November 27, 2002

Melissa Gerrard
Fluor Hanford
2430 Stevens Center, Room 169
Richland, WA 99352

Reference: Contract 615

Dear Ms. Gerrard:

Accompanying this letter are the Data Package(s) and EDD(s) for the radiochemical analyses for the
following Fluor Sample Delivery Groups:

SDG NUMBER	SAF NUMBER	LOT NUMBER
W03913	F02-003	J2K250140

If you have any questions regarding this data package or require any additional information please
contact Barb Gillespie at 375-3131.

Receipt of this letter and the packages are acknowledged by:

MC Janard   _12/2/02_   _4:00_
Name   Date   Time

XC: File

Analytical Data Package Prepared For

Fluor Hanford Inc.

Radiochemical Analysis By

STL Richland

2800 G.W. Way, Richland Wa, 99352, (509)-375-3131.

Assigned Laboratory Code: STLRL

Data Package Contains __18__ Pages

Report No.: 21086

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
W03913	F02-003	B15CF7	J2K250140-1	FDTV01AA	9FDTV010	2329402
		B15CF8	J2K250140-2	FDTV21AA	9FDTV210	2329402

CERTIFICATE OF ANALYSIS

Fluor Hanford Inc.
825 Jadwin Ave.
Richland, WA 99352

November 27, 2002

Attention: Steve Trent

DEC 2002
RECEIVED

SAF Number	:	F02-003
Date SDG Closed	:	November 25, 2002
Number of Samples	:	Two (2)
Sample Type	:	Water
SDG Number	:	W03913
Data Deliverable	:	7-Day / Summary

I. Introduction

On November 25, 2002, two water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Fluor Hanford, Inc. specific IDs:

STLR ID#	Fluor ID#	MATRIX	DATE OF RECEIPT
FDTV0	B15CF7	WATER	11/25/02
FDTV2	B15CF8	WATER	11/25/02

II. 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 analysis was: **Gas Proportional Counting**
Total Strontium by method RICH-RC-5006

III.   Quality Control

The analytical results for each analysis performed under SDG W03913 includes a minimum of two Laboratory Control Samples (LCS) and one method (reagent) blank. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

IV.   Comments

Gas Proportional Counting
Total Strontium by method RICH-RC-5006:
The laboratory control samples, batch blank and sample 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:
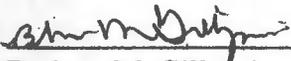
Barbara M. Gillespie
Project Manager

03

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/√n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

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

Report Definitions

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

Report No. : 21086

SDG No: W03913

Client ID	Work Order Number	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	MDC|MDA	RER
B15CF7	FDTV01AA	STRONTIUM	1.89E+03 +- 4.98E+02		pCi/L	85.40%	4.20E+00	
B15CF8	FDTV21AA	STRONTIUM	1.37E+02 +- 3.70E+01		pCi/L	76.30%	4.62E+00	

Number of Results: 2

STL Richland   **RER**   - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

rptSTLRchSaSum
V3.96 A97

Report No. : 21086

SDG No.: W03913

QC Type	Work Order Number	Parameter	Result +- Uncertainty (2s)	Qual	Units	Yield	Recovery	Bias	MDC|MDA
BLANK QC	FDT9J1AA	STRONTIUM	4.71E-01 +- 1.82E+00	U	pCi/L	88.40%			4.20E+00
LCS	FDT9J1AC	STRONTIUM	5.82E+01 +- 1.63E+01		pCi/L	84.60%	85.88%	-0.1	4.31E+00
LCS	FDT9J1AD	STRONTIUM	6.26E+01 +- 1.75E+01		pCi/L	86.20%	92.24%	-0.1	4.20E+00

Number of Results: 3

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

rptSTLRchQcSum U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

V3.96 A97

07

FORM I

SAMPLE RESULTS

Date: 27-Nov-02

Lab Name: STL Richland	**SDG:** W03913
Lot-Sample No.: J2K250140-1	**Report No. :** 21086
Client Sample ID: B15CF7	**COC No. :** F02-003-011

Collection Date: 11/25/2002 8:30:00 AM	
Received Date: 11/25/2002 9:45:00 AM	
Matrix: WATER	

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	Analy Method, Primary Detector
Batch: 2329402	**Work Order:** FDTV01AA			**Report DB ID:** 9FDTV010								
STRONTIUM	1.89E+03		2.95E+01	4.98E+02	4.20E+00	pCi/L	85.40%	(450.9)	11/26/02 09:14 p		0.2007	SRTOT_SEP_PRECIP
						1.95E+00		(7.6)			L	GPC31A

Number of Results: 1

Comments:

FORM I

SAMPLE RESULTS

Date: 27-Nov-02

Lab Name: STL Richland	**SDG:** W03913	**Collection Date:** 11/25/2002 8:30:00 AM
Lot-Sample No.: J2K250140-2	**Report No. :** 21086	**Received Date:** 11/25/2002 9:45:00 AM
Client Sample ID: B15CF8	**COC No. :** F02-003-011	**Matrix:** WATER

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	Analy Method, Primary Detector
Batch: 2329402			**Work Order:** FDTV21AA		**Report DB ID:** 9FDTV210							
STRONTIUM	1.37E+02		8.58E+00	3.70E+01	4.62E+00	pCi/L	76.30%	(29.7)	11/26/02 09:14 p		0.2003	SRTOT_SEP_PRECIP
						2.14E+00		(7.4)			L	GPC31B

Number of Results: 1

Comments:

60

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 the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

BLANK RESULTS

Lab Name:	STL Richland	SDG:	W03913		
Lot-Sample No.:	J2K250000-402	Report No. :	21086	Matrix:	WATER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA,	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Analy Method, Primary Detector
Batch: 2329402	Work Order: FDT9J1AA			Report DB ID: FDT9J1AB								
STRONTIUM	4.71E-01	U	1.82E+00	1.82E+00	4.20E+00	pCi/L	88.40%	0.11	11/26/02 09:14 p		0.2003	SRTOT_SEP_PRECIP
					1.95E+00			0.52			L	GPC31C

Number of Results: 1

Comments:

10

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 the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

Lab Name:	**STL Richland**	**SDG:**	W03913		
Lot-Sample No.:	**J2K250000-402**	**Report No. :**	21086	**Matrix:**	WATER

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MD	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 2329402	**Work Order:** FDT9J1AC			**Report DB ID:** FDT9J1CS									
STRONTIUM	5.82E+01		5.57E+00	1.63E+01	4.31E+00	pCi/L	84.60%	6.77E+01	1.33E+00	85.88%	11/26/02 09:14 p	0.2001	SRTOT_SEP_PRECIP
					Rec Limits:			70.	130.	-0.1		L	GPC31D
Batch: 2329402	**Work Order:** FDT9J1AD			**Report DB ID:** FDT9J1DS									
STRONTIUM	6.26E+01		5.70E+00	1.75E+01	4.20E+00	pCi/L	86.20%	6.79E+01	1.33E+00	92.24%	11/26/02 09:14 p	0.2003	SRTOT_SEP_PRECIP
					Rec Limits:			70.	130.	-0.1		L	GPC32A

Number of Results: 2

Comments:

⊢→
⊢→

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

rptSTLRchLcs
V3.96 A97

SEVERN TRENT **STL**

Data Review Checklist
RADIOCHEMISTRY
First Level Review

Lot Number: J2/K2J0/40

Client ID: PCH

Due Date: 12/2/02

QC Batch Number: 2329402

Method Test Parameter: TH-TSR

Matrix: Water

SDG Number: WU39X3

Review Item	Yes (√)	No (√)	N/A (√)
A. COC			
1. Is the ICOC page complete (includes all applicable analysts, dates, SOP numbers and revisions)?	✓		
B. QC Batch			
1. Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2. Are the QC appropriate for the analysis included in the batch?	✓		
3. Is the Analytical Batch Worksheets complete (includes, as appropriate, volumes, count times, etc.)?	✓		
4. Does the Worksheets include a Tracer Vial label for each sample?	✓		
C. QC & Samples			
1. Is the blank result, yield and MDA within contract limits?	✓		
2. Is the LCS result, yield and MDA within contract limits?	✓		
3. Are the MS/MSD results, yields and MDAs within contract limits?			✓
4. Are the duplicate results, yields and MDAs within contract limits?			✓
5. Are the sample yields and MDAs within contract limits?	✓		
D. Raw Data			
1. Were results calculated in the correct units?	✓		
2. Were analysis volumes entered correctly?	✓		
3. Were yields entered correctly?			✓
4. Were spectra reviewed/meet contractual requirements?	✓		
5. Were raw counts reviewed for anomalies?	✓		
E. 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. Are worksheet entries complete and correct?	✓		

Comments on any "No" response: _____

_____

_____

_____

_____

First Level Review: _Pam Anderson_   Date: 11-27-02

STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 23290-02

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?	✓	x8mb	
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: ___Bob mbym___ Date: __11/27/02__

LS-038B, Rev. 10, 8/02

CHAIN OF CUSTODY

FLUOR Hanford Inc.	**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**		**F02-003-011**	Page 1 of 1

Collector *J. S. POPE*	Company Contact Trent, Steve	Telephone No. 373-5869		Project Coordinator TRENT, SJ	Price Code **1D**	Data Turnaround
Project Designation 100-NR-2 Pump and Treat Operational Monitoring	Sampling Location 100-NR-2			SAF No. F02-003	Air Quality ☐	**7 Days**
Ice Chest No. *ERC-00-001*	Field Logbook No. *HNF-N-3041*		COA 117567ES10	Method of Shipment Govt. Vehicle		
Shipped To Severn Trent Incorporated, Richland	Offsite Property No.			Bill of Lading/Air Bill No.		

POSSIBLE SAMPLE HAZARDS/REMARKS		Preservation	None									
		Type of Container	G/P									
Special Handling and/or Storage		No. of Container(s)	1									
		Volume	1000mL									
SDG *W03913* SAMPLE ANALYSIS *J2K250140* *Due 12.2*			Strontium-89,90 — Total Sr									

Sample No.	Matrix *	Sample Date	Sample Time									
B15CF7 *FDTVO*	WATER	*11-25-02*	*0830*	✓								
B15CF8 *FDTV2*	WATER	*11-25-02*	*0830*	✓								

CHAIN OF POSSESSION			Sign/Print Names		SPECIAL INSTRUCTIONS	Matrix *

CHAIN OF POSSESSION / **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
J. S. POPE	*11/25/02 0855*	*M.H. Buehler M.G. Buehler*	*11/25/02* *0855*
M.H. Buehler M.G. Buehler	*11/25/02 0945*	T. Heidelberg *L1001p*	*11-25-02 0945*
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
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

** Upon receipt of the sample(s) the laboratory will immediately preserve with nitric acid.

INFLUENT: *B15CF7*

EFFLUENT: *B15CF8*

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

LABORATORY SECTION	Received By		Title		Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By	Date/Time

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BHI-EE-011 (03/01/2002)

Sample Check-in List

Date/Time Received: 11-25 0945

Client: B FLH   SDG #: W03913 NA [ ]   SAF #: F02-003 NA [ ]

Work Order Number: J2K250140   Chain of Custody # F02-003-011

Shipping Container ID: ERC 00-001   Air Bill # una

1.   Custody Seals on shipping container intact?   NA [ ] Yes [ ] No [✓]

2.   Custody Seals dated and signed?   NA [ ] Yes [ ] No [✓]

3.   Chain of Custody record present?   Yes [✓] No [ ]

4.   Cooler temperature:_____ NA [✓]   5.Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]

6.   Number of samples in shipping container: ___2___

7.   Sample holding times exceeded?   NA [ ] Yes [ ] No [✓]

8.   Samples have:
     ____ tape   ____ hazard labels
     [✓] custody seals   [✓] appropriate samples labels

9.   Samples are:
     [✓] in good condition   ____ leaking
     ____ broken   ____ have air bubbles
         (Only for samples requiring head space)

10.   Sample pH taken?   NA [ ] pH<2 [ ] pH>2 [✗] adj pH <2

11.   Sample Location, Sample Collector Listed? *
     *For documentation only. No corrective action needed.   Yes [ ] No [✓]

12.   Were any anomalies identified in sample receipt?   Yes [ ] No [✓]

13.   Description of anomalies (include sample numbers): _____

Sample Custodian: Heidelberg   Date: 11-25-02

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on_____ by_____ Person contacted_____

[ ] No action necessary; process as is.

Project Manager_____ Date_____

LS-023, 9/01, Rev. 4

Sample Preparation/Analysis

Balance Id: 12457

108302, FLUOR HANFORD IC , Flour
Hanford Inc

CG Sr-Total Prp/SepRC5006
TH Total Strontium by GPC
5I CLIENT: HANFORD

PRIORITY

Pipet #: _____

Report Due: 12/02/2002 W03913

Sep1 DT/Tm Tech: 11/26/02/1538/EB

Batch: 2329402   WATER   pCi/L

PM, Quote: BG1, 48668

Sep2 DT/Tm Tech:

SEQ Batch, Test: None   All Tests: 2329402 CGTH,

Prep Tech: AW

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	QC Vial 2 Prep Date	Dish Size	Ppt or Geometry (mg)	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date
1 FDTV0-1-AA J2K250140-1-SAMP	200.7 (mL)	SRTA8254 PR.10/24/02 EX.9/19/03			1.5	85.4	50	31A	2139	11/26/2002
11/25/2002 08:30		AmtRec: 500P	#Containers: 1			Scr Rst:	Alpha: 4.13E+02 pCi/L		Beta: 2.66E+03 pCi/L	
2 FDTV2-1-AA J2K250140-2-SAMP	200.3	SRTA8255 PR.10/24/02 EX.9/19/03				76.3		31B	2139	11/26/2002
11/25/2002 08:30		AmtRec: 500P	#Containers: 1			Scr Rst:	Alpha: 5.92E+02 pCi/L		Beta: 4.86E+02 pCi/L	
3 FDT9J-1-AA-B J2K250000-402-BLK	200.3	SRTA8256 PR.10/24/02 EX.9/19/03				88.4		31C	2139	11/26/2002
11/25/2002 08:30		AmtRec:	#Containers: 1			Scr Rst:	Alpha:		Beta:	
4 FDT9J-1-AC-C J2K250000-402-LCS	200.1	STSC0837 PR.9/16/02 EX.6/3/03				84.6		31D	2139	11/26/2002
11/25/2002 08:30		AmtRec:	#Containers: 1			Scr Rst:	Alpha:		Beta:	
5 FDT9J-1-AD-C J2K250000-402-LCS	200.3	STSC0838 PR.9/16/02 EX.6/3/03				86.2		32A	2139	11/26/2002
11/25/2002 08:30		AmtRec:	#Containers: 1			Scr Rst:	Alpha:		Beta:	

Comments:

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All Clients for Batch:
  108302, FLUOR HANFORD IC   Flour Hanford Inc   , BG1, 48668

FDTV01AA-SAMP Constituent List:
  Sr-90   RDL:2   pCi/L   LCL:70   UCL:130   RPD:20
FDT9J1AA-BLK:

STL Richland   Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt,
Richland Wa.   r - Reference date, ec-Enrichment Cell, ct-Cocktailed Added

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WO Cnt: 5
ICOC v4.5.32

ICOC Fraction Transfer/Status Report

ByDate: 10/28/02, 11/28/02, Batch: '2329402', User: *All Order by BatchNbr,WorkOrderNbr,DateTimeAccepting

Q Batch	Work Ord	CurStatus		Accepting			Comments
2329402							
AC		CalcC	**SMITHP**	11/25/02 2:06:47 PM			
SC			WagarR	IsBatched	11/25/02 12:37:31 PM		ICOC_RADCALC v4.5.3.2
SC			SMITHP	InPrep	11/25/02 2:06:47 PM		RICH-RC-5006 REVISION 4
SC			SMITHP	Sep1C	11/26/02 5:27:54 PM		RICH-RC-5006 REVISION 4
SC			DAWKINSO	InCnt1	11/26/02 9:25:45 PM		RICH-RD-0003 REVISION 3
SC			BlackCL	CalcC	11/27/02 10:23:34 AM		RICH-RD-0003 REVISION 3
AC			**SMITHP**	11/26/02 5:27:54 PM			
AC			**DAWKINSO**	11/26/02 9:25:45 PM			
AC			**BlackCL**	11/27/02 10:23:34			

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions