Rev. 1
D. Ayers
8/9/05

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FLUOR

Memorandum

M8141-SLF-05-195

To: S. J. Trent A0-21 Date: April 26, 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: CORRECTED NARRATIVES FOR SAMPLE DELIVERY GROUPS (SDGs) 20050506, 20050508 AND 20050520, 200-LW-1/LW-2 CHARACTERIZATION – SAF NUMBER F03-025

Reference: (1) Memos, SL Fitzgerald to SJ Trent, transmitting Sample Delivery Groups WSCF20050506, WSCF20050508 and WSCF20050520 dated April 7, 2005 (M8141-SLF-05-169, 170 and 171)

Narratives transmitted to you on April 7 (Reference 1) contained an erroneous comment about the pH. As a result, we are asking you to replace the original pages with the corrected attachments. If you have any questions, don't hesitate to call Pauline Mix (telephone 372-1458) for assistance. Sorry for the inconvenience.

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Attachments 3

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M8141-SLF-05-169

ATTACHMENT 1

NARRATIVE

Consisting of 9 pages
Including cover page

Sample Delivery Group	**WSCF20050506**
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, 96' – 99.5', sample (B19409) was received at the WSCF Laboratory on March 3, 2005. The sample was analyzed for the analytes indicated on the three attached copy of the chains 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 chain of custody and sample receipt 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 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA (Americium, Neptunium, Plutonium and Uranium) and GEA) were run by internal 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 14 for QC details. Analytical Note:

- Duplicate, Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19402 (SDG# 20050329, SAF# F03-025).

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 15 through 16 for QC details. Analytical Notes:

- Preparation Date: 07-mar-2005.
- Duplicate, Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19402 (SDG# 20050329, SAF# F03-025).

- Nitrate - Sample 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 17 for QC details. Analytical Notes:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CDB6 (SDG# 20050445, SAF# F02-008).

- The Matrix Spike and Matrix Spike Duplicate QC recoveries were below established laboratory limits. The sample result was less than the detection limit and U-flagged.

All other QC controls are within the established limits.

ICP-AES Metals (Bismuth 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 18 for QC details. Analytical Notes:

- Preparation Date: 08-mar-2005.

- Boron: Although not included in the Data Summary Report (not requested per chain of custody), the sample result was less than the minimum detection limit (MDL = 2.2 ppm).

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 19 through 21 for QC details. Analytical Notes:

- Preparation Date: 07-mar-2005.

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19408 (SDG# 200500508, SAF# F03-025).

- Silver - Matrix spike and Matrix Spike Duplicate recoveries were biased low; sample result was E-flagged.

- Antimony – The Laboratory Control Sample recovery exceeded established laboratory limits, but was within manufacturer's specifications.

- Barium, Mercury and Uranium - The analytes detected in the associated preparation Blank samples were evaluated and there was no significant effect on the sample results.

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. All laboratory QC controls are within the established limits. See page 22 for QC details.

Organic Comments

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

Alcohol/Glycols - The hold time for this analysis were 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 26 for QC details. Analytical Note:

Preparation Date: 07-mar-2005.

All QC 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 27 through 28 for QC details. Analytical Notes:

Preparation Date: 07-mar-2005.

- Duplicate, Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19410 (SDG# 200500520, 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 29 through 32 for QC details. Analytical Notes:

Preparation Date: 07-mar-2005.

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19410 (SDG# 200500520, SAF# F03-025).

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 33 for QC details. Analytical Notes:

Preparation Date: 07-mar-2005.

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- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19410 (SDG# 200500520, 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 34 for QC details. Analytical Notes:

- Preparation Date: 07-mar-2005.

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19408 (SDG# 200500508, SAF# F03-025).

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 35 through 37 for QC details. Analytical Note:

All QC controls are within the established limits.

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 39 through 43 for QC details. Analytical Notes:

- Eu-155 (GEA) - Duplicate Relative Percent Difference was above established limits. The RPD criterion does not apply to low level sample activity.

- 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)
Neptunium-237			
LCS DUPLICATE		Np-237	40.8

Radiochemical Matrix Spike Recovery			
Sample Number	Lab Sample ID	Isotope	Matrix Spike Recovery (Percent)
B19409	W050000833	Np-237	84.0
DUPLICATE	W050000833	Np-237	88.9

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

Additional Batch QC Data (Results)				
			QC	
Sample Number	Lab Sample ID	Isotope	Results (pCi/gram)	RPD %
Uranium-234/ Uranium-235				
BLANK		U-234	3.443E-02	
BLANK		U-235	4.176E-03	
B19409	W050000833	U-234	1.542E-01	
DUPLICATE	W050000833	U-234	1.786E-01	14.7
B19409	W050000833	U-235	2.131E-02	
DUPLICATE	W050000833	U-235	9.848E-03	73.6
Plutonium-238				
BLANK		Pu-238	2.508E-02	
B19409	W050000833	Pu-238	4.319E-01	
DUPLICATE	W050000833	Pu-238	4.150E-01	4.0

- 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)
Plutonium-242			
BLANK		Pu-242	75.1
LCS		Pu-242	81.9
B19409	W050000833	Pu-242	52.5
DUPLICATE	W050000833	Pu-242	86.5
Americium-243			
BLANK		Am-243	68.5
LCS		Am-243	82.2
B19409	W050000833	Am-243	93.1
DUPLICATE	W050000833	Am-243	80.2
Uranium-232			
BLANK		U-232	93.1
LCS		U-232	78.2
B19409	W050000833	U-232	79.2
DUPLICATE	W050000833	U-232	92.9

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
WSCF Client Services

Abbreviations

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

M8141-SLF-05-169

ATTACHMENT 2

ANALYTICAL RESULTS

Consisting of 41 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: AD PRICE 4-7-05

Client Services: P. D. Mix 4/7/2005

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#: WSCF20050506
Report Date: 5-apr-2005
Report WGPP/ver. 1.1
Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

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

Group #: WSCF20050506

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Inorganic														
W050000833	B19409	TRENT	57-12-5	Cyanide	SOIL	LA-695-402	U	< 0.200	mg/kg	1.00	0.20	03/07/05	03/03/05	03/03/05
W050000833	B19409	TRENT	NH4-N	Nitrogen in ammonium	SOIL	LA-503-401	U	< 0.200	mg/kg	50.00	0.20	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	TS	Total solids	SOIL	LA-519-412		96.1	%	1.00	0.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	PH	pH Measurement	SOIL	LA-212-411		8.68	pH	1.00	0.010	03/07/05	03/03/05	03/03/05
W050000833	B19409	TRENT	16984-48-8	Fluoride	SOIL	LA-533-410	U	< 1.15	mg/kg	50.00	1.2	03/07/05	03/03/05	03/03/05
W050000833	B19409	TRENT	16887-00-6	Chloride	SOIL	LA-533-410	U	< 2.60	mg/kg	50.00	2.6	03/07/05	03/03/05	03/03/05
W050000833	B19409	TRENT	NO2-N	Nitrogen in Nitrite	SOIL	LA-533-410	U	< 0.950	mg/kg	50.00	0.95	03/07/05	03/03/05	03/03/05
W050000833	B19409	TRENT	NO3-N	Nitrogen in Nitrate	SOIL	LA-533-410	B	2.05	mg/kg	50.00	0.65	03/07/05	03/03/05	03/03/05
W050000833	B19409	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00	2.7	03/07/05	03/03/05	03/03/05
W050000833	B19409	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	U	< 5.00	mg/kg	50.00	5.0	03/07/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-69-9	Bismuth	SOIL	LA-505-411	U	< 2.18	mg/kg	99.31	2.2	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-02-0	Nickel	SOIL	LA-505-412		9.35	mg/kg	10.00	5.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-22-4	Silver	SOIL	LA-505-412	E	4.70	mg/kg	10.00	2.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-36-0	Antimony	SOIL	LA-505-412	U	< 5.00	mg/kg	10.00	5.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-39-3	Barium	SOIL	LA-505-412		80.5	mg/kg	10.00	2.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-41-7	Beryllium	SOIL	LA-505-412	U	< 3.00	mg/kg	10.00	3.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	U	< 1.00	mg/kg	10.00	1.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-47-3	Chromium	SOIL	LA-505-412		11.0	mg/kg	10.00	3.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-50-8	Copper	SOIL	LA-505-412		14.9	mg/kg	10.00	5.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7439-92-1	Lead	SOIL	LA-505-412	U	< 12.0	mg/kg	10.00	12	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7439-97-6	Mercury	SOIL	LA-505-412		1.23	mg/kg	10.00	1.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-61-1	Uranium	SOIL	LA-505-412	U	< 1.00	mg/kg	10.00	1.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7440-38-2	Arsenic	SOIL	LA-505-412	U	< 3.00	mg/kg	10.00	3.0	03/08/05	03/03/05	03/03/05
W050000833	B19409	TRENT	7782-49-2	Selenium	SOIL	LA-505-412	U	< 3.00	mg/kg	10.00	3.0	03/08/05	03/03/05	03/03/05

MDL=Minimum Detection Limit
RQ=Result Qualifier

B - The analyte < the RDL but >= the IDL/MDL (inorganic)
U - Analyzed for but not detected above limiting criteria.
E - Analyte is an estimate, has potentially larger errors

DF=Dilution Factor

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

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
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	87.379	% 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

SDG Number: WSCF20050506
Matrix: SOLID
Test: Anions by Ion Chromatography

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

Lab ID: W050000473

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Chloride	16887-00-6	<2.60e0	n/a	RPD	03/07/05	0.000	20.000	U
DUP	Fluoride	16984-48-8	2.11e+00	n/a	RPD	03/07/05	0.000	20.000	
DUP	Nitrogen in Nitrite	NO2-N	<9.50e-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	14808-79-8	<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	16984-48-8	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	94.900	% Recov	03/07/05	75.000	125.000	
MS	Phosphate (P) by IC	PO4-P	7.63e-01	78.741	% Recov	03/07/05	75.000	125.000	
MS	Sulfate	14808-79-8	1.97e+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	16984-48-8	4.43e-01	89.676	% 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	14808-79-8	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	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	03/07/05	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-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
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: WSCF20050506
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	16887-00-6	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: WSCF20050506
Matrix: SOLID
Test: Cyanide by Midi/Spectrophotom

SAF Number: F03-025
Sample Date: 02/24/05
Receive Date:02/24/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit		RQ
Lab ID: W050000710										
BATCH QC ASSOCIATED WITH SAMPLE										
MS	Cyanide by Midi/Spectrophotom	57-12-5	41.7	41.700	% Recov	03/07/05	75.000	125.000	*	
MSD	Cyanide by Midi/Spectrophotom	57-12-5	73.0	73.000	% Recov	03/07/05	75.000	125.000	*	
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	73.000	54.577	RPD	03/07/05	0.000	20.000	*	
BATCH QC										
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	<4	n/a	ug/L	03/07/05	-4.000	4.000		U
BLNK-PREP	Cyanide by Midi/Spectrophotom	57-12-5	<0.2	n/a	ug/L	03/07/05	-4.000	4.000		U
LCS	Cyanide by Midi/Spectrophotom	57-12-5	96.1	96.100	% Recov	03/07/05	85.000	115.000		

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000833									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Bismuth	7440-69-9	172	86.432	% Recov	03/08/05	75.000	125.000	
MSD	Bismuth	7440-69-9	172	88.660	% Recov	03/08/05	75.000	125.000	
SPK-RPD	Bismuth	7440-69-9	88.660	2.545	RPD	03/08/05	0.000	20.000	
BATCH QC									
BLANK	Bismuth	7440-69-9	<2.2e-2	n/a	ug/L	03/08/05			U
LCS	Bismuth	7440-69-9	189	94.975	% Recov	03/08/05	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: ICP-2008 MS All possible metal

SAF Number: F03-025
Sample Date: 02/22/05
Receive Date:03/03/05

Lab ID: W050000835
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Silver	7440-22-4	304.7	76.175	% Recov	03/08/05	70.000	130.000	
MS	Arsenic	7440-38-2	402.1	100.525	% Recov	03/08/05	70.000	130.000	
MS	Barium	7440-39-3	383.45	95.862	% Recov	03/08/05	70.000	130.000	
MS	Beryllium	7440-41-7	390.3	97.575	% Recov	03/08/05	70.000	130.000	
MS	Cadmium	7440-43-9	402.9	100.725	% Recov	03/08/05	70.000	130.000	
MS	Chromium	7440-47-3	391.3	97.825	% Recov	03/08/05	70.000	130.000	
MS	Copper	7440-50-8	379.4	94.850	% Recov	03/08/05	70.000	130.000	
MS	Mercury	7439-97-6	21.94	109.700	% Recov	03/08/05	70.000	130.000	
MS	Nickel	7440-02-0	377.02	94.255	% Recov	03/08/05	70.000	130.000	
MS	Lead	7439-92-1	389.4	97.350	% Recov	03/08/05	70.000	130.000	
MS	Antimony	7440-36-0	430.6	107.650	% Recov	03/08/05	70.000	130.000	
MS	Selenium	7782-49-2	426	106.500	% Recov	03/08/05	70.000	130.000	
MS	Uranium	7440-61-1	407.3	101.825	% Recov	03/08/05	70.000	130.000	
MSD	Silver	7440-22-4	267.1	66.775	% Recov	03/08/05	70.000	130.000	
MSD	Arsenic	7440-38-2	385.1	96.275	% Recov	03/08/05	70.000	130.000	
MSD	Barium	7440-39-3	356.15	89.037	% Recov	03/08/05	70.000	130.000	
MSD	Beryllium	7440-41-7	372.6	93.150	% Recov	03/08/05	70.000	130.000	
MSD	Cadmium	7440-43-9	389.8	97.450	% Recov	03/08/05	70.000	130.000	
MSD	Chromium	7440-47-3	380.7	95.175	% Recov	03/08/05	70.000	130.000	
MSD	Copper	7440-50-8	374.9	93.725	% Recov	03/08/05	70.000	130.000	
MSD	Mercury	7439-97-6	21.21	106.050	% Recov	03/08/05	70.000	130.000	
MSD	Nickel	7440-02-0	358.62	89.655	% Recov	03/08/05	70.000	130.000	
MSD	Lead	7439-92-1	371.2	92.800	% Recov	03/08/05	70.000	130.000	
MSD	Antimony	7440-36-0	416.5	104.125	% Recov	03/08/05	70.000	130.000	
MSD	Selenium	7782-49-2	407.2	101.800	% Recov	03/08/05	70.000	130.000	
MSD	Uranium	7440-61-1	383.2	95.800	% Recov	03/08/05	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: ICP-2008 MS All possible metal

SAF Number: F03-025
Sample Date: 02/22/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Silver	7440-22-4	66.775	13.151	RPD	03/08/05	0.000	20.000	
SPK-RPD	Arsenic	7440-38-2	96.275	4.319	RPD	03/08/05	0.000	20.000	
SPK-RPD	Barium	7440-39-3	89.037	7.382	RPD	03/08/05	0.000	20.000	
SPK-RPD	Beryllium	7440-41-7	93.150	4.640	RPD	03/08/05	0.000	20.000	
SPK-RPD	Cadmium	7440-43-9	97.450	3.305	RPD	03/08/05	0.000	20.000	
SPK-RPD	Chromium	7440-47-3	95.175	2.746	RPD	03/08/05	0.000	20.000	
SPK-RPD	Copper	7440-50-8	93.725	1.193	RPD	03/08/05	0.000	20.000	
SPK-RPD	Mercury	7439-97-6	106.050	3.384	RPD	03/08/05	0.000	20.000	
SPK-RPD	Nickel	7440-02-0	89.655	5.002	RPD	03/08/05	0.000	20.000	
SPK-RPD	Lead	7439-92-1	92.800	4.786	RPD	03/08/05	0.000	20.000	
SPK-RPD	Antimony	7440-36-0	104.125	3.329	RPD	03/08/05	0.000	20.000	
SPK-RPD	Selenium	7782-49-2	101.800	4.513	RPD	03/08/05	0.000	20.000	
SPK-RPD	Uranium	7440-61-1	95.800	6.097	RPD	03/08/05	0.000	20.000	
BATCH QC									
BLANK	Silver	7440-22-4	0.2	0.200	ug/L	03/08/05			
BLANK	Arsenic	7440-38-2	<0.3	n/a	ug/L	03/08/05			U
BLANK	Barium	7440-39-3	0.31	0.310	ug/L	03/08/05			
BLANK	Beryllium	7440-41-7	<0.3	n/a	ug/L	03/08/05			U
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L	03/08/05			U
BLANK	Chromium	7440-47-3	<0.3	n/a	ug/L	03/08/05			U
BLANK	Copper	7440-50-8	<0.5	n/a	ug/L	03/08/05			U
BLANK	Mercury	7439-97-6	0.12	0.120	ug/L	03/08/05			
BLANK	Nickel	7440-02-0	<0.5	n/a	ug/L	03/08/05			U
BLANK	Lead	7439-92-1	<1.2	n/a	ug/L	03/08/05			U
BLANK	Antimony	7440-36-0	<0.5	n/a	ug/L	03/08/05			U
BLANK	Selenium	7782-49-2	<0.3	n/a	ug/L	03/08/05			U
BLANK	Uranium	7440-61-1	0.11	0.110	ug/L	03/08/05			
LCS	Silver	7440-22-4	148.9	114.538	% Recov	03/08/05	110.000	170.000	
LCS	Arsenic	7440-38-2	179	111.180	% Recov	03/08/05	82.000	142.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: ICP-2008 MS All possible metal

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	Barium	7440-39-3	269.5	106.944	% Recov	03/08/05	79.000	123.000	
LCS	Beryllium	7440-41-7	104.4	110.593	% Recov	03/08/05	82.000	128.000	
LCS	Cadmium	7440-43-9	145.8	113.906	% Recov	03/08/05	88.000	127.000	
LCS	Chromium	7440-47-3	71.79	103.295	% Recov	03/08/05	50.000	126.000	
LCS	Copper	7440-50-8	160.3	108.311	% Recov	03/08/05	61.000	134.000	
LCS	Mercury	7439-97-6	17.98	106.272	% Recov	03/08/05	75.000	114.000	
LCS	Nickel	7440-02-0	155.9	106.054	% Recov	03/08/05	84.000	125.000	
LCS	Lead	7439-92-1	156.8	110.423	% Recov	03/08/05	87.000	120.000	
LCS	Antimony	7440-36-0	131.1	215.271	% Recov	03/08/05	61.000	135.000	*
LCS	Selenium	7782-49-2	78.26	121.900	% Recov	03/08/05	83.000	145.000	
LCS	Uranium	7440-61-1	377.9	94.475	% Recov	03/08/05	89.000	107.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: pH Soil and Waste Measurement

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000833									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	pH Soil and Waste Measurement	PH	8.664	0.800	RPD	03/07/05	0.000	3.000	

WSCF
ANALYTICAL RESULTS REPORT

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

Group #: WSCF20050506

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Organic														
W050000833	B19409	TRENT	107-21-1	Ethylene glycol	SOIL	Organics	U	< 5.00e+03	ug/kg	1.00	5.0e+03	03/07/05	03/03/05	03/03/05
W050000833	B19409	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	03/07/05	03/03/05	03/03/05
W050000833	B19409	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 89.0	ug/kg	1.00	89	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 71.0	ug/kg	1.00	71	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 94.0	ug/kg	1.00	94	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 56.0	ug/kg	1.00	56	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 81.0	ug/kg	1.00	81	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 48.0	ug/kg	1.00	48	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 77.0	ug/kg	1.00	77	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 71.0	ug/kg	1.00	71	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 75.0	ug/kg	1.00	75	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 79.0	ug/kg	1.00	79	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	95-48-7	2-Methylphenol (cresol, o-)	SOIL	LA-523-456	U	< 84.0	ug/kg	1.00	84	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	65794-96-9	3 & 4 Methylphenol Total	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 73.0	ug/kg	1.00	73	03/14/05	03/03/05	03/03/05
W050000833	B19409	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05

MDL=Minimum Detection Limit
RQ=Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)
U - Analyzed for but not detected above limiting criteria.
E - Analyte is an estimate, has potentially larger errors

DF=Dilution Factor

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

WSCF
ANALYTICAL RESULTS REPORT

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

Group #: WSCF20050506

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050000833	B19409	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)
U - Analyzed for but not detected above limiting criteria.
E - Analyte is an estimate, has potentially larger errors

DF = Dilution Factor

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

WSCF
ANALYTICAL RESULTS REPORT

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

Group #: WSCF20050506

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050000833	B19409	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 42.0	ug/kg	1.00	42	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	104-51-8	n-Butylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	03/15/05	03/03/05	03/03/05
W050000833	B19409	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	03/16/05	03/03/05	03/03/05
W050000833	B19409	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	03/16/05	03/03/05	03/03/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (Inorganic)
U - Analyzed for but not detected above limiting criteria.
E - Analyte is an estimate, has potentially larger errors

DF = Dilution Factor

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

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: Alcohols, Glycols - 8015

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000833									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	2-Bromoethanol	540-51-2	12200	20.588	rpd	03/07/05	0.000	25.000	
DUP	Ethylene glycol	107-21-1	<5000	n/a	RPD	03/07/05	0.000	25.000	U
MS	2-Bromoethanol	540-51-2	12000	80.000	% Recov	03/07/05	70.000	125.000	
MS	Ethylene glycol	107-21-1	12000	80.000	% Recov	03/07/05	75.000	125.000	
MSD	2-Bromoethanol	540-51-2	12000	80.000	% Recov	03/07/05	70.000	125.000	
MSD	Ethylene glycol	107-21-1	12000	80.000	% Recov	03/07/05	75.000	125.000	
SPK-RPD	2-Bromoethanol	540-51-2	80.000	0.000	RPD	03/07/05	0.000	20.000	
SPK-RPD	Ethylene glycol	107-21-1	80.000	0.000	RPD	03/07/05	0.000	20.000	
BATCH QC									
BLANK	2-Bromoethanol	540-51-2	13400	1.072	ug/Kg	03/07/05	0.000	10.000	
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/Kg	03/07/05	0.000	5.000	U
LCS	2-Bromoethanol	540-51-2	14000	112.000	% Recov	03/07/05	70.000	130.000	
LCS	Ethylene glycol	107-21-1	12600	100.800	% Recov	03/07/05	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: PCBs complete list

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000833									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1077.6	104.000	% Recov	03/15/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	1029.3	99.600	% Recov	03/15/05	50.000	150.000	
Lab ID: W050000860									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Aroclor-1260	11096-82-5	1080.7	102.000	% Recov	03/15/05	75.000	125.000	
MS	Decachlorobiphenyl	2051-24-3	1153.9	109.000	% Recov	03/15/05	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	1074.1	102.000	% Recov	03/15/05	50.000	150.000	
MSD	Aroclor-1260	11096-82-5	1061.4	100.000	% Recov	03/15/05	75.000	125.000	
MSD	Decachlorobiphenyl	2051-24-3	1151.1	109.000	% Recov	03/15/05	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	1058.0	100.000	% Recov	03/15/05	50.000	150.000	
SPK-RPD	Aroclor-1260	11096-82-5	100.000	1.980	RPD	03/15/05	0.000	25.000	
SPK-RPD	Decachlorobiphenyl	2051-24-3	109.000	0.000	RPD	03/15/05	0.000	20.000	
SPK-RPD	Tetrachloro-m-xylene	877-09-8	100.000	1.980	RPD	03/15/05	0.000	20.000	
BATCH QC									
BLANK	Aroclor-1016	12674-11-2	< 54	n/a	UGKG	03/15/05			U
BLANK	Aroclor-1221	11104-28-2	< 110	n/a	ug/Kg	03/15/05			U
BLANK	Aroclor-1232	11141-16-5	< 54	n/a	ug/Kg	03/15/05			U
BLANK	Aroclor-1242	53469-21-9	< 54	n/a	ug/Kg	03/15/05			U
BLANK	Aroclor-1248	12672-29-6	< 54	n/a	ug/Kg	03/15/05			U
BLANK	Aroclor-1254	11097-69-1	< 54	n/a	ug/Kg	03/15/05			U
BLANK	Aroclor-1260	11096-82-5	< 54	n/a	ug/Kg	03/15/05			U
BLANK	Aroclor-1262	37324-23-5	< 54	n/a	ug/Kg	03/15/05			U
BLANK	Aroclor-1268	11100-14-4	< 54	n/a	ug/Kg	03/15/05			U
BLANK	Decachlorobiphenyl	2051-24-3	1067.2	98.700	% Recov	03/15/05	50.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: PCBs complete list

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	Tetrachloro-m-xylene	877-09-8	1075.8	99.500	% Recov	03/15/05	50.000	150.000	
LCS	Aroclor-1260	11096-82-5	983.69	98.400	% Recov	03/15/05	70.000	130.000	
LCS	Decachlorobiphenyl	2051-24-3	1046.1	105.000	% Recov	03/15/05	50.000	150.000	
LCS	Tetrachloro-m-xylene	877-09-8	984.11	98.400	% Recov	03/15/05	50.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000833									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	2-Fluorophenol	367-12-4	1087.1	78.800	% Recov	03/14/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	949.66	68.900	% Recov	03/14/05	56.000	122.000	
SURR	Nitrobenzene-d5	4165-60-0	961.28	69.700	% Recov	03/14/05	64.000	111.000	
SURR	Phenol-d5	4165-62-2	988.72	71.700	% Recov	03/14/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	908.86	65.900	% Recov	03/14/05	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	908.28	65.900	% Recov	03/14/05	35.000	150.000	
Lab ID: W050000860									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,2,4-Trichlorobenzene	120-82-1	1089.9	75.800	% Recov	03/14/05	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	1060.6	73.800	% Recov	03/14/05	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	944.11	65.700	% Recov	03/14/05	59.000	106.000	
MS	2-Fluorophenol	367-12-4	1192.5	82.900	% Recov	03/14/05	42.000	105.000	
MS	Acenaphthene	83-32-9	1051.6	73.100	% Recov	03/14/05	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	1658.4	76.900	% Recov	03/14/05	61.000	106.000	
MS	2-Chlorophenol	95-57-8	1613.8	74.800	% Recov	03/14/05	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	1095.9	76.200	% Recov	03/14/05	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	1008.8	70.200	% Recov	03/14/05	56.000	122.000	
MS	Phenol	108-95-2	1714.1	79.500	% Recov	03/14/05	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	1004.1	69.800	% Recov	03/14/05	64.000	111.000	
MS	4-Nitrophenol	100-02-7	1522.6	70.600	% Recov	03/14/05	32.000	118.000	
MS	Pentachlorophenol	87-86-5	1492.7	69.200	% Recov	03/14/05	62.000	114.000	
MS	Phenol-d5	4165-62-2	1094.8	76.100	% Recov	03/14/05	54.000	120.000	
MS	Pyrene	129-00-0	1004.7	69.900	% Recov	03/14/05	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	1022.1	71.100	% Recov	03/14/05	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	1000.9	69.600	% Recov	03/14/05	35.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 03/04/05
Receive Date:03/04/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	1,2,4-Trichlorobenzene	120-82-1	1120.5	78.200	% Recov	03/14/05	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	1083.6	75.600	% Recov	03/14/05	30.000	98.000	
MSD	2,4-Dinitrotoluene	121-14-2	964.16	67.300	% Recov	03/14/05	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	1204.6	84.100	% Recov	03/14/05	42.000	105.000	
MSD	Acenaphthene	83-32-9	1083.2	75.600	% Recov	03/14/05	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	1720.0	80.000	% Recov	03/14/05	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	1663.7	77.400	% Recov	03/14/05	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	1133.4	79.100	% Recov	03/14/05	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	1021.2	71.300	% Recov	03/14/05	56.000	122.000	
MSD	Phenol	108-95-2	1748.4	81.300	% Recov	03/14/05	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	1027.6	71.700	% Recov	03/14/05	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	1571.2	73.100	% Recov	03/14/05	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	1524.1	70.900	% Recov	03/14/05	62.000	114.000	
MSD	Phenol-d5	4165-62-2	1094.1	76.300	% Recov	03/14/05	54.000	120.000	
MSD	Pyrene	129-00-0	1052.2	73.400	% Recov	03/14/05	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	1025.4	71.600	% Recov	03/14/05	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	1029.3	71.800	% Recov	03/14/05	35.000	150.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	78.200	3.117	RPD	03/14/05	0.000	20.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	75.600	2.410	RPD	03/14/05	0.000	20.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	67.300	2.406	RPD	03/14/05	0.000	20.000	
SPK-RPD	2-Fluorophenol	367-12-4	84.100	1.437	RPD	03/14/05	0.000	20.000	
SPK-RPD	Acenaphthene	83-32-9	75.600	3.362	RPD	03/14/05	0.000	20.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	80.000	3.952	RPD	03/14/05	0.000	20.000	
SPK-RPD	2-Chlorophenol	95-57-8	77.400	3.417	RPD	03/14/05	0.000	20.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	79.100	3.735	RPD	03/14/05	0.000	20.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	71.300	1.555	RPD	03/14/05	0.000	20.000	
SPK-RPD	Phenol	108-95-2	81.300	2.239	RPD	03/14/05	0.000	20.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	71.700	2.686	RPD	03/14/05	0.000	20.000	
SPK-RPD	4-Nitrophenol	100-02-7	73.100	3.479	RPD	03/14/05	0.000	20.000	
SPK-RPD	Pentachlorophenol	87-86-5	70.900	2.427	RPD	03/14/05	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
Sample Date: 03/04/05
Receive Date:03/04/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Phenol-d5	4165-62-2	76.300	0.262	RPD	03/14/05	0.000	20.000	
SPK-RPD	Pyrene	129-00-0	73.400	4.885	RPD	03/14/05	0.000	20.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	71.600	0.701	RPD	03/14/05	0.000	20.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	71.800	3.112	RPD	03/14/05	0.000	20.000	
BATCH QC									
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 91	n/a	ug/Kg	03/14/05			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 130	n/a	ug/Kg	03/14/05			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 54	n/a	ug/Kg	03/14/05			U
BLANK	2-Fluorophenol	367-12-4	1036.5	77.700	% Recov	03/14/05	42.000	105.000	
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 81	n/a	ug/Kg	03/14/05			U
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 100	n/a	ug/Kg	03/14/05			U
BLANK	Acenaphthene	83-32-9	< 69	n/a	ug/Kg	03/14/05			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 47	n/a	ug/Kg	03/14/05			U
BLANK	2-Chlorophenol	95-57-8	< 76	n/a	ug/Kg	03/14/05			U
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 75	n/a	ug/Kg	03/14/05			U
BLANK	2-Fluorobiphenyl	321-60-8	944.84	70.900	% Recov	03/14/05	56.000	122.000	
BLANK	Phenol	108-95-2	< 69	n/a	ug/Kg	03/14/05			U
BLANK	Nitrobenzene-d5	4165-60-0	966.78	72.500	% Recov	03/14/05	64.000	111.000	
BLANK	4-Nitrophenol	100-02-7	< 86	n/a	ug/Kg	03/14/05			U
BLANK	Pentachlorophenol	87-86-5	< 73	n/a	ug/Kg	03/14/05			U
BLANK	Phenol-d5	4165-62-2	989.79	74.200	% Recov	03/14/05	54.000	120.000	
BLANK	Pyrene	129-00-0	< 78	n/a	ug/Kg	03/14/05			U
BLANK	Tributyl phosphate	126-73-8	< 71	n/a	ug/Kg	03/14/05			U
BLANK	2,4,6-Tribromophenol	118-79-6	827.64	62.100	% Recov	03/14/05	24.000	122.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	904.05	67.800	% Recov	03/14/05	35.000	150.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	999.98	75.000	% Recov	03/14/05	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	981.35	73.600	% Recov	03/14/05	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	908.93	68.200	% Recov	03/14/05	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	1110.0	83.300	% Recov	03/14/05	50.000	110.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
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	Acenaphthene	83-32-9	964.09	72.300	% Recov	03/14/05	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	1466.0	73.300	% Recov	03/14/05	61.000	106.000	
LCS	2-Chlorophenol	95-57-8	1465.3	73.300	% Recov	03/14/05	66.000	106.000	
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	1006.4	75.500	% Recov	03/14/05	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	953.67	71.500	% Recov	03/14/05	58.000	109.000	
LCS	Phenol	108-95-2	1542.9	77.100	% Recov	03/14/05	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	952.83	71.500	% Recov	03/14/05	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	1230.7	61.500	% Recov	03/14/05	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	1319.0	66.000	% Recov	03/14/05	62.000	114.000	
LCS	Phenol-d5	4165-62-2	1005.5	75.400	% Recov	03/14/05	59.000	116.000	
LCS	Pyrene	129-00-0	930.24	69.800	% Recov	03/14/05	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	890.95	66.800	% Recov	03/14/05	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9	929.02	69.700	% Recov	03/14/05	60.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000833									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl Surr	84-15-1	25309	97.600	% Recov	03/16/05	70.000	130.000	
Lab ID: W050000860									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	ortho-Terphenyl Surr	84-15-1	26944	100.000	% Recov	03/16/05	70.000	130.000	
MS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	139800	104.000	% Recov	03/16/05	75.000	125.000	
MSD	ortho-Terphenyl Surr	84-15-1	27090	101.000	% Recov	03/16/05	70.000	130.000	
MSD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	142280	106.000	% Recov	03/16/05	75.000	125.000	
SPK-RPD	ortho-Terphenyl Surr	84-15-1	101.000	0.995	RPD	03/16/05	0.000	20.000	
SPK-RPD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	106.000	1.905	RPD	03/16/05	0.000	20.000	
BATCH QC									
BLANK	Kerosene	TPHKEROSENE	< 3800	n/a	ug/Kg	03/16/05			U
BLANK	ortho-Terphenyl Surr	84-15-1	24120	96.500	% Recov	03/16/05	70.000	130.000	
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3800	n/a	ug/Kg	03/16/05			U
LCS	Kerosene	TPHKEROSENE	114580	91.700	% Recov	03/16/05	70.000	130.000	
LCS	ortho-Terphenyl Surr	84-15-1	24960	99.800	% Recov	03/16/05	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: NWTPH-GX TPH Gasoline Range

SAF Number: F03-025
Sample Date: 02/22/05
Receive Date:03/03/05

Lab ID: W050000835

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	RPD	03/07/05	0.000	20.000	U
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	4000	111.111	% Recov	03/07/05	50.000	150.000	
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3600	100.000	% Recov	03/07/05	50.000	150.000	
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	100.000	10.526	RPD	03/07/05	0.000	20.000	

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	mg/L	03/07/05	0.000	300.000	U
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3800	110.145	% Recov	03/07/05	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: VOA Ground Water Protection

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

Lab ID: W050000833
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	1,1-Dichloroethene	75-35-4	23.480	93.900	% Recov	03/15/05	63.000	117.000	
MS	Benzene	71-43-2	24.400	97.600	% Recov	03/15/05	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	49.480	99.000	% Recov	03/15/05	84.000	116.000	
MS	Chlorobenzene	108-90-7	24.400	97.600	% Recov	03/15/05	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	55.280	111.000	% Recov	03/15/05	82.000	136.000	
MS	Toluene-d8	2037-26-5	52.310	105.000	% Recov	03/15/05	89.000	119.000	
MS	Toluene	108-88-3	25.880	104.000	% Recov	03/15/05	76.000	120.000	
MS	Trichloroethene	79-01-6	23.460	93.800	% Recov	03/15/05	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	23.190	92.800	% Recov	03/16/05	63.000	117.000	
MSD	Benzene	71-43-2	25.520	102.000	% Recov	03/16/05	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	48.940	97.800	% Recov	03/16/05	84.000	116.000	
MSD	Chlorobenzene	108-90-7	25.560	102.000	% Recov	03/16/05	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	53.970	108.000	% Recov	03/16/05	82.000	136.000	
MSD	Toluene-d8	2037-26-5	52.410	105.000	% Recov	03/16/05	89.000	119.000	
MSD	Toluene	108-88-3	26.480	106.000	% Recov	03/16/05	76.000	120.000	
MSD	Trichloroethene	79-01-6	24.610	98.400	% Recov	03/16/05	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	92.800	1.178	RPD	03/16/05	0.000	25.000	
SPK-RPD	Benzene	71-43-2	102.000	4.409	RPD	03/16/05	0.000	25.000	
SPK-RPD	4-Bromofluorobenzene	460-00-4	97.900	1.117	RPD	03/16/05	0.000	25.000	
SPK-RPD	Chlorobenzene	108-90-7	102.000	4.409	RPD	03/16/05	0.000	25.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	108.000	2.740	RPD	03/16/05	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	105.000	0.000	RPD	03/16/05	0.000	25.000	
SPK-RPD	Toluene	108-88-3	106.000	1.905	RPD	03/16/05	0.000	25.000	
SPK-RPD	Trichloroethene	79-01-6	98.400	4.787	RPD	03/16/05	0.000	25.000	
SURR	4-Bromofluorobenzene	460-00-4	50.900	102.000	% Recov	03/15/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	54.280	109.000	% Recov	03/15/05	80.000	134.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: VOA Ground Water Protection

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	Toluene-d8	2037-26-5	52.680	105.000	% Recov	03/15/05	80.000	126.000	
BATCH QC									
BLANK	1,1-Dichloroethane	75-34-3	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	1,1-Dichloroethene	75-35-4	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	1,2-Dichloroethane	107-06-2	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	1,2-Dichloroethane(Total)	540-59-0	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	1-Butanol	71-36-3	< 40	n/a	ug/Kg	03/15/05			U
BLANK	2-Hexanone	591-78-6	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Acetone	67-64-1	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Bromodichloromethane	75-27-4	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Benzene	71-43-2	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	4-Bromofluorobenzene	460-00-4	50.670	101.000	% Recov	03/15/05	71.000	125.000	
BLANK	Bromoform	75-25-2	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	n-Butylbenzene	104-51-8	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Carbon disulfide	75-15-0	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Carbon tetrachloride	56-23-5	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Dibromochloromethane	124-48-1	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Chloroform	67-66-3	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Chlorobenzene	108-90-7	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Chloroethane	75-00-3	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	1,2-Dichloroethane-d4	17060-07-0	51.830	104.000	% Recov	03/15/05	80.000	134.000	
BLANK	1,2-Dichloropropane	78-87-5	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Ethylbenzene	100-41-4	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Bromomethane	74-83-9	< 2.0	n/a	ug/Kg	03/15/05			U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: VOA Ground Water Protection

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	Chloromethane	74-87-3	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	2-Butanone	78-93-3	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Methylenechloride	75-09-2	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Tetrachloroethene	127-18-4	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Styrene	100-42-5	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Xylenes (total)	1330-20-7	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Toluene-d8	2037-26-5	52.480	105.000	% Recov	03/15/05	80.000	126.000	
BLANK	Toluene	108-88-3	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Trichloroethene	79-01-6	< 2.0	n/a	ug/Kg	03/15/05			U
BLANK	Vinyl chloride	75-01-4	< 2.0	n/a	ug/Kg	03/15/05			U
LCS	1,1-Dichloroethene	75-35-4	23.580	94.300	% Recov	03/16/05	70.000	130.000	
LCS	Benzene	71-43-2	26.260	105.000	% Recov	03/16/05	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	52.830	106.000	% Recov	03/16/05	71.000	125.000	
LCS	Chlorobenzene	108-90-7	26.260	105.000	% Recov	03/16/05	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	53.890	108.000	% Recov	03/16/05	80.000	134.000	
LCS	Toluene-d8	2037-26-5	52.540	105.000	% Recov	03/16/05	80.000	126.000	
LCS	Toluene	108-88-3	28.600	114.000	% Recov	03/16/05	70.000	130.000	
LCS	Trichloroethene	79-01-6	25.150	101.000	% Recov	03/16/05	70.000	130.000	

WSCF
ANALYTICAL RESULTS REPORT

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

Group #: WSCF20050506

Sample #	Client ID		CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Radiochemistry														
W050000833	B19409	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471		2.50	pCi/g	1.00	0.036	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.65	pCi/g	1.00	0.0	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481		0.107	pCi/g	1.00	0.011	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.020	pCi/g	1.00	0.0	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481	U	3.76e-03	pCi/g	1.00	0.011	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 6.9e-03	pCi/g	1.00	0.0	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U	7.05e-05	pCi/g	1.00	0.031	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 7.0e-04	pCi/g	1.00	0.0	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481		0.0425	pCi/g	1.00	0.036	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.026	pCi/g	1.00	0.0	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	14391-16-3	Europium-155	SOIL	LA-508-481		0.0551	pCi/g	1.00	0.044	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.035	pCi/g	1.00	0.0	03/04/05	03/03/05	03/03/05
W050000833	B19409	TRENT	13994-20-2	Neptunium-237	SOIL	LA-508-471	U	3.60e-03	pCi/g	1.00	0.011	03/18/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	Np-237 by AEA Total Ctng Error	SOIL	LA-508-471		+- 3.6e-03	pCi/g	1.00	0.0	03/18/05	03/03/05	03/03/05
W050000833	B19409	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471		0.430	pCi/g	1.00	0.075	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.13	pCi/g	1.00	0.0	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471		7.90	pCi/g	1.00	7.3e-03	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471		+- 2.1	pCi/g	1.00	0.0	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471		0.150	pCi/g	1.00	5.3e-03	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471		+- 0.051	pCi/g	1.00	0.0	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471		0.0210	pCi/g	1.00	5.8e-03	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.014	pCi/g	1.00	0.0	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.180	pCi/g	1.00	5.3e-03	03/17/05	03/03/05	03/03/05
W050000833	B19409	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.059	pCi/g	1.00	0.10	03/17/05	03/03/05	03/03/05

MDL=Minimum Detection Limit
RQ=Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)
U - Analyzed for but not detected above limiting criteria.
E - Analyte is an estimate, has potentially larger errors

DF=Dilution Factor

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

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: Gamma Energy Analysis-grd H2O

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

Lab ID: W050000833

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
DUP	Cobalt-60	10198-40-0	1.11e-01	3.670	RPD	03/04/05	0.000	20.000	
DUP	Cesium-137	10045-97-3	U-4.7e-3	n/a	RPD	03/04/05	0.000	20.000	
DUP	Europium-152	14683-23-9	U-1.2e-2	n/a	RPD	03/04/05	0.000	20.000	
DUP	Europium-154	15585-10-1	4.35e-02	2.326	RPD	03/04/05	0.000	20.000	
DUP	Europium-155	14391-16-3	7.91e-02	35.768	RPD	03/04/05	0.000	20.000	*

BATCH QC

BLANK	Cobalt-60	10198-40-0	U-2.0e-3	n/a	pCi/g	03/07/05	-10.000	1000.000	
BLANK	Cesium-137	10045-97-3	U-6.7e-4	n/a	pCi/g	03/07/05	-10.000	1000.000	
BLANK	Europium-152	14683-23-9	U-4.0e-3	n/a	pCi/g	03/07/05	-10.000	1000.000	
BLANK	Europium-154	15585-10-1	U-4.8e-3	n/a	pCi/g	03/07/05	-10.000	1000.000	
BLANK	Europium-155	14391-16-3	U-3.1e-3	n/a	pCi/g	03/07/05	-10.000	1000.000	
LCS	Cobalt-60	10198-40-0	4.21e+03	100.477	% Recov	03/04/05	80.000	120.000	
LCS	Cesium-137	10045-97-3	3.90e+03	108.939	% Recov	03/04/05	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: Americium by AEA

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000833									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Americium-241	14596-10-2	2.7e+00	7.892	RPD	03/17/05	0.000	20.000	
BATCH QC									
BLANK	Americium-241	14596-10-2	U4.5e-03	n/a	pCi/g	03/17/05	-10.000	1000.000	
LCS	Americium-241	14596-10-2	4.5e+01	93.555	% Recov	03/18/05	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: Neptunium by AEA

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000833									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Neptunium-237	13994-20-2	U9.3E-04	n/a	RPD	03/18/05	0.000	25.000	
BATCH QC									
BLANK	Neptunium-237	13994-20-2	4.1e-03	0.004	pCi/g	03/18/05	-10.000	1000.000	
LCS	Neptunium-237	13994-20-2	40.8	40.800	% Recov	03/18/05	75.000	125.000	*

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: Plutonium Isotopics by AEA

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000833									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Pu-239/240 by AEA	PU-239/240	8.2e+00	3.727	RPD	03/17/05	0.000	20.000	
BATCH QC									
BLANK	Pu-239/240 by AEA	PU-239/240	U1.2e-02	n/a	pCi/g	03/17/05	-10.000	1000.000	
LCS	Pu-239/240 by AEA	PU-239/240	4.7e+01	95.528	% Recov	03/17/05	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050506
Matrix: SOLID
Test: Uranium Isotopics by AEA

SAF Number: F03-025
Sample Date: 03/03/05
Receive Date:03/03/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000833									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Uranium-238	U-238	1.8e-01	0.000	RPD	03/17/05	0.000	20.000	
BATCH QC									
BLANK	Uranium-238	24678-82-8	1.9e-02	0.019	pCi/g	03/17/05	-10.000	1000.000	
LCS	Uranium-238	24678-82-8	8.8e+01	116.064	% Recov	03/17/05	75.000	125.000	

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F03-025

Group #: WSCF20050506

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		Eu155 from the GEA report has a flag on the duplicate but the Eu155 activity is low level so the RPD does not apply. lmh ICP-MS: All preparation blank results are in ug/L (ppb) and sample results are in ug/g (ppm). Sb LCS recovery is within mfg. specifications. Low Ag MSD and MS (low, but acceptable); "E" flag Cyanide: Batch QC on other sample showed DUP RPD does not meet acceptance criteria and matrix spikes biased low Organics: Sample concentrations have been corrected for moisture and are reported on a dry weight basis. gar Np237 lcs recovery is low so the sample result is an estimated value. lmh

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

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WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

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

Group #: WSCF20050506

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				13	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error				14	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				14	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	AM-241 Count Error				14	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				17	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error				17	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error				17	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error				18	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	RA-228 Count Error				18	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error				24	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error				24	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	U-235 Count Error				28	%
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	U-235				0.066	pCi/g
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	SN-126				0.16	pCi/g
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	TL-208				0.18	pCi/g
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	BI-212				0.40	pCi/g
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.41	pCi/g
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	RA-226				0.41	pCi/g
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	PB-214				0.47	pCi/g
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	PB-212				0.60	pCi/g
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	AC-228				0.60	pCi/g
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	RA-228				0.60	pCi/g
W050000833	B19409	TRENT	Gamma Energy Analysis-grd H2O	K-40				17	pCi/g
W050000833	B19409	TRENT	SW-846 8270B Semi-Vols	SMP 16.526 Di-n-butylphthalate	84-74-2	16.52618		2.1e+03	ug/kg

RQ=Result Qualifier

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WSCF
METHOD REFERENCES REPORT

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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	RESIDUE, TOTAL
	Standard Methods 2540B	Total Solids Dried at 103-105 C
LA-523-427	LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY	
	EPA SW-846 3510C	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION
	EPA SW-846 3545	PRESSURIZED FLUID EXTRACTION (PFE)

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. This document includes on-line links to full-text versions of the procedures and methods, where available.

WSCF
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	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	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 MIDIDISTILLATION AND SPECTROPHOTOMETRIC	
	EPA-600/4-79-020 335.2	Cyanide, Total
NWTPH	NWTPH-Diesel and/or Gasoline	
	WDOE NWTPH-Dx/Gx	Total Petroleum Hydrocarbons - Diesel/Gasoline
Organics	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. This document includes on-line links to full-text versions of the procedures and methods, where available.

WSCF
METHOD REFERENCES REPORT

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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 \\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf. This document includes on-line links to full-text versions of the procedures and methods, where available.

w13qlog v1 05-apr-2005 06:34:22

W13q Worklist/Batch/QC Report for Group# WSCF20050506

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W050000833	Percent Solids
			29035	DUP	W050000833	pH Soil and Waste Measurement
			29035	SAMPLE	W050000833	pH Soil and Waste Measurement
25260	1	25626	29037	BLANK		Gamma Energy Analysis-grd H2O
25260	2	25626	29037	LCS		Gamma Energy Analysis-grd H2O
25260	3	25626	29037	DUP	W050000833	Gamma Energy Analysis-grd H2O
25260	4	25626	29037	SAMPLE	W050000833	Gamma Energy Analysis-grd H2O
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	9	25668	29051	SAMPLE	W050000833	Ammonia (N) by IC
25288	13	25657	29052	BLANK		ICP-2008 MS All possible metal
25288	14	25657	29052	LCS		ICP-2008 MS All possible metal
25288	18	25657	29052	SAMPLE	W050000833	ICP-2008 MS All possible metal
25288	16	25657	29052	MS	W050000835	ICP-2008 MS All possible metal
25288	17	25657	29052	MSD	W050000835	ICP-2008 MS All possible metal
25288	0	25657	29052	SPK-RPD	W050000835	ICP-2008 MS All possible metal
25295	1	25664	29055	BLANK		ICP Metals Analysis, Grd H20 P
25295	2	25664	29055	LCS		ICP Metals Analysis, Grd H20 P
25295	13	25664	29055	MS	W050000833	ICP Metals Analysis, Grd H20 P
25295	14	25664	29055	MSD	W050000833	ICP Metals Analysis, Grd H20 P
25295	12	25664	29055	SAMPLE	W050000833	ICP Metals Analysis, Grd H20 P
25295	0	25664	29055	SPK-RPD	W050000833	ICP Metals Analysis, Grd H20 P
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	9	25673	29060	SAMPLE	W050000833	Anions by Ion Chromatography
			29097	BLANK		Cyanide by Midi/Spectrophotom
			29097	BLNK-PREP		Cyanide by Midi/Spectrophotom
			29097	LCS		Cyanide by Midi/Spectrophotom
			29097	MS	W050000710	Cyanide by Midi/Spectrophotom
			29097	MSD	W050000710	Cyanide by Midi/Spectrophotom
			29097	SPK-RPD	W050000710	Cyanide by Midi/Spectrophotom
			29097	SAMPLE	W050000833	Cyanide by Midi/Spectrophotom
			29121	BLANK		PCBs complete list
			29121	LCS		PCBs complete list
			29121	SAMPLE	W050000833	PCBs complete list
			29121	SURR	W050000833	PCBs complete list
			29121	MS	W050000860	PCBs complete list
			29121	MSD	W050000860	PCBs complete list

			29121	SPK-RPD	W050000860	PCBs complete list
			29125	BLANK		SW-846 8270B Semi-Vols
			29125	LCS		SW-846 8270B Semi-Vols
			29125	SAMPLE	W050000833	SW-846 8270B Semi-Vols
			29125	SURR	W050000833	SW-846 8270B Semi-Vols
			29125	MS	W050000860	SW-846 8270B Semi-Vols
			29125	MSD	W050000860	SW-846 8270B Semi-Vols
			29125	SPK-RPD	W050000860	SW-846 8270B Semi-Vols
			29145	BLANK		WTPH-D TPH Diesel Range (Wa)
			29145	LCS		WTPH-D TPH Diesel Range (Wa)
			29145	SAMPLE	W050000833	WTPH-D TPH Diesel Range (Wa)
			29145	SURR	W050000833	WTPH-D TPH Diesel Range (Wa)
			29145	MS	W050000860	WTPH-D TPH Diesel Range (Wa)
			29145	MSD	W050000860	WTPH-D TPH Diesel Range (Wa)
			29145	SPK-RPD	W050000860	WTPH-D TPH Diesel Range (Wa)
25372	1	25736	29171	BLANK		Neptunium by AEA
25372	2	25736	29171	LCS		Neptunium by AEA
25372	3	25736	29171	DUP	W050000833	Neptunium by AEA
25372	4	25736	29171	SAMPLE	W050000833	Neptunium by AEA
25386	1	25754	29179	BLANK		Uranium Isotopics by AEA
25386	2	25754	29179	LCS		Uranium Isotopics by AEA
25386	3	25754	29179	DUP	W050000833	Uranium Isotopics by AEA
25386	4	25754	29179	SAMPLE	W050000833	Uranium Isotopics by AEA
25387	1	25753	29208	BLANK		Plutonium Isotopics by AEA
25387	2	25753	29208	LCS		Plutonium Isotopics by AEA
25387	3	25753	29208	DUP	W050000833	Plutonium Isotopics by AEA
25387	4	25753	29208	SAMPLE	W050000833	Plutonium Isotopics by AEA
25388	1	25752	29209	BLANK		Americium by AEA
25388	2	25752	29209	LCS		Americium by AEA
25388	3	25752	29209	DUP	W050000833	Americium by AEA
25388	4	25752	29209	SAMPLE	W050000833	Americium by AEA
25584	1	25951	29383	BLANK		NWTPH-GX TPH Gasoline Range
25584	2	25951	29383	LCS		NWTPH-GX TPH Gasoline Range
25584	7	25951	29383	SAMPLE	W050000833	NWTPH-GX TPH Gasoline Range
25584	4	25951	29383	DUP	W050000835	NWTPH-GX TPH Gasoline Range
25584	5	25951	29383	MS	W050000835	NWTPH-GX TPH Gasoline Range
25584	6	25951	29383	MSD	W050000835	NWTPH-GX TPH Gasoline Range
25584	6	25951	29383	SPK-RPD	W050000835	NWTPH-GX TPH Gasoline Range
25587	1	25954	29384	BLANK		Alcohols, Glycols - 8015
25587	2	25954	29384	LCS		Alcohols, Glycols - 8015
25587	4	25954	29384	DUP	W050000833	Alcohols, Glycols - 8015
25587	5	25954	29384	MS	W050000833	Alcohols, Glycols - 8015
25587	6	25954	29384	MSD	W050000833	Alcohols, Glycols - 8015
25587	3	25954	29384	SAMPLE	W050000833	Alcohols, Glycols - 8015
25587	6	25954	29384	SPK-RPD	W050000833	Alcohols, Glycols - 8015
			29385	BLANK		VOA Ground Water Protection
			29385	LCS		VOA Ground Water Protection
			29385	MS	W050000833	VOA Ground Water Protection
			29385	MSD	W050000833	VOA Ground Water Protection
			29385	SAMPLE	W050000833	VOA Ground Water Protection
			29385	SPK-RPD	W050000833	VOA Ground Water Protection

29385	SURR	W050000833	VOA Ground Water Protection

M8141-SLF-05-169

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

4/4/05

File KB

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 119143/ES10
Group#: 20050506
Project#: F03-025
Proj Mgr: Steve Trent A0-21
Phone: 373-5869

The following samples were received from you on 03/03/05. 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
W050000833	B19409	TRENT	Solid, or handle as if solid	03/03/05

@2008 @8015GPP @AEA-30 @AEA-31 @AEA-32
@AEA-33 @GEA-GPP @GPP6010 @IC-30 @PCBGPP @SVOC
@TPHD-WA @TPHG-WA @VOA-GPP CN-02 NH4-IC PERSO
PH-30

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 H20 P
@IC-30	Anions by Ion Chromatography
@PCBGPP	PCBs complete list
@SVOCGPP	SW-846 8270B Semi-Vols — Add 2-methylphenol and 3+4-methylphenol PDMy 3/4
@TPHD-WA	WTPH-D TPH Diesel Range (Wa) P.D. Mix
@TPHG-WA	NWTPH-GX TPH Gasoline Range
@VOA-GPP	VOA Ground Water Protection — Add n-butylbenzene (Add on) P.D. Mix
CN-02	Cyanide by Midi/Spectrophotom PDMy 4/4/05
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	F03-025-132	PAGE 1 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Pope/Pfister/Tyra/Wiberg 4/4	TRENT, STEVE	373-5689	TRENT, SJ	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
216-Z-7; ~~95A-97.5ft~~ 96' - 99.5' OT 3/3/05	200-LW-1/LW-2 Characterization - Soil		F03-025		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**COA**	**METHOD OF SHIPMENT**		
	HNF-N-356 1	119143ES10	Governement Vehicle		
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Waste Sampling & Characterization	NA		NA		

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: N/A

20050506

SPECIAL HANDLING AND/OR STORAGE: ~~N/A~~ Radioactive TIL ID: B19449

PRESERVATION			Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None			
TYPE OF CONTAINER			Gs*	aG	aG	Gs*	P	aG	aG			
NO. OF CONTAINER(S)			3	1	1	3	1	1	1			
VOLUME			40mL	120mL	120mL	40mL	500mL	250mL	120mL			
SAMPLE ANALYSIS			SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	SEE ITEM (6) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**									
B19409	SOIL	3-3-05	0755	X	X	X	X	X	X	X		
W05000833												

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
David Tyra	3/3/05 0755	KBeals	3/3/05	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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