

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 184 Pages

Report Nbr: 37444

**RECEIVED**  
 MAY 06 2008  
**EDMC**

**REVISED**  
*2/19/08*  
*Entire package resubmitted.*

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05237 	W07-008	B1P975	J7I250211-1	J7K5C1AA	9J7K5C10	7283503
	A07-009	B1PDB6	J7I250226-1	J7LDC1AA	9J7LDC10	7283506
	I07-066	B1PF04	J7I250231-1	J7LEX1AA	9J7LEX10	7283508
		B1PF04	J7I250231-1	J7LEX1AC	9J7LEX10	7283510
		B1PF04	J7I250231-1	J7LEX1AD	9J7LEX10	7283516
	S07-009	B1PFV2	J7I250237-1	J7LJA1AA	9J7LJA10	7283505
		B1PFV2	J7I250237-1	J7LJA1AC	9J7LJA10	7283519
		B1PFV2	J7I250237-1	J7LJA1AD	9J7LJA10	7283510
		B1PFV2	J7I250237-1	J7LJA1AE	9J7LJA10	7283516
		B1PFV2	J7I250237-1	J7LJA1AG	9J7LJA10	7283521
		B1PFV2	J7I250237-1	J7LJA1AH	9J7LJA10	7283522
		B1PFV2	J7I250237-1	J7LJA1AJ	9J7LJA10	7283506
		B1PFV2	J7I250237-1	J7LJA1AK	9J7LJA10	7283527
		B1PFV2	J7I250237-1	J7LJA2AF	9J7LJA20	7312563
		B1PFV8	J7I250237-2	J7LJL1AA	9J7LJL10	7283505

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FEB 11 2008

Comments:

Rev 1  
 0077160

## Report Nbr: 37444

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05237	S07-009	B1PFV8	J7I250237-2	J7LJL1AC	9J7LJL10	7283519
		B1PFV8	J7I250237-2	J7LJL1AD	9J7LJL10	7283510
		B1PFV8	J7I250237-2	J7LJL1AE	9J7LJL10	7283516
		B1PFV8	J7I250237-2	J7LJL1AG	9J7LJL10	7283521
		B1PFV8	J7I250237-2	J7LJL1AH	9J7LJL10	7283522
		B1PFV8	J7I250237-2	J7LJL1AJ	9J7LJL10	7283506
		B1PFV8	J7I250237-2	J7LJL1AK	9J7LJL10	7283527
		B1PFV8	J7I250237-2	J7LJL2AF	9J7LJL20	7312563
	I07-062	B1PYL1	J7I260282-1	J7N9F1AA	9J7N9F10	7283506
		B1PYL1	J7I260282-1	J7N9F1AC	9J7N9F10	7283527
		B1PYL1	J7I260282-1	J7N9F1AD	9J7N9F10	7283524
	I07-061	B1P5M8	J7I260294-1	J7PCT1AA	9J7PCT10	7283505
		B1P5M8	J7I260294-1	J7PCT1AC	9J7PCT10	7283521
		B1P5M8	J7I260294-1	J7PCT1AD	9J7PCT10	7283522
		B1P5M8	J7I260294-1	J7PCT1AE	9J7PCT10	7283506
		B1P5M8	J7I260294-1	J7PCT1AF	9J7PCT10	7283500
		B1P5M8	J7I260294-1	J7PCT1AG	9J7PCT10	7283527
	I07-043	B1PYJ1	J7I260313-1	J7PJA1AA	9J7PJA10	7283505
		B1PYJ1	J7I260313-1	J7PJA1AC	9J7PJA10	7283521
		B1PYJ1	J7I260313-1	J7PJA1AD	9J7PJA10	7283522
		B1PYJ1	J7I260313-1	J7PJA1AE	9J7PJA10	7283506
		B1PYJ1	J7I260313-1	J7PJA1AF	9J7PJA10	7283500
		B1PYJ1	J7I260313-1	J7PJA1AG	9J7PJA10	7283527
	W07-008	B1P943	J7I260315-1	J7K5C1AA	9J7PJ810	7283503
		B1P8V4	J7I260315-2	J7PKK1AA	9J7PKK10	7283522
		B1P8V4	J7I260315-2	J7PKK1AC	9J7PKK10	7283524

Comments:

## Report Nbr: 37444

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05237	W07-008	B1P8V4	J7I260315-2	J7PKK1AD	9J7PKK10	7283525
	I07-061	B1P5P9	J7I260316-1	J7PKR1AA	9J7PKR10	7283506
	S07-009	B1PH06	J7I260319-1	J7PK81AA	9J7PK810	7283510
		B1PH06	J7I260319-1	J7PK81AC	9J7PK810	7283516
		B1PH07	J7I260319-2	J7PLC1AA	9J7PLC10	7283510
		B1PH07	J7I260319-2	J7PLC1AC	9J7PLC10	7283516
	I07-061	B1P5N5	J7I270150-1	J7QP81AA	9J7QP810	7283505
		B1P5N5	J7I270150-1	J7QP81AC	9J7QP810	7283521
		B1P5N5	J7I270150-1	J7QP81AD	9J7QP810	7283522
		B1P5N5	J7I270150-1	J7QP81AE	9J7QP810	7283506
		B1P5N5	J7I270150-1	J7QP81AF	9J7QP810	7283500
		B1P5N5	J7I270150-1	J7QP81AG	9J7QP810	7283527
		B1P5M1	J7I270150-2	J7QQK1AA	9J7QQK10	7283505
		B1P5M1	J7I270150-2	J7QQK1AC	9J7QQK10	7283521
		B1P5M1	J7I270150-2	J7QQK1AD	9J7QQK10	7283522
		B1P5M1	J7I270150-2	J7QQK1AE	9J7QQK10	7283506
		B1P5M1	J7I270150-2	J7QQK1AF	9J7QQK10	7283500
		B1P5M1	J7I270150-2	J7QQK1AG	9J7QQK10	7283527
	S07-009	B1PH12	J7I270339-1	J7TDF1AA	9J7TDF10	7283510
		B1PH12	J7I270339-1	J7TDF1AC	9J7TDF10	7283516
		B1PFX0	J7I270383-1	J7TPK1AC	9J7TPK10	7283516
		B1PFX0	J7I270383-1	J7TPK2AA	9J7TPK20	7283510
		B1PFY4	J7I270383-2	J7TPM1AA	9J7TPM10	7283510
		B1PFY4	J7I270383-2	J7TPM1AC	9J7TPM10	7283516
	I07-061	B1P5R7	J7I270389-1	J7TQX1AA	9J7TQX10	7283506
		B1P5T4	J7I270389-2	J7TRG1AA	9J7TRG10	7283506

Comments:

## Certificate of Analysis

Fluor Hanford  
1200 Jadwin Ave.  
Richland, WA 99352

November 21, 2007

Attention: Steve Trent

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SAF Number : S07-009, W07-008, I07-066, I07-061, I07-062,  
A07-009, I07-043  
Date SDG Closed : September 27, 2007  
Number of Samples : Twenty (20)  
Sample Type : Water  
SDG Number : W05237  
Data Deliverable : 45-Day / Summary

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### CASE NARRATIVE

#### I. Introduction

Between September 24, 2007 and September 27, 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>
B1P975	J7K5C	9/24/07	WATER
B1PDB6	J7LDC	9/24/07	WATER
B1PF04	J7LEX	9/24/07	WATER
B1PFV2	J7LJA	9/24/07	WATER
B1PFV8	<del>J7LJL</del>	9/24/07	WATER
B1P6B4	J7N9F	9/25/07	WATER
B1P5M8	J7PCT	9/25/07	WATER
B1NHB9	J7PJA	9/25/07	WATER
B1P8V4	J7PKK	9/25/07	WATER
B1P943	J7PJ8	9/25/07	WATER
B1P5P9	J7PKR	9/26/07	WATER
B1PH06	J7PK8	9/26/07	WATER

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B1PH07	J7PLC	9/26/07	WATER
B1P5N5	J7QP8	9/26/07	WATER
B1P5M1	J7QQK	9/26/07	WATER
B1PH12	J7TDF	9/27/07	WATER
B1PFX0	J7TPK	9/27/07	WATER
B1PFY4	J7TPM	9/27/07	WATER
B1P5R7	J7TQX	9/27/07	WATER
B1P5T4	J7TRG	9/26/07	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

Americium 241 by method RICH-RC-5072

Neptunium-237 by method RICH-RC-5009

Thorium-228,230,232 by method RICH-RC-5087

### Gas Proportional Counting

Gross Alpha by method RICH-RC-5014

Gross Beta by method RICH-RC-5014

Strontium-90 by method RICH-RC-5006

### Gamma Spectroscopy

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

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

### Liquid Scintillation Counting

Selenium-79 by method RICH-RC-5043

Technetium-99 by TEVA method RICH-RC-5065

Tritium by method RICH-RC-5007

Carbon-14 by method RICH-RC-5022

### Laser Induced Phosphorimetry

Total Uranium by method RICH-RC-5058

### Chemical Analysis

Total Coliform by method 9223

## 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**

Americium 241 by method RICH-RC-5072:

In the original analysis the samples all failed due to low yields. The samples were rerun with good results. Except as noted, the LCS, batch blank, sample and sample duplicate (B1PFV8) results are within contractual requirements.

Neptunium-237 by method RICH-RC-5009:

The LCS, batch blank, sample and sample duplicate (B1P5N5) results are within contractual requirements.

Thorium-228,230,232 by method RICH-RC-5087:

The FWHM calculated for the LCS was slightly elevated. Since it is the nature of the thorium spectra to be somewhat wider than other analytes, the data will be accepted. Except as noted, the LCS, batch blank, samples and sample duplicate (B1PFV2) results are within contractual requirements.

**Gas Proportional Counting**

Gross Alpha by method RICH-RC-5014:

The duplicate was outside acceptance limits. It was recounted with good results. Except as noted, the LCS, batch blank, samples and sample duplicate (B1PFX0) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

Sample B1PFX0 did not meet CRDL due to reduced aliquot volumes based on elevated screen results. The activity detected is greater than the achieved MDA. Data is accepted. Except as noted, the LCS, batch blank, samples and sample duplicate (B1PFY4) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1P5M8) results are within contractual requirements.

**Gamma Spectroscopy**

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

U-238 using the Th-234 gamma photopeaks was detected in sample B1P8V4. The result was not downloaded. The sample and its duplicate had acceptable results with the differences being attributed to detector differences and background fluctuations. Except as noted, the LCS, batch blank, samples and sample duplicate (B1P5N5) results are within contractual requirements.

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

Sample B1P5R7 and its duplicate had weights that were slightly high. The RPD is 9.3%. Data is accepted. Except as noted, the LCS, batch blank, samples and sample duplicate (B1P5R7) results are within contractual requirements.

**Liquid Scintillation Counting**

Selenium-79 by method RICH-RC-5043:

The LCS, batch blank, samples and sample duplicate (B1P5N5) results are within contractual requirements.

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

The LCS, batch blank, samples, sample duplicate (B1P8V4), and sample matrix spike (B1P6B4) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1PF04) results are within contractual requirements.

Carbon-14 by method RICH-RC-5022:

The LCS, batch blank, samples and sample duplicate (B1P5M1) results are within contractual requirements.

**Total Uranium**

Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1P8V4), and sample matrix spike (B1P8V4) results are within contractual requirements.

**Chemical Analysis**

Total Coliform by method 9223

The LCS, batch blank, samples and sample duplicate (B1P975) results are within contractual requirements.

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

Reviewed and approved:



Sherryl A. Adam  
Project Manager

## Drinking Water Method Cross References

DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	Isotope(s)	STL Richland's SOP number
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 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,  $R = \text{constants} * f(x,y,z,\dots)$ . The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties ( $u_i$ ) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty ( $u_c$ ) multiplied by the coverage factor (1,2, or 3).

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

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

## Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation $(\text{Result}/\text{Expected})-1$ as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) <i>u<sub>c</sub> Combined Uncertainty.</i>	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, <i>u<sub>c</sub> the combined uncertainty</i> . The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin})) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$ . 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.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC/MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \text{Sqrt}((\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin}) + 2.71/\text{SCntMin}) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$ . For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the <b>Work Order</b> Number.
REK	The equation Replicate Error Ratio = $(S-D)/[\text{sqrt}(\text{TPUs}^2 + \text{TPUd}^2)]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

2/7/2008 9:11:38 AM

### TAL Richland Report

Lab Code: T ARL

FormNbr: R      FormatType: FEAD      Version: 05      Rpt Nbr: 37444      File Name: h:\Reportdb\edd\Fead\VRad\W05237.Edd, h:\Reportdb\edd\Fead\VRad\37444.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:				
9J7LDC10	B1PDB6		MW6-SBB-A1	A07-009	W05237					09/24/2007 10:59				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283506	I-129L	15046-84-1	6.41E-02	pCi/L	1.3E-01	1.3E-01	U	2.58E-01	96.5	I129LL_SEP_LEPS	3.9402E+00	L	11/07/2007 19:05	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:				
9J7LEX10	B1PF04		MW6-SBB-A1	I07-066	W05237					09/23/2007 10:54				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283508	H-3	10028-17-8	9.57E+03	pCi/L	3.5E+02	5.3E+02		3.23E+02	100.0	906.0_H3_LSC	5.00E-03	L	10/25/2007 08:40	I
7283510	ALPHA	12587-46-1	2.28E+00	pCi/L	1.1E+00	1.2E+00		1.29E+00	100.0	9310_ALPHABETA	1.516E-01	L	11/15/2007 15:27	I
7283516	BETA	12587-47-2	6.42E+00	pCi/L	1.8E+00	2.0E+00		2.93E+00	100.0	9310_ALPHABETA	2.004E-01	L	11/14/2007 11:39	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:				
9J7LJA10	B1PFV2		MW6-SBB-A1	S07-009	W05237					09/24/2007 12:57				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283510	ALPHA	12587-46-1	1.36E+00	pCi/L	1.1E+00	1.2E+00	U	1.82E+00	100.0	9310_ALPHABETA	1.221E-01	L	11/15/2007 15:27	I
7283516	BETA	12587-47-2	5.52E+01	pCi/L	3.8E+00	8.1E+00		3.05E+00	100.0	9310_ALPHABETA	1.885E-01	L	11/14/2007 11:39	I
7283521	C-14	14762-75-5	2.15E+00	pCi/L	3.6E+00	7.4E+00	U	8.55E+00	100.0	C14_LSC	2.00E-01	L	11/01/2007 02:18	I
7283522	BE-7	13966-02-4	-8.07E-01	pCi/L	2.0E+01	2.0E+01	U	3.64E+01		GAMMALL_GS	2.0003E+00	L	11/14/2007 06:24	I
7283522	CO-60	10198-40-0	2.08E+00	pCi/L	1.7E+00	1.7E+00	U	3.74E+00		GAMMALL_GS	2.0003E+00	L	11/14/2007 06:24	I
7283522	CS-134	13967-70-9	-7.09E-01	pCi/L	2.0E+00	2.0E+00	U	3.43E+00		GAMMALL_GS	2.0003E+00	L	11/14/2007 06:24	I
7283522	CS-137	10045-97-3	2.54E-01	pCi/L	1.7E+00	1.7E+00	U	3.14E+00		GAMMALL_GS	2.0003E+00	L	11/14/2007 06:24	I
7283522	EU-152	14683-23-9	2.54E-01	pCi/L	3.8E+00	3.8E+00	U	6.84E+00		GAMMALL_GS	2.0003E+00	L	11/14/2007 06:24	I
7283522	EU-154	15585-10-1	2.17E+00	pCi/L	4.5E+00	4.5E+00	U	9.10E+00		GAMMALL_GS	2.0003E+00	L	11/14/2007 06:24	I
7283522	EU-155	14391-16-3	9.04E-01	pCi/L	3.5E+00	3.5E+00	U	6.37E+00		GAMMALL_GS	2.0003E+00	L	11/14/2007 06:24	I
7283522	K-40	13966-00-2	3.52E+01	pCi/L	4.2E+01	4.2E+01	U	2.96E+01		GAMMALL_GS	2.0003E+00	L	11/14/2007 06:24	I
7283522	RU-106	13967-48-1	-2.20E-01	pCi/L	1.6E+01	1.6E+01	U	2.75E+01		GAMMALL_GS	2.0003E+00	L	11/14/2007 06:24	I
7283522	SB-125	14234-35-6	-1.70E+00	pCi/L	3.7E+00	3.7E+00	U	6.23E+00		GAMMALL_GS	2.0003E+00	L	11/14/2007 06:24	I
7283506	I-129L	15046-84-1	-1.49E-02	pCi/L	1.2E-01	1.2E-01	U	2.15E-01	102.7	I129LL_SEP_LEPS	3.9036E+00	L	11/07/2007 19:05	I
7283505	NP-237	13994-20-2	0.00E+00	pCi/L	9.3E-02	9.3E-02	U	2.18E-01	86.9	NP237_LLE_PLAT	2.0002E-01	L	11/02/2007 19:25	I
7283527	SR-90	10098-97-2	3.69E-02	pCi/L	2.5E-01	2.5E-01	U	5.34E-01	83.9	SRISO_SEP_PRE	1.00E+00	L	11/15/2007 07:06	I
7283519	TH-228	14274-82-9	0.00E+00	pCi/L	1.1E-01	1.1E-01	U	2.65E-01	71.0	THISO_IE_PRECIP	2.0002E-01	L	11/02/2007 15:21	I
7283519	TH-230	14269-63-7	9.59E-02	pCi/L	1.5E-01	1.5E-01	U	2.55E-01	71.0	THISO_IE_PRECIP	2.0002E-01	L	11/02/2007 15:21	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.

2/7/2008 9:17:58 AM

### TAL Richland Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      Version: 05      Rpt Nbr: 37444      File Name: h:\Reportdb\edd\Fead\Rad\W05237.Edd, h:\Reportdb\edd\Fead\Rad\37444.Edd

7283519	TH-232	7440-29-1	0.00E+00	pCi/L	1.1E-01	1.1E-01	U	2.55E-01	71.0	THISO_IE_PRECIP	2.0002E-01	L	11/02/2007	15:21	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>					
9J7LJA20	B1PFV2		MW6-SBB-A1	S07-009	W05237					09/24/2007 12:57					
<b>Batch</b>	<b>Analyte</b>	<b>CAS#</b>	<b>Result</b>	<b>Unit</b>	<b>CntU 2S</b>	<b>TotU 2S</b>	<b>Qual</b>	<b>MDA</b>	<b>TrcYield</b>	<b>Method</b>	<b>Alq Size</b>	<b>Unit</b>	<b>Analy Date/Time</b>	<b>Act</b>	
7312563	AM-241	14596-10-2	2.67E-01	pCi/L	2.2E-01	2.2E-01		2.13E-01	82.4	AMCMISO_EIE_PL	2.0072E-01	L	11/17/2007 12:48	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>					
9J7LJL10	B1PFV8		MW6-SBB-A1	S07-009	W05237					09/24/2007 14:42					
<b>Batch</b>	<b>Analyte</b>	<b>CAS#</b>	<b>Result</b>	<b>Unit</b>	<b>CntU 2S</b>	<b>TotU 2S</b>	<b>Qual</b>	<b>MDA</b>	<b>TrcYield</b>	<b>Method</b>	<b>Alq Size</b>	<b>Unit</b>	<b>Analy Date/Time</b>	<b>Act</b>	
7283510	ALPHA	12587-46-1	2.79E+00	pCi/L	1.4E+00	1.6E+00		1.67E+00	100.0	9310_ALPHABETA	1.162E-01	L	11/15/2007 15:27	I	
7283516	BETA	12587-47-2	1.43E+02	pCi/L	6.5E+00	2.0E+01		3.47E+00	100.0	9310_ALPHABETA	1.514E-01	L	11/14/2007 11:39	I	
7283521	C-14	14762-75-5	1.90E+00	pCi/L	3.6E+00	7.4E+00	U	8.55E+00	100.0	C14_LSC	2.00E-01	L	11/01/2007 03:00	I	
7283522	BE-7	13966-02-4	-6.56E+00	pCi/L	2.2E+01	2.2E+01	U	3.78E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I	
7283522	CO-60	10198-40-0	8.79E-01	pCi/L	2.0E+00	2.0E+00	U	3.92E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I	
7283522	CS-134	13967-70-9	1.06E-01	pCi/L	2.0E+00	2.0E+00	U	3.57E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I	
7283522	CS-137	10045-97-3	1.88E-01	pCi/L	1.6E+00	1.6E+00	U	2.95E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I	
7283522	EU-152	14683-23-9	3.86E+00	pCi/L	4.0E+00	4.0E+00	U	7.51E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I	
7283522	EU-154	15585-10-1	-3.19E+00	pCi/L	5.1E+00	5.1E+00	U	8.66E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I	
7283522	EU-155	14391-16-3	8.50E-01	pCi/L	3.0E+00	3.0E+00	U	5.34E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I	
7283522	K-40	13966-00-2	-5.24E+00	pCi/L	3.4E+01	3.4E+01	U	6.99E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I	
7283522	RU-106	13967-48-1	-9.32E+00	pCi/L	1.4E+01	1.4E+01	U	2.43E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I	
7283522	SB-125	14234-35-6	-1.20E+00	pCi/L	3.9E+00	3.9E+00	U	6.69E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I	
7283506	I-129L	15046-84-1	9.54E-02	pCi/L	1.3E-01	1.3E-01	U	2.61E-01	97.3	I129LL_SEP_LEPS	3.9356E+00	L	11/07/2007 19:06	I	
7283505	NP-237	13994-20-2	0.00E+00	pCi/L	9.8E-02	9.8E-02	U	2.30E-01	81.8	NP237_LLE_PLAT	2.0005E-01	L	11/02/2007 19:25	I	
7283527	SR-90	10098-97-2	2.67E-01	pCi/L	2.6E-01	2.6E-01	U	5.18E-01	83.5	SRISO_SEP_PRE	1.00E+00	L	11/15/2007 07:06	I	
7283519	TH-228	14274-82-9	2.89E-02	pCi/L	1.5E-01	1.5E-01	U	4.57E-01	80.4	THISO_IE_PRECIP	2.0004E-01	L	11/02/2007 15:21	I	
7283519	TH-230	14269-63-7	6.96E-02	pCi/L	1.4E-01	1.4E-01	U	3.33E-01	80.4	THISO_IE_PRECIP	2.0004E-01	L	11/02/2007 15:21	I	
7283519	TH-232	7440-29-1	0.00E+00	pCi/L	1.4E-01	1.4E-01	U	3.33E-01	80.4	THISO_IE_PRECIP	2.0004E-01	L	11/02/2007 15:21	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>					
9J7LJL20	B1PFV8		MW6-SBB-A1	S07-009	W05237					09/24/2007 14:42					
<b>Batch</b>	<b>Analyte</b>	<b>CAS#</b>	<b>Result</b>	<b>Unit</b>	<b>CntU 2S</b>	<b>TotU 2S</b>	<b>Qual</b>	<b>MDA</b>	<b>TrcYield</b>	<b>Method</b>	<b>Alq Size</b>	<b>Unit</b>	<b>Analy Date/Time</b>	<b>Act</b>	
7312563	AM-241	14596-10-2	-7.85E-03	pCi/L	8.0E-02	8.0E-02	U	1.88E-01	90.5	AMCMISO EIE PL	2.0053E-01	L	11/17/2007 12:49	I	

TAL Richland

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

2

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.

2/1/2008 9:17:38 AM

TAL Richland Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 37444 File Name: h:\Reportdb\edd\FeadIV\Rad\W05237 Edd, h:\Reportdb\edd\FeadIV\Rad\37444 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:				
9J7N9F10	B1PYL1		MW6-SBB-A1	I07-062	W05237					09/25/2007 08:24				
Batch:	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283506	I-129L	15046-84-1	1.55E-02	pCi/L	1.2E-01	1.2E-01	U	2.28E-01	96.8	I129LL_SEP_LEPS	3.9303E+00	L	11/07/2007 20:56	I
7283527	SR-90	10098-97-2	-2.09E-01	pCi/L	2.6E-01	2.6E-01	U	6.01E-01	80.0	SRISO_SEP_PRE	1.00E+00	L	11/15/2007 07:06	I
7283524	TC-99	14133-76-7	1.30E+02	pCi/L	7.4E+00	1.4E+01		1.01E+01	100.0	TC99_ETVDSK_LS	1.2501E-01	L	10/31/2007 18:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*	Distilled Volume	Sample On Date:	Collection Date:				
9J7PCT10	B1P5M8		MW6-SBB-A1	I07-061	W05237					09/25/2007 09:44				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283521	C-14	14762-75-5	-3.58E+00	pCi/L	3.4E+00	6.9E+00	U	8.55E+00	100.0	C14_LSC	2.00E-01	L	11/01/2007 03:42	I
7283522	BE-7	13966-02-4	-1.37E+01	pCi/L	2.1E+01	2.1E+01	U	3.48E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	CO-60	10198-40-0	-2.22E-01	pCi/L	1.5E+00	1.5E+00	U	2.66E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	CS-134	13967-70-9	1.14E+00	pCi/L	1.8E+00	1.8E+00	U	3.32E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	CS-137	10045-97-3	-1.21E+00	pCi/L	1.6E+00	1.6E+00	U	2.60E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	EU-152	14683-23-9	2.70E+00	pCi/L	3.9E+00	3.9E+00	U	6.91E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	EU-154	15585-10-1	-2.41E+00	pCi/L	4.9E+00	4.9E+00	U	8.30E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	EU-155	14391-16-3	-3.62E+00	pCi/L	4.3E+00	4.3E+00	U	6.97E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	K-40	13966-00-2	-2.70E+01	pCi/L	4.9E+01	4.9E+01	U	1.01E+02		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	RU-106	13967-48-1	-4.03E+00	pCi/L	1.4E+01	1.4E+01	U	2.48E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	SB-125	14234-35-6	3.55E+00	pCi/L	4.1E+00	4.1E+00	U	7.47E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283506	I-129L	15046-84-1	1.38E-01	pCi/L	1.5E-01	1.5E-01	U	2.74E-01	96.5	I129LL_SEP_LEPS	3.9193E+00	L	11/07/2007 20:56	I
7283505	NP-237	13994-20-2	-6.65E-03	pCi/L	6.8E-02	6.8E-02	U	1.59E-01	101.3	NP237_LLE_PLAT	2.0003E-01	L	11/02/2007 19:26	I
7283500	Se-79	15758-45-9	1.69E+01	pCi/L	1.2E+01	2.7E+01	U	2.79E+01	32.6	SE79_SEP_IE_LS	2.0002E-01	L	11/06/2007 22:27	I
7283527	SR-90	10098-97-2	2.64E-01	pCi/L	2.4E-01	2.5E-01	U	4.85E-01	84.1	SRISO_SEP_PRE	1.00E+00	L	11/15/2007 07:06	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*	Distilled Volume	Sample On Date:	Collection Date:				
9J7PJA10	B1PYJ1		MW6-SBB-A1	I07-043	W05237					09/25/2007 09:52				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283521	C-14	14762-75-5	-2.06E+00	pCi/L	3.5E+00	7.0E+00	U	8.55E+00	100.0	C14_LSC	2.00E-01	L	11/01/2007 04:25	I
7283522	BE-7	13966-02-4	5.89E+00	pCi/L	2.2E+01	2.2E+01	U	4.03E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	CO-60	10198-40-0	3.23E-01	pCi/L	1.6E+00	1.6E+00	U	3.22E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	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.

2/7/2008 9:17:58 AM

TAL Richland Report

Lab Code: TALR

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 37444 File Name: h:\Reportdb\edd\FeadIV\Rad\W05237.Edd, h:\Reportdb\edd\FeadIV\Rad\37444.Edd

7283522	CS-134	13967-70-9	-8.00E-01	pCi/L	1.5E+00	1.5E+00	U	2.59E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	CS-137	10045-97-3	3.57E-01	pCi/L	1.4E+00	1.4E+00	U	2.69E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	EU-152	14683-23-9	-3.35E+00	pCi/L	3.9E+00	3.9E+00	U	6.44E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	EU-154	15585-10-1	5.60E-01	pCi/L	5.0E+00	5.0E+00	U	9.62E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	EU-155	14391-16-3	-4.60E-01	pCi/L	3.2E+00	3.2E+00	U	5.47E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	K-40	13966-00-2	-3.27E+01	pCi/L	3.4E+01	3.4E+01	U	6.73E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	RU-106	13967-48-1	4.20E+00	pCi/L	1.5E+01	1.5E+01	U	2.72E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	SB-125	14234-35-6	-1.00E+00	pCi/L	4.0E+00	4.0E+00	U	6.87E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283506	I-129L	15046-84-1	4.81E-01	pCi/L	2.1E-01	2.1E-01	U	4.23E-01	97.0	I129LL_SEP_LEPS	3.9255E+00	L	11/07/2007 20:57	I
7283505	NP-237	13994-20-2	0.00E+00	pCi/L	9.3E-02	9.3E-02	U	2.18E-01	88.0	NP237_LLE_PLAT	2.00E-01	L	11/02/2007 19:26	I
7283500	Se-79	15758-45-9	2.99E+00	pCi/L	4.8E+00	1.1E+01	U	1.13E+01	80.6	SE79_SEP_IE_LS	2.0002E-01	L	11/06/2007 23:19	I
7283527	SR-90	10098-97-2	9.44E-02	pCi/L	2.3E-01	2.3E-01	U	4.85E-01	80.8	SRISO_SEP_PRE	1.0001E+00	L	11/15/2007 08:19	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:				
9J7PK810	B1PH06		MW6-SBB-A1	S07-009	W05237					09/26/2007 12:39				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283510	ALPHA	12587-46-1	1.11E+01	pCi/L	2.5E+00	3.6E+00		1.37E+00	100.0	9310_ALPHABETA	1.315E-01	L	11/15/2007 17:23	I
7283516	BETA	12587-47-2	2.02E+01	pCi/L	2.9E+00	3.8E+00		3.44E+00	100.0	9310_ALPHABETA	1.473E-01	L	11/14/2007 11:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*	Distilled Volume	Sample On Date:	Collection Date:				
9J7PKK10	B1P8V4		MW6-SBB-A1	W07-008	W05237					09/25/2007 10:03				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283522	BE-7	13966-02-4	4.19E+00	pCi/L	1.8E+01	1.8E+01	U	3.17E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	CO-60	10198-40-0	1.83E+01	pCi/L	3.8E+00	3.8E+00		2.18E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	CS-134	13967-70-9	-8.74E-01	pCi/L	1.7E+00	1.7E+00	U	2.81E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	CS-137	10045-97-3	5.63E-01	pCi/L	1.5E+00	1.5E+00	U	2.76E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	EU-152	14683-23-9	-4.92E-01	pCi/L	3.8E+00	3.8E+00	U	6.47E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	EU-154	15585-10-1	-1.21E+00	pCi/L	3.6E+00	3.6E+00	U	6.36E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	EU-155	14391-16-3	1.65E-01	pCi/L	3.5E+00	3.5E+00	U	6.10E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	K-40	13966-00-2	3.39E+01	pCi/L	2.7E+01	2.7E+01		2.37E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	RU-106	13967-48-1	-9.22E+00	pCi/L	1.3E+01	1.3E+01	U	2.09E+01		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283522	SB-125	14234-35-6	1.57E+00	pCi/L	3.4E+00	3.4E+00	U	6.19E+00		GAMMALL_GS	2.0002E+00	L	11/14/2007 06:25	I
7283524	TC-99	14133-76-7	8.53E+03	pCi/L	5.0E+01	5.2E+02		1.02E+01	100.0	TC99_ETVDSK_LS	1.2502E-01	L	10/31/2007 20:16	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.

2/7/2008 9:17.58 AM

TAL Richland Report

Lab Code: IARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 37444 File Name: h:\Reportdb\ledd\Fead\Rad\W05237 Edd. h:\Reportdb\ledd\Fead\Rad\37444 Edd

FormNbr	Client	Test User	Contract Nbr	SAF Nbr	Sdg Nbr	QC Type	Moisture/Solids%*	Distilled Volume	Sample On Date	Collection Date				
7283525	Uranium	7440-61-1	8.16E+02	ug/L	9.6E-01	9.6E+01	8.22E-02	UTOT_KPA	2.55E-02	ML 11/14/2007 08:40				
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr	QC Type	Moisture/Solids%*	Distilled Volume	Sample On Date	Collection Date				
917PKR10	B1P5P9		MW6-SBB-A1	I07-061	W05237					09/26/2007 10:42				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283506	I-129L	15046-84-1	-1.00E-01	pCi/L	1.3E-01	1.3E-01	U	2.14E-01	97.8	I129LL_SEP_LEPS	3.9355E+00	L	11/07/2007 22:53	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				
9J7PLC10	B1PH07		MW6-SBB-A1	S07-009	W05237					09/26/2007 07:30				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283510	ALPHA	12587-46-1	-1.01E-02	pCi/L	2.1E-01	2.1E-01	U	7.68E-01	100.0	9310_ALPHABETA	2.002E-01	L	11/14/2007 11:42	I
7283516	BETA	12587-47-2	1.06E+00	pCi/L	1.2E+00	1.2E+00	U	2.39E+00	100.0	9310_ALPHABETA	2.005E-01	L	11/14/2007 11:39	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr	QC Type	Moisture/Solids%*	Distilled Volume	Sample On Date	Collection Date				
9J7QP810	B1P5N5		MW6-SBB-A1	I07-061	W05237					09/26/2007 13:22				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283521	C-14	14762-75-5	-3.60E+00	pCi/L	3.4E+00	6.9E+00	U	8.55E+00	100.0	C14_LSC	2.00E-01	L	11/01/2007 05:07	I
7283522	BE-7	13966-02-4	-4.36E+00	pCi/L	1.4E+01	1.4E+01	U	2.36E+01		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:25	I
7283522	CO-60	10198-40-0	2.68E-01	pCi/L	1.2E+00	1.2E+00	U	2.31E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:25	I
7283522	CS-134	13967-70-9	-6.89E-01	pCi/L	1.0E+00	1.0E+00	U	1.70E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:25	I
7283522	CS-137	10045-97-3	7.67E-01	pCi/L	1.0E+00	1.0E+00	U	1.98E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:25	I
7283522	EU-152	14683-23-9	-2.80E+00	pCi/L	2.5E+00	2.5E+00	U	3.89E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:25	I
7283522	EU-154	15585-10-1	1.80E+00	pCi/L	3.5E+00	3.5E+00	U	6.82E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:25	I
7283522	EU-155	14391-16-3	-5.72E-01	pCi/L	2.2E+00	2.2E+00	U	3.86E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:25	I
7283522	K-40	13966-00-2	2.07E+01	pCi/L	2.9E+01	2.9E+01	U	2.58E+01		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:25	I
7283522	RU-106	13967-48-1	-2.00E+00	pCi/L	9.6E+00	9.6E+00	U	1.68E+01		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:25	I
7283522	SB-125	14234-35-6	-2.33E+00	pCi/L	2.5E+00	2.5E+00	U	4.04E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:25	I
7283506	I-129L	15046-84-1	-7.34E-02	pCi/L	1.4E-01	1.4E-01	U	2.35E-01	98.1	I129LL_SEP_LEPS	3.8902E+00	L	11/07/2007 22:54	I
7283505	NP-237	13994-20-2	-2.54E-02	pCi/L	8.9E-02	9.0E-02	U	2.67E-01	90.6	NP237_LLE_PLAT	2.0002E-01	L	11/02/2007 19:27	I
7283500	Se-79	15758-45-9	2.67E+00	pCi/L	4.7E+00	1.0E+01	U	1.10E+01	82.5	SE79_SEP_IE_LS	2.0004E-01	L	11/07/2007 00:11	I
7283527	SR-90	10098-97-2	1.70E-01	pCi/L	2.2E-01	2.2E-01	U	4.49E-01	76.8	SRISO_SEP_PRE	1.00E+00	L	11/15/2007 08:19	I

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

2/7/2008 9:17:58 AM

TAL Richland Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 37444 File Name: h:\Reportdb\edd\FeadIVRadW05237.Edd, h:\Reportdb\edd\FeadIVRad\37444.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
9J7QOK10	B1P5M1												09/26/2007 11:31	
283521	C-14	14762-75-5	1.21E+01	pCi/L	3.9E+00	8.4E+00		8.56E+00	100.0	C14_LSC	2.00E-01	L	11/01/2007 05:49	I
283522	BE-7	13966-02-4	-7.90E+00	pCi/L	2.5E+01	2.5E+01	U	4.19E+01		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:26	I
283522	CO-60	10198-40-0	-4.66E-01	pCi/L	1.5E+00	1.5E+00	U	2.69E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:26	I
283522	CS-134	13967-70-9	-3.19E-01	pCi/L	2.0E+00	2.0E+00	U	3.50E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:26	I
283522	CS-137	10045-97-3	1.25E-01	pCi/L	1.9E+00	1.9E+00	U	3.31E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:26	I
283522	EU-152	14683-23-9	7.72E-02	pCi/L	4.7E+00	4.7E+00	U	8.25E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:26	I
283522	EU-154	15585-10-1	1.55E+00	pCi/L	4.6E+00	4.6E+00	U	9.06E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:26	I
283522	EU-155	14391-16-3	-4.96E-01	pCi/L	3.7E+00	3.7E+00	U	6.26E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:26	I
283522	K-40	13966-00-2	-4.66E+01	pCi/L	4.9E+01	4.9E+01	U	9.80E+01		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:26	I
283522	RU-106	13967-48-1	-4.71E+00	pCi/L	1.7E+01	1.7E+01	U	2.93E+01		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:26	I
283522	SB-125	14234-35-6	-1.96E+00	pCi/L	4.7E+00	4.7E+00	U	7.88E+00		GAMMALL_GS	2.0004E+00	L	11/14/2007 06:26	I
283506	I-129L	15046-84-1	1.79E+00	pCi/L	3.8E-01	3.8E-01		1.89E-01	103.8	I129LL_SEP_LEPS	3.9262E+00	L	11/07/2007 22:54	I
283505	NP-237	13994-20-2	0.00E+00	pCi/L	9.4E-02	9.4E-02	U	2.22E-01	84.9	NP237_LLE_PLAT	2.0002E-01	L	11/02/2007 19:28	I
283500	Se-79	15758-45-9	7.31E+00	pCi/L	4.7E+00	1.1E+01	U	1.08E+01	84.5	SE79_SEP_IE_LS	2.0001E-01	L	11/07/2007 01:56	I
283527	SR-90	10098-97-2	2.48E-01	pCi/L	1.9E-01	2.1E-01	U	4.04E-01	79.6	SRISO_SEP_PRE	1.00E+00	L	11/15/2007 08:19	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:				
9J7TDF10	B1PH12		MW6-SBB-A1	S07-009	W05237					09/27/2007 10:18				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
283510	ALPHA	12587-46-1	4.46E+00	pCi/L	1.6E+00	1.9E+00		1.45E+00	100.0	9310_ALPHABETA	1.47E-01	L	11/15/2007 17:23	I
283516	BETA	12587-47-2	6.95E+01	pCi/L	4.6E+00	1.1E+01		3.61E+00	100.0	9310_ALPHABETA	1.514E-01	L	11/14/2007 11:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*	Distilled Volume	Sample On Date:	Collection Date:				
9J7TPK10	B1PFX0		MW6-SBB-A1	S07-009	W05237					09/27/2007 11:45				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
283516	BETA	12587-47-2	1.97E+01	pCi/L	3.2E+00	4.0E+00		4.23E+00	100.0	9310_ALPHABETA	1.266E-01	L	11/14/2007 11:39	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*	Distilled Volume	Sample On Date:	Collection Date:				
9J7TPK20	B1PFX0		MW6-SBB-A1	S07-009	W05237					09/27/2007 11:45				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
283510	ALPHA	12587-46-1	1.18E+01	pCi/L	2.9E+00	4.0E+00		2.07E+00	100.0	9310_ALPHABETA	1.045E-01	L	11/20/2007 07:46	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.

2/7/2008 9:17:38 AM

TAL Richland Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      Version: 05      Rpt Nbr: 37444      File Name: h:\Reportdb\eddi\FeacIV\Rad\W05237.Edd, h:\Reportdb\eddi\FeadIV\Rad\37444.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:				
9J7TPM10	B1PFY4		MW6-SBB-A1	S07-009	W05237					09/27/2007 12:44				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283510	Alpha	12587-46-1	6.47E+00	pCi/L	1.8E+00	2.3E+00		1.19E+00	100.0	9310_ALPHABETA	1.429E-01	L	11/15/2007 19:25	I
7283516	BETA	12587-47-2	1.27E+01	pCi/L	2.0E+00	2.6E+00		2.65E+00	100.0	9310_ALPHABETA	2.006E-01	L	11/14/2007 11:39	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J7TQX10	B1P5R7		MW6-SBB-A1	I07-061	W05237					09/27/2007 13:41				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283506	I-129L	15046-84-1	3.49E+00	pCi/L	5.8E-01	5.8E-01		2.71E-01	108.1	I129LL_SEP_LEPS	3.8975E+00	L	11/08/2007 05:17	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9J7TRG10	B1P5T4		MW6-SBB-A1	I07-061	W05237					09/27/2007 12:20				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
7283506	I-129L	15046-84-1	6.57E-01	pCi/L	2.3E-01	2.3E-01	U	4.27E-01	97.0	I129LL_SEP_LEPS	3.9396E+00	L	11/08/2007 05:18	I

Thursday, February 07, 2008

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05237.Edd, h:\Reportdb\edd\FeadIV\Rad\37444 Edd

Lab Sample Id: J8MH61AB

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/26/2007 13:22

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/26/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F Suffix	R Typ					
	MW6-SBB-A19981								BK	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283500 BLK	Se-79 15758-45-9	5.85E+00	pCi/L	1.0E+01 4.6E+00	U	1.07E+01	84.7		SE79_SEP_IE	2.0003E-01 L	11/07/2007 02:49				D

Thursday, February 07, 2008

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05237.Edd, h:\Reportdb\edd\FeadIV\Rad\37444.Edd

Lab Sample Id: J8MJR1AB      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/26/2007 13:22  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BLK      Received Date: 09/26/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BL	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283505 BLK	NP-237 13994-20-2	5.23E-02	pCi/L	1.1E-01 1.1E-01	U	2.50E-01	75.6		NP237_LLE_P	2.00E-01	11/02/2007 23:08				D

Thursday, February 07, 2008

# TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05237.Edd, h:\Reportdb\edd\Fead\VRad\37444.Edd

Lab Sample Id: J8MJX1AB

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/27/2007 13:41

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/27/2007

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283506 BLK	I-129L 15046-84-1	3.19E-02	pCi/L	1.6E-01 1.6E-01	U	2.82E-01	94.3		I129LL_SEP_L	3.982E+00 L	11/08/2007 07:13				D

Thursday, February 07, 2008

# TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05237 Edd. h:\Reportdb\edd\FeadIV\Rad\37444 Edd

Lab Sample Id: J8MK12AB

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/24/2007 14:42

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/24/2007

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
7312563 BLK	AM-241 14596-10-2	5.45E-02	pCi/L	9.9E-02 9.8E-02	U	1.92E-01	91.5		AMCMISO_EIE	2.0054E-01 L	11/17/2007 12:49				D

Thursday, February 07, 2008

# TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05237.Edd h:\Reportdb\edd\Fead\Rad\37444.Edd

Lab Sample Id: J8MK51AB

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/24/2007 12:57

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	F-Suffix	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
7283519 BLK	TH-228 14274-82-9	-1.20E-01	pCi/L	1.9E-01 1.9E-01	U	7.04E-01	66.0		THISO_IE_PR	2.0002E-01 L	11/02/2007 18:59				D
7283519 BLK	TH-230 14269-63-7	-3.30E-02	pCi/L	1.7E-01 1.7E-01	U	4.66E-01	66.0		THISO_IE_PR	2.0002E-01 L	11/02/2007 18:59				D
7283519 BLK	TH-232 7440-29-1	0.00E+00	pCi/L	1.7E-01 1.7E-01	U	3.95E-01	66.0		THISO_IE_PR	2.0002E-01 L	11/02/2007 18:59				D

Thursday, February 07, 2008

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05237.Edd, h:\Reportdb\edd\Fead\VRad\37444.Edd

Lab Sample Id: J8MK71AB

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/26/2007 11:31

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/26/2007

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	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
7283521	C-14	-1.70E+00	pCi/L	7.0E+00	U	8.56E+00	100.0		C14_LSC	2.00E-01	11/01/2007				D
<b>BLK</b>	14762-75-5			3.5E+00						L	00:53				

Thursday, February 07, 2008

### TAL Richland QC Blank Report

Lab Code: TAL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I:\Rad\W05237.Edd. h:\Reportdb\edd\Fead\I:\Rad\37444.Edd

Lab Sample Id: J8MK91AB

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/26/2007 13:22

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/26/2007

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	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
7283522 BLK	BE-7 13966-02-4	5.32E+00	pCi/L	1.8E+01 1.8E+01	U	3.29E+01			GAMMALL_GS	2.0002E+00 L	11/14/2007 09:54				D
7283522 BLK	CO-60 10198-40-0	8.77E-02	pCi/L	1.1E+00 1.1E+00	U	2.11E+00			GAMMALL_GS	2.0002E+00 L	11/14/2007 09:54				D
7283522 BLK	CS-134 13967-70-9	-5.30E-01	pCi/L	1.3E+00 1.3E+00	U	2.23E+00			GAMMALL_GS	2.0002E+00 L	11/14/2007 09:54				D
7283522 BLK	CS-137 10045-97-3	-1.24E+00	pCi/L	1.3E+00 1.3E+00	U	2.13E+00			GAMMALL_GS	2.0002E+00 L	11/14/2007 09:54				D
7283522 BLK	EU-152 14683-23-9	1.01E-01	pCi/L	3.4E+00 3.4E+00	U	6.03E+00			GAMMALL_GS	2.0002E+00 L	11/14/2007 09:54				D
7283522 BLK	EU-154 15585-10-1	1.59E-02	pCi/L	3.9E+00 3.9E+00	U	7.08E+00			GAMMALL_GS	2.0002E+00 L	11/14/2007 09:54				D
7283522 BLK	EU-155 14391-16-3	-1.09E-01	pCi/L	3.0E+00 3.0E+00	U	5.20E+00			GAMMALL_GS	2.0002E+00 L	11/14/2007 09:54				D
7283522 BLK	K-40 13966-00-2	3.64E+01	pCi/L	2.5E+01 2.5E+01		2.18E+01			GAMMALL_GS	2.0002E+00 L	11/14/2007 09:54				D
7283522 BLK	RU-106 13967-48-1	-7.53E+00	pCi/L	1.3E+01 1.3E+01	U	2.17E+01			GAMMALL_GS	2.0002E+00 L	11/14/2007 09:54				D
7283522 BLK	SB-125 14234-35-6	-1.71E+00	pCi/L	3.4E+00 3.4E+00	U	5.72E+00			GAMMALL_GS	2.0002E+00 L	11/14/2007 09:54				D

Thursday, February 07, 2008

TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\FeadIV\Rad\W05237.Edd, h:\Reportdb\ledd\FeadIV\Rad\37444.Edd

Lab Sample Id: J8MKG1AB

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/23/2007 10:54

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/24/2007

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
7283508 BLK	H-3 10028-17-8	-5.18E+01	pCi/L	1.5E+02 1.3E+02	U	3.22E+02	100.0		906.0_H3_LSC	5.00E-03 L	10/25/2007 03:11				D

Thursday, February 07, 2008

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05237.Edd, h:\Reportdb\edd\FeadIV\Rad\37444.Edd

Lab Sample Id: J8MKG1DX

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/23/2007 10:54

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/24/2007

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	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
7283508 BLK	H-3 10028-17-8	5.74E+01	pCi/L	1.5E+02 1.4E+02	U	3.30E+02	100.0		906.0_H3_LSC	5.00E-03 L	10/25/2007 05:55				D

Thursday, February 07, 2008

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\FeadIV\Rad\W05237 Edd, h:\Reportdb\ledd\FeadIV\Rad\37444 Edd

Lab Sample Id: J8MKJ1AB

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/27/2007 11:45

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/27/2007

SAF Nbr	Contract Nbr	Tcst Usgr	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
7283510 BLK	Alpha 12587-46-1	-8.46E-02	pCi/L	1.8E-01 1.7E-01	U	6.10E-01	100.0		9310_ALPHAB	2.002E-01 L	11/15/2007 19:25				D

Thursday, February 01, 2008

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05237.Edd, h:\Reportdb\edd\FeadIV\Rad\37444.Fdd

Lab Sample Id: J8MKM1AB      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/27/2007 12:44  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%?:      QC Type: BLK      Received Date: 09/27/2007

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
7283516 BLK	BETA 12587-47-2	2.02E+00	pCi/L	1.2E+00 1.2E+00	U	2.28E+00	100.0		9310_ALPHAB	2.001E-01 L	11/14/2007 11:39				D

Thursday, February 07, 2008

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\IVRad\W05237.Edd, h:\Reportdb\edd\Fead\IVRad\37444.Edd

Lab Sample Id: J8MLC1AB      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/25/2007 10:03  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BLK      Received Date: 09/25/2007

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/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283524 BLK	TC-99 14133-76-7	3.38E+00	pCi/L	6.2E+00 4.3E+00	U	1.02E+01	100.0		TC99_ETVDSK	1.2506E-01 L	10/31/2007 22:21				D

Thursday, February 07, 2008

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\IV\Rad\W05237 Edd. h:\Reportdb\edd\Fead\IV\Rad\37444 Edd

Lab Sample Id: J8MLD1AB

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/25/2007 10:03

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/25/2007

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	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
7283525 BLK	Uranium 7440-61-1	6.50E-03	ug/L	7.9E-04 7.9E-04	U	8.38E-02			UTOT_KPA	2.50E-02 ML	11/14/2007 08:30				D

Thursday, February 01, 2008

### TAL Richland QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\IV\Rad\W05237 Edd, h:\Reportdb\edd\Fead\IV\Rad\37444 Edd

Lab Sample Id: J8iMLG1AB

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/25/2007 09:44

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BLK

Received Date: 09/25/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CK	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
7283527 BLK	SR-90 10098-97-2	-7.20E-03	pCi/L	2.0E-01 9.0E-02	U	4.52E-01	71.8		SRISO_SEP_P	1.00E+00 L	11/15/2007 08:14				D

Thursday, February 07, 2008

### TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIVRad\W05237.Edd. h:\Reportdb\edd\FeadIVRad\37444.Edd

Lab Sample Id: J8MJR1CS      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/26/2007 13:22  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BS      Received Date: 09/26/2007

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	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
7283505 BS	NP-237 13994-20-2	9.27E+00	pCi/L	2.0E+00 1.3E+00		2.33E-01	81.0	9.12E+00 101.6	NP237_LLE_P	2.0005E-01 L	11/02/2007 23:09			70 130	D

Thursday, January 07, 2008

## TAL Richland QC Control Sample Report

Lab Code: TARKL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05237.Edd. h:\Reportdb\edd\FeadIV\Rad\37444 Edd

Lab Sample Id: J8MJX1CS	Sdg/Rept Nbr: W05237      37444	Collection Date: 09/27/2007 13:41
Client Id: NA	Matrix: WATER      WATER	Sample On Date:
Moisture/Solids%*:	QC Type: BS	Received Date: 09/27/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BO	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283506 BS	I-129L 15046-84-1	8.65E+00	pCi/L	1.2E+00 1.2E+00		5.28E-01	93.7	9.60E+00 90.1	I129LL_SEP_L	3.9768E+00 L	11/08/2007 07:14			70 130	D

Thursday, February 01, 2008

## TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddi\Fead\Rad\W05237.Edd h:\Reportdb\eddi\Fead\Rad\37444.Edd

Lab Sample Id: J8iMK12CS

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/24/2007 14.42

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 09/24/2007

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 Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7312563 BS	AM-241 14596-10-2	2.36E+01	pCi/L	4.5E+00 2.0E+00		2.04E-01	90.0	2.28E+01 103.4	AMCMISO_EIE	2.0022E-01 L	11/17/2007 12:50			70 130	D

Thursday, February 07, 2008

TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\Rad\W05237.Edd, h:\Reportdb\edd\Fead\Rad\37444.Edd

Lab Sample Id: J8MK51CS      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/24/2007 12:57  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BS      Received Date: 09/24/2007

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	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
7283519 BS	TH-230 14269-63-7	1.02E+01	pCi/L	2.4E+00 1.8E+00		3.64E-01	73.7	1.15E+01 88.4	THISO_IE_PR	2.0002E-01 L	11/02/2007 19:00			70 130	D

Thursday, February 07, 2008

### TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\Rad\W05237.Edd h:\Reportdb\edd\Fead\Rad\37444.Edd

Lab Sample Id: J8MK71CS      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/26/2007 11:31  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BS      Received Date: 09/26/2007

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	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
7283521 BS	C-14 14762-75-5	4.23E+01	pCi/L	1.1E+01 4.8E+00		8.58E+00	100.0	4.53E+01 93.4	C14_LSC	2.00E-01 L	11/01/2007 01:35			70 130	D

Thursday, February 07, 2008

### TAL Richland QC Control Sample Report

Lab Code: TARKL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05237 Edd. h:\Reportdb\edd\FeadIV\Rad\37444.Edd

Lab Sample Id: J8MK91CS      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/26/2007 13:22  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BS      Received Date: 09/26/2007

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	Qual MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283522 BS	CO-60 10198-40-0	4.41E+01	pCi/L	8.2E+00 8.2E+00	2.08E+00		3.76E+01 117.4	GAMMALL_GS	2.0001E+00 L	11/14/2007 09:54			70 130	D
7283522 BS	CS-137 10045-97-3	5.68E+01	pCi/L	8.5E+00 8.5E+00	3.47E+00		4.94E+01 115.1	GAMMALL_GS	2.0001E+00 L	11/14/2007 09:54			70 130	D
7283522 BS	EU-152 14683-23-9	8.46E+01	pCi/L	1.9E+01 1.9E+01	7.87E+00		7.62E+01 111.0	GAMMALL_GS	2.0001E+00 L	11/14/2007 09:54			70 130	D

## AMENDED DATA

Amesbury, Vermont 05743

# TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05237.Edd. h:\Reportdb\edd\Fead\Rad\37444.Edd

Lab Sample Id: J8MKG1CS

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/23/2007 10:54

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 09/24/2007

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	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283508 BS	H-3 10028-17-8	2.63E+03	pCi/L	2.6E+02 2.1E+02		3.21E+02	100.0	2.72E+03 96.9	906.0_H3_LSC	5.00E-03 L	10/25/2007 04:33			70 130	D

Thursday, February 01, 2008

### TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\IV\Rad\W05237.Edd, h:\Reportdb\edd\Fead\IV\Rad\37444.Edd

Lab Sample Id: J8MKG1EM

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/23/2007 10:54

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 09/24/2007

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	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
7283508 BS	H-3 10028-17-8	2.76E+03	pCi/L	2.7E+02 2.2E+02		3.24E+02	100.0	2.72E+03 101.4	906.0_H3_LSC	5.00E-03 L	10/25/2007 07:18			70 130	D

Thursday, February 07, 2008

### TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\1\Rad\W05237 Edd. h:\Reportdb\edd\Fead\1\Rad\37444 Edd

Lab Sample Id: J8MKJ1CS      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/27/2007 11:45  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BS      Received Date: 09/27/2007

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	Qual MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283510 BS	Alpha 12587-46-1	2.07E+01	pCi/L	5.2E+00 2.1E+00	6.18E-01	100.0	2.27E+01 91.3	9310_ALPHAB	2.001E-01 L	11/15/2007 19:25			70 130	D

Thursday, February 01, 2008

### TAL Richland QC Control Sample Report

Lab Code: TARI

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\I\Rad\W05237 Edd h:\Reportdb\edd\Fead\I\Rad\37444 Edd

Lab Sample Id: J8M1KM1CS      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/27/2007 12:44  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BS      Received Date: 09/27/2007

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	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
7283516 BS	BETA 12587-47-2	2.08E+01	pCi/L	3.5E+00 2.4E+00		2.78E+00	100.0	2.25E+01 92.2	9310_ALPHAB	2.002E-01 L	11/14/2007 11:39			70 130	D

Thursday, February 07, 2008

### TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05237.Edd, h:\Reportdb\edd\Fead\I\Rad\37444.Edd

Lab Sample Id: J8MLC1CS

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/25/2007 10:03

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 09/25/2007

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	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283524 BS	TC-99 14133-76-7	3.10E+03	pCi/L	1.9E+02 3.0E+01		1.02E+01	100.0	3.60E+03 86.2	TC99_ETVDSK	1.2503E-01 L	10/31/2007 23:23			70 130	D

Thursday, January 07, 2008

TAL Richland QC Control Sample Report

Lab Code: TARR

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05237.Edd, h:\Reportdb\edd\FeadIV\Rad\37444 Edd

Lab Sample Id: J8MLD1CS

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/25/2007 10:03

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 09/25/2007

SAF Nbr	Contract Nbr	Test Use1	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CI	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
7283525 BS	Uranium 7440-61-1	3.49E+01	ug/L	4.1E+00 4.1E+00		8.19E-02		3.55E+01 98.3	UTOT_KPA	2.56E-02 ML	11/14/2007 08:34			70 130	D

Thursday, February 07, 2008

# TAL Richland QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05237.Edd, h:\Reportdb\edd\Fead\I\Rad\37444 Edd

Lab Sample Id: J8MLD1DS

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/25/2007 10:03

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: BS

Received Date: 09/25/2007

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283525 BS	Uranium 7440-61-1	3.59E+00	ug/L	3.7E-01 3.7E-01		8.32E-02		3.57E+00 100.5	UTOT_KPA	2.52E-02 ML	11/14/2007 08:36			70 130	D

Thursday, February 07, 2008

### TAL Richland QC Control Sample Report

Lab Code: TARRL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\IV\Rad\W05237.Edd, h:\Reportdb\edd\Fead\IV\Rad\37444.Edd

Lab Sample Id: J8MLG1CS      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/25/2007 09:44  
 Client Id: NA      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: BS      Received Date: 09/25/2007

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	Qual MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283527 BS	SR-90 10098-97-2	1.54E+01	pCi/L	2.4E+00 8.6E-01	4.15E-01	74.5	1.38E+01 112.1	SRISO_SEP_P	1.00E+00 L	11/15/2007 08:14			70 130	D

Thursday, February 07, 2008

### TAL Richland QC Duplicate Report

Lab Code: TAKL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\IVRad\W05237 Edd, h:\Reportdb\edd\Fead\IVRad\37444 Edd

Lab Sample Id: J7LEX1ER

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/23/2007 10:54

Client Id: B1PF04

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 09/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
107-066	MW6-SBB-A19981								AV	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283508	H-3	9.51E+03	pCi/L	5.3E+02		3.22E+02	100.0		906.0_H3_LSC	5.00E-03	10/25/2007	.5	0.1		D
DUP	10028-17-8	9.57E+03		3.5E+02						L	10:02	20.0	3		

Thursday, February 07, 2008

### TAL Richland QC Duplicate Report

Lab Code: TAIL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FcadIV\Rad\W05237 Edd h:\Reportdb\edd\FeadIV\Rad\37444 Edd

Lab Sample Id: J7LJA1LR

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/24/2007 12:57

Client Id: B1PFV2

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 09/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S07-009	MW6-SBB-A19981								AW	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283519 DUP	TH-228 14274-82-9	-9.83E-02 0.00E+00	pCi/L	1.6E-01 1.6E-01	U	5.77E-01	80.6		THISO_IE_PR	2.0005E-01 L	11/02/2007 15:21	0.0 3	0.9 3		D
7283519 DUP	TH-230 14269-63-7	-2.70E-02 9.59E-02	pCi/L	1.4E-01 1.4E-01	U	3.82E-01	80.6		THISO_IE_PR	2.0005E-01 L	11/02/2007 15:21	357.1 20.0	1.2 3		D
7283519 DUP	TH-232 7440-29-1	6.75E-02 0.00E+00	pCi/L	1.4E-01 1.4E-01	U	3.23E-01	80.6		THISO_IE_PR	2.0005E-01 L	11/02/2007 15:21	200.0 3	0.7 3		D

Thursday, February 07, 2008

### TAL Richland QC Duplicate Report

Lab Code: TARI

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Report\bled\Fead\IV\Rad\W05237 Edd. h:\Report\bled\Fead\IV\Rad\37444.Edd

Lab Sample Id: J7LJL2LR      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/24/2007 14:42  
 Client Id: B1PFV8      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: DUP      Received Date: 09/24/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Uecant	Distilled Volume	File Id	FSuffix	RTyp
S07-009	MW6-SBB-A19981								AX	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
7312563 DUP	AM-241 14596-10-2	0.00E+00 -7.85E-03	pCi/L	8.5E-02 8.5E-02	U	2.01E-01	88.2		AMCMISO_EIE	2.0083E-01 L	11/17/2007 12:49	0.0 20.0	0.1 3		D



Thursday, February 07, 2008

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05237.Edd h:\Reportdb\edd\FeadIV\Rad\37444.Edd

Lab Sample Id: J7PKK1ER

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/25/2007 10:03

Client Id: B1P8V4

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 09/25/2007

SAF Nbr	Contract Nbr	Test Use	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	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
7283524	TC-99	7.96E+03	pCi/L	4.8E+02		1.02E+01	100.0		TC99_ETVDSK	1.2504E-01	10/31/2007	6.9	1.7		D
DUP	14133-76-7	8.53E+03		4.8E+01						L	21:18	20.0	3		

Thursday, February 07, 2008

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\I\Rad\W05237.Edd h:\Reportdb\edd\Fead\I\Rad\37444.Edd

Lab Sample Id: J7PKK1GR      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/25/2007 10:03  
 Client Id: B1P8V4      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: DUP      Received Date: 09/25/2007

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

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
7283525 DUP	Uranium 7440-61-1	8.06E+02 8.16E+02	ug/L	9.5E+01 9.5E+01		8.25E-02			UTOT_KPA	2.54E-02 ML	11/14/2007 09:03	1.2 20.0	0.1 3		D



Tuesday, February 07, 2006

**TAL Richland QC Duplicate Report**

Lab Code: TARE

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05237 Edd h:\Reportdb\edd\FeadIV\Rad\37444 F.rpt

Lab Sample Id: J7QP81JR      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/26/2007 13:22  
 Client Id: B1P5N5      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: DUP      Received Date: 09/26/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
107-061	MW6-SBB-A19981								BE	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
7283505	NP-237	0.00E+00	pCi/L	1.4E-01	U	3.25E-01	71.5		NP237_LLE_P	2.0002E-01	11/02/2007	0.0	0.3		D
DUP	13994-20-2	-2.54E-02		1.4E-01						L	19:27	20.0	3		

Thursday, February 8, 2008

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05237.Edd h:\Reportdb\edd\FeadIV\Rad\37444.Edd

Lab Sample Id: J7QP81KR

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/26/2007 13:22

Client Id: B1P5N5

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 09/26/2007

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
7283522	BE-7	1.26E+01	pCi/L	3.2E+01	U	5.65E+01			GAMMALL_GS	1.9256E+00	11/14/2007	412.3	0.8		D
DUP	13966-02-4	-4.36E+00		3.2E+01						L	06:26	20.0	3		
7283522	CO-60	-5.57E-01	pCi/L	2.2E+00	U	3.93E+00			GAMMALL_GS	1.9256E+00	11/14/2007	0.0	0.5		D
DUP	10198-40-0	2.68E-01		2.2E+00						L	06:26	20.0	3		
7283522	CS-134	1.88E-01	pCi/L	2.2E+00	U	3.95E+00			GAMMALL_GS	1.9256E+00	11/14/2007	0.0	0.6		D
DUP	13967-70-9	-6.89E-01		2.2E+00						L	06:26	20.0	3		
7283522	CS-137	3.61E+00	pCi/L	2.2E+00	U	4.32E+00			GAMMALL_GS	1.9256E+00	11/14/2007	129.8	1.8		D
DUP	10045-97-3	7.67E-01		2.2E+00						L	06:26	20.0	3		
7283522	EU-152	2.42E-02	pCi/L	5.5E+00	U	9.57E+00			GAMMALL_GS	1.9256E+00	11/14/2007	0.0	0.7		D
DUP	14683-23-9	-2.80E+00		5.5E+00						L	06:26	20.0	3		
7283522	EU-154	2.62E+00	pCi/L	6.1E+00	U	1.16E+01			GAMMALL_GS	1.9256E+00	11/14/2007	36.9	0.2		D
DUP	15585-10-1	1.80E+00		6.1E+00						L	06:26	20.0	3		
7283522	EU-155	-2.33E+00	pCi/L	4.2E+00	U	6.92E+00			GAMMALL_GS	1.9256E+00	11/14/2007	0.0	0.6		D
DUP	14391-16-3	-5.72E-01		4.2E+00						L	06:26	20.0	3		
7283522	K-40	1.58E+02	pCi/L	5.8E+01		3.77E+01			GAMMALL_GS	1.9256E+00	11/14/2007	153.7	3.4		D
DUP	13966-00-2	2.07E+01		5.8E+01						L	06:26	20.0	3		
7283522	RU-106	4.06E-01	pCi/L	2.0E+01	U	3.57E+01			GAMMALL_GS	1.9256E+00	11/14/2007	0.0	0.2		D
DUP	13967-48-1	-2.00E+00		2.0E+01						L	06:26	20.0	3		
7283522	SB-125	4.49E+00	pCi/L	5.6E+00	U	1.03E+01			GAMMALL_GS	1.9256E+00	11/14/2007	630.6	1.7		D
DUP	14234-35-6	-2.33E+00		5.6E+00						L	06:26	20.0	3		

Thursday, February 07, 2008

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W05237.Edd, h:\Reportdb\edd\Fead\I\Rad\37444.Edd

Lab Sample Id: J7QQK1HR

Sdg/Rept Nbr: W05237 37444

Collection Date: 09/26/2007 11:31

Client Id: B1P5M1

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%\*:

QC Type: DUP

Received Date: 09/26/2007

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
I07-061	MW6-SBB-A19981								BG	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual al	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283521	C-14	9.17E+00	pCi/L	8.1E+00		8.57E+00	100.0		C14_LSC	2.00E-01	11/01/2007	27.7	0.5		D
DUP	14762-75-5	1.21E+01		3.8E+00						L	06:32	20.0	3		

Thursday, February 07, 2008

# TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R      FormatType: FFAD      VersionNbr: 05      File Name: h:\Reportdb\edd\FeadIV\Rad\W05237.Edd, h:\Reportdb\edd\FeadIV\Rad\37444 Fdd

Lab Sample Id: J7TPK2DR      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/27/2007 11:45  
 Client Id: B1PFX0      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: DUP      Received Date: 09/27/2007

SAT Nbr      Contract Nbr      Test User      Case Nbr      SAS Nbr      Suffix      Decant      Distilled Volume      File Id      FSuffix      R Typ  
 S07-009      MW6-SBB-A19981                                                   BH      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
7283510	ALPHA	1.10E+01	pCi/L	3.8E+00		1.91E+00	100.0		9310_ALPHAB	1.041E-01	11/20/2007	6.4	0.3		D
DUP	12587-46-1	1.18E+01		2.8E+00						L	07:46	20.0	3		

Thursday, February 07, 2008

### TAL Richland QC Duplicate Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\ledd\Fead\IV\Rad\W05237.Edd, h:\Reportdb\ledd\Fead\IV\Rad\37444.Edd

Lab Sample Id: J71PM1DR      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/27/2007 12:44  
 Client Id: B1PFY4      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: DUP      Received Date: 09/27/2007

SAF Nbr      Contract Nbr      Test User      Case Nbr      SAS Nbr      Suffix      Decant      Distilled Volume      File Id      FSuffix      RTyp  
 S07-009      MW6-SBB-A19981                                                   BI      H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
7283516 DUP	BETA 12587-47-2	1.28E+01 1.27E+01	pCi/L	2.7E+00 2.1E+00		2.88E+00	100.0		9310_ALPHAB	2.001E-01 L	11/14/2007 11:39	1.2 20.0	0.1 3		D





Thursday, February 07, 2008

### TAL Richland Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R      FormatType: FEAD      VersionNbr: 05      File Name: h:\Reportdb\edd\Fead\Rad\W05237 Edd, h:\Reportdb\edd\Fead\Rad\37444 Fdd

Lab Sample Id: J7PKK1FW      Sdg/Rept Nbr: W05237      37444      Collection Date: 09/25/2007 10:03  
 Client Id: B1P8V4      Matrix: WATER      WATER      Sample On Date:  
 Moisture/Solids%\*:      QC Type: MS      Received Date: 09/25/2007

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	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
7283525 MS	Uranium 7440-61-1	6.74E+01	ug/L	1.4E+02 1.4E+02	U	8.35E-02		3.63E+01 185.7	UTOT_KPA	2.51E-02	11/14/2007 08:58			60 140	D

RQC050

Severn Trent Laboratories, Inc.  
WET CHEM BATCHSHEET

Run Date: 10/31/07  
Time: 11:23:59

TestAmerica Richland

PRODUCTION FIGURES - WET CHEM

TOTAL NUMBER	SAMPLE NUMBER	QC	RE-RUN MATRIX	RE-RUN OTHER	MISC NUMBER	TOTAL HOURS	EXPANDED DELIVERABLE
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METHOD: IZ COLIFORM BY METHOD 9223  
 QC BATCH #: 7283503  
 PREP DATE: 10/10/07  
 COMP DATE: 10/10/07  
 USER: RICEL

INITIALS:  
 PREP DM  
 ANAL ↓

DATA ENTRY:  
 INITIALS SAA  
 DATE 11-21-07

Work Order	Lab Number	Structured Analysis	Exp. Del.	Analysis Date	Sample ID:
J7K5C-1-AA	J-7I250211-001	XX I 88 IZ 5I	E	9-25-07	B1P975
J7K5C-1-AC	J-7I250211-001-X	XX I 88 IZ 5I	E	↓	B1P975 DUP
J7PJ8-1-AA	J-7I260315-001	XX I 88 IZ 5I	E	↓	B1P943
J8MJM-1-AA	J-7J100000-503-B	XX I 88 IZ 5I		↓	INTRA-LAB BLANK
J8MJM-1-AC	J-7J100000-503-C	XX I 88 IZ 5I		↓	INTRA-LAB CHECK

< 1  
 ↓  
 23.3

Control Limits

(0-0)

Lot No., Due Date: J7I250237; 11/12/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7312563; RAMISO Amlso by ALP  
 SDG, Matrix: W05237; 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 (MBIks) found in Batch!	Yes	No	N/A
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	Yes	No	N/A
8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD)	Yes	No	N/A
8.14 LCS within Control Limits. OK	Yes	No	N/A
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	Yes	No	N/A
8.16 MS within Control Limits. No Matrix Spike Samples (MS) found in Batch!	Yes	No	N/A
8.17 Tracer within Control Limits. OK	Yes	No	N/A
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	Yes	No	N/A
8.19 Sample Specific MDC <= CRDL. OK	Yes	No	N/A
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	Yes	No	N/A
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => J7LJA2AF AM-241 2.7E-01 L:2.1E-01 J7LJA2AF AM-241 2.7E-01 L:2.1E-01	Yes	No	N/A
8.23 Result <= Action Level, when Defined. OK: No Action Level Found => AM-241  OK: No Callin Level Found => AM-241	Yes	No	N/A
8.24 Result + 3s >=0, Not Too Negative. OK	Yes	No	N/A
8.25 Counting Spectrum are within FWHM Limits. FWHM > maxFWHM => J8MK12AC AM-241 47.5>0 Q:V1	Yes	No	N/A

- 8.26 Instruments have Current Calibrations. Yes No N/A
- 8.27 Correct Count Library Used. Yes No N/A  
 Library Not Specified => J7LJA2AF I:[NUC\_LIBR]AR\_AM Q:  
 J7LJL2AF I:[NUC\_LIBR]AR\_AM Q:  
 J7LJL2AL I:[NUC\_LIBR]AR\_AM Q:  
 J8MK12AA I:[NUC\_LIBR]AR\_AM Q:  
 J8MK12AC I:[NUC\_LIBR]AR\_AM Q:
- 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: Yes No N/A  
*NCM # 10-11277*
- 8.31 Results Blank Subtracted as Appropriate. Yes No N/A  
 OK ✓

First Level Review *Lisa Antonson* Date 11/20/07

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

Batch Number: 7312563  
W05237

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 Adam Date: 11-21-07

# Clouseau Nonconformance Memo



NCM #: <u>10-11277</u>	Classification: <b>Deficiency</b>
NCM Initiated By: Lisa Antonson	Status: <b>PMREVIEW</b>
Date Opened: 11/20/2007	Production Area: Environmental - Prep
Date Closed:	Tests: AmIso by ALP
	Lot #'s (Sample #'s): J7I250237 (1,2), J7J100000 (518),
	QC Batches: 7283518,
Nonconformance: Other (describe in detail)	
Subcategory: Other (explanation required)	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	11/20/2007	The yields for all samples are 3-6%. All samples failed

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	11/20/2007	The samples were rerun with good results.

### 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>

**Data Review/Verification Checklist**

11/9/2007 8:31:02 AM

RADIOCHEMISTRY, First Level Review

Lot No., Due Date: J71250237,J71260294,J71260313,J71270150; 11/12/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7283505; RNP237 Np-237 w/tracer  
 SDG, Matrix: W05237; 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 Hester

Date 11.9.7



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

Batch Number: 7283505  
W05237

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: 11-9-07

Data Review/Verification Checklist

11/7/2007 8:25:36 AM

RADIOCHEMISTRY, First Level Review

Lot No., Due Date: J71250237; 11/12/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7283519; RTHISO Thiso by ALP  
 SDG, Matrix: W05237; 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#10-11179

First Level Review John North

Date 11-7-7



## Data Review Checklist

### RADIOCHEMISTRY

Second Level Review

Batch Number: 7283519  
W05237

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: 11-8-07

# Clouseau Nonconformance Memo



NCM #: <b>10-11179</b> NCM Initiated By: John Norton Date Opened: 11/07/2007 Date Closed:	Classification: <b>Anomaly</b> Status: <b>GLREVIEW</b> Production Area: Environmental - Sep Tests: Thlso by ALP Lot #'s (Sample #'s): J71250237 (1,2), J7J100000 (519), QC Batches: 7283519,
Nonconformance: FWHM and/or Centroid out of limits Subcategory: Other (explanation required)	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	11/07/2007	The FWHM calculated for the LCS was slightly elevated.

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	11/07/2007	While the FWHM is slightly elevated it is in the nature of thorium spectra to be somewhat wider than other analytes, 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>

Lot No., Due Date: J7I250231,J7I250237,J7I260319,J7I270339,J7I270383; 11/12/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7283510; RALPHA-A Alpha by GPC-Am  
 SDG, Matrix: W05237; WATER

	Yes	No	N/A
8.0 Correction Calculation Protocol Used. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.01 The Appropriate Methods Were Used To Analyze the Samples OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.02 Final Results Are in the Appropriate Activity Units OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.03 Batch Contains the Required QC Appropriate for the Method OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.04 The Correct Tracer and QC Vials Where Used in the Samples OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.05 Sample was Appropriately Traced Before or After Fractionating the Sample OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.06 At Least the Minimum Sample Volume Was Used Analysis Volume => J7LEX1AC 151.60<200.00 J7LJA1AD 122.10<200.00 J7LJL1AD 116.20<200.00 J7PK81AA 131.50<200.00 J7TDF1AA 147.00<200.00 J7TPK1AA 104.50<200.00 J7TPM1AA 142.90<200.00 J7TPK2AA 104.50<200.00 Q:VB	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.07 The Correct Count Geometry was Used. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.09 Method Blank is within Control Limits. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.1 Comments:			
8.11 Matrix Blank is within Control Limits. No Matrix Blanks (MBIs) found in Batch!	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary). OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.13 QAS Specified Duplicate Equation Value within Control Limits. RPD > UCL : 20.0=> J7TPK1AD ALPHA 28.0 (RPD)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.14 LCS within Control Limits. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found in Batch!	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.16 MS within Control Limits No Matrix Spike Samples (MS) found in Batch!	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.17 Tracer within Control Limits. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.19 Sample Specific MDC <= CRDL. OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.2 Comments:			
8.21 Result < Lc, Activity Not Detected, U Flag. No Limit Specified!	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => J7LEX1AC ALPHA 2.3E+00 L:1.3E+00 J7LJL1AD ALPHA 2.8E+00 L:1.7E+00 J7PK81AA ALPHA 1.1E+01 L:1.4E+00 J7TDF1AA ALPHA 4.5E+00 L:1.5E+00 J7TPK1AA ALPHA 9.0E+00 L:2.0E+00	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

J7TPM1AA Alpha 6.5E+00 L:1.2E+00  
J7TPK2AA ALPHA 1.2E+01 L:2.1E+00

- |      |   |            |
|------|---|------------|
| 8.23 | Result <= Action Level, when Defined.<br>OK: No Action Level Found => ALPHA<br>Alpha<br><br>OK; No Callin Level Found => ALPHA<br>Alpha | Yes No N/A |
| 8.24 | Result + 3s >=0, Not Too Negative.<br>OK  | Yes No N/A |
| 8.25 | Counting Spectrum are within FWHM Limits.<br>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.<br>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:<br><i>NCM 10-11280</i>  |            |
| 8.31 | Results Blank Subtracted as Appropriate.<br>OK  | Yes No N/A |

First Level Review

*Lisa Antonson*

Date

*11/20/07*

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

Batch Number: 72/3510  
W05237

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: 11-21-07

# Clouseau Nonconformance Memo



NCM #: <u>10-11280</u> NCM Initiated By: Lisa Antonson Date Opened: 11/20/2007 Date Closed:	Classification: <b>Anomaly</b> Status: <b>PMREVIEW</b> Production Area: Environmental - Prep Tests: Alpha by GPC-Am Lot #'s (Sample #'s): J7I250231 (1), J7I250237 (1,2), J7I260319 (1,2), J7I270339 (1), J7I270383 (1,2), J7J100000 (510), QC Batches: 7283510,
Nonconformance: Other (describe in detail) Subcategory: Other (explanation required)	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	11/20/2007	The dups were outside acceptance limits for this Alpha batch.

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	11/20/2007	The samples were recounted and are now within limits.

### 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>



STL

Data Review/Verification Checklist  
RADIOCHEMISTRY, First Level Review

11/14/2007 3:17:13 PM

Lot No., Due Date: J7I250231,J7I250237,J7I260319,J7I270339,J7I270383; 11/12/2007  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 7283516; RBETA-SR Beta by GPC-Sr/Y  
SDG, Matrix: W05237; 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#10-11229

First Level Review

Date 11-14-7

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

Batch Number: 7283516  
W05237

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 Adam Date: 11-15-07

# Clouseau Nonconformance Memo



NCM #: <b>10-11229</b> NCM Initiated By: John Norton Date Opened: 11/14/2007 Date Closed:	Classification: <b>Anomaly</b> Status: <b>GLREVIEW</b> Production Area: Environmental - Prep Tests: None Lot #'s (Sample #'s): J71270383 (1), QC Batches: None.,
Nonconformance: MDA not met Subcategory: Data accepted	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
John Norton	11/14/2007	The sample did not meet the RDL due to the reduced aliquot size.

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
John Norton	11/14/2007	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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Data Review/Verification Checklist  
 RADIOCHEMISTRY, First Level Review

11/16/2007 1:42:21 PM

Lot No., Due Date: J7I250237,J7I260282,J7I260294,J7I260313,J7I270150; 11/12/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7283527; RSR85907 Sr-85/90 by GPC-7  
 SDG, Matrix: W05237; 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 Horton

Date 11-16-07

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

Batch Number: 7285527  
W 05237

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: Sherryl A. Allen Date: 11-16-07



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# Data Review/Verification Checklist RADIOCHEMISTRY, First Level Review

11/15/2007 11:35:44 AM

Lot No., Due Date: J71250237,J71260294,J71260313,J71260315,J71270150; 11/12/2007  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7283522; RGAMMA Gamma by GER  
 SDG, Matrix: W05237; 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:

See NCM # 10-11236 for additional information.

First Level Review

*Matt Landy*

Date

11-15-07

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

Batch Number: 7283522  
W05237

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: Sherryll A Allen Date: 11-16-07





Data Review/Verification Checklist

11/13/2007 10:40:30 AM

RADIOCHEMISTRY, First Level Review

Lot No., Due Date: J71250226,J71250237,J71260282,J71260294,J71260313,J71260316,J71270150,J71270389;  
 Client, Site: 384868; PGW 615HANFORD HANFORD  
 QC Batch No., Method Test: 7283506; RGAMLEPS Gamma by LEPS  
 SDG, Matrix: W05237; 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 10-11213

First Level Review

*Lisa Antonson*

Date

11/13/07

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

Batch Number: 7283506  
W05237

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: *Joseph A. Adams* Date: 11-12-07

# Clouseau Nonconformance Memo

TestAmerica

TEST AMERICA ENVIRONMENTAL TESTING

NCM #: <u>10-11213</u> NCM Initiated By: Lisa Antonson Date Opened: 11/13/2007 Date Closed:	Classification: <b>Anomaly</b> Status: <b>PMREVIEW</b> Production Area: Environmental - Sep Tests: Gamma by LEPS Lot #'s (Sample #'s): J7I250226 (1), J7I250237 (1,2), J7I260282 (1), J7I260294 (1), J7I260313 (1), J7I260316 (1), J7I270150 (1,2), J7I270389 (1,2), J7J100000 (506), QC Batches: 7283506,
Nonconformance: Other (describe in detail) Subcategory: Other (explanation required)	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	11/13/2007	In this Iodine batch, sample J7TQX and it's dup had weights that were slightly high. Suspect slight matrix interference. The sample was at 108% and dup 127%. The results have an RPD of 9.3256. The data will be accepted.

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	11/13/2007	NA

### Client Notification Summary

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

### Quality Assurance Verification

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

### Approval History

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



STL

Data Review/Verification Checklist  
RADIOCHEMISTRY, First Level Review

11/12/2007 12:54:33 PM

Lot No., Due Date: J7I260294,J7I260313,J7I270150; 11/12/2007

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 7283500; RSE79 Se-79 by LSC

SDG, Matrix: W05237; 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 W. [Signature]*

Date 11-12-7

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

Batch Number: 7283500  
W05237

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: 11-13-07

Lot No., Due Date: J71260282,J71260315; 11/12/2007  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 7283524; RTC99 Tc-99 by LSC  
SDG, Matrix: W05237; 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 North Date 11-9-7



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

Batch Number: 7283524  
W05L37

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: 11-9-07

Lot No., Due Date: J71250231; 11/12/2007  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 7283508; RTRITIUM H-3 by LSC  
SDG, Matrix: W05237; 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 Horton*

Date 11-9-7



## Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7283508  
W05237

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. Allen Date: 11-9-07



STL

Data Review/Verification Checklist  
RADIOCHEMISTRY, First Level Review

11/9/2007 9:09:39 AM

Lot No., Due Date: J71250237,J71260294,J71260313,J71270150; 11/12/2007  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 7283521; RC14 C-14 by LSC  
SDG Matrix: W05237; 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 *Joh. Voster*

Date 11-9-7



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

Batch Number: 7283521  
W05237

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: 11-9-07

Lot No., Due Date: J71260315; 11/12/2007  
Client, Site: 384868; PGW 615HANFORD HANFORD  
QC Batch No., Method Test: 7283525; RUNAT UNat by KPA  
SDG, Matrix: W05237; WATER

1.0 COC

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

2.0 QC Batch

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

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

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

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

3.0 QC & Samples

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

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

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

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

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

4.0 Raw Data

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

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

4.3 Were Yields entered correctly?  Yes  No  N/A

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

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

5.0 Other

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

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

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

5.4 Was transcription checked?  Yes  No  N/A

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

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

6.0 Comments on any No response:

First Level Review *[Signature]*

Date 11-16-7

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

Batch Number: 7183515  
W05137

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. Allen

Date: 11-16-07

TESTAMERICA RICHLAND AMENDED PACKAGE 95

<b>FLUOR HANFORD</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			<b>C.O.C. #</b> <b>W07-008-675</b>
		<i>J7I 250211 W05237 Due 11-08-07</i>			Page <u>1</u> of <u>1</u>
Collector <b>Josh Herrick</b> <i>Fluor Hanford</i>		Contact/Requester <b>Steve Trent</b>		Telephone No. <b>509-373-5869</b> MSIN FAX	
SAF No. <b>W07-008</b>		Sampling Origin <b>Hanford Site</b>		Purchase Order/Charge Code	
Project Title <b>RCRA AUGUST 2007</b>		<i>Logbook: HNF-N-506-9</i>		Ice Chest No. <i>SMC-24</i> Temp.	
Shipped To (Lab) <b>Severn Trent Incorporated, Richland</b>		Method of Shipment <b>Govt. Vehicle</b>		Bill of Lading/Air Bill No.	
Protocol <b>RCRA</b>		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> Hold Time 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
B1P975		W	<i>9/24/07</i>		1x500-mL P	9223_COLIFORM: Coliform (1)	Na2S2O3 Cool-4C
B1P975		W	<i>9/24/07</i>		1x20-mL P	Activity Scan	None
<i>J7K5C</i>							
<i>J. Wald</i>							
<i>9/24/07</i>							
<i>SEP 24 2007</i>							

Relinquished By <b>Josh Herrick</b> <i>Fluor Hanford</i> Relinquished By <b>Kevin Patterson</b> <i>Fluor Hanford</i>	Print <i>J. Herrick</i> <i>K. Patterson</i>	Sign <i>[Signature]</i> <i>[Signature]</i>	Date/Time <b>SEP 24 2007</b> <b>1550</b>	Received By <b>Kevin Patterson</b> <i>Fluor Hanford</i> Received By <b>LILANE TAL-R</b>	Print <i>[Signature]</i> <i>[Signature]</i>	Sign <i>[Signature]</i> <i>[Signature]</i>	Date/Time <b>SEP 24 2007</b> <b>1550</b> <b>9-24-07</b>	Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum 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					
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time		

## Sample Check-in List

Date/Time Received: 9-24-07 1550

Client: PGW SDG #: W05237 NA [ ] SAF #: W07-008 NA [ ]

Work Order Number: VT7E250211 Chain of Custody # W07-008-675

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? NA [ ] Yes  No [ ]
4. Cooler Temperature: \_\_\_\_\_ NA  5. Vermiculite/packing materials is NA  Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA  Yes [ ] No [ ]
8. Samples have:
 

<input type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input type="checkbox"/> Hazard Labels <input checked="" type="checkbox"/> Appropriate Sample Labels
--	---
9. Samples are:
 

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [ ] pH < 2  pH > 2 [ ] pH > 9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No

13. Description of anomalies (include sample numbers): (14.57) No sample time on COC - time taken from sample container.

Sample Custodian: [Signature] Date: 9-24-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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





# Sample Check-in List

Date/Time Received: 9-24-07 1550

Client: PGW SDG #: W05237 NA | SAF #: A07-009 NA |

Work Order Number: J7I250226 Chain of Custody # A07-009-15

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? NA [ ] Yes  No [ ]
- 4. Cooler Temperature: \_\_\_\_\_ NA  5. Vermiculite/packing materials is NA  Wet [ ] Dry [ ]
- 6. Number of samples in shipping container: 1
- 7. Sample holding times exceeded? NA  Yes [ ] No [ ]
- 8. Samples have:
  - \_\_\_\_\_ Tape
  - Custody Seals
  - \_\_\_\_\_ Hazard Labels
  - Appropriate Sample Labels
- 9. Samples are:
  - In Good Condition
  - \_\_\_\_\_ Broken
  - \_\_\_\_\_ Leaking
  - \_\_\_\_\_ Have Air Bubbles
  - (Only for samples requiring no head space.)
- 10. Sample pH taken? NA [ ] pH<2  pH>2 [ ] pH>9 [ ]
- 11. Sample Location, Sample Collector Listed? \*  
\*For documentation only. No corrective action needed.
- 12. Were any anomalies identified in sample receipt? Yes [ ] No
- 13. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian: [Signature] Date: 9-24-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

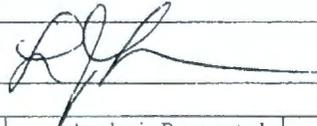
Project Manager \_\_\_\_\_ Date \_\_\_\_\_



## Sample Check-in List

Date/Time Received: 9-24-07 1550  
 Client: PGW SDG #: W05237 NA [ ] SAF #: I07-066 NA [ ]  
 Work Order Number: J7I250231 Chain of Custody # I07-066-59  
 Shipping Container ID: \_\_\_\_\_ Air Bill # \_\_\_\_\_

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? NA [ ] Yes [X] No [ ]
4. Cooler Temperature: \_\_\_\_\_ NA [X] 5. Vermiculite/packing materials is NA [X] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [X] Yes [ ] No [ ]
8. Samples have:  
 Tape Hazard Lables  
 Custody Seals  Appropriate Sample Lables
9. Samples are:  
 In Good Condition  Leaking  
 Broken  Have Air Bubbles  
(Only for samples requiring no head space.)
10. Sample pH taken? NA [ ] pH<2 [X] pH>2 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian:  Date: 9-24-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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

TEST AMERICA RICHLAND AMENDED PACKAGE 101

<b>FLUOR HANFORD</b>	<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>	C.O.C. # <b>S07-009-166</b>
<i>J7I 250237 W05237 Date 11-08-07</i>		Page 1 of 1

<b>Collector</b> Josh Herrick Fluor Hanford	<b>Contact/Requester</b> Steve Trent	<b>Telephone No.</b> MSIN FAX 509-373-5869
<b>SAF No.</b> S07-009	<b>Sampling Origin</b> Hanford Site	<b>Purchase Order/Charge Code</b>
<b>Project Title</b> SURY, SEPTEMBER 2007	<b>Ice Chest No.</b> <i>SML-24</i>	<b>Temp.</b>
<b>Shipped To (Lab)</b> Severn Trent Incorporated, Richland	<b>Method of Shipment</b> Govt. Vehicle	<b>Bill of Lading/Air Bill No.</b>
<b>Protocol</b> SURY	<b>Priority:</b> 45 Days	<b>Offsite Property No.</b>

<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> .. ..	<b>SPECIAL INSTRUCTIONS</b> <b>Hold Time</b> <b>Total Activity Exemption:</b> 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
B1PFV2		W	9/24/07	1257	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1PFV2		W			1x20-mL P	Activity Scan	None
B1PFV2		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1PFV2		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1PFV2		W			1x1000-mL G/P	AMCMISO_EIE_PLT_AEA: Am-241 (1)	HNO3 to pH <2
B1PFV2		W			2x1000-mL G/P	C14_LSC: C-14 (1)	None
B1PFV2		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1PFV2		W			1x1000-mL G/P	NP237_LLE_PLATE_AEA:Np-237(1)	HNO3 to pH <2
B1PFV2		W			1x1000-mL G/P	Isotopic Thorium	HNO3 to pH <2
<i>J7LJA</i>							
<i>J. Wall</i>							
<i>9/24/07</i>							

<b>Relinquished By</b> Josh Herrick Fluor Hanford <i>[Signature]</i>	<b>Print</b>	<b>Sign</b>	<b>Date/Time</b> SEP 24 2007 1448	<b>Received By</b> Kevin Patterson Fluor Hanford <i>[Signature]</i>	<b>Print</b>	<b>Sign</b>	<b>Date/Time</b> SEP 24 2007 1448	<b>Matrix *</b> S = Soil                    DS = Drum Solid SF = Sediment            DI = Drum Liquid SN = Solid                T = Tissue SL = Sludge              WI = Wine W = Water                L = Liquid O = Oil                    V = Vegetation A = Air                    X = Other
<b>Relinquished By</b> Kevin Patterson Fluor Hanford <i>[Signature]</i>			<b>Date/Time</b> SEP 24 2007 1550	<b>Received By</b> [Signature] W. LANE    TAL-K			<b>Date/Time</b> 9-24-07 1550	
<b>Relinquished By</b>			<b>Date/Time</b>	<b>Received By</b>			<b>Date/Time</b>	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	

TEST AMERICA RICHMOND AMENDED PACKAGE 102

<b>FLUOR HANFORD</b>	<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>	C.O.C. # <b>S07-009-174</b>
	<i>J7I250237 W05237 Due 110807</i>	Page <u>1</u> of <u>1</u>

Collector Steve Overdahl Fluor Hanford	Contact/Requester Steve Trent	Telephone No. 509-373-5869 MSIN FAX
SAF No. S07-009	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV. SEPTEMBER 2007	<i>HNF-N-506-10 pg 9</i>	Ice Chest No. <i>682-05-000</i> Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS * * *	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <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
B1PFV8		W	<i>9/25/07</i>	<i>1442</i>	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1PFV8		W			1x20-mL P	Activity Scan	None
B1PFV8		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1PFV8		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1PFV8		W			1x1000-mL G/P	AMCMISO_EIE_PLT_AEA: Am-241 (1)	HNO3 to pH <2
B1PFV8		W			2x1000-mL G/P	C14_LSC: C-14 (1)	None
B1PFV8		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1PFV8		W			1x1000-mL G/P	NP237_LLE_PLATE_AEA:Np-237(1)	HNO3 to pH <2
B1PFV8		W			1x1000-mL G/P	Isotopic Thorium	HNO3 to pH <2
<i>J7L5L</i>							

Relinquished By Steve Overdahl Fluor Hanford	Print	Sign	Date/Time <i>SEP 24 2007 0822</i>	Received By Josh Herrick Fluor Hanford	Print	Sign	Date/Time <i>SEP 24 2007 0822</i>	Matrix * 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 Josh Herrick Fluor Hanford			<i>SEP 24 2007 1430</i>	Received By Kevin Patterson Fluor Hanford			<i>SEP 24 2007 1430</i>	
Relinquished By Kevin Patterson Fluor Hanford			<i>SEP 24 2007 1550</i>	Received By <i>LJLANE TAL-R</i>			<i>9-24-07</i>	
Relinquished By			Date/Time	Received By			Date/Time	

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

Date/Time Received: 9-24-07 1550  
 Client: PGW SDG #: W05237 NA [ ] SAF #: 507-009 NA [ ]  
 Work Order Number: J7I250237 Chain of Custody # 507-009-166, 174  
 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? NA [ ] 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 Sample Labels
9. Samples are:  
 In Good Condition \_\_\_\_\_ Leaking  
 \_\_\_\_\_ Broken \_\_\_\_\_ Have Air Bubbles  
(Only for samples requiring no head space.)
10. Sample pH taken? NA [ ] pH < 2  pH > 2 [ ] pH > 9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No
13. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian: *RJR* Date: 9-24-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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

FEDERAL REGISTER OF REGULATIONS  
 ENVIRONMENTAL AGENCY  
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FLUOR HANFORD		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>				C.O.C. # <b>107-062-146</b>
		<b>17I260282</b>		<b>W05237</b>		<b>DUE 11-9-07 JTN9F</b>
Collector Josh Herrick Fluor Hanford		Contact/Requester Steve Trent		Telephone No. 509-373-5869		MSIN FAX
SAF No. 107-062		Sampling Origin Hanford Site		Purchase Order/Charge Code		
Project Title 27P1-LOI AUGUST 2007		Method of Shipment Govt. Vehicle		Ice Chest No. 600-06-10		Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland		Priority: 45 Days		Bill of Lading/Air Bill No.		
Protocol CERCLA				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> Hold Time      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 SAF's 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
B1P6B4		W	9/25/07	0824	1x20-mL P	Activity Scan	None
B1P6B4		W	↓	↓	2x4000-mL G/P	H129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1P6B4		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1P6B4		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
<div style="position: relative; width: 100%; height: 100%;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> <p style="font-size: 2em; font-weight: bold;">J. Wall</p> <p style="font-size: 1.5em;">9/25/07</p> </div> </div>							

Relinquished By Josh Herrick <i>J. Herrick</i>	Date/Time <b>SEP 25 2007</b>	Received By <i>R.L. Fox</i>	Date/Time <b>SEP 25 2007</b>	Received By <i>WLANE TALKER</i>	Date/Time <b>SEP 25 2007</b>	<b>Matrix *</b> 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	Received By	Date/Time	
Relinquished By	Date/Time	Received 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	

## Sample Check-in List

DUE 11-9-07

Date/Time Received: 9-25-07 1440

Client: PGW SDG #: W05237 NA [ ] SAF #: I07-062 NA [ ]

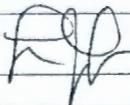
Work Order Number: J7I260282 Chain of Custody # I07-062-146

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? NA [ ] Yes  No [ ]
4. Cooler Temperature: \_\_\_\_\_ NA  5. Vermiculite/packing materials is NA  Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA  Yes [ ] No [ ]
8. Samples have:
 

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
---	--
9. Samples are:
 

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [ ] pH < 2  pH > 2 [ ] pH > 9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*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: 9-25-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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

TEST AMERICA RICHLAND AMENDED PACKAGE 106

<b>FLUOR HANFORD</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. #	<b>107-061-85</b>
		J7IZ60294	W05237	DUE 11-9-07	J7PCT	
Collector Steve Williamsen Fluor Hanford		Contact/Requester Steve Trent		Telephone No. MSIN FAX 509-373-5869		
SAF No. 107-061		Sampling Origin Hanford Site		Purchase Order/Charge Code		
Project Title 2U1-LOL AUGUST 2007		HNF-N-506-7		Ice Chest No. Temp. SML-430		
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.	
<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
B1P5M8		W	9-25-07	0944	1x20-mL P	Activity Scan	None
B1P5M8		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1) —	None
B1P5M8		W			2x1000-mL G/P	C14_LSC: C-14 (1) —	None
B1P5M8		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9) —	HNO3 to pH <2
B1P5M8		W			1x1000-mL G/P	NP237_LLE_PLATE_AEA:Np-237(1) —	HNO3 to pH <2
B1P5M8		W			2x1000-mL G/P	Selenium-79 —	HNO3 to pH <2
B1P5M8		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2

Relinquished By Steve Williamsen Fluor Hanford <i>Steve Williamsen</i>	Print Sign	Date/Time SEP 25 2007 1330	Received By R.R. Fox <i>R.R. Fox</i>	Print Sign	Date/Time SEP 25 2007 1330	<b>Matrix *</b> S = Soil      DS = Drum Solid SF = Sediment      DI = Drum Liquid SO = Solid      T = Tissue SL = Sludge      W1 = Wine W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By R.R. Fox <i>R.R. Fox</i>		Date/Time 9-25-07 1440	Received By J. Lillane <i>J. Lillane</i>		Date/Time SEP 25 2007 1440	
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	

### Sample Check-in List

DUE 11-9-07

Date/Time Received: 9-25-07 1440

Client: PGW SDG #: W05237 NA [ ] SAF #: I07-061 NA [ ]

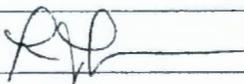
Work Order Number: J7I260294 Chain of Custody # I07-061-85

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? NA [ ] Yes  No [ ]
4. Cooler Temperature: \_\_\_\_\_ NA  5. Vermiculite/packing materials is NA  Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA  Yes [ ] No [ ]
8. Samples have:
 

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
---	--
9. Samples are:
 

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [ ] pH < 2  pH > 2 [ ] pH > 9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*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: 9-25-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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

TEST AMERICA RICHLAND AMENDED PACKAGE 108

FLUOR HANFORD		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. # <b>107-043-79</b>
		J7I260313	W05237	DUE 11-9-07	J7PJA
Collector Josh Herrick Fluor Hanford		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. 107-043		Sampling Origin Hanford Site		Purchase Order/Charge Code	
Project Title 2UPL-LOL MAY 2007		Method of Shipment Govt. Vehicle		Ice Chest No. Temp. 600-06-10	
Shipped To (Lab) Severn Trent Incorporated, Richland		Priority: 45 Days		Bill of Lading/Air Bill No.	
Protocol SURV				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> Hold Time      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.	

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1NHB9		W	9/25/07	0952	1x20-mL P	Activity Scan	None
B1NHB9		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1) ✓	None
B1NHB9		W	↓	↓	2x1000-mL G/P	C14_LSC: C-14 (1) ✓	None
B1NHB9		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9) ✓	HNO3 to pH <2
B1NHB9		W	↓	↓	1x1000-mL G/P	NP237_LLE_PLATE_AEA:Np-237(1) ✓	HNO3 to pH <2
B1NHB9		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1) ✓	HNO3 to pH <2
B1NHB9		W	↓	↓	2x1000-mL G/P	Selenium-79 ✓	HNO3 to pH <2
<div style="position: relative; width: 100%; height: 100%;"> <span style="font-size: 2em; position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;">D. Stewart</span> <span style="font-size: 1.5em; position: absolute; top: 60%; left: 30%;">9/25/07</span> </div>							

Relinquished By Josh Herrick Fluor Hanford Date/Time 1345 SEP 25 2007	Received By R.P. Fox Date/Time 1345 SEP 25 2007	Matrix * S = Soil      DS = Drum Solid SF = Sediment      DI = Drum Liquid SO = Solid      T = Tissue SL = Sludge      W1 = Wine W = Water      I = Ionid O = Oil      V = Vegetation A = Air      X = Other
Relinquished By R.P. Fox Date/Time 1440 SEP 25 2007	Received By WILANE TAL-R Date/Time 1440 SEP 25 2007	
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		

## Sample Check-in List

DUE 11-9-07

Date/Time Received: 9-25-07 1440

Client: PGW SDG #: W05237 NA | SAF #: I07-043 NA |

Work Order Number: J2I260313 Chain of Custody # I07-043-79

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? NA [ ] Yes  No [ ]
4. Cooler Temperature: \_\_\_\_\_ NA  5. Vermiculite/packing materials is NA  Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA  Yes [ ] No [ ]
8. Samples have:
 

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
---	--
9. Samples are:
 

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [ ] pH < 2  pH > 2 [ ] pH > 9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*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: 9-25-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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

TESTAMERICA RICHLAND AMENDED PACKAGE 110

FLUOR HANFORD		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>				C.O.C. # <b>W07-008-233</b>
		J7I260315		W05237		DUE 11-9-07
		JTPKK		Page 1 of 1		
Collector <b>F.M. Hall</b>		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				Ice Chest No.		Temp.
Shipped To (Lab) Steve 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> Hold Time      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
B1P8V4		W	9/25/07	1003	1x20-mL P	Activity Scan	None
B1P8V4		W	↓	↓	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2
B1P8V4		W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	HNO3 to pH <2
B1P8V4		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5; font-size: 4em;">/</div>							

Relinquished By <b>F.M. Hall</b> (Print)  (Sign)	Date/Time <b>SEP 25 2007</b> 1329	Received By <b>R.R. Fox</b> (Print)  (Sign)	Date/Time <b>SEP 25 2007</b> 1325	Matrix *
Relinquished By <b>R.R. Fox</b> (Print)  (Sign)	Date/Time <b>9/25/07</b> 1440	Received By <b>R. LILANE</b> (Print)  (Sign)	Date/Time <b>SEP 25 2007</b> 1440	
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

- S = Soil
- SF = Sediment
- SO = Solid
- SI = Sludge
- W = Water
- O = Oil
- A = Air
- DS = Drum Solid
- DI = Drum Liquid
- T = Tissue
- WI = Wine
- L = Linnid
- V = Vegetation
- X = Other



## Sample Check-in List

DUE 11-9-07

Date/Time Received: 9-25-07 1440

Client: PGW SDG #: W05237 NA | | SAF #: W07-008 NA | |

Work Order Number: JTI 260315 Chain of Custody # W07-008-593,-233

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? NA [ ] 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:
 

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
---	--
9. Samples are:
 

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [ ] pH<2  pH>2 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*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: 9-25-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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



## Sample Check-in List

DUE 11-9-07

Date/Time Received: 9-26-07 1322  
 Client: PGW SDG #: W05237 NA | | SAF #: I07-06/ NA | |  
 Work Order Number: J7I260316 Chain of Custody # I07-06/119  
 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? NA [ ] Yes  No [ ]
4. Cooler Temperature: \_\_\_\_\_ NA  5. Vermiculite/packing materials is NA  Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA  Yes [ ] No [ ]
8. Samples have:  
 Tape Hazard Lables  
 Custody Seals Appropriate Sample Lables
9. Samples are:  
 In Good Condition Leaking  
 Broken Have Air Bubbles  
(Only for samples requiring no head space.)
10. Sample pH taken? NA [ ] pH < 2  pH > 2 [ ] pH > 9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No
13. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian: *APD* Date: 9-26-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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





## Sample Check-in List

DUE 11-9-07

Date/Time Received: 9-26-07 1322

Client: PGW SDG #: W05237 NA | | SAF #: 507-009 NA | |

Work Order Number: JTI260319 Chain of Custody # 507-009-248, -249

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? NA [ ] 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:
 

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input type="checkbox"/> Hazard Labels <input checked="" type="checkbox"/> Appropriate Sample Labels
---	---
9. Samples are:
 

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [ ] pH < 2  pH > 2 [ ] pH > 9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*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: RYP Date: 9-26-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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

TEST AMERICA RICHLAND AMENDED PACKAGE 118

FLUOR HANFORD		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			C.O.C. #	<b>107-061-95</b>
		J9I27D150	W05237	DUE 11-9-07	JN7QPS	
Collector: Williamson Fluor Hanford		Contact/Requester Steve Trent		Telephone No. MSIN FAX 509-373-5869		
SAF No. 107-061		Sampling Origin Hanford Site		Purchase Order/Charge Code		
Project Title 2U1P1-LOL AUGUST 2007		Ice Chest No. ERC-1		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.		
<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> Hold Time      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	
B1P5N5		W	9-26-07	1322	1x20-mL P	Activity Scan	None	
B1P5N5		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)    /	None	
B1P5N5		W			2x1000-mL G/P	C14_LSC: C-14 (1)    /	None	
B1P5N5		W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)    /	HNO3 to pH <2	
B1P5N5		W			1x1000-mL G/P	NP237_LLE_PLATE_AEA:Np-237(1)    /	HNO3 to pH <2	
B1P5N5		W			2x1000-mL G/P	Selenium-79    /	HNO3 to pH <2	
B1P5N5		W			3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)    /	HNO3 to pH <2	

Relinquished By Dave Williamson Fluor Hanford Date/Time: <b>SEP 26 2007</b>	Received By LULAUE TALA Date/Time: <b>SEP 26 2007</b>	<b>Matrix *</b> S = Soil                      DS = Drum Solid SF = Sediment              DI = Drum Liquid SO = Solid                    T = Tissue SI = Sludge                  WI = Wine W = Water                    I = Liquid O = Oil                        V = Vegetation A = Air                         X = Other
Relinquished By	Received By	
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



## Sample Check-in List

DUE 11-9-07

Date/Time Received: 9-26-07 1539

Client: PGW SDG #: W05237 NA [ ] SAF #: I07-061 NA [ ]

Work Order Number: J7I270150 Chain of Custody # I07-061-95, -75

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? NA [ ] 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:
 

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
---	--
9. Samples are:
 

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [ ] pH<2  pH>2 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*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: *RJP* Date: 9-26-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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



## Sample Check-in List

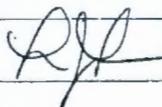
Date/Time Received: 9-27-07 1330

Client: PGW SDG #: W05237 NA [ ] SAF #: 507-009 NA [ ]

Work Order Number: J7I 270339 Chain of Custody # 507-009-136

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? NA [ ] Yes  No [ ]
4. Cooler Temperature: \_\_\_\_\_ NA  5. Vermiculite/packing materials is NA  Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA  Yes [ ] No [ ]
8. Samples have:  
 Tape Hazard Lables  
 Custody Seals Appropriate Sample Lables
9. Samples are:  
 In Good Condition Leaking  
 Broken Have Air Bubbles  
(Only for samples requiring no head space.)
10. Sample pH taken? NA [ ] pH < 2  pH > 2 [ ] pH > 9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No
13. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian:  Date: 9-27-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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





### Sample Check-in List

DUE 11-12-07

Date/Time Received: 9-27-07 1520

Client: PGW SDG #: W05237 NA [ ] SAF #: 507-009 NA [ ]

Work Order Number: J7I270383 Chain of Custody # 507-009-94,-118

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? NA [ ] 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:
 

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
---	--
9. Samples are:
 

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [ ] pH<2  pH>2 [ ] pH>9 [ ]
11. Sample Location, Sample Collector Listed? \*  
\*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: 9-27-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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



TESTAMERICA RICHLAND AMENDED PACKAGE 127

FLUOR HANFORD	<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>	C.O.C. # <b>107-061-151</b>
17I270389      W05237      Due 11-12-07 JTRG		Page 1 of 1

Collector <b>Fluor Hanford L.D. WALL</b>	Contact/Requester <b>Steve Trent</b>	Telephone No.      MSIN      FAX <b>509-373-5869</b>
SAF No. <b>107-061</b>	Sampling Origin <b>Hanford Site</b>	Purchase Order/Charge Code
Project Title <b>2UPL-LOL AUGUST 2007</b>	<b>HNF-N-506 9</b> <b>pg 96</b>	Ice Chest No.      Temp. <b>GW-1</b>
Shipped To (Lab) <b>Severn Trent Incorporated, Richland</b>	Method of Shipment <b>Govt. Vehicle</b>	Bill of Lading/Air Bill No.
Protocol <b>SURY</b>	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> Hold Time      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
B1P5T4		W	9/27/07	1220	1x20-mL P	Activity Scan	None
B1P5T4		W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 50%; transform: translate(-50%, 0); font-size: 2em;">/</span> </div>							
<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 50%; transform: translate(-50%, 0); font-size: 2em;">/</span> </div>							
<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 50%; transform: translate(-50%, 0); font-size: 2em;">/</span> </div>							
<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 50%; transform: translate(-50%, 0); font-size: 2em;">/</span> </div>							
<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 50%; transform: translate(-50%, 0); font-size: 2em;">/</span> </div>							
<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 50%; transform: translate(-50%, 0); font-size: 2em;">/</span> </div>							
<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 50%; transform: translate(-50%, 0); font-size: 2em;">/</span> </div>							
<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 50%; transform: translate(-50%, 0); font-size: 2em;">/</span> </div>							
<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 50%; transform: translate(-50%, 0); font-size: 2em;">/</span> </div>							

Relinquished By <b>Fluor Hanford L.D. WALL</b>	Print <b>L.D. WALL</b>	Sign <i>[Signature]</i>	Date/Time <b>SEP 27 2007 1520</b>	Received By <b>LILIANE TAL-R</b>	Print <b>LILIANE TAL-R</b>	Sign <i>[Signature]</i>	Date/Time <b>SEP 27 2007 1520</b>	<b>Matrix *</b> S = Soil      DS = Drum Solid SF = Sediment      DI = Drum Liquid SO = Solid      T = Tissue SL = Sludge      WL = Wine W = Water      L = Liquid O = Oil      V = Vegetation A = Air      X = Other
<del>Relinquished By</del>	<del>Print</del>	<del>Sign</del>	<del>Date/Time</del>	<del>Received By</del>	<del>Print</del>	<del>Sign</del>	<del>Date/Time</del>	
<del>Relinquished By</del>	<del>Print</del>	<del>Sign</del>	<del>Date/Time</del>	<del>Received By</del>	<del>Print</del>	<del>Sign</del>	<del>Date/Time</del>	
<del>Relinquished By</del>	<del>Print</del>	<del>Sign</del>	<del>Date/Time</del>	<del>Received By</del>	<del>Print</del>	<del>Sign</del>	<del>Date/Time</del>	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	

## Sample Check-in List

DUE 11-12-07

Date/Time Received: 9-27-07 1520

Client: PGW SDG #: W05237 NA [ ] SAF #: I07-061 NA [ ]

Work Order Number: JTI270389 Chain of Custody # I07-061-137,-151

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? NA [ ] 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:
 

<input checked="" type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input checked="" type="checkbox"/> Hazard Lables <input checked="" type="checkbox"/> Appropriate Sample Lables
---	--
9. Samples are:
 

<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles (Only for samples requiring no head space.)
--	--
10. Sample pH taken? NA [ ] pH < 2  pH > 2 [ ] pH > 9 [ ]
11. Sample Location, Sample Collector Listed? \*  
 \*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No
13. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian: *RJP* Date: 9-27-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

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

TESTAMERICA RICHLAND AMENDED PACKAGE 129

11/13/2007 8:27:29 AM Sample Preparation/Analysis Balance Id:1120373922

384868, Pacific Northwest National Laboratory , 8l Am PrpRC5016/5086, SepRC5072(5003) Pipet #: \_\_\_\_\_  
 Pacific Northwest National Lab SX Americium-241 by Alpha Spec

AnalyDueDate: 11/12/2007 5l CLIENT: HANFORD Sep1 DT/Tm Tech: \_\_\_\_\_

Batch: 7312563 WATER pCi/L PM, Quote: SA , 57671 Sep2 DT/Tm Tech: \_\_\_\_\_  
 SEQ Batch, Test: None Prep Tech: WoodT

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 J7LJA-2-AF	200.72g,in	AMTC2614	08/28/07,pd	200				
<div style="display: flex; justify-content: space-between;"> <span>J7I250237-1-SAMP</span> <span>06/01/07</span> </div> <div style="display: flex; justify-content: space-between;"> <span>09/24/2007 12:57</span> <span>AmtRec: 20ML,9XLP,3X4LP #Containers: 13</span> <span>Scr: Alpha: -5.31E-03 uCi/Sa Beta: 2.31E-03 uCi/Sa</span> </div>								
2 J7LJL-2-AF	200.53g,in	AMTC2615	08/28/07,pd					
<div style="display: flex; justify-content: space-between;"> <span>J7I250237-2-SAMP</span> <span>06/01/07</span> </div> <div style="display: flex; justify-content: space-between;"> <span>09/24/2007 14:42</span> <span>AmtRec: 20ML,9XLP,3X4LP #Containers: 13</span> <span>Scr: Alpha: 3.71E-03 uCi/Sa Beta: -3.37E-03 uCi/Sa</span> </div>								
3 J7LJL-2-AL-X	200.83g,in	AMTC2621	11/12/07,pd					
<div style="display: flex; justify-content: space-between;"> <span>J7I250237-2-DUP</span> <span>06/01/07</span> </div> <div style="display: flex; justify-content: space-between;"> <span>09/24/2007 14:42</span> <span>AmtRec: 20ML,9XLP,3X4LP #Containers: 13</span> <span>Scr: Alpha: 3.71E-03 uCi/Sa Beta: -3.37E-03 uCi/Sa</span> </div>								
4 J8MK1-2-AA-B	200.54g,in	AMTC2623	11/13/07,pd					
<div style="display: flex; justify-content: space-between;"> <span>J7J100000-518-BLK</span> <span>06/01/07</span> </div> <div style="display: flex; justify-content: space-between;"> <span>09/24/2007 14:42</span> <span>AmtRec: #Containers: 1</span> <span>Scr: Alpha: Beta:</span> </div>								
5 J8MK1-2-AC-C	200.22g,in	AMSK0289	08/08/07,pd					
<div style="display: flex; justify-content: space-between;"> <span>J7J100000-518-LCS</span> <span>06/01/07</span> </div> <div style="display: flex; justify-content: space-between;"> <span>09/24/2007 14:42</span> <span>AmtRec: #Containers: 1</span> <span>Scr: Alpha: Beta:</span> </div>								

**Comments:**

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

J7LJA2AF-SAMP Constituent List:

TESTAMERICA RICHLAND AMENDED PACKAGE 130

11/13/2007 8:27:35 AM

Sample Preparation/Analysis

Balance Id:1120373922

8l Am PrpRC5016/5086, SepRC5072(5003)  
 SX Americium-241 by Alpha Spec  
 5l CLIENT: HANFORD

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

AnalyDueDate: 11/12/2007

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

Batch: 7312563  
 SEQ Batch, Test: None

pCi/L

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

Prep Tech: ,WoodT



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

J8MK12AA-BLK:

J8MK12AC-LCS:

J7LJA2AF-SAMP Calc Info:

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

J8MK12AA-BLK:

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

J8MK12AC-LCS:

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

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

TESTAMERICA RICHLAND AMENDED PACKAGER 131

10/30/2007 3:08:21 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: 11/12/2007

Sep1 DT/Tm Tech: 112-07 8:54 AM

Batch: 7283505 WATER pCi/L  
SEQ Batch, Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

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:
1 J7LJA-1-AA J7I250237-1-SAMP 09/24/2007 12:57			200.02g,in	200.02g	NPTA6798 10/11/07,pd 06/01/01,r			300				
<p>AmtRec: 20ML,9XLP,3X4LP #Containers: 13</p> <p>Scr: Alpha: -5.31E-03 uCi/Sa Beta: 2.31E-03 uCi/Sa</p>												
2 J7LJL-1-AA J7I250237-2-SAMP 09/24/2007 14:42			200.05g,in	200.05g	NPTA6799 10/11/07,pd 06/01/01,r							
<p>AmtRec: 20ML,9XLP,3X4LP #Containers: 13</p> <p>Scr: Alpha: 3.71E-03 uCi/Sa Beta: -3.37E-03 uCi/Sa</p>												
3 J7PCT-1-AA J7I260294-1-SAMP 09/25/2007 09:44			200.03g,in	200.03g	NPTA6800 10/11/07,pd 06/01/01,r							
<p>AmtRec: VIAL20,8XLP,3X4LP #Containers: 12</p> <p>Scr: Alpha: 3.53E-03 uCi/Sa Beta: -1.33E-03 uCi/Sa</p>												
4 J7PJA-1-AA J7I260313-1-SAMP 09/25/2007 09:52			200.00g,in	200.00g	NPTA6801 10/11/07,pd 06/01/01,r							
<p>AmtRec: VIAL20,8XLP,3X4LP #Containers: 12</p> <p>Scr: Alpha: -5.61E-04 uCi/Sa Beta: 1.82E-03 uCi/Sa</p>												
5 J7QP8-1-AA J7I270150-1-SAMP 09/26/2007 13:22			200.02g,in	200.02g	NPTA6802 10/11/07,pd 06/01/01,r							
<p>AmtRec: VIAL20,8XLP,3X4LP #Containers: 12</p> <p>Scr: Alpha: -2.22E-03 uCi/Sa Beta: 1.56E-03 uCi/Sa</p>												
6 J7QP8-1-AJ-X J7I270150-1-DUP 09/26/2007 13:22			200.02g,in	200.02g	NPTA6803 10/11/07,pd 06/01/01,r							
<p>AmtRec: VIAL20,8XLP,3X4LP #Containers: 12</p> <p>Scr: Alpha: -2.22E-03 uCi/Sa Beta: 1.56E-03 uCi/Sa</p>												
7 J7QQK-1-AA J7I270150-2-SAMP 09/26/2007 11:31			200.02g,in	200.02g	NPTA6804 10/11/07,pd 06/01/01,r							
<p>AmtRec: VIAL20,8XLP,3X4LP #Containers: 12</p> <p>Scr: Alpha: -3.43E-04 uCi/Sa Beta: -1.81E-04 uCi/Sa</p>												

TESTAMERICA RICHLANDS AMENDED PACKAGE 132

10/30/2007 3:08:28 PM

Sample Preparation/Analysis

Balance Id:1120373922

KO Np-237 PrpRC5086, SepRC5064(5003)  
 XW Neptunium-237 with tracer by alpha spec  
 5I CLIENT: HANFORD

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech:

Batch: 7283505  
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

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:
8 J8MJR-1-AA-B			200.00g.in	200.00g	NPTA6805			300				
J7J100000-505-BLK					10/11/07.pd 06/01/01.r							
09/26/2007 13:22			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:
9 J8MJR-1-AC-C			200.05g.in	200.05g	NPSE0439							
J7J100000-505-LCS					10/17/07.pd 06/01/01.r							
09/26/2007 13:22			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

Comments: pH < 2.0 JgW 10/30/07

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

J7LJA1AA-SAMP Constituent List:  
 Np-237 RDL:0.6 pCi/L LCL: UCL: RPD:  
 J8MJR1AA-BLK:  
 Np-237 RDL:0.6 pCi/L LCL: UCL: RPD:  
 J8MJR1AC-LCS:

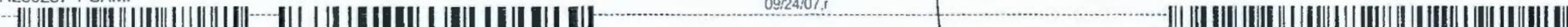
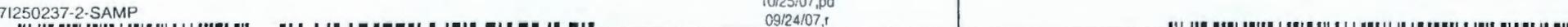
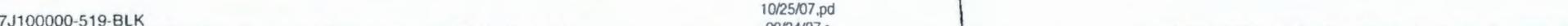
J7LJA1AA-SAMP Calc Info:  
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B  
 J8MJR1AA-BLK:  
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B  
 J8MJR1AC-LCS:  
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

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

TESTAMERICA RICHLAND AMENDEES PACKAGE 133511 021

10/31/2007 5:45:28 AM Sample Preparation/Analysis Balance Id:1120373922  
 384868, Pacific Northwest National Laboratory 9N ThIso PrpRc5016, SepRC5084(5003) Pipet #: \_\_\_\_\_  
 Pacific Northwest National Lab S1 Thorium-228,230,232 by Alpha Spec  
 AnalyDueDate: 11/12/2007 01 STANDARD TEST SET Sep1 DT/Tm Tech: \_\_\_\_\_

Batch: 7283519 WATER pCi/L PM, Quote: SA , 57671 Sep2 DT/Tm Tech: \_\_\_\_\_  
 SEQ Batch, Test: None Prep Tech: ,WoodT

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 J7LJA-1-AC J7I250237-1-SAMP 09/24/2007 12:57			200.02g,in	200.02g	THTC11673 10/25/07,pd 09/24/07,r	200				
										
			AmtRec: 20ML,9XLP,3X4LP	#Containers: 13			Scr:	Alpha: -5.31E-03 uCi/Sa	Beta: 2.31E-03 uCi/Sa	
2 J7LJA-1-AL-X J7I250237-1-DUP 09/24/2007 12:57			200.05g,in	200.05g	THTC11674 10/25/07,pd 09/24/07,r					
										
			AmtRec: 20ML,9XLP,3X4LP	#Containers: 13			Scr:	Alpha: -5.31E-03 uCi/Sa	Beta: 2.31E-03 uCi/Sa	
3 J7LJL-1-AC J7I250237-2-SAMP 09/24/2007 14:42			200.04g,in	200.04g	THTC11675 10/25/07,pd 09/24/07,r					
										
			AmtRec: 20ML,9XLP,3X4LP	#Containers: 13			Scr:	Alpha: 3.71E-03 uCi/Sa	Beta: -3.37E-03 uCi/Sa	
4 J8MK5-1-AA-B J7J100000-519-BLK 09/24/2007 12:57			200.02g,in	200.02g	THTC11676 10/25/07,pd 09/24/07,r					
										
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	
5 J8MK5-1-AC-C J7J100000-519-LCS 09/24/2007 12:57			200.02g,in	200.02g	THSI1078 10/17/07,pd 09/24/07,r					
										
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	

Comments: pH < 2.0 8/10/31/07  
 \* samples were started crushing. Procedure stopped prior to centrifuging. Samples taken back to acidic and precipitate dissolved. 10/31/07 APA

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

J7LJA1AC-SAMP Constituent List:  
 Th-228 RDL:1 pCi/L LCL: UCL: RPD: Th-230 RDL:1 pCi/L LCL:70 UCL:130 RPD:20

TA Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 5  
 Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep\_SamplePrep v4 8.29

TESTAMERICA RICHLAND AMENDED PACKAGE 134

10/31/2007 5:45:34 AM

Sample Preparation/Analysis

Balance Id:1120373922

9N Thiso PrpRc5016, SepRC5084(5003)  
 S1 Thorium-228,230,232 by Alpha Spec  
 01 STANDARD TEST SET

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech:

Batch: 7283519  
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT



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:	
Th-232	RDL:1	pCi/L	LCL:	UCL:	RPD:	Th-234	RDL:	pCi/L	LCL:20	UCL:115	RPD:20
J8MK51AA-BLK:											
Th-228	RDL:1	pCi/L	LCL:	UCL:	RPD:	Th-230	RDL:1	pCi/L	LCL:	UCL:	RPD:
Th-232	RDL:1	pCi/L	LCL:	UCL:	RPD:	Th-234	RDL:	pCi/L	LCL:20	UCL:115	RPD:20
J8MK51AC-LCS:											
Th-230	RDL:1	pCi/L	LCL:70	UCL:130	RPD:20	Th-234	RDL:	pCi/L	LCL:20	UCL:115	RPD:20
J7LJA1AC-SAMP Calc Info:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			
J8MK51AA-BLK:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			
J8MK51AC-LCS:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			

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

TESTAMERICA RICHLAND AMENDED PACKAGE 135

11/13/2007 9:28:05 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

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

AnalyDueDate: 11/12/2007 *W05237*

Batch: 7283510 WATER pCi/L

PM, Quote: SA, 57671

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,ClarkR | *Back 3.*



Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 J7LEX-1-AC J7I250231-1-SAMP 09/23/2007 10:54 AmtRec: 20ML,2XLP #Containers: 3	151.60g,in			1.5	31.5	100	10B	1617	11/13/07	
2 J7LJA-1-AD J7I250237-1-SAMP 09/24/2007 12:57 AmtRec: 20ML,9XLP,3X4LP #Containers: 13	122.10g,in				38.2		10D			
3 J7LJL-1-AD J7I250237-2-SAMP 09/24/2007 14:42 AmtRec: 20ML,9XLP,3X4LP #Containers: 18	116.20g,in				37.8		10F			
4 J7PK8-1-AA J7I260319-1-SAMP 09/26/2007 12:39 AmtRec: VIAL20,LP #Containers: 2	131.50g,in				33.7		10H	1814	11/13/07	
5 J7PLC-1-AA J7I260319-2-SAMP 09/26/2007 07:30 AmtRec: VIAL20,LP #Containers: 2	200.20g,in				0.4	50	10P	1808	11/13/07	
6 J7TDF-1-AA J7I270339-1-SAMP 09/27/2007 10:18 AmtRec: 20ML,LP #Containers: 2	147.00g,in				37.5	100	10B	1814	11/13/07	
7 J7TPK-1-AA J7I270383-1-SAMP 09/27/2007 11:45 AmtRec: VIAL20,LP #Containers: 2	104.50g,in				35.5		10D			

TESTAMERICA RICHLAND AMENDED PACKAGE 136

11/13/2007 9:28:07 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech:

Batch: 7283510 WATER pCi/L  
SEO Batch, Test: None

PM, Quote: SA , 57671

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:
8 J7PK-1-AD-X J71270383-1-DUP 09/27/2007 11:45	104.10g.in			1.5	35.6	100	10F	1815	11/05/07	
AmtRec: VIAL20,LP #Containers: 2 Scr: Alpha: -2.09E-04 uCi/Sa Beta: 2.52E-04 uCi/Sa										
9 J7TPM-1-AA J71270383-2-SAMP 09/27/2007 12:44	142.90g.in				29.6		10A	2016	11/15/07	
AmtRec: VIAL20,LP #Containers: 2 Scr: Alpha: 1.41E-04 uCi/Sa Beta: -1.72E-04 uCi/Sa										
10 J8MKJ-1-AA-B J7J100000-510-BLK 09/27/2007 11:45	200.20g.in				0.5		10B			
AmtRec: #Containers: 1 Scr: Alpha: Beta:										
11 J8MKJ-1-AC-C J7J100000-510-LCS 09/27/2007 11:45	200.10g.in		ASD4305 09/19/07,pd		0.6		10C			
AmtRec: #Containers: 1 Scr: Alpha: Beta:										

Comments: pH < 2.0; Aliquot Reduced due to Weigher Screen RC 11/13/07

All Clients for Batch:

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

J7LEX1AC-SAMP Constituent List:

ALPHA RDL:3 pCi/L LCL: UCL: RPD:  
 J8MKJ1AA-BLK:  
 ALPHA RDL:3 pCi/L LCL: UCL: RPD:  
 J8MKJ1AC-LCS:  
 Am-241 RDL: pCi/L LCL:70 UCL:130 RPD:20

J7LEX1AC-SAMP Calc Info:

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

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

ISV - Insufficient Volume for Analysis

WO Cnt: 11  
 Prep SamplePrep v4.8.29

TESTAMERICA RICHLAND AMENDED PACKAGE 137

11/13/2007 9:28:07 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech:

Batch: 7283510  
 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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J8MKJ1AA-BLK:  
 Uncert Level (#s): 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B

J8MKJ1AC-LCS:  
 Uncert Level (#s): 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B

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

11/20/2007 4:43:12 AM		<b>Sample Preparation/Analysis</b>			Balance Id:1120482733	
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab		AZ Gross Alpha PrpRC5014 S7 Gross Alpha by GPC using Am-241 curve 5I CLIENT: HANFORD			Pipet #: _____	
AnalyDueDate: 11/12/2007					Sep1 DT/Tm Tech: _____	
Batch: 7283510 WATER pCi/L		PM, Quote: SA , 57671			Sep2 DT/Tm Tech: _____	
SEO 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:
8 J7TPK-1-AD-X J71270383-1-DUP 09/27/2007 11:45		104.10g,in								
			AmtRec: VIAL20,LP	#Containers: 2			Scr:	Alpha: -2.09E-04 uCi/Sa	Beta: 2.62E-04 uCi/Sa	
9 J7TPK-2-AA J71270383-1-SAMP 09/27/2007 11:45	104.5				35.5	100	10A	0836	1/30/07	
			AmtRec: VIAL20,LP	#Containers: 2			Scr:	Alpha: 2.09E-04 uCi/Sa	Beta: 2.62E-04 uCi/Sa	
10 J7TPK-2-AD-X J71270383-1-DUP 09/27/2007 11:45	104.10				35.6		10B			
			AmtRec: VIAL20,LP	#Containers: 2			Scr:	Alpha: -2.09E-04 uCi/Sa	Beta: 2.62E-04 uCi/Sa	
11 J7TPM-1-AA J71270383-2-SAMP 09/27/2007 12:44		142.90g,in								
			AmtRec: VIAL20,LP	#Containers: 2			Scr:	Alpha: 1.41E-04 uCi/Sa	Beta: -1.72E-04 uCi/Sa	
12 J8MKJ-1-AA-B J7J100000-510-BLK 09/27/2007 11:45		200.20g,in								
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	
13 J8MKJ-1-AC-C J7J100000-510-LCS 09/27/2007 11:45		200.10g,in	ASD4305 09/19/07,pd							
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	

TA Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 13  
 Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ICOC v4.8.29

TESTAMERICA RICHLAND AMENDED PACKAGE 139

11/20/2007 4:43:12 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech:

Batch: 7283510 pCi/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	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

J7LEX1AC-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
J8MKJ1AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
J8MKJ1AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

J7LEX1AC-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J8MKJ1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J8MKJ1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

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

11/20/2007 4:43:11 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,  
Pacific Northwest National Lab

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech:

Batch: 7283510 WATER pCi/L PM, Quote: SA , 57671  
SEQ Batch, Test: None All Tests: 7283508 ARS6, 7283510 AZS7, 7283516 BCS8,

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:
1 J7LEX-1-AC J7I250231-1-SAMP 09/23/2007 10:54	151.60g,in									
AmtRec: 20ML,2XLP #Containers: 3 Scr: Alpha: -2.21E-04 uCi/Sa Beta: 3.07E-04 uCi/Sa										
2 J7LJA-1-AD J7I250237-1-SAMP 09/24/2007 12:57	122.10g,in									
AmtRec: 20ML,9XLP,3X4LP #Containers: 13 Scr: Alpha: -5.31E-03 uCi/Sa Beta: 2.31E-03 uCi/Sa										
3 J7LJL-1-AD J7I250237-2-SAMP 09/24/2007 14:42	116.20g,in									
AmtRec: 20ML,9XLP,3X4LP #Containers: 13 Scr: Alpha: 3.71E-03 uCi/Sa Beta: -3.37E-03 uCi/Sa										
4 J7PK8-1-AA J7I260319-1-SAMP 09/26/2007 12:39	131.50g,in									
AmtRec: VIAL20,LP #Containers: 2 Scr: Alpha: -2.34E-05 uCi/Sa Beta: -3.07E-05 uCi/Sa										
5 J7PLC-1-AA J7I260319-2-SAMP 09/26/2007 07:30	200.20g,in									
AmtRec: VIAL20,LP #Containers: 2 Scr: Alpha: 2.31E-05 uCi/Sa Beta: -1.99E-05 uCi/Sa										
6 J7TDF-1-AA J7I270339-1-SAMP 09/27/2007 10:18	147.00g,in									
AmtRec: 20ML,LP #Containers: 2 Scr: Alpha: -1.38E-04 uCi/Sa Beta: 1.32E-04 uCi/Sa										
7 J7TPK-1-AA J7I270383-1-SAMP 09/27/2007 11:45	104.50g,in									
AmtRec: VIAL20,LP #Containers: 2 Scr: Alpha: -2.09E-04 uCi/Sa Beta: 2.62E-04 uCi/Sa										



QC Batch: 7283510

Page: 2

<u>Tracer</u> <u>Vial</u>	<u>Work Order#</u>	<u>Total</u> <u>Sample</u>	<u>Volume</u> <u>Analyzed</u>	<u>PPT.Wt.</u>	<u>Tracer</u> <u>Yield</u>	<u>Dish</u> <u>Size</u>	<u>Count</u> <u>Time(min)</u>	<u>Detector</u> <u>ID</u>	<u>Time</u> <u>Off</u>	<u>CR Analyst</u> <u>Init/Date</u>
	J8MKJ1AA B									
	J8MKJ1AC C									

Comments:

RQC053

TestAmerica Laboratories, Inc.  
Information Sheet Rad Prep

Run Date: 11/19/07  
Time: 17:23:35

Parent Batch:  
Associated Batches:  
:  
:  
:  
:

\*\*\*\*\*  
\* QC BATCH: 7283510 \*  
\*\*\*\*\*

Page: 1

S7: Gross Alpha by GPC using Am-241 curve  
AZ: Gross Alpha PrpRCS014  
SI: CLIENT: HANFORD

Analytical Due Date: 11/08/07  
Project Manager: SA

Lot# Work Order	Client	Analyt Due Matrix	Client Name Aliquot Geometry	Count	Time	Mid/Ave Date/Time	Tracer ID Spike ID	CRDL	Units	Screen Info - (Ci) Alpha Beta	PM Bin
J7I250231-001 J7LEX-1-AC Comments: WATER		11/08/07	Pacific Northwest .0000	.000		9/23/07 10:54		3	pCi/L	**NYS **NYS J7I250231	SA
J7I250237-001 J7LJA-1-AD Comments: WATER		11/08/07	Pacific Northwest .0000	.000		9/24/07 12:57		3	pCi/L	**NYS **NYS J7I240237	SA
J7I250237-002 J7LJL-1-AD Comments: WATER		11/08/07	Pacific Northwest .0000	.000		9/24/07 14:42		3	pCi/L	**NYS **NYS J7I240237	SA
J7I260319-001 J7PK8-1-AA Comments: WATER		11/09/07	Pacific Northwest .0000	.000		9/26/07 12:39		3	pCi/L	**NYS **NYS J7I260319	SA
J7I260319-002 J7PLC-1-AA Comments: WATER		11/09/07	Pacific Northwest .0000	.000		9/26/07 7:30		3	pCi/L	**NYS **NYS J7I260319	SA
J7I270339-001 J7TDF-1-AA Comments: WATER		11/12/07	Pacific Northwest .0000	.000		9/27/07 10:18		3	pCi/L	**NYS **NYS J7I270339	SA
J7I270383-001 J7TPK-1-AA Comments: WATER		11/12/07	Pacific Northwest .0000	.000		9/27/07 11:45		3	pCi/L	**NYS **NYS J7I270383	SA
J7I270383-001 X J7TPK-1-AD Comments: WATER		11/12/07	Pacific Northwest .0000	.000		9/27/07 11:45		3	pCi/L	**NYS **NYS J7I270383	SA
J7I270383-001 J7TPK-2-AA Comments: WATER		11/12/07	Pacific Northwest .0000	.000		9/27/07 11:45		3	pCi/L	**NYS **NYS J7I270383	SA

\*\*\*\*\*  
 \*  
 \* QC BATCH: 7283510 \*  
 \*  
 \*\*\*\*\*

Lot# Work Order	Analyt Due Client Matrix	Client Name Aliquot Geometry	Count	Time	Mid/Ave Date/Time	Tracer ID Spike ID	CRDL	Units	Screen Alpha	Info - (Ci) Beta	PM Bin
J7I270383-001 X J7TPK-2-AD WATER Comments: WATER	11/12/07	Pacific Northwest .0000	.000		9/27/07 11:45		3	pCi/L	**NYS	**NYS J7I270383	SA
J7I270383-002 J7TPM-1-AA WATER Comments: WATER	11/12/07	Pacific Northwest .0000	.000		9/27/07 12:44		3	pCi/L	**NYS	**NYS J7I270383	SA
J7J100000-510 B J8MKJ-1-AA WATER Comments:	11/12/07	Pacific Northwest			9/27/07 11:45		3	pCi/L	**NA	**NA	SA
J7J100000-510 C J8MKJ-1-AC WATER Comments:	11/12/07	Pacific Northwest			9/27/07 11:45			pCi/L	**NA	**NA	SA

Total Number of Samples In Batch: 00013

<b>Batch Information:</b>	Dry Wt: N	Decay Correct: Y	Blank Sub: None	Call In:
	Uncert: Both	Sigma: 1.960	ODR: Target List + Other Detected	
<u>BLANK CRDL</u>		<u>Tracer Yield</u>	<u>Type</u>	<u>QC Control Limits</u>
Alpha	3		RER	

\*\* NYS = Not Yet Screened  
 \*\* NA = Not Applicable  
 \*\* Other = Other than Gross Alpha or Gross Beta  
 ++ Indicates that Batch Information has changed for this sample. Print worksheet for details.

TESTAMERICA RICHLAND AMENDED PACKAGE 145

11/13/2007 9:12:12 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
 Pacific Northwest National Lab

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

Pipet #: 240

AnalyDueDate: 11/12/2007 W05237

Sep1 DT/Tm Tech:

Batch: 7283516 WATER pCi/L

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ClarkR / B. E. J.



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 J7LEX-1-AD J7I250231-1-SAMP 09/23/2007 10:54 AmtRec: 20ML_2XLP #Containers: 3	200.40g,in			1.5	733	100	JLJ	1026	11/14/07	Scr: Alpha: 2.21E-04 uCi/Sa Beta: 3.07E-04 uCi/Sa
2 J7LJA-1-AE J7I250237-1-SAMP 09/24/2007 12:57 AmtRec: 20ML_9XLP_3X4LP #Containers: 13	188.50g,in				79.0		JLB			Scr: Alpha: 5.31E-03 uCi/Sa Beta: 2.31E-03 uCi/Sa
3 J7LJL-1-AE J7I250237-2-SAMP 09/24/2007 14:42 AmtRec: 20ML_9XLP_3X4LP #Containers: 13	151.40g,in				74.6		JLC			Scr: Alpha: 3.71E-03 uCi/Sa Beta: -3.37E-03 uCi/Sa
4 J7PK8-1-AC J7I260319-1-SAMP 09/26/2007 12:39 AmtRec: VIAL20,LP #Containers: 2	147.30g,in				73.3		JLD			Scr: Alpha: -2.34E-05 uCi/Sa Beta: -3.07E-05 uCi/Sa
5 J7PLC-1-AC J7I260319-2-SAMP 09/26/2007 07:30 AmtRec: VIAL20,LP #Containers: 2	200.50g,in				0.1		JLE			Scr: Alpha: 2.31E-05 uCi/Sa Beta: -1.99E-05 uCi/Sa
6 J7TDF-1-AC J7I270339-1-SAMP 09/27/2007 10:18 AmtRec: 20ML,LP #Containers: 2	151.40g,in				76.6		JLF			Scr: Alpha: -1.38E-04 uCi/Sa Beta: 1.32E-04 uCi/Sa
7 J7TPK-1-AC J7I270383-1-SAMP 09/27/2007 11:45 AmtRec: VIAL20,LP #Containers: 2	126.60g,in				70.8		JLG			Scr: Alpha: -2.09E-04 uCi/Sa Beta: 2.62E-04 uCi/Sa

TESTAMERICA RICHLAND AMENDED PACKAGE 146

11/13/2007 9:12:13 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech:

Batch: 7283516 WATER pCi/L  
SEO Batch, Test: None

PM, Quote: SA , 57671

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:
8 J7TPM-1-AC J71270383-2-SAMP 09/27/2007 12:44	200.60g,in			1.5	S.3	100	270	1226	11/14/07	
<p>AmtRec: VIAL20,LP #Containers: 2 Scr: Alpha: 1.41E-04 uCi/Sa Beta: -1.72E-04 uCi/Sa</p>										
9 J7TPM-1-AD-X J71270383-2-DUP 09/27/2007 12:44	200.10g,in				79.5		284			
<p>AmtRec: VIAL20,LP #Containers: 2 Scr: Alpha: 1.41E-04 uCi/Sa Beta: -1.72E-04 uCi/Sa</p>										
10 J8MKM-1-AA-B J7J100000-516-BLK 09/27/2007 12:44	200.10g,in				0.2		283			
<p>AmtRec: #Containers: 1 Scr: Alpha: Beta:</p>										
11 J8MKM-1-AC-C J7J100000-516-LCS 09/27/2007 12:44	200.20g,in		BESB3154 10/22/07,pd		0.3		282			
<p>AmtRec: #Containers: 1 Scr: Alpha: Beta:</p>										

Comments: pH < 2.0 ; Activity Reduced due to W/lyte Screen RC 11/13/07

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

J7LEX1AD-SAMP Constituent List:  
BETA RDL:4 pCi/L LCL: UCL: RPD:  
J8MKM1AA-BLK:  
BETA RDL:4 pCi/L LCL: UCL: RPD:  
J8MKM1AC-LCS:  
Sr-90 RDL: pCi/L LCL:70 UCL:130 RPD:20

J7LEX1AD-SAMP Calc Info:  
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

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

ISV - Insufficient Volume for Analysis

WO Cnt: 11  
Prep\_SamplePrep v4.8.29

TESTAMERICA RICHLAND AMENDED PACKAGE 147

11/13/2007 9:12:14 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: 11/12/2007

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

Batch: 7283516  
 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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J8MKM1AA-BLK:

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

J8MKM1AC-LCS:

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

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

TESTAMERICA RICHLAND AMENDED PACKAGE 148

11/13/2007 2:02:54 PM

Sample Preparation/Analysis

Balance Id:1120373922,e32905

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

AnalysisDueDate: 11/12/2007

Sep1 DT/Tm Tech: 11/06/2007 16:47,ManisD

Batch: 7283527 WATER pCi/L PM, Quote: SA, 57671  
SEQ Batch, Test: None All Tests: 7283505 KOXW, 7283506 BNTB, 7283510 AZS7, 7283516 BCS8, 7283518 8ISX, 7283519 9NS1, 7283521  
5SS3, 7283522 AWTA, 7283527 CLTL, 7312563 8ISX,

Sep2 DT/Tm Tech: 11/13/2007 09:05,ManisD

Prep Tech: WoodT,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 J7LJA-1-AK J7I250237-1-SAMP 10/11/07, pd 05/22/07	1000.00g,in		SRTB15428		1.0	23.1	100	1A	0043	11/14/07	
-----11/06/2007 16:47:st, 11/13/2007-----											
			AmtRec: 20ML,9XLP,3X4LP	#Containers: 13		Scr:			Alpha: -5.31E-03 uCi/Sa	Beta: 2.31E-03 uCi/Sa	
2 J7LJL-1-AK J7I250237-2-SAMP 10/11/07, pd 05/22/07	1000.03g,in		SRTB15429		1.0	23.2	100	7B	0043	11/14/07	
-----11/06/2007 16:47:st, 11/13/2007-----											
			AmtRec: 20ML,9XLP,3X4LP	#Containers: 13		Scr:			Alpha: 3.71E-03 uCi/Sa	Beta: -3.37E-03 uCi/Sa	
3 J7N9F-1-AC J7I260282-1-SAMP 10/22/07, pd 05/22/07	1000.01g,in		SRTB15438		1.0	23	100	7C	0043	11/14/07	
-----11/06/2007 16:47:st, 11/13/2007-----											
			AmtRec: VIAL20,500MLP,3XLP,2X4LP	#Containers: 7		Scr:			Alpha: -1.26E-03 uCi/Sa	Beta: 5.19E-04 uCi/Sa	
4 J7PCT-1-AG J7I260294-1-SAMP 10/22/07, pd 05/22/07	1000.03g,in		SRTB15439		1.0	22.9	100	1A	0043	11/14/07	
-----11/06/2007 16:47:st, 11/13/2007-----											
			AmtRec: VIAL20,8XLP,3X4LP	#Containers: 12		Scr:			Alpha: 3.53E-03 uCi/Sa	Beta: -1.33E-03 uCi/Sa	

TESTAMERICA RICHLAND AMENDED PACKAGE 149

11/13/2007 2:02:55 PM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech: 11/06/2007 16:47,ManisD

Batch: 7283527 WATER pCi/L  
SEQ Batch. Test: None

PM, Quote: SA, 57671

Sep2 DT/Tm Tech: 11/13/2007 09:05,ManisD

Prep Tech: ,ManisD



Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
5 J7PCT-1-AH-X		1000.03g,in	SRTB15440		1.0	21.6	100	1B	0043	11/14/07	
J71260294-1-DUP			10/22/07,pd 05/22/07					2C	0404	11/15/07	
-----11/06/2007-16:47:st, 11/13/2007-----											
09/25/2007 09:44 AmtRec: VIAL20,8XLP,3X4LP #Containers: 12 Scr: Alpha: 3.53E-03 uCi/Sa Beta: -1.33E-03 uCi/Sa											
6 J7PJA-1-AG		1000.05g,in	SRTB15441		1.0	22.8	100	1C	0043	11/14/07	
J71260313-1-SAMP			10/22/07,pd 05/22/07					2B	0404	11/15/07	
-----11/06/2007-16:47:st, 11/13/2007-----											
09/25/2007 09:52 AmtRec: VIAL20,8XLP,3X4LP #Containers: 12 Scr: Alpha: -5.61E-04 uCi/Sa Beta: 1.82E-03 uCi/Sa											
7 J7QP8-1-AG		1000.02g,in	SRTB15442		1.0	22.1	100	1D	0043	11/14/07	
J71270150-1-SAMP			10/22/07,pd 05/22/07					2C	0404	11/15/07	
-----11/06/2007-16:47:st, 11/13/2007-----											
09/26/2007 13:22 AmtRec: VIAL20,8XLP,3X4LP #Containers: 12 Scr: Alpha: -2.22E-03 uCi/Sa Beta: 1.56E-03 uCi/Sa											
8 J7QK-1-AG		1000.03g,in	SRTB15443		1.0	22.4	100	2A	0043	11/14/07	
J71270150-2-SAMP			10/22/07,pd 05/22/07					2D	0404	11/15/07	
-----11/06/2007-16:47:st, 11/13/2007-----											
09/26/2007 11:31 AmtRec: VIAL20,8XLP,3X4LP #Containers: 12 Scr: Alpha: -3.43E-04 uCi/Sa Beta: -1.81E-04 uCi/Sa											

TESTAMERICA RICHLAND AMENDED PACKAGE 150

11/13/2007 2:02:55 PM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech: 11/06/2007 16:47,ManisD

Batch: 7283527  
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech: 11/13/2007 09:05,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:
9 J8MLG-1-AA-B		1000.01g,in	SRTB15444		1.0	22.9	100	2B	0403	11/14/07	
J7J100000-527-BLK			10/22/07,pd 05/22/07								
-----11/06/2007 16:47.st; 11/13/2007-----											
09/25/2007 09:44		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:
10 J8MLG-1-AC-C		1000.01g,in	SRSG1394		1.0	22.6	100	2C	0403	11/14/07	
J7J100000-527-LCS			10/22/07,pd 05/22/07								
-----11/06/2007 16:47.st; 11/13/2007-----											
09/25/2007 09:44		AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

Comments: J7QP8-SAMP "Comments DUP Aliquot Reduced due to ISV RC 11/12/07"

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

J7LJALAK-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
J8MLG1AA-BLK:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
J8MLG1AC-LCS:											
Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20

J7LJALAK-SAMP Calc Info:  
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TESTAMERICA RICHLAND AMENDED PACKAGE 151

11/13/2007 2:02:56 PM

Sample Preparation/Analysis

Balance Id:1120373922,1120373922,1120

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech: 11/06/2007 16:47,ManisD

Batch: 7283527  
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech: 11/13/2007 09:05,ManisD

Prep Tech: ManisD



Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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J8MLG1AA-BLK:

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

J8MLG1AC-LCS:

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

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

TESTAMERICA RICHLAND AMENDED PACKAGE 152

11/12/2007 8:57:28 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

AW Gamma PrpRC5017  
TA Gamma by HPGE  
SI CLIENT: HANFORD

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

AnalyDueDate: 11/12/2007 *W05237*

Sep1 DT/Tm Tech:

Batch: 7283522 WATER pCi/L PM, Quote: SA, 57671  
SEQ Batch, Test: None All Tests: 7283505 KOXW, 7283506 BNTB, 7283510 AZS7, 7283516 BCS8, 7283518 8ISX, 7283519 9NS1, 7283521  
5SS3, 7283522 AWTA, 7283527 CLTL, 7312563 8ISX,

Sep2 DT/Tm Tech:

Prep Tech: *ClarkR / Bex*

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 J7LJA-1-AH J7I250237-1-SAMP 09/24/2007 12:57 AmtRec: 20ML,9XLP,3X4LP #Containers: 13	2000.30g,in					<i>200</i>	<i>64</i>	<i>8944</i>		<i>6/1/2005</i>
2 J7LJL-1-AH J7I250237-2-SAMP 09/24/2007 14:42 AmtRec: 20ML,9XLP,3X4LP #Containers: 13	2000.20g,in						<i>65</i>	<i>0945</i>		
3 J7PCT-1-AD J7I260294-1-SAMP 09/25/2007 09:44 AmtRec: VIAL20,8XLP,3X4LP #Containers: 12	2000.20g,in						<i>613</i>	<i>0945</i>		
4 J7PJA-1-AD J7I260313-1-SAMP 09/25/2007 09:52 AmtRec: VIAL20,8XLP,3X4LP #Containers: 12	2000.20g,in						<i>67</i>	<i>0945</i>		
5 J7PKK-1-AA J7I260315-2-SAMP 09/25/2007 10:03 AmtRec: VIAL20,2X500MLP,4LP #Containers: 4	2000.20g,in						<i>610</i>	<i>0945</i>		
6 J7QP8-1-AD J7I270150-1-SAMP 09/26/2007 13:22 AmtRec: VIAL20,8XLP,3X4LP #Containers: 12	2000.40g,in						<i>611</i>	<i>0945</i>		
7 J7QP8-1-AK-X J7I270150-1-DUP 09/26/2007 13:22 AmtRec: VIAL20,8XLP,3X4LP #Containers: 12	1925.60g,in						<i>614</i>	<i>0946</i>		

TESTAMERICA RICHLAND AMENDED PACKAGE 153

11/12/2007 8:57:30 AM Sample Preparation/Analysis Balance Id:1120482733

384868, Pacific Northwest National Laboratory , AW Gamma PrpRC5017 Pipet #: \_\_\_\_\_  
 Pacific Northwest National Lab TA Gamma by HPGE

AnalyDueDate: 11/12/2007 5I CLIENT: HANFORD Sep1 DT/Tm Tech: \_\_\_\_\_

Batch: 7283522 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:
8 J7QOK-1-AD J7I270150-2-SAMP 09/26/2007 11:31	2000.40g.in	2000.40g.in			100 ml	200	615	0944	1/14/07	
			AmtRec: VIAL20,8XLP,3X4LP		#Containers: 12		Scr:	Alpha: -3.43E-04 uCi/Sa	Beta: -1.81E-04 uCi/Sa	
9 J8MK9-1-AA-B J7J100000-522-BLK 09/26/2007 13:22	2000.20g.in						610	1314	1/14/07	
			AmtRec:		#Containers: 1		Scr:	Alpha:	Beta:	
10 J8MK9-1-AC-C J7J100000-522-LCS 09/26/2007 13:22	2000.10g.in		QCAG1416 09/19/07.pd				67	1314		
			AmtRec:		#Containers: 1		Scr:	Alpha:	Beta:	

Comments: J7QP8-SAMP "Comments DUP Aliquot Reduced due to ISV RC 11/12/07"

*f11 < 7.0 RC 11/12/07*

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

J7LJA1A8-SAMP Constituent List:

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

J8MK91AA-BLK:

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:

J8MK91AC-LCS:

TESTAMERICA RICHLAND AMENDED PACKAGE 154

11/12/2007 8:57:30 AM

Sample Preparation/Analysis

Balance Id:1120482733

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

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

AnalyDueDate: 11/12/2007

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

Batch: 7283522  
 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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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						

U7LJA1AH-SAMP Calc Info:

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

U8MK91AA-BLK:

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

U8MK91AC-LCS:

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

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

11/5/2007 11:18:48 AM

Sample Preparation/Analysis

Balance Id:2113224201

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

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

AnalyDueDate: 11/12/2007 **W05237**

Sep1 DT/Tm Tech:

Batch: 7283506 WATER pCi/L  
SEQ Batch, Test: None All Tests: 7283506 BNTB.

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,BostedD

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 J7LDC-1-AA J7I250226-1-SAMP 09/24/2007 10:59 AmtRec: 20ML,2x4LP #Containers: 3	3940.20g,in		ITA6667 10/09/07			35.7 100	L2	2045		11/7/07 OK
2 J7LJA-1-AJ J7I250237-1-SAMP 09/24/2007 12:57 AmtRec: 20ML,9XLP,3X4LP #Containers: 13	3903.60g,in		ITA6668 10/09/07			38.0	L4	2046		
3 J7LJL-1-AJ J7I250237-2-SAMP 09/24/2007 14:42 AmtRec: 20ML,9XLP,3X4LP #Containers: 13	3935.60g,in		ITA6669 10/09/07			36.0	L5	2046		
4 J7NSF-1-AA J7I260282-1-SAMP 09/25/2007 08:24 AmtRec: VIAL20,500MLP,3XLP,2X4LP #Containers: 7	3930.30g,in		ITA6670 10/09/07			35.8	L2	2236		
5 J7PCT-1-AE J7I260294-1-SAMP 09/25/2007 09:44 AmtRec: VIAL20,8XLP,3X4LP #Containers: 12	3919.30g,in		ITA6671 10/09/07			35.7	L4	2237		
6 J7PJA-1-AE J7I260313-1-SAMP 09/25/2007 09:52 AmtRec: VIAL20,8XLP,3X4LP #Containers: 12	3925.50g,in		ITA6672 10/09/07			35.9	L5	2237		
7 J7PKR-1-AA J7I260316-1-SAMP 09/26/2007 10:42 AmtRec: VIAL20,2X4LP #Containers: 3	3935.50g,in		ITA6673 10/09/07			36.2	L2	0033		

1/5/2007 11:18:49 AM

### Sample Preparation/Analysis

Balance Id:2113224201

384868, Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech:

Batch: 7283506 WATER pCi/L

PM, Quote: SA, 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BostedD



ESTIMATED RICHLAND AMENDED PACKAGE

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 J7QP8-1-AE			3890.20g,in	ITA6674				L4	0034	11/7/0702	
J71270150-1-SAMP				10/09/07		36.3 100					
09/26/2007 13:22			AmtRec: VIAL20,6XLP,3X4LP					Scr:	Alpha: -2.22E-03 uCi/Sa		Beta: 1.56E-03 uCi/Sa
9 J7QK-1-AE			3926.20g,in	ITA6675				L5			
J71270150-2-SAMP				10/09/07		38.4					
09/26/2007 11:31			AmtRec: VIAL20,6XLP,3X4LP					Scr:	Alpha: -3.43E-04 uCi/Sa		Beta: -1.81E-04 uCi/Sa
10 J7TQX-1-AA			3897.50g,in	ITA6676				L2	0657	11/8/07	
J71270389-1-SAMP				10/09/07		40.0					
09/27/2007 13:41			AmtRec: VIAL20,2X4LP					Scr:	Alpha: -5.69E-04 uCi/Sa		Beta: 2.01E-03 uCi/Sa
11 J7TQX-1-AC-X			3914.40g,in	ITA6677				L4	0657		
J71270389-1-DUP				10/09/07		47.0					
09/27/2007 13:41			AmtRec: VIAL20,2X4LP					Scr:	Alpha: -5.69E-04 uCi/Sa		Beta: 2.01E-03 uCi/Sa
12 J7TRG-1-AA			3939.60g,in	ITA6678				L5	0638		
J71270389-2-SAMP				10/09/07		35.9					
09/27/2007 12:20			AmtRec: VIAL20,2X4LP					Scr:	Alpha: -1.46E-03 uCi/Sa		Beta: 4.50E-04 uCi/Sa
13 J8MJX-1-AA-B			3982.00g,in	ITA6679				L4	0853	11/8/07	
J7J100000-506-BLK				10/09/07		34.9					
09/27/2007 13:41			AmtRec:					Scr:	Alpha:		Beta:
14 J8MJX-1-AC-C			3976.80g,in	ISD0787				L5	0854		
J7J100000-506-LCS				10/01/07		35.5					
09/27/2007 13:41			AmtRec:					Scr:	Alpha:		Beta:

11/5/2007 11:18:50 AM

### Sample Preparation/Analysis

Balance Id:2113224201

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

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

AnalyDueDate: 11/12/2007

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

Batch: 7283506  
SEO Batch, Test: None

pCi/L

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

Prep Tech: ,BostedD



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

All Clients for Batch:

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

J7LDC1AA-SAMP Constituent List:

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

J8MJX1AA-BLK:

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

J8MJX1AC-LCS:

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

J7LDC1AA-SAMP Calc Info:

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

J8MJX1AA-BLK:

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

J8MJX1AC-LCS:

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

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

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

TESTAMEN  
CA  
RICHLAND  
AMENDED  
PACKAGE  
157

TESTAMERICA RICHLAND AMENDED PACKAGE 158

10/30/2007 2:08:20 PM **Sample Preparation/Analysis** Balance Id:1120373922  
 384868, Pacific Northwest National Laboratory CY Se-79 PrpRC5016, SepRC5043 Pipet #: \_\_\_\_\_  
 Pacific Northwest National Lab TM Selenium-79 by Liquid Scint  
**AnalyDueDate: 11/12/2007** SI CLIENT: HANFORD Sep1 DT/Tm Tech: \_\_\_\_\_

**Batch: 7283500 WATER pCi/L PM, Quote: SA , 57671** Sep2 DT/Tm Tech: \_\_\_\_\_  
 SEQ Batch, Test: None Prep Tech: ,WoodT

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 J7PCT-1-AF		200.02g,in	SETA0205	12/06/06		50				
J7I260294-1-SAMP 09/25/2007 09:44 <span style="margin-left: 100px;">AmtRec: VIAL20,8XLP,3X4LP</span> <span style="margin-left: 50px;">#Containers: 12</span> <span style="float: right;">Scr: Alpha: 3.53E-03 uCi/Sa Beta: -1.33E-03 uCi/Sa</span>										
2 J7PJA-1-AF		200.02g,in	SETA0209	12/06/06						
J7I260313-1-SAMP 09/25/2007 09:52 <span style="margin-left: 100px;">AmtRec: VIAL20,8XLP,3X4LP</span> <span style="margin-left: 50px;">#Containers: 12</span> <span style="float: right;">Scr: Alpha: -5.61E-04 uCi/Sa Beta: 1.82E-03 uCi/Sa</span>										
3 J7QP8-1-AF		200.04g,in	SETA0210	12/06/06						
J7I270150-1-SAMP 09/26/2007 13:22 <span style="margin-left: 100px;">AmtRec: VIAL20,8XLP,3X4LP</span> <span style="margin-left: 50px;">#Containers: 12</span> <span style="float: right;">Scr: Alpha: -2.22E-03 uCi/Sa Beta: 1.56E-03 uCi/Sa</span>										
4 J7QP8-1-AH-X		200.00g,in	SETA0211	12/06/06						
J7I270150-1-DUP 09/26/2007 13:22 <span style="margin-left: 100px;">AmtRec: VIAL20,8XLP,3X4LP</span> <span style="margin-left: 50px;">#Containers: 12</span> <span style="float: right;">Scr: Alpha: -2.22E-03 uCi/Sa Beta: 1.56E-03 uCi/Sa</span>										
5 J7QQK-1-AF		200.01g,in	SETA0212	12/06/06						
J7I270150-2-SAMP 09/26/2007 11:31 <span style="margin-left: 100px;">AmtRec: VIAL20,8XLP,3X4LP</span> <span style="margin-left: 50px;">#Containers: 12</span> <span style="float: right;">Scr: Alpha: -3.43E-04 uCi/Sa Beta: -1.81E-04 uCi/Sa</span>										
6 J8MH6-1-AA-B		200.03g,in	SETA0213	12/06/06						
J7J100000-500-BLK 09/26/2007 13:22 <span style="margin-left: 100px;">AmtRec:</span> <span style="margin-left: 50px;">#Containers: 1</span> <span style="float: right;">Scr: Alpha: Beta:</span>										
7 J8MH6-1-AC-BN										
J7J100000-500-IBLK 09/26/2007 13:22 <span style="margin-left: 100px;">AmtRec:</span> <span style="margin-left: 50px;">#Containers: 1</span> <span style="float: right;">Scr: Alpha: Beta:</span>										

TESTAMERICA RICHLAND AMENDED PACKAGE 159

10/30/2007 2:08:28 PM

Sample Preparation/Analysis

Balance Id:

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

Pipet #:

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech:

Batch: 7283500  
 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:
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Comments: pH < 2.0 10/30/07 JBN

All Clients for Batch:

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

J7PCT1AF-SAMP Constituent List:

Se-79	RDL:3.00E+01	pCi/L	LCL:	UCL:	RPD:
J8MH61AA-BLK: Se-79	RDL:3.00E+01	pCi/L	LCL:	UCL:	RPD:
J8MH61AC-IBLK: Se-79	RDL:3.00E+01	pCi/L	LCL:	UCL:	RPD:

J7PCT1AF-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J8MH61AA-BLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
J8MH61AC-IBLK: Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By

Date:

TESTAMERICA RICHLAND AMENDED PACKAGE 160

10/30/2007 2:29:29 PM

Sample Preparation/Analysis

Balance Id:1120373922

354868. Pacific Northwest National Laboratory  
Pacific Northwest National Lab

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

Pipet #:

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech:

Batch: 7283524 WATER pCi/L  
SEO Batch. Test: None

PM, Quote: SA , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

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 J7N9F-1-AD J7I260282-1-SAMP 09/25/2007 08:24			125.01g,in	125.01g		60				
<p>AmtRec: VIAL20,500MLP,3XLP,2X4LP #Containers: 7</p> <p>Scr: Alpha: -1.26E-03 uCi/Sa Beta: 5.19E-04 uCi/Sa</p>										
2 J7N9F-1-AE-S J7I260282-1-MS 09/25/2007 08:24			125.03g,in	125.03g	TCSE2100 03/28/07,pd 01/10/06,r					
<p>AmtRec: VIAL20,500MLP,3XLP,2X4LP #Containers: 7</p> <p>Scr: Alpha: -1.26E-03 uCi/Sa Beta: 5.19E-04 uCi/Sa</p>										
3 J7PKK-1-AC J7I260315-2-SAMP 09/25/2007 10:03			125.02g,in	125.02g						
<p>AmtRec: VIAL20,2X500MLP,4LP #Containers: 4</p> <p>Scr: Alpha: 3.99E-06 uCi/Sa Beta: 1.72E-07 uCi/Sa</p>										
4 J7PKK-1-AE-X J7I260315-2-DUP 09/25/2007 10:03			125.04g,in	125.04g						
<p>AmtRec: VIAL20,2X500MLP,4LP #Containers: 4</p> <p>Scr: Alpha: 3.99E-06 uCi/Sa Beta: 1.72E-07 uCi/Sa</p>										
5 J8MLC-1-AA-B J7J100000-524-BLK 09/25/2007 10:03			125.06g,in	125.06g						
<p>AmtRec: #Containers: 1</p> <p>Scr: Alpha: Beta:</p>										
6 J8MLC-1-AC-C J7J100000-524-LCS 09/25/2007 10:03			125.03g,in	125.03g	TCSG1912 08/23/07,pd 01/10/06,r					
<p>AmtRec: #Containers: 1</p> <p>Scr: Alpha: Beta:</p>										
7 J8MLC-1-AD-BN J7J100000-524-IBLK 09/25/2007 10:03										
<p>AmtRec: #Containers: 1</p> <p>Scr: Alpha: Beta:</p>										

TESTAMERICA RICHLAND AMENDED PACKAGE 161

10/30/2007 2:29:36 PM

Sample Preparation/Analysis

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

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

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

AnalyDueDate: 11/12/2007

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

Batch: 7283524 pCi/L  
 SEO Batch, Test: None

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: pH < 2.0 JGW 10/30/07

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

J7N9F1AD-SAMP Constituent List:  
 Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

J7N9F1AE-MS Constituent List:

J8MLC1AA-BLK:  
 Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

J8MLC1AC-LCS:  
 Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

J8MLC1AD-IBLK:  
 Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

J7N9F1AD-SAMP Calc Info:  
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

J7N9F1AE-MS Calc Info:  
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

J8MLC1AA-BLK:  
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

J8MLC1AC-LCS:  
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

J8MLC1AD-IBLK:  
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

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

TESTAMERICA RICHLAND AMENDED PACKAGE 162

10/10/2007 3:31:57 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: 11/12/2007 *W05237*

Sep1 DT/Tm Tech: *10.230700*

Batch: 7283508 WATER pCi/L  
SEQ Batch, Test: None

PM, Quote: SA, 57671

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

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



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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1 J7LEX-1-AA

J7I250231-1-SAMP



09/23/2007 10:54 AmtRec: 20ML\_2XLP #Containers: 3 Scr: Alpha: -2.21E-04 uCi/Sa Beta: 3.07E-04 uCi/Sa

2 J7LEX-1-AE-X

J7I250231-1-DUP



09/23/2007 10:54 AmtRec: 20ML\_2XLP #Containers: 3 Scr: Alpha: -2.21E-04 uCi/Sa Beta: 3.07E-04 uCi/Sa

3 J8MKG-1-AA-B

J7J100000-508-BLK



09/23/2007 10:54 AmtRec: #Containers: 1 Scr: Alpha: Beta:

4 J8MKG-1-AC-C

J7J100000-508-LCS



09/23/2007 10:54 AmtRec: #Containers: 1 Scr: Alpha: Beta:

5 J8MKG-1-AD-BX

J7J100000-508-MBLK



09/23/2007 10:54 AmtRec: #Containers: 1 Scr: Alpha: Beta:

6 J8MKG-1-AE-CM

J7J100000-508-MLCS



09/23/2007 10:54 AmtRec: #Containers: 1 Scr: Alpha: Beta:

7 J8MKG-1-AF-BN

J7J100000-508-IBLK



09/23/2007 10:54 AmtRec: #Containers: 1 Scr: Alpha: Beta:

TESTAMERICA RICHLAND AMENDED PACKAGE 163

10/10/2007 3:31:59 PM

**Sample Preparation/Analysis**

Balance Id: *10445*

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech: *10-23-07-ow*

Batch: 7283508  
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:
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8 J8MKG-1-AG-BN

J7J100000-508-IBLK



09/23/2007 10:54

AmtRec:

#Containers: 1

Scr:

Alpha:

Beta:

**Comments:**

**All Clients for Batch:**

384868, Pacific Northwest National Laboratory

Pacific Northwest National Lab, SA , 57671

**J7LEX1AA-SAMP Constituent List:**

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20	
<b>J8MKG1AA-BLK:</b>						
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:	
<b>J8MKG1AC-LCS:</b>						
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20	
<b>J8MKG1AD-MBLK:</b>						
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:	
<b>J8MKG1AE-MLCS:</b>						
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20	
<b>J8MKG1AF-IBLK:</b>						
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:	
<b>J8MKG1AG-IBLK:</b>						
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:	
<b>J7LEX1AA-SAMP Calc Info:</b>						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
<b>J8MKG1AA-BLK:</b>						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
<b>J8MKG1AC-LCS:</b>						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
<b>J8MKG1AD-MBLK:</b>						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
<b>J8MKG1AE-MLCS:</b>						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B
<b>J8MKG1AF-IBLK:</b>						
Uncert Level (#s):	2	Decay to SaDt:	Y	Blk Subt.:	N	Sci.Not.: Y ODRs: B

TESTAMERICA RICHLAND AMENDED PACKAGE 164

10/10/2007 3:31:59 PM

### Sample Preparation/Analysis

Balance Id: 12445

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech: 10-23-07 *ow*

Batch: 7283508 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:
--------------------------------------	-------------------	-----------------------------	------------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

J8MKG1AG-IBLK:

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

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

TESTAMERICA RICHLAND AMENDED PACKAGE 165

10/10/2007 3:32:04 PM

Sample Preparation/Analysis

Balance Id: U/A

384868, Pacific Northwest National Laboratory ,  
Pacific Northwest National Lab

5S C-14 Prp/SepRC5022  
S3 Carbon-14 by Liquid Scint

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

AnalyDueDate: 11/12/2007 W05237

5I CLIENT: HANFORD

Sep1 DT/Tm Tech: 10-31-07

Batch: 7283521 WATER pCi/L  
SEQ Batch, Test: None

PM, Quote: SA , 57671

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

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



Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst. Init/Date	Comments:
<b>1 J7LJA-1-AG</b>								
J7I250237-1-SAMP								
09/24/2007 12:57		AmtRec: 20ML,9XLP,3X4LP	#Containers: 13			Scr: Alpha: -5.31E-03 uCi/Sa	Beta: 2.31E-03 uCi/Sa	
<b>2 J7LJL-1-AG</b>								
J7I250237-2-SAMP								
09/24/2007 14:42		AmtRec: 20ML,9XLP,3X4LP	#Containers: 13			Scr: Alpha: 3.71E-03 uCi/Sa	Beta: -3.37E-03 uCi/Sa	
<b>3 J7PCT-1-AC</b>								
J7I260294-1-SAMP								
09/25/2007 09:44		AmtRec: VIAL20,8XLP,3X4LP	#Containers: 12			Scr: Alpha:	Beta:	
<b>4 J7PJA-1-AC</b>								
J7I260313-1-SAMP								
09/25/2007 09:52		AmtRec: VIAL20,8XLP,3X4LP	#Containers: 12			Scr: Alpha:	Beta:	
<b>5 J7QP8-1-AC</b>								
J7I270150-1-SAMP								
09/26/2007 13:22		AmtRec: VIAL20,8XLP,3X4LP	#Containers: 12			Scr: Alpha: -2.22E-03 uCi/Sa	Beta: 1.56E-03 uCi/Sa	
<b>6 J7QQK-1-AC</b>								
J7I270150-2-SAMP								
09/26/2007 11:31		AmtRec: VIAL20,8XLP,3X4LP	#Containers: 12			Scr: Alpha: -3.43E-04 uCi/Sa	Beta: -1.81E-04 uCi/Sa	
<b>7 J7QQK-1-AH-X</b>								
J7I270150-2-DUP								
09/26/2007 11:31		AmtRec: VIAL20,8XLP,3X4LP	#Containers: 12			Scr: Alpha: -3.43E-04 uCi/Sa	Beta: -1.81E-04 uCi/Sa	

TESTAMERICA RICHLAND AMENDED PACKAGE 166

10/10/2007 3:32:04 PM

**Sample Preparation/Analysis**

Balance Id: *N/A*

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech: *10-31-07om*

Batch: 7283521  
 SEQ Batch, Test: None

pCi/L

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

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



Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On   Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 J8MK7-1-AA-B J7J100000-521-BLK 								
09/26/2007 11:31	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
9 J8MK7-1-AC-C J7J100000-521-LCS 								
09/26/2007 11:31	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
10 J8MK7-1-AD-BN J7J100000-521-IBLK 								
09/26/2007 11:31	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

**Comments:**

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

J7LJA1AG-SAMP Constituent List:

C-14	RDL:2.00E+02	pCi/L	LCL:70	UCL:130	RPD:20
J8MK71AA-BLK:					
C-14	RDL:2.00E+02	pCi/L	LCL:	UCL:	RPD:
J8MK71AC-LCS:					
C-14	RDL:200	pCi/L	LCL:70	UCL:130	RPD:20
J8MK71AD-IBLK:					
C-14	RDL:2.00E+02	pCi/L	LCL:	UCL:	RPD:
J7LJA1AG-SAMP Calc Info:					
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
J8MK71AA-BLK:					
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
J8MK71AC-LCS:					
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	

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

ISV - Insufficient Volume for Analysis

WO Cnt: 10

ICOC v4.8.26

TESTAMERICA RICHLAND AMENDED PACKAGE 167

10/10/2007 3:32:05 PM

### Sample Preparation/Analysis

Balance Id: *N/A*

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

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

AnalyDueDate: 11/12/2007

Sep1 DT/Tm Tech: *D-31-07bm*

Batch: 7283521 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:
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J8MK71AD-IBLK:

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

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

TESTAMERICA RICHLAND AMENDED PACKAGE 168

11/8/2007 2:30:12 PM		<b>Sample Preparation/Analysis</b>			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 #: _____	
AnalytDueDate: 11/12/2007 <b>W05237</b>					Sep1 DT/Tm Tech: _____	
Batch: 7283525 WATER ug/L		PM, Quote: SA , 57671			Sep2 DT/Tm Tech: _____	
SEO 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 J7PKK-1-AD		25.50g,in						
J7I260315-2-SAMP  09/25/2007 10:03 AmtRec: VIAL20,2X500MLP,4LP #Containers: 4 Scr: Alpha: 3.99E-06 uCi/Sa Beta: 1.72E-07 uCi/Sa								
2 J7PKK-1-AF-S		25.10g,in	UNSF4028					
J7I260315-2-MS 10/30/07,pd  09/25/2007 10:03 AmtRec: VIAL20,2X500MLP,4LP #Containers: 4 Scr: Alpha: 3.99E-06 uCi/Sa Beta: 1.72E-07 uCi/Sa								
3 J7PKK-1-AG-X		25.40g,in						
J7I260315-2-DUP  09/25/2007 10:03 AmtRec: VIAL20,2X500MLP,4LP #Containers: 4 Scr: Alpha: 3.99E-06 uCi/Sa Beta: 1.72E-07 uCi/Sa								
4 J8MLD-1-AA-B		25.00g,in						
J7J100000-525-BLK  09/25/2007 10:03 AmtRec: #Containers: 1 Scr: Alpha: Beta:								
5 J8MLD-1-AC-C		25.60g,in	UNSF4029					
J7J100000-525-LCS 10/30/07,pd  09/25/2007 10:03 AmtRec: #Containers: 1 Scr: Alpha: Beta:								
6 J8MLD-1-AD-C		25.20g,in	UNSC1941					
J7J100000-525-LCS 09/20/07,pd  09/25/2007 10:03 AmtRec: #Containers: 1 Scr: Alpha: Beta:								

TESTAMERICA RICHLAND AMENDED PACKAGE 169

11/8/2007 2:30:13 PM

Sample Preparation/Analysis

Balance Id:1120482733

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

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

AnalyDueDate: 11/12/2007

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

Batch: 7283525 ug/L  
 SEO 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: pH < 2.0 RC 11/8/07

All Clients for Batch:

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

J7PKK1AD-SAMP Constituent List:

Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:

J7PKK1AF-MS Constituent List:

J8MLD1AA-BLK:

Uranium RDL:1.44E-01 ug/L LCL: UCL: RPD:

J8MLD1AC-LCS:

Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

J8MLD1AD-LCS:

Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

J7PKK1AD-SAMP Calc Info:

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

J7PKK1AF-MS Calc Info:

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

J8MLD1AA-BLK:

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

J8MLD1AC-LCS:

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

J8MLD1AD-LCS:

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

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





11/20/2007 2:36:56 PM

# ICOC Fraction Transfer/Status Report

ByDate: 11/20/2006, 11/25/2007, Batch: '7312563', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7312563				
AC		CalcC	Barcotl	11/13/2007 8:36:07	
SC			antonsonl	IsBatched 11/12/2007 9:19:50 AM	ICOC_RADCALC v4.8.29
SC			Barcotl	InPrep 11/13/2007 8:36:07 AM	RICH-RC-5016 REVISION 7
SC			Barcotl	Prep1C 11/13/2007 8:36:33 AM	RICH-RC-5016 REVISION 7
SC			AshworthA	Prep2C 11/16/2007 10:29:51 AM	RICH-RC-5086 REV3
SC			AshworthA	Sep1C 11/16/2007 7:52:23 PM	RICH-RC-5072 REV6
SC			FABREM	Sep2C 11/17/2007 10:01:24 AM	RICH-RC-5003 REVISION 7
SC			DAWKINSO	InCnt1 11/17/2007 11:13:19 AM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC 11/18/2007 3:37:12 PM	RICH-RD-0008 REVISION 4
AC			Barcotl	11/13/2007 8:36:33	
AC			AshworthA	11/16/2007 10:29:51	
AC			AshworthA	11/16/2007 7:52:23	
AC			FABREM	11/17/2007 10:01:24	
AC			DAWKINSO	11/17/2007 11:13:19	
AC			DAWKINSO	11/18/2007 3:37:12	

AC: Accepting Entry, SC: Status Change

STL Richland  
Richland Wa.

11/9/2007 8:29:49 AM

# ICOC Fraction Transfer/Status Report

ByDate: 11/9/2006, 11/14/2007, Batch: '7283505', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7283505				
AC	CalcC	WoodT	10/30/2007 2:31:50	
SC		wagarr	IsBatched	10/10/2007 3:42:22 PM
SC		WoodT	InPrep	10/30/2007 2:31:50 PM
SC		WoodT	Prep1C	10/30/2007 3:08:50 PM
SC		FABREM	Sep1C	11/2/2007 10:49:43 AM
SC		FABREM	Sep2C	11/2/2007 12:59:44 PM
SC		BlackCL	InCnt1	11/2/2007 1:05:43 PM
SC		DAWKINSO	CalcC	11/3/2007 2:21:07 PM
AC		WoodT	10/30/2007 3:08:50	
AC		FABREM	11/2/2007 10:49:43	
AC		FABREM	11/2/2007 12:59:44	
AC		BlackCL	11/2/2007 1:05:43 PM	
AC		DAWKINSO	11/3/2007 2:21:07 PM	

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.

11/7/2007 8:18:00 AM

# ICOC Fraction Transfer/Status Report

ByDate: 11/7/2006, 11/12/2007, Batch: '7283519', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7283519				
AC	CalcC	WoodT	10/31/2007 5:32:13	
SC		wagarr	IsBatched	10/10/2007 3:42:22 PM
SC		WoodT	InPrep	10/31/2007 5:32:13 AM
SC		WoodT	Prep1C	10/31/2007 5:45:32 AM
SC		AshworthA	Sep1C	11/2/2007 8:49:12 AM
SC		FABREM	Sep2C	11/2/2007 12:59:58 PM
SC		BlackCL	InCnt1	11/2/2007 1:05:47 PM
SC		DAWKINSO	CalcC	11/2/2007 9:44:33 PM
AC		WoodT	10/31/2007 5:45:32	
AC		AshworthA	11/2/2007 8:49:12	
AC		FABREM	11/2/2007 12:59:58	
AC		BlackCL	11/2/2007 1:05:47 PM	
AC		DAWKINSO	11/2/2007 9:44:33 PM	

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.

11/20/2007 3:55:23 PM

# ICOC Fraction Transfer/Status Report

ByDate: 11/20/2006, 11/25/2007, Batch: '7283510', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7283510				
AC		CalcC	ClarkR	11/13/2007 9:15:38	
SC			wagarr	IsBatched	10/10/2007 3:42:22 PM
SC			ClarkR	InPrep	11/13/2007 9:15:38 AM
SC			ClarkR	Prep1C	11/13/2007 9:28:09 AM
SC			BockJ	InPrep2	11/13/2007 9:48:23 AM
SC			BockJ	Prep2C	11/14/2007 9:47:30 AM
SC			BlackCL	InCnt1	11/14/2007 10:00:33 AM
SC			DAWKINSO	CalcC	11/15/2007 9:11:56 PM
SC			ClarkR	CalcC	11/20/2007 10:11:31 AM
AC			ClarkR		11/13/2007 9:28:09
AC			BockJ		11/13/2007 9:48:23
AC			BockJ		11/14/2007 9:47:30
AC			BlackCL		11/14/2007 10:00:33
AC			DAWKINSO		11/15/2007 9:11:56
AC			ClarkR		11/20/2007 10:11:31

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.

11/14/2007 3:15:57 PM

# ICOC Fraction Transfer/Status Report

ByDate: 11/14/2006, 11/19/2007, Batch: '7283516', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7283516				
AC	Rev1C	ClarkR	11/13/2007 9:00:21	
SC		wagarr	IsBatched	10/10/2007 3:42:22 PM
SC		ClarkR	InPrep	11/13/2007 9:00:21 AM
SC		ClarkR	Prep1C	11/13/2007 9:12:17 AM
SC		BockJ	InPrep2	11/13/2007 9:48:15 AM
SC		BockJ	Prep2C	11/14/2007 10:20:13 AM
SC		BlackCL	InCnt1	11/14/2007 10:38:03 AM
SC		BlackCL	CalcC	11/14/2007 1:25:56 PM
SC		NortonJ	Rev1C	11/14/2007 3:13:54 PM
AC		ClarkR	11/13/2007 9:12:17	ICOC_RADCALC v4.8.26
AC		BockJ	11/13/2007 9:48:15	RICH-RC-5016 Revision 7
AC		BockJ	11/14/2007 10:20:13	RICH-RC-5014 REVISION 7
AC		BlackCL	11/14/2007 10:38:03	RICH-RC-5014 REVISION 7
AC		BlackCL	11/14/2007 1:25:56	RICH-RD-0003 REVISION 5
AC		NortonJ	11/14/2007 3:13:54	RICH-RD-0003 REVISION 5
				RICHRC0002 REV8

AC: Accepting Entry, SC: Status Change

STL Richland  
Richland Wa.

11/16/2007 1:39:55 PM

# ICOC Fraction Transfer/Status Report

ByDate: 11/16/2006, 11/21/2007, Batch: '7283527', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7283527				
AC		CalcC	WoodT	10/31/2007 7:20:59	
SC			wagarr	IsBatched 10/10/2007 3:42:22 PM	ICOC_RADCALC v4.8.26
SC			WoodT	InPrep 10/31/2007 7:20:59 AM	RICH-RC-5016 Revision 7
SC			WoodT	Prep1C 10/31/2007 8:01:21 AM	RICH-RC-5016 REVISION 7
SC			ManisD	InSep1 10/31/2007 8:15:54 AM	RICH-RC-5006 REV 7
SC			ManisD	Sep1C 11/6/2007 5:06:03 PM	RICH-RC-5006 REV 7
SC			DAWKINSO	InCnt1 11/6/2007 5:20:07 PM	RICH-RD-0007 REVISION 6
SC			BlackCL	Cnt1C 11/7/2007 7:24:12 AM	RICH-RD-0007 REVISION 6
SC			ManisD	InSep2 11/13/2007 6:57:29 AM	RICH-RC-5071 REV 5
SC			ManisD	Sep2C 11/13/2007 2:04:49 PM	RICH-RC-5071 REV 5
SC			BlackCL	InCnt2 11/13/2007 2:08:38 PM	RICH-RD-0003 REVISION 5
SC			BlackCL	CalcC 11/15/2007 9:36:38 AM	RICH-RD-0003 REVISION 5
AC			WoodT	10/31/2007 8:01:21	
AC			ManisD	10/31/2007 8:15:54	
AC			ManisD	11/6/2007 5:06:03 PM	
AC			DAWKINSO	11/6/2007 5:20:07 PM	
AC			BlackCL	11/7/2007 7:24:12	
AC			ManisD	11/13/2007 6:57:29	
AC			ManisD	11/13/2007 2:04:49	
AC			BlackCL	11/13/2007 2:08:38	
AC			BlackCL	11/15/2007 9:36:38	

AC: Accepting Entry, SC: Status Change

STL Richland  
Richland Wa.

11/15/2007 11:10:33 AM

# ICOC Fraction Transfer/Status Report

ByDate: 11/15/2006, 11/20/2007, Batch: '7283522', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7283522				
AC	CalcC	ClarkR	11/12/2007 8:31:34	
SC		wagarr	IsBatched 10/10/2007 3:42:22 PM	ICOC_RADCALC v4.8.26
SC		ClarkR	InPrep 11/12/2007 8:31:34 AM	RICH-RC:5016 Revision 7
SC		ClarkR	Prep1C 11/12/2007 8:57:53 AM	RICH-RC:5017 REVISION 6
SC		BockJ	InPrep2 11/12/2007 9:44:12 AM	RICH-RC:5017 REVISION 6
SC		BockJ	Prep2C 11/13/2007 11:45:04 AM	RICH-RC:5017 REVISION 6
SC		BlackCL	InCnt1 11/13/2007 11:53:53 AM	RICH-RD:0007 REVISION 6
SC		BlackCL	CalcC 11/14/2007 1:38:07 PM	RICH-RD:0007 REVISION 6
AC		ClarkR	11/12/2007 8:57:53	
AC		BockJ	11/12/2007 9:44:12	
AC		BockJ	11/13/2007 11:45:04	
AC		BlackCL	11/13/2007 11:53:53	
AC		BlackCL	11/14/2007 1:38:07	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

11/13/2007 10:29:20 AM

# ICOC Fraction Transfer/Status Report

ByDate: 11/13/2006, 11/18/2007, Batch: '7283506', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7283506				
AC	CalcC	BostedD	11/7/2007 5:57:09 PM	
SC		wagarr	IsBatched 10/10/2007 3:42:22 PM	ICOC_RADCALC v4.8.26
SC		BostedD	Prep2C 11/7/2007 5:57:09 PM	RICHRC5025 REVISION 4
SC		DAWKINSO	Cnt1C 11/7/2007 6:51:17 PM	RICH-RD-0007 REVISION 6
SC		BlackCL	CalcC 11/8/2007 9:27:42 AM	RICH-RD-0007 REVISION 6
AC		DAWKINSO	11/7/2007 6:51:17 PM	
AC		BlackCL	11/8/2007 9:27:42	

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.

11/12/2007 12:53:40 PM

# ICOC Fraction Transfer/Status Report

ByDate: 11/12/2006, 11/17/2007, Batch: '7283500', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7283500				
AC		CalcC	WoodT	10/30/2007 1:53:02	
SC			wagarr	IsBatched 10/10/2007 3:42:22 PM	ICOC_RADCALC v4.8.26
SC			WoodT	InPrep 10/30/2007 1:53:02 PM	RICH-RC-5016 Revision 7
SC			WoodT	Prep1C 10/30/2007 2:09:00 PM	RICH-RC-5016 REVISION 7
SC			FABREM	Sep1C 11/6/2007 11:08:09 AM	RICH-RC-5043 REVISION 3
SC			BlackCL	InCnt1 11/6/2007 12:27:51 PM	RICH-RD-0001 REVISION 4
SC			BlackCL	CalcC 11/9/2007 8:21:42 AM	RICH-RD-0001 REVISION 4
AC			WoodT	10/30/2007 2:09:00	
AC			FABREM	11/6/2007 11:08:09	
AC			BlackCL	11/6/2007 12:27:51	
AC			BlackCL	11/9/2007 8:21:42	

AC: Accepting Entry, SC: Status Change

STL Richland  
Richland Wa.

11/9/2007 8:33:09 AM

# ICOC Fraction Transfer/Status Report

ByDate: 11/9/2006, 11/14/2007, Batch: '7283524', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7283524				
AC		CalcC	WoodT	10/30/2007 2:15:11	
SC			wagarr	IsBatched 10/10/2007 3:42:22 PM	ICOC_RADCALC v4.8.26
SC			WoodT	InPrep 10/30/2007 2:15:11 PM	RICH-RC-5016 Revision 7
SC			WoodT	Prep1C 10/30/2007 2:27:44 PM	RICH-RC-5016 REVISION 7
SC			FABREM	Sep1C 10/31/2007 10:57:45 AM	RICH-RC-5065 REVISION 6
SC			BlackCL	InCnt1 10/31/2007 11:22:25 AM	RICH-RD-0001 REVISION 4
SC			BlackCL	CalcC 11/1/2007 7:46:31 AM	RICH-RD-0001 REVISION 4
AC			WoodT	10/30/2007 2:27:44	
AC			FABREM	10/31/2007 10:57:45	
AC			BlackCL	10/31/2007 11:22:25	
AC			BlackCL	11/1/2007 7:46:31	

AC: Accepting Entry, SC: Status Change

STL Richland  
Richland Wa

11/9/2007 9:05:00 AM

# ICOC Fraction Transfer/Status Report

ByDate: 11/9/2006, 11/14/2007, Batch: '7283508', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7283508				
AC		CalcC	McDowellD	10/24/2007 4:18:06	
SC			wagarr	IsBatched 10/10/2007 3:42:22 PM	ICOC_RADCALC v4.8.26
SC			McDowellD	Sep1C 10/24/2007 4:18:06 PM	RICH-RC-5007 REVISION 6
SC			DAWKINSO	InCnt1 10/24/2007 5:17:55 PM	RICH-RD-0001 REVISION 4
SC			BlackCL	CalcC 10/25/2007 1:48:39 PM	RICH-RD-0001 REVISION 4
AC			DAWKINSO	10/24/2007 5:17:55	
AC			BlackCL	10/25/2007 1:48:39	

AC: Accepting Entry, SC: Status Change

STL Richland  
Richland Wa.

11/9/2007 9:08:04 AM

# ICOC Fraction Transfer/Status Report

ByDate: 11/9/2006, 11/14/2007, Batch: '7283521', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
7283521				
AC	CalcC	McDowellD	10/23/2007 1:45:34	
SC		wagarr	IsBatched 10/10/2007 3:42:22 PM	ICOC_RADCALC v4.8.26
SC		McDowellD	InSep1 10/23/2007 1:45:34 PM	RICH-RC-5022 REVISION 3
SC		McDowellD	Sep1C 10/31/2007 1:48:09 PM	RICH-RC-5022 REVISION 3
SC		BlackCL	InCnt1 10/31/2007 2:07:52 PM	RICH-RD-0001 REVISION 4
SC		BlackCL	CalcC 11/1/2007 12:33:55 PM	RICH-RD-0001 REVISION 4
AC		McDowellD	10/31/2007 1:48:09	
AC		BlackCL	10/31/2007 2:07:52	
AC		BlackCL	11/1/2007 12:33:55	

AC: Accepting Entry, SC: Status Change

STL Richland

Richland Wa.

11/16/2007 7:02:19 AM

# ICOC Fraction Transfer/Status Report

ByDate: 11/16/2006, 11/21/2007, Batch: '7283525', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	7283525				
	AC		Cnt1C	ClarkR	11/8/2007 2:24:28 PM
	SC			wagarr	IsBatched 10/10/2007 3:42:22 PM
	SC			ClarkR	InPrep 11/8/2007 2:24:28 PM
	SC			ClarkR	Prep1C 11/8/2007 2:30:16 PM
	SC			BockJ	InPrep2 11/8/2007 2:39:28 PM
	SC			BockJ	Prep2C 11/13/2007 2:58:53 PM
	SC			NelsonT	Cnt1C 11/14/2007 9:30:32 AM
	AC			ClarkR	11/8/2007 2:30:16 PM
	AC			BockJ	11/8/2007 2:39:28 PM
	AC			BockJ	11/13/2007 2:58:53
	AC			NelsonT	11/14/2007 9:30:32

AC: Accepting Entry; SC: Status Change

STL Richland  
Richland Wa.