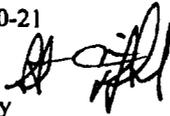


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FLUOR

Memorandum

To: S. J. Trent A0-21 Date: M8141-SLF-05-154
 March 28, 2005

From: S. L. Fitzgerald, Manager 
 WSCF Analytical Chemistry

cc: w/Attachments w/o Attachments

T. F. Dale	S3-28	D. J. Hart	S3-30
H. K. Meznarich	S3-30	M. A. Neely	S3-30
P. D. Mix	S3-30	H. S. Rich	S3-28
J. E. Trechter	S3-30	L. C. Swanson	E6-35
		File/LB	

Subject: FINAL RESULTS FOR 200-LW-1/LW-2 CHARACTERIZATION - SOIL - SAMPLE DELIVERY GROUP WSCF20050329 SAF NUMBER F03-025

Reference: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001, October 31, 2002

(2) HNF-SD-CD-QAPP-017, Rev. 6, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains a narrative (Attachment 1) for sample delivery group WSCF20050329, the analytical results (Attachment 2), and the sample receipt information (Attachment 3).

SLF/grf

Attachments 3

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 SEP 21 2005
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M8141-SLF-05-154

ATTACHMENT 1

NARRATIVE

**Consisting of 8 pages
Including cover page**

Sample Delivery Group	WSCF20050329
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F03-025
Data Deliverable	Summary Report

Introduction

One (1) 200-LW-1/LW-2 Characterization (Soil), 216-Z-7/C4183, 12.5' – 15', GRP sample (B19402) was received at the WSCF Laboratory on February 8, 2005. The sample was analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chains of custody and sample receipt forms are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Ammonia by EPA Method 300.7. Analytical work was performed with no deviations to the approved method.
- Anions by EPA Method 300. Analytical work was performed with no deviations to the approved method.
- Cyanide by EPA Method 335.2. Analytical work was performed with no deviations to the approved method.
- ICP-AES Metals by EPA Method 6010B. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 150.1. Analytical work was performed with no deviations to the approved method.

Organic

- Alcohols/Glycols by EPA Method 8015. Analytical work was performed with no deviations to the approved method.
- PCBs by EPA Method 8082B. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.
- TPH Diesel Range by WDOE Method NWTPH-Dx. Analytical work was performed with no deviations to the approved method.
- TPH Gas Range by WDOE Method NWTPH-Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260A. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA (Plutonium, Americium and Uranium) and GEA) except Neptunium-237 were run by internal WDOE accredited WSCF procedures. Analytical work was performed with no deviations to the approved method.
- **Inorganic Comments**

Ammonia - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 13 for QC details. All QC controls are within the established limits.

Anions - The hold times for Nitrite and Nitrate analysis were not met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See pages 14 through 15 for QC details.
Analytical Notes:

- Preparation Date: 07-mar-2005.
- Nitrate - Sample B19402 result was B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Nitrate - The Duplicate Relative Percent Difference exceeded established laboratory limits. The RPD criterion does not apply to low level samples.

All other QC controls are within the established limits.

Cyanide - The hold time for this analysis was met. A Blank, Preparation Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 16 for QC details. All QC controls are within the established limits.

ICP-AES Metals (Bismuth and Boron only) – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 17 for QC details. Analytical Note:

- Preparation Date: 02-mar-2005.

All QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 18 through 20 for QC details. Analytical Notes:

- Preparation Date: 14-feb-2005.
- Antimony and Uranium – The Laboratory Control Sample recovery exceeded established laboratory limits, but within manufacturer's limits. Sample results were below the detection limit and U-flagged.

All other QC controls are within the established limits.

Percent Solids – analyzed for organic moisture correction.

pH - The hold time for this analysis was met. A Laboratory Control Sample and Duplicate sample was not analyzed as per the GRP Letter of Instruction. All internal laboratory QC controls for the method were within the established limits.

Organic Comments

- Sample results are moisture corrected and reported on dry weight basis.

Alcohol/Glycols - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 24 for QC details. Analytical Notes:

- Preparation Date: 22-feb-2005.
- 2-Bromoethanol - Spike Relative Percent Difference exceeded the established laboratory limits. Sample result was below the detection limit and U-flagged.

All QC other controls are within the established limits.

PCBs – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 25 through 26 for QC details. Analytical Notes:

- Preparation Date: 17-feb-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19407 (SDG# 20050388, SAF# F03-025).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 27 through 30 for QC details. Analytical Notes:

- Preparation Date: 17-feb-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19407 (SDG# 20050388, SAF# F03-025).
- 2-Methylphenol: Although not included in the Data Summary Report, (not requested on chain of custody), the sample result was less than the detection limit of 170 ug/Kg.
- 3 & 4-Methylphenol: Although not included in the Data Summary Report, (not requested on chain of custody), the sample result was less than the detection limit of 222.2 ug/Kg.

All QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 31 for QC details. Analytical Notes:

- Preparation Date: 17-feb-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19407 (SDG# 20050388, SAF# F03-025).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 32 for QC details. Analytical Notes:

- Preparation Date: 18-feb-2005.
- Duplicate, Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19PN0 (SDG# 20050278, SAF# F04-015).

All QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 33 through 35 for QC details. All QC controls are within the established limits.

- N-Butylbenzene: Although not included in the Data Summary Report, (not requested on chain of custody), the sample result was less than the detection limit of 2.1 ug/Kg.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF’s radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 38 through 41 for QC details. Analytical Notes:

- Neptunium-237 - Duplicate QC samples were analyzed on sample# B1B3R1 (SDG# 20050251, SAF# F04-019).
- Neptunium-237 –Laboratory control sample (LCS) recovery was below established limits and may be attributed to a slight excess of ascorbic acid which occurs due to low iron levels in the matrix and causes retention of the Neptunium during separation. The solid matrix sample spike recoveries however, were within established laboratory limits. Sample result is considered to be an estimate. Radiochemical Matrix Spike Recovery Data are summarized below.

Radiochemical Matrix Spike Recovery			
Sample Number	Lab Sample ID	Isotope	Matrix Spike Recovery (Percent)
<u>Neptunium-237</u>			
LCS DUPLICATE		Np-237	44.30
B19402	W050000473	Np-237	80.20
B1B3R1	W050000288	Np-237	65.10
DUPLICATE	W050000288	Np-237	86.70

- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Lab Sample ID	Isotope	QC	
			Results (pCi/gram)	RPD %
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	2.130E-02	
BLANK		U-235	2.119E-03	
B19402	W050000473	U-234	1.530E-01	
DUPLICATE	W050000473	U-234	1.839E-01	18.34
B19402	W050000473	U-235	7.424E-03	
DUPLICATE	W050000473	U-235	1.126E-02	41.06
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.518E-02	
B19402	W050000473	Pu-238	1.225E-02	
DUPLICATE	W050000473	Pu-238	2.164E-02	55.41

- Plutonium-242, Americium-243 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Recovery			
Sample Number	Lab Sample ID	Isotope	Tracer Recovery (Percent)
<u>Plutonium-242</u>			
BLANK		Pu-242	84.07
LCS		Pu-242	92.83
B19402	W050000473	Pu-242	76.45

Radiochemical Tracer Recovery			
Sample Number	Lab Sample ID	Isotope	Tracer Recovery (Percent)
DUPLICATE	W050000473	Pu-242	88.32
<u>Americium-243</u>			
BLANK		Am-243	78.46
LCS		Am-243	80.20
B19402	W050000473	Am-243	84.81
DUPLICATE	W050000473	Am-243	85.01
<u>Uranium-232</u>			
BLANK		U-232	80.89
LCS		U-232	73.45
B19402	W050000473	U-232	79.27
DUPLICATE	W050000473	U-232	88.70

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix

Pauline D. Mix
WSCF Client Services

Abbreviations

Hg - mercury	Am - americium
IC - ion chromatography	Cm - curium
ICP - inductively coupled plasma	Pu - plutonium
ICP/AES - ICP/atomic emission spectroscopy	Np - neptunium
ICP/MS - ICP/mass spectrometry	GEA - gamma energy analysis
Total U - total uranium	H3 - Tritium
AT/TB - total alpha/total beta	Sr - Strontium 89, 90
AEA - Alpha Energy Analysis	WTPH-D - Total Hydrocarbons-Diesel
WTPH-G - Total Hydrocarbons-Gasoline	TSS - Total Suspended Solids

M8141-SLF-05-154

ATTACHMENT 2

ANALYTICAL RESULTS

**Consisting of 39 pages
Including cover page**

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical:

 S. Fitzgerald

Client Services:

 P.O. Mix

All results are reported on an "as received" basis unless otherwise noted in the comment section.

Confidentiality Notice: The information contained in this report is privileged and confidential information intended only for the use of the addressee. If the reader of this report is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone at (509) 373-7020.

Contract#: FH-EIS-2003-MEM-001

Report#: WSCF20050329

Report Date: 28-mar-2005

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: Ammonia (N) by IC

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Ammonia (N) by IC	7664-41-7	2.40e-01	1.681	RPD	03/04/05	0.000	20.000	
MS	Ammonia (N) by IC	7664-41-7	3.60e-01	87.378	% Recov	03/04/05	75.000	125.000	
MSD	Ammonia (N) by IC	7664-41-7	3.42e-01	83.010	% Recov	03/04/05	75.000	125.000	
BATCH QC									
BLANK	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	03/04/05	0.000	30.000	U
BLANK	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	03/04/05	0.000	30.000	U
LCS	Ammonia (N) by IC	7664-41-7	7.88e+01	95.631	% Recov	03/04/05	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: Anions by Ion Chromatography

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Chloride	16887-00-6	<2.60e0	n/a	RPD	03/07/05	0.000	20.000	U
DUP	Fluoride	18884-48-8	2.11e+00	n/a	RPD	03/07/05	0.000	20.000	
DUP	Nitrogen in Nitrite	NO2-N	<8.50e-1	n/a	RPD	03/07/05	0.000	20.000	U
DUP	Nitrogen in Nitrate	NO3-N	3.38e+00	31.904	RPD	03/07/05	0.000	20.000	
DUP	Phosphate (P) by IC	PO4-P	<2.70e0	n/a	RPD	03/07/05	0.000	20.000	U
DUP	Sulfate	14808-78-8	<5.00e0	n/a	RPD	03/07/05	0.000	20.000	U
MS	Chloride	16887-00-6	9.90e-01	99.000	% Recov	03/07/05	75.000	125.000	
MS	Fluoride	18884-48-8	4.49e-01	90.891	% Recov	03/07/05	75.000	125.000	
MS	Nitrogen in Nitrite	NO2-N	4.60e-01	92.000	% Recov	03/07/05	75.000	125.000	
MS	Nitrogen in Nitrate	NO3-N	4.28e-01	84.900	% Recov	03/07/05	75.000	125.000	
MS	Phosphate (P) by IC	PO4-P	7.83e-01	78.741	% Recov	03/07/05	75.000	125.000	
MS	Sulfate	14808-78-8	1.87e+00	98.500	% Recov	03/07/05	75.000	125.000	
MSD	Chloride	16887-00-6	9.89e-01	98.900	% Recov	03/07/05	75.000	125.000	
MSD	Fluoride	18884-48-8	4.43e-01	89.878	% Recov	03/07/05	75.000	125.000	
MSD	Nitrogen in Nitrite	NO2-N	4.93e-01	98.600	% Recov	03/07/05	75.000	125.000	
MSD	Nitrogen in Nitrate	NO3-N	4.55e-01	100.887	% Recov	03/07/05	75.000	125.000	
MSD	Phosphate (P) by IC	PO4-P	8.34e-01	119.828	% Recov	03/07/05	75.000	125.000	
MSD	Sulfate	14808-78-8	1.97e+00	98.500	% Recov	03/07/05	75.000	125.000	
BATCH QC									
BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Fluoride	18884-48-8	<2.30e-2	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<2.30e-2	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<1.80e-2	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	03/07/05	0.000	300.000	U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: Anions by Ion Chromatography

SAF Number: F03-025
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<5.40e-2	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<5.40e-2	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	03/07/05	0.000	300.000	U
LCS	Chloride	16987-00-6	2.02e+02	101.000	% Recov	03/07/05	80.000	120.000	
LCS	Fluoride	16984-48-8	1.00e+02	101.317	% Recov	03/07/05	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	9.81e+01	98.100	% Recov	03/07/05	80.000	120.000	
LCS	Nitrogen in Nitrate	NO3-N	8.24e+01	91.454	% Recov	03/07/05	80.000	120.000	
LCS	Phosphate (P) by IC	PO4-P	1.79e+02	92.363	% Recov	03/07/05	80.000	120.000	
LCS	Sulfate	14808-79-8	3.71e+02	92.982	% Recov	03/07/05	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: Cyanide by Midi/Spectrophotom

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Cyanide by Midi/Spectrophotom	57-12-5	78.0	78.000	% Recov	02/18/05	75.000	125.000	
MSD	Cyanide by Midi/Spectrophotom	57-12-5	80.8	80.800	% Recov	02/18/05	75.000	125.000	
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	80.800	3.526	RPD	02/18/05	0.000	20.000	
BATCH QC									
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	<1	n/a	ug/L	02/18/05	-4.000	4.000	U
BLANK-PREP	Cyanide by Midi/Spectrophotom	57-12-5	<1	n/a	ug/L	02/18/05	-4.000	4.000	U
LCS	Cyanide by Midi/Spectrophotom	57-12-5	91.8	91.800	% Recov	02/18/05	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: ICP Metals Analysis, Grd H2O P

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Boron	7440-42-8	182	92.857	% Recov	03/02/05	75.000	125.000	
MS	Bismuth	7440-89-9	170	86.735	% Recov	03/02/05	75.000	125.000	
MSD	Boron	7440-42-8	183	92.424	% Recov	03/02/05	75.000	125.000	
MSD	Bismuth	7440-89-9	168	84.848	% Recov	03/02/05	75.000	125.000	
SPK-RPD	Boron	7440-42-8	92.424	0.487	RPD	03/02/05	0.000	20.000	
SPK-RPD	Bismuth	7440-89-9	84.848	2.200	RPD	03/02/05	0.000	20.000	
BATCH QC									
BLANK	Boron	7440-42-8	<2.6e-2	n/a	ug/L	03/02/05			U
BLANK	Bismuth	7440-89-9	<2.2e-2	n/a	ug/L	03/02/05			U
LCS	Boron	7440-42-8	294	99.324	% Recov	03/02/05	45.000	156.000	
LCS	Bismuth	7440-89-9	190	95.477	% Recov	03/02/05	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: ICP-2008 MS All possible metal

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Silver	7440-22-4	410.8	102.700	% Recov	02/15/05	70.000	130.000	
MS	Arsenic	7440-38-2	395.27	98.817	% Recov	02/15/05	70.000	130.000	
MS	Barium	7440-39-3	424.78	106.195	% Recov	02/15/05	70.000	130.000	
MS	Beryllium	7440-41-7	431.1	107.776	% Recov	02/15/05	70.000	130.000	
MS	Cadmium	7440-43-9	425.4	106.350	% Recov	02/15/05	70.000	130.000	
MS	Chromium	7440-47-3	425.82	106.455	% Recov	02/15/05	70.000	130.000	
MS	Copper	7440-50-8	420.61	105.153	% Recov	02/15/05	70.000	130.000	
MS	Mercury	7439-97-6	22.45	112.250	% Recov	02/15/05	70.000	130.000	
MS	Nickel	7440-02-0	413.95	103.487	% Recov	02/15/05	70.000	130.000	
MS	Lead	7439-92-1	458.8	114.700	% Recov	02/15/05	70.000	130.000	
MS	Antimony	7440-36-0	434.3	108.575	% Recov	02/15/05	70.000	130.000	
MS	Selenium	7782-49-2	439.5	108.875	% Recov	02/15/05	70.000	130.000	
MS	Uranium	7440-61-1	430.2	107.550	% Recov	02/15/05	70.000	130.000	
MSD	Silver	7440-22-4	414.1	103.525	% Recov	02/15/05	70.000	130.000	
MSD	Arsenic	7440-38-2	421.67	105.418	% Recov	02/15/05	70.000	130.000	
MSD	Barium	7440-39-3	422.88	105.720	% Recov	02/15/05	70.000	130.000	
MSD	Beryllium	7440-41-7	429.1	107.275	% Recov	02/15/05	70.000	130.000	
MSD	Cadmium	7440-43-9	430.6	107.650	% Recov	02/15/05	70.000	130.000	
MSD	Chromium	7440-47-3	414.62	103.655	% Recov	02/15/05	70.000	130.000	
MSD	Copper	7440-50-8	417.41	104.353	% Recov	02/15/05	70.000	130.000	
MSD	Mercury	7439-97-6	22.29	111.450	% Recov	02/15/05	70.000	130.000	
MSD	Nickel	7440-02-0	411.55	102.888	% Recov	02/15/05	70.000	130.000	
MSD	Lead	7439-92-1	431.6	107.900	% Recov	02/15/05	70.000	130.000	
MSD	Antimony	7440-36-0	444	111.000	% Recov	02/15/05	70.000	130.000	
MSD	Selenium	7782-49-2	453.1	113.275	% Recov	02/15/05	70.000	130.000	
MSD	Uranium	7440-61-1	435.4	108.850	% Recov	02/15/05	70.000	130.000	

Lab ID: W050000473
 BATCH QC ASSOCIATED WITH SAMPLE

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: ICP-2008 MS All possible metal

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Silver	7440-22-4	103.525	0.600	RPD	02/15/05	0.000	20.000	
SPK-RPD	Arsenic	7440-38-2	105.418	6.464	RPD	02/15/05	0.000	20.000	
SPK-RPD	Berium	7440-39-3	105.720	0.448	RPD	02/15/05	0.000	20.000	
SPK-RPD	Beryllium	7440-41-7	107.275	0.465	RPD	02/15/05	0.000	20.000	
SPK-RPD	Cadmium	7440-43-9	107.850	1.215	RPD	02/15/05	0.000	20.000	
SPK-RPD	Chromium	7440-47-3	103.655	2.665	RPD	02/15/05	0.000	20.000	
SPK-RPD	Copper	7440-50-8	104.353	0.764	RPD	02/15/05	0.000	20.000	
SPK-RPD	Mercury	7439-97-6	111.450	0.715	RPD	02/15/05	0.000	20.000	
SPK-RPD	Nickel	7440-02-0	102.888	0.580	RPD	02/15/05	0.000	20.000	
SPK-RPD	Lead	7439-92-1	107.900	6.110	RPD	02/15/05	0.000	20.000	
SPK-RPD	Antimony	7440-38-0	111.000	2.209	RPD	02/15/05	0.000	20.000	
SPK-RPD	Selenium	7782-49-2	113.275	3.047	RPD	02/15/05	0.000	20.000	
SPK-RPD	Uranium	7440-61-1	108.850	1.201	RPD	02/15/05	0.000	20.000	
BATCH QC									
BLANK	Silver	7440-22-4	<0.2	n/a	ug/L	02/15/05			U
BLANK	Arsenic	7440-38-2	<0.3	n/a	ug/L	02/15/05			U
BLANK	Berium	7440-39-3	<0.2	n/a	ug/L	02/15/05			U
BLANK	Beryllium	7440-41-7	<0.3	n/a	ug/L	02/15/05			U
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L	02/15/05			U
BLANK	Chromium	7440-47-3	<0.3	n/a	ug/L	02/15/05			U
BLANK	Copper	7440-50-8	<0.5	n/a	ug/L	02/15/05			U
BLANK	Mercury	7439-97-6	<0.1	n/a	ug/L	02/15/05			U
BLANK	Nickel	7440-02-0	<0.5	n/a	ug/L	02/15/05			U
BLANK	Lead	7439-92-1	<1.2	n/a	ug/L	02/15/05			U
BLANK	Antimony	7440-38-0	<0.5	n/a	ug/L	02/15/05			U
BLANK	Selenium	7782-49-2	<0.3	n/a	ug/L	02/15/05			U
BLANK	Uranium	7440-61-1	<0.1	n/a	ug/L	02/15/05			U
LCS	Silver	7440-22-4	152.1	117.000	% Recov	02/15/05	110.000	170.000	
LCS	Arsenic	7440-38-2	184.5	114.598	% Recov	02/15/05	82.000	142.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SAF Number: F03-025
 Sample Date:
 Receive Date:

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: ICP-2008 MS All possible metal

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Barium	7440-39-3	265.7	106.437	% Recov	02/15/05	79.000	123.000	
LCS	Beryllium	7440-41-7	108.6	112.924	% Recov	02/15/05	82.000	128.000	
LCS	Cadmium	7440-43-9	143.3	111.953	% Recov	02/15/05	88.000	127.000	
LCS	Chromium	7440-47-3	69.86	100.518	% Recov	02/15/05	50.000	128.000	
LCS	Copper	7440-50-8	156.9	106.014	% Recov	02/15/05	61.000	134.000	
LCS	Mercury	7439-97-6	15.74	93.138	% Recov	02/15/05	75.000	114.000	
LCS	Nickel	7440-02-0	158.9	108.095	% Recov	02/15/05	84.000	125.000	
LCS	Lead	7439-92-1	159.1	112.042	% Recov	02/15/05	87.000	120.000	
LCS	Antimony	7440-36-0	115.9	190.312	% Recov	02/15/05	61.000	135.000	
LCS	Selenium	7782-48-2	73.96	115.202	% Recov	02/15/05	83.000	145.000	
LCS	Uranium	7440-61-1	428.8	107.200	% Recov	02/15/05	89.000	107.000	

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-025; F03-025

Group #: WSCF20050329

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze Sample	Receive
W050000473	B19402	107-21-1	Ethylene glycol	SOIL	Organics	U	< 5.00e+03	ug/kg	1.00	5.0e+03	02/22/05	02/08/05
W050000473	B19402	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	02/18/05	02/08/05
W050000473	B19402	12874-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/04/05	02/08/05
W050000473	B19402	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	03/04/05	02/08/05
W050000473	B19402	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/04/05	02/08/05
W050000473	B19402	53469-21-8	Aroclor-1242	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/04/05	02/08/05
W050000473	B19402	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/04/05	02/08/05
W050000473	B19402	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/04/05	02/08/05
W050000473	B19402	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/04/05	02/08/05
W050000473	B19402	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/04/05	02/08/05
W050000473	B19402	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/04/05	02/08/05
W050000473	B19402	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	2.00	1.8e+02	03/03/05	02/08/05
W050000473	B19402	108-48-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 280	ug/kg	2.00	2.8e+02	03/03/05	02/08/05
W050000473	B19402	108-95-2	Phenol	SOIL	LA-523-456	U	< 150	ug/kg	2.00	1.5e+02	03/03/05	02/08/05
W050000473	B19402	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	2.00	1.9e+02	03/03/05	02/08/05
W050000473	B19402	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	2.00	1.1e+02	03/03/05	02/08/05
W050000473	B19402	129-00-0	Pyrene	SOIL	LA-523-456	U	< 170	ug/kg	2.00	1.7e+02	03/03/05	02/08/05
W050000473	B19402	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 99.0	ug/kg	2.00	99	03/03/05	02/08/05
W050000473	B19402	621-64-7	N-Nitrosodi-n-propylamine	SOIL	LA-523-456	U	< 160	ug/kg	2.00	1.6e+02	03/03/05	02/08/05
W050000473	B19402	83-32-9	Acanaphthene	SOIL	LA-523-456	U	< 150	ug/kg	2.00	1.5e+02	03/03/05	02/08/05
W050000473	B19402	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	2.00	1.5e+02	03/03/05	02/08/05
W050000473	B19402	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	2.00	1.6e+02	03/03/05	02/08/05
W050000473	B19402	126-73-8	Tributyl phosphete	SOIL	LA-523-456	U	< 150	ug/kg	2.00	1.5e+02	03/03/05	02/08/05
W050000473	B19402	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05	02/08/05
W050000473	B19402	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05	02/08/05
W050000473	B19402	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05	02/08/05

U - Analyzed for but not detected above limiting criteria.

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

MDL = Minimum Detection Limit
RQ = Result Qualifier

DF = Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols
Report WGP/ver. 1.1

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-025; F03-025

Group #: WSCF20050329

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050000473	B19402	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	10081-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	10081-02-8	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	107-08-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	127-18-4	Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	540-58-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	591-78-0	2-Hexanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	67-84-1	Acetone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	67-86-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	71-55-0	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	74-83-8	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	75-08-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05
W050000473	B19402	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	02/18/05 02/08/05 02/08/05

U - Analyzed for but not detected above limiting criteria.

B - The analyte < the RDL but > = the IDL/MDL (Inorganic)

MDL = Minimum Detection Limit
RQ = Result Qualifier

DF = Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGP/ver. 1.1

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: Alcohols, Glycols - 8015

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	2-Bromoethanol	540-51-2	11100	10.427	ppm	02/22/05	0.000	25.000	
DUP	Ethylene glycol	107-21-1	<5000	n/a	RPD	02/22/05	0.000	25.000	U
MS	2-Bromoethanol	540-51-2	9780	97.800	% Recov	02/22/05	70.000	125.000	
MS	Ethylene glycol	107-21-1	9710	97.100	% Recov	02/22/05	75.000	125.000	
MSD	2-Bromoethanol	540-51-2	10500	105.000	% Recov	02/22/05	70.000	125.000	
MSD	Ethylene glycol	107-21-1	9350	93.500	% Recov	02/22/05	75.000	125.000	
SPK-RPD	2-Bromoethanol	540-51-2	105.000	161.147	RPD	02/22/05	0.000	20.000	
SPK-RPD	Ethylene glycol	107-21-1	93.500	3.778	RPD	02/22/05	0.000	20.000	
BATCH QC									
BLANK	2-Bromoethanol	540-51-2	10200	1.020	ug/kg	02/22/05	0.000	10.000	
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/kg	02/22/05	0.000	5.000	U
LCS	2-Bromoethanol	540-51-2	10800	108.000	% Recov	02/22/05	70.000	130.000	
LCS	Ethylene glycol	107-21-1	7980	79.800	% Recov	02/22/05	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: PCBs complete list

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1124.8	108.000	% Recov	03/04/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	1077.1	103.000	% Recov	03/04/05	50.000	150.000	
Lab ID: W050000556									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Aroclor-1260	11096-82-5	1035.7	100.000	% Recov	03/04/05	75.000	125.000	
MS	Decachlorobiphenyl	2051-24-3	1108.3	107.000	% Recov	03/04/05	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	1045.0	101.000	% Recov	03/04/05	50.000	150.000	
MSD	Aroclor-1260	11096-82-5	884.85	87.200	% Recov	03/04/05	75.000	125.000	
MSD	Decachlorobiphenyl	2051-24-3	980.20	96.600	% Recov	03/04/05	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	1051.9	104.000	% Recov	03/04/05	50.000	150.000	
SPK-RPD	Aroclor-1280	11096-82-5	87.200	13.675	RPD	03/04/05	0.000	25.000	
SPK-RPD	Decachlorobiphenyl	2051-24-3	96.600	10.216	RPD	03/04/05	0.000	20.000	
SPK-RPD	Tetrachloro-m-xylene	877-09-8	104.000	2.927	RPD	03/04/05	0.000	20.000	
BATCH QC									
BLANK	Aroclor-1016	12674-11-2	< 50	n/a	UGKG	03/04/05			U
BLANK	Aroclor-1221	11104-28-2	< 100	n/a	ug/Kg	03/04/05			U
BLANK	Aroclor-1232	11141-16-5	< 50	n/a	ug/Kg	03/04/05			U
BLANK	Aroclor-1242	53469-21-9	< 50	n/a	ug/Kg	03/04/05			U
BLANK	Aroclor-1248	12672-29-6	< 50	n/a	ug/Kg	03/04/05			U
BLANK	Aroclor-1254	11097-49-1	< 50	n/a	ug/Kg	03/04/05			U
BLANK	Aroclor-1260	11096-82-5	< 50	n/a	ug/Kg	03/04/05			U
BLANK	Aroclor-1262	37324-23-5	< 50	n/a	ug/Kg	03/04/05			U
BLANK	Aroclor-1268	11100-14-4	< 50	n/a	ug/Kg	03/04/05			U
BLANK	Decachlorobiphenyl	2051-24-3	976.95	97.700	% Recov	03/04/05	50.000	150.000	U

WSCF ANALYTICAL LABORATORY QC REPORT

SAF Number: F03-025
 Sample Date:
 Receive Date:

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: PCBs complete list

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Tetrachloro-m-xylene	877-09-8	986.73	98.700	% Recov	03/04/05	50.000	150.000	
LCS	Aroclor-1260	11096-82-5	975.87	97.800	% Recov	03/04/05	70.000	130.000	
LCS	Decachlorobiphenyl	2051-24-3	1022.9	102.000	% Recov	03/04/05	50.000	150.000	
LCS	Tetrachloro-m-xylene	877-09-8	1017.6	102.000	% Recov	03/04/05	50.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	2-Fluorophenol	367-12-4	3210.6	90.700	% Recov	03/03/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	3087.3	87.300	% Recov	03/03/05	56.000	122.000	
SURR	Nitrobenzene-d5	4165-60-0	2984.9	84.400	% Recov	03/03/05	64.000	111.000	
SURR	Phenol-d5	4165-62-2	3053.8	86.300	% Recov	03/03/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	2730.8	77.200	% Recov	03/03/05	24.000	122.000	
SURR	Terphenyl-d14 (7CI)	98904-43-9	3141.6	88.800	% Recov	03/03/05	35.000	150.000	
Lab ID: W050000556									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,2,4-Trichlorobenzene	120-82-1	3160.3	90.700	% Recov	03/03/05	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	3039.8	87.300	% Recov	03/03/05	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	2704.8	77.700	% Recov	03/03/05	59.000	106.000	
MS	2-Fluorophenol	367-12-4	3365.0	96.600	% Recov	03/03/05	42.000	105.000	
MS	Acenaphthene	83-32-9	3161.9	90.800	% Recov	03/03/05	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	4482.6	85.800	% Recov	03/03/05	61.000	106.000	
MS	2-Chlorophenol	95-57-8	4872.2	93.300	% Recov	03/03/05	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	3077.8	88.400	% Recov	03/03/05	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	3174.7	91.200	% Recov	03/03/05	56.000	122.000	
MS	Phenol	108-95-2	4875.9	89.500	% Recov	03/03/05	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	3092.4	88.800	% Recov	03/03/05	64.000	111.000	
MS	4-Nitrophenol	100-02-7	3886.2	74.400	% Recov	03/03/05	32.000	118.000	
MS	Pentachlorophenol	87-86-5	4226.8	80.900	% Recov	03/03/05	62.000	114.000	
MS	Phenol-d5	4165-62-2	3134.3	90.000	% Recov	03/03/05	54.000	120.000	
MS	Pyrene	129-00-0	2927.1	84.000	% Recov	03/03/05	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	2964.3	85.100	% Recov	03/03/05	24.000	122.000	
MS	Terphenyl-d14 (7CI)	98904-43-9	3108.2	89.200	% Recov	03/03/05	35.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
 Sample Date: 02/16/05
 Receive Date: 02/16/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	1,2,4-Trichlorobenzene	120-82-1	3054.4	87.300	% Recov	03/03/05	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	2877.8	82.200	% Recov	03/03/05	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	2667.6	76.200	% Recov	03/03/05	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	3237.9	82.500	% Recov	03/03/05	42.000	105.000	
MSD	Acenaphthene	83-32-9	2950.1	84.300	% Recov	03/03/05	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	4388.6	83.600	% Recov	03/03/05	81.000	106.000	
MSD	2-Chlorophenol	95-57-8	4608.9	87.800	% Recov	03/03/05	66.000	108.000	
MSD	N-Nitrosodi-n-propylamine	621-64-7	2891.4	82.800	% Recov	03/03/05	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	3027.8	86.500	% Recov	03/03/05	56.000	122.000	
MSD	Phenol	108-95-2	4421.6	84.200	% Recov	03/03/05	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	2983.2	85.300	% Recov	03/03/05	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	4062.2	77.400	% Recov	03/03/05	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	4236.2	80.700	% Recov	03/03/05	62.000	114.000	
MSD	Phenol-d5	4165-62-2	2999.9	85.700	% Recov	03/03/05	54.000	120.000	
MSD	Pyrene	129-00-0	2856.4	81.600	% Recov	03/03/05	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-8	2811.2	83.200	% Recov	03/03/05	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-8	3054.2	87.300	% Recov	03/03/05	35.000	150.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	87.300	3.820	RPD	03/03/05	0.000	20.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	82.200	6.018	RPD	03/03/05	0.000	20.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	76.200	1.949	RPD	03/03/05	0.000	20.000	
SPK-RPD	2-Fluorophenol	367-12-4	92.500	4.336	RPD	03/03/05	0.000	20.000	
SPK-RPD	Acenaphthene	83-32-9	84.300	7.424	RPD	03/03/05	0.000	20.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	83.600	2.597	RPD	03/03/05	0.000	20.000	
SPK-RPD	2-Chlorophenol	95-57-8	87.800	6.074	RPD	03/03/05	0.000	20.000	
SPK-RPD	N-Nitrosodi-n-propylamine	621-64-7	82.600	6.784	RPD	03/03/05	0.000	20.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	86.500	5.290	RPD	03/03/05	0.000	20.000	
SPK-RPD	Phenol	108-95-2	84.200	6.102	RPD	03/03/05	0.000	20.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	85.300	4.021	RPD	03/03/05	0.000	20.000	
SPK-RPD	4-Nitrophenol	100-02-7	77.400	3.953	RPD	03/03/05	0.000	20.000	
SPK-RPD	Pentachlorophenol	87-86-5	80.700	0.248	RPD	03/03/05	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SAF Number: F03-025
 Sample Date: 02/16/05
 Receive Date: 02/16/05

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Phenol-d5	4185-62-2	85.700	4.895	RPD	03/03/05	0.000	20.000	
SPK-RPD	Pyrene	129-00-0	81.600	2.899	RPD	03/03/05	0.000	20.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	83.200	2.258	RPD	03/03/05	0.000	20.000	
SPK-RPD	Terphenyl-d14 (7CI)	98904-43-9	87.300	2.153	RPD	03/03/05	0.000	20.000	
BATCH QC									
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 180	n/a	ug/Kg	03/03/05			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 270	n/a	ug/Kg	03/03/05			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 110	n/a	ug/Kg	03/03/05			U
BLANK	2-Fluorophenol	367-12-4	3171.4	95.100	% Recov	03/03/05	42.000	105.000	
BLANK	Acenaphthene	83-32-9	< 140	n/a	ug/Kg	03/03/05			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 93	n/a	ug/Kg	03/03/05			U
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg	03/03/05			U
BLANK	N-Nitrosodipropylamine	621-64-7	< 150	n/a	ug/Kg	03/03/05			U
BLANK	2-Fluorobiphenyl	321-60-8	3011.6	90.300	% Recov	03/03/05	56.000	122.000	
BLANK	Phenol	108-95-2	< 140	n/a	ug/Kg	03/03/05			U
BLANK	Nitrobenzene-d5	4185-60-0	2845.4	88.400	% Recov	03/03/05	64.000	111.000	
BLANK	4-Nitrophenol	100-02-7	< 170	n/a	ug/Kg	03/03/05			U
BLANK	Pentachlorophenol	87-86-5	< 150	n/a	ug/Kg	03/03/05			U
BLANK	Phenol-d5	4185-62-2	2869.0	89.100	% Recov	03/03/05	54.000	120.000	
BLANK	Pyrene	129-00-0	< 160	n/a	ug/Kg	03/03/05			U
BLANK	Tributyl phosphate	126-73-8	< 140	n/a	ug/Kg	03/03/05			U
BLANK	2,4,6-Tribromophenol	118-79-6	2743.5	82.300	% Recov	03/03/05	24.000	122.000	
BLANK	Terphenyl-d14 (7CI)	98904-43-9	3047.2	91.400	% Recov	03/03/05	35.000	150.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	2870.2	86.100	% Recov	03/03/05	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	2787.1	83.600	% Recov	03/03/05	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	2545.4	76.400	% Recov	03/03/05	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	3014.3	90.400	% Recov	03/03/05	50.000	110.000	
LCS	Acenaphthene	83-32-9	2823.8	84.700	% Recov	03/03/05	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	4094.2	81.900	% Recov	03/03/05	61.000	106.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	2-Chlorophenol	95-57-8	4432.8	88.700	% Recov	03/03/05	66.000	106.000	
LCS	N-Nitrosodi-n-propylamine	621-64-7	2762.3	82.900	% Recov	03/03/05	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	2881.1	85.800	% Recov	03/03/05	58.000	109.000	
LCS	Phenol	108-95-2	4265.5	85.300	% Recov	03/03/05	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	2787.8	83.600	% Recov	03/03/05	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	3938.1	78.800	% Recov	03/03/05	32.000	118.000	
LCS	Pentachlorophenol	87-88-5	4038.2	80.800	% Recov	03/03/05	62.000	114.000	
LCS	Phenol-d5	4165-62-2	2832.5	85.000	% Recov	03/03/05	59.000	116.000	
LCS	Pyrene	129-00-0	2862.2	79.900	% Recov	03/03/05	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	2827.6	84.800	% Recov	03/03/05	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9	2806.8	84.200	% Recov	03/03/05	60.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	84-15-1	24980	84.000	% Recov	03/03/05	70.000	130.000	
Lab ID: W050000556									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Kerosene	TPHKEROSENE	105340	80.300	% Recov	03/03/05	70.000	130.000	
MS	ortho-Terphenyl	84-15-1	21744	82.900	% Recov	03/03/05	70.000	130.000	
MSD	Kerosene	TPHKEROSENE	114090	87.100	% Recov	03/03/05	70.000	130.000	
MSD	ortho-Terphenyl	84-15-1	24324	92.900	% Recov	03/03/05	70.000	130.000	
SPK-RPD	ortho-Terphenyl	84-15-1	92.900	11.377	RPD	03/03/05	0.000	20.000	
BATCH QC									
BLANK	Kerosene	TPHKEROSENE	< 3800	n/a	ug/Kg	03/03/05			U
BLANK	ortho-Terphenyl	84-15-1	23335	93.300	% Recov	03/03/05	70.000	130.000	
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3800	n/a	ug/Kg	03/03/05			U
LCS	ortho-Terphenyl	84-15-1	24737	98.900	% Recov	03/03/05	70.000	130.000	
LCS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	127210	102.000	% Recov	03/03/05	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: NWTPH-GX TPH Gasoline Range

SAF Number: F03-025
 Sample Date: 02/04/05
 Receive Date: 02/04/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000340									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	< 250	n/a	RPD	02/18/05	0.000	20.000	U
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	1400	107.692	% Recov	02/18/05	50.000	150.000	
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	1500	115.385	% Recov	02/18/05	50.000	150.000	
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	115.385	6.897	RPD	02/18/05	0.000	20.000	
BATCH QC									
BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	< 250	n/a	mg/L	02/18/05	0.000	300.000	U
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	1200	92.308	% Recov	02/18/05	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: VOA Ground Water Protection

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,1-Dichloroethene	75-35-4	22.700	90.800	% Recov	02/18/05	63.000	117.000	
MS	Benzene	71-43-2	28.610	114.000	% Recov	02/18/05	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	57.910	116.000	% Recov	02/18/05	84.000	116.000	
MS	Chlorobenzene	108-90-7	28.380	113.000	% Recov	02/18/05	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	57.990	116.000	% Recov	02/18/05	82.000	136.000	
MS	Toluene-d8	2037-26-5	52.940	106.000	% Recov	02/18/05	89.000	119.000	
MS	Toluene	108-88-3	28.470	114.000	% Recov	02/18/05	76.000	120.000	
MS	Trichloroethene	79-01-6	27.310	109.000	% Recov	02/18/05	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	51.190	96.000	% Recov	02/18/05	63.000	117.000	
MSD	Benzene	71-43-2	60.660	114.000	% Recov	02/18/05	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	119.50	112.000	% Recov	02/18/05	84.000	116.000	
MSD	Chlorobenzene	108-90-7	60.900	114.000	% Recov	02/18/05	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	120.10	113.000	% Recov	02/18/05	82.000	136.000	
MSD	Toluene-d8	2037-26-5	113.80	107.000	% Recov	02/18/05	89.000	119.000	
MSD	Toluene	108-88-3	60.240	113.000	% Recov	02/18/05	76.000	120.000	
MSD	Trichloroethene	79-01-6	58.570	110.000	% Recov	02/18/05	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	96.000	5.567	RPD	02/18/05	0.000	25.000	
SPK-RPD	Benzene	71-43-2	114.000	0.000	RPD	02/18/05	0.000	25.000	
SPK-RPD	4-Bromofluorobenzene	460-00-4	112.000	3.509	RPD	02/18/05	0.000	25.000	
SPK-RPD	Chlorobenzene	108-90-7	114.000	0.881	RPD	02/18/05	0.000	25.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	113.000	2.620	RPD	02/18/05	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	107.000	0.939	RPD	02/18/05	0.000	25.000	
SPK-RPD	Toluene	108-88-3	113.000	0.881	RPD	02/18/05	0.000	25.000	
SPK-RPD	Trichloroethene	79-01-6	110.000	0.913	RPD	02/18/05	0.000	25.000	
SURR	4-Bromofluorobenzene	460-00-4	56.270	113.000	% Recov	02/18/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	57.550	115.000	% Recov	02/18/05	80.000	134.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: VOA Ground Water Protection

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	Toluene-d8	2037-28-5	53.080	106.000	% Recov	02/18/05	80.000	126.000	
BATCH QC									
BLANK	1,1-Dichloroethane	75-34-3	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	1,1-Dichloroethane	75-35-4	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	1,2-Dichloroethane	107-06-2	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	1,2-Dichloroethane(Total)	540-59-0	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	1-Butanol	71-36-3	< 40	n/a	ug/Kg	02/18/05			U
BLANK	2-Hexanone	591-78-6	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Acetone	67-64-1	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Bromodichloromethane	75-27-4	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Benzene	71-43-2	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	4-Bromofluorobenzene	480-00-4	57.020	114.000	% Recov	02/18/05	71.000	125.000	U
BLANK	Bromoform	75-25-2	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Carbon disulfide	75-15-0	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Carbon tetrachloride	56-23-5	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Dibromochloromethane	124-48-1	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Chloroform	67-66-3	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Chlorobenzene	108-90-7	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	cis-1,3-Dichloropropene	10081-01-5	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Chloroethane	75-00-3	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	1,2-Dichloroethane-d4	17060-07-0	56.080	112.000	% Recov	02/18/05	80.000	134.000	U
BLANK	1,2-Dichloropropene	78-87-5	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Ethylbenzene	100-41-4	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Bromomethane	74-83-9	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Chloromethane	74-87-3	< 2.0	n/a	ug/Kg	02/18/05			U

WSCF ANALYTICAL LABORATORY QC REPORT

SAF Number: F03-025
 Sample Date:
 Receive Date:

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: VOA Ground Water Protection

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	2-Baranone	78-93-3	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Methylenchloride	75-09-2	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Tetrachloroethene	127-18-4	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Styrene	100-42-5	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Xylenes (total)	1330-20-7	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Toluene-d8	2037-26-5	52.700	105.000	% Recov	02/18/05	80.000	128.000	U
BLANK	Toluene	108-88-3	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	trans-1,3-Dichloropropene	10081-02-6	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Trichloroethene	79-01-6	< 2.0	n/a	ug/Kg	02/18/05			U
BLANK	Vinyl chloride	75-01-4	< 2.0	n/a	ug/Kg	02/18/05			U
LCS	1,1-Dichloroethene	75-35-4	43.490	87.000	% Recov	02/18/05	70.000	130.000	U
LCS	Benzene	71-43-2	55.860	112.000	% Recov	02/18/05	70.000	130.000	U
LCS	4-Bromofluorobenzene	460-00-4	113.60	114.000	% Recov	02/18/05	71.000	125.000	U
LCS	Chlorobenzene	108-90-7	54.900	110.000	% Recov	02/18/05	70.000	130.000	U
LCS	1,2-Dichloroethane-d4	17060-07-0	115.90	118.000	% Recov	02/18/05	80.000	134.000	U
LCS	Toluene-d8	2037-26-5	102.70	103.000	% Recov	02/18/05	80.000	126.000	U
LCS	Toluene	108-88-3	51.420	103.000	% Recov	02/18/05	70.000	130.000	U
LCS	Trichloroethene	79-01-6	50.950	102.000	% Recov	02/18/05	70.000	130.000	U

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-025; F03-025
Group #: WSCF20050329

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050000473	B19402	14596-10-2	Americium-241	SOIL	LA-508-471	U	0.0250	pCi/g	1.00	0.040	03/03/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	U	+- 0.025	pCi/g	1.00	0.0	03/03/05 02/08/05 02/08/05
W050000473	B19402	14234-35-6	Antimony-125	SOIL	LA-508-481	U	-9.59e-03	pCi/g	1.00	0.041	02/09/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Sb-125 Rel. Count Error (GEA)	SOIL	LA-508-481	U	+- 0.025	pCi/g	1.00	0.0	02/09/05 02/08/05 02/08/05
W050000473	B19402	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	-3.31e-03	pCi/g	1.00	0.015	02/09/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481	U	+- 8.5e-03	pCi/g	1.00	0.0	02/09/05 02/08/05 02/08/05
W050000473	B19402	13967-70-9	Cesium-134	SOIL	LA-508-481	U	0.0178	pCi/g	1.00	0.018	02/09/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Cs-134 Rel. Count Error (GEA)	SOIL	LA-508-481	U	+- 0.011	pCi/g	1.00	0.0	02/09/05 02/08/05 02/08/05
W050000473	B19402	10045-97-3	Cesium-137	SOIL	LA-508-481	U	0.0835	pCi/g	1.00	0.018	02/09/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481	U	+- 0.022	pCi/g	1.00	0.0	02/09/05 02/08/05 02/08/05
W050000473	B19402	14883-23-9	Europium-152	SOIL	LA-508-481	U	0.0203	pCi/g	1.00	0.051	02/09/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481	U	+- 0.032	pCi/g	1.00	0.0	02/09/05 02/08/05 02/08/05
W050000473	B19402	15585-10-1	Europium-154	SOIL	LA-508-481	U	-4.96e-03	pCi/g	1.00	0.051	02/09/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481	U	+- 0.029	pCi/g	1.00	0.0	02/09/05 02/08/05 02/08/05
W050000473	B19402	14391-16-3	Europium-155	SOIL	LA-508-481	U	0.0734	pCi/g	1.00	0.068	02/09/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481	U	+- 0.051	pCi/g	1.00	0.0	02/09/05 02/08/05 02/08/05
W050000473	B19402	13994-20-2	Neptunium-237	SOIL	LA-508-471	U	1.80e-03	pCi/g	1.00	6.8e-03	03/02/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Np-237 by AEA Total Cntg Error	SOIL	LA-508-471	U	+- 4.1e-03	pCi/g	1.00	0.0	03/02/05 02/08/05 02/08/05
W050000473	B19402	13981-16-3	Plutonium-238	SOIL	LA-508-471	U	0.0120	pCi/g	1.00	0.056	03/03/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	U	+- 0.031	pCi/g	1.00	0.0	03/03/05 02/08/05 02/08/05
W050000473	B19402	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471	U	0.0140	pCi/g	1.00	0.021	03/03/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471	U	+- 0.014	pCi/g	1.00	0.0	03/03/05 02/08/05 02/08/05
W050000473	B19402	U-233/234	Uranium-233/234	SOIL	LA-508-471	U	0.150	pCi/g	1.00	0.016	03/07/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	U	+- 0.050	pCi/g	1.00	0.0	03/07/05 02/08/05 02/08/05
W050000473	B19402	15117-96-1	Uranium-235	SOIL	LA-508-471	U	7.40e-03	pCi/g	1.00	0.014	03/07/05 02/08/05 02/08/05
W050000473	B19402	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471	U	+- 8.9e-03	pCi/g	1.00	0.0	03/07/05 02/08/05 02/08/05

U - Analyzed for but not detected above limiting criteria.

B - The analyte < the RDL but > - the IDL/MDL (inorganic)

MDL = Minimum Detection Limit
RQ = Result Qualifier

DF = Dilution Factor

* - Indicates results that have NOT been validated; + - indicates more than six qualifier symbols

Report WGP/ver. 1.1

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent **Group #:** WSCF20050329
Project: F03-025: F03-025

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample	Receive
W050000473	819402	U-238	Uranium-238	SOIL	LA-508-471		0.140	pCi/g	1.00	0.016	03/07/05	02/08/05
W050000473	819402	E.T.C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.048	pCi/g	1.00	0.10	03/07/05	02/08/05

MDL = Minimum Detection Limit B - The analyte < the RDL but > = the IDL/MDL (inorganic)
RQ = Result Qualifier U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor
 * - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols
Report WGPP/ver. 1.1
Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: Americium by AEA

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Americium-241	14598-10-2	U3.4e-02	n/a	RPD	03/03/05	0.000	20.000	
BATCH QC									
BLANK	Americium-241	14598-10-2	U-1.6e-02	n/a	pCi/g	03/03/05	-10.000	1000.000	
LCS	Americium-241	14598-10-2	4.6e+01	102.222	% Recov	03/03/05	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: Neptunium by AEA

SAF Number: F03-025
 Sample Date: 02/02/05
 Receive Date: 02/02/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000288									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Neptunium-237	13894-20-2	U6.5E-03	n/a	RPD	03/02/05	0.000	25.000	
BATCH QC									
BLANK	Neptunium-237	13894-20-2	U-4.0e-03	n/a	pCi/g	03/02/05	-10.000	1000.000	
LCS	Neptunium-237	13894-20-2	44.3	44.300	% Recov	03/02/05	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: Plutonium Isotopics by AEA

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Pu-239/240 by AEA	PU-239/240	U1.0e-02	n/a	RPD	03/03/05	0.000	20.000	
BATCH QC									
BLANK	Pu-239/240 by AEA	PU-239/240	U9.0e-03	n/a	pCi/g	03/03/05	-10.000	1000.000	
LCS	Pu-239/240 by AEA	PU-239/240	4.6e+01	98.925	% Recov	03/03/05	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050329
 Matrix: SOLID
 Test: Uranium Isotopics by AEA

SAF Number: F03-025
 Sample Date: 02/08/05
 Receive Date: 02/08/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000473									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Uranium-238	U-238	1.4e-01	0.000	RPD	03/07/05	0.000	20.000	
BATCH QC									
BLANK	Uranium-238	24678-82-8	U1.4e-02	n/a	pCi/g	03/07/05	-10.000	1000.000	
LCS	Uranium-238	24678-82-8	9.0e+01	118.702	% Recov	03/07/05	75.000	125.000	

**WSCF
ANALYTICAL COMMENT REPORT**

Attention: Steve Trent **Group #:** WSCF20050329
Project Number F03-025

Sample # **Client ID** **Lab Area** **Test**

VALGROUP

Comment

ICP-MS: Antimony LCS is within manufacturer's specification
Uranium LCS value is within limits; no flags.
Blank values do not affect sample results

Np237 LCS recovery is low so the sample result is an estimated value. imh

Organics: Sample concentrations have been corrected for moisture and are reported on a dry weight basis. den

IC Anions:
- Nitrate-N, DUP RPD criterion not applicable for < 10X MDL

Lab Areas: VALGROUP - Group Validation TESTDATA - Test Data Entry
LOGSAMP - Login for Sample VALTEST - Test Validation
LOGTEST - Login for Tests

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wgppc/1 Report#: WSCF20050329 Report Date: 28-mar-2005

WSCF TENTATIVELY IDENTIFIED PEAK REPORT

Group #: WSCF20050329

Attention: Steve Trent
Project Number: F03-025 :F03-025

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				14	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				15	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				16	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				18	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				18	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				19	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				20	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				20	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				25	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				35	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				40	%
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				0.078	pCi/g
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				0.16	pCi/g
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				0.18	pCi/g
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				0.41	pCi/g
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				0.47	pCi/g
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				0.56	pCi/g
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				0.56	pCi/g
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				0.60	pCi/g
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				0.60	pCi/g
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				0.65	pCi/g
W050000473	B19402	TRENT	Gamma Energy Analysis-grd H2O				13	pCi/g

RQ=Result Qualifier

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Groundwater Remediation Program

WGPE v 1.1 Report #: 20050329

Report Date: 28-mar-2005

WSCF METHOD REFERENCES REPORT

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-212-411	Determination of Soil pH Measurement EPA SW-846 9045C	SOIL AND WASTE pH
LA-503-401	LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY EPA-600/4-86-024 300.7	Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemical
LA-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE EPA SW-846 6010B	INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY
LA-505-412	LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY EPA-600/R-94-111 200.8	DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS
LA-508-471	LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP None	No reference to any industry method.
LA-508-481	LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE None	No reference to any industry method.
LA-519-412	LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C EPA-600/4-79-020 160.3 Standard Methods 2540B	RESIDUE, TOTAL Total Solids Dried at 103-105 C
LA-523-427	LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY EPA SW-846 3510C EPA SW-846 3545	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION PRESSURIZED FLUID EXTRACTION (PFE)

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at
[\\lap006\aspsdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf](file://lap006\aspsdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf). This document includes on-line links to full-text versions of the procedures and methods, where available.

Report Date: 28-mar-2005
 Report#: WSCF20050329
 Report WGFFM/O

WSCF METHOD REFERENCES REPORT

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

EPA SW-846 3665A	SULFURIC ACID/PERMANGANATE CLEANUP
EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
EPA SW-846 8082	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
LA-523-443	GAS CHROMATOGRAPH ANALYSIS OF GASOLINE RANGE TOTAL PETROLEUM HYDROCA WDOE TPH NWTPH-G Volatile Petroleum Products Method for Soil and Water
LA-523-455	LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846
EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
EPA SW-846 8260B	VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
LA-523-456	LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846. METHOD 8270C
EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
EPA SW-846 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
LA-533-410	LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY
EPA-600/R-94-111 300	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
LA-695-402	LA-695-402: DETERMINATION OF CYANIDE BY MIDDISTILLATION AND SPECTROPHOTOMETRIC EPA-600/4-79-020 335.2 Cyanide, Total
NWTPH	NWTPH-Diesel and/or Gasoline
Organics	WDOE NWTPH-Dx/Gx Total Petroleum Hydrocarbons - Diesel/Gasoline Organics - Alcohols, Glycols

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at
[\\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf](http://ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf). This document includes on-line
 links to full-text versions of the procedures and methods, where available.

Report Date: 28-mar-2005
 Report#: WSCF20050329
 Report WGPMMIO

WSCF METHOD REFERENCES REPORT

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

EPA SW-846 8015B Nonhalogenated Organics Using GC/FID

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at
<\\lap006\asdocs\WSCF\Sample Mgmt\ProcedureMethod\CrossReference.pdf>. This document includes on-line links to full-text versions of the procedures and methods, where available.

Report Date: 28-mar-2005
Report#: WSCF20050329
Report: WGPMM/O

W13q Worklist/Batch/QC Report for Group# WSCF20050329

WL#	S#	Batch	QC#	Tray	Type	Sample#	Test
					SAMPLE	W050000473	Percent Solids
					SAMPLE	W050000473	pH Soil and Waste Measurement
25008	1	25364	28724		SAMPLE	W050000473	Gamma Energy Analysis-grd H2O
			28943		BLANK		Cyanide by Midi/Spectrophotom
			28943		BLNK-PREP		Cyanide by Midi/Spectrophotom
			28943		LCS		Cyanide by Midi/Spectrophotom
			28943		MS	W050000473	Cyanide by Midi/Spectrophotom
			28943		MSD	W050000473	Cyanide by Midi/Spectrophotom
			28943		SAMPLE	W050000473	Cyanide by Midi/Spectrophotom
			28943		SPK-RPD	W050000473	Cyanide by Midi/Spectrophotom
25211	1	25571	28950		BLANK		Neptunium by AEA
25211	2	25571	28950		LCS		Neptunium by AEA
25211	3	25571	28950		DUP	W050000288	Neptunium by AEA
25211	5	25571	28950		SAMPLE	W050000473	Neptunium by AEA
25238	1	25599	28971		BLANK		ICP Metals Analysis, Grd H2O P
25238	2	25599	28971		LCS		ICP Metals Analysis, Grd H2O P
25238	4	25599	28971		MS	W050000473	ICP Metals Analysis, Grd H2O P
25238	5	25599	28971		MSD	W050000473	ICP Metals Analysis, Grd H2O P
25238	3	25599	28971		SAMPLE	W050000473	ICP Metals Analysis, Grd H2O P
25238	0	25599	28971		SPK-RPD	W050000473	ICP Metals Analysis, Grd H2O P
			29004		BLANK		WTPH-D TPH Diesel Range (Wa)
			29004		LCS		WTPH-D TPH Diesel Range (Wa)
			29004		SAMPLE	W050000473	WTPH-D TPH Diesel Range (Wa)
			29004		SURR	W050000473	WTPH-D TPH Diesel Range (Wa)
			29004		MS	W050000556	WTPH-D TPH Diesel Range (Wa)
			29004		MSD	W050000556	WTPH-D TPH Diesel Range (Wa)
			29004		SPK-RPD	W050000556	WTPH-D TPH Diesel Range (Wa)
			29019		BLANK		SW-846 8270B Semi-Vols
			29019		LCS		SW-846 8270B Semi-Vols
			29019		SAMPLE	W050000473	SW-846 8270B Semi-Vols
			29019		SURR	W050000473	SW-846 8270B Semi-Vols
			29019		MS	W050000556	SW-846 8270B Semi-Vols
			29019		MSD	W050000556	SW-846 8270B Semi-Vols
			29019		SPK-RPD	W050000556	SW-846 8270B Semi-Vols
			29023		BLANK		PCBs complete list
			29023		LCS		PCBs complete list
			29023		SAMPLE	W050000473	PCBs complete list
			29023		SURR	W050000473	PCBs complete list
			29023		MS	W050000556	PCBs complete list
			29023		MSD	W050000556	PCBs complete list
			29023		SPK-RPD	W050000556	PCBs complete list
25251	1	25616	29025		BLANK		Plutonium Isotopics by AEA
25251	2	25616	29025		LCS		Plutonium Isotopics by AEA
25251	3	25616	29025		DUP	W050000473	Plutonium Isotopics by AEA
25251	4	25616	29025		SAMPLE	W050000473	Plutonium Isotopics by AEA

25286	1	25656	29026	BLANK		NWTPH-GX TPH Gasoline Range
25286	2	25656	29026	LCS		NWTPH-GX TPH Gasoline Range
25286	4	25656	29026	DUP	W050000340	NWTPH-GX TPH Gasoline Range
25286	5	25656	29026	MS	W050000340	NWTPH-GX TPH Gasoline Range
25286	6	25656	29026	MSD	W050000340	NWTPH-GX TPH Gasoline Range
25286	6	25656	29026	SPK-RPD	W050000340	NWTPH-GX TPH Gasoline Range
25286	9	25656	29026	SAMPLE	W050000473	NWTPH-GX TPH Gasoline Range
25252	1	25617	29029	BLANK		Americium by AEA
25252	2	25617	29029	LCS		Americium by AEA
25252	3	25617	29029	DUP	W050000473	Americium by AEA
25252	4	25617	29029	SAMPLE	W050000473	Americium by AEA
25250	1	25615	29046	BLANK		Uranium Isotopics by AEA
25250	2	25615	29046	LCS		Uranium Isotopics by AEA
25250	3	25615	29046	DUP	W050000473	Uranium Isotopics by AEA
25250	4	25615	29046	SAMPLE	W050000473	Uranium Isotopics by AEA
25300	2	25668	29051	BLANK		Ammonia (N) by IC
25300	11	25668	29051	BLANK		Ammonia (N) by IC
25300	3	25668	29051	LCS		Ammonia (N) by IC
25300	5	25668	29051	DUP	W050000473	Ammonia (N) by IC
25300	6	25668	29051	MS	W050000473	Ammonia (N) by IC
25300	7	25668	29051	MSD	W050000473	Ammonia (N) by IC
25300	4	25668	29051	SAMPLE	W050000473	Ammonia (N) by IC
25306	2	25673	29060	BLANK		Anions by Ion Chromatography
25306	12	25673	29060	BLANK		Anions by Ion Chromatography
25306	3	25673	29060	LCS		Anions by Ion Chromatography
25306	5	25673	29060	DUP	W050000473	Anions by Ion Chromatography
25306	6	25673	29060	MS	W050000473	Anions by Ion Chromatography
25306	7	25673	29060	MSD	W050000473	Anions by Ion Chromatography
25306	4	25673	29060	SAMPLE	W050000473	Anions by Ion Chromatography
			29093	BLANK		VOA Ground Water Protection
			29093	LCS		VOA Ground Water Protection
			29093	MS	W050000473	VOA Ground Water Protection
			29093	MSD	W050000473	VOA Ground Water Protection
			29093	SAMPLE	W050000473	VOA Ground Water Protection
			29093	SPK-RPD	W050000473	VOA Ground Water Protection
			29093	SURR	W050000473	VOA Ground Water Protection
25341	1	25708	29095	BLANK		Alcohols, Glycols - 8015
25341	2	25708	29095	LCS		Alcohols, Glycols - 8015
25341	4	25708	29095	DUP	W050000473	Alcohols, Glycols - 8015
25341	5	25708	29095	MS	W050000473	Alcohols, Glycols - 8015
25341	6	25708	29095	MSD	W050000473	Alcohols, Glycols - 8015
25341	3	25708	29095	SAMPLE	W050000473	Alcohols, Glycols - 8015
25341	6	25708	29095	SPK-RPD	W050000473	Alcohols, Glycols - 8015
25079	1	25435	29104	BLANK		ICP-2008 MS All possible metal
25079	2	25435	29104	LCS		ICP-2008 MS All possible metal
25079	4	25435	29104	MS	W050000473	ICP-2008 MS All possible metal
25079	5	25435	29104	MSD	W050000473	ICP-2008 MS All possible metal
25079	3	25435	29104	SAMPLE	W050000473	ICP-2008 MS All possible metal
25079	5	25435	29104	SPK-RPD	W050000473	ICP-2008 MS All possible metal

M8141-SLF-05-154

ATTACHMENT 3

SAMPLE RECEIPT INFORMATION

**Consisting of 4 pages
Including cover page**

Waste Sampling and Characterization Facility
P.O. BOX 1970 S3-30, Richland, WA 99352
PHONE: (509) 373-7004/FAX: (509) 373-7134

3/14/05

ACKNOWLEDGMENT OF SAMPLES RECEIVED

File KB

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 119143/ES20
Group#: 20050329
Project#: F03-025
Proj Mgr: Steve Trent A0-21
Phone: 373-5869

The following samples were received from you on 02/08/05. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W050000473	B19402	TRENT @2008 @AEA-33 @TPHD-WA PH-30	Solid, or handle as if solid @8015GPP @AEA-30 @AEA-31 @AEA-32 @GEA-GPP @GPP6010 @IC-30 @PCBGPP @SVOC @TPHG-WA @VOA-GPP CN-02 NH4-IC PERSO	02/08/05

Test Acronym Description

Test Acronym	Description
@2008	ICP-2008 MS All possible metal
@8015GPP	Alcohols, Glycols - 8015
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@AEA-33	Neptunium by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@GPP6010	ICP Metals Analysis, Grd H2O P
@IC-30	Anions by Ion Chromatography
@PCBGPP	PCBs complete list
@SVOCGPP	SW-846 8270B Semi-Vols
@TPHD-WA	WTPH-D TPH Diesel Range (Wa)
@TPHG-WA	NWTPH-GX TPH Gasoline Range
@VOA-GPP	VOA Ground Water Protection
CN-02	Cyanide by Midi/Spectrophotom
NH4-IC	Ammonia (N) by IC
PERSOLID	Percent Solids
PH-30	pH Soil and Waste Measurement

FLUOR Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FO3-025-126	PAGE 2	OF 2	
COLLECTOR	Poppe/Prister/Tyra/Wiberg	COMPANY CONTACT	TRENT, STEVE	TELEPHONE NO.	373-5689	PROJECT COORDINATOR	TRENT, SJ
SAMPLING LOCATION	216-2-07; 12.5R-15R	PROJECT DESIGNATION	200-LW-1/LW-2 Characterization - Soil	SAF NO.	FO3-025	PRICE CODE	8N
ICE CHEST NO.	ERC-96-034	FIELD LOGBOOK NO.	HNF-N-356 1	COA	119143ES10	AIR QUALITY	<input type="checkbox"/>
SHIPPED TO	Waste Sampling & Characterization	OFFSITE PROPERTY NO.	NA	METHOD OF SHIPMENT	Government Vehicle	TURNAROUND	45 Days
				BILL OF LADING/AIR BILL NO.			

SPECIAL INSTRUCTIONS

The lab is to analyze pH within 24 hours of sample receipt. The lab is to report kerosene range organics from the WPH-D analysis. FH acknowledges that the analytical holding time for Nitrate, Nitrite and Phosphate by EPA Method 300.0 will not be met.

- (1)VOA - 8260A (TC); VOA - 8260A (Add-On) (1-Butanol)
 - (2)Semi-VOA - 8270A (TC); (Phenol) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Diesel Range - WPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) TPH-Gasoline Range - WPH-G;
 - (3)Alcohols, Glycols, & Ketones - 8015 (Ethylene glycol)
 - (4)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Gamma Spec - Add-on (Antimony-125, Cesium-131) Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Americium-241;
 - (5)ICP/MS - 300.8 (Pb); (Antimony, Barium, Cadmium, Chromium, Copper, Nickel, Silver) ICP/MS - 200.8 (Add-on) (Arsenic, Beryllium, Lead, Mercury, Selenium, Uranium) ICP Metals - 6010A (Add-on) (Bismuth) (Boytom)
 - (6)IC Anions - 300.0 (Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate) Cations (IC) - 300.7 (Nitrogen in ammonium) Cyanide (Total) - 335.2; pH (Soil) - 9045;
- EXPERITE GET - 24 Hrs. turnaround.*