0070357

SAF-RC-035
300 Area East Side Sites – Quick Turn Metals
FINAL DATA PACKAGE

RECEIVED
AUG 07 2006
EDMC

COMPLETE COPY OF DATA PACKAGE TO:

Rick Kerkow	L6-06	KW 7/24/06 INITIAL/DATE
Jeanette Duncan	H9-02	KW 7/24/06 INITIAL/DATE

COMMENTS:

SDG J00074 **SAF-RC-035**

Rad only X Chem only Rad & Chem

X Complete Partial

Waste Site: 618-2 In Situ Sorted Materials

Analytical Data Package Prepared For

Washington Closure Hanford

RECEIVED
JUL 2006

Analysis Provided By

STL Richland
2800 George Washington Way
Richland WA, 99354
(509)375-3131
Assigned Laboratory Code: STLR

SDG Number: J00074

Data Package Contains 16 Pages

SEVERN TRENT STL

STL Richland
2800 George Washington Way
Richland, WA 99354

Tel: 509 375 3131 Fax: 509 375 5590
www.stl-inc.com

Certificate of Analysis

Washington Closure Hanford
3190 George Washington Way
Richland, WA 99354

July 7, 2006

Attention: Joan Kessner

SAF Number	:	RC-035
Date SDG Closed	:	June 30, 2006
Number of Samples	:	Five (5)
Sample Type	:	Soil
SDG Number	:	J00074
Data Deliverable	:	Quick Turn Metals with Be / Summary

CASE NARRATIVE

I. Introduction

Between May 31, 2006 and June 28, 2006, 5 soils were received at STL Richland (STLR) for ICP metals analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Washington Closure Hanford (WCH) specific ID;

WCH ID#	STLR ID#	MATRIX	DATE OF RECEIPT
J126J9	H6FQ0	SOIL	05/31/06
J12BV5	H6FQ1	SOIL	05/31/06
J12BV6	H6JDH	SOIL	06/01/06
J12PC2	H8ECR	SOIL	06/28/06
J12PC3	H8ECV	SOIL	06/28/06

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. The requested analyses were:

ICP Metals
ICP Metals by method SW-846 6010A

IV. Quality Control

SDG J00074 includes a minimum of one Laboratory Control Samples (LCS) and one method (reagent) blank. A duplicate sample, matrix spike sample and a matrix spike duplicate sample will be analyzed per 20 samples or per month, whichever is more frequent. Any exceptions have been noted in the "Comments" section.

Blanks and LCS are reported in mg/L units, other QC and sample results are reported in the same units.

V. Comments

ICP Metals

ICP Metals by method SW-846 6010A

Three batches were utilized for samples with the standard metal request list with beryllium analyzed in June 2006.

Batch 6151527:

The ICV and CCV results are within acceptance limits except Beryllium which recovered high. The ICB results are within acceptance limits. The CCB had a high recovery for Silver; all other elements are within acceptance limits. The blank, LCS, ICSA, and ICSAB results are within acceptance limits. No duplicate sample, matrix spike sample and a matrix spike duplicate were analyzed with this batch.

Batch 6152459:

The ICV results are within acceptance limits except Beryllium which recovered high. The ICB results are within acceptance limits. The CCV results are within acceptance limits except Beryllium and Silver which recovered high. The CCB had a high recovery for Silver; all other elements are within acceptance limits. The blank, LCS, ICSA, ICSAB, and sample duplicate results are within acceptance limits. The Barium recovery was low for the matrix spike sample and a matrix spike duplicate.

Batch 6180260:

The ICV and CCV results are within acceptance limits except Beryllium which recovered high. The ICB results are within acceptance limits. The CCB had a high recovery for Silver; all other elements are within acceptance limits. The blank, LCS, ICSA, and ICSAB results are within acceptance limits. No duplicate sample, matrix spike sample and a matrix spike duplicate were analyzed with this batch.

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

Sandra Seger
Project Manager

SEVERN TRENT STL

ICAP METAL SAMPLE AND QC SAMPLE DATA REPORT

Digestion Date: 5/31/2006 **SDG#:**
Analysis Date: 5/31/2006 **Batch #: 6151527**
Matrix: SOIL **Sample Location(s):**

SAMPLE ID	*CLIENT ID*	*BARIUM*	*SILVER*	*ARSENIC*	*CADMIUM*	*CHROMIUM*	*SELENIUM*	*LEAD*	*BERYLLIUM*	
J6E310000-527-B	INTRA-LAB BLANK	H6GQM-1-AC	H6GQM-1-AH	H6GQM-1-AA	H6GQM-1-AD	H6GQM-1-AE	H6GQM-1-AG	H6GQM-1-AF	H6GQM-1-AG	
		< 0.002	< 0.0025	< 0.03	< 0.005	< 0.005	< 0.035	< 0.015	< 0.035	mg/L
J6E310000-527-C	INTRA-LAB CHECK	H6GQM-1-AK	H6GQM-1-AQ	H6GQM-1-AJ	H6GQM-1-AL	H6GQM-1-AM	H6GQM-1-AP	H6GQM-1-AN	H6GQM-1-AP	
		1.770	1.742	1.808	1.820	1.906	1.609	1.842	2.216	mg/L
J6E310186-001	J126J9	H6FQ0-1-AC	H6FQ0-1-AH	H6FQ0-1-AA	H6FQ0-1-AD	H6FQ0-1-AE	H6FQ0-1-AG	H6FQ0-1-AF	H6FQ0-1-AG	
		120.9	< 0.00025	2.219	2.128	8.863	< 0.0035	52.90	0.211	mg/kg
J6E310186-002	J12BV5	H6FQ1-1-AC	H6FQ1-1-AH	H6FQ1-1-AA	H6FQ1-1-AD	H6FQ1-1-AE	H6FQ1-1-AG	H6FQ1-1-AF	H6FQ1-1-AG	
		214.5	< 0.00025	0.454	2.546	13.43	< 0.0035	28.93	0.197	mg/kg

mg/kg = mg/L*0.1L/kg sample used

ICAP METAL SAMPLE AND QC SAMPLE DATA REPORT

SEVERN TRENT STL

Digestion Date: 6/1/2006 **SDG#:**
Analysis Date: 6/1/2006 **Batch #:** 6152459
Matrix: SOIL **Sample Location(s):**

SAMPLE ID	*CLIENT ID*	*BARIUM*	*SILVER*	*ARSENIC*	*CADMIUM*	*CHROMIUM*	*SELENIUM*	*LEAD*	*BERYLLIUM*	
J6F010000-459-B	INTRA-LAB BLANK	H6J9L-1-AC	H6J9L-1-AH	H6J9L-1-AA	H6J9L-1-AD	H6J9L-1-AE	H6J9L-1-AG	H6J9L-1-AF	H6J9L-1-AG	
		< 0.002	< 0.0025	< 0.03	< 0.005	< 0.005	< 0.035	< 0.015	< 0.035	mg/L
J6F010000-459-C	INTRA-LAB CHECK	H6J9L-1-AK	H6J9L-1-AQ	H6J9L-1-AJ	H6J9L-1-AL	H6J9L-1-AM	H6J9L-1-AP	H6J9L-1-AN	H6J9L-1-AP	
		1.817	1.797	1.828	1.874	1.942	1.665	1.880	2.300	mg/L
J6F010216-001	J12BV6	H6JDH-1-AC	H6JDH-1-AH	H6JDH-1-AA	H6JDH-1-AD	H6JDH-1-AE	H6JDH-1-AG	H6JDH-1-AF	H6JDH-1-AG	
		399.8	< 0.00025	0.242	2.173	8.452	< 0.0035	24.88	0.160	mg/kg
J6F010216-001-D	J12BV6	H6JDH-1-AM	H6JDH-1-A0	H6JDH-1-AK	H6JDH-1-AP	H6JDH-1-AR	H6JDH-1-AW	H6JDH-1-AU	H6JDH-1-AW	
		419.5	175.8	182.2	183.2	198.4	162.2	201.8	226.2	mg/kg
J6F010216-001-S	J12BV6	H6JDH-1-AL	H6JDH-1-AX	H6JDH-1-AJ	H6JDH-1-AN	H6JDH-1-AQ	H6JDH-1-AV	H6JDH-1-AT	H6JDH-1-AV	
		424.0	172.3	178.6	178.8	198.0	158.4	194.2	221.0	mg/kg
J6F010216-001-X	J12BV6 DUP	H6JDH-1-A2	H6JDH-1-A7	H6JDH-1-A1	H6JDH-1-A3	H6JDH-1-A4	H6JDH-1-A6	H6JDH-1-A5	H6JDH-1-A6	
		197.9	< 0.00025	< 0.003	2.586	12.21	< 0.0035	17.63	0.170	mg/kg

mg/kg = mg/L*0.1L/kg sample used

SEVERN TRENT STL

ICAP METAL SAMPLE AND QC SAMPLE DATA REPORT

Digestion Date: 6/28/2006 **SDG#:**
Analysis Date: 6/28/2006 **Batch #: 6180260**
Matrix: SOIL **Sample Location(s):**

SAMPLE ID	*CLIENT ID*	*BARIUM*	*SILVER*	*ARSENIC*	*CADMIUM*	*CHROMIUM*	*SELENIUM*	*LEAD*	*BERYLLIUM*	
J6F280279-001	J12PC2	H8ECR-1-AC	H8ECR-1-AH	H8ECR-1-AA	H8ECR-1-AD	H8ECR-1-AE	H8ECR-1-AG	H8ECR-1-AF	H8ECR-1-AG	
		54.33	< 0.00025	< 0.003	2.337	7.214	< 0.0035	3.115	0.173	mg/kg
J6F280279-001-D	J12PC2	H8ECR-1-AM	H8ECR-1-A0	H8ECR-1-AK	H8ECR-1-AP	H8ECR-1-AR	H8ECR-1-AW	H8ECR-1-AU	H8ECR-1-AW	
		242.6	173.7	185.0	184.5	197.2	164.4	188.2	227.6	mg/kg
J6F280279-001-S	J12PC2	H8ECR-1-AL	H8ECR-1-AX	H8ECR-1-AJ	H8ECR-1-AN	H8ECR-1-AQ	H8ECR-1-AV	H8ECR-1-AT	H8ECR-1-AV	
		216.3	156.1	166.1	166.7	176.5	146.2	168.6	205.4	mg/kg
J6F280279-001-X	J12PC2 DUP	H8ECR-1-A2	H8ECR-1-A7	H8ECR-1-A1	H8ECR-1-A3	H8ECR-1-A4	H8ECR-1-A6	H8ECR-1-A5	H8ECR-1-A6	
		75.66	< 0.00025	< 0.003	2.333	4.513	< 0.0035	3.513	0.188	mg/kg
J6F280279-002	J12PC3	H8ECV-1-AC	H8ECV-1-AH	H8ECV-1-AA	H8ECV-1-AD	H8ECV-1-AE	H8ECV-1-AG	H8ECV-1-AF	H8ECV-1-AG	
		60.82	< 0.00025	< 0.003	2.458	5.351	< 0.0035	2.745	0.157	mg/kg
J6F290000-260-B	INTRA-LAB BLANK	H8FM8-1-AC	H8FM8-1-AH	H8FM8-1-AA	H8FM8-1-AD	H8FM8-1-AE	H8FM8-1-AG	H8FM8-1-AF	H8FM8-1-AG	
		< 0.002	< 0.0025	< 0.03	< 0.005	< 0.005	< 0.035	< 0.015	< 0.035	mg/L
J6F290000-260-C	INTRA-LAB CHECK	H8FM8-1-AK	H8FM8-1-AQ	H8FM8-1-AJ	H8FM8-1-AL	H8FM8-1-AM	H8FM8-1-AP	H8FM8-1-AN	H8FM8-1-AP	
		1.784	1.779	1.832	1.846	1.915	1.642	1.847	2.252	mg/L

mg/kg = mg/L*0.1L/kg sample used

J6E310186 J000721 due 6.27.06 SKS 6/5/06

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-035-094	Page 1 of 1

Collector FALBERG/KERKOW	Company Contact R. KERKOW	Telephone No. 531-0635	Project Coordinator KESSNER, JH
Price Code Air Quality ☐	Data Turnaround 24 Hours		
Project Designation 300 Area East Side Sites - Quick Turn Metals	Sampling Location 300-FF-2 618-2 In Situ Sorted Material		SAF No. RC-035
Ice Chest No. ERC 97-079	Field Logbook No. EL 1395-11	COA RG61822600	Method of Shipment Government Vehicle
Shipped To Severn Trent Incorporated, Richland	Offsite Property No. NA		Bill of Lading/Air Bill No. NA

POSSIBLE SAMPLE HAZARDS/REMARKS

Potentially Radioactive, See Activity Report

Special Handling and/or Storage

Preservation	None										
Type of Container	aG										
No. of Container(s)	1										
Volume	60mL										
SAMPLE ANALYSIS	See item (1) in Special Instructions.										

Sample No.	Matrix *	Sample Date	Sample Time										
J126J9	SOIL	5-30-06	0900	X				HGFQ0					
J12BV5	SOIL	5-30-06	0910	X				HGFQ1					
~~J12BV6~~	~~SOIL~~												

RF 5-30-06

CHAIN OF POSSESSION	Sign/Print Names	
Relinquished By/Removed From R. Falberg R. Falberg 5-3-06	Date/Time 1100	Received By/Stored In IB 3728 5-30-06
Date/Time 1100
Relinquished By/Removed From IB 3728 5-31-06 0940	Date/Time	Received By/Stored In R. Falberg R. Falberg 5-31-06
Date/Time 0940
Relinquished By/Removed From WCH R. Falberg R. Falberg 5-31-06	Date/Time 0940	Received By/Stored In S. Welch 5-31-06 0940
Date/Time 0940
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

(1) Metals by ICP - 6010 - Quick Turn (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver); Metals by ICP - 6010 - Quick Turn (Add On) (Beryllium); Activity Scan

Matrix *

S=Soil
SE=Sediment
SO=Solid
SI=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

BHI-EE-011 (08/29/2005)

Radiological Counting Facility

Analysis Report for RCF14671

J126J7 FF2/618-2 IN SITU SORTED MATERIAL

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF14671
Sample Description	: J126J7 FF2/618-2 IN SITU SORTED MATERIAL
Sample Type	: 50 gram pill box
Unit	:
Sample Point	
Sample Size	: 4.900E+01 grams
Facility	: Default
Sample Taken On	: 5/30/2006 9:00:00AM
Acquisition Started	: 5/31/2006 7:28:38AM
Procedure	: 50 gram pill box
Operator	: RCT TK Ker 5-31-06
Detector Name	: BEGE
Geometry	: 50 ml Pill Box
Live Time	: 3600.0 seconds
Real Time	: 3600.4 seconds
Dead Time	: 0.01 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 40 - 4096
Peak Area Range (in channels)	: 40 - 4096
Identification Energy Tolerance	: 1.000 keV
Energy Calibration Used Done On	: 3/21/2006
Efficiency Calibration Used Done On	: 3/20/2006
Efficiency Calibration Description	: Efficiency validation BEGE 50 ml pill box
Sample Number	: 8880

INTERFERENCE CORRECTED REPORT

	Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
	K-40	0.975	1.60E+01	3.70E+00	
	CS-137	0.994	3.05E+01	2.92E+00	
X	RA-226	0.975			
	TH-234	1.000	3.41E+01	2.57E+00	
	U-235	0.796	1.91E+00	3.79E-01	
	AM-241	1.000	5.70E-01	1.16E-01	

Radiological Counting Facility

Analysis Report for RCF14672

J12BV3 FF2/618-2 IN SITU SORTED MATERIAL

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF14672
Sample Description	: J12BV3 FF2/618-2 IN SITU SORTED MATERIAL
Sample Type	: 50 gram pill box
Unit	:
Sample Point	
Sample Size	: 5.300E+01 grams
Facility	: Default
Sample Taken On	: 5/30/2006 9:10:00AM
Acquisition Started	: 5/31/2006 7:30:15AM
Procedure	: 50 gram pill box
Operator	: RCT
Detector Name	: PGTWHITE
Geometry	: 50 ml Pill Box
Live Time	: 3600.0 seconds
Real Time	: 3600.8 seconds
Dead Time	: 0.02 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 40 - 4096
Peak Area Range (in channels)	: 40 - 4096
Identification Energy Tolerance	: 1.000 keV
Energy Calibration Used Done On	: 1/25/2006
Efficiency Calibration Used Done On	: 2/6/2006
Efficiency Calibration Description	: Efficiency calibration PGTwhite 50 ml pill box
Sample Number	: 8887

INTERFERENCE CORRECTED REPORT

	Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
	K-40	0.979	1.31E+01	4.18E+00	
	CS-137	0.995	4.03E+01	3.90E+00	
X	RA-226	0.983			
	TH-234	1.000	2.38E+01	2.18E+00	
	U-235	0.795	1.46E+00	3.26E-01	
	AM-241	1.000	4.52E+00	4.69E-01	

SEVERN TRENT **STL**

Sample Check-in List

Date/Time Received: 5/31/06 0940

Client: BHI SDG #: J00072 NA [ ] SAF #: ~~RC-035-09~~ RC-035 SKS 6/5/06 NA [ ]

Work Order Number: JGE310186 Chain of Custody # RC-035-094

Shipping Container ID: ERC-97-079 Air Bill # N/A

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
   - ✓ custody seals
   - ___ hazard labels
   - ✓ appropriate samples labels
9. Samples are:
   - ✓ in good condition
   - ___ broken
   - ___ leaking
   - ___ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: S. Welch Date: 5-31-06 0940

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

LS-023, 12/05, Rev. 6

J00074 J6F010216 due 6-22-06 SRS 6/5/06

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-035-094	Page 1 of 1

Collector FALBERG/KERKOW	Company Contact R. KERKOW	Telephone No. 531-0635	Project Coordinator KESSNER, JH
Project Designation 300 Area East Side Sites - Quick Turn Metals	Sampling Location 300-FF-2 618-2 In Situ Sorted Material		SAF No. RC-035
Ice Chest No. ZRC-99-200	Field Logbook No. EL 1395-11	COA RG61822600	Method of Shipment Government Vehicle
Shipped To Severn Trent Incorporated, Richland	Offsite Property No. NA		Bill of Lading/Air Bill No. NA

Price Code: Air Quality ☐

Data Turnaround: 24 Hours

POSSIBLE SAMPLE HAZARDS/REMARKS

Potentially Radioactive, See Activity Report

Special Handling and/or Storage

Preservation	None										
Type of Container	aG										
No. of Container(s)	1										
Volume	60mL										
SAMPLE ANALYSIS	See item (1) in Special Instructions.										

Sample No.	Matrix *	Sample Date	Sample Time										
~~J126J9~~	~~SOIL~~												
~~J12BV5~~	~~SOIL~~									HGJDH			
J12BV6	SOIL	5-31-06	1230	X									

CHAIN OF POSSESSION	Date/Time	Sign/Print Names	Date/Time
Relinquished By/Removed From R. Falberg R. Falberg 5-31-06	1325	Received By/Stored In IB 3728 5-31-06	1325
Relinquished By/Removed From 3728 #IB 6-1-06	1000	Received By/Stored In JR Blanchard JR Blanchard 6-1-06	1000
Relinquished By/Removed From JR Blanchard 6-1-06	1030	Received By/Stored In BOB DEBER 6-1-06	10:27
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Metals by ICP - 6010 - Quick Turn (Add On) {Beryllium}; Activity Scan

Personnel not available to Relinquish samples from 3728 Ref # IB on 6 1 06

Matrix *

S=Soil
SE=Sediment
SO=Solid
SJ=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

BHI-EE-011 (08/29/2005)

Radiological Counting Facility

Analysis Report for RCF14689

J12BV4 SAF:RC-035 FF2/618-2 IN SITU SORTED MATERRIAL

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF14689
Sample Description	: J12BV4 SAF:RC-035 FF2/618-2 IN SITU SORTED MATERRIAL
Sample Type	: 80 gram pill box
Unit	:
Sample Point	
Sample Size	: 6.800E+01 grams
Facility	: Default
Sample Taken On	: 5/31/2006 12:30:00PM
Acquisition Started	: 6/1/2006 7:21:35AM
Procedure	: 80 gram pill box
Operator	: RCT
Detector Name	: BEGE
Geometry	: 80 Gram Pill Box
Live Time	: 3600.0 seconds
Real Time	: 3600.3 seconds
Dead Time	: 0.01 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 40 - 4096
Peak Area Range (in channels)	: 40 - 4096
Identification Energy Tolerance	: 1.000 keV
Energy Calibration Used Done On	: 3/21/2006
Efficiency Calibration Used Done On	: 3/20/2006
Efficiency Calibration Description	: Efficiency validation BEGE 50 ml pill box
Sample Number	: 8905

INTERFERENCE CORRECTED REPORT

	Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
	K-40	0.966	1.13E+01	2.69E+00	
	CS-137	1.000	3.01E-01	1.42E-01	
	EU-155 <MDA	0.370	~~2.57E-01~~	8.89E-02	
X	RA-226	0.976			
	AC-228	0.971	1.29E+00	4.55E-01	
	TH-234	1.000	4.61E+01	2.30E+00	
	U-235	1.000	2.99E+00	2.60E-01	

SEVERN TRENT **STL**

Sample Check-in List

Date/Time Received: 6-1-06 10:27

Client: BHI SDG #: J0007 4 NA [ ] SAF #: RC-035 NA [ ]

Work Order Number: J6F 010216 Chain of Custody # RC-035-094

Shipping Container ID: ERC-99-200 Air Bill # N/A

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: 1
7. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
8. Samples have:
   - ✓ tape
   - ✓ custody seals
   - ____ hazard labels
   - ✓ appropriate samples labels
9. Samples are:
   - ✓ in good condition
   - ____ broken
   - ____ leaking
   - ____ have air bubbles (Only for samples requiring head space)
10. Sample pH taken? Soil NA [✓] pH<2 [ ] pH>2 [ ] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [ ] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: L. Welch Date: 6-1-06 10:27

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

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J00074 J6F280279 Due ~~7-19-06~~ 6/29/06 SKS 6/28/06

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-035-104	Page 1 of 1

Collector: FALBERG/KERKOW	Company Contact: R. KERKOW	Telephone No.: 531-0635	Project Coordinator: KESSNER, JH
Price Code	Data Turnaround: 24 Hours	Air Quality ☐	
Project Designation: 300 Area East Side Sites - Quick Turn	Sampling Location: 300-FF-2 618-2 Soil Samples		SAF No.: RC-035
Ice Chest No.: AFS-04-000	Field Logbook No.: EL 1395-11	COA: RG61822600	Method of Shipment: Gov't Vehicle
Shipped To: Severn Trent Incorporated, Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

Potentially Radioactive

< D.O.T. Limits

Special Handling and/or Storage

NONE

Preservation	None										
Type of Container	G/P										
No. of Container(s)	1										
Volume	20g										
SAMPLE ANALYSIS	See item (1) in Special Instructions.										

Sample No.	Matrix *	Sample Date	Sample Time										
J12PC2	SOIL	6/27/06	1200	X				H8ECR					
J12PC3	SOIL	6/27/06	1250	X				H8ECV					

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
RB KERKOW/RB Kerk	6/27/06 1445	REF IC, 3728 RBK	6/27/06 1445
3728 # IC	6-28-06 1145	JR Edmundson	6-28-06 1145
JR Edmundson	6-28-06 1325	S. Welch	6-28-06 1325

SPECIAL INSTRUCTIONS

(1) Metals by ICP - 6010 - Quick Turn (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver); Metals by ICP - 6010 - Quick Turn (Add On) (Beryllium); Activity Scan

Personnel not available to Relinquish samples from 3728 Ref # IC on 6/28/06

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

BHI-EE-011 (08/29/2005)

Radiological Counting Facility

Analysis Report for RCF14869

J12PC1 SAF:RC-035 300-FF-2 618-2 SOIL SAMPLES

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF14869
Sample Description	: J12PC1 SAF:RC-035 300-FF-2 618-2 SOIL SAMPLES
Sample Type	: 80 gram pill box
Unit	:
Sample Point	
Sample Size	: 8.100E+01 grams
Facility	: Default
Sample Taken On	: 6/27/2006 12:50:00PM
Acquisition Started	: 6/27/2006 4:17:51PM
Procedure	: 80 gram pill box
Operator	: RCT 6-28-06
Detector Name	: WC83417
Geometry	: 80 Gram Pill Box
Live Time	: 3600.0 seconds
Real Time	: 3600.2 seconds
Dead Time	: 0.01 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 40 - 4096
Peak Area Range (in channels)	: 40 - 4096
Identification Energy Tolerance	: 1.000 keV
Energy Calibration Used Done On	: 5/23/2006
Efficiency Calibration Used Done On	: 5/31/2006
Efficiency Calibration Description	: Efficiency validation PGTWC83417 80 gram pill box
Sample Number	: 9441

INTERFERENCE CORRECTED REPORT

	Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
	K-40	0.962	1.04E+01	3.06E+00	
?	RA-226	0.975	2.18E+00	1.32E+00	
	TH-234	0.989	2.61E+00	8.38E-01	
?	U-235	0.551	1.35E-01	8.15E-02	

SEVERN TRENT STL

Sample Check-in List

Q# 27038

Date/Time Received: 6-28-06

Client: WCH BHL SDG #: J6F280279 NA [ ] SAF #: RC-035 NA [ ]

Work Order Number: J00074 Chain of Custody # RC-035-104

Shipping Container ID: AFS-04-000 Air Bill # N/A

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
   _____ custody seals
   _____ hazard labels
   ✓ appropriate samples labels
9. Samples are:
   ✓ in good condition
   _____ broken
   _____ leaking
   _____ have air bubbles
   (Only for samples requiring head space)
10. Sample pH taken? soil NA [✓] pH<2 [ ] pH>2 [ ] adjusted pH [ ]
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): N/A

Sample Custodian: S. Welch Date: 6-28-06 1325

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

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