0073505

W05134

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Analytical Data Package Prepared For

Fluor Hanford Inc.

Radiochemical Analysis By

STL Richland

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

Assigned Laboratory Code: STLRL

Data Package Contains _____ Pages

Report No.: 34843

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
W05134	R07-007	B1ML91	J7C080251-1	JQNR31AA	9JQNR310	7067495
		B1ML91	J7C080251-1	JQNR33AD	9JQNR330	7100160
		B1ML92	J7C080251-2	JQNTE1AA	9JQNTE10	7067495
		B1ML92	J7C080251-2	JQNTE3AD	9JQNTE30	7100160
		B1ML93	J7C080251-3	JQNTH1AA	9JQNTH10	7067495
		B1ML93	J7C080251-3	JQNTH3AD	9JQNTH30	7100160
		B1ML94	J7C080251-4	JQNTM1AA	9JQNTM10	7067495
		B1ML94	J7C080251-4	JQNTM3AD	9JQNTM30	7100160
		B1ML95	J7C080251-5	JQNTQ1AA	9JQNTQ10	7067495
		B1ML95	J7C080251-5	JQNTQ3AD	9JQNTQ30	7100160
		B1ML96	J7C080251-6	JQNTT1AA	9JQNTT10	7067495
		B1ML96	J7C080251-6	JQNTT3AD	9JQNTT30	7100160
		B1MLB1	J7C080251-7	JQNT21AA	9JQNT210	7067495
		B1MLB1	J7C080251-7	JQNT23AD	9JQNT230	7100160

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STL Richland
2800 George Washington Way
Richland, WA 99354

Tel: 509 375 3131 Fax: 509 375 5590
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Certificate of Analysis

Fluor Hanford
P.O. Box 1000, T6-03
Richland, WA 99352

April 16, 2007

Attention: John Trecter

SAF Number	:	R07-007
Date SDG Closed	:	March 8, 2007
Number of Samples	:	Seven (7)
Sample Type	:	Soil
SDG Number	:	W05134
Data Deliverable	:	15/15 Day

CASE NARRATIVE

I. Introduction

On March 8, 2007 seven samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned to lot J7C080251 and assigned the following laboratory ID number to correspond with the Fluor Hanford (FH) specific ID:

FH ID#	STLR ID#	MATRIX	DATE OF RECEIPT
B1ML91	JQNR3	SOIL	3/8/07
B1ML92	JQNTE	SOIL	3/8/07
B1ML93	JQNTH	SOIL	3/8/07
B1ML94	JQNTM	SOIL	3/8/07
B1ML95	JQNTQ	SOIL	3/8/07
B1ML96	JQNTT	SOIL	3/8/07
B1MLB1	JQNT2	SOIL	3/8/07

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
Plutonium 241 by method RICH-RC-5010
Plutonium 234, 235 and 238 by method RICH-RC-5039
Liquid Scintillation Counting
Nickle 63 by LCS

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
Plutonium-241 by method RICH-RC-5010:
The samples were reanalyzed several times due to low LCS yields. Instruments were recalibrated and verified. All aspects of the analysis were inspected. The final run produced acceptable spiked matrix and acceptable reagent LCS's three out of four times. Investigation continues. Except as noted, the blank, LCS, matrix spike, sample and sample duplicate were within contractual limits.

Plutonium 234, 235 and 238 by method RICH-RC-5039:
The samples were reanalyzed several times due to low LCS yields. Instruments were recalibrated and verified. All aspects of the analysis were inspected. The final run produced acceptable spiked matrix and acceptable reagent LCS's three out of four times. Investigation continues. Except as noted, the blank, LCS, matrix spike, sample and sample duplicate were within contractual limits.

Liquid Scintillation Counting
Nickle 63 by LCS:
The LCS, batch blank, samples and sample duplicate were all within acceptance limits.

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.

April 16, 2007

Reviewed and approved:

Sherryl A. Adam
Project Manager

Drinking Water Method Cross References

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

Uncertainty Estimation

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

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

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

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) ***u_c - Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty.*** The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

STL Richland STLRL

Ordered by Method, Batch No., Client Sample ID.

Date: 16-Apr-07

Report No. : 34843

SDG No: W05134

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	MDC or MDA	CRDL	RPD
7067495	NI63_LSC								
	B1ML91								
	JQNR31AA	NI-63	-2.90E-01 +- 9.90E-01	U	pCi/g	94%	1.44E+00	3.00E+01	
	B1ML92								
	JQNTE1AA	NI-63	9.37E-01 +- 1.00E+00	U	pCi/g	98%	1.58E+00	3.00E+01	
	B1ML92 DUP								
	JQNTE1AE	NI-63	-4.56E-01 +- 8.99E-01	U	pCi/g	97%	1.33E+00	3.00E+01	579.6
	B1ML93								
	JQNTH1AA	NI-63	-1.94E-01 +- 9.55E-01	U	pCi/g	96%	1.39E+00	3.00E+01	
	B1ML94								
	JQNTM1AA	NI-63	-6.95E-02 +- 1.04E+00	U	pCi/g	90%	1.49E+00	3.00E+01	
	B1ML95								
	JQNTQ1AA	NI-63	-4.62E-01 +- 9.57E-01	U	pCi/g	91%	1.43E+00	3.00E+01	
	B1ML96								
	JQNTT1AA	NI-63	1.27E-01 +- 8.64E-01	U	pCi/g	102%	1.24E+00	3.00E+01	
	B1MLB1								
	JQNT21AA	NI-63	2.39E-01 +- 8.51E-01	U	pCi/g	100%	1.22E+00	3.00E+01	
7100160	RICHRC5010								
	B1ML91								
	JQNR33AD	PU-241	1.65E-02 +- 9.45E-01	U	pCi/g	80%	2.12E+00	1.50E+01	
	B1ML91 DUP								
	JQNR32AH	PU-241	9.19E-01 +- 1.15E+00	U	pCi/g	67%	2.50E+00	1.50E+01	193.0
	B1ML92								
	JQNTE3AD	PU-241	-1.35E-01 +- 1.30E+00	U	pCi/g	57%	2.95E+00	1.50E+01	
	B1ML93								
	JQNTH3AD	PU-241	5.32E-01 +- 1.84E+00	U	pCi/g	39%	4.09E+00	1.50E+01	
	B1ML94								
	JQNTM3AD	PU-241	-2.16E-01 +- 1.05E+00	U	pCi/g	68%	2.36E+00	1.50E+01	
	B1ML95								
	JQNTQ3AD	PU-241	-1.34E+00 +- 2.37E+00	U	pCi/g	30%	5.36E+00	1.50E+01	
	B1ML96								
	JQNTT3AD	PU-241	-2.23E-01 +- 1.04E+00	U	pCi/g	70%	2.30E+00	1.50E+01	
	B1MLB1								
	JQNT23AD	PU-241	-1.37E+00 +- 9.22E-01	U	pCi/g	74%	2.12E+00	1.50E+01	

No. of Results: 16

STL Richland

rptSTLRchSaSummary2 V5.1 A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

QC Results Summary

STL Richland STLRL

Ordered by Method, Batch No, QC Type,.

Date: 16-Apr-07

Report No. : 34843

SDG No.: W05134

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	Recovery	Bias	MDC|MDA
NI63_LSC								
7067495 BLANK QC								
JQPXK1AA	NI-63	8.54E-02 +- 9.95E-01	U	pCi/g	92%			1.42E+00
7067495 LCS								
JQPXK1AC	NI-63	1.16E+02 +- 8.71E+00		pCi/g	103%	77%	-0.2	1.35E+00
RICHRC5010								
7100160 BLANK QC								
JTLPJ1AA	PU-241	-7.69E-01 +- 1.11E+00	U	pCi/g	67%			2.50E+00
JTLPJ1AD	PU-241	-7.85E-01 +- 9.09E-01	U	pCi/g	79%			2.11E+00
7100160 LCS								
JTLPJ1AE	PU-241	1.93E+02 +- 1.13E+01		pCi/g	72%	87%	-0.1	2.27E+00
JTLPJ1AC	PU-241	1.91E+02 +- 1.13E+01		pCi/g	78%	83%	-0.2	2.21E+00

No. of Results: 6

STL Richland

rptSTLRchQcSummary V5.1 A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

STL RICHLAND

FORM I

SAMPLE RESULTS

Date: 16-Apr-07

Lab Name:	STL Richland	**SDG:**	W05134	**Collection Date:**	3/7/2007 8:37:00 AM
Lot-Sample No.:	J7C080251-1	**Report No. :**	34843	**Received Date:**	3/8/2007 9:55:00 AM
Client Sample ID:	B1ML91	**COC No. :**	R07-007-006	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC/MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7067495	NI63_LSC			**Work Order:** JQNR31AA			**Report DB ID:** 9JQNR310					
NI-63	-2.90E-01	U	5.9E-01	9.9E-01	1.44E+00	pCi/g	94%	*-0.2*	3/21/07 02:51 p		1.0	LSC3
						6.99E-01	3.00E+01	*-0.59*			G	
Batch: 7100160	RICHRC5010			**Work Order:** JQNR33AD			**Report DB ID:** 9JQNR330					
PU-241	1.85E-02	U	8.7E-01	9.5E-01	2.12E+00	pCi/g	80%	*0.01*	4/15/07 10:26 p		1.02	LSC7
						1.02E+00	1.50E+01	*0.03*			G	

No. of Results: 2 **Comments:**

STL Richland
rptSTLRichSample
V5.1 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 16-Apr-07

Lab Name:	STL Richland	SDG:	W05134	Collection Date:	3/7/2007 9:37:00 AM
Lot-Sample No.:	J7C080251-2	Report No. :	34843	Received Date:	3/8/2007 9:55:00 AM
Client Sample ID:	B1ML92	COC No. :	R07-007-006	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7067495	NI63_LSC			Work Order: JQNTE1AA		Report DB ID: 9JQNTE10						
NI-63	9.37E-01	U	6.2E-01	1.0E+00	1.58E+00	pCi/g	98%	*0.59*	3/21/07 04:33 p		1.06	LSC3
						7.67E-01	3.00E+01	*(1.9)*			G	
Batch: 7100160	RICHRC5010			Work Order: JQNTE3AD		Report DB ID: 9JQNTE30						
PU-241	-1.35E-01	U	1.2E+00	1.3E+00	2.95E+00	pCi/g	57%	*-0.05*	4/15/07 10:26 p		1.04	LSC7
						1.41E+00	1.50E+01	*-0.21*			G	

No. of Results: 2 Comments:

STL Richland
rptSTLRchSample
V5.1 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 16-Apr-07

Lab Name:	STL Richland	SDG:	W05134	Collection Date:	3/7/2007 12:15:00 PM
Lot-Sample No.:	J7C080251-3	Report No. :	34843	Received Date:	3/8/2007 9:55:00 AM
Client Sample ID:	B1ML93	COC No. :	R07-007-006	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7067495	NI63_LSC			Work Order: JQNTH1AA		Report DB ID: 9JQNTH10						
NI-63	-1.94E-01	U	5.7E-01	9.6E-01	1.39E+00	pCi/g	96%	*-0.14*	3/21/07 07:59 p		1.02	LSC3
						6.72E-01	3.00E+01	*-0.41*			G	
Batch: 7100160	RICHRC5010			Work Order: JQNTH3AD		Report DB ID: 9JQNTH30						
PU-241	5.32E-01	U	1.7E+00	1.8E+00	4.09E+00	pCi/g	39%	*0.13*	4/15/07 10:26 p		1.08	LSC7
						1.96E+00	1.50E+01	*0.58*			G	

No. of Results: 2 Comments:

STL Richland
rptSTLRichSample
V5.1 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 16-Apr-07

Lab Name:	STL Richland	SDG:	W05134	Collection Date:	3/7/2007 12:52:00 PM
Lot-Sample No.:	J7C080251-4	Report No. :	34843	Received Date:	3/8/2007 9:55:00 AM
Client Sample ID:	B1ML94	COC No. :	R07-007-006	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7067495	NI63_LSC			Work Order:	JQNTM1AA		Report DB ID:	9JQNTM10				
NI-63	-6.95E-02	U	6.1E-01	1.0E+00	1.49E+00	pCi/g	90%	*-0.05*	3/21/07 09:42 p		1.01	LSC3
						7.22E-01	3.00E+01	*-0.13*			G	
Batch: 7100160	RICHRC5010			Work Order:	JQNTM3AD		Report DB ID:	9JQNTM30				
PU-241	-2.16E-01	U	9.6E-01	1.0E+00	2.36E+00	pCi/g	68%	*-0.09*	4/15/07 10:26 p		1.07	LSC7
						1.13E+00	1.50E+01	*-0.41*			G	

No. of Results: 2 Comments:

STL Richland
rptSTLRchSample
V5.1 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 16-Apr-07

Lab Name:	STL Richland	SDG:	W05134	Collection Date:	3/7/2007 9:37:00 AM
Lot-Sample No.:	J7C080251-5	Report No. :	34843	Received Date:	3/8/2007 9:55:00 AM
Client Sample ID:	B1ML95	COC No. :	R07-007-006	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7067495	NI63_LSC			Work Order:	JQNTQ1AA		Report DB ID:	9JQNTQ10				
NI-63	-4.62E-01	U	5.7E-01	9.6E-01	1.43E+00	pCi/g	91%	*-0.32*	3/21/07 11:25 p		1.06	LSC3
						6.95E-01	3.00E+01	*-0.97*			G	
Batch: 7100160	RICHRC5010			Work Order:	JQNTQ3AD		Report DB ID:	9JQNTQ30				
PU-241	-1.34E+00	U	2.2E+00	2.4E+00	5.36E+00	pCi/g	30%	*-0.25*	4/15/07 10:26 p		1.05	LSC7
						2.57E+00	1.50E+01	*-(1.1)*			G	

No. of Results: 2 Comments:

STL Richland
rptSTLRchSample
V5.1 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 16-Apr-07

Lab Name:	STL Richland	SDG:	W05134	Collection Date:	3/1/2007 2:10:00 PM
Lot-Sample No.:	J7C080251-6	Report No. :	34843	Received Date:	3/8/2007 9:55:00 AM
Client Sample ID:	B1ML96	COC No. :	R07-007-006	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7067495	NI63_LSC			Work Order: JQNTT1AA		Report DB ID: 9JQNTT10						
NI-63	1.27E-01	U	5.1E-01	8.6E-01	1.24E+00	pCi/g	102%	*0.1*	3/22/07 01:07 a		1.09	LSC3
						6.01E-01	3.00E+01	*0.29*			G	
Batch: 7100160	RICHRC5010			Work Order: JQNTT3AD		Report DB ID: 9JQNTT30						
PU-241	-2.23E-01	U	9.5E-01	1.0E+00	2.30E+00	pCi/g	70%	*-0.1*	4/15/07 10:26 p		1.03	LSC7
						1.10E+00	1.50E+01	*-0.43*			G	

No. of Results: 2 Comments:

STL Richland
rptSTLRchSample
V5.1 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 16-Apr-07

Lab Name:	STL Richland	SDG:	W05134	Collection Date:	3/7/2007 9:37:00 AM
Lot-Sample No.:	J7C080251-7	Report No. :	34843	Received Date:	3/8/2007 9:55:00 AM
Client Sample ID:	B1MLB1	COC No. :	R07-007-006	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7067495	NI63_LSC			Work Order: JQNT21AA			Report DB ID: 9JQNT210					
NI-63	2.39E-01	U	5.1E-01	8.5E-01	1.22E+00	pCi/g	100%	*0.2*	3/22/07 02:50 a		1.13	LSC3
						5.92E-01	3.00E+01	*0.56*			G	
Batch: 7100160	RICHRC5010			Work Order: JQNT23AD			Report DB ID: 9JQNT230					
PU-241	-1.37E+00	U	8.4E-01	9.2E-01	2.12E+00	pCi/g	74%	*-0.65*	4/15/07 10:26 p		1.05	LSC7
						1.02E+00	1.50E+01	*-(3.)*			G	

No. of Results: 2 Comments:

STL Richland
rptSTLRchSample
V5.1 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

Date: 16-Apr-07

DUPLICATE RESULTS

Lab Name:	STL Richland	SDG:	W05134	Collection Date:	3/7/2007 8:37:00 AM
Lot-Sample No.:	J7C080251-1	Report No. :	34843	Received Date:	3/8/2007 9:55:00 AM
Client Sample ID:	B1ML91 DUP	COC No. :	R07-007-006	Matrix:	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7100160	RICHRC5010			Work Order: JQNR32AH		Report DB ID: JQNR32HR			Orig Sa DB ID: 9JQNR330			
PU-241	9.19E-01	U	1.1E+00	1.2E+00	2.50E+00	pCi/g	67%	0.37	4/15/07 10:26 p		1.02	LSC7
	1.65E-02	U	RPD	193.0		1.50E+01		(1.6)			G	

No. of Results: 1 Comments:

STL Richland RPD - Relative Percent Difference.
rptSTLRchDupV5.1 MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
A2002 U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

Date: 16-Apr-07

DUPLICATE RESULTS

Lab Name:	STL Richland	SDG:	W05134	Collection Date:	3/7/2007 9:37:00 AM
Lot-Sample No.:	J7C080251-2	Report No. :	34843	Received Date:	3/8/2007 9:55:00 AM
Client Sample ID:	B1ML92 DUP	COC No. :	R07-007-006	Matrix:	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7067495	NI63_LSC			Work Order: JQNTE1AE		Report DB ID: JQNTE1ER			Orig Sa DB ID: 9JQNTE10			
NI-63	-4.56E-01	U	5.4E-01	9.0E-01	1.33E+00	pCi/g	97%	-0.34	3/21/07 06:16 p		1.06	LSC3
	9.37E-01	U	RPD	579.6		3.00E+01		-(1.)			G	

No. of Results: 1 Comments:

STL Richland RPD - Relative Percent Difference.

rptSTLRchDupV5.1 MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

A2002 U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II
BLANK RESULTS

Date: 16-Apr-07

Lab Name: STL Richland
Matrix: SOIL

SDG: W05134
Report No. : 34843

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7067495	NI63_LSC			**Work Order:**	JQPXK1AA		**Report DB ID:**	JQPXK1AB				
Ni-63	8.54E-02	U	5.9E-01	9.9E-01	1.42E+00	pCi/g	92%	0.06	3/22/07 04:33 a		1.04	LSC3
					6.87E-01	3.00E+01		0.17			G	
Batch: 7100160	RICHRC5010			**Work Order:**	JTLPJ1AA		**Report DB ID:**	JTLPJ1AB				
PU-241	-7.69E-01	U	1.0E+00	1.1E+00	2.50E+00	pCi/g	67%	-0.31	4/15/07 10:26 p		1.0	LSC7
					1.20E+00	1.50E+01		-(1.4)			G	
Batch: 7100160	RICHRC5010			**Work Order:**	JTLPJ1AD		**Report DB ID:**	JTLPJ1DX				
PU-241	-7.85E-01	U	8.3E-01	9.1E-01	2.11E+00	pCi/g	79%	-0.37	4/15/07 10:26 p		1.04	LSC7
					1.01E+00	1.50E+01		-(1.7)			G	

No. of Results: 3 **Comments:**

STL Richland
rptSTLRchBlank
V5.1 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

STL RICHLAND

FORM II
LCS RESULTS

Date: 16-Apr-07

Lab Name: STL Richland

Matrix: SOIL

SDG: W05134

Report No. : 34843

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 7067495	NI63_LSC			Work Order:	JQPXK1AC		Report DB ID:	JQPXK1CS					
NI-63	1.16E+02		2.0E+00	8.7E+00	1.35E+00	pCi/g	103%	1.51E+02	5.02E+00	77%	3/22/07 06:15 a	1.0	LSC3
							Rec Limits:	70	130	-0.2		G	
Batch: 7100160	RICHRC5010			Work Order:	JTLPJ1AC		Report DB ID:	JTLPJ1CS					
PU-241	1.91E+02		3.7E+00	1.1E+01	2.21E+00	pCi/g	78%	2.30E+02	8.20E+00	83%	4/15/07 10:26 p	1.0	LSC7
							Rec Limits:	70	130	-0.2		G	
Batch: 7100160	RICHRC5010			Work Order:	JTLPJ1AE		Report DB ID:	JTLPJ1EM					
PU-241	1.93E+02		3.8E+00	1.1E+01	2.27E+00	pCi/g	72%	2.21E+02	7.88E+00	87%	4/15/07 10:27 p	1.06	LSC7
							Rec Limits:	70	130	-0.1		G	

No. of Results: 3 Comments:

STL Richland Bias - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTLRchLcs
V5.1 A2002

STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/16/2007 1:12:34 PM

Lot No., Due Date: J7C080251; 03/23/2007

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 7100159; RPUISO Pulso by ALP

SDG, Matrix: W05134; SOIL

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

6.0 Comments on any No response: NCM 10-09733

First Level Review Lisa Anderson Date 4/16/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

OC Batch Number: 7L00159
W05124

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

Comments on any "No" response: See NCM

Second Level Review: Sheryl A. Adam Date: 4-16-07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09733
NCM Initiated By: Lisa Antonson
Date Opened: 04/16/2007
Date Closed:

Classification: **Anomaly**
Status: GLREVIEW
Production Area: Environmental - Prep
Tests: Ni-63 by LSC, Pu-241 by LSC, Pulso by ALP
Lot #'s (Sample #'s): J7C080251 (1,2,3,4,5,6,7),
QC Batches: 7067491, 7067492, 7067495, 7087168, 7087198, 7100159, 7100160

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	04/16/2007	Samples were reanalyzed several times due to low LCS yields. Instuments were recalibrated and verified. All aspects of the analysis were inspected. The final run produced acceptable spiked matrix and acceptable reagent LCS's three out of four times. Investigation continues.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	04/16/2007	Report data based on acceptable QC.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 4/16/2007

SEVERN TRENT STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/16/2007 1:06:32 PM

Lot No., Due Date:	J7C080251; 03/23/2007
Client, Site:	108302; FLUOR- SOILS Hanford Site
QC Batch No., Method Test:	7100160; RPU241 Pu-241 by LSC
SDG, Matrix:	W05134; SOIL

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

6.0 Comments on any No response: NCM 10-09733

First Level Review Lisa Anderson Date 4/16/07

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7100160
W0F134

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

Comments on any "No" response: See NCM

Second Level Review: Sheryl A. Adam Date: 4-16-07

STL

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/27/2007 11:57:40 AM

Lot No., Due Date: J7C080251; 03/23/2007

Client, Site: 108302; FLUOR- SOILS Hanford Site

QC Batch No., Method Test: 7067495; RNI63 Ni-63 by LSC

SDG, Matrix: W05134; SOIL

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

6.0 Comments on any No response:

First Level Review Pam Anderson **Date** 3.27.07

Clouseau
Nonconformance Memo

SEVERN TRENT SERVICES

NCM #: 10-09733
NCM Initiated By: Lisa Antonson
Date Opened: 04/16/2007
Date Closed:

Classification: **Anomaly**
Status: **GLREVIEW**
Production Area: Environmental - Prep
Tests: Ni-63 by LSC, Pu-241 by LSC, Pulso by ALP
Lot #'s (Sample #'s): J7C080251 (1,2,3,4,5,6,7),
QC Batches: 7067491, 7067492, 7067495, 7087168, 7087198, 7100159, 7100160

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	04/16/2007	Samples were reanalyzed several times due to low LCS yields. Instuments were recalibrated and verified. All aspects of the analysis were inspected. The final run produced acceptable spiked matrix and acceptable reagent LCS's three out of four times. Investigation continues.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	04/16/2007	Report data based on acceptable QC.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

SEVERN TRENT STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 7061495
WO 5134

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

Comments on any "No" response: _____

Second Level Review: Sheryl A. Adam Date: 3-28-07

STL RICHLAND

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	R07-007-006	PAGE 1 OF 2

COLLECTOR: HOGAN, JG J7C080251	COMPANY CONTACT: KLAGES, DL	TELEPHONE NO.	PROJECT COORDINATOR: TRECHTER, JE
SAMPLING LOCATION: 216-N-2 W05134 Due 03-23-07	PROJECT DESIGNATION: 200-CW-3 Operable Unit Test Pit Analyses		SAF NO.: R07-007
ICE CHEST NO.: GRP-07-005	FIELD LOGBOOK NO.: HNF-N-507 3	COA: 122333ES20	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: Severn Trent Incorporated, Richland	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C
AIR QUALITY: ☐
DATA TURNAROUND: 15 Days / 15 Days

MATRIX*
OL = OTHER LIQUID
OS = OTHER SOLID
S = SOIL
W = WATER

SPECIAL HANDLING AND/OR STORAGE

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

SAMPLE NO.	LAB ID	MATRIX*	SAMPLE DATE	SAMPLE TIME	NO./TYPE CONTAINER(S)	ANALYSIS	PRESERVATION
B1ML91		S	3-7-07	0837	1X60mL G/P	Nickel-63;	None
B1ML91		S		0837	1X60mL G/P	Plutonium-241; JQNR3	None
B1ML92		S		0937	1X60mL G/P	Nickel-63;	None
B1ML92		S		0937	1X60mL G/P	Plutonium-241; JQNTE	None
B1ML93		S		1215	1X60mL G/P	Nickel-63;	None
B1ML93		S		1215	1X60mL G/P	Plutonium-241; JQNTH	None
B1ML94		S		1252	1X60mL G/P	Nickel-63;	None

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.G. Hogan Fluor Hanford	MAR 08 2007 0955		MAR 08 2007 0955
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** Reporting format the same as GPP, including QC.
** STL is to send a copy of chain of custody (COC) to John Trechter within 24 hours of sample receipt and copy ^CPP Sample Management mailbox.

** The Fluor Hanford samplers shall provide copies of all field documents to Steve Trent.
** Final reports are to be uploaded into HEIS.
** Samples WILL NOT be taken using the multi-increment sampling technique.

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

STL RICHLAND

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		R07-007-006	PAGE 2 OF 2
COLLECTOR HOGAN, JG J7C080251 W05134	COMPANY CONTACT KLAGES, DL	TELEPHONE NO.	PROJECT COORDINATOR TRECHTER, JE	PRICE CODE 8C / DATA TURNAROUND
SAMPLING LOCATION 216-N-2 Due 03-23-07	PROJECT DESIGNATION 200-CW-3 Operable Unit Test Pit Analyses		SAF NO. R07-007	AIR QUALITY ☐ / 15 Days / 15 Days
ICE CHEST NO. GRP-07-005	FIELD LOGBOOK NO. HNF-N-507-3	COA 122333ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Severn Trent Incorporated, Richland	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A	

MATRIX*
OL = OTHER LIQUID
OS = OTHER SOLID
S = SOIL
W = WATER

SPECIAL HANDLING AND/OR STORAGE

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

SAMPLE NO.	LAB ID	MATRIX*	SAMPLE DATE	SAMPLE TIME	NO./TYPE CONTAINER(S)	ANALYSIS	PRESERVATION
B1ML94		S	3-7-07	1252	1X60mL G/P	Plutonium-241; JQNTM	None
B1ML95		S	↓	0937	1X60mL G/P	Nickel-63;	None
B1ML95		S	↓	0937	1X60mL G/P	Plutonium-241; JQNTQ	None
B1ML96		S	3-1-07	1410	1X60mL G/P	Nickel-63;	None
B1ML96		S	3-1-07	1410	1X60mL G/P	Plutonium-241; JQNTT	None
B1MLB1		S	3-7-07	0937	1X60mL G/P	Nickel-63;	None
B1MLB1		S	3-7-07	0937	1X60mL G/P	Plutonium-241; JQNT2	None

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM J.G. Hogan Fluor Hanford	DATE/TIME 0955 MAR 08 2007	RECEIVED BY/STORED IN	DATE/TIME 0955 MAR 08 2007
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** Reporting format the same as GPP, including QC.
** STL is to send a copy of chain of custody (COC) to John Trechter within 24 hours of sample receipt and copy ^CPP Sample Management mailbox.

** The Fluor Hanford samplers shall provide copies of all field documents to Steve Trent.
** Final reports are to be uploaded into HEIS.
** Samples WILL NOT be taken using the multi-increment sampling technique.

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

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SEVERN TRENT STL

Sample Check-in List

Date/Time Received: 3/8/07 0955

Client: FLH SDG #: W05134 NA [ ] SAF #: R07-007 NA [ ]

Work Order Number: J7C080251 Chain of Custody # R07-007-006

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 7 14x 60mL
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - ____ tape
   - ____ custody seals
   - ____ hazard labels
   - ✓ appropriate samples labels
9. Samples are:
   - ✓ in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? NA [✓] Soil pH<2 [ ] pH>2 [ ] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: Eric Dantry Date: 3/8/07 0955

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

STL RICHLAND

4/10/2007 12:52:39 PM

108302, Fluor Hanford Inc
Hanford Inc

AnalyDueDate: 03/23/2007

PRIORITY

Sample Preparation/Analysis

, Flour

6A Pu PrpRC5013/RC5019, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

Batch: 7100159 SOIL pCi/g PM, Quote: SA , 50639
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 JQNR3-2-AG-X J7C080251-1-DUP 03/07/2007 08:37		1.02g,in AmtRec: 2X60ML	PUTC10580 03/13/07,pd 08/04/06,r #Containers: 2	200		Scr:	Alpha:	Beta:
2 JQNR3-4-AC J7C080251-1-SAMP 03/07/2007 08:37		1.02g,in AmtRec: 2X60ML	PUTC10581 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
3 JQNTE-3-AC J7C080251-2-SAMP 03/07/2007 09:37		1.04g,in AmtRec: 2X60ML	PUTC10582 03/13/07,pd 08/04/06,r #Containers: 2	4/10/07 200		Scr:	Alpha:	Beta:
4 JQNTH-3-AC J7C080251-3-SAMP 03/07/2007 12:15		1.08g,in AmtRec: 2X60ML	PUTC10583 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
5 JQNTM-3-AC J7C080251-4-SAMP 03/07/2007 12:52		1.07g,in AmtRec: 2X60ML	PUTC10584 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
6 JQNTQ-3-AC J7C080251-5-SAMP 03/07/2007 09:37		1.05g,in AmtRec: 2X60ML	PUTC10585 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
7 JQNTT-4-AC J7C080251-6-SAMP 03/01/2007 14:10		1.03g,in AmtRec: 2X60ML	PUTC10586 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:

STL Richland Key: In - Initial Amt, fi - Final Amt, dl - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prop_SamplePrep v4.8.26

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4/10/2007 12:52:41 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

6A Pu PrpRC5013/RC5019, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec

Pipet #: _____

AnalyDueDate: 03/23/2007

CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 7100159 SOIL pCi/g

PM, Quote: SA , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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:
8 JQNT2-3-AC J7C080251-7-SAMP 03/07/2007 09:37		1.05g,in AmtRec: 2X80ML	PUTC10587 03/13/07,pd 08/04/06,r #Containers: 2	200		Scr:	Alpha:	Beta:
9 JTLPH-1-AA-B J7D100000-159-BLK 03/07/2007 08:37		1.00g,in AmtRec:	PUTC10588 03/13/07,pd 08/04/06,r #Containers: 1	4/10/07		Scr:	Alpha:	Beta:
10 JTLPH-1-AC-C J7D100000-159-LCS 03/07/2007 08:37		1.00g,in AmtRec:	PUSK0699 04/10/07,pd 10/06/86,r #Containers: 1			Scr:	Alpha:	Beta:
11 JTLPH-1-AD-BX J7D100000-159-MBLK 03/07/2007 08:37		1.04g,in AmtRec:	PUTC10589 03/13/07,pd 08/04/06,r #Containers: 1			Scr:	Alpha:	Beta:
12 JTLPH-1-AE-CM J7D100000-159-MLCS 03/07/2007 08:37		1.05g,in AmtRec:	PUSK0700 04/10/07,pd 10/06/86,r #Containers: 1			Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SA , 50639

JQNR32AG-DUP Constituent List:

PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35

4/10/2007 12:52:47 PM

Sample Preparation/Analysis

6A Pu PrpRC5013/RC5019, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

PRICE

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7100159 pCi/g

SEQ Batch, Test: None

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:

```
  Pu-242      RDL:          pCi/g    LCL:20     UCL:105    RPD:35
JTLPH1AA-BLK:
  PU-238      RDL:1         pCi/g    LCL:       UCL:       RPD:       PU-239     RDL:1      pCi/g    LCL:       UCL:       RPD:
  Pu-242      RDL:          pCi/g    LCL:20     UCL:105    RPD:35
JTLPH1AC-LCS:
  PU-239      RDL:1         pCi/g    LCL:70     UCL:130    RPD:35     Pu-242     RDL:       pCi/g    LCL:20     UCL:105    RPD:35

JTLPH1AD-MBLK:
  PU-238      RDL:1         pCi/g    LCL:       UCL:       RPD:       PU-239     RDL:1      pCi/g    LCL:       UCL:       RPD:
  Pu-242      RDL:          pCi/g    LCL:20     UCL:105    RPD:35
JTLPH1AE-MLCS:
  PU-239      RDL:1         pCi/g    LCL:70     UCL:130    RPD:35     Pu-242     RDL:       pCi/g    LCL:20     UCL:105    RPD:35

JQNR32AG-DUP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JTLPH1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JTLPH1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JTLPH1AD-MBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JTLPH1AE-MLCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

3/26/2007 4:15:55 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

6A Pu PrpRC5013/RC5019, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7067491 SOIL pCi/g PM, Quote: SA , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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, Ini/Date	Comments:
1 JQNR3-1-AC J7C080251-1-SAMP 03/07/2007 08:37		1.06g,in AmtRec: 2X60ML	PUTC10603 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
2 JQNR3-1-AE-X J7C080251-1-DUP 03/07/2007 08:37		1.06g,in AmtRec: 2X60ML	PUTC10604 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
3 JQNR3-2-AC J7C080251-1-SAMP 03/07/2007 08:37		AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
4 JQNTE-1-AC J7C080251-2-SAMP 03/07/2007 09:37		1.04g,in AmtRec: 2X60ML	PUTC10605 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
5 JQNTH-1-AC J7C080251-3-SAMP 03/07/2007 12:15		1.00g,in AmtRec: 2X60ML	PUTC10606 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
6 JQNTM-1-AC J7C080251-4-SAMP 03/07/2007 12:52		1.04g,in AmtRec: 2X60ML	PUTC10607 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
7 JQNTQ-1-AC J7C080251-5-SAMP 03/07/2007 09:37		1.00g,in AmtRec: 2X60ML	PUTC10608 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ICOC v4.8.26

STL RICHLAND

3/26/2007 4:15:57 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

6A Pu PrpRC5013/RC5019, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7067491 SOIL pCi/g PM, Quote: SA , 50639

Sep2 DT/Tm Tech:

SEQ Batch. Test: None

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:
8 JQNTT-1-AC J7C080251-6-SAMP 03/01/2007 14:10		1.00g,in AmtRec: 2X60ML	PUTC10609 03/13/07,pd 08/04/08,r #Containers: 2			Scr:	Alpha:	Beta:
9 JQNTT-2-AC J7C080251-6-SAMP 03/01/2007 14:10		AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
10 JQNT2-1-AC J7C080251-7-SAMP 03/07/2007 09:37		1.03g,in AmtRec: 2X60ML	PUTC10610 03/13/07,pd 08/04/08,r #Containers: 2			Scr:	Alpha:	Beta:
11 JQPXC-1-AA-B J7C080000-491-BLK 03/07/2007 08:37		1.01g,in AmtRec:	PUTC10611 03/13/07,pd 08/04/08,r #Containers: 1			Scr:	Alpha:	Beta:
12 JQPXC-1-AC-C J7C080000-491-LCS 03/07/2007 08:37		1.01g,in AmtRec:	PUSK0688 03/13/07,pd 08/04/08,r #Containers: 1			Scr:	Alpha:	Beta:
42 13 JQPXC-2-AC-C J7C080000-491-LCS 03/07/2007 08:37		1.01 g AmtRec:	PUSK 0688 #Containers: 1	200		Scr:	Alpha:	Beta:

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STL RICHLAND

3/19/2007 7:51:41 AM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

AH Pu/241 PrepRC5013/5077, SepRC5010(5039)
SP Plutonium-241 by Liquid Scint
5/ CLIENT: HANFORD

Pipet #:

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7067492 SOIL pCi/g PM, Quote: SA , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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:
1 JQNR3-1-AD J7C080251-1-SAMP 03/07/2007 08:37		1.06g,in AmtRec: 2X60ML	#Containers: 2	~~100~~ 3/19/07 100		Scr:	Alpha:	Beta:
2 JQNR3-1-AF-X J7C080251-1-DUP 03/07/2007 08:37		1.06g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
3 JQNTE-1-AD J7C080251-2-SAMP 03/07/2007 09:37		1.04g,in AmtRec: 2X60ML	#Containers: 2	3/19/07		Scr:	Alpha:	Beta:
4 JQNTH-1-AD J7C080251-3-SAMP 03/07/2007 12:15		1.00g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
5 JQNTM-1-AD J7C080251-4-SAMP 03/07/2007 12:52		1.04g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
6 JQNTQ-1-AD J7C080251-5-SAMP 03/07/2007 09:37		1.00g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
7 JQNTT-1-AD J7C080251-6-SAMP 03/01/2007 14:10		1.00g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:

STL RICHLAND

3/19/2007 7:51:43 AM

Sample Preparation/Analysis

108302, Fluor Hanford Inc , Flour
Hanford Inc

AH Pu/241 PrpRC5013/5077, SepRC5010(5039)
SP Plutonium-241 by Liquid Scint
5 CLIENT: HANFORD

Balance Id:
Pipet #:

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7067492 SOIL pCi/g PM, Quote: SA , 50639
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,ManisD

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 JQNT2-1-AD J7C080251-7-SAMP 03/07/2007 09:37		1.03g,in AmtRec: 2X60ML	#Containers: 2	100		Scr:	Alpha:	Beta:
9 JQPXE-1-AA-B J7C080000-492-BLK 03/07/2007 08:37		1.01g,in AmtRec:	#Containers: 1	3/19/07		Scr:	Alpha:	Beta:
10 JQPXE-1-AC-C J7C080000-492-LCS 03/07/2007 08:37		1.01g,in AmtRec:	241A0212 03/13/07,pd 09/23/04,r #Containers: 1			Scr:	Alpha:	Beta:
11 JQPXE-1-AD-BN J7C080000-492-IBLK 03/07/2007 08:37		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments: Samples muffled for 2 days and microwave bombed. 3/19/07 JGW

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SA , 50639

JQNR31AD-SAMP Constituent List:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JQPXE1AA-BLK:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JQPXE1AC-LCS:

PU-239	RDL:	pCi/g	LCL:70	UCL:130	RPD:35	Pu-241	RDL:15	pCi/g	LCL:70	UCL:130	RPD:35

STL RICHLAND

4/3/2007 1:52:48 PM

Sample Preparation/Analysis

108302, Fluor Hanford Inc , Flour Hanford Inc

AH Pu/241 PrpRC5013/5077, SepRC5010(5039)
SP Plutonium-241 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7087198 SOIL pCi/g PM, Quote: SA , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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:
1 JQNR3-1-AH-X J7C080251-1-DUP 03/07/2007 08:37		1.02g,in AmtRec: 2X60ML	#Containers: 2	100 4/3/07		Scr:	Alpha:	Beta:
2 JQNR3-2-AD J7C080251-1-SAMP 03/07/2007 08:37		1.01g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
3 JQNTE-2-AD J7C080251-2-SAMP 03/07/2007 09:37		1.03g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
4 JQNTH-2-AD J7C080251-3-SAMP 03/07/2007 12:15		1.09g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
5 JQNTM-2-AD J7C080251-4-SAMP 03/07/2007 12:52		1.04g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
6 JQNTQ-2-AD J7C080251-5-SAMP 03/07/2007 09:37		1.03g,in failed pu yield WA AmtRec: 2X60ML	#Containers: 2	4/7/07		Scr:	Alpha:	Beta:
7 JQNTT-2-AD J7C080251-6-SAMP 03/01/2007 14:10		1.02g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:

STL Richland Key: In - Initial Amt, fi - Final Amt, dl - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

STL RICHLAND

4/3/2007 1:52:52 PM

108302, Fluor Hanford Inc , Flour
Hanford Inc

AnalyDueDate: 03/23/2007

Batch: 7087198 **SOIL** **pCi/g**
SEQ Batch, Test: None

Sample Preparation/Analysis

AH Pu/241 PrpRC5013/5077, SepRC5010(5039)
SP Plutonium-241 by Liquid Scint
5I CLIENT: HANFORD

PM, Quote: SA , 50639

Balance Id:1120373922
Pipet #: _____
Sep1 DT/Tm Tech:
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:
8 JQNT2-2-AD J7C080251-7-SAMP 03/07/2007 09:37		1.01g,in AmtRec: 2X60ML	#Containers: 2	100		Scr:	Alpha:	Beta:
9 JRV55-1-AA-B J7C280000-198-BLK 03/07/2007 08:37		1.09g,in AmtRec:	#Containers: 1	4/3/07 JGW		Scr:	Alpha:	Beta:
10 JRV55-1-AC-C J7C280000-198-LCS 03/07/2007 08:37		1.01g,in AmtRec:	24180009 4/3/07 4/3/07 #Containers: 1			Scr:	Alpha:	Beta:
11 JRV55-1-AD-BX J7C280000-198-MBLK 03/07/2007 08:37		1.05g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
12 JRV55-1-AE-CM J7C280000-198-MLCS 03/07/2007 08:37		1.01g,in AmtRec:	~~24180009~~ 24180010 4/3/07 JGW #Containers: 1			Scr:	Alpha:	Beta:
13 JRV55-1-AF-BN J7C280000-198-IBLK 03/07/2007 08:37		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
14 JRV55-1-AG-BN J7C280000-198-IBLK 03/07/2007 08:37		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 14
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

STL RICHLAND

4/3/2007 1:53:07 PM

Sample Preparation/Analysis

AH Pu/241 PrpRC5013/5077, SepRC5010(5039)
SP Plutonium-241 by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 03/23/2007

Batch: 7087198 pCi/g
SEQ Batch, Test: None

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

Comments: samples have been muffled 4/3/07

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SA , 50639

JQNR31AH-DUP Constituent List:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JRV551AA-BLK:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JRV551AC-LCS:

PU-239	RDL:	pCi/g	LCL:70	UCL:130	RPD:35	Pu-241	RDL:15	pCi/g	LCL:70	UCL:130	RPD:35
Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35						

JRV551AD-MBLK:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JRV551AE-MLCS:

PU-239	RDL:	pCi/g	LCL:70	UCL:130	RPD:35	Pu-241	RDL:15	pCi/g	LCL:70	UCL:130	RPD:35
Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35						

JRV551AF-IBLK:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JRV551AG-IBLK:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JQNR31AH-DUP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JRV551AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JRV551AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JRV551AD-MBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JRV551AE-MLCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

JRV551AF-IBLK:

STL RICHLAND

4/3/2007 1:52:30 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

6A Pu PrpRC5013/RC5019, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec

Pipet #: _____

AnalyDueDate: 03/23/2007

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 7087168 SOIL pCi/g PM, Quote: SA , 50639

SEQ Batch, Test: None

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:
1 JQNR3-1-AG-X J7C080251-1-DUP 03/07/2007 08:37		1.02g,in AmtRec: 2X60ML	PUTC10612 03/13/07,pd 08/04/06,r #Containers: 2	200		Scr:	Alpha:	Beta:
2 JQNR3-3-AC J7C080251-1-SAMP 03/07/2007 08:37		1.01g,in AmtRec: 2X60ML	PUTC10613 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
3 JQNTE-2-AC J7C080251-2-SAMP 03/07/2007 09:37		1.03g,in AmtRec: 2X60ML	PUTC10614 03/13/07,pd 08/04/06,r #Containers: 2	4/3/07		Scr:	Alpha:	Beta:
4 JQNTH-2-AC J7C080251-3-SAMP 03/07/2007 12:15		1.09g,in AmtRec: 2X60ML	PUTC10615 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
5 JQNTM-2-AC J7C080251-4-SAMP 03/07/2007 12:52		1.04g,in AmtRec: 2X60ML	PUTC10616 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
6 JQNTQ-2-AC J7C080251-5-SAMP 03/07/2007 09:37		1.03g,in AmtRec: 2X60ML	PUTC10617 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:
7 JQNTT-3-AC J7C080251-6-SAMP 03/01/2007 14:10		1.02g,in AmtRec: 2X60ML	PUTC10618 03/13/07,pd 08/04/06,r #Containers: 2			Scr:	Alpha:	Beta:

STL Richland Key: in - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

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STL RICHLAND

4/3/2007 1:52:32 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

6A Pu PrpRC5013/RC5019, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7087168 SOIL pCi/g PM, Quote: SA , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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:
8 JQNT2-2-AC J7C080251-7-SAMP 03/07/2007 09:37		1.01g,in AmtRec: 2X60ML	PUTC10619 03/13/07,pd 08/04/06,r #Containers: 2	200		Scr:	Alpha:	Beta:
9 JRVON-1-AA-B J7C280000-168-BLK 03/07/2007 08:37		1.09g,in AmtRec:	PUTC10620 03/13/07,pd 08/04/06,r #Containers: 1	4/3/07 JSW		Scr:	Alpha:	Beta:
10 JRVON-1-AC-C J7C280000-168-LCS 03/07/2007 08:37		1.01g,in AmtRec:	PUSK0690 03/13/07,pd 08/04/06,r #Containers: 1			Scr:	Alpha:	Beta:
11 JRVON-1-AD-BX J7C280000-168-MBLK 03/07/2007 08:37		1.05g,in AmtRec:	PUTC10621 03/13/07,pd 08/04/06,r #Containers: 1			Scr:	Alpha:	Beta:
12 JRVON-1-AE-CM J7C280000-168-MLCS 03/07/2007 08:37		1.01g,in AmtRec:	PUSK0691 03/13/07,pd 08/04/06,r #Containers: 1			Scr:	Alpha:	Beta:

Comments: Samples have been ruffled 4/3/07 JSW

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SA , 50639

JQNR31AG-DUP Constituent List:

PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35

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STL RICHLAND

4/3/2007 1:52:38 PM

Sample Preparation/Analysis

6A Pu PrpRC5013/RC5019, SepRC5010(5039)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7087168 pCi/g

SEQ Batch, Test: None

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:

```
  Pu-242      RDL:          pCi/g     LCL:20     UCL:105    RPD:35
JRV0N1AA-BLK:
  PU-238      RDL:1         pCi/g     LCL:       UCL:       RPD:       PU-239     RDL:1      pCi/g     LCL:       UCL:       RPD:
  Pu-242      RDL:          pCi/g     LCL:20     UCL:105    RPD:35
JRV0N1AC-LCS:
  PU-239      RDL:1         pCi/g     LCL:70     UCL:130    RPD:35     Pu-242     RDL:       pCi/g     LCL:20     UCL:105    RPD:35

JRV0N1AD-MBLK:
  PU-238      RDL:1         pCi/g     LCL:       UCL:       RPD:       PU-239     RDL:1      pCi/g     LCL:       UCL:       RPD:
  Pu-242      RDL:          pCi/g     LCL:20     UCL:105    RPD:35
JRV0N1AE-MLCS:
  PU-239      RDL:1         pCi/g     LCL:70     UCL:130    RPD:35     Pu-242     RDL:       pCi/g     LCL:20     UCL:105    RPD:35

JQNR31AG-DUP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JRV0N1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JRV0N1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JRV0N1AD-MBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
JRV0N1AE-MLCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

Approved By _____ Date: _____

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 3 ISV - Insufficient Volume for Analysis WO Cnt: 12

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

STL RICHLAND

4/10/2007 12:56:38 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

AH Pu/241 PrpRC5013/5077, SepRC5010(5039)
SP Plutonium-241 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

PRIORITY

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7100160 SOIL pCi/g PM, Quote: SA , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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:
1 JQNR3-2-AH-X J7C080251-1-DUP 03/07/2007 08:37		1.02g,in AmtRec: 2X60ML	#Containers: 2	100		Scr:	Alpha:	Beta:
2 JQNR3-3-AD J7C080251-1-SAMP 03/07/2007 08:37		1.02g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
3 JQNTE-3-AD J7C080251-2-SAMP 03/07/2007 09:37		1.04g,in AmtRec: 2X60ML	#Containers: 2	4/10/07		Scr:	Alpha:	Beta:
4 JQNTH-3-AD J7C080251-3-SAMP 03/07/2007 12:15		1.08g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
5 JQNTM-3-AD J7C080251-4-SAMP 03/07/2007 12:52		1.07g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
6 JQNTQ-3-AD J7C080251-5-SAMP 03/07/2007 09:37		1.05g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:
7 JQNTT-3-AD J7C080251-6-SAMP 03/01/2007 14:10		1.03g,in AmtRec: 2X60ML	#Containers: 2			Scr:	Alpha:	Beta:

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

STL RICHLAND

4/10/2007 12:56:40 PM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

AH Pu/241 PrpRC5013/5077, SepRC5010(5039)
SP Plutonium-241 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7100160 SOIL pCi/g PM, Quote: SA , 50639

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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:
8 JQNT2-3-AD J7C080251-7-SAMP 03/07/2007 09:37		1.05g,in AmtRec: 2X60ML	#Containers: 2	100		Scr:	Alpha:	Beta:
9 JTLPJ-1-AA-B J7D100000-160-BLK 03/07/2007 08:37		1.00g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
10 JTLPJ-1-AC-C J7D100000-160-LCS 03/07/2007 08:37		1.00g,in AmtRec:	241B0018 04/09/07,pd 09/10/04,r #Containers: 1	4/10/07		Scr:	Alpha:	Beta:
11 JTLPJ-1-AD-BX J7D100000-160-MBLK 03/07/2007 08:37		1.04g,in AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
12 JTLPJ-1-AE-CM J7D100000-160-MLCS 03/07/2007 08:37		1.05g,in AmtRec:	241B0019 04/10/07,pd 09/10/04,r #Containers: 1			Scr:	Alpha:	Beta:
13 JTLPJ-1-AF-BN J7D100000-160-IBLK 03/07/2007 08:37		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
14 JTLPJ-1-AG-BN J7D100000-160-IBLK 03/07/2007 08:37		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

STL Richland Key: In - Initial Amt, fl - Final Amt, dl - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 14
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.26

STL RICHLAND

4/10/2007 12:56:48 PM

Sample Preparation/Analysis

AH Pu/241 PrpRC5013/5077, SepRC5010(5039)
SP Plutonium-241 by Liquid Scint
5I CLIENT: HANFORD

PRIORITY

AnalyDueDate: 03/23/2007

Batch: 7100160 pCi/g
SEQ Batch, Test: None

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

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

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SA , 50639

JQNR32AH-DUP Constituent List:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JTLPJ1AA-BLK:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JTLPJ1AC-LCS:

PU-239	RDL:	pCi/g	LCL:70	UCL:130	RPD:35	Pu-241	RDL:15	pCi/g	LCL:70	UCL:130	RPD:35
Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35						

JTLPJ1AD-MBLK:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JTLPJ1AE-MLCS:

PU-239	RDL:	pCi/g	LCL:70	UCL:130	RPD:35	Pu-241	RDL:15	pCi/g	LCL:70	UCL:130	RPD:35
Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35						

JTLPJ1AF-IBLK:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JTLPJ1AG-IBLK:

Pu-241	RDL:15	pCi/g	LCL:	UCL:	RPD:	Pu-242	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

JQNR32AH-DUP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTLPJ1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTLPJ1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTLPJ1AD-MBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTLPJ1AE-MLCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
JTLPJ1AF-IBLK:

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STL RICHLAND

4/10/2007 12:56:48 PM

Sample Preparation/Analysis

AH Pu/241 PrpRC5013/5077, SepRC5010(5039)
SP Plutonium-241 by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 03/23/2007

Batch: 7100160 pCi/g
SEQ Batch, Test: None

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

Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y QDRs: B
JTLPJ1AG-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y QDRs: B

Approved By _____ Date: _____

STL RICHLAND

3/15/2007 10:01:04 AM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc , Flour
Hanford Inc

AF Ni-63 PrpRC5013/5019, SepRC5069
54 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

PRIORITY

Pipet #: _____

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7067495 SOIL pCi/g PM, Quote: SA , 50639
SEQ Batch, Test: None

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 JQNR3-1-AA J7C080251-1-SAMP 03/07/2007 08:37		AmtRec: 2X60ML	1.00g,in	1.00g #Containers: 2	NITA2375 03/06/07	100	Scr:	Alpha:		Beta:
2 JQNTE-1-AA J7C080251-2-SAMP 03/07/2007 09:37		AmtRec: 2X60ML	1.06g,in	1.06g #Containers: 2	NITA2374 03/06/07		Scr:	Alpha:		Beta:
3 JQNTE-1-AE-X J7C080251-2-DUP 03/07/2007 09:37		AmtRec: 2X60ML	1.06g,in	1.06g #Containers: 2	NITA2373 03/06/07		Scr:	Alpha:		Beta:
4 JQNTH-1-AA J7C080251-3-SAMP 03/07/2007 12:15		AmtRec: 2X60ML	1.02g,in	1.02g #Containers: 2	NITA2372 03/06/07	3/15/07	Scr:	Alpha:		Beta:
5 JQNTM-1-AA J7C080251-4-SAMP 03/07/2007 12:52		AmtRec: 2X60ML	1.01g,in	1.01g #Containers: 2	NITA2371 03/06/07		Scr:	Alpha:		Beta:
6 JQNTQ-1-AA J7C080251-5-SAMP 03/07/2007 09:37		AmtRec: 2X60ML	1.06g,in	1.06g #Containers: 2	NITA2370 03/06/07		Scr:	Alpha:		Beta:
7 JQNTT-1-AA J7C080251-6-SAMP 03/01/2007 14:10		AmtRec: 2X60ML	1.09g,in	1.09g #Containers: 2	NITA2369 03/06/07		Scr:	Alpha:		Beta:

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STL RICHLAND

3/15/2007 10:01:06 AM

Sample Preparation/Analysis

108302, Fluor Hanford Inc , Flour
Hanford Inc

AF Ni-63 PrpRC5013/5019, SepRC5069
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:1120373922
Pipet #:

AnalyDueDate: 03/23/2007

Sep1 DT/Tm Tech:

Batch: 7067495 SOIL pCi/g PM, Quote: SA , 50639
SEQ Batch, Test: None

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:
8 JQNT2-1-AA J7C080251-7-SAMP 03/07/2007 09:37		AmtRec: 2X60ML	1.13g,in	1.13g #Containers: 2	NITA2368 03/06/07	100		Scr:	Alpha:	Beta:
9 JQPXK-1-AA-B J7C080000-495-BLK 03/07/2007 09:37		AmtRec:	1.04g,in	1.04g #Containers: 1	NITA2367 03/06/07	3/15/07		Scr:	Alpha:	Beta:
10 JQPXK-1-AC-C J7C080000-495-LCS 03/07/2007 09:37		AmtRec:	1.00g,in	1.00g #Containers: 1	NISA0735 10/27/06,pd 05/16/05,r	JFW		Scr:	Alpha:	Beta:
11 JQPXK-1-AD-BN J7C080000-495-IBLK 03/07/2007 09:37		AmtRec:		#Containers: 1				Scr:	Alpha:	Beta:

Comments: Muffled and microwave bombed samples 3/15/07 JFW

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SA , 50639

JQNR31AA-SAMP Constituent List:

Ni-63	RDL:30	pCi/g	LCL:70	UCL:130	RPD:35

JQPXK1AA-BLK:

Ni-63	RDL:30	pCi/g	LCL:	UCL:	RPD:

JQPXK1AC-LCS:

Ni-63	RDL:30	pCi/g	LCL:70	UCL:130	RPD:35

JQPXK1AD-IBLK:

Ni-63	RDL:30	pCi/g	LCL:	UCL:	RPD:

4/16/2007 1:10:09 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/16/2006, 4/21/2007, Batch: '7100159', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7100159						
AC		CalcC	FABREM	4/11/2007 5:01:27 PM		
SC			antonsonl	IsBatched	4/10/2007 8:37:05 AM	ICOC_RADCALC v4.8.26
SC			FABREM	Sep2C	4/11/2007 5:01:27 PM	RICH-RC-5039 REV 5
SC			DAWKINSO	InCnt1	4/11/2007 5:31:36 PM	RICH-RD-0008 REVISION 4
SC			DAWKINSO	CalcC	4/12/2007 8:14:02 PM	RICH-RD-0008 REVISION 4
AC			DAWKINSO	4/11/2007 5:31:36 PM		
AC			DAWKINSO	4/12/2007 8:14:02 PM		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 3

ICOCFractions v4.8.26

4/16/2007 12:55:00 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/16/2006, 4/21/2007, Batch: '7100160', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7100160						
AC		CalcC	HarveyK	4/13/2007 3:35:38 PM		
SC			antonson!	IsBatched	4/10/2007 8:37:05 AM	ICOC_RADCALC v4.8.26
SC			HarveyK	Sep1C	4/13/2007 3:35:38 PM	RICH-RC-5010 REV4
SC			DAWKINSO	InCnt1	4/13/2007 3:45:42 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	4/16/2007 9:13:01 AM	RICH-RD-0001 REVISION 3
AC			DAWKINSO	4/13/2007 3:45:42 PM		
AC			BlackCL	4/16/2007 9:13:01		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 3

ICOCFractions v4.8.26

3/27/2007 11:54:52 AM

ICOC Fraction Transfer/Status Report

ByDate: 3/27/2006, 4/1/2007, Batch: '7067495', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
7067495						
AC		CalcC	WoodT	3/12/2007 5:57:11 PM		
SC			wagarr	IsBatched	3/8/2007 4:13:35 PM	ICOC_RADCALC v4.8.26
SC			WoodT	InPrep	3/12/2007 5:57:11 PM	RICH-RC-5013 REVISION 5
SC			WoodT	Prep2C	3/15/2007 10:01:09 AM	RICH-RC-5019 REVISION 5
SC			FABREM	Sep1C	3/20/2007 9:20:06 PM	RICH-RC-5069 REVISION 5
SC			DAWKINSO	InCnt1	3/20/2007 9:43:59 PM	RICH-RD-0001 REVISION 3
SC			BlackCL	CalcC	3/23/2007 6:57:11 AM	RICH-RD-0001 REVISION 3
AC			WoodT	3/15/2007 10:01:09		
AC			FABREM	3/20/2007 9:20:06 PM		
AC			DAWKINSO	3/20/2007 9:43:59 PM		
AC			BlackCL	3/23/2007 6:57:11		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions v4.8.26