</b>	<b>Collection Date:</b>					
9J5DPG10	B1P9Y5		MW6-SBB-A1	W07-008	W05222								08/20/2007 13:15		
7240443	H-3	10028-17-8	4.88E+03	pCi/L	2.6E+02	3.4E+02		3.05E+02	100.0	906.0_H3_LSC	5.00E-03	L	09/21/2007 15:35	I	
7240432	I-129L	15046-84-1	1.08E-01	pCi/L	1.3E-01	1.3E-01	U	2.51E-01	104.9	I129LL_SEP_LEPS	3.9339E+00	L	10/05/2007 19:05	I	
7240439	TC-99	14133-76-7	1.56E+02	pCi/L	8.2E+00	1.5E+01		1.06E+01	100.0	TC99_ETVDSK_LS	1.252E-01	L	10/02/2007 02:05	I	
<b>Lab Sample Id:</b>	<b>Client Id:</b>	<b>Test User</b>	<b>Contract Nbr</b>	<b>SAF Nbr</b>	<b>Sdg Nbr:</b>	<b>QC Type:</b>	<b>Moisture/Solids%*:</b>	<b>Distilled Volume</b>	<b>Sample On Date:</b>	<b>Collection Date:</b>					
9J5DR910	B1P9C8		MW6-SBB-A1	W07-008	W05222								08/21/2007 08:26		
7240441	BETA	12587-47-2	2.99E+02	pCi/L	9.9E+00	3.9E+01		5.47E+00	100.0	9310_ALPHABETA	7.10E-02	L	10/03/2007 19:46	I	
7240431	BE-7	13966-02-4	-1.99E+01	pCi/L	1.9E+01	1.9E+01	U	3.09E+01		GAMMALL_GS	2.0013E+00	L	10/06/2007 09:33	I	
7240431	CO-60	10198-40-0	-8.98E-02	pCi/L	1.8E+00	1.8E+00	U	3.34E+00		GAMMALL_GS	2.0013E+00	L	10/06/2007 09:33	I	
7240431	CS-134	13967-70-9	-8.79E-01	pCi/L	1.8E+00	1.8E+00	U	3.14E+00		GAMMALL_GS	2.0013E+00	L	10/06/2007 09:33	I	
7240431	CS-137	10045-97-3	2.85E-01	pCi/L	1.6E+00	1.6E+00	U	2.87E+00		GAMMALL_GS	2.0013E+00	L	10/06/2007 09:33	I	
7240431	EU-152	14683-23-9	2.12E-02	pCi/L	4.1E+00	4.1E+00	U	7.18E+00		GAMMALL_GS	2.0013E+00	L	10/06/2007 09:33	I	
7240431	EU-154	15585-10-1	-2.95E+00	pCi/L	4.9E+00	4.9E+00	U	8.27E+00		GAMMALL_GS	2.0013E+00	L	10/06/2007 09:33	I	
7240431	EU-155	14391-16-3	-2.12E+00	pCi/L	3.8E+00	3.8E+00	U	6.14E+00		GAMMALL_GS	2.0013E+00	L	10/06/2007 09:33	I	
7240431	K-40	13966-00-2	-7.71E+01	pCi/L	4.2E+01	4.2E+01	U	8.30E+01		GAMMALL_GS	2.0013E+00	L	10/06/2007 09:33	I	
7240431	RU-106	13967-48-1	-4.79E+00	pCi/L	1.4E+01	1.4E+01	U	2.51E+01		GAMMALL_GS	2.0013E+00	L	10/06/2007 09:33	I	
7240431	SB-125	14234-35-6	2.03E+00	pCi/L	4.0E+00	4.0E+00	U	7.49E+00		GAMMALL_GS	2.0013E+00	L	10/06/2007 09:33	I	
7240438	TC-99	14133-76-7	1.07E+03	pCi/L	1.9E+01	7.0E+01		1.08E+01	100.0	TC99_SEP_LSC	1.255E-01	L	10/04/2007 04:44	I	
7240428	Uranium	7440-61-1	3.07E+00	ug/L	3.1E-01	3.1E-01		7.94E-02		UTOT_KPA	2.64E-02	ML	10/08/2007 09:30	I	
<b>Lab Sample Id:</b>	<b>Client Id:</b>	<b>Test User</b>	<b>Contract Nbr</b>	<b>SAF Nbr</b>	<b>Sdg Nbr:</b>	<b>QC Type:</b>	<b>Moisture/Solids%*:</b>	<b>Distilled Volume</b>	<b>Sample On Date:</b>	<b>Collection Date:</b>					

TAL Richland

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

rptFeadRadSummaryEdd v3.48

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.

10/17/2007 2:29:15 PM

TAL Richland Report

Lab Code: TARL

FormNbr: R    FormatType: FEAD    Version: 05    Rpt Nbr: 37045    File Name: h:\Reportdb\edd\FeadI\Rad\W05222.Edd, h:\Reportdb\edd\FeadI\Rad\37045.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
9J5DTE10	B1P9C3												08/21/2007 10:12	
MW6-SBB-A1 W07-008 W05222														
7240431	BE-7	13966-02-4	1.87E+01	pCi/L	2.2E+01	2.2E+01	U	4.10E+01		GAMMALL_GS	2.0002E+00	L	10/06/2007 09:33	I
7240431	CO-60	10198-40-0	5.61E+01	pCi/L	9.6E+00	9.6E+00		3.83E+00		GAMMALL_GS	2.0002E+00	L	10/06/2007 09:33	I
7240431	CS-134	13967-70-9	6.95E-01	pCi/L	2.2E+00	2.2E+00	U	4.08E+00		GAMMALL_GS	2.0002E+00	L	10/06/2007 09:33	I
7240431	CS-137	10045-97-3	-8.54E-02	pCi/L	1.9E+00	1.9E+00	U	3.43E+00		GAMMALL_GS	2.0002E+00	L	10/06/2007 09:33	I
7240431	EU-152	14683-23-9	2.37E-02	pCi/L	4.5E+00	4.5E+00	U	7.70E+00		GAMMALL_GS	2.0002E+00	L	10/06/2007 09:33	I
7240431	EU-154	15585-10-1	-4.98E-01	pCi/L	4.4E+00	4.4E+00	U	8.18E+00		GAMMALL_GS	2.0002E+00	L	10/06/2007 09:33	I
7240431	EU-155	14391-16-3	-1.56E+00	pCi/L	3.8E+00	3.8E+00	U	6.40E+00		GAMMALL_GS	2.0002E+00	L	10/06/2007 09:33	I
7240431	K-40	13966-00-2	-5.61E+00	pCi/L	3.8E+01	3.8E+01	U	7.88E+01		GAMMALL_GS	2.0002E+00	L	10/06/2007 09:33	I
7240431	RU-106	13967-48-1	-1.15E+01	pCi/L	1.7E+01	1.7E+01	U	2.81E+01		GAMMALL_GS	2.0002E+00	L	10/06/2007 09:33	I
7240431	SB-125	14234-35-6	-2.71E-01	pCi/L	4.4E+00	4.4E+00	U	7.73E+00		GAMMALL_GS	2.0002E+00	L	10/06/2007 09:33	I
7240439	TC-99	14133-76-7	2.30E+04	pCi/L	8.2E+01	1.4E+03		1.02E+01	100.0	TC99_ETVDSK_LS	1.264E-01	L	10/02/2007 03:07	I
7240428	Uranium	7440-61-1	4.15E+01	ug/L	4.9E+00	4.9E+00		8.15E-02		UTOT_KPA	2.57E-02	ML	10/08/2007 09:32	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:
9J5DTK10	B1P9D3		MW6-SBB-A1	W07-008	W05222					08/21/2007 11:52

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240431	BE-7	13966-02-4	-3.80E+00	pCi/L	2.1E+01	2.1E+01	U	3.60E+01		GAMMALL_GS	2.0005E+00	L	10/06/2007 09:34	I
7240431	CO-60	10198-40-0	2.33E+01	pCi/L	5.5E+00	5.5E+00		3.77E+00		GAMMALL_GS	2.0005E+00	L	10/06/2007 09:34	I
7240431	CS-134	13967-70-9	3.74E-01	pCi/L	2.2E+00	2.2E+00	U	3.91E+00		GAMMALL_GS	2.0005E+00	L	10/06/2007 09:34	I
7240431	CS-137	10045-97-3	-1.01E+00	pCi/L	1.8E+00	1.8E+00	U	2.97E+00		GAMMALL_GS	2.0005E+00	L	10/06/2007 09:34	I
7240431	EU-152	14683-23-9	-3.53E+00	pCi/L	4.0E+00	4.0E+00	U	6.39E+00		GAMMALL_GS	2.0005E+00	L	10/06/2007 09:34	I
7240431	EU-154	15585-10-1	-1.97E+00	pCi/L	5.2E+00	5.2E+00	U	9.06E+00		GAMMALL_GS	2.0005E+00	L	10/06/2007 09:34	I
7240431	EU-155	14391-16-3	1.15E+00	pCi/L	2.8E+00	2.8E+00	U	5.14E+00		GAMMALL_GS	2.0005E+00	L	10/06/2007 09:34	I
7240431	K-40	13966-00-2	-3.05E+01	pCi/L	3.7E+01	3.7E+01	U	7.46E+01		GAMMALL_GS	2.0005E+00	L	10/06/2007 09:34	I
7240431	RU-106	13967-48-1	-7.41E+00	pCi/L	1.6E+01	1.6E+01	U	2.72E+01		GAMMALL_GS	2.0005E+00	L	10/06/2007 09:34	I
7240431	SB-125	14234-35-6	-3.59E+00	pCi/L	4.1E+00	4.1E+00	U	6.66E+00		GAMMALL_GS	2.0005E+00	L	10/06/2007 09:34	I
7240439	TC-99	14133-76-7	9.82E+03	pCi/L	5.5E+01	5.9E+02		1.08E+01	100.0	TC99_ETVDSK_LS	1.266E-01	L	10/02/2007 04:10	I
7240428	Uranium	7440-61-1	2.60E+02	ug/L	3.1E+01	3.1E+01		8.03E-02		UTOT_KPA	2.61E-02	ML	10/08/2007 09:40	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:
9J5EGR20	B1P9P4		MW6-SBB-A1	W07-008	W05222					08/21/2007 11:59

TAL Richland    U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.  
 rptFeadRadSummaryEdd v3.48    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.

10/17/2007 2:29:15 PM

## TAL Richland Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      Version: 05      Rpt Nbr: 37045      File Name: h:\Reportdb\edd\FeadIVRad\W05222.Edd, h:\Reportdb\edd\FeadIVRad\37045.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7278260	TC-99	14133-76-7	1.23E+02	pCi/L	7.3E+00	1.4E+01		1.04E+01	100.0	TC99_ETVDSK_LS	1.27E-01	L	10/05/2007 19:00	I
<b>Lab Sample Id:</b>	<b>Client Id:</b>	<b>Test User</b>	<b>Contract Nbr</b>	<b>SAF Nbr</b>	<b>Sdg Nbr:</b>	<b>QC Type:</b>	<b>Moisture/Solids%*:</b>	<b>Distilled Volume</b>	<b>Sample On Date:</b>	<b>Collection Date:</b>				
9J5EHC10	B1P9W3		MW6-SBB-A1	W07-008	W05222					08/21/2007 09:20				
7240443	H-3	10028-17-8	6.69E+03	pCi/L	2.9E+02	4.1E+02		3.06E+02	100.0	906.0_H3_LSC	5.00E-03	L	09/21/2007 16:56	I
7240439	TC-99	14133-76-7	2.60E+02	pCi/L	1.0E+01	2.1E+01		1.07E+01	100.0	TC99_ETVDSK_LS	1.251E-01	L	10/02/2007 07:17	I
<b>Lab Sample Id:</b>	<b>Client Id:</b>	<b>Test User</b>	<b>Contract Nbr</b>	<b>SAF Nbr</b>	<b>Sdg Nbr:</b>	<b>QC Type:</b>	<b>Moisture/Solids%*:</b>	<b>Distilled Volume</b>	<b>Sample On Date:</b>	<b>Collection Date:</b>				
9J5EHD10	B1P9V8		MW6-SBB-A1	W07-008	W05222					08/21/2007 10:31				
7240443	H-3	10028-17-8	6.28E+03	pCi/L	2.9E+02	3.9E+02		3.06E+02	100.0	906.0_H3_LSC	5.00E-03	L	09/21/2007 18:18	I
7240439	TC-99	14133-76-7	2.89E+02	pCi/L	1.0E+01	2.3E+01		1.05E+01	100.0	TC99_ETVDSK_LS	1.258E-01	L	10/02/2007 10:25	I
<b>Lab Sample Id:</b>	<b>Client Id:</b>	<b>Test User</b>	<b>Contract Nbr</b>	<b>SAF Nbr</b>	<b>Sdg Nbr:</b>	<b>QC Type:</b>	<b>Moisture/Solids%*:</b>	<b>Distilled Volume</b>	<b>Sample On Date:</b>	<b>Collection Date:</b>				
9J5KG710	B1P9H8		MW6-SBB-A1	W07-008	W05222					08/23/2007 09:07				
7240438	TC-99	14133-76-7	1.10E+02	pCi/L	7.1E+00	1.3E+01		1.04E+01	100.0	TC99_SEP_LSC	1.27E-01	L	10/04/2007 06:48	I
7240428	Uranium	7440-61-1	5.95E+00	ug/L	6.1E-01	6.1E-01		8.19E-02		UTOT_KPA	2.56E-02	ML	10/08/2007 09:46	I
<b>Lab Sample Id:</b>	<b>Client Id:</b>	<b>Test User</b>	<b>Contract Nbr</b>	<b>SAF Nbr</b>	<b>Sdg Nbr:</b>	<b>QC Type:</b>	<b>Moisture/Solids%*:</b>	<b>Distilled Volume</b>	<b>Sample On Date:</b>	<b>Collection Date:</b>				
9J5KQG10	B1P9J3		MW6-SBB-A1	W07-008	W05222					08/23/2007 08:30				
7240438	TC-99	14133-76-7	1.67E+02	pCi/L	8.4E+00	1.6E+01		1.07E+01	100.0	TC99_SEP_LSC	1.251E-01	L	10/04/2007 05:46	I
7240428	Uranium	7440-61-1	5.87E+00	ug/L	6.0E-01	6.0E-01		8.25E-02		UTOT_KPA	2.54E-02	ML	10/08/2007 09:42	I
<b>Lab Sample Id:</b>	<b>Client Id:</b>	<b>Test User</b>	<b>Contract Nbr</b>	<b>SAF Nbr</b>	<b>Sdg Nbr:</b>	<b>QC Type:</b>	<b>Moisture/Solids%*:</b>	<b>Distilled Volume</b>	<b>Sample On Date:</b>	<b>Collection Date:</b>				
9J5KH110	B1P9F8		MW6-SBB-A1	W07-008	W05222					08/23/2007 10:16				
7240431	BE-7	13966-02-4	-1.46E-02	pCi/L	1.7E+01	1.7E+01	U	2.91E+01		GAMMALL_GS	2.001E+00	L	10/06/2007 09:37	I
7240431	CO-60	10198-40-0	8.75E-02	pCi/L	1.5E+00	1.5E+00	U	2.75E+00		GAMMALL_GS	2.001E+00	L	10/06/2007 09:37	I
7240431	CS-134	13967-70-9	-3.79E-01	pCi/L	1.4E+00	1.4E+00	U	2.49E+00		GAMMALL_GS	2.001E+00	L	10/06/2007 09:37	I
7240431	CS-137	10045-97-3	9.28E-01	pCi/L	1.2E+00	1.2E+00	U	2.36E+00		GAMMALL_GS	2.001E+00	L	10/06/2007 09:37	I

TAL Richland

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

rptFeadRadSummaryEdd v3.48

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.

10/17/2007 2:29:15 PM

# TAL Richland Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      Version: 05      Rpt Nbr: 37045      File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

7240431	EU-152	14683-23-9	2.25E+00	pCi/L	3.4E+00	3.4E+00	U	6.23E+00		GAMMALL_GS	2.001E+00	L	10/06/2007 09:37	I
7240431	EU-154	15585-10-1	3.20E+00	pCi/L	4.3E+00	4.3E+00	U	8.37E+00		GAMMALL_GS	2.001E+00	L	10/06/2007 09:37	I
7240431	EU-155	14391-16-3	-3.46E+00	pCi/L	2.9E+00	2.9E+00	U	4.60E+00		GAMMALL_GS	2.001E+00	L	10/06/2007 09:37	I
7240431	K-40	13966-00-2	4.23E+00	pCi/L	2.0E+01	2.0E+01	U	3.93E+01		GAMMALL_GS	2.001E+00	L	10/06/2007 09:37	I
7240431	RU-106	13967-48-1	-4.86E-02	pCi/L	1.2E+01	1.2E+01	U	2.18E+01		GAMMALL_GS	2.001E+00	L	10/06/2007 09:37	I
7240431	SB-125	14234-35-6	-6.70E-01	pCi/L	3.1E+00	3.1E+00	U	5.35E+00		GAMMALL_GS	2.001E+00	L	10/06/2007 09:37	I
7240439	TC-99	14133-76-7	2.31E+03	pCi/L	2.7E+01	1.4E+02		1.04E+01	100.0	TC99_ETVDSK_LS	1.261E-01	L	10/02/2007 12:30	I
7240428	Uranium	7440-61-1	7.81E+00	ug/L	9.2E-01	9.2E-01		8.28E-02		UTOT_KPA	2.53E-02	ML	10/08/2007 09:54	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9J5KH910	B1P9F3		MW6-SBB-A1	W07-008	W05222					08/23/2007 10:55

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240431	BE-7	13966-02-4	-6.40E+00	pCi/L	1.9E+01	1.9E+01	U	3.25E+01		GAMMALL_GS	2.0006E+00	L	10/06/2007 09:37	I
7240431	CO-60	10198-40-0	1.46E+01	pCi/L	3.8E+00	3.8E+00		3.44E+00		GAMMALL_GS	2.0006E+00	L	10/06/2007 09:37	I
7240431	CS-134	13967-70-9	-1.72E+00	pCi/L	1.8E+00	1.8E+00	U	3.01E+00		GAMMALL_GS	2.0006E+00	L	10/06/2007 09:37	I
7240431	CS-137	10045-97-3	-3.09E-01	pCi/L	1.6E+00	1.6E+00	U	2.71E+00		GAMMALL_GS	2.0006E+00	L	10/06/2007 09:37	I
7240431	EU-152	14683-23-9	5.17E+00	pCi/L	4.2E+00	4.2E+00	U	7.58E+00		GAMMALL_GS	2.0006E+00	L	10/06/2007 09:37	I
7240431	EU-154	15585-10-1	-2.24E+00	pCi/L	4.9E+00	4.9E+00	U	8.37E+00		GAMMALL_GS	2.0006E+00	L	10/06/2007 09:37	I
7240431	EU-155	14391-16-3	1.53E+00	pCi/L	4.4E+00	4.4E+00	U	7.53E+00		GAMMALL_GS	2.0006E+00	L	10/06/2007 09:37	I
7240431	K-40	13966-00-2	-8.27E+01	pCi/L	4.8E+01	4.8E+01	U	9.64E+01		GAMMALL_GS	2.0006E+00	L	10/06/2007 09:37	I
7240431	RU-106	13967-48-1	5.50E+00	pCi/L	1.5E+01	1.5E+01	U	2.63E+01		GAMMALL_GS	2.0006E+00	L	10/06/2007 09:37	I
7240431	SB-125	14234-35-6	1.34E+00	pCi/L	4.1E+00	4.1E+00	U	7.27E+00		GAMMALL_GS	2.0006E+00	L	10/06/2007 09:37	I
7240439	TC-99	14133-76-7	5.46E+03	pCi/L	4.2E+01	3.3E+02		1.10E+01	100.0	TC99_ETVDSK_LS	1.26E-01	L	10/02/2007 13:32	I
7240428	Uranium	7440-61-1	3.98E+02	ug/L	4.7E+01	4.7E+01		8.19E-02		UTOT_KPA	2.56E-02	ML	10/08/2007 09:58	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9J5KHG10	B1P8P5		MW6-SBB-A1	W07-008	W05222					08/23/2007 07:54

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240431	BE-7	13966-02-4	-1.64E+01	pCi/L	2.0E+01	2.0E+01	U	3.28E+01		GAMMALL_GS	2.0001E+00	L	10/06/2007 09:36	I
7240431	CO-60	10198-40-0	1.76E+01	pCi/L	5.2E+00	5.2E+00		2.53E+00		GAMMALL_GS	2.0001E+00	L	10/06/2007 09:36	I
7240431	CS-134	13967-70-9	9.49E-01	pCi/L	1.8E+00	1.8E+00	U	3.48E+00		GAMMALL_GS	2.0001E+00	L	10/06/2007 09:36	I
7240431	CS-137	10045-97-3	-8.95E-01	pCi/L	1.6E+00	1.6E+00	U	2.59E+00		GAMMALL_GS	2.0001E+00	L	10/06/2007 09:36	I
7240431	EU-152	14683-23-9	1.20E+00	pCi/L	4.1E+00	4.1E+00	U	7.21E+00		GAMMALL_GS	2.0001E+00	L	10/06/2007 09:36	I

TAL Richland

rptFeadRadSummaryEdd v3.48

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

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

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

10/17/2007 2:29:15 PM

TAL Richland Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      Version: 05      Rpt Nbr: 37045      File Name: h:\Reportdb\edd\FeadIV\Rad\W05222.Edd, h:\Reportdb\edd\FeadIV\Rad\37045.Edd

7240431	EU-154	15585-10-1	-4.38E-01	pCi/L	3.7E+00	3.7E+00	U	6.97E+00	GAMMALL_GS	2.0001E+00	L	10/06/2007 09:36	I
7240431	EU-155	14391-16-3	-1.53E+00	pCi/L	2.9E+00	2.9E+00	U	4.90E+00	GAMMALL_GS	2.0001E+00	L	10/06/2007 09:36	I
7240431	K-40	13966-00-2	1.91E+01	pCi/L	2.8E+01	2.8E+01	U	5.38E+01	GAMMALL_GS	2.0001E+00	L	10/06/2007 09:36	I
7240431	RU-106	13967-48-1	-2.22E+00	pCi/L	1.4E+01	1.4E+01	U	2.39E+01	GAMMALL_GS	2.0001E+00	L	10/06/2007 09:36	I
7240431	SB-125	14234-35-6	2.18E+00	pCi/L	3.9E+00	3.9E+00	U	7.15E+00	GAMMALL_GS	2.0001E+00	L	10/06/2007 09:36	I
7240439	TC-99	14133-76-7	1.07E+04	pCi/L	5.7E+01	6.4E+02		1.04E+01 100.0	TC99_ETVDSK_LS	1.255E-01	L	10/02/2007 11:27	I
7240428	Uranium	7440-61-1	1.83E+02	ug/L	2.2E+01	2.2E+01		7.76E-02	UTOT_KPA	2.70E-02	ML	10/08/2007 09:52	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:
9J5KHG20	B1P8P5		MW6-SBB-A1	W07-008	W05222					08/23/2007 07:54

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240431	BE-7	13966-02-4	3.51E-01	pCi/L	1.9E+01	1.9E+01	U	3.38E+01		GAMMALL_GS	2.0001E+00	L	10/10/2007 08:21	I
7240431	CO-60	10198-40-0	3.17E+01	pCi/L	6.0E+00	6.0E+00		2.90E+00		GAMMALL_GS	2.0001E+00	L	10/10/2007 08:21	I
7240431	CS-134	13967-70-9	2.13E-02	pCi/L	1.5E+00	1.5E+00	U	2.69E+00		GAMMALL_GS	2.0001E+00	L	10/10/2007 08:21	I
7240431	CS-137	10045-97-3	1.20E+00	pCi/L	1.2E+00	1.2E+00	U	2.40E+00		GAMMALL_GS	2.0001E+00	L	10/10/2007 08:21	I
7240431	EU-152	14683-23-9	1.07E+00	pCi/L	3.7E+00	3.7E+00	U	6.52E+00		GAMMALL_GS	2.0001E+00	L	10/10/2007 08:21	I
7240431	EU-154	15585-10-1	1.44E+00	pCi/L	3.6E+00	3.6E+00	U	6.89E+00		GAMMALL_GS	2.0001E+00	L	10/10/2007 08:21	I
7240431	EU-155	14391-16-3	4.19E-01	pCi/L	3.4E+00	3.4E+00	U	5.86E+00		GAMMALL_GS	2.0001E+00	L	10/10/2007 08:21	I
7240431	K-40	13966-00-2	2.10E+01	pCi/L	2.2E+01	2.2E+01	U	1.87E+01		GAMMALL_GS	2.0001E+00	L	10/10/2007 08:21	I
7240431	RU-106	13967-48-1	8.50E+00	pCi/L	1.3E+01	1.3E+01	U	2.46E+01		GAMMALL_GS	2.0001E+00	L	10/10/2007 08:21	I
7240431	SB-125	14234-35-6	-1.05E+00	pCi/L	3.6E+00	3.6E+00	U	6.18E+00		GAMMALL_GS	2.0001E+00	L	10/10/2007 08:21	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9J5KJD10	B1P9H3		MW6-SBB-A1	W07-008	W05222					08/23/2007 09:41

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240438	TC-99	14133-76-7	2.50E+02	pCi/L	9.7E+00	2.1E+01		1.07E+01 100.0		TC99_SEP_LSC	1.265E-01	L	10/04/2007 08:53	I
7240428	Uranium	7440-61-1	6.08E+00	ug/L	6.2E-01	6.2E-01		8.06E-02		UTOT_KPA	2.60E-02	ML	10/08/2007 10:01	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9J5NP120	B1P5C0		MW6-SBB-A1	I07-061	W05222					08/24/2007 13:42

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240432	I-129L	15046-84-1	1.03E+00	pCi/L	3.0E-01	3.0E-01	U	5.40E-01 90.3		I129LL_SEP_LEPS	3.8857E+00	L	10/09/2007 09:59	I

TAL Richland

rptFeadRadSummaryEdd v3.48

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

10/17/2007 2:29:15 PM

# TAL Richland Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      Version: 05      Rpt Nbr: 37045      File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.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:				
9J5NPR10	B1P5C8		MW6-SBB-A1	I07-061	W05222					08/24/2007 11:58				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7240442	C-14	14762-75-5	4.63E+00	pCi/L	3.5E+00	7.1E+00	U	8.12E+00	100.0	C14_LSC	2.00E-01	L	09/19/2007 03:52	I
7240431	BE-7	13966-02-4	3.99E+00	pCi/L	2.6E+01	2.6E+01	U	4.50E+01		GAMMALL_GS	2.0018E+00	L	10/06/2007 09:38	I
7240431	CO-60	10198-40-0	-7.87E-01	pCi/L	1.8E+00	1.8E+00	U	3.05E+00		GAMMALL_GS	2.0018E+00	L	10/06/2007 09:38	I
7240431	CS-134	13967-70-9	-3.53E-01	pCi/L	2.1E+00	2.1E+00	U	3.75E+00		GAMMALL_GS	2.0018E+00	L	10/06/2007 09:38	I
7240431	CS-137	10045-97-3	1.49E+00	pCi/L	1.9E+00	1.9E+00	U	3.58E+00		GAMMALL_GS	2.0018E+00	L	10/06/2007 09:38	I
7240431	EU-152	14683-23-9	2.10E-01	pCi/L	4.9E+00	4.9E+00	U	8.43E+00		GAMMALL_GS	2.0018E+00	L	10/06/2007 09:38	I
7240431	EU-154	15585-10-1	3.01E-01	pCi/L	6.9E+00	6.9E+00	U	1.25E+01		GAMMALL_GS	2.0018E+00	L	10/06/2007 09:38	I
7240431	EU-155	14391-16-3	1.03E+00	pCi/L	4.0E+00	4.0E+00	U	6.97E+00		GAMMALL_GS	2.0018E+00	L	10/06/2007 09:38	I
7240431	K-40	13966-00-2	-5.35E+01	pCi/L	4.6E+01	4.6E+01	U	9.46E+01		GAMMALL_GS	2.0018E+00	L	10/06/2007 09:38	I
7240431	RU-106	13967-48-1	3.86E+00	pCi/L	2.0E+01	2.0E+01	U	3.52E+01		GAMMALL_GS	2.0018E+00	L	10/06/2007 09:38	I
7240431	SB-125	14234-35-6	9.97E-01	pCi/L	5.0E+00	5.0E+00	U	8.89E+00		GAMMALL_GS	2.0018E+00	L	10/06/2007 09:38	I
7240432	I-129L	15046-84-1	7.12E-01	pCi/L	3.1E-01	3.1E-01	U	4.17E-01	94.3	I129LL_SEP_LEPS	3.9802E+00	L	10/05/2007 20:49	I
7240436	NP-237	13994-20-2	0.00E+00	pCi/L	8.2E-02	8.2E-02	U	1.92E-01	103.8	NP237_LLE_PLAT	2.006E-01	L	09/27/2007 18:08	I
7240434	Se-79	15758-45-9	2.72E+00	pCi/L	3.7E+00	1.1E+01	U	8.78E+00	70.7	SE79_SEP_IE_LS	2.0114E-01	L	09/27/2007 21:51	I
7240437	SR-90	10098-97-2	-6.56E-02	pCi/L	2.4E-01	2.4E-01	U	5.44E-01	77.4	SRISO_SEP_PRE	1.003E+00	L	10/05/2007 05:46	I

Wednesday, October 17, 2007

**TAL Richland QC Blank Report**

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5Q4C1AB

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/23/2007 08:30

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%+:

QC Type: BLK

Received Date: 08/23/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BL	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ ML	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240428 BLK	Uranium 7440-61-1	1.20E-02	ug/L	1.3E-03 1.3E-03	U	8.19E-02			UTOT_KPA	2.56E-02 ML	10/08/2007 09:22				D

Wednesday, October 17, 2007

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5Q4N1AB      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/21/2007 11:52  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BLK      Received Date: 08/21/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
	MW6-SBB-A19981								BO	H				
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240431 BLK	BE-7 13966-02-4	6.48E+00	pCi/L	2.2E+01 2.2E+01	U	4.00E+01		GAMMALL_GS	2.0011E+00 L	10/06/2007 09:39				D
7240431 BLK	CO-60 10198-40-0	-7.76E-01	pCi/L	1.9E+00 1.9E+00	U	3.29E+00		GAMMALL_GS	2.0011E+00 L	10/06/2007 09:39				D
7240431 BLK	CS-134 13967-70-9	-9.86E-01	pCi/L	2.1E+00 2.1E+00	U	3.55E+00		GAMMALL_GS	2.0011E+00 L	10/06/2007 09:39				D
7240431 BLK	CS-137 10045-97-3	1.73E+00	pCi/L	1.8E+00 1.8E+00	U	3.47E+00		GAMMALL_GS	2.0011E+00 L	10/06/2007 09:39				D
7240431 BLK	EU-152 14683-23-9	-1.04E+00	pCi/L	4.5E+00 4.5E+00	U	7.85E+00		GAMMALL_GS	2.0011E+00 L	10/06/2007 09:39				D
7240431 BLK	EU-154 15585-10-1	2.33E+00	pCi/L	5.8E+00 5.8E+00	U	1.10E+01		GAMMALL_GS	2.0011E+00 L	10/06/2007 09:39				D
7240431 BLK	EU-155 14391-16-3	1.24E+00	pCi/L	3.6E+00 3.6E+00	U	6.40E+00		GAMMALL_GS	2.0011E+00 L	10/06/2007 09:39				D
7240431 BLK	K-40 13966-00-2	-6.08E+01	pCi/L	4.7E+01 4.7E+01	U	9.43E+01		GAMMALL_GS	2.0011E+00 L	10/06/2007 09:39				D
7240431 BLK	RU-106 13967-48-1	1.09E+01	pCi/L	1.7E+01 1.7E+01	U	3.16E+01		GAMMALL_GS	2.0011E+00 L	10/06/2007 09:39				D
7240431 BLK	SB-125 14234-35-6	2.64E+00	pCi/L	4.3E+00 4.3E+00	U	7.85E+00		GAMMALL_GS	2.0011E+00 L	10/06/2007 09:39				D

Wednesday, October 17, 2007

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05222.Edd, h:\Reportdb\edd\FeadIV\Rad\37045.Edd

Lab Sample Id: J5Q4W1AB      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/24/2007 13:42  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BLK      Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BQ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Allq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240432 BLK	I-129L 15046-84-1	-3.04E-02	pCi/L	1.4E-01 1.4E-01	U	2.58E-01	96.5		I129LL_SEP_L	3.9803E+00	10/06/2007 09:45				D

Wednesday, October 17, 2007

**TAL Richland QC Blank Report**

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIVRad\W05222.Edd, h:\Reportdb\edd\FeadIVRad\37045.Edd

Lab Sample Id: J5Q591AB      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/21/2007 08:26  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BLK      Received Date: 08/21/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BS	H					
Batch # / Qc Type	Analy/ 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
7240441 BLK	BETA 12587-47-2	1.43E+00	pCi/L	9.7E-01 9.5E-01	U	1.79E+00	100.0		9310_ALPHAB	2.015E-01 L	10/03/2007 19:46				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, October 17, 2007

# TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05222.Edd, h:\Reportdb\edd\Fead\VRad\37045.Edd

Lab Sample Id: J5Q5D1AB

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/24/2007 11:58

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BU	H					
Batch # / Qc Type	Analy/ 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
7240434 BLK	Se-79 15758-45-9	1.77E-01	pCi/L	9.8E+00 3.4E+00	U	8.11E+00	77.0		SE79_SEP_IE	2.0008E-01 L	09/28/2007 01:16				D

Wednesday, October 17, 2007

**TAL Richland QC Blank Report**

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5Q5G1AB

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/24/2007 11:58

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BV	H					
Batch # / Qc Type	Analy/ 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
7240436 BLK	NP-237 13994-20-2	0.00E+00	pCi/L	9.9E-02 9.9E-02	U	2.32E-01	102.4		NP237_LLE_P	2.0005E-01 L	09/27/2007 18:09				D

Wednesday, October 17, 2007

**TAL Richland QC Blank Report**

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05222.Edd, h:\Reportdb\edd\FeadIV\Rad\37045.Edd

Lab Sample Id: J5Q5H1AB

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/24/2007 11:58

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BX	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240437 BLK	SR-90 10098-97-2	2.60E-02	pCi/L	2.8E-01 1.0E-01	U	6.01E-01	68.6		SRISO_SEP_P	1.0011E+00 L	10/05/2007 05:46				D

Wednesday, October 17, 2007

**TAL Richland QC Blank Report**

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5Q5K1AB      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/23/2007 09:07  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BLK      Received Date: 08/23/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BZ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ Yield	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240438	TC-99	1.05E+01	pCi/L	6.8E+00	U	1.07E+01	100.0		TC99_SEP_LS	1.268E-01	10/04/2007				D
BLK	14133-76-7			4.7E+00						L	10:58				

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

Wednesday, October 17, 2007

### TAL Richland QC Blank Report

Lab Code: TARK

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5Q5P1AB

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/21/2007 11:59

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 08/21/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CB	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
7240439 BLK	TC-99 14133-76-7	2.93E+00	pCi/L	6.1E+00 4.4E+00	U	1.01E+01	100.0		TC99_ETVDSK	1.269E-01 L	10/02/2007 14:35				D

Wednesday, October 17, 2007

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\VRad\W05222.Edd, h:\Reportdb\edd\Fead\VRad\37045.Edd

Lab Sample Id: J5Q6C1AB      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/24/2007 11:58  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BLK      Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CD	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
7240442 BLK	C-14 14762-75-5	-1.29E+00	pCi/L	6.5E+00 3.3E+00	U	8.12E+00	100.0		C14_LSC	2.00E-01 L	09/19/2007 02:28				D

Wednesday, October 17, 2007

**TAL Richland QC Blank Report**

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05222.Edd, h:\Reportdb\edd\FeadIV\Rad\37045.Edd

Lab Sample Id: J5Q6G1AB      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/20/2007 14:12  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BLK      Received Date: 08/20/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CF	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/ Yield	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240443 BLK	H-3 10028-17-8	7.33E+01	pCi/L	1.4E+02 1.3E+02	U	3.03E+02	100.0		906.0_H3_LSC	5.00E-03 L	09/21/2007 00:35				D

Wednesday, October 17, 2007

**TAL Richland QC Blank Report**

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\IVRad\W05222.Edd, h:\Reportdb\edd\Fead\IVRad\37045.Edd

Lab Sample Id: J5Q6G1DX

Sdg/Rept Nbr: W05222

37045

Collection Date: 08/20/2007 14:12

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 08/20/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CH	H					
Batch # / Qc Type	Analy/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Allq Size/ Yield	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240443 BLK	H-3 10028-17-8	3.45E+01	pCi/L	1.4E+02 1.3E+02	U	3.15E+02	100.0		906.0_H3_LSC	5.00E-03 L	09/21/2007 03:19				D

Wednesday, October 17, 2007

## TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5Q4C1CS

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/23/2007 08:30

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 08/23/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BM	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240428 BS	Uranium 7440-61-1	3.68E+01	ug/L	4.3E+00 4.3E+00		8.28E-02		3.63E+01 101.3	UTOT_KPA	2.53E-02 ML	10/08/2007 09:26			70 130	D

Wednesday, October 17, 2007

### TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5Q4C1DS      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/23/2007 08:30  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BS      Received Date: 08/23/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BN	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/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
7240428 BS	Uranium 7440-61-1	3.62E+00	ug/L	3.7E-01 3.7E-01		8.25E-02		3.63E+00 99.8	UTOT_KPA	2.54E-02	10/08/2007 09:28			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, October 17, 2007

## TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05222.Edd, h:\Reportdb\edd\Fead\I\Rad\37045.Edd

Lab Sample Id: J5Q4N1CS

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/21/2007 11:52

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 08/21/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BP	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240431 BS	CO-60 10198-40-0	3.85E+01	pCi/L	7.6E+00 7.6E+00		3.78E+00		3.77E+01 102.3	GAMMALL_GS	2.0009E+00 L	10/08/2007 05:12			70 130	D
7240431 BS	CS-137 10045-97-3	5.68E+01	pCi/L	8.8E+00 8.8E+00		3.84E+00		4.98E+01 114.1	GAMMALL_GS	2.0009E+00 L	10/08/2007 05:12			70 130	D
7240431 BS	EU-152 14683-23-9	7.49E+01	pCi/L	1.6E+01 1.6E+01		9.22E+00		7.61E+01 98.4	GAMMALL_GS	2.0009E+00 L	10/08/2007 05:12			70 130	D

TAL Richland  
rptFeadRadEdd v3.68

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

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Wednesday, October 17, 2007

# TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05222.Edd, h:\Reportdb\edd\FeadIV\Rad\37045.Edd

Lab Sample Id: J5Q4W1CS

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/24/2007 13:42

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
	MW6-SBB-A19981								BR	H				
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240432 BS	I-129L 15046-84-1	8.78E+00	pCi/L	1.1E+00 1.1E+00	4.01E-01	98.2	9.58E+00 91.6	I129LL_SEP_L	4.0008E+00 L	10/06/2007 09:45			70 130	D

Wednesday, October 17, 2007

# TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormalType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIVRad\W05222.Edd, h:\Reportdb\edd\FeadIVRad\37045.Edd

Lab Sample Id: J5Q591CS  
 Client Id: NA  
 Moisture/Solids%\*:

Sdg/Rept Nbr: W05222 37045  
 Matrix: WATER WATER  
 QC Type: BS

Collection Date: 08/21/2007 08:26  
 Sample On Date:  
 Received Date: 08/21/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BT	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/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
7240441 BS	BETA 12587-47-2	2.37E+01	pCi/L	3.5E+00 1.7E+00		1.64E+00	100.0	2.27E+01 104.6	9310_ALPHAB	2.01E-01	10/03/2007 19:46			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, October 17, 2007

# TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05222.Edd, h:\Reportdb\edd\Fead\VRad\37045.Edd

Lab Sample Id: J5Q5G1CS

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/24/2007 11:58

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BW	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240436	NP-237	7.37E+00	pCi/L	6.0E+00		2.37E-01	93.5	9.07E+00	NP237_LLE_P	2.0017E-01	09/27/2007			70	D
BS	13994-20-2			1.1E+00				81.2		L	18:09			130	

Wednesday, October 17, 2007

### TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5Q5H1CS

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/24/2007 11:58

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
	MW6-SBB-A19981								BY	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
7240437 BS	SR-90 10098-97-2	1.52E+01	pCi/L	2.3E+00 8.0E-01	5.58E-01	75.5	1.36E+01 112.1	SRISO_SEP_P	1.0013E+00 L	10/05/2007 05:46			70 130	D

Wednesday, October 17, 2007

### TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5Q5K1CS      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/23/2007 09:07

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

Moisture/Solids%\*:      QC Type: BS      Received Date: 08/23/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CA	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
7240438 BS	TC-99 14133-76-7	4.78E+02	pCi/L	3.4E+01 1.3E+01		1.10E+01	100.0	5.36E+02 89.3	TC99_SEP_LS	1.264E-01 L	10/04/2007 12:01			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, October 17, 2007

## TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5Q5P1CS      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/21/2007 11:59

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

Moisture/Solids%\*:      QC Type: BS      Received Date: 08/21/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CC	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
7240439 BS	TC-99 14133-76-7	5.03E+02	pCi/L	3.6E+01 1.3E+01		1.03E+01	100.0	5.37E+02 93.8	TC99_ETVDSK	1.254E-01 L	10/02/2007 15:37			70 130	D

TAL Richland  
rptFeadRadEdd v3.68

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

Wednesday, October 17, 2007

# TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\FeadIV\Rad\W05222.Edd, h:\Reportdb\eddd\FeadIV\Rad\37045.Edd

Lab Sample Id: J5Q6C1CS

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/24/2007 11:58

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CE	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/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
7240442 BS	C-14 14762-75-5	4.67E+01	pCi/L	1.1E+01 4.8E+00		8.13E+00	100.0	4.54E+01 102.9	C14_LSC	2.00E-01 L	09/19/2007 03:10			70 130	D

Wednesday, October 17, 2007

# TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIVRad\W05222.Edd, h:\Reportdb\edd\FeadIVRad\37045.Edd

Lab Sample Id: J5Q6G1CS

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/20/2007 14:12

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 08/20/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp				
	MW6-SBB-A19981								CG	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
7240443 BS	H-3 10028-17-8	2.53E+03	pCi/L	2.5E+02 2.1E+02	3.05E+02	100.0	2.72E+03 93.2	906.0_H3_LSC	5.00E-03 L	09/21/2007 01:57			70 130	D

Wednesday, October 17, 2007

### TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05222.Edd, h:\Reportdb\edd\FeadIV\Rad\37045.Edd

Lab Sample Id: J5Q6G1EM      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/20/2007 14:12

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

Moisture/Solids%\*:      QC Type: BS      Received Date: 08/20/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								Cl	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
7240443 BS	H-3 10028-17-8	2.52E+03	pCi/L	2.5E+02 2.1E+02		3.07E+02	100.0	2.72E+03 92.9	906.0_H3_LSC	5.00E-03 L	09/21/2007 04:41			70 130	D

Wednesday, October 17, 2007

**TAL Richland QC Duplicate Report**

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5DNF1ER

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/20/2007 14:12

Client Id: B1PB09

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 08/20/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-008	MW6-SBB-A19981								AX	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240443 DUP	H-3 10028-17-8	6.50E+03 6.76E+03	pCi/L	4.0E+02 2.9E+02		3.05E+02	100.0		906.0_H3_LSC	5.00E-03 L	09/21/2007 07:25	3.9	0.9		D

Wednesday, October 17, 2007

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5DR91FR

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/21/2007 08:26

Client Id: B1P9C8

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 08/21/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
W07-008	MW6-SBB-A19981								AY	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Allq Size/ L	Date/Time Analyzed	RPD/ UCL	REF/ UCL	LCS LCL/UCL	R Typ
7240441 DUP	BETA 12587-47-2	2.90E+02 2.99E+02	pCi/L	3.9E+01 9.8E+00		5.40E+00	100.0		9310_ALPHAB	7.08E-02	10/03/2007 19:46	2.8 20.0	0.3 3		D

Wednesday, October 17, 2007

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05222.Edd, h:\Reportdb\edd\FeadIV\Rad\37045.Edd

Lab Sample Id: J5DTK1ER

Sdg/Rept Nbr: W05222

37045

Collection Date: 08/21/2007 11:52

Client Id: B1P9D3

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 08/21/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ					
W07-008	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
7240431 DUP	BE-7 13966-02-4	7.82E+00 -3.80E+00	pCi/L	2.2E+01 2.2E+01	U	4.06E+01			GAMMALL_GS	1.9321E+00 L	10/06/2007 09:35	579.2 20.0	0.7 3		D
7240431 DUP	CO-60 10198-40-0	1.88E+01 2.33E+01	pCi/L	5.4E+00 5.4E+00		3.90E+00			GAMMALL_GS	1.9321E+00 L	10/06/2007 09:35	21.5 20.0	1.2 3		D
7240431 DUP	CS-134 13967-70-9	4.29E-01 3.74E-01	pCi/L	2.1E+00 2.1E+00	U	3.79E+00			GAMMALL_GS	1.9321E+00 L	10/06/2007 09:35	13.7 20.0	0. 3		D
7240431 DUP	CS-137 10045-97-3	2.55E-01 -1.01E+00	pCi/L	1.9E+00 1.9E+00	U	3.46E+00			GAMMALL_GS	1.9321E+00 L	10/06/2007 09:35	0.0 20.0	0.9 3		D
7240431 DUP	EU-152 14683-23-9	1.49E+00 -3.53E+00	pCi/L	4.1E+00 4.1E+00	U	7.54E+00			GAMMALL_GS	1.9321E+00 L	10/06/2007 09:35	0.0 20.0	1.7 3		D
7240431 DUP	EU-154 15585-10-1	-1.15E+00 -1.97E+00	pCi/L	5.0E+00 5.0E+00	U	8.97E+00			GAMMALL_GS	1.9321E+00 L	10/06/2007 09:35	0.0 20.0	0.2 3		D
7240431 DUP	EU-155 14391-16-3	-1.45E+00 1.15E+00	pCi/L	3.7E+00 3.7E+00	U	6.27E+00			GAMMALL_GS	1.9321E+00 L	10/06/2007 09:35	0.0 20.0	1. 3		D
7240431 DUP	K-40 13966-00-2	2.44E+01 -3.05E+01	pCi/L	4.2E+01 4.2E+01	U	3.84E+01			GAMMALL_GS	1.9321E+00 L	10/06/2007 09:35	0.0 20.0	1.8 3		D
7240431 DUP	RU-106 13967-48-1	-1.13E+00 -7.41E+00	pCi/L	1.8E+01 1.8E+01	U	3.14E+01			GAMMALL_GS	1.9321E+00 L	10/06/2007 09:35	0.0 20.0	0.5 3		D
7240431 DUP	SB-125 14234-35-6	-2.42E+00 -3.59E+00	pCi/L	4.9E+00 4.9E+00	U	8.23E+00			GAMMALL_GS	1.9321E+00 L	10/06/2007 09:35	0.0 20.0	0.3 3		D

Wednesday, October 17, 2007

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5EGR1CR

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/21/2007 11:59

Client Id: B1P9P4

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 08/21/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W07-008	MW6-SBB-A19981								BA	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
7240439 DUP	TC-99 14133-76-7	1.13E+02	pCi/L	1.3E+01 7.3E+00		1.05E+01	100.0		TC99_ETVDSK	1.252E-01 L	10/02/2007 06:15				D

Wednesday, October 17, 2007

# TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05222.Edd, h:\Reportdb\edd\FeadIV\Rad\37045.Edd

Lab Sample Id: J5KG71ER      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/23/2007 09:07

Client Id: B1P9H8      Matrix: WATER      WATER      Sample On Date:

Moisture/Solids%\*:      QC Type: DUP      Received Date: 08/23/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W07-008	MW6-SBB-A19981								BD	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
7240438 DUP	TC-99 14133-76-7	1.17E+02 1.10E+02	pCi/L	1.3E+01 7.3E+00		1.05E+01	100.0		TC99_SEP_LS	1.257E-01 L	10/04/2007 07:51	5.7 20.0	0.7 3		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, October 17, 2007

# TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5KGQ1DR

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/23/2007 08:30

Client Id: B1P9J3

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 08/23/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ					
W07-008	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/ ML	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240428 DUP	Uranium 7440-61-1	5.83E+00 5.87E+00	ug/L	6.0E-01 6.0E-01		8.12E-02			UTOT_KPA	2.58E-02	10/08/2007 09:44	.8 20.0	0.1 3		D

Wednesday, October 17, 2007

# TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05222.Edd, h:\Reportdb\edd\FeadIV\Rad\37045.Edd

Lab Sample Id: J5NP12CR      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/24/2007 13:42

Client Id: B1P5C0      Matrix: WATER      WATER      Sample On Date:

Moisture/Solids%\*:      QC Type: DUP      Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
107-061	MW6-SBB-A19981								BG	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Allq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240432	I-129L	1.43E+00	pCi/L	3.4E-01	U	5.82E-01	93.5		I129LL_SEP_L	3.9496E+00	10/09/2007	32.7	1.7		D
DUP	15046-84-1	1.03E+00		3.4E-01						L	11:46	20.0	3		

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

Wednesday, October 17, 2007

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\WRad\W05222.Edd, h:\Reportdb\edd\Fead\WRad\37045.Edd

Lab Sample Id: J5NPR1HR

Sdg/Rept Nbr: W05222

37045

Collection Date: 08/24/2007 11:58

Client Id: B1P5C8

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
107-061	MW6-SBB-A19981								BH	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
7240434	Se-79	2.65E+00	pCi/L	1.3E+01	U	1.07E+01	58.0		SE79_SEP_IE	2.0058E-01	09/27/2007	2.3	0.		D
DUP	15758-45-9	2.72E+00		4.6E+00						L	23:33	20.0	3		

Wednesday, October 17, 2007

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\W05222.Edd, h:\Reportdb\edd\Fead\W05222.Edd, h:\Reportdb\edd\Fead\W05222.Edd, h:\Reportdb\edd\Fead\W05222.Edd

Lab Sample Id: J5NPR1JR

Sdg/Rept Nbr: W05222

37045

Collection Date: 08/24/2007 11:58

Client Id: B1P5C8

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
107-061	MW6-SBB-A19981								BI	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
7240436 DUP	NP-237 13994-20-2	-7.66E-03 0.00E+00	pCi/L	7.8E-02 7.8E-02	U	1.83E-01	104.4		NP237_LLE_P	2.0025E-01 L	09/27/2007 18:09	0.0 20.0	0.1 3		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, October 17, 2007

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05222.Edd, h:\Reportdb\edd\Fead\VRad\37045.Edd

Lab Sample Id: J5NPR1KR

Sdg/Rept Nbr: W05222

37045

Collection Date: 08/24/2007 11:58

Client Id: B1P5C8

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
107-061	MW6-SBB-A19981								BJ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/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
7240437 DUP	SR-90 10098-97-2	5.27E-02 -6.56E-02	pCi/L	2.6E-01 2.4E-01	U	5.53E-01	76.3		SRISO_SEP_P	1.003E+00 L	10/05/2007 05:46	0.0 20.0	0.6 3		D

Wednesday, October 17, 2007

**TAL Richland QC Duplicate Report**

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\FeadIV\Rad\W05222.Edd, h:\Reportdb\ledd\FeadIV\Rad\37045.Edd

Lab Sample Id: J5NPR1LR

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/24/2007 11:58

Client Id: B1P5C8

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 08/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
107-061	MW6-SBB-A19981								BK	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
7240442 DUP	C-14 14762-75-5	4.17E-01 4.63E+00	pCi/L	6.6E+00 3.4E+00	U	8.12E+00	100.0		C14_LSC	2.00E-01 L	09/19/2007 04:35	167.0 20.0	0.9 3		D

Wednesday, October 17, 2007

# TAL Richland Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\I\Rad\W05222.Edd, h:\Reportdb\edd\Fead\I\Rad\37045.Edd

**Lab Sample Id:** J5EHC1DW      **Sdg/Rept Nbr:** W05222      37045      **Collection Date:** 08/21/2007 09:20  
**Client Id:** B1P9W3      **Matrix:** WATER      WATER      **Sample On Date:**  
**Moisture/Solids%\*:**      **QC Type:** MS      **Received Date:** 08/21/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W07-008	MW6-SBB-A19981								BB	H					
Batch # / Qc Type	Analy/ 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
7240439 MS	TC-99 14133-76-7	3.38E+03	pCi/L	2.1E+02 3.2E+01		1.02E+01	100.0	3.56E+03 95.1	TC99_ETVDSK	1.265E-01 L	10/02/2007 09:22			60 140	D

Wednesday, October 17, 2007

# TAL Richland Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05222.Edd, h:\Reportdb\edd\Fead\Rad\37045.Edd

Lab Sample Id: J5KG71DW

Sdg/Rept Nbr: W05222 37045

Collection Date: 08/23/2007 09:07

Client Id: B1P9H8

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: MS

Received Date: 08/23/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W07-008	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/ ML	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7240428 MS	Uranium 7440-61-1	3.68E+01	ug/L	5.1E+00 5.1E+00		8.12E-02		3.55E+01 103.8	UTOT_KPA	2.58E-02	10/08/2007 09:48			60 140	D

Wednesday, October 17, 2007

### TAL Richland Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\VRad\W05222.Edd, h:\Reportdb\edd\Fead\VRad\37045.Edd

Lab Sample Id: J5KJD1DW      Sdg/Rept Nbr: W05222      37045      Collection Date: 08/23/2007 09:41

Client Id: B1P9H3      Matrix: WATER      WATER      Sample On Date:

Moisture/Solids%\*:      QC Type: MS      Received Date: 08/23/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
W07-008	MW6-SBB-A19981								BF	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
7240438 MS	TC-99 14133-76-7	3.08E+03	pCi/L	2.0E+02 3.2E+01		1.07E+01	100.0	3.58E+03 86.1	TC99_SEP_LS	1.255E-01 L	10/04/2007 09:56			60 140	D

Lot No., Due Date: J7H270157; 10/08/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7240436; RNP237 Np-237 w/tracer  
 SDG, Matrix: W05222; WATER

**1.0 COC**

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

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**3.0 QC & Samples**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**4.0 Raw Data**

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

Yes  No  N/A

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

Yes  No  N/A

4.3 Were Yields entered correctly? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**5.0 Other**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

5.4 Was transcription checked? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

6.0 Comments on any No response:

First Level Review *John Plotts*

Date 10-3-7



## Data Review Checklist

### RADIOCHEMISTRY

#### Second Level Review

Batch Number: 7240436  
W05222

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

Comments on any "No" response: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Second Level Review Sheryl A. Wilson Date: 10-3-07

Lot No., Due Date: J7H220210; 10/08/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7240441; RBETA-SR Beta by GPC-Sr/Y  
 SDG, Matrix: W05222; 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:  
Please see NCM#10-10985

First Level Review *John Horta*

Date 10-4-7



**Data Review Checklist**  
**RADIOCHEMISTRY**  
 Second Level Review

Batch Number: 7240441  
W05222

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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 within contract acceptance criteria?	/		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
7. Do the MS/MSD results and yields meet acceptance criteria?			/
8. Do the duplicate sample results and yields meet acceptance criteria?	/		
<b>C. Other</b>			
1. Are all Non-conformances 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

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Second Level Review: Sheryl A. Allen Date: 10-5-07

# Clouseau Nonconformance Memo



NCM #: <b>10-10985</b> NCM Initiated By: John Norton Date Opened: 10/04/2007 Date Closed:	Classification: <b>Anomaly</b> Status: <b>GLREVIEW</b> Production Area: Environmental - Prep Tests: Beta by GPC-Sr/Y Lot #'s (Sample #'s): J7H220210 (1), J7H280000 (441), QC Batches: 7240441,
Nonconformance: MDA not met Subcategory: Data accepted	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	10/04/2007	The samples did not meet the RDL due to reduced aliquots caused by high residual weights.

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	10/04/2007	The activity detected in the sample was greater than the IDC, the data can be accepted.

### 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>
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Lot No., Due Date: J7H270157; 10/08/2007  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 7240437; RSR85907 Sr-85/90 by GPC-7  
SDG, Matrix: W05222; 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

*Kia Antonson*

Date

*10/5/07*

## Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7240437  
W05222

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
<b>C. Other</b>			
1. Are all Non-conformances 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: \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_

Second Level Review: Sheryl A. Adams Date: 10-8-07

Lot No., Due Date: J7H220210,J7H240273,J7H270157; 10/08/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7240431; RGAMMA Gamma by GER

SDG, Matrix: W05222; 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:

NCM 10-11025

First Level Review

*[Handwritten signature]*

Date

10/11/07

## Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7240431  
W05222

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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 within contract acceptance criteria?	/		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
7. Do the MS/MSD results and yields meet acceptance criteria?			/
8. Do the duplicate sample results and yields meet acceptance criteria?	/		
<b>C. Other</b>			
1. Are all Non-conformances 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

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Second Level Review: Sheryl A. Adams Date: 10-11-07

# Clouseau Nonconformance Memo



NCM #: <b>10-11025</b>	Classification: <b>Anomaly</b>
NCM Initiated By: <b>Lisa Antonson</b>	Status: <b>PMREVIEW</b>
Date Opened: <b>10/11/2007</b>	Production Area: <b>Environmental - Prep</b>
Date Closed:	Tests: <b>Gamma by GER</b>
	Lot #'s (Sample #'s): <b>J7H220210 (1,2,3), J7H240273 (3,4,5), J7H270157 (1), J7H280000 (431),</b>
	QC Batches: <b>7240431,</b>
Nonconformance: <b>Other (describe in detail)</b>	
Subcategory: <b>Other (explanation required)</b>	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	10/11/2007	One of the peaks for sample J5KHG would not un-split. The sample was recounted with good results.

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	10/11/2007	The sample was recounted.

### 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: J7H220200.J7H270157; 10/08/2007  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 7240432; RGAMLEPS Gamma by LEPS  
SDG, Matrix: W05222; 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 app. 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:  
NCM 10-11033

First Level Review

*Xira Antonson*

Date

10/17/07

**Data Review Checklist**  
**RADIOCHEMISTRY**  
 Second Level Review

Batch Number: 7240432  
W05222

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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 within contract acceptance criteria?	/		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
7. Do the MS/MSD results and yields meet acceptance criteria?			/
8. Do the duplicate sample results and yields meet acceptance criteria?		/	
<b>C. Other</b>			
1. Are all Non-conformances 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 NCR

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Second Level Review: Sheryl A. Adams Date: 10-17-07

# Clouseau Nonconformance Memo



NCM #: <b>10-11033</b>	Classification: <b>Anomaly</b>
NCM Initiated By: <b>Lisa Antonson</b>	Status: <b>PMREVIEW</b>
Date Opened: <b>10/17/2007</b>	Production Area: <b>Environmental - Sep</b>
Date Closed:	Tests: <b>Gamma by LEPS</b>
	Lot #'s (Sample #'s): <b>J7H220200 (1,2,3,4,6), J7H270157 (1,2), J7H280000 (432),</b>
	QC Batches: <b>7240432,</b>
Nonconformance: <b>Other (describe in detail)</b>	
Subcategory: <b>Other (explanation required)</b>	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	10/17/2007	The duplicates in this batch are outside of the acceptance limits at 36% RPD. The samples were recounted to verify results. The difference in the results was less than 1 CRDL. The client was contacted and will accept the data.

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	10/17/2007	Samples were recounted and the client was contacted.

### Client Notification Summary

<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>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: J7H220200,J7H220290; 10/08/2007  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 7278260; RTC99 Tc-99 by LSC  
SDG, Matrix: W05222; 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:  
Please see NCM#10-11010

First Level Review *John North*

Date 10-10-7

## Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7278260

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		<del>See NA - 6/</del>
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 within contract acceptance criteria?			/
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			/
7. Do the MS/MSD results and yields meet acceptance criteria?			/
8. Do the duplicate sample results and yields meet acceptance criteria?			/
<b>C. Other</b>			
1. Are all Non-conformances 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 NCR

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Second Level Review: Sheryl R. Allen Date: 10-10-07

# Clouseau Nonconformance Memo



NCM #: <b>10-11010</b> NCM Initiated By: John Norton Date Opened: 10/10/2007 Date Closed:	Classification: <b>Anomaly</b> Status: <b>CHREVIEW</b> Production Area: Counting Tests: None Lot #'s (Sample #'s): J7H220200 (2,4), J7H220290 (1), QC Batches: None.,
Nonconformance: Other (describe in detail) Subcategory: Other (explanation required)	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	10/10/2007	The TSIE was outside of acceptable limits on these samples.

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	10/10/2007	The samples were re-counted, and now provide acceptable results, The sample and the duplicate are now in separate batches, however they do show acceptable agreement.

### 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: J7H220200,J7H220210,J7H220290,J7H240273; 10/08/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7240439; RTC99 Tc-99 by LSC  
 SDG, Matrix: W05222; WATER

**1.0 COC**

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

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**3.0 QC & Samples**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**4.0 Raw Data**

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

Yes  No  N/A

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

Yes  No  N/A

4.3 Were Yields entered correctly? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**5.0 Other**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

5.4 Was transcription checked? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

6.0 Comments on any No response:  
Please see NCM#10-11010

First Level Review John Korte Date 10-10-7

**Data Review Checklist**  
**RADIOCHEMISTRY**  
 Second Level Review

Batch Number: 7240439  
W05222

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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 within contract acceptance criteria?	/		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
7. Do the MS/MSD results and yields meet acceptance criteria?	/		
8. Do the duplicate sample results and yields meet acceptance criteria?	/		
<b>C. Other</b>			
1. Are all Non-conformances 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 NCR

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Second Level Review: *Sheryl A. Adams* Date: 10-10-07

# Clouseau Nonconformance Memo



NCM #: <b>10-11010</b> NCM Initiated By: John Norton Date Opened: 10/10/2007 Date Closed:	Classification: <b>Anomaly</b> Status: <b>CHREVIEW</b> Production Area: Counting Tests: None Lot #'s (Sample #'s): J7H220200 (2,4), J7H220290 (1), QC Batches: None.,
Nonconformance: Other (describe in detail) Subcategory: Other (explanation required)	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	10/10/2007	The TSIE was outside of acceptable limits on these samples.

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	10/10/2007	The samples were re-counted, and now provide acceptable results, The sample and the duplicate are now in separate batches, however they do show acceptable agreement.

### 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>
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Lot No., Due Date: J7H220210, J7H240273; 10/08/2007  
 Client, Site: 384868; PGW 615 HANFORD HANFORD  
 QC Batch No., Method Test: 7240438; RTC99 Tc-99 by LSC  
 SDG, Matrix: W05222; 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 OK	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 (MBKs) 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. No Positive Results OK Calc. IDL Not Calculated	Yes	No	N/A
8.23 Result <= Act on Level, when Defined. OK: No Action Level Found => TC-99  OK; No Callin Level Found => TC-99	Yes	No	N/A
8.24 Result + 3s > =0, Not Too Negative. OK	Yes	No	N/A
8.25 Counting Spectra 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:			
8.3.1 Results Blank Subtracted as Appropriate. OK	Yes	No	N/A

First Level Review

*[Handwritten Signature]*

Date

*HS 107*

## Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7240438  
W05222

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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 within contract acceptance criteria?	/		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
7. Do the MS/MSD results and yields meet acceptance criteria?			/
8. Do the duplicate sample results and yields meet acceptance criteria?	/		
<b>C. Other</b>			
1. Are all Non-conformances 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: 12-8-07

Lot No., Due Date: J7H270157; 10/08/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7240434; RSE79 Se-79 by LSC  
 SDG, Matrix: W05222; WATER

**1.0 COC**

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

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**3.0 QC & Samples**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**4.0 Raw Data**

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

Yes  No  N/A

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

Yes  No  N/A

4.3 Were Yields entered correctly? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**5.0 Other**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

5.4 Was transcription checked? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

6.0 Comments on any No response:

First Level Review *[Signature]*

Date 10-5-7

## Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7240 434  
W05222

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?			✓
<b>C. Other</b>			
1. Are all Non-conformances 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: \_\_\_\_\_

Lot No., Due Date: J7H220200,J7H220290; 10/08/2007  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 7240443; RTRITIUM H-3 by LSC  
SDG, Matrix: W05222; 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 *John Hunter*

Date 9-28-7



## Data Review Checklist

### RADIOCHEMISTRY

#### Second Level Review

Batch Number: 7240443  
W05222

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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 within contract acceptance criteria?	/		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
7. Do the MS/MSD results and yields meet acceptance criteria?			/
8. Do the duplicate sample results and yields meet acceptance criteria?	/		
<b>C. Other</b>			
1. Are all Non-conformances 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: 10-1-07

Lot No., Due Date: J7H270157; 10/08/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No.. Method Test: 7240442; RC14 C-14 by LSC  
 SDG, Matrix: W05222; WATER

**1.0 COC**

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

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**3.0 QC & Samples**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**4.0 Raw Data**

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

Yes  No  N/A

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

Yes  No  N/A

4.3 Were Yields entered correctly? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**5.0 Other**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

5.4 Was transcription checked? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

6.0 Comments on any No response:

First Level Review

*Trisa Antonson*

Date

*9/20/07*

**Data Review Checklist**  
**RADIOCHEMISTRY**  
 Second Level Review

Batch Number: 7240442  
W05222

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
<b>C. Other</b>			
1. Are all Non-conformances 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: 9-20-07

Lot No., Due Date: J7H220210,J7H240273; 10/08/2007  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 7240428; RUNAT UNat by KPA  
SDG, Matrix: W05222; 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 *John Korte*

Date 10-8-7

## Data Review Checklist

### RADIOCHEMISTRY

#### Second Level Review

Batch Number: 7240428  
W05222

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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 within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?	✓		
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
<b>C. Other</b>			
1. Are all Non-conformances 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: 10-9-07

FALL RICHLAND

<b>FLUOR HANFORD</b>	<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>	<b>C.O.C. #</b> <b>W07-008-407</b>
	<i>J7H220200      W05222      Due 10-04-07</i>	Page 1 of 1

Collector <b>Dave Williamson</b> <b>Fluor Hanford</b>	Contact/Requester <b>Steve Trent</b>	Telephone No. 509-373-5869	MSIN FAX
SAF No. W07-008	Sampling Origin Hanford Site	Purchase Order/Charge Code	
Project Title RCRA AUGUST 2007	<i>Logbook: HNF-N-506-8</i>	Ice Chest No. <i>600-06-12</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.	
Protocol RCRA	Priority: 45 Days	Offsite Property No.	

<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)	<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all GW samples submitted into one SDG, daily closure. All SDG's are to be sent to Steve Trent, FH
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Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PB09		W	<i>8/20/07</i>	<i>1412</i>	1x20-mL P	Activity Scan	None
B1PB09		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PB09		W	↓	↓	2x4000-mL G/P	1129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1PB09		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
<i>JSDNF</i>							
<i>L. Wall</i> <i>8/20/07</i>							

Relinquished By <b>Dave Williamson</b> <i>Dave Williamson</i>	Date/Time <b>AUG 20 2007</b> <i>1530</i>	Received By <b>S. Smith</b> <i>S. Smith</i>	Date/Time <b>AUG 20 2007</b> <i>1530</i>	<b>Matrix *</b>
Relinquished By	Date/Time	Received By	Date/Time	S = Soil      DS = Drum Solid SF = 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	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By	Date/Time

TAL RICHLAND

FLUOR HANFORD		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W07-008-400</b>	
Collector Dave Williamson Fluor Hanford		Contact/Requester Steve Trent		Telephone No. 509-373-5869		
SAF No. W07-008		Sampling Origin Hanford Site		Purchase Order/Charge Code		
Project Title RCRA, AUGUST 2007		Method of Shipment Govt. Vehicle		Ice Chest No. 6W0-06-12 Temp.		
Shipped To (Lab) Severn Trent Incorporated, Richland		Priority: 45 Days		Bill of Lading/Air Bill No.		
Protocol RCRA		Offsite Property No.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			<b>SPECIAL INSTRUCTIONS</b> All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all GW samples submitted into one SDG, daily closure. All SDG's are to be sent to Steve Trent, FH			

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PB00		W	8/20/07	1202	1x20-mL P	Activity Scan	None
B1PB00		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PB00		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1PB00		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
<i>J5 DN2</i>							
<i>Steve Trent 8/20/07</i>							

Relinquished By Dave Williamson Fluor Hanford	Print <i>Dave Williamson</i>	Sign	Date/Time AUG 20 2007 1530	Received By <i>S. Sm. Vh</i>	Print <i>S. Sm. Vh</i>	Sign	Date/Time AUG 20 2007 1530	Matrix *
Relinquished By	Date/Time	Received By	Date/Time	S = Soil                      DS = Drum Solid SF = 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					
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time			

TAL RICHLAND

<b>FLUOR HANFORD</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W07-008-399</b>
Collector: Dave Williamson Fluor Hanford		Contact/Requester: Steve Trent		Telephone No. MSIN FAX 509-373-5869	
SAF No. W07-008		Sampling Origin: Hanford Site		Purchase Order/Charge Code	
Project Title: RCRA, AUGUST 2007		Method of Shipment: Logbook: HNF-N-506-8		Ice Chest No. 6W0-06-12 Temp.	
Shipped To (Lab): Severn Trent Incorporated, Richland		Method of Shipment: Govt. Vehicle		Bill of Lading/Air Bill No.	
Protocol: RCRA		Priority: 45 Days		Offsite Property No.	
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all GW samples submitted into one SDG, daily closure. All SDG's are to be sent to Steve Trent, FH		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1P9Y9		W	8/20/07	1202	1x20-mL P	Activity Scan	None
B1P9Y9		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1P9Y9		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1P9Y9		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
<i>JSDN8</i>							
<i>J. Wall</i>							
<i>8/20/07</i>							

Relinquished By: Dave Williamson Fluor Hanford	Print: <i>Dave Williamson</i>	Sign: <i>Dave Williamson</i>	Date/Time: 1530 AUG 20 2007	Received By: <i>S. Smith</i>	Print: <i>S. Smith</i>	Sign: <i>S. Smith</i>	Date/Time: 1530 AUG 20 2007	Matrix *
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	S = Soil      DS = Drum Solid SF = Sediment      DI = Drum Liquid SO = Solid      T = Tissue SI = Sludge      W1 = 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	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	

TAL RICHLAND

FLUOR HANFORD		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W07-008-383</b>	
		<i>J7H220200 W05222 Due 10-04-07</i>			Page <u>1</u> of <u>1</u>	
Collector <b>Dave Williamson</b> Fluor Hanford	Contact/Requester Steve Trent	Telephone No. 509-373-5869	MSIN	FAX		
SAF No. W07-008	Sampling Origin Hanford Site	Purchase Order/Charge Code				
Project Title RCRA, AUGUST 2007	<i>Logbook: HNF-N-506-8</i>	Ice Chest No. <i>6000-06-12</i> Temp.				
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.				
Protocol RCRA	Priority: 45 Days			Offsite Property No.		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all GW samples submitted into one SDG, daily closure. All SDG's are to be sent to Steve Trent, FH			

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1P9Y0		W	<i>8/20/07</i>	<i>0940</i>	1x20-mL P	Activity Scan	None
B1P9Y0		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1P9Y0		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1P9Y0		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
<i>JSDPA</i>							
<i>At Waste 8/20/07</i>							

Relinquished By <b>Dave Williamson</b> Fluor Hanford	Print <i>Dave Williamson</i>	Sign <i>Dave Williamson</i>	Date/Time <i>1530</i> <b>AUG 20 2007</b>	Received By <i>S. Smith</i>	Print <i>S. Smith</i>	Sign <i>S. Smith</i>	Date/Time <i>1530</i> <b>AUG 20 2007</b>	Matrix *
Relinquished By	Date/Time	Received By	Date/Time	S = Soil      DS = Drum Solid SE = Sediment      DI = Drum Liner SO = Solid      T = Tissue SI = Sludge      WI = Wine W = Water      I = Ionid O = Oil      V = Vegetation A = Air      X = Other				
Relinquished By	Date/Time	Received By	Date/Time					
Relinquished By	Date/Time	Received By	Date/Time					
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	

TAL RICHLAND

FLUOR HANFORD		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W07-008-415</b>	
		<i>J7H220200 W05222 Due 10-04-07</i>			Page 1 of 1	
Collector <b>Dave Williamson</b>	Contact/Requester <b>Steve Trent</b>	Telephone No. <b>509-373-5869</b>		MSIN	FAX	
SAF No. <b>W07-008</b>	Sampling Origin <b>Fluor Hanford</b>	Purchase Order/Charge Code		Ice Chest No. <b>6000-06-12</b> Temp.		
Project Title <b>RCRA AUGUST 2007</b>	Method of Shipment <b>Govt. Vehicle</b>		Bill of Lading/Air Bill No.		Offsite Property No.	
Shipped To (Lab) <b>Severn Trent Incorporated, Richland</b>	Priority: <b>45 Days</b>		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Protocol <b>RCRA</b>	SPECIAL INSTRUCTIONS		Hold Time		All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all GW samples submitted into one SDG, daily closure. All SDG's are to be sent to Steve Trent, FH	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)						

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1PB14		W	8/20/07	1054	1x20-mL P	Activity Scan	None
B1PB14		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1PB14		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
<i>JSDPD</i>							
<i>A. Wall 8/20/07</i>							

Relinquished By <b>Dave Williamson</b> <i>Dave Williamson</i>	Date/Time <b>AUG 20 2007</b>	Received By <i>S. Sm. Yh S. Sm. Yh</i>	Date/Time <b>AUG 20 2007</b>	Matrix *
Relinquished By	Date/Time	Received By	Date/Time	S = Soil      DS = Drum Solid SF = 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	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By	Date/Time

TAL RICHLAND

FLUOR HANFORD		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W07-008-391</b>	
Collector: Dave Williamson Fluor Hanford		Contact/Requester: Steve Trent		Telephone No.: 509-373-5869		MSIN FAX
SAF No.: W07-008		Sampling Origin: Hanford Site		Purchase Order/Charge Code		
Project Title: RCRA, AUGUST 2007		Method of Shipment: Govt. Vehicle		Ice Chest No.: 600-0672		Temp.
Shipped To (Lab): Severn Trent Incorporated, Richland		Priority: 45 Days		Bill of Lading/Air Bill No.		
Protocol: RCRA		SPECIAL INSTRUCTIONS		Hold Time		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p><b>POSSIBLE SAMPLE HAZARDS/REMARKS</b></p> <p>** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)</p>				<p>All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.</p> <p>WSCF: Batch all GW samples submitted into one SDG, daily closure.</p> <p>All SDG's are to be sent to Steve Trent, FH</p>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1P9Y5		W	8/20/07	1315	1x20-mL P	Activity Scan	None
B1P9Y5		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1P9Y5		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1P9Y5		W	↓	↓	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
<i>JSDPG</i>							
<i>J. Wall 8/20/07</i>							

Relinquished By: Dave Williamson Date/Time: AUG 20 2007 1530	Received By: S. Smith Date/Time: AUG 20 2007 1530	<b>Matrix *</b> 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	Received By	
Relinquished By	Received By	
<b>FINAL SAMPLE DISPOSITION</b> 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: 8-20-07 1530

Client: PGW SDG #: W05222 NA  SAF #: W07-008 NA

Work Order Number: J7H220200 Chain of Custody # W07-008-407,-400,-399,-383,-415,-391

Shipping Container ID: \_\_\_\_\_ Air Bill # \_\_\_\_\_

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

Sample Custodian: [Signature] Date: 8-20-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person contacted \_\_\_\_\_

No action necessary; process as is.

Project Manager \_\_\_\_\_ Date \_\_\_\_\_

LS-023, 9/03, Rev. 5

TAL RICHLAND

FLUOR HANFORD	<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>	C.O.C. # <b>W07-008-65</b>
Roy Shepard Collector Fluor Hanford	J7H220210 W05222 Due 10.05.07	Page 1 of 1

SAF No. W07-008	Contact/Requester Steve Trent	Telephone No. 509-373-5869	MSIN FAX
Project Title RCRA, AUGUST 2007	Sampling Origin Hanford Site	Purchase Order/Charge Code	
Shipped To (Lab) Seyem Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Ice Chest No. 12	Temp.
Protocol RCRA	Priority: 45 Days	Offsite Property No.	

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

**SPECIAL INSTRUCTIONS** Hold Time Total Activity Exemption: Yes  No   
 All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.  
 WSCF: Batch all GW samples submitted into one SDG, daily closure.  
 All SDG's are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1P9C8		W	8-21-07	1826	1x20-mL P	Activity Scan	None
B1P9C8		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1P9C8		W	↓	↓	3x1000-mL G/P	TC99_SEP_LSC: Tc-99 (1)	HCl to pH <2
B1P9C8		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1P9C8		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2
J5DR9							

Relinquished By Roy Shepard Fluor Hanford	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time AUG 21 2007/1405	Received By <i>[Signature]</i>	Print LWLANE TAL-R	Sign <i>[Signature]</i>	Date/Time AUG 21 2007/1405	Matrix *
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	S = Soil DS = Drum Solid SF = Sediment DI = Drum Liner 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	
<b>FINAL SAMPLE DISPOSITION</b>	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: 8-21-07 1405

Client: PGW SDG #: W05222 NA [ ] SAF #: W07-008 NA [ ]

Work Order Number: J7H220310 Chain of Custody # W07-008-65,-57,-73

Shipping Container ID: \_\_\_\_\_ Air Bill # \_\_\_\_\_

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

Sample Custodian: [Signature] Date: 8-21-07

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: 8-21-07 1405

Client: PGW SDG #: W05222 NA  SAF #: W07-008 NA

Work Order Number: J7H220290 Chain of Custody # W07-008-307,-267,-259

Shipping Container ID: \_\_\_\_\_ Air Bill # \_\_\_\_\_

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

Sample Custodian: [Signature] Date: 8-21-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person contacted \_\_\_\_\_

No action necessary; process as is.

Project Manager \_\_\_\_\_ Date \_\_\_\_\_

LS-023, 9/03, Rev. 5

TAL RICHLAND

<b>FLUOR HANFORD</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W07-008-121</b>
		<i>J7H240273 W05222 Dur 10/08/07</i>			Page 1 of 1
Collector: <b>Fluor Hanford</b> <b>L. D. WALL</b>		Contact/Requester Steve Trent	Telephone No. <b>MSIN FAX</b> 509-373-5869		
SAF No. W07-008		Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title RCRA, AUGUST 2007		<i>HNF-N-506.8</i>	Ice Chest No. <i>043</i>	Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol RCRA		Priority: 45 Days		Offsite Property No.	
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all GW samples submitted into one SDG, daily closure. All SDG's are to be sent to Steve Trent, FH		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1P9J3		W	<i>8/23/07</i>	<i>0830</i>	1x20-mL P	Activity Scan	None
B1P9J3		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1P9J3		W	↓	↓	3x1000-mL G/P	TC99_SEP_LSC: Tc-99 (1)	HCl to pH <2
<i>J5K6Q</i>							

Relinquished By <b>Fluor Hanford</b> <b>L. D. WALL</b>	Print <i>L.D. Wall</i> Sign	Date/Time 1500 <b>AUG 23 2007</b>	Received By <i>RJR</i> Print <b>WLANE TAL-R</b> Sign	Date/Time 1500 <b>AUG 23 2007</b>	Matrix * S = Soil      DS = Drum Solid SF = 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	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time



<b>FLUOR HANFORD</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>W07-008-193</b>
		<i>J7H</i>			Page <u>1</u> of <u>1</u>
Collector <b>Fluor Hanford</b> <b>L. D. WALL</b>		Contact/Requester Steve Trent	Telephone No. <b>MSIN FAX</b> 509-373-5869		
SAF No. W07-008		Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title RCRA, AUGUST 2007		<i>HNF-N-506-8</i>		Ice Chest No. <b>043</b>	Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol RCRA		Priority: 45 Days		Offsite Property No.	
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)			<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days. WSCF: Batch all GW samples submitted into one SDG, daily closure. All SDG's are to be sent to Steve Trent, FH		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1P8P5		W	<i>8-27-07</i>	<i>0754</i>	1x20-mL P	Activity Scan	None
B1P8P5		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1P8P5		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1P8P5		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
<i>JSKHG</i>							

Relinquished By <b>Fluor Hanford</b> <b>L. D. WALL</b>	Sign <i>[Signature]</i>	Date/Time <i>1500</i> <b>AUG 23 2007</b>	Received By <i>[Signature]</i>	Print <b>L. LANE TALKER</b>	Sign <b>AUG 23 2007</b>	Date/Time <i>1500</i>	Matrix * S = Soil                      DS = Dnm Solid SF = Sediment              DI = Dnm Liquid SO = Solid                    T = Tissue SI = 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	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	









# STL

### Sample Check-in List

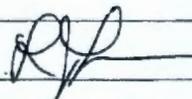
Date/Time Received: 8-23-07 1500

Client: PGW SDG #: W05222 NA  SAF #: W07-008 NA

Work Order Number: J7H2402B Chain of Custody # W07-008-121,-113,-193,-97,-89,-105

Shipping Container ID: \_\_\_\_\_ Air Bill # \_\_\_\_\_

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

Sample Custodian:  Date: 8-23-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person contacted \_\_\_\_\_

[ ] No action necessary; process as is.

Project Manager \_\_\_\_\_ Date \_\_\_\_\_

LS-023, 9/03, Rev. 5

TAL RICHLAND

<b>FLUOR HANFORD</b>	<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>	C.O.C. # <b>107-061-16</b>
	J7H270157 W05222 Due 10-08-07	Page 1 of 1

Collector <b>Fluor Hanford D. R. BREWINGTON</b>	Contact/Requester <b>Steve Trent</b>	Telephone No. MSIN FAX <b>509-373-5869</b>
SAF No. 107-061	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 2UP1-LOI AUGUST 2007	<b>HNF-N-506-5 pg 14</b>	Ice Chest No. <b>GRP-03-019</b> Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

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

**SPECIAL INSTRUCTIONS Hold Time** Total Activity Exemption: Yes  No   
 All Labs except WSCF: Batch all samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.  
 WSCF: Batch all GW samples submitted into one SDG, daily closure.  
 All SDG's are to be sent to Steve Trent, FH

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1P5C8		W	8/24/07	1158	1x20-mL P	Activity Scan	None
B1P5C8		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1P5C8		W			2x1000-mL G/P	C14_LSC: C-14 (1)	None
B1P5C8		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1P5C8		W			1x1000-mL G/P	NP237_LLE_PLATE_AEA:Np-237(1)	HNO3 to pH <2
B1P5C8		W			2x1000-mL G/P	Selenium-79	HNO3 to pH <2
B1P5C8		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
						<b>J5NPR</b>	

Relinquished By <b>Fluor Hanford D. R. BREWINGTON</b>	Print <b>D. R. BREWINGTON</b>	Sign 	Date/Time <b>AUG 24 2007</b>	Received By 	Print <b>J. L. LANE TAL-R</b>	Sign 	Date/Time <b>AUG 24 2007</b>	Matrix *
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WL = 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	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By	

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# STL

### Sample Check-in List

Date/Time Received: 8-24-07 1508

Client: PGW SDG #: W05222 NA  SAF #: I07-061 NA

Work Order Number: J7H270157 Chain of Custody #: I07-061-16,-12

Shipping Container ID: \_\_\_\_\_ Air Bill #: \_\_\_\_\_

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

Sample Custodian: [Signature] Date: 8-24-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person contacted \_\_\_\_\_

No action necessary; process as is.

Project Manager \_\_\_\_\_ Date \_\_\_\_\_

9/20/2007 1:22:02 PM

### Sample Preparation/Analysis

Balance Id:1120373922

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

KO Np-237 PrpRC5086, SepRC5064(5003)  
XW Neptunium-237 with tracer by alpha spec  
SI CLIENT: HANFORD

Pipet #:

AnalyDueDate: 10/08/2007

Sep1 DT/Tm Tech: 9-26-07 3:34 <sup>PM</sup> <sub>int</sub>

Batch: 7240436 WATER pCi/L PM, Quote: SA , 57671  
SEQ Batch, Test: None All Tests: 7240431 AWTA, 7240432 BNTB, 7240434 CYTM, 7240436 KOXW, 7240437 CLTL, 7240442 5SS3,

Sep2 DT/Tm Tech:

Prep Tech: FABREM

Work Ord, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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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1 J5NPR-1-AA J7H270157-1-SAMP 08/24/2007 11:58			200.60g,in	200.60g	npla6764 08/01/07,pd 06/01/01,r							
												
			AmtRec: 20ML,8XLP,3X4LP		#Containers: 12				Scr:	Alpha: 2.47E-03 uCi/Sa	Beta: 1.09E-03 uCi/Sa	

2 J5NPR-1-AJ-X J7H270157-1-DUP 08/24/2007 11:58			200.25g,in	200.25g	npla6765 08/01/07,pd 06/01/01,r							
												
			AmtRec: 20ML,8XLP,3X4LP		#Containers: 12				Scr:	Alpha: 2.47E-03 uCi/Sa	Beta: 1.09E-03 uCi/Sa	

3 J5Q5G-1-AA-B J7H280000-436-BLK 08/24/2007 11:58			200.05g,in	200.05g	npla6766 08/01/07,pd 06/01/01,r							
												
			AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:	

4 J5Q5G-1-AC-C J7H280000-436-LCS 08/24/2007 11:58			200.17g,in	200.17g	npse0434 08/15/07,pd 06/01/01,r							
												
			AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:	

#### Comments:

#### All Clients for Batch:

384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

#### J5NPR1AA-SAMP Constituent List:

Np-237 RDL:0.6 pCi/L LCL: UCL: RPD:  
 J5Q5G1AA-BLK:  
 Np-237 RDL:0.6 pCi/L LCL: UCL: RPD:  
 J5Q5G1AC-LCS:

#### J5NPR1AA-SAMP Calc Info:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1  
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 4

Prep\_SamplePrep v4.8.26

128  
130  
131  
132  
13

TAL RICHLAND

10/2/2007 10:26:47 AM **Sample Preparation/Analysis** Balance Id:1120482733  
 384868, Pacific Northwest National Laboratory BC Gross Beta PrpRC5014 Pipet #: 246  
 Pacific Northwest National Lab S8 Gross Beta by GPC using Sr/Y-90 curve  
**AnalyDueDate: 10/05/2007** W05222 5I CLIENT: HANFORD

**Batch: 7240441 WATER pCi/L** PM, Quote: SA , 57671 Sep1 DT/Tm Tech:  
 SEQ Batch, Test: None Sep2 DT/Tm Tech:  
Prep Tech: ,ClarkR | buiz.



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 J5DR9-1-AA J7H220210-1-SAMP 08/21/2007 08:26	71.00g.in			1.5	88.8	200	260	2126	10/3/0700	
AmtRec: 20ML,500ML,4XLP,4LP #Containers: 7			Scr: Alpha: -5.10E-04 uCi/Sa			Beta: -5.56E-04 uCi/Sa				
2 J5DR9-1-AF-X J7H220210-1-DUP 08/21/2007 08:26	70.80g.in				86.8		27 26A 10/3/0700			
AmtRec: 20ML,500ML,4XLP,4LP #Containers: 7			Scr: Alpha: -5.10E-04 uCi/Sa			Beta: -5.56E-04 uCi/Sa				
3 J5Q59-1-AA-B J7H280000-441-BLK 08/21/2007 08:26	201.50g.in				∅		27B 26B 10/3/0700			
AmtRec: #Containers: 1			Scr: Alpha:			Beta:				
4 J5Q59-1-AC-C J7H280000-441-LCS 08/21/2007 08:26	201.00g.in		BESB3126 08/27/07.pd 08/08/08.r		0.6		27C 26C 10/3/0700			
AmtRec: #Containers: 1			Scr: Alpha:			Beta:				

**Comments:** pH < 2.0; Aliq note Reduced due to Weigher Servans RC 10/02/07

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

J5DR91AA-SAMP Constituent List:  
 BETA RDL:4.00E+00 pCi/L LCL: UCL: RPD:  
 J5Q591AA-BLK:  
 BETA RDL:4.00E+00 pCi/L LCL: UCL: RPD:  
 J5Q591AC-LCS:  
 Sr-90 RDL: pCi/L LCL:70 UCL:130 RPD:20  
 J5DR91AA-SAMP Calc Info:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 4  
 Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep. SamplePrep v4.8.26

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TAL RICHLAND

10/2/2007 10:26:49 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: 10/05/2007

Sep1 DT/Tm Tech:

Batch: 7240441  
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,ClarkR



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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Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q591AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q591AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By \_\_\_\_\_ Date: \_\_\_\_\_

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TAL RICHLAND

10/3/2007 2:14:43 PM

Sample Preparation/Analysis

Balance Id:1120482733,14

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 #: \_\_\_\_\_

AnalyDueDate: 10/08/2007

Sep1 DT/Tm Tech: 09/26/2007 15:13,ManisD

Batch: 7240437 WATER pCi/L  
SEO Batch, Test: None

PM, Quote: SA, 57671

Sep2 DT/Tm Tech: 10/03/2007 07:46,ManisD

Prep Tech: ManisD



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 J5NPR-1-AG J7H270157-1-SAMP 	1003.00g.in		SRTB15289 09/11/07,pd 05/22/07,r		1.5	23.8	100				
09/26/2007 15:13,st; 10/03/2007											
08/24/2007 11:58 AmtRec: 20ML,8XLP,3X4LP #Containers: 12 Scr: Alpha: 2.47E-03 uCi/Sa Beta: 1.09E-03 uCi/Sa											
2 J5NPR-1-AK-X J7H270157-1-DUP 	1003.00g.in		SRTB15290 09/11/07,pd 05/22/07,r		1.5	23.8	100				
09/26/2007 15:13,st; 10/03/2007											
08/24/2007 11:58 AmtRec: 20ML,8XLP,3X4LP #Containers: 12 Scr: Alpha: 2.47E-03 uCi/Sa Beta: 1.09E-03 uCi/Sa											
3 J5Q5H-1-AA-B J7H280000-437-BLK 	1001.10g.in		SRTB15291 09/11/07,pd 05/22/07,r		1.5	21.8	100				
09/26/2007 15:13,st; 10/03/2007											
08/24/2007 11:58 AmtRec: #Containers: 1 Scr: Alpha: Beta:											
4 J5Q5H-1-AC-C J7H280000-437-LCS 	1001.30g.in		SRSR1379 08/15/07,pd 05/22/07,r		1.5	24.1	100				
09/26/2007 15:13,st; 10/03/2007											
08/24/2007 11:58 AmtRec: #Containers: 1 Scr: Alpha: Beta:											

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TAL RICHLAND

10/3/2007 2:14:45 PM

**Sample Preparation/Analysis**

Balance Id:1120482733,1120482733,1120

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/08/2007

Sep1 DT/Tm Tech: 09/26/2007 15:13,ManisD

Batch: 7240437 pCi/L

Sep2 DT/Tm Tech: 10/03/2007 07:46,ManisD

SEQ Batch, Test: None

Prep Tech: ManisD



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:**

**All Clients for Batch:**

384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

**J5NPR1AG-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
J5Q5H1AA-BLK:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
J5Q5H1AC-LCS:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

**J5NPR1AG-SAMP Calc Info:**

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q5H1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q5H1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By \_\_\_\_\_

Date: \_\_\_\_\_

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TAL RICHLAND

10/3/2007 7:48:40 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

AW Gamma PrpRC5017

Pipet #: \_\_\_\_\_

TA Gamma by HPGE

Sep1 DT/Tm Tech: \_\_\_\_\_

AnalyDueDate: 10/05/2007 *W05272*

SI CLIENT: HANFORD

Sep2 DT/Tm Tech: \_\_\_\_\_

Batch: 7240431 WATER pCi/L PM, Quote: SA, 57671

SEQ Batch, Test: None All Tests: 7240428 DHSS, 7240431 AWTA, 7240438 AMSS, 7240439 FPS5, 7240441 BCS5,

Prep Tech: *ClarkR /APA*



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:
<i>1</i> J5DR9-1-AC J7H220210-1-SAMP 08/21/2007 08:26		2001.30g,in			<i>1.50 mL</i>	<i>200</i>	<i>64</i>	<i>1253</i>		<i>10/6/07 r</i>
AmtRec: 20ML,500ML,4XLP,4LP #Containers: 7 Scr: Alpha: -5.10E-04 uCi/Sa Beta: -5.56E-04 uCi/Sa										
<i>2</i> J5DTE-1-AA J7H220210-2-SAMP 08/21/2007 10:12		2000.20g,in					<i>65</i>	<i>1253</i>		<i>10/6/07 r</i>
AmtRec: 20ML,2X500MLP,4LP #Containers: 4 Scr: Alpha: 1.44E-06 uCi/Sa Beta: 7.10E-07 uCi/Sa										
<i>3</i> J5DTK-1-AA J7H220210-3-SAMP 08/21/2007 11:52		2000.50g,in					<i>66</i>	<i>1254</i>		<i>10/6/07 r</i>
AmtRec: 20ML,2X500MLP,4LP #Containers: 4 Scr: Alpha: 2.93E-06 uCi/Sa Beta: -4.36E-07 uCi/Sa										
<i>4</i> J5DTK-1-AE-X J7H220210-3-DUP 08/21/2007 11:52		1932.10g,in					<i>67</i>	<i>1255</i>		<i>10/6/07 r</i>
AmtRec: 20ML,2X500MLP,4LP #Containers: 4 Scr: Alpha: 2.93E-06 uCi/Sa Beta: -4.36E-07 uCi/Sa										
<i>5</i> J5KHG-1-AA J7H240273-3-SAMP 08/23/2007 07:54		2000.10g,in					<i>68</i>	<i>1256</i>		<i>10/6/07 r</i>
AmtRec: 20ML,2X500ML,4LP #Containers: 4 Scr: Alpha: 2.24E-06 uCi/Sa Beta: 6.28E-07 uCi/Sa										
<i>6</i> J5KH1-1-AA J7H240273-4-SAMP 08/23/2007 10:16		2001.00g,in					<i>610</i>	<i>1257</i>		<i>10/6/07 r</i>
AmtRec: 20ML,2X500ML,4LP #Containers: 4 Scr: Alpha: 5.10E-07 uCi/Sa Beta: -1.36E-07 uCi/Sa										
<i>7</i> J5KH9-1-AA J7H240273-5-SAMP 08/23/2007 10:55		2000.60g,in					<i>613</i>	<i>1257</i>		<i>10/6/07 r</i>
AmtRec: 20ML,2X500ML,4LP #Containers: 4 Scr: Alpha: 1.92E-06 uCi/Sa Beta: 2.46E-07 uCi/Sa										

*1.50 mL*  
*200*  
*↓*

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TAL RICHLAND

10/3/2007 7:48:43 AM	<b>Sample Preparation/Analysis</b>	Balance Id:1120482733
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab	AW Gamma PrpRC5017 TA Gamma by HPGE 5I CLIENT: HANFORD	Pipet #: _____
AnalyDueDate: 10/05/2007		Sep1 DT/Tm Tech:
Batch: 7240431 WATER pCi/L	PM, Quote: SA , 57671	Sep2 DT/Tm Tech:
SEQ Batch, Test: None		Prep Tech: ManisD,ClarkR

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 J5NPR-1-AD J7H270157-1-SAMP 		2001.80g.in								
08/24/2007 11:58		AmtRec: 20ML,8XLP,3X4LP						Scr: Alpha: 2.47E-03 uCi/Sa		Beta: 1.09E-03 uCi/Sa
9 J5Q4N-1-AA-B J7H280000-431-BLK 		2001.10g.in								
08/21/2007 11:52		AmtRec:	#Containers: 1					Scr: Alpha: Beta:		
10 J5Q4N-1-AC-C J7H280000-431-LCS 		2000.90g.in	QCAG1404 08/15/07,pd 03/07/05,r							
08/21/2007 11:52		AmtRec:	#Containers: 1					Scr: Alpha: Beta:		

100ml - 200

614      1258      10/6/07 ✓

615      1259      10/6/07 ✓

65      0832      10/8/07

**Comments:** J5DTK-SAMP "Comments DUP Aliquot Reduced due to ISV RC 10/03/2007"  
*pH < 2.0 RC 10/03/07*

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

<b>J5DR91AC-SAMP Constituent List:</b>											
Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
<b>J5Q4N1AA-BLK:</b>											
Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
<b>J5Q4N1AC-LCS:</b>											

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TAL RICHLAND

10/3/2007 7:48:45 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/05/2007

Sep1 DT/Tm Tech:

Batch: 7240431

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,ClarkR



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

J5DR91AC-SAMP Calc Info:

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

J5Q4N1AA-BLK:

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

J5Q4N1AC-LCS:

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

Approved By \_\_\_\_\_ Date: \_\_\_\_\_

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TAL RICHLAND

9/25/2007 2:51:09 PM

## Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

BN I-129 Prp/SepRC5025

TB Gamma by LEPD

5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/04/2007 W05222

Sep1 DT/Tm Tech: \_\_\_\_\_

Batch: 7240432 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech: \_\_\_\_\_

SEQ Batch, Test: None

Prep Tech: ClarkR

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 J5DNF-1-AC J7H220200-1-SAMP 08/20/2007 14:12	3935.40g.in	3935.40g.in	ITA6570 07/25/07		36.5	100	L2	1347	10/5/07 r	
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: -1.27E-03 uCi/Sa Beta: 9.33E-04 uCi/Sa										
2 J5DN2-1-AC J7H220200-2-SAMP 08/20/2007 12:02	3919.00g.in	3919.00g.in	ITA6571 07/25/07		36.7		L2	1532	10/5/07 r	
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: -5.88E-04 uCi/Sa Beta: 8.29E-04 uCi/Sa										
3 J5DN8-1-AC J7H220200-3-SAMP 08/20/2007 12:02	3929.50g.in	3929.50g.in	ITA6572 07/25/07		36.4		L2	1715	10/5/07 r	
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 1.82E-04 uCi/Sa Beta: -3.11E-04 uCi/Sa										
4 J5DPA-1-AC J7H220200-4-SAMP 08/20/2007 09:48	3950.70g.in	3950.70g.in	ITA6573 07/25/07		36.6		L2	1901	10/5/07 r	
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 4.23E-04 uCi/Sa Beta: 5.18E-04 uCi/Sa										
5 J5DPG-1-AC J7H220200-6-SAMP 08/20/2007 13:15	3933.90g.in	3933.90g.in	ITA6574 07/25/07		38.8		L2	2045	10/5/07 r	
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 7.95E-04 uCi/Sa Beta: -2.07E-03 uCi/Sa										
6 J5NPR-1-AE J7H270157-1-SAMP 08/24/2007 11:58	3980.20g.in	3980.20g.in	ITA6575 07/25/07		34.9		L2	2229	10/5/07 r	
AmtRec: 20ML,8XLP,3X4LP #Containers: 12 Scr: Alpha: 2.47E-03 uCi/Sa Beta: 1.09E-03 uCi/Sa										
7 J5NP1-1-AA J7H270157-2-SAMP 08/24/2007 13:42	3885.70g.in	3885.70g.in	ITA6576 07/25/07		33.4		L2	0028	10/5/07 r	
AmtRec: 20ML,2X4LP #Containers: 3 Scr: Alpha: 6.19E-05 uCi/Sa Beta: 1.74E-03 uCi/Sa										

TAL RICHLAND

9/25/2007 2:51:11 PM **Sample Preparation/Analysis** Balance Id:1120482733  
 384868, Pacific Northwest National Laboratory , BN I-129 Prp/SepRC5025 Pipet #: \_\_\_\_\_  
 Pacific Northwest National Lab TB Gamma by LEPD Sep1 DT/Tm Tech: \_\_\_\_\_  
**AnalyDueDate: 10/04/2007** 5I CLIENT: HANFORD Sep2 DT/Tm Tech: \_\_\_\_\_  
**Batch: 7240432 WATER** pCi/L PM, Quote: SA , 57671 Prep Tech: ,ClarkR  
 SEQ Batch, Test: None



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 J5NP1-1-AC-X J7H270157-2-DUP		3949.60g.in	ITA6577 07/25/07		34.6	100	L2	1123	10/6/07	r
08/24/2007 13:42		AmtRec: 20ML,2X4LP		#Containers: 3		Scr:		Alpha: 6.19E-05 uCi/Sa	Beta: 1.74E-03 uCi/Sa	
9 J5Q4W-1-AA-B J7H280000-432-BLK		3980.30g.in	ITA6578 07/25/07		35.7		L4	1125	10/6/07	v
08/24/2007 13:42		AmtRec:		#Containers: 1		Scr:		Alpha:	Beta:	
10 J5Q4W-1-AC-C J7H280000-432-LCS		4000.80g.in	ISD0777 08/15/07		37.2		LS	1125	10/6/07	r
08/24/2007 13:42		AmtRec:		#Containers: 1		Scr:		Alpha:	Beta:	

**Comments:** *Aliquot Reduced due to ISV and Scale Limitations RC 09/25/07*

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

**J5DNF1AC-SAMP Constituent List:**

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
J5Q4W1AA-BLK:					
I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
J5Q4W1AC-LCS:					
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

**J5DNF1AC-SAMP Calc Info:**

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q4W1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q4W1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

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TAL RICHLAND

9/25/2007 2:51:12 PM

### Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/04/2007

Sep1 DT/Tm Tech: \_\_\_\_\_

Batch: 7240432  
SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech: \_\_\_\_\_

Prep Tech: ,ClarkR



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

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10/8/2007 2:36:10 PM

### Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

Pipet #:

AnalyDueDate: 10/04/2007

Sep1 DT/Tm Tech:

Batch: 7240432 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SFO Batch, Test: None

Prep Tech: ,ClarkR

Work Order Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	OC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 J5NP1-1-AC-X J7H270157-2-DUP 08/24/2007 13:42		3949.60g.in	ITA6577 07/25/07							
 <p>AmtRec: 20ML,2X4LP #Containers: 3 Scr: Alpha: 6.19E-05 uCi/Sa Beta: 1.74E-03 uCi/Sa</p>										
<del>9 J5NP1-2-AA</del> J7H270157-2-SAMP 08/24/2007 13:42		3985.70g	ITA 6577		33.4		L2	1139	10/9/07	
 <p>AmtRec: 20ML,2X4LP #Containers: 3 Scr: Alpha: 6.19E-05 uCi/Sa Beta: 1.74E-03 uCi/Sa</p>										
<del>10 J5NP1-1-AC-X</del> J7H270157-2-DUP 08/24/2007 13:42		3949.60	ITA 6577		34.6		L2	1324		
 <p>AmtRec: 20ML,2X4LP #Containers: 3 Scr: Alpha: 6.19E-05 uCi/Sa Beta: 1.74E-03 uCi/Sa</p>										
11 J5Q4W-1-AA-B J7H280000-432-BLK 08/24/2007 13:42		3980.30g.in	ITA6578 07/25/07							
 <p>AmtRec: #Containers: 1 Scr: Alpha Beta:</p>										
12 J5Q4W-1-AC-C J7H280000-432-LCS 08/24/2007 13:42		4000.80g.in	ISD0777 08/15/07							
 <p>AmtRec: #Containers: 1 Scr: Alpha Beta:</p>										

#### Comments:

#### All Clients for Batch:

384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

#### J5DNF1AC-SAMP Constituent List:

1-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:

TAL RICHLAND

PACIFIC NORTHWEST NATIONAL LABORATORY

08/20/2007 2:36:09 PM **Sample Preparation/Analysis** Balance Id:1120482733  
 384868, Pacific Northwest National Laboratory **BN I-129 Prp/SepRC5025** **Pipet #:** \_\_\_\_\_  
 Pacific Northwest National Lab **TB Gamma by LEPD** **Sep1 DT/Tm Tech:** \_\_\_\_\_  
**AnalyDueDate: 10/04/2007** **5I CLIENT: HANFORD** **Sep2 DT/Tm Tech:** \_\_\_\_\_  
**Batch: 7240432 WATER pCi/L PM, Quote: SA , 57671** **Prep Tech: ClarkR**  
 SFO Batch Test: Nonr All Tests: 7240432 BNTB: 7240439 EPS5: 7240433 ARS6: 7278260 EPS5.



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Trainer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Iniv/Date	Comments:
1 J5DNF-1-AC J7H220200-1-SAMP 08/20/2007 14:12		3935.40g,in	ITA6570 07/25/07							
 AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 1.27E-03 uCi/Sa Beta: 9.33E-04 uCi/Sa										
2 J5DN2-1-AC J7H220200-2-SAMP 08/20/2007 12:02		3919.00g,in	ITA6571 07/25/07							
 AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: -5.88E-04 uCi/Sa Beta: 8.29E-04 uCi/Sa										
3 J5DN8-1-AC J7H220200-3-SAMP 08/20/2007 12:02		3929.50g,in	ITA6572 07/25/07							
 AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 1.82E-04 uCi/Sa Beta: -3.11E-04 uCi/Sa										
4 J5DPA-1-AC J7H220200-4-SAMP 08/20/2007 09:48		3950.70g,in	ITA6573 07/25/07							
 AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 4.23E-04 uCi/Sa Beta: 5.18E-04 uCi/Sa										
5 J5DPG-1-AC J7H220200-6-SAMP 08/20/2007 13:15		3933.90g,in	ITA6574 07/25/07							
 AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 7.95E-04 uCi/Sa Beta: -2.07E-03 uCi/Sa										
6 J5NPR-1-AE J7H270157-1-SAMP 08/24/2007 11:58		3980.20g,in	ITA6575 07/25/07							
 AmtRec: 20ML,8XLP,3X4LP #Containers: 12 Scr: Alpha: 2.47E-03 uCi/Sa Beta: 1.09E-03 uCi/Sa										
7 J5NP1-1-AA J7H270157-2-SAMP 08/24/2007 13:42		3885.70g,in	ITA6576 07/25/07							
 AmtRec: 20ML,2X4LP #Containers: 3 Scr: Alpha: 6.19E-05 uCi/Sa Beta: 1.74E-03 uCi/Sa										

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10/8/2007 2:36:11 PM

### Sample Preparation/Analysis

Balance Id:1120482733

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

Pipet #:

AnalyDueDate: 10/04/2007

Sep1 DT/Tm Tech:

Batch: 7240432

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch Test: None

Prep Tech: ,ClarkR



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppl nr Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst Init/Date	Comments:
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J5Q4W1AA-BLK:

I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:

J5Q4W1AC-LCS:

I-129 RDL:5 pCi/L LCL:70 UCL:130 RPD:20

J5DNF1AC-SAMP Calc Info:

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

J5Q4W1AA-BLK:

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

J5Q4W1AC-LCS:

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

Approved By \_\_\_\_\_ Date: \_\_\_\_\_



PAT. RICHMOND

10/5/2007 9:35:57 AM

### Sample Preparation/Analysis

Balance Id: \_\_\_\_\_

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/04/2007

Sep1 DT/Tm Tech: \_\_\_\_\_

Batch: 7278260

pCi/L

Sep2 DT/Tm Tech: \_\_\_\_\_

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

Approved By \_\_\_\_\_

Date: \_\_\_\_\_

TAL RICHLAND

9/25/2007 3:47:05 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/04/2007 *W05222*

Sep1 DT/Tm Tech:

Batch: 7240439 WATER pCi/L

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ClarkR



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 J5DNF-1-AD J7H220200-1-SAMP 08/20/2007 14:12			125.10g,in	125.10g		60				
<p>AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: -1.27E-03 uCi/Sa Beta: 9.33E-04 uCi/Sa</p>										
2 J5DN2-1-AD J7H220200-2-SAMP 08/20/2007 12:02			125.80g,in	125.80g						
<p>AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: -5.88E-04 uCi/Sa Beta: 8.29E-04 uCi/Sa</p>										
3 J5DN8-1-AD J7H220200-3-SAMP 08/20/2007 12:02			126.50g,in	126.50g						
<p>AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 1.82E-04 uCi/Sa Beta: -3.11E-04 uCi/Sa</p>										
4 J5DPA-1-AD J7H220200-4-SAMP 08/20/2007 09:48			125.50g,in	125.50g						
<p>AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 4.23E-04 uCi/Sa Beta: 5.18E-04 uCi/Sa</p>										
5 J5DPD-1-AC J7H220200-5-SAMP 08/20/2007 10:54			125.90g,in	125.90g						
<p>AmtRec: 20ML,500ML,LP #Containers: 3 Scr: Alpha: -2.52E-04 uCi/Sa Beta: 1.80E-04 uCi/Sa</p>										
6 J5DPG-1-AD J7H220200-6-SAMP 08/20/2007 13:15			125.20g,in	125.20g						
<p>AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5 Scr: Alpha: 7.95E-04 uCi/Sa Beta: -2.07E-03 uCi/Sa</p>										
7 J5DTE-1-AC J7H220210-2-SAMP 08/21/2007 10:12			126.40g,in	126.40g						
<p>AmtRec: 20ML,2X500MLP,4LP #Containers: 4 Scr: Alpha: 1.44E-06 uCi/Sa Beta: 7.10E-07 uCi/Sa</p>										

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TAL RICHLAND

9/25/2007 3:47:08 PM

**Sample Preparation/Analysis**

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/04/2007

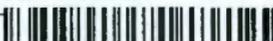
Sep1 DT/Tm Tech:

Batch: 7240439 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,ClarkR

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 J5DTK-1-AC J7H220210-3-SAMP  08/21/2007 11:52			126.60g,in	126.60g		60				
			AmtRec: 20ML,2X500MLP,4LP #Containers: 4				Scr:	Alpha: 2.93E-06 uCi/Sa	Beta: -4.36E-07 uCi/Sa	
9 J5EGR-1-AA J7H220290-1-SAMP  08/21/2007 11:59			127.00g,in	127.00g						
			AmtRec: 20ML,500MLP #Containers: 2				Scr:	Alpha: 1.41E-05 uCi/Sa	Beta: -7.09E-05 uCi/Sa	
10 J5EGR-1-AC-X J7H220290-1-DUP  08/21/2007 11:59			125.20g,in	125.20g						
			AmtRec: 20ML,500MLP #Containers: 2				Scr:	Alpha: 1.41E-05 uCi/Sa	Beta: -7.09E-05 uCi/Sa	
11 J5EHC-1-AC J7H220290-2-SAMP  08/21/2007 09:20			125.10g,in	125.10g						
			AmtRec: 20ML,500MLP,LP #Containers: 3				Scr:	Alpha: 2.24E-04 uCi/Sa	Beta: -1.31E-04 uCi/Sa	
12 J5EHC-1-AD-S J7H220290-2-MS  08/21/2007 09:20			126.50g,in	126.50g	TCSG1896 08/22/07,pd 01/10/06,r					
			AmtRec: 20ML,500MLP,LP #Containers: 3				Scr:	Alpha: 2.24E-04 uCi/Sa	Beta: -1.31E-04 uCi/Sa	
13 J5EHD-1-AE J7H220290-3-SAMP  08/21/2007 10:31			125.80g,in	125.80g						
			AmtRec: 20ML,500MLP,LP #Containers: 3				Scr:	Alpha: 1.98E-04 uCi/Sa	Beta: -3.11E-04 uCi/Sa	
14 J5KHG-1-AC J7H240273-3-SAMP  08/23/2007 07:54			125.50g,in	125.50g						
			AmtRec: 20ML,2X500ML,4LP #Containers: 4				Scr:	Alpha: 2.24E-06 uCi/Sa	Beta: 6.28E-07 uCi/Sa	

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TAL RICHLAND

9/25/2007 3:47:09 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,  
Pacific Northwest National Lab

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/04/2007

Sep1 DT/Tm Tech:

Batch: 7240439 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,ClarkR



Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 J5KH1-1-AC J7H240273-4-SAMP 08/23/2007 10:16			126.10g.in	126.10g		60				
			AmtRec: 20ML,2X500ML,4LP #Containers: 4				Scr:	Alpha: 5.10E-07 uCi/Sa	Beta: -1.36E-07 uCi/Sa	
16 J5KH9-1-AC J7H240273-5-SAMP 08/23/2007 10:55			126.00g.in	126.00g						
			AmtRec: 20ML,2X500ML,4LP #Containers: 4				Scr:	Alpha: 1.92E-06 uCi/Sa	Beta: 2.46E-07 uCi/Sa	
17 J5Q5P-1-AA-B J7H280000-439-BLK 08/21/2007 11:59			126.90g.in	126.90g						
			AmtRec: #Containers: 1				Scr:	Alpha:	Beta:	
18 J5Q5P-1-AC-C J7H280000-439-LCS 08/21/2007 11:59			125.40g.in	125.40g	TCSE2158 07/17/07,pd 01/10/06,r					
			AmtRec: #Containers: 1				Scr:	Alpha:	Beta:	
19 J5Q5P-1-AD-BN J7H280000-439-IBLK 08/21/2007 11:59										
			AmtRec: #Containers: 1				Scr:	Alpha:	Beta:	
20 J5Q5P-1-AE-BN J7H280000-439-IBLK 08/21/2007 11:59										
			AmtRec: #Containers: 1				Scr:	Alpha:	Beta:	

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TAL RICHLAND

9/25/2007 3:47:10 PM

Sample Preparation/Analysis

Balance Id:

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

Pipet #:

AnalyDueDate: 10/04/2007

Sep1 DT/Tm Tech:

Batch: 7240439  
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech:



Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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Comments: *pld < 2.0 RC 09/25/07*

All Clients for Batch:

384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SA , 57671

J5DNF1AD-SAMP Constituent List:

Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

J5EHC1AD-MS:

J5Q5P1AA-BLK:

Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

J5Q5P1AC-LCS:

Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

J5Q5P1AD-IBLK:

Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

J5Q5P1AE-IBLK:

Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

J5DNF1AD-SAMP Calc Info:

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

J5EHC1AD-MS:

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

J5Q5P1AA-BLK:

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

J5Q5P1AC-LCS:

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

J5Q5P1AD-IBLK:

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

J5Q5P1AE-IBLK:

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

Approved By

Date:

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TAL RICHLAND

9/25/2007 4:22:39 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

AM Tc-99 Prp/SepRC5078  
S5 Technetium-99 by Liquid Scint  
5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/05/2007 *W05222*

Sep1 DT/Tm Tech:

Batch: 7240438 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,ClarkR



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 J5DR9-1-AD J7H220210-1-SAMP 08/21/2007 08:26	125.50g,in			10				
	AmtRec: 20ML,500ML,4XLP,4LP	#Containers: 7				Scr: Alpha: -5.10E-04 uCi/Sa	Beta: -5.56E-04 uCi/Sa	
2 J5KGQ-1-AA J7H240273-1-SAMP 08/23/2007 08:30	125.10g,in							
	AmtRec: 20ML,500ML,3XLP	#Containers: 5				Scr: Alpha: 3.32E-04 uCi/Sa	Beta: 2.48E-04 uCi/Sa	
3 J5KG7-1-AA J7H240273-2-SAMP 08/23/2007 09:07	127.00g,in							
	AmtRec: 20ML,500ML,3XLP	#Containers: 5				Scr: Alpha: 1.66E-05 uCi/Sa	Beta: 2.10E-04 uCi/Sa	
4 J5KG7-1-AE-X J7H240273-2-DUP 08/23/2007 09:07	125.70g,in							
	AmtRec: 20ML,500ML,3XLP	#Containers: 5				Scr: Alpha: 1.66E-05 uCi/Sa	Beta: 2.10E-04 uCi/Sa	
5 J5KJD-1-AA J7H240273-6-SAMP 08/23/2007 09:41	126.50g,in							
	AmtRec: 20ML,2X500ML,4LP	#Containers: 5				Scr: Alpha: 8.89E-04 uCi/Sa	Beta: -4.02E-04 uCi/Sa	
6 J5KJD-1-AD-S J7H240273-6-MS 08/23/2007 09:41	125.50g,in		TCSG1897 08/22/07,pd 01/10/06,r					
	AmtRec: 20ML,2X500ML,4LP	#Containers: 5				Scr: Alpha: 8.89E-04 uCi/Sa	Beta: -4.02E-04 uCi/Sa	
7 J5Q5K-1-AA-B J7H280000-438-BLK 08/23/2007 09:07	126.80g,in							
	AmtRec:	#Containers: 1				Scr: Alpha:	Beta:	

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TAL RICHLAND

9/25/2007 4:22:42 PM

Sample Preparation/Analysis

Balance Id:1120482733

AM Tc-99 Prp/SepRC5078  
 S5 Technetium-99 by Liquid Scint  
 5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/05/2007

Sep1 DT/Tm Tech:

Batch: 7240438  
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,ClarkR



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 J5Q5K-1-AC-C J7H280000-438-LCS 08/23/2007 09:07		126.40g,in	TCSE2159 07/17/07,pd 01/10/06,r	60				
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
9 J5Q5K-1-AD-BN J7H280000-438-IBLK 08/23/2007 09:07								
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments: pH < 2.0 RC 09/25/07

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

J5DR91AD-SAMP Constituent List:

Tc-99	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20
J5KJD1AD-MS:					
J5Q5K1AA-BLK:					
Tc-99	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
J5Q5K1AC-LCS:					
Tc-99	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
J5Q5K1AD-IBLK:					
Tc-99	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:

J5DR91AD-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5KJD1AD-MS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q5K1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q5K1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q5K1AD-IBLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

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TAL RICHLAND

9/25/2007 4:22:43 PM

### Sample Preparation/Analysis

Balance Id: \_\_\_\_\_

AM Tc-99 Prp/SepRC5078  
S5 Technetium-99 by Liquid Scint  
5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/05/2007

Sep1 DT/Tm Tech: \_\_\_\_\_

Batch: 7240438 pCi/L

Sep2 DT/Tm Tech: \_\_\_\_\_

SEQ Batch, Test: None

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:
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Approved By \_\_\_\_\_ Date: \_\_\_\_\_

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TAL RICHLAND

9/20/2007 1:47:13 PM

Sample Preparation/Analysis

Balance Id:1120373922

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

CY Se-79 PrpRC5016, SepRC5043  
TM Selenium-79 by Liquid Scint  
SI CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/08/2007

Sep1 DT/Tm Tech:

Batch: 7240434 WATER pCi/L  
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: FABREM



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 J5NPR-1-AF J7H270157-1-SAMP 08/24/2007 11:58		201.14g,in	seta0199 12/06/06						
50									
		AmtRec: 20ML,8XLP,3X4LP	#Containers: 12				Scr: Alpha: 2.47E-03 uCi/Sa	Beta: 1.09E-03 uCi/Sa	
2 J5NPR-1-AH-X J7H270157-1-DUP 08/24/2007 11:58		200.58g,in	seta0200 12/06/06						
		AmtRec: 20ML,8XLP,3X4LP	#Containers: 12				Scr: Alpha: 2.47E-03 uCi/Sa	Beta: 1.09E-03 uCi/Sa	
3 J5Q5D-1-AA-B J7H280000-434-BLK 08/24/2007 11:58		200.08g,in	seta0201 12/06/06						
		AmtRec:	#Containers: 1				Scr: Alpha:	Beta:	
4 J5Q5D-1-AC-BN J7H280000-434-IBLK 08/24/2007 11:58									
		AmtRec:	#Containers: 1				Scr: Alpha:	Beta:	

**Comments:**

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

J5NPR1AF-SAMP Constituent List:  
Se-79 RDL:3.00E+01 pCi/L LCL: UCL: RPD:  
J5Q5D1AA-BLK:  
Se-79 RDL:3.00E+01 pCi/L LCL: UCL: RPD:  
J5Q5D1AC-IBLK:  
Se-79 RDL:3.00E+01 pCi/L LCL: UCL: RPD:  
J5NPR1AF-SAMP Calc Info:

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TAL RICHLAND

9/20/2007 1:47:14 PM

Sample Preparation/Analysis

Balance Id: \_\_\_\_\_

CY Se-79 PrpRC5016, SepRC5043  
 TM Selenium-79 by Liquid Scint  
 5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/08/2007

Sep1 DT/Tm Tech: \_\_\_\_\_

Batch: 7240434  
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech: \_\_\_\_\_

Prep Tech: \_\_\_\_\_



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Uncert Level (#s) : 2	Decay to SaDt: Y	Blk Subt. : N	Sci. Not. : Y	ODRs: B					
J5Q5D1AA-BLK:									
Uncert Level (#s) : 2	Decay to SaDt: Y	Blk Subt. : N	Sci. Not. : Y	ODRs: B					
J5Q5D1AC-IBLK:									
Uncert Level (#s) : 2	Decay to SaDt: Y	Blk Subt. : N	Sci. Not. : Y	ODRs: B					

Approved By \_\_\_\_\_ Date: \_\_\_\_\_

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TAL RICHLAND

8/28/2007 3:08:28 PM

**Sample Preparation/Analysis**

Balance Id: *12445*

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/04/2007 *W05222*

Sep1 DT/Tm Tech: *9-19-07 dm*

Batch: 7240443 WATER pCi/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech: \_\_\_\_\_

SEQ Batch, Test: None

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 J5DNF-1-AA J7H220200-1-SAMP  08/20/2007 14:12								
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5						Scr: Alpha: -1.27E-03 uCi/Sa	Beta: 9.33E-04 uCi/Sa	
2 J5DNF-1-AE-X J7H220200-1-DUP  08/20/2007 14:12								
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5						Scr: Alpha: -1.27E-03 uCi/Sa	Beta: 9.33E-04 uCi/Sa	
3 J5DN2-1-AA J7H220200-2-SAMP  08/20/2007 12:02								
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5						Scr: Alpha: -5.88E-04 uCi/Sa	Beta: 8.29E-04 uCi/Sa	
4 J5DN8-1-AA J7H220200-3-SAMP  08/20/2007 12:02								
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5						Scr: Alpha: 1.82E-04 uCi/Sa	Beta: -3.11E-04 uCi/Sa	
5 J5DPA-1-AA J7H220200-4-SAMP  08/20/2007 09:48								
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5						Scr: Alpha: 4.23E-04 uCi/Sa	Beta: 5.18E-04 uCi/Sa	
6 J5DPD-1-AA J7H220200-5-SAMP  08/20/2007 10:54								
AmtRec: 20ML,500ML,LP #Containers: 3						Scr: Alpha: -2.52E-04 uCi/Sa	Beta: 1.80E-04 uCi/Sa	
7 J5DPG-1-AA J7H220200-6-SAMP  08/20/2007 13:15								
AmtRec: 20ML,500ML,LP,2X4LP #Containers: 5						Scr: Alpha: 7.95E-04 uCi/Sa	Beta: -2.07E-03 uCi/Sa	

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STL RICHLAND

8/28/2007 3:08:29 PM

**Sample Preparation/Analysis**

Balance Id: 12445

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/04/2007

Sep1 DT/Tm Tech: 9-19-07 *aw*

Batch: 7240443 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech: \_\_\_\_\_

SEQ Batch, Test: None

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 J5EHC-1-AA J7H220290-2-SAMP 08/21/2007 09:20								
		AmtRec: 20ML,500MLP,LP	#Containers: 3			Scr: Alpha: 2.24E-04 uCi/Sa	Beta: -1.31E-04 uCi/Sa	
9 J5EHD-1-AD J7H220290-3-SAMP 08/21/2007 10:31								
		AmtRec: 20ML,500MLP,LP	#Containers: 3			Scr: Alpha: 1.98E-04 uCi/Sa	Beta: -3.11E-04 uCi/Sa	
10 J5Q6G-1-AA-B J7H280000-443-BLK 08/20/2007 14:12								
		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	
11 J5Q6G-1-AC-C J7H280000-443-LCS 08/20/2007 14:12								
		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	
12 J5Q6G-1-AD-BX J7H280000-443-MBLK 08/20/2007 14:12								
		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	
13 J5Q6G-1-AE-CM J7H280000-443-MLCS 08/20/2007 14:12								
		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	
14 J5Q6G-1-AF-BN J7H280000-443-IBLK 08/20/2007 14:12								
		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	

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STL RICHLAND

8/28/2007 3:08:30 PM

**Sample Preparation/Analysis**

Balance Id: *12445*

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/04/2007

Sep1 DT/Tm Tech: *9-19-07-aw*

Batch: 7240443 pCi/L

Sep2 DT/Tm Tech: \_\_\_\_\_

SEQ Batch, Test: None

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:
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15 J5Q6G-1-AG-BN								
J7H280000-443-IBLK								
08/20/2007 14:12		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

16 J5Q6G-1-AH-BN								
J7H280000-443-IBLK								
08/20/2007 14:12		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

**Comments:**

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

J5DNF1AA-SAMP Constituent List:						
E-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20	
J5Q6G1AA-BLK:						
E-3	RDL:400	pCi/L	LCL:	UCL:	RPD:	
J5Q6G1AC-LCS:						
E-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20	
J5Q6G1AD-MBLK:						
E-3	RDL:400	pCi/L	LCL:	UCL:	RPD:	
J5Q6G1AE-MLCS:						
E-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20	
J5Q6G1AF-IBLK:						
E-3	RDL:400	pCi/L	LCL:	UCL:	RPD:	
J5Q6G1AG-IBLK:						
E-3	RDL:400	pCi/L	LCL:	UCL:	RPD:	
J5Q6G1AH-IBLK:						
E-3	RDL:400	pCi/L	LCL:	UCL:	RPD:	
J5DNF1AA-SAMP Calc Info:						
Uncert Level (#s): 2		Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
J5Q6G1AA-BLK:						
Uncert Level (#s): 2		Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	

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STL RICHLAND

8/28/2007 3:08:31 PM

### Sample Preparation/Analysis

Balance Id: 12445

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

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/04/2007

Sep1 DT/Tm Tech: 9-19-07 *am*

Batch: 7240443 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:
J5Q6G1AC-LCS: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J5Q6G1AD-MBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J5Q6G1AE-MLCS: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J5Q6G1AF-IBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J5Q6G1AG-IBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J5Q6G1AH-IBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				

Approved By \_\_\_\_\_

Date: \_\_\_\_\_

TAIL RICHLAND

8/28/2007 3:08:27 PM

**Sample Preparation/Analysis**

Balance Id: *N/A*

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

**5S C-14 Prp/SepRC5022**  
**S3 Carbon-14 by Liquid Scint**  
**5I CLIENT: HANFORD**

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/08/2007 *W05222*

Sep1 DT/Tm Tech: *9-1807 om*

Batch: 7240442 WATER pCi/L PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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:
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1 J5NPR-1-AC J7H270157-1-SAMP  08/24/2007 11:58								
AmtRec: 20ML,8XLP,3X4LP			#Containers: 12		Scr:	Alpha:	Beta:	

2 J5NPR-1-AL-X J7H270157-1-DUP  08/24/2007 11:58								
AmtRec: 20ML,8XLP,3X4LP			#Containers: 12		Scr:	Alpha:	Beta:	

3 J5Q6C-1-AA-B J7H280000-442-BLK  08/24/2007 11:58								
AmtRec:			#Containers: 1		Scr:	Alpha:	Beta:	

4 J5Q6C-1-AC-C J7H280000-442-LCS  08/24/2007 11:58								
AmtRec:			#Containers: 1		Scr:	Alpha:	Beta:	

5 J5Q6C-1-AD-BN J7H280000-442-IBLK  08/24/2007 11:58								
AmtRec:			#Containers: 1		Scr:	Alpha:	Beta:	

**Comments:**

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

J5NPR1AC-SAMP Constituent List:  
C-14 RDL:2.00E+02 pCi/L LCL:70 UCL:130 RPD:20

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STL RICHLAND

8/28/2007 3:08:28 PM

**Sample Preparation/Analysis**

Balance Id: N/A

5S C-14 Prp/SepRC5022  
 S3 Carbon-14 by Liquid Scint  
 5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/08/2007

Sep1 DT/Tm Tech: 9-18-07 DM

Batch: 7240442  
 SEQ Batch, Test: None

pCi/L

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:
J5Q6C1AA-BLK: C-14	RDL: 2.00E+02	pCi/L	LCL:	UCL:	RPD:			
J5Q6C1AC-LCS: C-14	RDL: 200	pCi/L	LCL: 70	UCL: 130	RPD: 20			
J5Q6C1AD-IBLK: C-14	RDL: 2.00E+02	pCi/L	LCL:	UCL:	RPD:			
J5NPR1AC-SAMP Calc Info:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J5Q6C1AA-BLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J5Q6C1AC-LCS: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
J5Q6C1AD-IBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				

Approved By \_\_\_\_\_ Date: \_\_\_\_\_

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TAL RICHLAND

10/3/2007 11:25:38 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  
SI CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/05/2007 **W05222**

Sep1 DT/Tm Tech:

Batch: 7240428 WATER ug/L PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,ClarkR



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 J5DR9-1-AE J7H220210-1-SAMP 08/21/2007 08:26	26.40g,in							
 AmtRec: 20ML,500ML,4XLP,4LP #Containers: 7 Scr: Alpha: -5.10E-04 uCi/Sa Beta: -5.56E-04 uCi/Sa								
2 J5DTE-1-AD J7H220210-2-SAMP 08/21/2007 10:12	25.70g,in							
 AmtRec: 20ML,2X500MLP,4LP #Containers: 4 Scr: Alpha: 1.44E-06 uCi/Sa Beta: 7.10E-07 uCi/Sa								
3 J5DTK-1-AD J7H220210-3-SAMP 08/21/2007 11:52	26.10g,in							
 AmtRec: 20ML,2X500MLP,4LP #Containers: 4 Scr: Alpha: 2.93E-06 uCi/Sa Beta: -4.36E-07 uCi/Sa								
4 J5KGQ-1-AC J7H240273-1-SAMP 08/23/2007 08:30	25.40g,in							
 AmtRec: 20ML,500ML,3XLP #Containers: 5 Scr: Alpha: 3.32E-04 uCi/Sa Beta: 2.48E-04 uCi/Sa								
5 J5KGQ-1-AD-X J7H240273-1-DUP 08/23/2007 08:30	25.80g,in							
 AmtRec: 20ML,500ML,3XLP #Containers: 5 Scr: Alpha: 3.32E-04 uCi/Sa Beta: 2.48E-04 uCi/Sa								
6 J5KG7-1-AC J7H240273-2-SAMP 08/23/2007 09:07	25.60g,in							
 AmtRec: 20ML,500ML,3XLP #Containers: 5 Scr: Alpha: 1.66E-05 uCi/Sa Beta: 2.10E-04 uCi/Sa								
7 J5KG7-1-AD-S J7H240273-2-MS 08/23/2007 09:07	25.80g,in		UNSF3975 09/20/07,pd 01/23/07,r					
 AmtRec: 20ML,500ML,3XLP #Containers: 5 Scr: Alpha: 1.66E-05 uCi/Sa Beta: 2.10E-04 uCi/Sa								

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TAL RICHLAND

10/3/2007 11:25:41 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

DH UNat\_Laser PrpRC5015  
SS Total Uranium by KPA  
5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/05/2007

Sep1 DT/Tm Tech:

Batch: 7240428 WATER ug/L

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,ClarkR



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 J5KHG-1-AD J7H240273-3-SAMP 08/23/2007 07:54	27.00g,in							
			AmtRec: 20ML,2X500ML,4LP	#Containers: 4	Scr:	Alpha: 2.24E-06 uCi/Sa	Beta: 6.28E-07 uCi/Sa	
9 J5KH1-1-AD J7H240273-4-SAMP 08/23/2007 10:16	25.30g,in							
			AmtRec: 20ML,2X500ML,4LP	#Containers: 4	Scr:	Alpha: 5.10E-07 uCi/Sa	Beta: -1.36E-07 uCi/Sa	
10 J5KH9-1-AD J7H240273-5-SAMP 08/23/2007 10:55	25.60g,in							
			AmtRec: 20ML,2X500ML,4LP	#Containers: 4	Scr:	Alpha: 1.92E-06 uCi/Sa	Beta: 2.46E-07 uCi/Sa	
11 J5KJD-1-AC J7H240273-6-SAMP 08/23/2007 09:41	26.00g,in							
			AmtRec: 20ML,2X500ML,4LP	#Containers: 5	Scr:	Alpha: 8.89E-04 uCi/Sa	Beta: -4.02E-04 uCi/Sa	
12 J5Q4C-1-AA-B J7H280000-428-BLK 08/23/2007 08:30	25.60g,in							
			AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:	
13 J5Q4C-1-AC-C J7H280000-428-LCS 08/23/2007 08:30	25.30g,in		UNSF3976 09/20/07.pd 01/23/07.r					
			AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:	
14 J5Q4C-1-AD-C J7H280000-428-LCS 08/23/2007 08:30	25.40g,in		UNSC1915 09/20/07.pd 04/28/06.r					
			AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:	

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TAL RICHLAND

10/3/2007 11:25:42 AM

Sample Preparation/Analysis

Balance Id:1120482733

DH UNat\_Laser PrpRC5015  
 SS Total Uranium by KPA  
 5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 10/05/2007

Sep1 DT/Tm Tech:

Batch: 7240428 ug/L  
 SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,ClarkR



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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Comments: J5DTK-SAMP Comments  
*pH < 2.0 KC 10/03/07*

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

J5DR91AE-SAMP Constituent List:					
Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:
J5KG71AD-MS:					
J5Q4C1AA-BLK:					
Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:
J5Q4C1AC-LCS:					
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20
J5Q4C1AD-LCS:					
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20
J5DR91AE-SAMP Calc Info:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5KG71AD-MS:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q4C1AA-BLK:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q4C1AC-LCS:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J5Q4C1AD-LCS:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By \_\_\_\_\_ Date: \_\_\_\_\_

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10/3/2007 11:46:33 AM

# ICOC Fraction Transfer/Status Report

ByDate: 10/3/2006, 10/8/2007, Batch: '7240436', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
<b>7240436</b>				
AC	CalcC	FABREM	9/20/2007 12:46:18	
SC		wagarr	IsBatched	8/28/2007 3:13:11 PM
SC		FABREM	InPrep	9/20/2007 12:46:18 PM
SC		FABREM	Sep1C	9/26/2007 6:14:11 PM
SC		FABREM	Sep2C	9/27/2007 3:15:34 PM
SC		DAWKINSO	InCnt1	9/27/2007 3:59:45 PM
SC		DAWKINSO	CalcC	9/27/2007 9:32:51 PM
AC		FABREM	9/26/2007 6:14:11 PM	ICOC_RADCALC v4.8.26
AC		FABREM	9/27/2007 3:15:34 PM	RICH-RC-5086 REVISION 3
AC		DAWKINSO	9/27/2007 3:59:45 PM	RICH-RC-5064 REVISION 5
AC		DAWKINSO	9/27/2007 9:32:51 PM	RICH-RC-5003 REVISION 7
				RICH-RD-0008 REVISION 4
				RICH-RD-0008 REVISION 4

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.

10/4/2007 2:32:46 PM

# ICOC Fraction Transfer/Status Report

ByDate: 10/4/2006, 10/9/2007, Batch: '7240441', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7240441				
AC	CalcC	ClarkR	10/2/2007 10:18:24	
SC		wagarr	IsBatched 8/28/2007 3:13:11 PM	ICOC_RADCALC v4.8.26
SC		ClarkR	InPrep 10/2/2007 10:18:24 AM	RICH-RC-5016 Revision 7
SC		ClarkR	Prep1C 10/2/2007 10:26:53 AM	RICH-RC-5014 REVISION 7
SC		BockJ	InPrep2 10/3/2007 8:17:52 AM	RICH-RC-5014 REVISION 7
SC		BockJ	Prep2C 10/3/2007 4:53:50 PM	RICH-RC-5014 REVISION 7
SC		DAWKINSO	InCnt1 10/3/2007 5:17:31 PM	RICH-RD-0003 REVISION 5
SC		DAWKINSO	CalcC 10/3/2007 10:42:35 PM	RICH-RD-0003 REVISION 5
AC		ClarkR	10/2/2007 10:26:53	
AC		BockJ	10/3/2007 8:17:52	
AC		BockJ	10/3/2007 4:53:50 PM	
AC		DAWKINSO	10/3/2007 5:17:31 PM	
AC		DAWKINSO	10/3/2007 10:42:35	

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.

10/5/2007 1:23:44 PM

# ICOC Fraction Transfer/Status Report

ByDate: 10/5/2006, 10/10/2007, Batch: '7240437', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
<b>7240437</b>				
AC	CalcC	ClarkR	9/25/2007 4:54:02 PM	
SC		wagarr	IsBatched	8/28/2007 3:13:11 PM
SC		ClarkR	InPrep	9/25/2007 4:54:02 PM
SC		ClarkR	Prep1C	9/25/2007 5:04:42 PM
SC		ManisD	InSep1	9/26/2007 8:41:42 AM
SC		ManisD	Sep1C	9/26/2007 3:41:50 PM
SC		DAWKINSO	Cnt1C	9/26/2007 6:31:15 PM
SC		ClarkR	InSep2	10/3/2007 6:03:20 AM
SC		ManisD	InSep2	10/3/2007 7:53:59 AM
SC		ManisD	Sep2C	10/3/2007 2:19:06 PM
SC		StringerR	InCnt1	10/3/2007 2:36:54 PM
SC		BlackCL	CalcC	10/5/2007 8:36:23 AM
AC		ClarkR	9/25/2007 5:04:42 PM	
AC		ManisD	9/26/2007 8:41:42	
AC		ManisD	9/26/2007 3:41:50 PM	
AC		DAWKINSO	9/26/2007 6:31:15 PM	
AC		ClarkR	10/3/2007 6:03:20	
AC		ManisD	10/3/2007 7:53:59	
AC		ManisD	10/3/2007 2:19:06 PM	
AC		StringerR	10/3/2007 2:36:54 PM	
AC		BlackCL	10/5/2007 8:36:23	

AC: Accepting Entry, SC: Status Change

STL Richland  
Richland Wa.

10/11/2007 11:52:12 AM

# ICOC Fraction Transfer/Status Report

ByDate: 10/11/2006, 10/16/2007, Batch: '7240431', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7240431				
AC	CalcC	ClarkR	10/3/2007 7:28:42	
SC		wagarr	IsBatched	8/28/2007 3:13:11 PM
SC		ClarkR	InPrep	10/3/2007 7:28:42 AM
SC		ClarkR	Prep1C	10/3/2007 7:48:51 AM
SC		BockJ	InPrep2	10/4/2007 7:58:09 AM
SC		AshworthA	Prep2C	10/5/2007 12:57:56 PM
SC		StringerR	InCnt1	10/5/2007 1:03:04 PM
SC		BlackCL	CalcC	10/8/2007 9:34:11 AM
SC		DAWKINSO	InCnt1	10/9/2007 3:42:29 PM
SC		StringerR	CalcC	10/10/2007 11:56:33 AM
AC		ClarkR	10/3/2007 7:48:51	
AC		BockJ	10/4/2007 7:58:09	
AC		AshworthA	10/5/2007 12:57:56	
AC		StringerR	10/5/2007 1:03:04 PM	
AC		BlackCL	10/8/2007 9:34:11	
AC		DAWKINSO	10/9/2007 3:42:29 PM	
AC		StringerR	10/10/2007 11:56:33	

AC: Accepting Entry SC: Status Change

STL Richland  
Richland Wa.

# ICOC Fraction Transfer/Status Report

ByDate: 10/17/2006, 10/22/2007, Batch: '7240432', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7240432				
AC	CalcC	ClarkR	9/25/2007 2:11:03 PM	
SC		wagarr	IsBatched 8/28/2007 3:13:11 PM	ICOC_RADCALC v4.8.26
SC		ClarkR	InPrep 9/25/2007 2:11:03 PM	RICH-RC-5014 Revision 7
SC		ClarkR	Prep1C 9/25/2007 2:51:21 PM	RICH-RC-5016 REVISION 7
SC		BostedD	InPrep2 9/26/2007 6:03:14 AM	RICHRC5025 REVISION 4
SC		BostedD	Prep2C 10/5/2007 11:59:17 AM	RICHRC5025 REVISION 4
SC		StringerR	CalcC 10/6/2007 1:38:43 PM	RICH-RD-0007 REVISION 6
SC		BlackCL	InCnt1 10/9/2007 7:39:56 AM	RICH-RD-0007 REVISION 6
SC		BlackCL	CalcC 10/9/2007 1:34:47 PM	RICH-RD-0007 REVISION 6
AC		ClarkR	9/25/2007 2:51:21 PM	
AC		BostedD	9/26/2007 6:03:14	
AC		BostedD	10/5/2007 11:59:17	
AC		StringerR	10/6/2007 1:38:43 PM	
AC		BlackCL	10/9/2007 7:39:56	
AC		BlackCL	10/9/2007 1:34:47 PM	

AC: Accepting Entry, SC: Status Change

STL Richland  
Richland Wa.

10/10/2007 11:23:52 AM

# ICOC Fraction Transfer/Status Report

ByDate: 10/10/2006, 10/15/2007, Batch: '7278260', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7278260				
AC	CalcC	FABREM	10/5/2007 9:57:26	
SC		FABREM	Sep1C 10/5/2007 9:57:26 AM	RICH-RC-5065 REVISION 6
SC		StringerR	InCnt1 10/5/2007 10:08:20 AM	RICH-RD-0001 REVISION 4
SC		StringerR	CalcC 10/7/2007 10:56:05 AM	RICH-RD-0003 REVISION 5
AC		StringerR	10/5/2007 10:08:20	
AC		StringerR	10/7/2007 10:56:05	

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.

10/10/2007 11:20:03 AM

# ICOC Fraction Transfer/Status Report

ByDate: 10/10/2006, 10/15/2007, Batch: '7240439', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7240439				
AC	CalcC	ClarkR	9/25/2007 3:24:41 PM	
SC	wagarr	IsBatched	8/28/2007 3:13:11 PM	ICOC_RADCALC v4.8.26
SC	ClarkR	InPrep	9/25/2007 3:24:41 PM	RICH-RC-5014 Revision 7
SC	ClarkR	Prep1C	9/25/2007 3:47:13 PM	RICH-RC-5016 REVISION 7
SC	FABREM	Sep1C	10/1/2007 2:05:10 PM	RICH-RC-5065 REVISION 6
SC	BlackCL	InCnt1	10/1/2007 2:06:24 PM	RICH-RD-0001 REVISION 4
SC	BlackCL	CalcC	10/3/2007 4:39:44 AM	RICH-RD-0001 REVISION 4
AC		ClarkR	9/25/2007 3:47:13 PM	
AC		FABREM	10/1/2007 2:05:10 PM	
AC		BlackCL	10/1/2007 2:06:24 PM	
AC		BlackCL	10/3/2007 4:39:44	

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.

10/8/2007 1:15:16 PM

# ICOC Fraction Transfer/Status Report

ByDate 10/8/2006, 10/13/2007. Batch: '7240438'. User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7240438				
AC	CalcC	ClarkR	9/25/2007 4:12:30 PM	
SC		wagarr	IsBatched 8/28/2007 3:13:11 PM	ICOC_RADCALC v4.8.26
SC		ClarkR	InPrep 9/25/2007 4:12:30 PM	RICH-RC-5014 Revision 7
SC		ClarkR	Prep1C 9/25/2007 4:22:43 PM	RICH-RC-5016 REVISION 7
SC		FABREM	Sep1C 10/3/2007 8:07:29 PM	RICH-RC-5078 REVISION 4
SC		DAWKINSO	InCnt1 10/3/2007 9:59:03 PM	RICH-RD-0001 REVISION 4
SC		StringerR	CalcC 10/4/2007 2:35:31 PM	RICH-RD-0001 REVISION 4
AC		ClarkR	9/25/2007 4:22:43 PM	
AC		FABREM	10/3/2007 8:07:29 PM	
AC		DAWKINSO	10/3/2007 9:59:03 PM	
AC		StringerR	10/4/2007 2:35:31 PM	

AC: Accepting Entry, SC: Status Change

S:L Richland  
Richland Wa.

10/5/2007 2:02:39 PM

# ICOC Fraction Transfer/Status Report

ByDate: 10/5/2006, 10/10/2007, Batch: '7240434', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7240434				
AC	Rev1C	FABREM	9/20/2007 1:30:42 PM	
SC		wagarr	IsBatched 8/28/2007 3:13:11 PM	ICOC_RADCALC v4.8.26
SC		FABREM	InPrep 9/20/2007 1:30:42 PM	RICH-RC-5016 REVISION 7
SC		FABREM	Sep1C 9/27/2007 12:49:30 PM	RICH-RC-5043 REVISION 3
SC		StringerR	InCnt1 9/27/2007 12:55:48 PM	RICH-RD-0001 REVISION 4
SC		BlackCL	CalcC 10/4/2007 10:33:31 AM	RICH-RD-0091 REVISION 4
SC		NortonJ	Rev1C 10/5/2007 2:01:54 PM	RICHRC0002 REV8
AC		FABREM	9/27/2007 12:49:30	
AC		StringerR	9/27/2007 12:55:48	
AC		BlackCL	10/4/2007 10:33:31	
AC		NortonJ	10/5/2007 2:01:54 PM	

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.

9/28/2007 4:03:22 PM

# ICOC Fraction Transfer/Status Report

ByDate: 9/28/2006, 10/3/2007, Batch: '7240443', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7240443				
AC	CalcC	McDowellD	9/18/2007 9:19:58	
SC		wagarr	IsBatched 8/28/2007 3:13:11 PM	ICOC_RADCALC v4.8.26
SC		McDowellD	InSep1 9/18/2007 9:19:58 AM	RICH-RC-5007 REVISION 6
SC		McDowellD	Sep1C 9/20/2007 2:11:33 PM	RICH-RC-5007 REVISION 6
SC		StringerR	InCnt1 9/20/2007 2:47:17 PM	RICH-RD-0001 REVISION 4
SC		StringerR	CalcC 9/22/2007 1:31:12 PM	RICH-RD-0001 REVISION 4
AC		McDowellD	9/20/2007 2:11:33 PM	
AC		StringerR	9/20/2007 2:47:17 PM	
AC		StringerR	9/22/2007 1:31:12 PM	

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.

9/20/2007 6:33:04 AM

# ICOC Fraction Transfer/Status Report

ByDate: 9/20/2006, 9/25/2007, Batch: '7240442', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7240442				
AC	CalcC	McDowellD	9/18/2007 3:55:05 PM	
SC		wagarr	IsBatched	8/28/2007 3:13:11 PM
SC		McDowellD	Sep1C	9/18/2007 3:55:05 PM
SC		DAWKINSO	InCnt1	9/18/2007 4:32:14 PM
SC		BlackCL	CalcC	9/19/2007 7:43:48 AM
AC		McDowellD	9/18/2007 3:56:24 PM	
AC		DAWKINSO	9/18/2007 4:32:14 PM	
AC		BlackCL	9/19/2007 7:43:48	

AC: Accepting Entry SC: Status Change

STL Richland  
Richland Wa.

10/8/2007 3:07:56 PM

# ICOC Fraction Transfer/Status Report

ByDate: 10/8/2006, 10/13/2007, Batch: '7240428', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7240428				
AC	<b>Cnt1C</b>	<b>ClarkR</b>	10/3/2007 11:12:45	
SC		wagarr	IsBatched 8/28/2007 3:13:11 PM	ICOC_RADCALC v4.8.26
SC		ClarkR	InPrep 10/3/2007 11:12:45 AM	RICH-RC-5016 Revision 7
SC		ClarkR	Prep1C 10/3/2007 11:25:42 AM	RICH-RC-5015 REVISION 6
SC		BockJ	InPrep2 10/3/2007 2:59:58 PM	RICH-RC-5015 REVISION 6
SC		AshworthA	Prep2C 10/5/2007 5:19:38 PM	RICH-RC-5015 REVISION 6
SC		NelsonT	Cnt1C 10/8/2007 10:11:14 AM	RICH-RC-5058 REV 7
AC		<b>ClarkR</b>	10/3/2007 11:25:42	
AC		<b>BockJ</b>	10/3/2007 2:59:58 PM	
AC		<b>AshworthA</b>	10/5/2007 5:19:38 PM	
AC		<b>NelsonT</b>	10/8/2007 10:11:14	

AC: Accepting Entry, SC: Status Change

STL Richland  
Richland Wa.