EBERLINE SERVICES

EBERLINE ANALYTICAL CORPORATION
2030 Wright Avenue
Richmond, California 94804-3849
Phone (510) 235-2633 Fax (510) 235-0438
Toll Free (800) 841-5487
www.eberlineservices.com

May 13, 2008

RECEIVED
MAY 2008

Mr. Steve Trent
Fluor Hanford Inc.
1200 Jadwin Avenue
Richland, WA 99352

Reference: **P.O. #33677**
Eberline Services R8-04-015-7072, SDG H3676

Dear Mr. Trent:

Enclosed is the data report for three solid (soil) samples designated under SAF No. F08-070 received at Eberline Services on April 3, 2008. The samples were analyzed according to the accompanying chain-of-custody documents.

Please call if you have any questions concerning this report.

Sincerely,

Melissa C. Mannion

Melissa C. Mannion
Senior Program Manager

MCM/njv

Enclosure: Data Package

1.0 GENERAL

Fluor Hanford Inc. (FH) Sample Delivery Group H3676 was composed of three solid (soil) samples designated under SAF No. F08-070 with a Project Designation of: 200-TW-1 OU Characterization for Well 299-E33-342 – Soil.

The samples were received as stated on the Chain-of-Custody documents. Any discrepancies are noted on the Eberline Services Sample Receipt Checklist.

2.0 ANALYSIS NOTES

2.1 Tritium Analysis

No problems were encountered during the course of the analyses.

2.2 Carbon-14 Analysis

No problems were encountered during the course of the analyses.

2.3 Nickel-63 Analysis

No problems were encountered during the course of the analyses.

2.4 Technetium-99 Analysis

No problems were encountered during the course of the analyses.

2.5 Iodine-129 Analysis

No problems were encountered during the course of the analyses.

2.6 Radium-226 Analysis

No problems were encountered during the course of the analyses.

2.7 Radium-228 Analysis

No problems were encountered during the course of the analyses.

2.8 Isotopic Thorium Analysis

No problems were encountered during the course of the analyses.

3.0 Case Narrative Certification Statement

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

Melissa Mannion

Melissa C. Mannion
Senior Program Manager

05/13/08
Date

E B E R L I N E S E R V I C E S / R I C H M O N D
SAMPLE DELIVERY GROUP H3676

SDG	7072
Contact	Melissa C. Mannion

Client	Hanford
Contract	No. 33677
Case no	SDG_H3676

S U M M A R Y D A T A S E C T I O N

T A B L E O F C O N T E N T S

About this section	1
Sample Summaries	3
Prep Batch Summary	5
Work Summary	6
Method Blanks	8
Lab Control Samples	9
Duplicates	10
Data Sheets	11
Method Summaries	14
Report Guides	22
End of Section	36

Prepared by

Melissa Mannion
Reviewed by

Lab id	EBRLNE
Protocol	Fluor
Version	Ver 1.0
Form	DVD-TOC
Version	3.06
Report date	05/13/08

SDG 7072
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford
Contract No. 33677
Case no SDG H3676

ABOUT THE DATA SUMMARY SECTION

The Data Summary Section of a Data Package has all data, in several useful orders, necessary for first level, routine review of the data package for a Sample Delivery Group (SDG). This section follows the Data Package Narrative, which has an overview of the data package and a discussion of special problems. It is followed by the Raw Data Section, which has full details.

The Data Summary Section has several groups of reports:

SAMPLE SUMMARIES

The Sample and QC Summary Reports show all samples, including QC samples, reported in one SDG. These reports cross-reference client and lab sample identifiers.

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches (lab groupings reflecting how work was organized) relevant to the reported SDG with information necessary to check the completeness and consistency of the SDG.

WORK SUMMARY

The Work Summary Report shows all samples and work done on them relevant to the reported SDG.

METHOD BLANKS

The Method Blank Reports, one for each Method Blank relevant to the SDG, show all results and primary supporting information for the blanks.

LAB CONTROL SAMPLES

The Lab Control Sample Reports, one for each Lab Control Sample relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

ABOUT THE DATA SUMMARY SECTION

DUPLICATES

The Duplicate Reports, one for each Duplicate and Original sample pair relevant to the SDG, show all results, differences and primary supporting information for these QC samples.

MATRIX SPIKES

The Matrix Spike Reports, one for each Spiked and Original sample pair relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DATA SHEETS

The Data Sheet Reports, one for each client sample in the SDG, show all results and primary supporting information for these samples.

METHOD SUMMARIES

The Method Summary Reports, one for each test used in the SDG, show all results, QC and method performance data for one analyte on one or two pages. (A test is a short code for the method used to do certain work to the client's specification.)

REPORT GUIDES

The Report Guides, one for each of the above groups of reports, have documentation on how to read the associated reports.

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

LAB SAMPLE SUMMARY

SDG 7072
Contact Melissa C. Mannion

Client Hanford
Contract No. 33677
Case no SDG H3676

LAB SAMPLE ID	CLIENT SAMPLE ID	LOCATION	MATRIX	LEVEL	SAF NO	CHAIN OF CUSTODY	COLLECTED
R804015-01	B1TN41	C5857, I-030	SOLID		F08-070	F08-070-007	03/19/08 10:10
R804015-02	B1TNP2	C5857, I-030-D	SOLID		F08-070	F08-070-014	03/19/08 10:10
R804015-03	B1TNP6	C5857, I-084	SOLID		F08-070	F08-070-021	03/27/08 10:10
R804015-04	Lab Control Sample		SOLID		F08-070		
R804015-05	Method Blank		SOLID		F08-070		
R804015-06	Duplicate (R804015-02)	C5857, I-030-D	SOLID		F08-070		03/19/08 10:10

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

SDG 7072
Contact Melissa C. Mannion

QC SUMMARY

Client Hanford
Contract No. 33677
Case no SDG H3676

QC BATCH	CHAIN OF CUSTODY	CLIENT SAMPLE ID	MATRIX	% SOLIDS	SAMPLE AMOUNT	BASIS AMOUNT	DAYS SINCE RECEIVED	DAYS SINCE COLL	LAB SAMPLE ID	DEPARTMENT SAMPLE ID
7072	F08-070-007	B1TN41	SOLID	95.9	122 g		04/03/08	15	R804015-01	7072-001
	F08-070-014	B1TNP2	SOLID	96.6	105 g		04/03/08	15	R804015-02	7072-002
	F08-070-021	B1TNP6	SOLID	97.2	164 g		04/03/08	7	R804015-03	7072-003
		Method Blank	SOLID						R804015-05	7072-005
		Lab Control Sample	SOLID						R804015-04	7072-004
		Duplicate (R804015-02)	SOLID	96.6	105 g		04/03/08	15	R804015-06	7072-006

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-QS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

SDG 7072
Contact Melissa C. Mannion

PREP BATCH SUMMARY

Client Hanford
Contract No. 33677
Case no SDG H3676

TEST	MATRIX	METHOD	PREPARATION BATCH	ERROR 2σ %	PLANCHETS ANALYZED CLIENT	MORE	RE	BLANK	LCS	DUP/ORIG	MS/ORIG	QUALIFIERS
Alpha Spectroscopy												
TH	SOLID	Thorium, Isotopic in Solids	6145-195	8.0	3			1	1	1/1		
Beta Counting												
AC	SOLID	Radium 228 in Solids	6145-195	10.4	3			1	1	1/1		
TC	SOLID	Technetium 99 in Solids	6145-195	13.2	3			1	1	1/1		
Gamma Spectroscopy												
I	SOLID	Iodine 129 in Solids	6145-195	19.4	3			1	1	1/1		
Liquid Scintillation Counting												
C	SOLID	Carbon 14 in Solids	6145-195	10.0	3			1	1	1/1		
H	SOLID	Tritium in Solids	6145-195	10.0	3			1	1	1/1		
NI_L	SOLID	Nickel 63 in Solids	6145-195	11.2	3			1	1	1/1		
Radon Counting												
RA	SOLID	Radium 226 in Solids	6145-195	16.4	3			1	1	1/1		

Duplicates and Matrix Spikes are those with original (Client) sample in this Sample Delivery Group.
Blank and LCS planchets are those in the same preparation batch as some Client, Duplicate or Spike sample.

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-PBS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

SDG 7072
Contact Melissa C. Mannion

LAB WORK SUMMARY

Client Hanford
Contract No. 33677
Case no SDG H3676

LAB SAMPLE COLLECTED RECEIVED	CLIENT SAMPLE ID LOCATION CUSTODY	SAF No	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
R804015-01	B1TN41			7072-001	AC		05/01/08	05/02/08	BW	Radium 228 in Solids
03/19/08	C5857, I-030		SOLID	7072-001	C		04/23/08	04/29/08	BW	Carbon 14 in Solids
04/03/08	F08-070-007	F08-070		7072-001	H		04/25/08	04/28/08	BW	Tritium in Solids
				7072-001	I		05/08/08	05/12/08	BW	Iodine 129 in Solids
				7072-001	NI_L		04/24/08	04/28/08	BW	Nickel 63 in Solids
				7072-001	RA		05/05/08	05/05/08	BW	Radium 226 in Solids
				7072-001	TC		05/05/08	05/12/08	BW	Technetium 99 in Solids
				7072-001	TH		05/02/08	05/06/08	BW	Thorium, Isotopic in Solids
R804015-02	B1TNP2			7072-002	AC		05/01/08	05/02/08	BW	Radium 228 in Solids
03/19/08	C5857, I-030-D		SOLID	7072-002	C		04/23/08	04/29/08	BW	Carbon 14 in Solids
04/03/08	F08-070-014	F08-070		7072-002	H		04/25/08	04/28/08	BW	Tritium in Solids
				7072-002	I		05/08/08	05/12/08	BW	Iodine 129 in Solids
				7072-002	NI_L		04/24/08	04/28/08	BW	Nickel 63 in Solids
				7072-002	RA		05/05/08	05/05/08	BW	Radium 226 in Solids
				7072-002	TC		05/06/08	05/12/08	BW	Technetium 99 in Solids
				7072-002	TH		05/02/08	05/06/08	BW	Thorium, Isotopic in Solids
R804015-03	B1TNP6			7072-003	AC		05/01/08	05/02/08	BW	Radium 228 in Solids
03/27/08	C5857, I-084		SOLID	7072-003	C		04/23/08	04/29/08	BW	Carbon 14 in Solids
04/03/08	F08-070-021	F08-070		7072-003	H		04/25/08	04/28/08	BW	Tritium in Solids
				7072-003	I		05/08/08	05/12/08	BW	Iodine 129 in Solids
				7072-003	NI_L		04/24/08	04/28/08	BW	Nickel 63 in Solids
				7072-003	RA		05/05/08	05/05/08	BW	Radium 226 in Solids
				7072-003	TC		05/03/08	05/12/08	BW	Technetium 99 in Solids
				7072-003	TH		05/02/08	05/06/08	BW	Thorium, Isotopic in Solids
R804015-04	Lab Control Sample			7072-004	AC		05/01/08	05/02/08	BW	Radium 228 in Solids
			SOLID	7072-004	C		04/24/08	04/29/08	BW	Carbon 14 in Solids
		F08-070		7072-004	H		04/25/08	04/28/08	BW	Tritium in Solids
				7072-004	I		05/08/08	05/12/08	BW	Iodine 129 in Solids
				7072-004	NI_L		04/24/08	04/28/08	BW	Nickel 63 in Solids
				7072-004	RA		05/05/08	05/05/08	BW	Radium 226 in Solids
				7072-004	TC		05/03/08	05/12/08	BW	Technetium 99 in Solids
				7072-004	TH		05/02/08	05/06/08	BW	Thorium, Isotopic in Solids

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LWS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

SDG 7072
Contact Melissa C. Mannion

WORK SUMMARY, cont.

Client Hanford
Contract No. 33677
Case no SDG H3676

LAB SAMPLE COLLECTED RECEIVED	CLIENT SAMPLE ID LOCATION CUSTODY	SAF No	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
R804015-05	Method Blank			7072-005	AC		05/01/08	05/02/08	BW	Radium 228 in Solids
			SOLID	7072-005	C		04/23/08	04/29/08	BW	Carbon 14 in Solids
		F08-070		7072-005	H		04/25/08	04/28/08	BW	Tritium in Solids
				7072-005	I		05/09/08	05/12/08	BW	Iodine 129 in Solids
				7072-005	NI_L		04/24/08	04/28/08	BW	Nickel 63 in Solids
				7072-005	RA		05/05/08	05/05/08	BW	Radium 226 in Solids
				7072-005	TC		05/05/08	05/12/08	BW	Technetium 99 in Solids
				7072-005	TH		05/05/08	05/06/08	BW	Thorium, Isotopic in Solids
R804015-06	Duplicate (R804015-02)			7072-006	AC		05/01/08	05/02/08	BW	Radium 228 in Solids
03/19/08	C5857, I-030-D		SOLID	7072-006	C		04/23/08	04/29/08	BW	Carbon 14 in Solids
04/03/08		F08-070		7072-006	H		04/25/08	04/28/08	BW	Tritium in Solids
				7072-006	I		05/09/08	05/12/08	BW	Iodine 129 in Solids
				7072-006	NI_L		04/24/08	04/28/08	BW	Nickel 63 in Solids
				7072-006	RA		05/05/08	05/05/08	BW	Radium 226 in Solids
				7072-006	TC		05/06/08	05/12/08	BW	Technetium 99 in Solids
				7072-006	TH		05/02/08	05/06/08	BW	Thorium, Isotopic in Solids

COUNTS OF TESTS BY SAMPLE TYPE

TEST	SAF No	METHOD	REFERENCE	CLIENT	MORE	RE	BLANK	LCS	DUP SPIKE	TOTAL
AC	F08-070	Radium 228 in Solids	RAISO_SEP_GPC	3			1	1	1	6
C	F08-070	Carbon 14 in Solids	C14_COX_LSC	3			1	1	1	6
H	F08-070	Tritium in Solids	TRITIUM_COX_LSC	3			1	1	1	6
I	F08-070	Iodine 129 in Solids	I129_SEP_LEPS_GS	3			1	1	1	6
NI_L	F08-070	Nickel 63 in Solids	NI63_LSC	3			1	1	1	6
RA	F08-070	Radium 226 in Solids	903.1_RA226_LUC	3			1	1	1	6
TC	F08-070	Technetium 99 in Solids	TC99_TR_SEP_GPC	3			1	1	1	6
TH	F08-070	Thorium, Isotopic in Solids	THISO_IE_PLATE_AEA	3			1	1	1	6
TOTALS				24			8	8	8	48

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LWS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

7072-005 **Method Blank**

METHOD BLANK

SDG	7072	Client/Case no	Hanford	SDG H3676	
Contact	Melissa C. Mannion	Contract	No. 33677		
Lab sample id	R804015-05	Client sample id	Method Blank		
Dept sample id	7072-005	Material/Matrix		SOLID	
		SAF No	F08-070		

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-2.03	3.4	6.00	400	U	H
Carbon 14	14762-75-5	1.74	2.1	3.42	50.0	U	C
Nickel 63	13981-37-8	-0.757	1.7	3.00	30.0	U	NI_L
Technetium 99	14133-76-7	0.037	0.23	0.672	12.0	U	TC
Thorium 228	14274-82-9	-0.039	0.055	0.119	1.00	U	TH
Thorium 230	14269-63-7	0.038	0.11	0.199	1.00	U	TH
Thorium 232	TH-232	-0.027	0.033	0.078	1.00	U	TH
Iodine 129	15046-84-1	-0.089	0.34	0.775	2.00	U	I
Radium 226	13982-63-3	-0.006	0.025	0.050	0.100	U	RA
Radium 228	15262-20-1	-0.068	0.25	0.699	1.00	U	AC

200TW1 OU CharatrznWell299E33342Soil

QC-BLANK #65424

Lab id	EBRLNE
Protocol	Fluor
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

7072-004 Lab Control Sample

LAB CONTROL SAMPLE

SDG 7072
Contact Melissa C. Mannion
Client/Case no Hanford SDG H3676
Contract No. 33677

Lab sample id R804015-04
Dept sample id 7072-004
Client sample id Lab Control Sample
Material/Matrix SOLID
SAF No F08-070

ANALYTE	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ADDED pCi/g	2σ ERR pCi/g	REC %	3σ LMTS (TOTAL)	PROTOCOL LIMITS
Tritium	790	17	5.40	400		H	823	33	96	84-116	80-120
Carbon 14	1920	39	7.88	50.0		C	2130	85	90	85-115	80-120
Nickel 63	207	5.6	2.93	30.0		NI_L	222	8.9	93	83-117	80-120
Technetium 99	104	2.5	0.600	12.0		TC	109	4.4	95	80-120	80-120
Thorium 230	34.8	3.6	0.274	1.00		TH	36.4	1.5	96	80-120	80-120
Iodine 129	113	1.2	1.64	2.00		I	116	4.6	97	71-129	80-120
Radium 226	11.5	0.34	0.046	0.100		RA	11.2	0.45	103	74-126	80-120
Radium 228	10.0	0.58	0.665	1.00		AC	8.48	0.34	118	78-122	80-120

200TW1 OU CharatrznWell299E33342Soil

QC-LCS #65423

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

7072-006 B1TNP2

DUPLICATE

SDG	7072			Client/Case no	Hanford SDG H3676
Contact	Melissa C. Mannion			Contract	No. 33677
	DUPLICATE		ORIGINAL		
Lab sample id	R804015-06	Lab sample id	R804015-02	Client sample id	B1TNP2
Dept sample id	7072-006	Dept sample id	7072-002	Location/Matrix	C5857, I-030-D SOLID
		Received	04/03/08	Collected/Weight	03/19/08 10:10 105 g
% solids	96.6	% solids	96.6	Custody/SAF No	F08-070-014 F08-070

ANALYTE	DUPLICATE pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ORIGINAL pCi/g	2σ ERR (COUNT)	MDA pCi/g	QUALI-FIERS	RPD %	3σ TOT	DER σ
Tritium	20.2	3.5	4.62	400		H	23.9	3.6	4.57		17	40	1.3
Carbon 14	2.10	1.6	2.59	50.0	U	C	1.54	1.6	2.54	U	-		0.5
Nickel 63	0.507	2.2	3.68	30.0	U	NI_L	-0.191	2.4	4.16	U	-		0.4
Technetium 99	1.06	0.29	0.576	12.0		TC	0.810	0.31	0.631		27	74	1.1
Thorium 228	0.478	0.34	0.492	1.00	U	TH	0.641	0.36	0.341		29	134	0.7
Thorium 230	0.610	0.34	0.259	1.00		TH	0.707	0.36	0.270		15	114	0.4
Thorium 232	0.508	0.27	0.259	1.00		TH	0.813	0.36	0.270		46	104	1.3
Iodine 129	-0.011	0.43	0.986	2.00	U	I	-0.029	0.54	1.22	U	-		0.1
Radium 226	0.563	0.079	0.040	0.100		RA	0.496	0.074	0.057		13	46	0.8
Radium 228	1.50	0.30	0.649	1.00		AC	1.27	0.29	0.648		17	50	1.0

200TW1 OU CharatrznWell299E33342Soil

QC-DUP#2 65425

Lab id	EBRLNE
Protocol	Fluor
Version	Ver 1.0
Form	DVD-DUP
Version	3.06
Report date	05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

7072-001 **B1TN41**

DATA SHEET

SDG	7072	Client/Case no	Hanford SDG H3676
Contact	Melissa C. Mannion	Contract	No. 33677
Lab sample id	R804015-01	Client sample id	B1TN41
Dept sample id	7072-001	Location/Matrix	C5857, I-030 SOLID
Received	04/03/08	Collected/Weight	03/19/08 10:10 122 g
% solids	95.9	Custody/SAF No	F08-070-007 F08-070

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	29.1	4.2	5.11	400		H
Carbon 14	14762-75-5	2.32	1.8	2.87	50.0	U	C
Nickel 63	13981-37-8	0.168	2.2	3.67	30.0	U	NI_L
Technetium 99	14133-76-7	1.44	0.38	0.703	12.0		TC
Thorium 228	14274-82-9	0.461	0.31	0.378	1.00		TH
Thorium 230	14269-63-7	0.670	0.31	0.233	1.00		TH
Thorium 232	TH-232	0.457	0.25	0.233	1.00		TH
Iodine 129	15046-84-1	0.186	0.50	1.13	2.00	U	I
Radium 226	13982-63-3	0.542	0.079	0.053	0.100		RA
Radium 228	15262-20-1	1.18	0.30	0.683	1.00		AC

200TW1 OU CharatrznWell299E33342Soil

Lab id	EBRLNE
Protocol	Fluor
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

7072-002 **B1TNP2**

DATA SHEET

SDG	7072	Client/Case no	Hanford	SDG_H3676	
Contact	Melissa C. Mannion	Contract	No. 33677		
Lab sample id	R804015-02	Client sample id	B1TNP2		
Dept sample id	7072-002	Location/Matrix	C5857, I-030-D	SOLID	
Received	04/03/08	Collected/Weight	03/19/08 10:10	105 g	
% solids	96.6	Custody/SAF No	F08-070-014	F08-070	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	23.9	3.6	4.57	400		H
Carbon 14	14762-75-5	1.54	1.6	2.54	50.0	U	C
Nickel 63	13981-37-8	-0.191	2.4	4.16	30.0	U	NI_L
Technetium 99	14133-76-7	0.810	0.31	0.631	12.0		TC
Thorium 228	14274-82-9	0.641	0.36	0.341	1.00		TH
Thorium 230	14269-63-7	0.707	0.36	0.270	1.00		TH
Thorium 232	TH-232	0.813	0.36	0.270	1.00		TH
Iodine 129	15046-84-1	-0.029	0.54	1.22	2.00	U	I
Radium 226	13982-63-3	0.496	0.074	0.057	0.100		RA
Radium 228	15262-20-1	1.27	0.29	0.648	1.00		AC

200TW1 OU CharatrznWell299E33342Soil

Lab id	EBRLNE
Protocol	Fluor
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

7072-003 **B1TNP6**

DATA SHEET

SDG	7072	Client/Case no	Hanford	SDG_H3676	
Contact	Melissa C. Mannion	Contract	No. 33677		
Lab sample id	R804015-03	Client sample id	B1TNP6		
Dept sample id	7072-003	Location/Matrix	C5857, I-084	SOLID	
Received	04/03/08	Collected/Weight	03/27/08 10:10	164 g	
% solids	97.2	Custody/SAF No	F08-070-021	F08-070	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.26	2.5	4.45	400	U	H
Carbon 14	14762-75-5	2.60	1.6	2.46	50.0		C
Nickel 63	13981-37-8	-0.943	2.1	3.58	30.0	U	NI_L
Technetium 99	14133-76-7	4.64	0.56	0.651	12.0		TC
Thorium 228	14274-82-9	0.869	0.40	0.302	1.00		TH
Thorium 230	14269-63-7	0.667	0.40	0.300	1.00		TH
Thorium 232	TH-232	1.33	0.48	0.300	1.00		TH
Iodine 129	15046-84-1	-0.172	0.36	0.828	2.00	U	I
Radium 226	13982-63-3	0.570	0.079	0.058	0.100		RA
Radium 228	15262-20-1	1.20	0.28	0.636	1.00		AC

200TW1 OU CharatrznWell299E33342Soil

Lab id	EBRLNE
Protocol	Fluor
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

Test TH Matrix SOLID
SDG 7072
Contact Melissa C. Mannion

LAB METHOD SUMMARY

THORIUM, ISOTOPIC IN SOLIDS

ALPHA SPECTROSCOPY

Client Hanford
Contract No. 33677
Contract SDG H3676

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Thorium 230
Preparation batch 6145-195					
R804015-01			7072-001	B1TN41	0.670
R804015-02			7072-002	B1TNP2	0.707
R804015-03			7072-003	B1TNP6	0.667
R804015-04			7072-004	Lab Control Sample	ok
R804015-05			7072-005	Method Blank	U
R804015-06			7072-006	Duplicate (R804015-02)	ok
Nominal values and limits from method				RDLs (pCi/g)	1.00

200TW1 OU CharatrznWell299E33342Soil

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MAX MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 6145-195			2σ prep error 8.0 %	Reference Lab Notebook #6145, pg. 195												
R804015-01			B1TN41	0.378	0.250			94		157			44	05/02/08	05/02	SS-027
R804015-02			B1TNP2	0.341	0.250			94		157			44	05/02/08	05/02	SS-028
R804015-03			B1TNP6	0.302	0.250			90		158			36	05/02/08	05/02	SS-031
R804015-04			Lab Control Sample	0.274	0.250			96		158				05/02/08	05/02	SS-032
R804015-05			Method Blank	0.199	0.250			99		885				05/02/08	05/05	SS-033
R804015-06			Duplicate (R804015-02)	0.492	0.250			89		158			44	05/02/08	05/02	SS-035
Nominal values and limits from method				1.00	0.250			20-105		150			180			

PROCEDURES	REFERENCE	THISO_IE_PLATE_AEA
	SPP-071	Soil Dissolution, > 1.0g Aliquot, rev 5
	CP-900	Thorium in Water and Dissolved Solid Samples by Extraction Chromatography, rev 1
	CP-008	Heavy Element Electroplating, rev 9

AVERAGES ± 2 SD FOR 6 SAMPLES				
MDA	0.331	±	0.199
YIELD	94	±	7

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

Test AC Matrix SOLID
SDG 7072
Contact Melissa C. Mannion

LAB METHOD SUMMARY

RADIUM 228 IN SOLIDS

BETA COUNTING

Client Hanford
Contract No. 33677
Contract SDG H3676

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Radium 228
Preparation batch 6145-195					
R804015-01			7072-001	B1TN41	1.18
R804015-02			7072-002	B1TNP2	1.27
R804015-03			7072-003	B1TNP6	1.20
R804015-04			7072-004	Lab Control Sample	ok
R804015-05			7072-005	Method Blank	U
R804015-06			7072-006	Duplicate (R804015-02)	ok
Nominal values and limits from method				RDLs (pCi/g)	1.00
200TW1 OU CharatrznWell299E33342Soil					

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 6145-195			2σ prep error 10.4 % Reference Lab Notebook #6145, pg. 195													
R804015-01			B1TN41	0.683	1.00			71		150			43	05/01/08	05/01	GRB-221
R804015-02			B1TNP2	0.648	1.00			73		150			43	05/01/08	05/01	GRB-222
R804015-03			B1TNP6	0.636	1.00			77		150			35	05/01/08	05/01	GRB-223
R804015-04			Lab Control Sample	0.665	1.00			68		150				05/01/08	05/01	GRB-224
R804015-05			Method Blank	0.699	1.00			69		150				05/01/08	05/01	GRB-217
R804015-06			Duplicate (R804015-02)	0.649	1.00			73		150			43	05/01/08	05/01	GRB-218
Nominal values and limits from method				1.00	1.00					100			180			

PROCEDURES	REFERENCE	RAISO_SEP_GPC
	SPP-071	Soil Dissolution, > 1.0g Aliquot, rev 5
	DWP-894	Sequential Separation of Actinium-228 and Radium-226 in Drinking Water (>1 Liter Aliquot), rev 0

AVERAGES ± 2 SD	MDA	0.663	±	0.048
FOR 6 SAMPLES	YIELD	72	±	7

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

Test TC Matrix SOLID
SDG 7072
Contact Melissa C. Mannion

LAB METHOD SUMMARY

TECHNETIUM 99 IN SOLIDS

BETA COUNTING

Client Hanford
Contract No. 33677
Contract SDG H3676

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Technetium 99
Preparation batch 6145-195					
R804015-01			7072-001	B1TN41	1.44
R804015-02			7072-002	B1TNP2	0.810
R804015-03			7072-003	B1TNP6	4.64
R804015-04			7072-004	Lab Control Sample	ok
R804015-05			7072-005	Method Blank	U
R804015-06			7072-006	Duplicate (R804015-02)	ok
Nominal values and limits from method				RDLs (pCi/g)	12.0

200TW1 OU CharatrznWell299E33342Soil

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 6145-195			2σ prep error 13.2 % Reference Lab Notebook #6145, pg. 195													
R804015-01			B1TN41	0.703	1.00			81		50			47	04/30/08	05/05	GRB-225
R804015-02			B1TNP2	0.631	1.00			85		50			48	04/30/08	05/06	GRB-207
R804015-03			B1TNP6	0.651	1.00			78		50			37	04/30/08	05/03	GRB-228
R804015-04			Lab Control Sample	0.600	1.00			86		50				04/30/08	05/03	GRB-202
R804015-05			Method Blank	0.672	1.00			76		50				04/30/08	05/05	GRB-228
R804015-06			Duplicate (R804015-02)	0.576	1.00			90		50			48	04/30/08	05/06	GRB-202
Nominal values and limits from method				12.0	1.00			20-105		50			180			

PROCEDURES	REFERENCE	TC99_TR_SEP_GPC
	SPP-062	Sample Aliquoting, rev 0
	CP-431	Technetium-99 Purification of Soil or Resin by Extraction Chromatography, rev 2
	CP-008	Heavy Element Electroplating, rev 9

AVERAGES ± 2 SD FOR 6 SAMPLES
MDA 0.639 ± 0.093
YIELD 83 ± 11

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

Test I Matrix SOLID
SDG 7072
Contact Melissa C. Mannion

LAB METHOD SUMMARY

IODINE 129 IN SOLIDS

GAMMA SPECTROSCOPY

Client Hanford
Contract No. 33677
Contract SDG H3676

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Iodine 129	
Preparation batch 6145-195						
R804015-01			7072-001	B1TN41	U	
R804015-02			7072-002	B1TNP2	U	
R804015-03			7072-003	B1TNP6	U	
R804015-04			7072-004	Lab Control Sample	ok	
R804015-05			7072-005	Method Blank	U	
R804015-06			7072-006	Duplicate (R804015-02)	-	U

Nominal values and limits from method RDLs (pCi/g) 2.00
200TW1 OU CharatrznWell299E33342Soil

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 6145-195			2σ prep error 19.4 % Reference Lab Notebook #6145, pg. 195													
R804015-01			B1TN41	1.13	1.00			73		619			50	05/07/08	05/08	XSPEC-004
R804015-02			B1TNP2	1.22	1.00			82		618			50	05/07/08	05/08	XSPEC-002
R804015-03			B1TNP6	0.828	1.00			85		988			42	05/07/08	05/08	XSPEC-004
R804015-04			Lab Control Sample	1.64	1.00			97		988				05/07/08	05/08	XSPEC-002
R804015-05			Method Blank	0.775	1.00			93		970				05/07/08	05/09	XSPEC-004
R804015-06			Duplicate (R804015-02)	0.986	1.00			82		969			51	05/07/08	05/09	XSPEC-002
Nominal values and limits from method				2.00	1.00			20-105		300			180			

PROCEDURES	REFERENCE	I129_SEP_LEPS_GS
	SPP-062	Sample Aliquoting, rev 0
	SPP-060	Soil Preparation, rev 0
	CP-024	Iodine-129, Sample Dissolution, rev 5
	CP-530	Iodine-129 Purification, rev 1

AVERAGES ± 2 SD FOR 6 SAMPLES
MDA 1.10 ± 0.632
YIELD 85 ± 17

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

Test C Matrix SOLID
SDG 7072
Contact Melissa C. Mannion

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client Hanford
Contract No. 33677
Contract SDG H3676

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Carbon 14
Preparation batch 6145-195					
R804015-01			7072-001	B1TN41	U
R804015-02			7072-002	B1TNP2	U
R804015-03			7072-003	B1TNP6	2.60
R804015-04			7072-004	Lab Control Sample	ok
R804015-05			7072-005	Method Blank	U
R804015-06			7072-006	Duplicate (R804015-02)	- U

Nominal values and limits from method RDLs (pCi/g) 50.0
200TW1 OU CharatrznWell299E33342Soil

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 6145-195			2σ prep error 10.0 %	Reference Lab Notebook #6145, pg. 195												
R804015-01			B1TN41	2.87	0.355			100		50			35	04/23/08	04/23	LSC-005
R804015-02			B1TNP2	2.54	0.396			100		50			35	04/23/08	04/23	LSC-005
R804015-03			B1TNP6	2.46	0.406			100		50			27	04/23/08	04/23	LSC-005
R804015-04			Lab Control Sample	7.88	0.300			100		11				04/23/08	04/24	LSC-005
R804015-05			Method Blank	3.42	0.300			100		50				04/23/08	04/23	LSC-005
R804015-06			Duplicate (R804015-02)	2.59	0.396			100		50			35	04/23/08	04/23	LSC-005
Nominal values and limits from method				50.0	0.300					10			180			

PROCEDURES	REFERENCE	C14_COX_LSC
	CP-251	Tritium/Carbon-14 Oxidation, rev 8

AVERAGES ± 2 SD	MDA	3.63	±	4.23
FOR 6 SAMPLES	YIELD	100	±	0

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

Test H Matrix SOLID
SDG 7072
Contact Melissa C. Mannion

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client Hanford
Contract No. 33677
Contract SDG H3676

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Tritium
Preparation batch 6145-195					
R804015-01			7072-001	B1TN41	29.1
R804015-02			7072-002	B1TNP2	23.9
R804015-03			7072-003	B1TNP6	U
R804015-04			7072-004	Lab Control Sample	ok
R804015-05			7072-005	Method Blank	U
R804015-06			7072-006	Duplicate (R804015-02)	ok

Nominal values and limits from method RDLs (pCi/g) 400
200TW1 OU CharatrznWell299E33342Soil

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 6145-195			2σ prep error 10.0 % Reference Lab Notebook #6145, pg. 195													
R804015-01			B1TN41	5.11	0.355			100		50			37	04/23/08	04/25	LSC-004
R804015-02			B1TNP2	4.57	0.396			100		50			37	04/23/08	04/25	LSC-004
R804015-03			B1TNP6	4.45	0.406			100		50			29	04/23/08	04/25	LSC-004
R804015-04			Lab Control Sample	5.40	0.300			100		50				04/23/08	04/25	LSC-004
R804015-05			Method Blank	6.00	0.300			100		50				04/23/08	04/25	LSC-004
R804015-06			Duplicate (R804015-02)	4.62	0.396			100		50			37	04/23/08	04/25	LSC-004
Nominal values and limits from method				400	0.300					25			180			

PROCEDURES REFERENCE TRITIUM_COX_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 8

AVERAGES ± 2 SD MDA 5.02 ± 1.20
FOR 6 SAMPLES YIELD 100 ± 0

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

Test NI L Matrix SOLID
SDG 7072
Contact Melissa C. Mannion

LAB METHOD SUMMARY

NICKEL 63 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client Hanford
Contract No. 33677
Contract SDG H3676

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Nickel 63	
Preparation batch 6145-195						
R804015-01			7072-001	B1TN41	U	
R804015-02			7072-002	B1TNP2	U	
R804015-03			7072-003	B1TNP6	U	
R804015-04			7072-004	Lab Control Sample	ok	
R804015-05			7072-005	Method Blank	U	
R804015-06			7072-006	Duplicate (R804015-02)	-	U
Nominal values and limits from method				RDLs (pCi/g)	30.0	

200TW1 OU CharatrznWell299E33342Soil

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 6145-195			2σ prep error 11.2 % Reference Lab Notebook #6145, pg. 195													
R804015-01			B1TN41	3.67	0.500			80		50			36	04/23/08	04/24	LSC-004
R804015-02			B1TNP2	4.16	0.500			71		50			36	04/23/08	04/24	LSC-004
R804015-03			B1TNP6	3.58	0.500			81		50			28	04/23/08	04/24	LSC-004
R804015-04			Lab Control Sample	2.93	0.500			97		50				04/23/08	04/24	LSC-004
R804015-05			Method Blank	3.00	0.500			97		50				04/23/08	04/24	LSC-004
R804015-06			Duplicate (R804015-02)	3.68	0.500			80		50			36	04/23/08	04/24	LSC-004
Nominal values and limits from method				30.0	0.500			30-105		25			180			

PROCEDURES	REFERENCE	NI63_LSC
	SPP-071	Soil Dissolution, > 1.0g Aliquot, rev 5
	CP-280	Nickel-63 Purification, rev 3

AVERAGES ± 2 SD	MDA	3.50	±	0.929
FOR 6 SAMPLES	YIELD	84	±	21

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

Test RA Matrix SOLID	Client Hanford
SDG 7072	Contract No. 33677
Contact Melissa C. Mannion	Contract SDG H3676

LAB METHOD SUMMARY

RADIUM 226 IN SOLIDS

RADON COUNTING

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Radium 226
Preparation batch 6145-195					
R804015-01			7072-001	B1TN41	0.542
R804015-02			7072-002	B1TNP2	0.496
R804015-03			7072-003	B1TNP6	0.570
R804015-04			7072-004	Lab Control Sample	ok
R804015-05			7072-005	Method Blank	U
R804015-06			7072-006	Duplicate (R804015-02)	ok
Nominal values and limits from method				RDLs (pCi/g)	0.100
200TW1 OU CharatrznWell299E33342Soil					

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 6145-195			2σ prep error 16.4 % Reference Lab Notebook #6145, pg. 195													
R804015-01			B1TN41	0.053	1.00			100		90			47	05/05/08	05/05	RN-012
R804015-02			B1TNP2	0.057	1.00			100		101			47	05/05/08	05/05	RN-013
R804015-03			B1TNP6	0.058	1.00			100		101			39	05/05/08	05/05	RN-014
R804015-04			Lab Control Sample	0.046	1.00			100		90				05/05/08	05/05	RN-011
R804015-05			Method Blank	0.050	1.00			100		90				05/05/08	05/05	RN-010
R804015-06			Duplicate (R804015-02)	0.040	1.00			100		90			47	05/05/08	05/05	RN-015
Nominal values and limits from method				0.100	1.00			20-105		50			180			

PROCEDURES	REFERENCE	903.1_RA226_LUC
	SPP-071	Soil Dissolution, > 1.0g Aliquot, rev 5
	CP-881	Radium-226 in Water and Dissolved Samples, rev 1

AVERAGES ± 2 SD	MDA	0.051	± 0.014
FOR 6 SAMPLES	YIELD	100	± 0

Lab id	EBRLNE
Protocol	Fluor
Version	Ver 1.0
Form	DVD-LMS
Version	3.06
Report date	05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

SDG 7072
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford
Contract No. 33677
Case no SDG H3676

SAMPLE SUMMARY

The Sample and QC Summary Reports show all samples, including QC samples, reported in one Sample Delivery Group (SDG).

The Sample Summary Report fully identifies client samples and gives the corresponding lab sample identification. The QC Summary Report shows at the sample level how the lab organized the samples into batches and generated QC samples. The Preparation Batch and Method Summary Reports show this at the analysis level.

The following notes apply to these reports:

* LAB SAMPLE ID is the lab's primary identification for a sample.

* DEPARTMENT SAMPLE ID is an alternate lab id, for example one assigned by a radiochemistry department in a lab.

* CLIENT SAMPLE ID is the client's primary identification for a sample. It includes any sample preparation done by the client that is necessary to identify the sample.

* QC BATCH is a lab assigned code that groups samples to be processed and QCed together. These samples should have similar matrices.

  QC BATCH is not necessarily the same as SDG, which reflects samples received and reported together.

* All Lab Control Samples, Method Blanks, Duplicates and Matrix Spikes are shown that QC any of the samples. Due to possible reanalyses, not all results for all these QC samples may be relevant to the SDG. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

SDG 7072
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford
Contract No. 33677
Case no SDG_H3676

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches in one Sample Delivery Group (SDG) with information necessary to check the completeness and consistency of the SDG.

The following notes apply to this report:

* The preparation batches are shown in the same order as the Method Summary Reports are printed.

* Only analyses of planchets relevant to the SDG are included.

* Each preparation batch should have at least one Method Blank and LCS in it to validate client sample results.

* The QUALIFIERS shown are all qualifiers other than U, J, B, L and H that occur on any analysis in the preparation batch. The Method Summary Report has these qualifiers on a per sample basis.

  These qualifiers should be reviewed as follows:

  X Some data has been manually entered or modified. Transcription errors are possible.

  P One or more results are 'preliminary'. The data is not ready for final reporting.

  2 There were two or more results for one analyte on one planchet imported at one time. The results in DVD may not be the same as on the raw data sheets.

  Other lab defined qualifiers may occur. In general, these should be addressed in the SDG narrative.

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3676

SDG 7072
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford
Contract No. 33677
Case no SDG H3676

WORK SUMMARY

The Work Summary Report shows all samples, including QC samples, and all relevant analyses in one Sample Delivery Group (SDG). This report is often useful as supporting documentation for an invoice.

The following notes apply to this report:

* TEST is a code for the method used to measure associated analytes. Results and related information for each analyte are on the Data Sheet Report. In special cases, a test code used in the summary data section is not the same as in associated raw data. In this case, both codes are shown on the Work Summary.

* SUFFIX is the lab's code to distinguish multiple analyses (recounts, reworks, reanalyses) of a fraction of the sample. The suffix indicates which result is being reported. An empty suffix normally identifies the first attempt to analyze the sample.

* The LAB SAMPLE ID, TEST and SUFFIX uniquely identify all supporting data for a result. The Method Summary Report for each TEST has method performance data, such as yield, for each lab sample id and suffix and procedures used in the method.

* PLANCHET is an alternate lab identifier for work done for one test. It, combined with the TEST and SUFFIX, may be the best link to raw data.

* For QC samples, only analyses that directly QC some regular sample are shown. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

* The SAS (Special Analytical Services) Number is a client or lab assigned code that reflects special processing for samples, such as rapid turn around. Counts of tests done are lists by SAS number since it is likely to affect prices.

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

SDG 7072
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford
Contract No. 33677
Case no SDG H3676

DATA SHEET

The Data Sheet Report shows all results and primary supporting information for one client sample or Method Blank. This report corresponds to both the CLP Inorganics and Organics Data Sheet.

The following notes apply to this report:

* TEST is a code for the method used to measure an analyte. If the TEST is empty, no data is available; the analyte was not analyzed for.

* The LAB SAMPLE ID and TEST uniquely identify work within the Summary Data Section of a Data Package. The Work Summary and Method Summary Reports further identify raw data that underlies this work.

  The Method Summary Report for each TEST has method performance data, such as yield, for each Lab Sample ID and a list of procedures used in the method.

* ERRORs can be labeled TOTAL or COUNT. TOTAL implies a preparation (non-counting method) error has been added, as square root of sum of squares, to the counting error denoted by COUNT. The preparation errors, which may vary by preparation batch, are shown on the Method Summary Report.

* A RESULT can be 'N.R.' (Not Reported). This means the lab did this work but chooses not to report it now, possibly because it was reported at another time.

* When reporting a Method Blank, a RESULT can be 'N.A.' (Not Applicable). This means there is no reported client sample work in the same preparation batch as the Blank's result. This is likely to occur when the Method Blank is associated with reanalyses of selected work for a few samples in the SDG.

The following qualifiers are defined by the DVD system:

U The RESULT is less than the MDA (Minimum Detectable Activity).

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

DATA SHEET

If the MDA is blank, the ERROR is used as the limit.

J The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.

B A Method Blank associated with this sample had a result without a U flag and, after correcting for possibly different aliquots, that result is greater than or equal to the MDA for this sample.

Normally, B is not assigned if U is. When method blank subtraction is shown on this report, B flags are assigned based on the unsubtracted values while U's are assigned based on the subtracted ones. Both flags can be assigned in this case.

For each sample result, all Method Blank results in the same preparation batch are compared. The Method Summary Report documents this and other QC relationships.

L Some Lab Control Sample that QC's this sample had a low recovery. The lab can disable assignment of this qualifier.

H Similar to 'L' except the recovery was high.

P The RESULT is 'preliminary'.

X Some data necessary to compute the RESULT, ERROR or MDA was manually entered or modified.

2 There were two or more results available for this analyte. The reported result may not be the same as in the raw data.

Other qualifiers are lab defined. Definitions should be in the SDG narrative.

The following values are underlined to indicate possible problems:

* An MDA is underlined if it is bigger than its RDL.

SDG 7072
Contact Melissa C. Mannion

GUIDE, cont.

Client Hanford
Contract No. 33677
Case no SDG H3676

DATA SHEET

* An ERROR is underlined if the 1.645 sigma counting error is bigger than both the MDA and the RESULT, implying that the MDA may not be a good estimate of the 'real' minimum detectable activity.

* A negative RESULT is underlined if it is less than the negative of its 2 sigma counting ERROR.

* When reporting a Method Blank, a RESULT is underlined if greater than its MDA. If the MDA is blank, the 2 sigma counting error is used in the comparison.

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

SDG 7072
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford
Contract No. 33677
Case no SDG_H3676

LAB CONTROL SAMPLE

The Lab Control Sample Report shows all results, recoveries and primary supporting information for one Lab Control Sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. Refer to its Report Guide for details.

* An amount ADDED is the lab's value for the actual amount spiked into this sample with its ERROR an estimate of the error of this amount.

  An amount added is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

* REC (Recovery) is RESULT divided by ADDED expressed as a percent.

* The first, computed limits for the recovery reflect:

  1. The error of RESULT, including that introduced by rounding the result prior to printing.

     If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

  2. The error of ADDED.

  3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

* The second limits are protocol defined upper and lower QC limits for the recovery.

* The recovery is underlined if it is outside either of these ranges.

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

SDG 7072
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford
Contract No. 33677
Case no SDG H3676

DUPLICATE

The Duplicate Report shows all results, differences and primary supporting information for one Duplicate and associated Original sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. This applies both to the Duplicate and Original sample data. Refer to the Data Sheet Report Guide for details.

  If the Duplicate has data for a TEST and the lab did not do this test to the Original, the Original's RESULTs are underlined.

* The RPD (Relative Percent Difference) is the absolute value of the difference of the RESULTs divided by their average expressed as a percent.

  If both RESULTs are less than their MDAs, no RPD is computed and a '-' is printed.

  For an analyte, if the lab did work for both samples but has data for only one, the MDA from the sample with data is used as the other's result in the RPD.

* The first, computed limit is the sum, as square root of sum of squares, of the errors of the results divided by the average result as a percent, hence the relative error of the difference rather than the error of the relative difference. The errors include those introduced by rounding the RESULTs prior to printing.

  If this limit is labeled TOT, it includes the preparation error in the RESULTs. If labeled CNT, it does not.

  This value reported for this limit is at most 999.

* The second limit for the RPD is the larger of:

  1. A fixed percentage specified in the protocol.

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

SDG 7072
Contact Melissa C. Mannion

GUIDE, cont.

Client Hanford
Contract No. 33677
Case no SDG H3676

DUPLICATE

2. A protocol factor (typically 2) times the average MDA as a percent of the average result. This limit applies when the results are close to the MDAs.

* The RPD is underlined if it is greater than either limit.

* If specified by the lab, the second limit column is replaced by the Difference Error Ratio (DER), which is the absolute value of the difference of the results divided by the quadratic sum of their one sigma errors, the same errors as used in the first limit.

  Except for differences due to rounding, the DER is the same as the RPD divided by the first RPD limit with the limit scaled to 1 sigma.

* The DER is underlined if it is greater than the sigma factor, typically 2 or 3, shown in the header for the first RPD limit.

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

SDG 7072
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford
Contract No. 33677
Case no SDG H3676

MATRIX SPIKE

The Matrix Spike Report shows all results, recoveries and primary supporting information for one Matrix Spike and associated Original sample.

The following notes apply to this report:

* All fields in common with the Data Sheet Report have similar usage. This applies both to the Spiked and Original sample data. Refer to the Data Sheet Report Guide for details.

  If the Spike has data for a TEST and the lab did not do this test to the Original, the Original's RESULTs are underlined.

* An amount ADDED is the lab's value for the actual amount spiked into the Spike sample with its ERROR an estimate of the error of this amount.

  An amount is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

* REC (Recovery) is the Spike RESULT minus the Original RESULT divided by ADDED expressed as a percent.

* The first, computed limits for the recovery reflect:

  1. The errors of the two RESULTs, including those introduced by rounding them prior to printing.

     If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

  2. The error of ADDED.

  3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

* The second limits are protocol defined upper and lower QC limits

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

MATRIX SPIKE

for the recovery.

These limits are left blank if the Original RESULT is more than a protocol defined factor (typically 4) times ADDED. This is a way of accounting for that when the spike is small compared to the amount in the original sample, the recovery is unreliable.

* The recovery is underlined (out of spec) if it is outside either of these ranges.

SDG 7072
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford
Contract No. 33677
Case no SDG H3676

METHOD SUMMARY

The Method Summary Report has two tables. One shows up to five results measured using one method. The other has performance data for the method. There is one report for each TEST, as used on the Data Sheet Report.

The following notes apply to this report:

* Each table is subdivided into sections, one for each preparation batch. A preparation batch is a group of aliquots prepared at roughly the same time in one work area of the lab using the same method.

  There should be Lab Control Sample and Method Blank results in each preparation batch since this close correspondence makes the QC meaningful. Depending on lab policy, Duplicates need not occur in each batch since they QC sample dependencies such as matrix effects.

* The RAW TEST column shows the test code used in the raw data to identify a particular analysis if it is different than the test code in the header of the report. This occurs in special cases due to method specific details about how the lab labels work.

  The Lab Sample or Planchet ID combined with the (Raw) Test Code and Suffix uniquely identify the raw data for each analysis.

* If a result is less than both its MDA and RDL, it is replaced by just 'U' on this report. If it is greater than or equal to the RDL but less than the MDA, the result is shown with a 'U' flag.

  The J and X flags are as on the data sheet.

* Non-U results for Method Blanks are underlined to indicate possible contamination of other samples in the preparation batch. The Method Blank Report has supporting data.

* Lab Control Sample and Matrix Spike results are shown as: ok, No data, LOW or HIGH, with the last two underlined. 'No data'

Lab id EBRLNE
Protocol Fluor
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 05/13/08

METHOD SUMMARY

means no amount ADDED was specified. 'LOW' and 'HIGH' correspond to when the recovery is underlined on the Lab Control Sample or Matrix Spike Report. See these reports for supporting data.

* Duplicate sample results are shown as: ok, No data, or OUT, with the last two underlined. 'No data' means there was no original sample data found for this duplicate. 'OUT' corresponds to when the RPD is underlined on the Duplicate Report. See this report for supporting data.

* If the MDA column is labeled 'MAX MDA', there was more than one result measured by the reported method and the MDA shown is the largest MDA. If not all these results have the same RDL, the MAX MDA reflects only those results with RDL equal to the smallest one.

  MDAs are underlined if greater than the printed RDL.

* Aliquots are underlined if less than the nominal value specified for the method.

* Prepareation factors are underlined if greater than the nominal value specified for the method.

* Dilution factors are underlined if greater than the nominal value specified for the method.

* Residues are underlined if outside the range specified for the method. Residues are not printed if yields are.

* Yields, which may be gravimetric, radiometric or some type of recovery depending on the method, are underlined if outside the range specified for the method.

* Efficiencies are underlined if outside the range specified for the method. Efficiencies are detector and geometry dependent so this test is only approximate.

METHOD SUMMARY

* Count times are underlined if less than the nominal value specified for the method.

* Resolutions (as FWHM; Full Width at Half Max) are underlined if greater than the method specified limit.

* Tracer drifts are underlined if their absolute values are greater than the method specified limit. Tracer drifts are not printed if percent moistures are.

* Days Held are underlined if greater than the holding time specified in the protocol.

* Analysis dates are underlined if before their planchet's preparation date or, if a limit is specified, too far after it.

For some methods, ratios as percentages and error estimates for them are computed for pairs of results. A ratio column header like '1÷3' means the ratio of the first result column and the third result column.

Ratios are not computed for Lab Control Sample, Method Blank or Matrix Spike results since their matrices are not necessarily similar to client samples'.

The error estimate for a ratio of results from one planchet reflects only counting errors since other errors should be correlated. For a ratio involving different planchets, if QC limits are computed based on total errors, the error for the ratio allows for the preparation errors for the planchets.

The ratio is underlined (out of spec) if the absolute value of its difference from the nominal value is greater than its error estimate. If no nominal value is specified, this test is not done.

For Gross Alpha or Gross Beta results, there may be a column showing the sum of other Alpha or Beta emitters. This sum includes all relevant

METHOD SUMMARY

results in the DVD database, whether reported or not. Results in the sum are weighted by a particles/decay value specified by the lab for each relevant analyte. Results less than their MDA are not included. No sums are computed for Lab Control, Method Blank or Matrix Spike samples since their various planchets may not be physically related.

If a ratio of total isotopic to Gross Alpha or Beta is shown, the error for the ratio reflects both the error in the Gross result and the sum, as square root of sum of squares, of the errors in the isotopic results.

For total elemental uranium or thorium results, there may be a column showing the total weight computed from associated isotopic results. Ignoring results less than their MDAs, this is a weighted sum of the isotopic results. The weights depend on the molecular weight and half-life of each isotope so as to convert activities (decays) to weight (atoms).

If a ratio of total computed to measured elemental uranium or thorium is shown, the error for the ratio reflects the errors in all the measurements.

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-070-007

COLLECTOR NCO SAMPLER	**COMPANY CONTACT** TRENT, STEVE	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C5857, I-030	**PROJECT DESIGNATION** 200-TW-1 OU Characterization for Well 299-E33-342 - Soil H3676 (7072)		**SAF NO.** F08-070	**AIR QUALITY**	
ICE CHEST NO. NONER	**FIELD LOGBOOK NO.** HNF-N 488-1 Pg 4	**ACTUAL SAMPLE DEPTH,** 79.9' - B21	**COA** 123163ES20	**METHOD OF SHIPMENT** FEDERAL EXPRESS	
SHIPPED TO Eberline Services	**OFFSITE PROPERTY NO.** See PTR		**BILL OF LADING/AIR BILL NO.** See PTR 7984-1099-8195		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
W=Water
WI=Wipe
X=Other

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

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To B1TN38

PRESERVATION	None
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1TN41	SOIL	3/19/08	1010

24875

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[signature]	3/19/08 1300	M0745-REF#1	3/19/08 1300
M0745 Ref 1	4-2-8 0900	D Connolly [signature]	4-2-8 0900
D Connolly [signature]	4-2-8 0930	Fed Ex	
FED EX		[signature]	04/03/08 09:15

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
** Analytical batch QC must be run on a sample associated with this SAF.
(1)Carbon-14; Technetium-99 {Technetium-99} Iodine-129; TRITIUM - MIDLEVEL; Isotopic Thorium; Radium -226 {Radium-226} Nickel-63; Radium -228 {Radium-228}

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

A-6003-618(01/06)

0000041

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-070-014

COLLECTOR NCO SAMPLER [illegible]

COMPANY CONTACT TRENT, STEVE

TELEPHONE NO. 373-5869

PROJECT COORDINATOR WIDRIG, DL

PRICE CODE 8N

DATA TURNAROUND 45 Days / 45 Days

SAMPLING LOCATION C5857, I-030-D

PROJECT DESIGNATION H3676 (7072)
200-TW-1 OU Characterization for Well 299-E33-342 - Soil

SAF NO. F08-070

AIR QUALITY ☐

ICE CHEST NO. NOONER

FIELD LOGBOOK NO. HNF-N-488-1 pg 4

ACTUAL SAMPLE DEPTH 79.9'-82.1'

COA 123163ES20

METHOD OF SHIPMENT FEDERAL EXPRESS

SHIPPED TO Eberline Services

OFFSITE PROPERTY NO. See PTR

BILL OF LADING/AIR BILL NO. See PTR 7984-1099-8195

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
W=Water
WI=Wipe
X=Other

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)

PRESERVATION None

TYPE OF CONTAINER G/P

NO. OF CONTAINER(S) 1

VOLUME 120mL

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To B1TN38

SAMPLE ANALYSIS SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1TNP2	SOIL	3/14/08	1010

24875

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[signature]	3/19/08 1300	M0745 - REF #1	3/19/08 1300
M0745 Ref 1	4-2-8 0900	D Connolly [signature]	4-2-8 0900
D Connolly [signature]	4-2-8 0930	Fed Ex	
FED EX		[signature]	04/03/08 09:15

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
** Analytical batch QC must be run on a sample associated with this SAF.
(1)Carbon-14; Technetium-99 {Technetium-99} Iodine-129; TRITIUM - MIDLEVEL; Isotopic Thorium; Radium -226 {Radium-226} Nickel-63; Radium -228 {Radium-228}

LABORATORY SECTION RECEIVED BY

TITLE DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD

DISPOSED BY DATE/TIME

A-6003-618(01/06)

0000042

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-070-021

COLLECTOR
NCO SAMPLER
Fluor Hanford
D. E. PARCHEN

COMPANY CONTACT
TRENT, STEVE

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
WIDRIG, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C5857, I-084

PROJECT DESIGNATION H3676 (7072)
200-TW-1 OU Characterization for Well 299-E33-342 - Soil

SAF NO.
F08-070

AIR QUALITY ☐

ICE CHEST NO.
Dooner

FIELD LOGBOOK NO.
HNF-N-488-1

ACTUAL SAMPLE DEPTH
165.2' - 167.7'

COA
123163ES20

METHOD OF SHIPMENT
FEDERAL EXPRESS

SHIPPED TO
Eberline Services

OFFSITE PROPERTY NO.
See PTR

BILL OF LADING/AIR BILL NO.
See PTR 7984-1099-8195

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
W=Water
WI=Wipe
X=Other

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)

PRESERVATION None

TYPE OF CONTAINER G/P

NO. OF CONTAINER(S) 1

VOLUME 120mL

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To B1TNP3

SAMPLE ANALYSIS SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1TNP6	SOIL	MAR [illegible] 2008	1010 ✓

24875

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
D. E. PARCHEN [signature]	MAR 2 2008 1600	MO 745 Ref #1	3-27-08 1600
MO745 Ref 1	4-2-8 0900	D Connolly [signature]	4-2-8 0930
D Connolly [signature]	4-2-8 0930	Fed Ex	
FED EX		[signature]	04/03/08 09-15

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)Carbon-14; Technetium-99 {Technetium-99} Iodine-129; TRITIUM - MIDLEVEL; Isotopic Thorium; Radium -226 {Radium-226} Nickel-63; Radium -228 {Radium-228}

LABORATORY SECTION RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD

DISPOSED BY

DATE/TIME

A-6003-618(01/06)

00000043

EBERLINE SERVICES

RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

4/3/08

Client: F. HANFORD City MCHLAND State WA

Date/Time received 04/03/08 09:15 CoC No. F08-070-007, 014, 021

Container I.D. No. NOONER Requested TAT (Days) 45 P.O. Received Yes [ ] No [ ]

INSPECTION

1. Custody seals on shipping container intact? Yes [X] No [ ] N/A [ ]
2. Custody seals on shipping container dated & signed? Yes [X] No [ ] N/A [ ]
3. Custody seals on sample containers intact? Yes [X] No [ ] N/A [ ]
4. Custody seals on sample containers dated & signed? Yes [X] No [ ] N/A [ ]
5. Packing material is: Wet [ ] Dry [X]
6. Number of samples in shipping container: 3 Sample Matrix S
7. Number of containers per sample: 1 (Or see CoC _____)
8. Samples are in correct container Yes [X] No [ ]
9. Paperwork agrees with samples? Yes [X] No [ ]
10. Samples have: Tape [ ] Hazard labels [ ] Rad labels [ ] Appropriate sample labels [X]
11. Samples are: In good condition [X] Leaking [ ] Broken Container [ ] Missing [ ]
12. Samples are: Preserved [ ] Not preserved [ ] pH _____ Preservative _____
13. Describe any anomalies:
14. Was P.M. notified of any anomalies? Yes [ ] No [ ] Date _____
15. Inspected by [signature] Date: 04/03/08 Time: 10:00

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
ALL SAMPLES	<60						

Ion Chamber Ser. No. _____ Calibration date _____

Alpha Meter Ser. No. _____ Calibration date _____

Beta/Gamma Meter Ser. No. 100482 Calibration date 09MAY07

Form SCP-02, 07-30-07

"over 55 years of quality nuclear services"

00000044