

Analytical Data Package Prepared For

Fluor Hanford

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.: 32101

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
W04900	R06-008	B1J2T9	J6D140246-1	H3AH81AA	9H3AH810	6107201
		B1J2V0	J6D140246-2	H3A5P1AA	9H3A5P10	6107201
		B1J2V1	J6D140246-3	H3A5T1AA	9H3A5T10	6107201

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MAY 23 2007
EDMC



Certificate of Analysis

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

May 17, 2006

Attention: John Trechter

SAF Number	:	R06-008
Date SDG Closed	:	April 12, 2006
Number of Samples	:	Three (3)
Sample Type	:	Other Solid
SDG Number	:	W04900
Data Deliverable	:	15 / 15-Day Summary

CASE NARRATIVE

I. Introduction

On April 12, 2006, three other solid samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned to lot J6D140246 and assigned the following laboratory ID number to correspond with the Fluor Hanford (FH) specific ID:

<u>FH ID#</u>	<u>STLR ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
B1J2T9	H3AH8	OTHER SOLID	4/12/06
B1J2V0	H3A5P	OTHER SOLID	4/12/06
B1J2V1	H3A5T	OTHER SOLID	4/12/06

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.

Fluor Hanford
May 17, 2006

The requested analyses were:

Liquid Scintillation Counting
Selenium-79 by method RICH-RC-5043

IV. Quality Control

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

QC and sample results are reported in the same units.

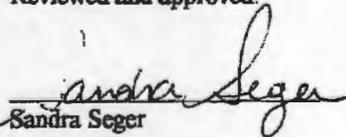
V. Comments

Gas Proportional Counting
Selenium-79 by method RICH-RC-5043

There is currently not an available standard for Selenium 79 and an LCS was not analyzed. The batch blank, sample and sample duplicate (B1J2T9) 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:


Sandra Seger
Project Manager

Drinking Water Method Cross References

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

Uncertainty Estimation

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

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

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

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation $(\text{Result}/\text{Expected})-1$ 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) 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%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt}/\text{BkgndCntMin})/\text{SCntMin})) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. 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 Work Order Number.
RER	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.

Sample Results Summary

Date: 17-May-06

STL Richland STLRL

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

Report No. : 32101

SDG No: W04900

Batch	Client Id Work Order	Parameter	Result +/- Uncertainty (2σ)	Qual	Units	Yield	MDC or MDA	CRDL	RPD
6107201	SE79_SEP_JE_LSC								
	B1J2T9								
	H3AH81AA	SE-79	1.20E-01 +/- 1.23E+00	U	pCi/g	81%	2.44E+00	1.00E+01	
	B1J2T9 DUP								
	H3AH81AC	SE-79	2.05E-01 +/- 1.22E+00	U	pCi/g	82%	2.40E+00	1.00E+01	52.4
	B1J2V0								
	H3A5P1AA	SE-79	1.77E-01 +/- 2.61E+00	U	pCi/g	76%	5.16E+00	1.00E+01	
	B1J2V1								
	H3A5T1AA	SE-79	1.80E+00 +/- 2.58E+00	U	pCi/g	79%	4.90E+00	1.00E+01	
No. of Results: 4									

STL Richland

RPD - Relative Percent Difference.

rptSTLRchSaSummary2 V4.15.0 A97

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

Date: 17-May-06

STL Richland STLRL

Ordered by Method, Batch No, QC Type,.

Report No. : 32101

SDG No.: W04900

Batch	Work Order	Parameter	Result +/- Uncertainty (2s)	Qual	Units	Yield	Recovery	Bias	MDC MDA
SE79_SEP_IE_LSC	6107201	BLANK QC							
	H3EWR1AA	SE-79	5.80E-01 +/- 2.70E+00	U	pCi/g	37%			5.31E+00

No. of Results: 1

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

rptSTLrchQcSummary V4.15.0 A97 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: 17-May-06

Lab Name: STL Richland
Lot-Sample No.: J6D140246-1
Client Sample ID: B1J2T9

SDG: W04900
Report No.: 32101
COC No.: R06-008-002

Collection Date: 4/11/2006 11:20:00 AM
Received Date: 4/12/2006 3:35:00 PM
Matrix: SOIL SOLID

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	Allquot Size	Primary Detector
Batch: 6107201	SE79_SEP_IE_LSC				Work Order: H3AH81AA		Report DB ID: 9H3AH810					
SE-79	1.20E-01	U	1.0E+00	1.2E+00	2.44E+00	pCi/g	81%	0.05	5/10/06 10:50 p		1.0	LSC3
							1.17E+00	1.00E+01			G	

No. of Results: 1 Comments:

FORM I
SAMPLE RESULTS

Date: 17-May-06

Lab Name: STL Richland

SDG: W04900

Collection Date: 4/11/2006 2:00:00 PM

Lot-Sample No.: J6D140246-2

Report No.: 32101

Received Date: 4/12/2006 3:35:00 PM

Client Sample ID: B1J2V0

COC No.: R06-008-002

Matrix: SOIL SOLID

Ordered by Client Sample ID, Batch No.

Parameter	Result	Count Qual Error (2 s)	Total Uncert(2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6107201	SE79_SEP_IE_LSC			Work Order: H3A5P1AA		Report DB ID: 9H3A5P10					
SE-79	1.77E-01 U	2.1E+00	2.6E+00	5.16E+00	pCi/g	78%	0.03	5/11/08 12:15 a		0.5042	LSC3
					2.47E+00	1.00E+01	0.14			G	

No. of Results: 1

Comments:

STL Richland
rptSTL.RchSample
V4.15.0 A97

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

Date: 17-May-06

SAMPLE RESULTS

Lab Name: STL Richland
 Lot-Sample No.: J6D140246-3
 Client Sample ID: B1J2V1

SDG: W04900
 Report No.: 32101
 COC No.: R06-008-002

Collection Date: 4/11/2006 2:00:00 PM
 Received Date: 4/12/2006 3:35:00 PM
 Matrix: SOIL SOLID

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 CRDI(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6107201	SE79_SEP_IE_LSC				Work Order: H3A5T1AA		Report DB ID: 9H3A5T10					
SE-79	1.80E+00	U	2.1E+00	2.6E+00	4.90E+00	pCi/g	79%	0.37	5/11/06 12:58 a		0.5061	LSC3
						2.35E+00	1.00E+01	(1.4)			G	

No. of Results: 1 Comments:

STL Richland MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample 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.
 V4.15.0 A87

FORM II

Date: 17-May-06

DUPLICATE RESULTS

Lab Name: STL Richland

SDG: W04900

Collection Date: 4/11/2006 11:20:00 AM

Lot-Sample No.: J6D140246-1

Report No.: 32101

Received Date: 4/12/2006 3:35:00 PM

Client Sample ID: B1J2T9 DUP

COC No.: R06-008-002

Matrix: SOIL SOLID

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6107201	SE79_SEP_IE_LSC				Work Order: H3AH81AG	Report DB ID: H3AH81CR			Orig Sa DB ID: 9H3AH810			
SE-79	2.05E-01	U	1.0E+00	1.2E+00	2.40E+00	pCi/g	82%	0.09	5/10/06 11:33 p		1.0	LSC3
	1.20E-01	U		RPD 52.4				1.00E+01			G	

No. of Results: 1 Comments:

STL Richland

RPD - Relative Percent Difference.

rptSTLRichDupV4.1

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

5.0 A97

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: 17-May-06

Lab Name: STL Richland

SDG: W04900

Matrix: SOIL

Report No. : 32101

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC/MDA ,	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6107201	SE79_SEP_IE_LSC				Work Order: H3EWR1AA	Report DB ID: H3EWR1AB						
SE-79	5.80E-01	U	2.2E+00	2.7E+00	5.31E+00	pCi/g	37%	0.11	5/11/06 01:40 a		1.0	LSC3
					2.55E+00	1.00E+01		0.43			G	

No. of Results: 1

Comments:

STL Richland
rptSTLRchBlank
V4.15.0 A97

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.

Lot No., Due Date: J6D140246; 04/27/2006
 Client, Site: 108302; RUS TEDF HANFORD
 QC Batch No., Method Test: 6107201; RSE79 Se-79 by LSC
 SDG, Matrix: W04900; SOIL

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 Pam Anderson

Date 5-7-2006

SEVERN
TRENT **STL**

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

OC Batch Number: 6107201

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: *Shirley A. Williams* Date: 5-15-06

STL RICHLAND

U6D140246

Fluor Hanford Inc.

Due ~~4-28-06~~ 4/27/06 5-1-06 4/27/06 W04900

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

R06-008-002

PAGE 1 OF 1

COLLECTOR
HOGAN, JG
SAMPLING LOCATION
200-UW-1
ICE CHEST NO.

73-9

COMPANY CONTACT
TRECHTER, JE
TELEPHONE NO.
372-7046
PROJECT DESIGNATION
200-UW-1 Operable Unit Clay Pipe Analysis
FIELD LOGBOOK NO.
DTS-SAWS-H99
OFFSITE PROPERTY NO.
N/A

PROJECT COORDINATOR
TRECHTER, JE
SAF NO.
R06-008
METHOD OF SHIPMENT
GOVERNMENT VEHICLE
BILL OF LADING/AIR BILL NO.
N/A

PRICE CODE 9C
AIR QUALITY

DATA
TURNAROUND
15 Days /
15 Days

SHIPPED TO
Seyern Trent Incorporated, Richland

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

SPECIAL HANDLING AND/OR STORAGE

POSSIBLE SAMPLE HAZARDS/ REMARKS

Samples B112V0, 2V1 contain radioactive material that does not meet DOT limits or exceed lab acceptance criteria.

SAMPLE NO.	LAB ID	MATRIX*	SAMPLE DATE	SAMPLE TIME	NO./TYPE CONTAINER(S)	ANALYSIS	PRESERVATION
B112T9		OS	04-11-06	1120	1X60mL G/P Selenium-79 (Se-79)	H3A48	None
B112V0		OS	↓	1400	1X60mL G/P Selenium-79 (Se-79)	H3A5P	None
B112V1		OS		1400	1X60mL G/P Selenium-79 (Se-79)	H3A5T	None

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM
DUPLICATE J.G. HOGAN
DATE/TIME
15:35 APR 12 2006

SIGN/ PRINT NAMES

RECEIVED BY/STORED IN
Rhonda Wagner
DATE/TIME
4/12/06 15:35

SPECIAL INSTRUCTIONS

Reporting format the same as GPP, including QC. STL, send copies of chain of custody to J.E. Trechter within 24 hours of sample receipt. Samples will NOT be taken using the multi-increment sampling technique. Analyze normal sample aliquot.

RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN

DATE/TIME

RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN

DATE/TIME

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME

Sample Check-in List

Date/Time Received: 4-12-06 15:35
 Client: RUS SDG #: W04900 NA SAF #: R06-008 NA
 Work Order Number: 6D140246 Chain of Custody # R06-008-002
 Shipping Container ID: TJ-9 Air Bill # NA

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

Sample Custodian: S. Weber Date: 4-12-06 15:35
SLW 4-14-06

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

No action necessary; process as is.

Project Manager _____ Date _____

STL RICHLAND

5/4/2006 11:25:23 AM

Sample Preparation/Analysis

Balance Id:1120373922

108302, Fluor Hanford Inc
Management Federal Servi

, Waste

CW Se-79 PrpRC5013, SepRC5043
TM Selenium-79 by Liquid Scint
SI CLIENT: HANFORD

Pipet #:

AnalyDueDate: 04/27/2006

W04900

Sep1 DT/Tm Tech:

Batch: 6107201 SOIL pCi/g
SEQ Batch, Test: None

PM, Quote: HC , 27045

Sep2 DT/Tm Tech:

Prep Tech: ,HansenM

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 H3AH8-1-AA J6D140246-1-SAMP 04/11/2006 11:20	(1g)	1.00g,in	SETA0104 03/30/06						
		AmtRec: 1LP	#Containers: 1			Scr:	Alpha: 5.31E+01pCi/g	Beta: 1.68E+01pCi/g	
2 H3AH8-1-AC-X J6D140246-1-DUP 04/11/2006 11:20	(1g)	1.00g,in	SETA0105 03/30/06						
		AmtRec: 1LP	#Containers: 1			Scr:	Alpha: 5.31E+01pCi/g	Beta: 1.68E+01pCi/g	
3 H3A5P-1-AA J6D140246-2-SAMP 04/11/2006 14:00	(0.5g)	0.5042g,in	SETA0106 03/30/06						
		AmtRec: 1LP	#Containers: 1			Scr:	Alpha: 1.38E+03pCi/g	Beta: 4.20E+02pCi/g	
4 H3A5T-1-AA J6D140246-3-SAMP 04/11/2006 14:00	(0.5g)	0.5061g,in	SETA0114 05/04/06						
		AmtRec: 1LP	#Containers: 1			Scr:	Alpha: 1.06E+03pCi/g	Beta: 3.29E+02pCi/g	
5 H3EWR-1-AA-B J6D170000-201-BLK 04/11/2006 11:20		1.00g,in	SETA0108 03/30/06						
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	
6 H3EWR-1-AC-BN J6D170000-201-IBLK 04/11/2006 11:20									
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	

sample H3ASP & H3AST are reduced aliquots with 5-4-06 target Aliquots in parenthesis with 5-4-06

17

5/12/2006 12:57:26 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/12/2005, 5/17/2006, Batch: '6107201', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
6107201				
AC	CalcC	WhitneyT	4/25/2006 4:18:19 PM	
SC		wagar	IsBatched 4/17/2006 9:48:02 AM	ICOC_RADCALC v4.8.20
SC		WhitneyT	Prep1C 4/25/2006 4:18:19 PM	RICH-RC-5013 REVISION 5
SC		HansenM	InPrep2 5/2/2006 9:13:23 AM	RICH-RC-5013 REVISION 5
SC		HansenM	Prep2C 5/5/2006 8:11:47 AM	RICH-RC-5013 REVISION 5
SC		ManisD	InSep1 5/8/2006 10:12:05 AM	RICH-RC-5043 REV 2
SC		ManisD	Sep1C 5/9/2006 4:14:40 PM	RICH-RC-5043 REV 2
SC		DAWKINSO	InCnt1 5/10/2006 4:36:14 PM	RICH-RD-0001 REVISION 3
SC		BlackCL	CalcC 5/11/2006 8:46:56 AM	RICH-RD-0001 REVISION 3
AC		HansenM	5/2/2006 9:13:23 AM	
AC		HansenM	5/5/2006 8:11:47 AM	
AC		ManisD	5/8/2006 10:12:05	
AC		ManisD	5/9/2006 4:14:40 PM	
AC		DAWKINSO	5/10/2006 4:36:14 PM	
AC		BlackCL	5/11/2006 8:46:56	

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.