



M8141-SLF-05-104

ATTACHMENT 1

**NARRATIVE**

Consisting of 6 pages  
Including cover page

<b>Sample Delivery Group</b>	<b>WSCF20050186</b>
<b>Sample Matrix</b>	<b>Water</b>
<b>Sample Visual</b>	<b>N/A</b>
<b>SAF Number</b>	<b>F03-019</b>
<b>Data Deliverable</b>	<b>Summary Report</b>

**Introduction**

Three (3) 216-Z-9 Trench Characterization Borehole /C3426, 527' – 529.5' GRP samples (B19NM9, B1B9N2 and B1B9X7) were received at the WSCF Laboratory on January 26, 2005. The samples were 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 chain of custody and Sample Receipt forms are included as Attachment 3.

**Analytical Methodology for Requested Analyses**

- 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.
- Chromium, Hexavalent by EPA Method 7196. 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.
- pH by EPA Method 150.1. Analytical work was performed with no deviations to the approved method.

## **Organic**

- Semi-VOA by EPA Method 8270C. 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 (Plutonium, Americium, Uranium and Neptunium) GEA, Tritium and Technetium-99) 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 Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 13 for QC details. All QC controls are within the established limits.

**Anions** - The hold times 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 pages 14 through 15 for QC details. All QC controls are within the established limits.

**Chromium, Hexavalent** – The hold time for this analysis was not met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 16 for QC details. All QC controls are within the established limits.

**ICP-AES Metals** – 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 pages 17 through 21 for QC details. Analytical Notes:

- Preparation Date: 22-feb-2005.
- Calcium, Magnesium and Sodium - insufficient spike concentration. Sample concentration was greater than four times the spike concentration.
- Cadmium - The analyte detected in the associated preparation Blank sample was evaluated and there was no significant affect on the sample results.

All other QC controls are within the established limits.

**ICP-MS Metals (Mercury and Uranium 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 the GRP Letter of Instruction. See page 22 for QC details.  
Analytical Notes:

- Preparation Date: 31-jan-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1BJH6 (SDG# 20050155, SAF# F04-032).

All QC controls are within the established limits.

**pH** - The hold time for this analysis was met. Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See page 23 for QC details. All QC controls are within the established limits.

### Organic Comments

**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 34 through 39 for QC details. Analytical Notes:

- Preparation Date: 31-jan-2005.
- Terphenyl-d14 (surrogate) – Matrix and Matrix Spike Duplicate recoveries were below established laboratory limits. Surrogate recoveries for the samples were within limits and the samples B19NM9 and B1B9N2 results were not flagged.

All other 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 40 through 42 for QC details. Analytical Notes:

- Trichloroethene– samples B19NM9 and B1B9N2 results were J flagged; results were less than the lowest calibration standard but greater than the detection limit.
- Carbon Tetrachloride - sample B19NM9 result was J flagged; result was less than the lowest calibration standard but greater than the detection limit.

All other QC controls are within the established limits.

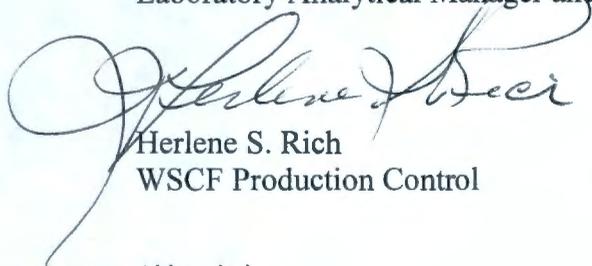
### Radiochemistry Comments

**RadChem** – There are no hold times associated with these WDOE accredited methods. A Laboratory Control Sample, Matrix Spike (Technetium-99 and Tritium only) and Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 46 through 52 for QC details. Analytical Notes:

- Americium-241 - The Duplicate Relative Percent Difference exceeded established laboratory limits. The RPD criterion is not applicable to low level samples.
- Neptunium-237 – Duplicate Relative Percent Difference exceeded established laboratory limit and the Laboratory Control Sample recovery was below established laboratory limits. Samples B1BNM9 and B1B9N2 results were below the detection limit and not flagged, but should be considered suspect.
- Neptunium-237 - Duplicate QC samples was analyzed on sample# B1BJH6 (SDG# 20050155, SAF# F04-032).
- Tritium – Matrix Spike and Duplicate QC samples were analyzed on sample# B1BJH6 (SDG# 20050155, SAF# F04-032).

<b>Radiochemical Tracer Percent Recovery</b>			
<b>Sample Number</b>	<b>Lab Sample ID</b>	<b>Isotope</b>	<b>Tracer Recovery (Percent)</b>
BLANK		Am-243	88.6
LCS		Am-243	80.5
B19NM9	W050000176	Am-243	88.9
DUPLICATE	W050000176	Am-243	80.5
B1B9N2	W050000178	Am-243	84.8
BLANK		Pu-2422	88.2
LCS		Pu-242	100.4
B19NM9	W050000176	Pu-242	82.2
DUPLICATE	W050000176	Pu-242	97.0
B1B9N2	W050000178	Pu-242	79.4
BLANK		U-232	78.9
LCS		U-232	72.9
B19NM9	W050000176	U-232	101.8
DUPLICATE	W050000176	U-232	104.1
B1B9N2	W050000178	U-232	100.0

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.



Herlene S. Rich  
WSCF Production Control

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

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ATTACHMENT 2

**ANALYTICAL RESULTS**

Consisting of 53 pages  
Including cover page

**WSCF  
ANALYTICAL RESULTS REPORT**

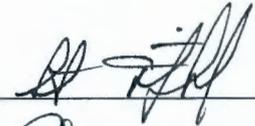
for

**Groundwater Remediation Program**

**Richland, WA 99354**

**Attention: Steve Trent**

Analytical:

 S. Fitzgerald

Client Services:

 P.D.M. 2/28/2005

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

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

Report#: WSCF20050186

Report Date: 24-feb-2005

Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF ANALYTICAL RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive		
<b>Inorganic</b>															
W050000176	B19NM9	GRP	TRENT	18540-29-9	Hexavalent Chromium	WATER	LA-265-403	U	< 3.00e-03	mg/L	1.00	3.0e-03	01/27/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	NH4-N	Nitrogen in ammonium	WATER	LA-503-401		1.45	mg/L	2.00	6.0e-03	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	PH	pH Measurement	WATER	LA-212-402		8.34	pH	1.00	0.010	01/27/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	16984-48-8	Fluoride	WATER	LA-533-410		0.386	mg/L	1.00	0.018	01/27/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	16887-00-6	Chloride	WATER	LA-533-410		9.01	mg/L	10.00	0.34	01/27/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	NO2-N	Nitrogen in Nitrite	WATER	LA-533-410		0.318	mg/L	1.00	6.0e-03	01/27/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	NO3-N	Nitrogen in Nitrate	WATER	LA-533-410		8.49	mg/L	10.00	0.22	01/27/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	PO4-P	Phosphate (P) by IC	WATER	LA-533-410	U	< 0.0780	mg/L	1.00	0.078	01/27/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	14808-79-8	Sulfate	WATER	LA-533-410		17.3	mg/L	10.00	1.5	01/27/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7429-90-5	Aluminum	WATER	LA-505-411	U	< 27.0	ug/L	1.00	27	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7439-89-6	Iron	WATER	LA-505-411		230	ug/L	1.00	21	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7439-95-4	Magnesium	WATER	LA-505-411		1.31e+04	ug/L	1.00	19	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7439-96-5	Manganese	WATER	LA-505-411		121	ug/L	1.00	0.80	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-02-0	Nickel	WATER	LA-505-411		1.50	ug/L	1.00	1.4	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-09-7	Potassium	WATER	LA-505-411		6.51e+03	ug/L	1.00	1.1e+02	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-22-4	Silver	WATER	LA-505-411	U	< 1.80	ug/L	1.00	1.8	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-23-5	Sodium	WATER	LA-505-411		2.11e+04	ug/L	1.00	2.0e+02	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-36-0	Antimony	WATER	LA-505-411	U	< 25.0	ug/L	1.00	25	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-39-3	Barium	WATER	LA-505-411		69.6	ug/L	1.00	0.50	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-43-9	Cadmium	WATER	LA-505-411		0.800	ug/L	1.00	0.60	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-47-3	Chromium	WATER	LA-505-411	U	< 3.20	ug/L	1.00	3.2	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-48-4	Cobalt	WATER	LA-505-411	U	< 1.20	ug/L	1.00	1.2	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-50-8	Copper	WATER	LA-505-411	U	< 3.30	ug/L	1.00	3.3	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-62-2	Vanadium	WATER	LA-505-411	U	< 2.90	ug/L	1.00	2.9	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-66-6	Zinc	WATER	LA-505-411	U	< 3.00	ug/L	1.00	3.0	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7440-70-2	Calcium	WATER	LA-505-411		3.07e+04	ug/L	1.00	16	02/22/05	01/26/05	01/26/05

**MDL = Minimum Detection Limit**

**RQ = Result Qualifier**

J - Analyte is an estimate, has potentially larger errors

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 RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050000176	B19NM9	GRP TRENT 7439-92-1	Lead	WATER	LA-505-411	U	< 21.0	ug/L	1.00	21	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT 7439-93-2	Lithium	WATER	LA-505-411		13.7	ug/L	1.00	1.0	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT 7440-24-6	Strontium	WATER	LA-505-411		181	ug/L	1.00	1.3	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT 7440-38-2	Arsenic	WATER	LA-505-411	U	< 22.0	ug/L	1.00	22	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT 7440-41-7	Beryllium	WATER	LA-505-411	U	< 0.500	ug/L	1.00	0.50	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT 7440-69-9	Bismuth	WATER	LA-505-411	U	< 22.0	ug/L	1.00	22	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT 7723-14-0	Phosphorus	WATER	LA-505-411		58.2	ug/L	1.00	48	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT 7782-49-2	Selenium	WATER	LA-505-411		24.2	ug/L	1.00	18	02/22/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT 7439-97-6	Mercury	WATER	LA-505-412	U	< 0.100	ug/L	1.00	0.10	02/01/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT 7440-61-1	Uranium	WATER	LA-505-412		0.116	ug/L	1.00	0.10	02/01/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 18540-29-9	Hexavalent Chromium	WATER	LA-265-403	U	< 3.00e-03	mg/L	1.00	3.0e-03	01/27/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT NH4-N	Nitrogen in ammonium	WATER	LA-503-401		0.755	mg/L	1.00	3.0e-03	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT PH	pH Measurement	WATER	LA-212-402		8.38	pH	1.00	0.010	01/27/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 16984-48-8	Fluoride	WATER	LA-533-410		0.530	mg/L	1.00	0.018	01/27/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 16887-00-6	Chloride	WATER	LA-533-410		9.55	mg/L	10.00	0.34	01/27/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT NO2-N	Nitrogen in Nitrite	WATER	LA-533-410		0.384	mg/L	1.00	6.0e-03	01/27/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT NO3-N	Nitrogen in Nitrate	WATER	LA-533-410		8.52	mg/L	10.00	0.22	01/27/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT PO4-P	Phosphate (P) by IC	WATER	LA-533-410	U	< 0.0780	mg/L	1.00	0.078	01/27/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 14808-79-8	Sulfate	WATER	LA-533-410		17.3	mg/L	10.00	1.5	01/27/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 7429-90-5	Aluminum	WATER	LA-505-411	U	< 27.0	ug/L	1.00	27	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 7439-89-6	Iron	WATER	LA-505-411		227	ug/L	1.00	21	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 7439-95-4	Magnesium	WATER	LA-505-411		1.30e+04	ug/L	1.00	19	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 7439-96-5	Manganese	WATER	LA-505-411		121	ug/L	1.00	0.80	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 7440-02-0	Nickel	WATER	LA-505-411	U	< 1.40	ug/L	1.00	1.4	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 7440-09-7	Potassium	WATER	LA-505-411		6.48e+03	ug/L	1.00	1.1e+02	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 7440-22-4	Silver	WATER	LA-505-411		28.0	ug/L	1.00	1.8	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT 7440-23-5	Sodium	WATER	LA-505-411		2.07e+04	ug/L	1.00	2.0e+02	02/22/05	01/26/05	01/26/05

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**RQ=Result Qualifier**

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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 RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050000178	B1B9N2	7440-36-0	Antimony	WATER	LA-505-411	U	< 25.0	ug/L	1.00	25	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-39-3	Barium	WATER	LA-505-411		69.1	ug/L	1.00	0.50	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-43-9	Cadmium	WATER	LA-505-411		0.600	ug/L	1.00	0.60	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-47-3	Chromium	WATER	LA-505-411	U	< 3.20	ug/L	1.00	3.2	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-48-4	Cobalt	WATER	LA-505-411	U	< 1.20	ug/L	1.00	1.2	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-50-8	Copper	WATER	LA-505-411	U	< 3.30	ug/L	1.00	3.3	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-62-2	Vanadium	WATER	LA-505-411	U	< 2.90	ug/L	1.00	2.9	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-66-6	Zinc	WATER	LA-505-411	U	< 3.00	ug/L	1.00	3.0	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-70-2	Calcium	WATER	LA-505-411		3.04e +04	ug/L	1.00	16	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7439-92-1	Lead	WATER	LA-505-411		23.7	ug/L	1.00	21	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7439-93-2	Lithium	WATER	LA-505-411		12.7	ug/L	1.00	1.0	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-24-6	Strontium	WATER	LA-505-411		180	ug/L	1.00	1.3	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-38-2	Arsenic	WATER	LA-505-411	U	< 22.0	ug/L	1.00	22	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-41-7	Beryllium	WATER	LA-505-411	U	< 0.500	ug/L	1.00	0.50	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-69-9	Bismuth	WATER	LA-505-411	U	< 22.0	ug/L	1.00	22	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7723-14-0	Phosphorus	WATER	LA-505-411		92.4	ug/L	1.00	48	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7782-49-2	Selenium	WATER	LA-505-411		21.0	ug/L	1.00	18	02/22/05	01/26/05	01/26/05
W050000178	B1B9N2	7439-97-6	Mercury	WATER	LA-505-412	U	< 0.100	ug/L	1.00	0.10	02/01/05	01/26/05	01/26/05
W050000178	B1B9N2	7440-61-1	Uranium	WATER	LA-505-412	U	< 0.100	ug/L	1.00	0.10	02/01/05	01/26/05	01/26/05

**MDL=Minimum Detection Limit**  
**RQ=Result Qualifier**

J - Analyte is an estimate, has potentially larger errors

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: WSCF20050186  
 Matrix: WATER  
 Test: Ammonia (N) by IC

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050000176  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Ammonia (N) by IC	7664-41-7	1.36e+00	6.406	RPD	01/31/05	0.000	20.000	
MS	Ammonia (N) by IC	7664-41-7	1.64e-01	100.000	% Recov	01/31/05	75.000	125.000	
MSD	Ammonia (N) by IC	7664-41-7	1.37e-01	83.537	% Recov	01/31/05	75.000	125.000	

**BATCH QC**

BLANK	Ammonia (N) by IC	7664-41-7	<3.00e-3	n/a	mg/L	01/31/05	0.000	30.000	U
BLANK	Ammonia (N) by IC	7664-41-7	<3.00e-3	n/a	mg/L	01/31/05	0.000	30.000	U
LCS	Ammonia (N) by IC	7664-41-7	8.88e+01	107.767	% Recov	01/31/05	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: Anions by Ion Chromatography

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050000176  
 BATCH QC ASSOCIATED WITH SAMPLE

DUP	Chloride	16887-00-6	9.15e+00	1.542	RPD	01/27/05	0.000	20.000	
DUP	Fluoride	16984-48-8	4.27e-01	10.086	RPD	01/27/05	0.000	20.000	
DUP	Nitrogen in Nitrite	NO2-N	3.25e-01	2.177	RPD	01/27/05	0.000	20.000	
DUP	Nitrogen in Nitrate	NO3-N	8.54e+00	0.587	RPD	01/27/05	0.000	20.000	
DUP	Phosphate (P) by IC	PO4-P	<7.80e-2	n/a	RPD	01/27/05	0.000	20.000	U
DUP	Sulfate	14808-79-8	1.78e+01	2.849	RPD	01/27/05	0.000	20.000	
MS	Chloride	16887-00-6	9.87e-01	99.697	% Recov	01/27/05	75.000	125.000	
MS	Fluoride	16984-48-8	5.49e-01	112.270	% Recov	01/27/05	75.000	125.000	
MS	Nitrogen in Nitrite	NO2-N	5.05e-01	100.198	% Recov	01/27/05	75.000	125.000	
MS	Nitrogen in Nitrate	NO3-N	4.61e-01	103.363	% Recov	01/27/05	75.000	125.000	
MS	Phosphate (P) by IC	PO4-P	8.03e-01	83.733	% Recov	01/27/05	75.000	125.000	
MS	Sulfate	14808-79-8	1.95e+00	98.985	% Recov	01/27/05	75.000	125.000	
MSD	Chloride	16887-00-6	9.68e-01	97.778	% Recov	01/27/05	75.000	125.000	
MSD	Fluoride	16984-48-8	5.55e-01	113.497	% Recov	01/27/05	75.000	125.000	
MSD	Nitrogen in Nitrite	NO2-N	5.11e-01	101.389	% Recov	01/27/05	75.000	125.000	
MSD	Nitrogen in Nitrate	NO3-N	4.28e-01	95.964	% Recov	01/27/05	75.000	125.000	
MSD	Phosphate (P) by IC	PO4-P	8.61e-01	89.781	% Recov	01/27/05	75.000	125.000	
MSD	Sulfate	14808-79-8	1.94e+00	98.477	% Recov	01/27/05	75.000	125.000	

BATCH QC

BLANK	Chloride	16887-00-6	<3.40e-2	n/a	mg/L	01/27/05	0.000	300.000	U
BLANK	Chloride	16887-00-6	<3.40e-2	n/a	mg/L	01/27/05	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<1.80e-2	n/a	mg/L	01/27/05	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<1.80e-2	n/a	mg/L	01/27/05	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<6.00e-3	n/a	mg/L	01/27/05	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<6.00e-3	n/a	mg/L	01/27/05	0.000	300.000	U

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: Anions by Ion Chromatography

SAF Number: F03-019  
 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	<2.20e-2	n/a	mg/L	01/27/05	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<2.20e-2	n/a	mg/L	01/27/05	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<7.80e-2	n/a	mg/L	01/27/05	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<7.80e-2	n/a	mg/L	01/27/05	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.50e-1	n/a	mg/L	01/27/05	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.50e-1	n/a	mg/L	01/27/05	0.000	300.000	U
LCS	Chloride	16887-00-6	1.96e+02	98.000	% Recov	01/27/05	80.000	120.000	
LCS	Fluoride	16984-48-8	9.94e+01	100.709	% Recov	01/27/05	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	9.74e+01	97.400	% Recov	01/27/05	80.000	120.000	
LCS	Nitrogen in Nitrate	NO3-N	8.76e+01	97.225	% Recov	01/27/05	80.000	120.000	
LCS	Phosphate (P) by IC	PO4-P	1.84e+02	94.943	% Recov	01/27/05	80.000	120.000	
LCS	Sulfate	14808-79-8	3.77e+02	94.486	% Recov	01/27/05	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: Hexavalent chromium

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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**Lab ID: W050000176**  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Hexavalent chromium	18540-29-9	<0.003	n/a	RPD	01/27/05	0.000	15.000	U
MS	Hexavalent chromium	18540-29-9	0.0492	99.394	% Recov	01/27/05	85.000	115.000	
MSD	Hexavalent chromium	18540-29-9	0.0492	99.394	% Recov	01/27/05	85.000	115.000	
SPK-RPD	Hexavalent chromium	18540-29-9	99.394	0.000	RPD	01/27/05	0.000	20.000	

**BATCH QC**

BLANK	Hexavalent chromium	18540-29-9	<0.003	n/a	mg/L	01/27/05	0.000	2.000	U
BLANK	Hexavalent chromium	18540-29-9	<0.003	n/a	mg/L	01/27/05	0.000	2.000	U
LCS	Hexavalent chromium	18540-29-9	0.0445	95.905	% Recov	01/27/05	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: ICP Metals Analysis, Grd H20 P

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000176									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Silver	7440-22-4	869	86.900	% Recov	02/22/05	75.000	125.000	
MS	Aluminum	7429-90-5	935.2	93.520	% Recov	02/22/05	75.000	125.000	
MS	Arsenic	7440-38-2	1052	105.200	% Recov	02/22/05	75.000	125.000	
MS	Barium	7440-39-3	1049.4	104.940	% Recov	02/22/05	75.000	125.000	
MS	Beryllium	7440-41-7	1092	109.200	% Recov	02/22/05	75.000	125.000	
MS	Bismuth	7440-69-9	893.8	89.380	% Recov	02/22/05	75.000	125.000	
MS	Calcium	7440-70-2	900	n/a	% Recov	02/22/05	75.000	125.000	
MS	Cadmium	7440-43-9	1004.2	100.420	% Recov	02/22/05	75.000	125.000	
MS	Cobalt	7440-48-4	990.3	99.030	% Recov	02/22/05	75.000	125.000	
MS	Chromium	7440-47-3	984.4	98.440	% Recov	02/22/05	75.000	125.000	
MS	Copper	7440-50-8	1042	104.200	% Recov	02/22/05	75.000	125.000	
MS	Iron	7439-89-6	999.4	99.940	% Recov	02/22/05	75.000	125.000	
MS	Potassium	7440-09-7	10680	106.800	% Recov	02/22/05	75.000	125.000	
MS	Lithium	7439-93-2	1090.3	109.030	% Recov	02/22/05	70.000	130.000	
MS	Magnesium	7439-95-4	800	n/a	% Recov	02/22/05	75.000	125.000	
MS	Manganese	7439-96-5	1022.6	102.260	% Recov	02/22/05	75.000	125.000	
MS	Sodium	7440-23-5	510	n/a	% Recov	02/22/05	75.000	125.000	
MS	Nickel	7440-02-0	979.4	97.940	% Recov	02/22/05	75.000	125.000	
MS	Phosphorus	7723-14-0	1051.8	105.180	% Recov	02/22/05	70.000	130.000	
MS	Lead	7439-92-1	1048	104.800	% Recov	02/22/05	75.000	125.000	
MS	Antimony	7440-36-0	977.8	97.780	% Recov	02/22/05	75.000	125.000	
MS	Selenium	7782-49-2	1024.8	102.480	% Recov	02/22/05	75.000	125.000	
MS	Strontium	7440-24-6	1099.8	109.980	% Recov	02/22/05	70.000	130.000	
MS	Vanadium	7440-62-2	1009	100.900	% Recov	02/22/05	75.000	125.000	
MS	Zinc	7440-66-6	1046	104.600	% Recov	02/22/05	75.000	125.000	
MSD	Silver	7440-22-4	789.2	78.920	% Recov	02/22/05	75.000	125.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: ICP Metals Analysis, Grd H2O P

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Aluminum	7429-90-5	946.8	94.680	% Recov	02/22/05	75.000	125.000	
MSD	Arsenic	7440-38-2	1079	107.900	% Recov	02/22/05	75.000	125.000	
MSD	Barium	7440-39-3	1052.4	105.240	% Recov	02/22/05	75.000	125.000	
MSD	Beryllium	7440-41-7	1094	109.400	% Recov	02/22/05	75.000	125.000	
MSD	Bismuth	7440-69-9	924.1	92.410	% Recov	02/22/05	75.000	125.000	
MSD	Calcium	7440-70-2	1040	n/a	% Recov	02/22/05	75.000	125.000	
MSD	Cadmium	7440-43-9	1006.2	100.620	% Recov	02/22/05	75.000	125.000	
MSD	Cobalt	7440-48-4	992.6	99.260	% Recov	02/22/05	75.000	125.000	
MSD	Chromium	7440-47-3	987.1	98.710	% Recov	02/22/05	75.000	125.000	
MSD	Copper	7440-50-8	1042	104.200	% Recov	02/22/05	75.000	125.000	
MSD	Iron	7439-89-6	1016.4	101.640	% Recov	02/22/05	75.000	125.000	
MSD	Potassium	7440-09-7	10760	107.600	% Recov	02/22/05	75.000	125.000	
MSD	Lithium	7439-93-2	1096.3	109.630	% Recov	02/22/05	75.000	125.000	
MSD	Magnesium	7439-95-4	910	n/a	% Recov	02/22/05	75.000	125.000	
MSD	Manganese	7439-96-5	1027.6	102.760	% Recov	02/22/05	75.000	125.000	
MSD	Sodium	7440-23-5	640	n/a	% Recov	02/22/05	75.000	125.000	
MSD	Nickel	7440-02-0	982.8	98.280	% Recov	02/22/05	75.000	125.000	
MSD	Phosphorus	7723-14-0	1068.8	106.880	% Recov	02/22/05	75.000	125.000	
MSD	Lead	7439-92-1	1007	100.700	% Recov	02/22/05	75.000	125.000	
MSD	Antimony	7440-36-0	1025	102.500	% Recov	02/22/05	75.000	125.000	
MSD	Selenium	7782-49-2	1018.8	101.880	% Recov	02/22/05	75.000	125.000	
MSD	Strontium	7440-24-6	1107.8	110.780	% Recov	02/22/05	75.000	125.000	
MSD	Vanadium	7440-62-2	1002	100.200	% Recov	02/22/05	75.000	125.000	
MSD	Zinc	7440-66-6	1050	105.000	% Recov	02/22/05	75.000	125.000	
SPK-RPD	Silver	7440-22-4	78.920	9.625	RPD	02/22/05	0.000	20.000	
SPK-RPD	Aluminum	7429-90-5	94.680	1.233	RPD	02/22/05	0.000	20.000	
SPK-RPD	Arsenic	7440-38-2	107.900	2.534	RPD	02/22/05	0.000	20.000	
SPK-RPD	Barium	7440-39-3	105.240	0.285	RPD	02/22/05	0.000	20.000	
SPK-RPD	Beryllium	7440-41-7	109.400	0.183	RPD	02/22/05	0.000	20.000	
SPK-RPD	Bismuth	7440-69-9	92.410	3.334	RPD	02/22/05	0.000	20.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: ICP Metals Analysis, Grd H2O P

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Calcium	7440-70-2		n/a	RPD	02/22/05	0.000	20.000	
SPK-RPD	Cadmium	7440-43-9	100.620	0.199	RPD	02/22/05	0.000	20.000	
SPK-RPD	Cobalt	7440-48-4	99.260	0.232	RPD	02/22/05	0.000	20.000	
SPK-RPD	Chromium	7440-47-3	98.710	0.274	RPD	02/22/05	0.000	20.000	
SPK-RPD	Copper	7440-50-8	104.200	0.000	RPD	02/22/05	0.000	20.000	
SPK-RPD	Iron	7439-89-6	101.640	1.687	RPD	02/22/05	0.000	20.000	
SPK-RPD	Potassium	7440-09-7	107.600	0.746	RPD	02/22/05	0.000	20.000	
SPK-RPD	Lithium	7439-93-2	109.630	0.549	RPD	02/22/05	0.000	20.000	
SPK-RPD	Magnesium	7439-95-4		n/a	RPD	02/22/05	0.000	20.000	
SPK-RPD	Manganese	7439-96-5	102.760	0.488	RPD	02/22/05	0.000	20.000	
SPK-RPD	Sodium	7440-23-5		n/a	RPD	02/22/05	0.000	20.000	
SPK-RPD	Nickel	7440-02-0	98.280	0.347	RPD	02/22/05	0.000	20.000	
SPK-RPD	Phosphorus	7723-14-0	106.880	1.603	RPD	02/22/05	0.000	20.000	
SPK-RPD	Lead	7439-92-1	100.700	3.990	RPD	02/22/05	0.000	20.000	
SPK-RPD	Antimony	7440-36-0	102.500	4.713	RPD	02/22/05	0.000	20.000	
SPK-RPD	Selenium	7782-49-2	101.880	0.587	RPD	02/22/05	0.000	20.000	
SPK-RPD	Strontium	7440-24-6	110.780	0.725	RPD	02/22/05	0.000	20.000	
SPK-RPD	Vanadium	7440-62-2	100.200	0.696	RPD	02/22/05	0.000	20.000	
SPK-RPD	Zinc	7440-66-6	105.000	0.382	RPD	02/22/05	0.000	20.000	

## BATCH QC

BLANK	Silver	7440-22-4	<1.8	n/a	ug/L	02/22/05			U
BLANK	Aluminum	7429-90-5	<27	n/a	ug/L	02/22/05			U
BLANK	Arsenic	7440-38-2	<22	n/a	ug/L	02/22/05			U
BLANK	Barium	7440-39-3	<0.5	n/a	ug/L	02/22/05			U
BLANK	Beryllium	7440-41-7	<0.5	n/a	ug/L	02/22/05			U
BLANK	Bismuth	7440-69-9	<22	n/a	ug/L	02/22/05			U
BLANK	Calcium	7440-70-2	<16	n/a	ug/L	02/22/05			U
BLANK	Cadmium	7440-43-9	0.7	0.700	ug/L	02/22/05			
BLANK	Cobalt	7440-48-4	<1.2	n/a	ug/L	02/22/05			U

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: ICP Metals Analysis, Grd H2O P

SAF Number: F03-019  
 Sample Date:  
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Chromium	7440-47-3	<3.2	n/a	ug/L	02/22/05			U
BLANK	Copper	7440-50-8	<3.3	n/a	ug/L	02/22/05			U
BLANK	Iron	7439-89-6	<21	n/a	ug/L	02/22/05			U
BLANK	Potassium	7440-09-7	<110	n/a	ug/L	02/22/05			U
BLANK	Lithium	7439-93-2	<1	n/a	ug/L	02/22/05			U
BLANK	Magnesium	7439-95-4	<19	n/a	ug/L	02/22/05			U
BLANK	Manganese	7439-96-5	<0.8	n/a	ug/L	02/22/05			U
BLANK	Sodium	7440-23-5	<200	n/a	ug/L	02/22/05			U
BLANK	Nickel	7440-02-0	<1.4	n/a	ug/L	02/22/05			U
BLANK	Phosphorus	7723-14-0	<48	n/a	ug/L	02/22/05			U
BLANK	Lead	7439-92-1	<21	n/a	ug/L	02/22/05			U
BLANK	Antimony	7440-36-0	<25	n/a	ug/L	02/22/05			U
BLANK	Selenium	7782-49-2	<18	n/a	ug/L	02/22/05			U
BLANK	Strontium	7440-24-6	<1.3	n/a	ug/L	02/22/05			U
BLANK	Vanadium	7440-62-2	<2.9	n/a	ug/L	02/22/05			U
BLANK	Zinc	7440-66-6	<3	n/a	ug/L	02/22/05			U
LCS	Silver	7440-22-4	1019	101.900	% Recov	02/22/05	80.000	120.000	
LCS	Aluminum	7429-90-5	1034	103.400	% Recov	02/22/05	80.000	120.000	
LCS	Arsenic	7440-38-2	1036	103.600	% Recov	02/22/05	80.000	120.000	
LCS	Barium	7440-39-3	1066	106.600	% Recov	02/22/05	80.000	120.000	
LCS	Beryllium	7440-41-7	1113	111.300	% Recov	02/22/05	80.000	120.000	
LCS	Bismuth	7440-69-9	1073	107.300	% Recov	02/22/05	80.000	120.000	
LCS	Calcium	7440-70-2	1033	103.300	% Recov	02/22/05	80.000	120.000	
LCS	Cadmium	7440-43-9	1029	102.900	% Recov	02/22/05	80.000	120.000	
LCS	Cobalt	7440-48-4	1019	101.900	% Recov	02/22/05	80.000	120.000	
LCS	Chromium	7440-47-3	1006	100.600	% Recov	02/22/05	80.000	120.000	
LCS	Copper	7440-50-8	1069	106.900	% Recov	02/22/05	80.000	120.000	
LCS	Iron	7439-89-6	1044	104.400	% Recov	02/22/05	80.000	120.000	
LCS	Potassium	7440-09-7	10790	107.900	% Recov	02/22/05	80.000	120.000	
LCS	Lithium	7439-93-2	1100	110.000	% Recov	02/22/05	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
Matrix: WATER  
Test: ICP Metals Analysis, Grd H2O P

SAF Number: F03-019  
Sample Date:  
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Magnesium	7439-95-4	1031	103.100	% Recov	02/22/05	80.000	120.000	
LCS	Manganese	7439-96-5	1051	105.100	% Recov	02/22/05	80.000	120.000	
LCS	Sodium	7440-23-5	1018	101.800	% Recov	02/22/05	80.000	120.000	
LCS	Nickel	7440-02-0	1021	102.100	% Recov	02/22/05	80.000	120.000	
LCS	Phosphorus	7723-14-0	1053	105.300	% Recov	02/22/05	80.000	120.000	
LCS	Lead	7439-92-1	1054	105.400	% Recov	02/22/05	80.000	120.000	
LCS	Antimony	7440-36-0	1021	102.100	% Recov	02/22/05	80.000	120.000	
LCS	Selenium	7782-49-2	1054	105.400	% Recov	02/22/05	80.000	120.000	
LCS	Strontium	7440-24-6	1121	112.100	% Recov	02/22/05	80.000	120.000	
LCS	Vanadium	7440-62-2	1022	102.200	% Recov	02/22/05	80.000	120.000	
LCS	Zinc	7440-66-6	1045	104.500	% Recov	02/22/05	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: ICP-2008 MS All possible metal

SAF Number: F03-019  
 Sample Date: 01/25/05  
 Receive Date: 01/25/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
<b>Lab ID: W050000144</b>									
<b>BATCH QC ASSOCIATED WITH SAMPLE</b>									
MS	Mercury	7439-97-6	1.9	95.000	% Recov	02/01/05	70.000	130.000	
MS	Uranium	7440-61-1	42.0993	105.248	% Recov	02/01/05	70.000	130.000	
MSD	Mercury	7439-97-6	1.876	93.800	% Recov	02/01/05	70.000	130.000	
MSD	Uranium	7440-61-1	41.9193	104.798	% Recov	02/01/05	70.000	130.000	
SPK-RPD	Mercury	7439-97-6	93.800	1.271	RPD	02/01/05	0.000	20.000	
SPK-RPD	Uranium	7440-61-1	104.798	0.428	RPD	02/01/05	0.000	20.000	
<b>Lab ID: W050000163</b>									
<b>BATCH QC ASSOCIATED WITH SAMPLE</b>									
MS	Mercury	7439-97-6	1.864	93.200	% Recov	02/01/05	70.000	130.000	
MSD	Mercury	7439-97-6	1.911	95.550	% Recov	02/01/05	70.000	130.000	
<b>Lab ID: W05C000026</b>									
<b>BATCH QC ASSOCIATED WITH SAMPLE</b>									
MS	Mercury	7439-97-6	1.85	92.500	% Recov	02/01/05	70.000	130.000	
MS	Uranium	7440-61-1	39.96	99.900	% Recov	02/01/05	70.000	130.000	
MSD	Mercury	7439-97-6	1.845	92.250	% Recov	02/01/05	70.000	130.000	
MSD	Uranium	7440-61-1	39.71	99.275	% Recov	02/01/05	70.000	130.000	
<b>BATCH QC</b>									
BLANK	Mercury	7439-97-6	<0.1	n/a	ug/L	02/01/05			U
BLANK	Uranium	7440-61-1	<0.1	n/a	ug/L	02/01/05			U
LCS	Mercury	7439-97-6	1.818	90.900	% Recov	02/01/05	85.000	115.000	
LCS	Uranium	7440-61-1	40.65	101.625	% Recov	02/01/05	85.000	115.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
Matrix: WATER  
Test: pH Direct Measurement

SAF Number: F03-019  
Sample Date: 01/26/05  
Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050000176  
BATCH QC ASSOCIATED WITH SAMPLE

DUP	pH Direct Measurement	PH	8.357	0.240	RPD	01/27/05	0.000	20.000	
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BATCH QC

LCS	pH Direct Measurement	PH	8.001	1.000	Ratio	01/27/05	0.900	1.100	
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# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
<b>Organic</b>														
W050000176	B19NM9	GRP	TRENT	100-02-7	4-Nitrophenol	WATER	LA-523-456	U	<	1.40	ug/L	1.00	1.4	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	WATER	LA-523-456	U	<	4.90	ug/L	1.00	4.9	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	108-95-2	Phenol	WATER	LA-523-456	U	<	1.70	ug/L	1.00	1.7	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	WATER	LA-523-456	U	<	2.90	ug/L	1.00	2.9	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	WATER	LA-523-456	U	<	1.80	ug/L	1.00	1.8	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	129-00-0	Pyrene	WATER	LA-523-456	U	<	2.10	ug/L	1.00	2.1	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	WATER	LA-523-456	U	<	1.30	ug/L	1.00	1.3	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	WATER	LA-523-456	U	<	1.70	ug/L	1.00	1.7	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	83-32-9	Acenaphthene	WATER	LA-523-456	U	<	2.40	ug/L	1.00	2.4	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	87-86-5	Pentachlorophenol	WATER	LA-523-456	U	<	1.70	ug/L	1.00	1.7	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	95-57-8	2-Chlorophenol	WATER	LA-523-456	U	<	1.70	ug/L	1.00	1.7	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	100-01-6	4-Nitroaniline	WATER	LA-523-456	U	<	2.80	ug/L	1.00	2.8	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	101-55-3	4-Bromophenylphenyl ether	WATER	LA-523-456	U	<	1.90	ug/L	1.00	1.9	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	105-67-9	2,4-Dimethylphenol	WATER	LA-523-456	U	<	4.20	ug/L	1.00	4.2	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	106-47-8	4-Chloroaniline	WATER	LA-523-456	U	<	7.10	ug/L	1.00	7.1	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	108-60-1	Bis(2-chloro-1-methylethyl)eth	WATER	LA-523-456	U	<	2.10	ug/L	1.00	2.1	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	111-44-4	Bis(2-chloroethyl) ether	WATER	LA-523-456	U	<	3.30	ug/L	1.00	3.3	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	111-91-1	Bis(2-Chloroethoxy)methane	WATER	LA-523-456	U	<	2.00	ug/L	1.00	2.0	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	117-81-7	Bis(2-ethylhexyl) phthalate	WATER	LA-523-456	U	<	2.50	ug/L	1.00	2.5	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	117-84-0	Di-n-octylphthalate	WATER	LA-523-456	U	<	2.50	ug/L	1.00	2.5	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	118-74-1	Hexachlorobenzene	WATER	LA-523-456	U	<	2.10	ug/L	1.00	2.1	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	120-12-7	Anthracene	WATER	LA-523-456	U	<	2.00	ug/L	1.00	2.0	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	120-83-2	2,4-Dichlorophenol	WATER	LA-523-456	U	<	1.40	ug/L	1.00	1.4	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	131-11-3	Dimethyl phthalate	WATER	LA-523-456	U	<	2.10	ug/L	1.00	2.1	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	132-64-9	Dibenzofuran	WATER	LA-523-456	U	<	1.90	ug/L	1.00	1.9	02/02/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	191-24-2	Benzo(ghi)perylene	WATER	LA-523-456	U	<	2.50	ug/L	1.00	2.5	02/02/05 01/26/05 01/26/05

**MDL=Minimum Detection Limit**  
**RQ=Result Qualifier**

J - Analyte is an estimate, has potentially larger errors

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 RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze	Sample	Receive			
					Method	RQ										
W050000176	B19NM9	GRP	TRENT	193-39-5	Indeno(1,2,3-cd)pyrene	WATER	LA-523-456	U	<	2.50	ug/L	1.00	2.5	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	205-99-2	Benzo(b)fluoranthene	WATER	LA-523-456	U	<	1.70	ug/L	1.00	1.7	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	206-44-0	Fluoranthene	WATER	LA-523-456	U	<	2.10	ug/L	1.00	2.1	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	207-08-9	Benzo(k)fluoranthene	WATER	LA-523-456	U	<	2.70	ug/L	1.00	2.7	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	208-96-8	Acenaphthylene	WATER	LA-523-456	U	<	2.30	ug/L	1.00	2.3	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	218-01-9	Chrysene	WATER	LA-523-456	U	<	2.30	ug/L	1.00	2.3	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	50-32-8	Benzo(a)pyrene	WATER	LA-523-456	U	<	2.10	ug/L	1.00	2.1	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	51-28-5	2,4-Dinitrophenol	WATER	LA-523-456	U	<	3.20	ug/L	1.00	3.2	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	53-70-3	Dibenz[a,h]anthracene	WATER	LA-523-456	U	<	2.50	ug/L	1.00	2.5	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	534-52-1	4,6-Dinitro-2-methylphenol	WATER	LA-523-456	U	<	1.70	ug/L	1.00	1.7	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	541-73-1	1,3-Dichlorobenzene	WATER	LA-523-456	U	<	5.10	ug/L	1.00	5.1	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	56-55-3	Benzo(a)anthracene	WATER	LA-523-456	U	<	2.10	ug/L	1.00	2.1	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	606-20-2	2,6-Dinitrotoluene	WATER	LA-523-456	U	<	2.20	ug/L	1.00	2.2	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	7005-72-3	4-Chlorophenylphenyl ether	WATER	LA-523-456	U	<	2.20	ug/L	1.00	2.2	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	77-47-4	Hexachlorocyclopentadiene	WATER	LA-523-456	U	<	7.60	ug/L	1.00	7.6	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	78-59-1	Isophorone	WATER	LA-523-456	U	<	1.90	ug/L	1.00	1.9	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	84-66-2	Diethylphthalate	WATER	LA-523-456	U	<	6.20	ug/L	1.00	6.2	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	84-74-2	Di-n-butylphthalate	WATER	LA-523-456	U	<	2.10	ug/L	1.00	2.1	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	85-01-8	Phenanthrene	WATER	LA-523-456	U	<	2.20	ug/L	1.00	2.2	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	85-68-7	Butylbenzylphthalate	WATER	LA-523-456	U	<	2.00	ug/L	1.00	2.0	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	86-30-6	N-Nitrosodiphenylamine	WATER	LA-523-456	U	<	2.30	ug/L	1.00	2.3	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	86-73-7	Fluorene	WATER	LA-523-456	U	<	2.00	ug/L	1.00	2.0	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	86-74-8	Carbazole	WATER	LA-523-456	U	<	1.40	ug/L	1.00	1.4	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	87-68-3	Hexachlorobutadiene	WATER	LA-523-456	U	<	3.50	ug/L	1.00	3.5	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	88-74-4	2-Nitroaniline	WATER	LA-523-456	U	<	2.10	ug/L	1.00	2.1	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	88-75-5	2-Nitrophenol	WATER	LA-523-456	U	<	2.00	ug/L	1.00	2.0	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	91-20-3	Naphthalene	WATER	LA-523-456	U	<	2.40	ug/L	1.00	2.4	02/02/05	01/26/05	01/26/05

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

Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W050000176	B19NM9	GRP TRENT	91-57-6	2-Methylnaphthalene	WATER	LA-523-456	U	< 1.90	ug/L	1.00	1.9	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	91-58-7	2-Chloronaphthalene	WATER	LA-523-456	U	< 2.30	ug/L	1.00	2.3	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	91-94-1	3,3'-Dichlorobenzidine	WATER	LA-523-456	U	< 4.00	ug/L	1.00	4.0	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	95-48-7	2-Methylphenol (cresol, o-)	WATER	LA-523-456	U	< 2.30	ug/L	1.00	2.3	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	95-50-1	1,2-Dichlorobenzene	WATER	LA-523-456	U	< 4.10	ug/L	1.00	4.1	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	95-95-4	2,4,5-Trichlorophenol	WATER	LA-523-456	U	< 1.90	ug/L	1.00	1.9	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	98-95-3	Nitrobenzene	WATER	LA-523-456	U	< 2.00	ug/L	1.00	2.0	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	99-09-2	3-Nitroaniline	WATER	LA-523-456	U	< 4.40	ug/L	1.00	4.4	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	65794-96-9	3 & 4 Methylphenol Total	WATER	LA-523-456	U	< 3.10	ug/L	1.00	3.1	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	67-72-1	Hexachloroethane	WATER	LA-523-456	U	< 5.40	ug/L	1.00	5.4	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	88-06-2	2,4,6-Trichlorophenol	WATER	LA-523-456	U	< 2.40	ug/L	1.00	2.4	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	126-73-8	Tributyl phosphate	WATER	LA-523-456	U	< 2.50	ug/L	1.00	2.5	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	108-94-1	Cyclohexanone	WATER	LA-523-456	U	< 4.90	ug/L	1.00	4.9	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	95-63-6	1,2,4-Trimethylbenzene	WATER	LA-523-456	U	< 1.80	ug/L	1.00	1.8	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	75-35-4	1,1-Dichloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	79-01-6	Trichloroethene	WATER	LA-523-455	J	2.10	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	71-43-2	Benzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	108-88-3	Toluene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	108-90-7	Chlorobenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	75-34-3	1,1-Dichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	100-41-4	Ethylbenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	100-42-5	Styrene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	10061-01-5	cis-1,3-Dichloropropene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	10061-02-6	trans-1,3-Dichloropropene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	107-06-2	1,2-Dichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	108-10-1	4-Methyl-2-Pentanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	124-48-1	Dibromochloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/08/05	01/26/05	01/26/05

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U - Analyzed for but not detected above limiting criteria.

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Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF ANALYTICAL RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W050000176	B19NM9	GRP	TRENT	127-18-4	Tetrachloroethene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	1330-20-7	Xylenes (total)	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	56-23-5	Carbon tetrachloride	WATER	LA-523-455	J		1.70	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	591-78-6	2-Hexanone	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	67-64-1	Acetone	WATER	LA-523-455			6.70	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	67-66-3	Chloroform	WATER	LA-523-455			190	ug/L	1.00	2.0	02/09/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	74-83-9	Bromomethane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	74-87-3	Chloromethane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	75-00-3	Chloroethane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	75-01-4	Vinyl chloride	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	75-09-2	Methylenechloride	WATER	LA-523-455			32.0	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	75-15-0	Carbon disulfide	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	75-25-2	Bromoform	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	75-27-4	Bromodichloromethane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	78-87-5	1,2-Dichloropropane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	78-93-3	2-Butanone	WATER	LA-523-455			150	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	71-36-3	1-Butanol	WATER	LA-523-455	U	<	20.0	ug/L	1.00	20	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	110-54-3	Hexane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	104-51-8	n-Butylbenzene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	75-05-8	Acetonitrile	WATER	LA-523-455	U	<	2.00	ug/L	1.00	2.0	02/08/05 01/26/05 01/26/05
W050000176	B19NM9	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/08/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	100-02-7	4-Nitrophenol	WATER	LA-523-456	U	<	1.30	ug/L	1.00	1.3	02/02/05 01/26/05 01/26/05

**MDL=Minimum Detection Limit**  
**RQ=Result Qualifier**

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**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 RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W050000178	B1B9N2	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	WATER	LA-523-456	U	<	4.80	ug/L	1.00	4.8	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	108-95-2	Phenol	WATER	LA-523-456	U	<	1.60	ug/L	1.00	1.6	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	WATER	LA-523-456	U	<	2.90	ug/L	1.00	2.9	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	WATER	LA-523-456	U	<	1.70	ug/L	1.00	1.7	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	129-00-0	Pyrene	WATER	LA-523-456	U	<	2.00	ug/L	1.00	2.0	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	WATER	LA-523-456	U	<	1.20	ug/L	1.00	1.2	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	WATER	LA-523-456	U	<	1.60	ug/L	1.00	1.6	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	83-32-9	Acenaphthene	WATER	LA-523-456	U	<	2.30	ug/L	1.00	2.3	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	87-86-5	Pentachlorophenol	WATER	LA-523-456	U	<	1.60	ug/L	1.00	1.6	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	95-57-8	2-Chlorophenol	WATER	LA-523-456	U	<	1.60	ug/L	1.00	1.6	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	100-01-6	4-Nitroaniline	WATER	LA-523-456	U	<	2.80	ug/L	1.00	2.8	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	101-55-3	4-Bromophenylphenyl ether	WATER	LA-523-456	U	<	1.80	ug/L	1.00	1.8	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	105-67-9	2,4-Dimethylphenol	WATER	LA-523-456	U	<	4.10	ug/L	1.00	4.1	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	106-47-8	4-Chloroaniline	WATER	LA-523-456	U	<	6.90	ug/L	1.00	6.9	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	108-60-1	Bis(2-chloro-1-methylethyl)eth	WATER	LA-523-456	U	<	2.00	ug/L	1.00	2.0	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	111-44-4	Bis(2-chloroethyl) ether	WATER	LA-523-456	U	<	3.20	ug/L	1.00	3.2	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	111-91-1	Bis(2-Chloroethoxy)methane	WATER	LA-523-456	U	<	1.90	ug/L	1.00	1.9	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	117-81-7	Bis(2-ethylhexyl) phthalate	WATER	LA-523-456	U	<	2.50	ug/L	1.00	2.5	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	117-84-0	Di-n-octylphthalate	WATER	LA-523-456	U	<	2.40	ug/L	1.00	2.4	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	118-74-1	Hexachlorobenzene	WATER	LA-523-456	U	<	2.00	ug/L	1.00	2.0	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	120-12-7	Anthracene	WATER	LA-523-456	U	<	1.90	ug/L	1.00	1.9	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	120-83-2	2,4-Dichlorophenol	WATER	LA-523-456	U	<	1.30	ug/L	1.00	1.3	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	131-11-3	Dimethyl phthalate	WATER	LA-523-456	U	<	2.00	ug/L	1.00	2.0	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	132-64-9	Dibenzofuran	WATER	LA-523-456	U	<	1.80	ug/L	1.00	1.8	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	191-24-2	Benzo(ghi)perylene	WATER	LA-523-456	U	<	2.40	ug/L	1.00	2.4	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	193-39-5	Indeno(1,2,3-cd)pyrene	WATER	LA-523-456	U	<	2.50	ug/L	1.00	2.5	02/02/05 01/26/05 01/26/05
W050000178	B1B9N2	GRP	TRENT	205-99-2	Benzo(b)fluoranthene	WATER	LA-523-456	U	<	1.60	ug/L	1.00	1.6	02/02/05 01/26/05 01/26/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050000178	B1B9N2	GRP TRENT	206-44-0	Fluoranthene	WATER	LA-523-456 U	< 2.00	ug/L	1.00	2.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	207-08-9	Benzo(k)fluoranthene	WATER	LA-523-456 U	< 2.70	ug/L	1.00	2.7	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	208-96-8	Acenaphthylene	WATER	LA-523-456 U	< 2.20	ug/L	1.00	2.2	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	218-01-9	Chrysene	WATER	LA-523-456 U	< 2.20	ug/L	1.00	2.2	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	50-32-8	Benzo(a)pyrene	WATER	LA-523-456 U	< 2.00	ug/L	1.00	2.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	51-28-5	2,4-Dinitrophenol	WATER	LA-523-456 U	< 3.10	ug/L	1.00	3.1	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	53-70-3	Dibenz[a,h]anthracene	WATER	LA-523-456 U	< 2.50	ug/L	1.00	2.5	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	534-52-1	4,6-Dinitro-2-methylphenol	WATER	LA-523-456 U	< 1.60	ug/L	1.00	1.6	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	541-73-1	1,3-Dichlorobenzene	WATER	LA-523-456 U	< 5.00	ug/L	1.00	5.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	56-55-3	Benzo(a)anthracene	WATER	LA-523-456 U	< 2.00	ug/L	1.00	2.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	606-20-2	2,6-Dinitrotoluene	WATER	LA-523-456 U	< 2.10	ug/L	1.00	2.1	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	7005-72-3	4-Chlorophenylphenyl ether	WATER	LA-523-456 U	< 2.10	ug/L	1.00	2.1	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	77-47-4	Hexachlorocyclopentadiene	WATER	LA-523-456 U	< 7.40	ug/L	1.00	7.4	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	78-59-1	Isophorone	WATER	LA-523-456 U	< 1.80	ug/L	1.00	1.8	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	84-66-2	Diethylphthalate	WATER	LA-523-456 U	< 6.00	ug/L	1.00	6.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	84-74-2	Di-n-butylphthalate	WATER	LA-523-456 U	< 2.00	ug/L	1.00	2.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	85-01-8	Phenanthrene	WATER	LA-523-456 U	< 2.10	ug/L	1.00	2.1	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	85-68-7	Butylbenzylphthalate	WATER	LA-523-456 U	< 1.90	ug/L	1.00	1.9	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	86-30-6	N-Nitrosodiphenylamine	WATER	LA-523-456 U	< 2.20	ug/L	1.00	2.2	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	86-73-7	Fluorene	WATER	LA-523-456 U	< 1.90	ug/L	1.00	1.9	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	86-74-8	Carbazole	WATER	LA-523-456 U	< 1.30	ug/L	1.00	1.3	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	87-68-3	Hexachlorobutadiene	WATER	LA-523-456 U	< 3.40	ug/L	1.00	3.4	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	88-74-4	2-Nitroaniline	WATER	LA-523-456 U	< 2.00	ug/L	1.00	2.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	88-75-5	2-Nitrophenol	WATER	LA-523-456 U	< 1.90	ug/L	1.00	1.9	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	91-20-3	Naphthalene	WATER	LA-523-456 U	< 2.30	ug/L	1.00	2.3	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	91-57-6	2-Methylnaphthalene	WATER	LA-523-456 U	< 1.80	ug/L	1.00	1.8	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	91-58-7	2-Chloronaphthalene	WATER	LA-523-456 U	< 2.20	ug/L	1.00	2.2	02/02/05	01/26/05	01/26/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent  
**Project:** F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF			Result	Unit	DF	MDL	Analyze Sample Receive				
					Method	RQ										
W050000178	B1B9N2	GRP	TRENT	91-94-1	3,3'-Dichlorobenzidine	WATER	LA-523-456	U	<	3.90	ug/L	1.00	3.9	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	95-48-7	2-Methylphenol (cresol, o-)	WATER	LA-523-456	U	<	2.20	ug/L	1.00	2.2	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	95-50-1	1,2-Dichlorobenzene	WATER	LA-523-456	U	<	4.00	ug/L	1.00	4.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	95-95-4	2,4,5-Trichlorophenol	WATER	LA-523-456	U	<	1.80	ug/L	1.00	1.8	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	98-95-3	Nitrobenzene	WATER	LA-523-456	U	<	1.90	ug/L	1.00	1.9	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	99-09-2	3-Nitroaniline	WATER	LA-523-456	U	<	4.30	ug/L	1.00	4.3	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	65794-96-9	3 & 4 Methylphenol Total	WATER	LA-523-456	U	<	3.00	ug/L	1.00	3.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	67-72-1	Hexachloroethane	WATER	LA-523-456	U	<	5.20	ug/L	1.00	5.2	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	88-06-2	2,4,6-Trichlorophenol	WATER	LA-523-456	U	<	2.30	ug/L	1.00	2.3	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	126-73-8	Tributyl phosphate	WATER	LA-523-456	U	<	2.40	ug/L	1.00	2.4	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	108-94-1	Cyclohexanone	WATER	LA-523-456	U	<	4.80	ug/L	1.00	4.8	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	95-63-6	1,2,4-Trimethylbenzene	WATER	LA-523-456	U	<	1.70	ug/L	1.00	1.7	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	75-35-4	1,1-Dichloroethene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	79-01-6	Trichloroethene	WATER	LA-523-455	J		2.30	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	71-43-2	Benzene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	108-88-3	Toluene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	108-90-7	Chlorobenzene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	75-34-3	1,1-Dichloroethane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	100-41-4	Ethylbenzene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	100-42-5	Styrene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	107-06-2	1,2-Dichloroethane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	124-48-1	Dibromochloromethane	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	127-18-4	Tetrachloroethene	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	1330-20-7	Xylenes (total)	WATER	LA-523-455	U	<	1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05

**MDL=Minimum Detection Limit**  
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Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze	Sample	Receive
					Method	RQ							
W050000178	B1B9N2	GRP TRENT	540-59-0	1,2-Dichloroethene(Total)	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	56-23-5	Carbon tetrachloride	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	591-78-6	2-Hexanone	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	67-64-1	Acetone	WATER	LA-523-455	7.70	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	67-66-3	Chloroform	WATER	LA-523-455	180	ug/L	1.00	2.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	71-55-6	1,1,1-Trichloroethane	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	74-83-9	Bromomethane	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	79-34-5	1,1,2,2-Tetrachloroethane	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	74-87-3	Chloromethane	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	75-00-3	Chloroethane	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	75-01-4	Vinyl chloride	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	75-09-2	Methylenechloride	WATER	LA-523-455	32.0	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	75-15-0	Carbon disulfide	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	75-25-2	Bromoform	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	75-27-4	Bromodichloromethane	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	78-87-5	1,2-Dichloropropane	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	78-93-3	2-Butanone	WATER	LA-523-455	150	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	79-00-5	1,1,2-Trichloroethane	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	71-36-3	1-Butanol	WATER	LA-523-455 U	< 20.0	ug/L	1.00	20	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	110-54-3	Hexane	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	104-51-8	n-Butylbenzene	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	156-60-5	trans-1,2-Dichloroethylene	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	75-05-8	Acetonitrile	WATER	LA-523-455 U	< 2.00	ug/L	1.00	2.0	02/09/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	156-59-2	cis-1,2-Dichloroethylene	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	75-35-4	1,1-Dichloroethene	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	79-01-6	Trichloroethene	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	71-43-2	Benzene	WATER	LA-523-455 U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent  
**Project:** F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W050000179	B1B9X7	GRP TRENT	108-88-3	Toluene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	108-90-7	Chlorobenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	75-34-3	1,1-Dichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	100-41-4	Ethylbenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	100-42-5	Styrene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	10061-01-5	cis-1,3-Dichloropropene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	10061-02-6	trans-1,3-Dichloropropene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	107-06-2	1,2-Dichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	108-10-1	4-Methyl-2-Pentanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	124-48-1	Dibromochloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	127-18-4	Tetrachloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	1330-20-7	Xylenes (total)	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	540-59-0	1,2-Dichloroethene(Total)	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	56-23-5	Carbon tetrachloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	591-78-6	2-Hexanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	67-64-1	Acetone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	67-66-3	Chloroform	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	71-55-6	1,1,1-Trichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	74-83-9	Bromomethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	79-34-5	1,1,2,2-Tetrachloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	74-87-3	Chloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	75-00-3	Chloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	75-01-4	Vinyl chloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	75-09-2	Methylenechloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	75-15-0	Carbon disulfide	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	75-25-2	Bromoform	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	GRP TRENT	75-27-4	Bromodichloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:**  
**Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze	Sample	Receive
					Method	RQ							
W050000179	B1B9X7	78-87-5	1,2-Dichloropropane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	78-93-3	2-Butanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	79-00-5	1,1,2-Trichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	71-36-3	1-Butanol	WATER	LA-523-455	U	< 20.0	ug/L	1.00	20	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	110-54-3	Hexane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	104-51-8	n-Butylbenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	156-60-5	trans-1,2-Dichloroethylene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	75-05-8	Acetonitrile	WATER	LA-523-455	U	< 2.00	ug/L	1.00	2.0	02/09/05	01/26/05	01/26/05
W050000179	B1B9X7	156-59-2	cis-1,2-Dichloroethylene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/09/05	01/26/05	01/26/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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**Lab ID: W050000176**  
**BATCH QC ASSOCIATED WITH SAMPLE**

SURR	2-Fluorophenol	367-12-4	34.523	70.400	% Recov	02/02/05	50.000	110.000	
SURR	2-Fluorobiphenyl	321-60-8	39.181	79.900	% Recov	02/02/05	58.000	109.000	
SURR	Nitrobenzene-d5	4165-60-0	38.673	78.900	% Recov	02/02/05	60.000	118.000	
SURR	Phenol-d5	4165-62-2	39.748	81.100	% Recov	02/02/05	59.000	116.000	
SURR	2,4,6-Tribromophenol	118-79-6	45.903	93.600	% Recov	02/02/05	60.000	120.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	38.028	77.600	% Recov	02/02/05	60.000	120.000	

**Lab ID: W050000178**  
**BATCH QC ASSOCIATED WITH SAMPLE**

MS	1,2,4-Trichlorobenzene	120-82-1	31.601	67.000	% Recov	02/02/05	50.000	120.000	
MS	1,4-Dichlorobenzene	106-46-7	33.013	70.000	% Recov	02/02/05	41.000	113.000	
MS	2,4-Dinitrotoluene	121-14-2	36.829	78.100	% Recov	02/02/05	65.000	109.000	
MS	2-Fluorophenol	367-12-4	39.438	83.600	% Recov	02/02/05	50.000	110.000	
MS	Acenaphthene	83-32-9	37.969	80.500	% Recov	02/02/05	62.000	112.000	
MS	4-Chloro-3-methylphenol	59-50-7	60.226	85.100	% Recov	02/02/05	59.000	115.000	
MS	2-Chlorophenol	95-57-8	59.718	84.400	% Recov	02/02/05	69.000	111.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	45.273	96.000	% Recov	02/02/05	69.000	115.000	
MS	2-Fluorobiphenyl	321-60-8	39.672	84.100	% Recov	02/02/05	58.000	109.000	
MS	Phenol	108-95-2	62.199	87.900	% Recov	02/02/05	59.000	115.000	
MS	Nitrobenzene-d5	4165-60-0	38.432	81.500	% Recov	02/02/05	60.000	118.000	
MS	4-Nitrophenol	100-02-7	72.833	103.000	% Recov	02/02/05	32.000	130.000	
MS	Pentachlorophenol	87-86-5	72.897	103.000	% Recov	02/02/05	51.000	121.000	
MS	Phenol-d5	4165-62-2	42.309	89.700	% Recov	02/02/05	59.000	116.000	
MS	Pyrene	129-00-0	33.756	71.600	% Recov	02/02/05	58.000	116.000	
MS	2,4,6-Tribromophenol	118-79-6	48.270	102.000	% Recov	02/02/05	60.000	120.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	17.728	37.600	% Recov	02/02/05	60.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	1,2,4-Trichlorobenzene	120-82-1	31.422	66.600	% Recov	02/02/05	50.000	120.000	
MSD	1,4-Dichlorobenzene	106-46-7	31.171	66.100	% Recov	02/02/05	41.000	113.000	
MSD	2,4-Dinitrotoluene	121-14-2	35.970	76.300	% Recov	02/02/05	65.000	109.000	
MSD	2-Fluorophenol	367-12-4	34.670	73.500	% Recov	02/02/05	50.000	110.000	
MSD	Acenaphthene	83-32-9	36.096	76.500	% Recov	02/02/05	62.000	112.000	
MSD	4-Chloro-3-methylphenol	59-50-7	57.627	81.400	% Recov	02/02/05	59.000	115.000	
MSD	2-Chlorophenol	95-57-8	54.474	77.000	% Recov	02/02/05	69.000	111.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	43.487	92.200	% Recov	02/02/05	69.000	115.000	
MSD	2-Fluorobiphenyl	321-60-8	36.020	76.400	% Recov	02/02/05	58.000	109.000	
MSD	Phenol	108-95-2	55.878	79.000	% Recov	02/02/05	59.000	115.000	
MSD	Nitrobenzene-d5	4165-60-0	35.852	76.000	% Recov	02/02/05	60.000	118.000	
MSD	4-Nitrophenol	100-02-7	63.721	90.100	% Recov	02/02/05	32.000	130.000	
MSD	Pentachlorophenol	87-86-5	75.353	106.000	% Recov	02/02/05	51.000	121.000	
MSD	Phenol-d5	4165-62-2	38.653	81.900	% Recov	02/02/05	59.000	116.000	
MSD	Pyrene	129-00-0	34.190	72.500	% Recov	02/02/05	58.000	116.000	
MSD	2,4,6-Tribromophenol	118-79-6	44.155	93.600	% Recov	02/02/05	60.000	120.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	15.421	32.700	% Recov	02/02/05	60.000	120.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	66.600	0.599	RPD	02/02/05	0.000	25.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	66.100	5.731	RPD	02/02/05	0.000	25.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	76.300	2.332	RPD	02/02/05	0.000	25.000	
SPK-RPD	2-Fluorophenol	367-12-4	73.500	12.858	RPD	02/02/05	0.000	25.000	
SPK-RPD	Acenaphthene	83-32-9	76.500	5.096	RPD	02/02/05	0.000	25.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	81.400	4.444	RPD	02/02/05	0.000	25.000	
SPK-RPD	2-Chlorophenol	95-57-8	77.000	9.170	RPD	02/02/05	0.000	25.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	92.200	4.038	RPD	02/02/05	0.000	25.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	76.400	9.595	RPD	02/02/05	0.000	25.000	
SPK-RPD	Phenol	108-95-2	79.000	10.665	RPD	02/02/05	0.000	16.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	76.000	6.984	RPD	02/02/05	0.000	25.000	
SPK-RPD	4-Nitrophenol	100-02-7	90.100	13.361	RPD	02/02/05	0.000	25.000	
SPK-RPD	Pentachlorophenol	87-86-5	106.000	2.871	RPD	02/02/05	0.000	25.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Phenol-d5	4165-62-2	81.900	9.091	RPD	02/02/05	0.000	25.000	
SPK-RPD	Pyrene	129-00-0	72.500	1.249	RPD	02/02/05	0.000	25.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	93.600	8.589	RPD	02/02/05	0.000	25.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	32.700	13.940	RPD	02/02/05	0.000	25.000	
SURR	2-Fluorophenol	367-12-4	33.441	70.200	% Recov	02/02/05	50.000	110.000	
SURR	2-Fluorobiphenyl	321-60-8	38.857	81.600	% Recov	02/02/05	58.000	109.000	
SURR	Nitrobenzene-d5	4165-60-0	38.937	81.800	% Recov	02/02/05	60.000	118.000	
SURR	Phenol-d5	4165-62-2	39.319	82.600	% Recov	02/02/05	59.000	116.000	
SURR	2,4,6-Tribromophenol	118-79-6	44.885	94.300	% Recov	02/02/05	60.000	120.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	34.117	71.600	% Recov	02/02/05	60.000	120.000	

## BATCH QC

BLANK	1,2-Dichlorobenzene	95-50-1	< 4.2	n/a	ug/L	02/02/05			U
BLANK	1,2,4-Trimethylbenzene	95-63-6	< 1.8	n/a	ug/L	02/02/05			U
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 3.0	n/a	ug/L	02/02/05			U
BLANK	1,3-Dichlorobenzene	541-73-1	< 5.2	n/a	ug/L	02/02/05			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 5.0	n/a	ug/L	02/02/05			U
BLANK	2,4-Dichlorophenol	120-83-2	< 1.4	n/a	ug/L	02/02/05			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 1.8	n/a	ug/L	02/02/05			U
BLANK	2,4,5-Trichlorophenol	95-95-4	< 1.9	n/a	ug/L	02/02/05			U
BLANK	2,4,6-Trichlorophenol	88-06-2	< 2.4	n/a	ug/L	02/02/05			U
BLANK	2,4-Dimethylphenol	105-67-9	< 4.3	n/a	ug/L	02/02/05			U
BLANK	2,6-Dinitrotoluene	606-20-2	< 2.2	n/a	ug/L	02/02/05			U
BLANK	2-Chloronaphthalene	91-58-7	< 2.3	n/a	ug/L	02/02/05			U
BLANK	2-Fluorophenol	367-12-4	34.834	69.700	% Recov	02/02/05	50.000	110.000	
BLANK	2-Methylnaphthalene	91-57-6	< 1.9	n/a	ug/L	02/02/05			U
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 2.3	n/a	ug/L	02/02/05			U
BLANK	2-Nitroaniline	88-74-4	< 2.1	n/a	ug/L	02/02/05			U
BLANK	2-Nitrophenol	88-75-5	< 2.0	n/a	ug/L	02/02/05			U
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 3.2	n/a	ug/L	02/02/05	0.000	5.000	U

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-019  
 Sample Date:  
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	3-Nitroaniline	99-09-2	< 4.5	n/a	ug/L	02/02/05			U
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 1.7	n/a	ug/L	02/02/05			U
BLANK	4-Bromophenylphenyl ether	101-55-3	< 1.9	n/a	ug/L	02/02/05			U
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 2.2	n/a	ug/L	02/02/05			U
BLANK	Acenaphthene	83-32-9	< 2.4	n/a	ug/L	02/02/05			U
BLANK	Acenaphthylene	208-96-8	< 2.3	n/a	ug/L	02/02/05			U
BLANK	Anthracene	120-12-7	< 2.0	n/a	ug/L	02/02/05			U
BLANK	Bis(2-chloroethyl) ether	111-44-4	< 3.4	n/a	ug/L	02/02/05			U
BLANK	Benzo(a)anthracene	56-55-3	< 2.1	n/a	ug/L	02/02/05			U
BLANK	Benzo(b)fluoranthene	205-99-2	< 1.7	n/a	ug/L	02/02/05			U
BLANK	Benzo(ghi)perylene	191-24-2	< 2.5	n/a	ug/L	02/02/05			U
BLANK	Benzo(a)pyrene	50-32-8	< 2.1	n/a	ug/L	02/02/05			U
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 2.0	n/a	ug/L	02/02/05			U
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 2.6	n/a	ug/L	02/02/05			U
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 2.1	n/a	ug/L	02/02/05	0.000	10.000	U
BLANK	Benzo(k)fluoranthene	207-08-9	< 2.8	n/a	ug/L	02/02/05			U
BLANK	Butylbenzylphthalate	85-68-7	< 2.0	n/a	ug/L	02/02/05			U
BLANK	Carbazole	86-74-8	< 1.4	n/a	ug/L	02/02/05			U
BLANK	4-Chloroaniline	106-47-8	< 7.2	n/a	ug/L	02/02/05			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 1.3	n/a	ug/L	02/02/05			U
BLANK	2-Chlorophenol	95-57-8	< 1.7	n/a	ug/L	02/02/05			U
BLANK	Chrysene	218-01-9	< 2.3	n/a	ug/L	02/02/05			U
BLANK	Cyclohexanone	108-94-1	< 5.0	n/a	ug/L	02/02/05	0.000	10.000	U
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 4.1	n/a	ug/L	02/02/05			U
BLANK	Dibenz[a,h]anthracene	53-70-3	< 2.6	n/a	ug/L	02/02/05			U
BLANK	Dibenzofuran	132-64-9	< 1.9	n/a	ug/L	02/02/05			U
BLANK	Di-n-butylphthalate	84-74-2	< 2.1	n/a	ug/L	02/02/05			U
BLANK	Diethylphthalate	84-66-2	< 6.3	n/a	ug/L	02/02/05			U
BLANK	Dimethyl phthalate	131-11-3	< 2.1	n/a	ug/L	02/02/05			U
BLANK	2,4-Dinitrophenol	51-28-5	< 3.3	n/a	ug/L	02/02/05			U

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-019  
 Sample Date:  
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Di-n-octylphthalate	117-84-0	< 2.5	n/a	ug/L	02/02/05			U
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 1.7	n/a	ug/L	02/02/05			U
BLANK	2-Fluorobiphenyl	321-60-8	36.732	73.500	% Recov	02/02/05	58.000	109.000	
BLANK	Fluorene	86-73-7	< 2.0	n/a	ug/L	02/02/05			U
BLANK	Fluoranthene	206-44-0	< 2.1	n/a	ug/L	02/02/05			U
BLANK	Hexachlorobenzene	118-74-1	< 2.1	n/a	ug/L	02/02/05			U
BLANK	Hexachlorobutadiene	87-68-3	< 3.6	n/a	ug/L	02/02/05			U
BLANK	Hexachlorocyclopentadiene	77-47-4	< 7.8	n/a	ug/L	02/02/05			U
BLANK	Hexachloroethane	67-72-1	< 5.5	n/a	ug/L	02/02/05			U
BLANK	Indeno(1,2,3-cd)pyrene	193-39-5	< 2.6	n/a	ug/L	02/02/05			U
BLANK	Isophorone	78-59-1	< 1.9	n/a	ug/L	02/02/05			U
BLANK	Phenol	108-95-2	< 1.7	n/a	ug/L	02/02/05			U
BLANK	Naphthalene	91-20-3	< 2.4	n/a	ug/L	02/02/05			U
BLANK	Nitrobenzene-d5	4165-60-0	37.153	74.300	% Recov	02/02/05	60.000	118.000	
BLANK	Nitrobenzene	98-95-3	< 2.0	n/a	ug/L	02/02/05			U
BLANK	4-Nitrophenol	100-02-7	< 1.4	n/a	ug/L	02/02/05			U
BLANK	4-Nitroaniline	100-01-6	< 2.9	n/a	ug/L	02/02/05			U
BLANK	N-Nitrosodiphenylamine	86-30-6	< 2.3	n/a	ug/L	02/02/05			U
BLANK	Pentachlorophenol	87-86-5	< 1.7	n/a	ug/L	02/02/05			U
BLANK	Phenanthrene	85-01-8	< 2.2	n/a	ug/L	02/02/05			U
BLANK	Phenol-d5	4165-62-2	36.168	72.300	% Recov	02/02/05	59.000	116.000	
BLANK	Pyrene	129-00-0	< 2.1	n/a	ug/L	02/02/05			U
BLANK	Tributyl phosphate	126-73-8	< 2.5	n/a	ug/L	02/02/05			U
BLANK	2,4,6-Tribromophenol	118-79-6	34.712	69.400	% Recov	02/02/05	60.000	120.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	33.407	66.800	% Recov	02/02/05	60.000	120.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	34.374	68.700	% Recov	02/02/05	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	33.317	66.600	% Recov	02/02/05	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	37.230	74.500	% Recov	02/02/05	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	40.756	81.500	% Recov	02/02/05	50.000	110.000	
LCS	Acenaphthene	83-32-9	42.057	84.100	% Recov	02/02/05	61.000	116.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-019  
 Sample Date:  
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	4-Chloro-3-methylphenol	59-50-7	63.857	85.100	% Recov	02/02/05	61.000	106.000	
LCS	2-Chlorophenol	95-57-8	58.807	78.400	% Recov	02/02/05	66.000	106.000	
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	42.690	85.400	% Recov	02/02/05	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	40.784	81.600	% Recov	02/02/05	58.000	109.000	
LCS	Phenol	108-95-2	59.266	79.000	% Recov	02/02/05	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	39.136	78.300	% Recov	02/02/05	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	60.037	80.000	% Recov	02/02/05	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	67.860	90.500	% Recov	02/02/05	62.000	114.000	
LCS	Phenol-d5	4165-62-2	40.788	81.600	% Recov	02/02/05	59.000	116.000	
LCS	Pyrene	129-00-0	39.582	79.200	% Recov	02/02/05	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	43.876	87.800	% Recov	02/02/05	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9	43.087	86.200	% Recov	02/02/05	60.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: VOA Ground Water Protection

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000176									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,1-Dichloroethene	75-35-4	22.630	90.500	% Recov	02/08/05	63.000	117.000	
MS	Benzene	71-43-2	27.540	110.000	% Recov	02/08/05	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	56.050	112.000	% Recov	02/08/05	84.000	116.000	
MS	Chlorobenzene	108-90-7	26.970	108.000	% Recov	02/08/05	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	58.550	117.000	% Recov	02/08/05	82.000	136.000	
MS	Toluene-d8	2037-26-5	52.630	105.000	% Recov	02/08/05	89.000	119.000	
MS	Toluene	108-88-3	26.030	104.000	% Recov	02/08/05	76.000	120.000	
MS	Trichloroethene	79-01-6	24.833	99.300	% Recov	02/08/05	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	23.940	95.800	% Recov	02/09/05	63.000	117.000	
MSD	Benzene	71-43-2	28.160	113.000	% Recov	02/09/05	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	55.830	112.000	% Recov	02/09/05	84.000	116.000	
MSD	Chlorobenzene	108-90-7	27.740	111.000	% Recov	02/09/05	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	56.420	113.000	% Recov	02/09/05	82.000	136.000	
MSD	Toluene-d8	2037-26-5	52.590	105.000	% Recov	02/09/05	89.000	119.000	
MSD	Toluene	108-88-3	26.690	107.000	% Recov	02/09/05	76.000	120.000	
MSD	Trichloroethene	79-01-6	25.313	101.000	% Recov	02/09/05	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	95.800	5.690	RPD	02/08/05	0.000	10.000	
SPK-RPD	Benzene	71-43-2	113.000	2.691	RPD	02/08/05	0.000	10.000	
SPK-RPD	Chlorobenzene	108-90-7	111.000	2.740	RPD	02/08/05	0.000	10.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	113.000	3.478	RPD	02/08/05	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	105.000	0.000	RPD	02/08/05	0.000	25.000	
SPK-RPD	Toluene	108-88-3	107.000	2.844	RPD	02/08/05	0.000	10.000	
SPK-RPD	Trichloroethene	79-01-6	101.000	1.697	RPD	02/08/05	0.000	10.000	
SURR	4-Bromofluorobenzene	460-00-4	55.270	111.000	% Recov	02/08/05	84.000	116.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	57.990	116.000	% Recov	02/08/05	82.000	136.000	
SURR	Toluene-d8	2037-26-5	51.930	104.000	% Recov	02/08/05	89.000	119.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: VOA Ground Water Protection

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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**Lab ID: W050000178**  
**BATCH QC ASSOCIATED WITH SAMPLE**

SURR	4-Bromofluorobenzene	460-00-4	58.200	116.000	% Recov	02/09/05	84.000	116.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	58.180	116.000	% Recov	02/09/05	82.000	136.000	
SURR	Toluene-d8	2037-26-5	52.860	106.000	% Recov	02/09/05	89.000	119.000	

**Lab ID: W050000179**  
**BATCH QC ASSOCIATED WITH SAMPLE**

SURR	4-Bromofluorobenzene	460-00-4	56.250	112.000	% Recov	02/09/05	84.000	116.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	57.380	115.000	% Recov	02/09/05	82.000	136.000	
SURR	Toluene-d8	2037-26-5	54.360	109.000	% Recov	02/09/05	89.000	119.000	

**BATCH QC**

BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L	02/08/05			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L	02/08/05			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L	02/08/05			U
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L	02/08/05			U
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L	02/08/05			U
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/L	02/08/05			U
BLANK	1-Butanol	71-36-3	< 20	n/a	ug/L	02/08/05			U
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/L	02/08/05			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/L	02/08/05			U
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/L	02/08/05			U
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/L	02/08/05			U
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L	02/08/05			U
BLANK	4-Bromofluorobenzene	460-00-4	57.520	115.000	% Recov	02/08/05	84.000	116.000	
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/L	02/08/05			U
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L	02/08/05			U
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L	02/08/05			U

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: VOA Ground Water Protection

SAF Number: F03-019  
 Sample Date:  
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L	02/08/05			U
BLANK	1,2-Dichloroethane-d4	17060-07-0	57.040	114.000	% Recov	02/08/05	82.000	136.000	
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/L	02/08/05			U
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L	02/08/05			U
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L	02/08/05			U
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	02/08/05	0.000	5.000	U
BLANK	Toluene-d8	2037-26-5	53.160	106.000	% Recov	02/08/05	89.000	119.000	
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L	02/08/05			U
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L	02/08/05			U
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L	02/08/05			U
LCS	1,1-Dichloroethene	75-35-4	24.290	97.200	% Recov	02/08/05	70.000	130.000	
LCS	Benzene	71-43-2	26.940	108.000	% Recov	02/08/05	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	56.620	113.000	% Recov	02/08/05	84.000	116.000	
LCS	Chlorobenzene	108-90-7	27.210	109.000	% Recov	02/08/05	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	58.070	116.000	% Recov	02/08/05	82.000	136.000	
LCS	Toluene-d8	2037-26-5	53.290	107.000	% Recov	02/08/05	89.000	119.000	
LCS	Toluene	108-88-3	26.540	106.000	% Recov	02/08/05	70.000	130.000	
LCS	Trichloroethene	79-01-6	25.740	103.000	% Recov	02/08/05	70.000	130.000	
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L	02/09/05			U

# WSCF ANALYTICAL RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive		
<b>Radiochemistry</b>															
W050000176	B19NM9	GRP	TRENT	14596-10-2	Americium-241	WATER	LA-508-471		0.0990	pCi/L	1.00	0.032	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	WATER	LA-508-471		+ - 0.048	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	10198-40-0	Cobalt-60	WATER	LA-508-481	U	-4.03	pCi/L	1.00	7.1	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 4.4	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	10045-97-3	Cesium-137	WATER	LA-508-481	U	-5.18	pCi/L	1.00	7.3	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 5.2	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	14683-23-9	Europium-152	WATER	LA-508-481	U	-5.78	pCi/L	1.00	22	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 13	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	15585-10-1	Europium-154	WATER	LA-508-481	U	-14.7	pCi/L	1.00	20	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 15	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	14391-16-3	Europium-155	WATER	LA-508-481	U	3.64	pCi/L	1.00	23	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 14	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	13994-20-2	Neptunium-237	WATER	LA-508-471	U	7.30e-03	pCi/L	1.00	0.054	02/03/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	Np-237 by AEA Total Cntg Error	WATER	LA-508-471		+ - 0.026	pCi/L	1.00	0.0	02/03/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	13981-16-3	Plutonium-238	WATER	LA-508-471	U	4.10e-03	pCi/L	1.00	0.030	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	WATER	LA-508-471		+ - 0.014	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	WATER	LA-508-471	U	8.20e-03	pCi/L	1.00	0.011	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	WATER	LA-508-471		+ - 0.011	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	14133-76-7	Technetium-99	WATER	LA-508-421	U	0.900	pCi/L	1.00	2.3	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	Tc-99 Counting Error	WATER	LA-508-421		+ - 1.4	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	10028-17-8	Tritium	WATER	LA-508-421	U	24.0	pCi/L	1.00	2.0e +02	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	H-3 Rel. % Count Error	WATER	LA-508-421		+ - 2.4e +02	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	U-233/234	Uranium-233/234	WATER	LA-508-471		0.0640	pCi/L	1.00	0.060	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	WATER	LA-508-471		+ - 0.047	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	15117-96-1	Uranium-235	WATER	LA-508-471	U	4.60e-03	pCi/L	1.00	0.013	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	WATER	LA-508-471		+ - 9.2e-03	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05

**MDL = Minimum Detection Limit**

J - Analyte is an estimate, has potentially larger errors

U - Analyzed for but not detected above limiting criteria.

**RQ = Result Qualifier**

**DF = Dilution Factor**

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

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Groundwater Remediation Program

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent  
**Project:** F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W050000176	B19NM9	GRP TRENT	U-238	Uranium-238	WATER	LA-508-471		0.0420	pCi/L	1.00	0.039	02/02/05	01/26/05	01/26/05
W050000176	B19NM9	GRP TRENT	E,T,C	U-238 by AEA Total Cntg Error	WATER	LA-508-471	+-	0.033	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	14596-10-2	Americium-241	WATER	LA-508-471		0.0880	pCi/L	1.00	0.031	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	Am-241 by AEA Total Cntg Error	WATER	LA-508-471	+-	0.044	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	10198-40-0	Cobalt-60	WATER	LA-508-481	U	-4.19	pCi/L	1.00	7.4	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	WATER	LA-508-481	+-	4.6	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	10045-97-3	Cesium-137	WATER	LA-508-481	U	-5.05	pCi/L	1.00	7.1	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	WATER	LA-508-481	+-	5.0	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	14683-23-9	Europium-152	WATER	LA-508-481	U	2.49	pCi/L	1.00	23	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	WATER	LA-508-481	+-	13	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	15585-10-1	Europium-154	WATER	LA-508-481	U	-2.56	pCi/L	1.00	21	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	WATER	LA-508-481	+-	12	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	14391-16-3	Europium-155	WATER	LA-508-481	U	3.35	pCi/L	1.00	25	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	WATER	LA-508-481	+-	14	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	13994-20-2	Neptunium-237	WATER	LA-508-471	U	8.00e-03	pCi/L	1.00	0.074	02/03/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	Np-237 by AEA Total Cntg Error	WATER	LA-508-471	+-	0.036	pCi/L	1.00	0.0	02/03/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	13981-16-3	Plutonium-238	WATER	LA-508-471	U	-8.60e-03	pCi/L	1.00	0.056	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	WATER	LA-508-471	+-	0.024	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	PU-239/240	Pu-239/240 by AEA	WATER	LA-508-471		0.0340	pCi/L	1.00	0.032	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	WATER	LA-508-471	+-	0.028	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	14133-76-7	Technetium-99	WATER	LA-508-421	U	0.800	pCi/L	1.00	2.3	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	Tc-99 Counting Error	WATER	LA-508-421	+-	1.4	pCi/L	1.00	0.0	01/31/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	10028-17-8	Tritium	WATER	LA-508-421	U	-40.0	pCi/L	1.00	2.0e+02	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	H-3 Rel. % Count Error	WATER	LA-508-421	+-	1.1e+02	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	U-233/234	Uranium-233/234	WATER	LA-508-471		0.100	pCi/L	1.00	0.031	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	E,T,C	U-233/234 AEA Total Cntg Error	WATER	LA-508-471	+-	0.050	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP TRENT	15117-96-1	Uranium-235	WATER	LA-508-471	U	0.0180	pCi/L	1.00	0.042	02/02/05	01/26/05	01/26/05

**MDL=Minimum Detection Limit**  
**RQ=Result Qualifier**

J - Analyte is an estimate, has potentially larger errors

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 RESULTS REPORT

**Attention:** Steve Trent  
**Project:** F03-019: F03-019

**Group #:** WSCF20050186

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze	Sample	Receive		
					Method	RQ									
W050000178	B1B9N2	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	WATER	LA-508-471	+-	0.025	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	U-238	Uranium-238	WATER	LA-508-471		0.0500	pCi/L	1.00	0.031	02/02/05	01/26/05	01/26/05
W050000178	B1B9N2	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	WATER	LA-508-471	+-	0.034	pCi/L	1.00	0.0	02/02/05	01/26/05	01/26/05

**MDL=Minimum Detection Limit**  
**RQ=Result Qualifier**

J - Analyte is an estimate, has potentially larger errors

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: WSCF20050186  
 Matrix: WATER  
 Test: Americium by AEA

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050000176  
 BATCH QC ASSOCIATED WITH SAMPLE

DUP	Americium-241	14596-10-2	6.7e-02	38.554	RPD	02/02/05	0.000	20.000	•
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**BATCH QC**

BLANK	Americium-241	14596-10-2	7.3e-02	0.073	pCi/L	02/02/05	-10.000	1000.000	
LCS	Americium-241	14596-10-2	1.2e +01	99.792	% Recov	02/02/05	75.000	125.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: Gamma Energy Analysis-grd H2O

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050000176  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Cobalt-60	10198-40-0	U-9.55e-1	n/a	RPD	01/31/05	0.000	20.000	
DUP	Cesium-137	10045-97-3	U-1.12e-1	n/a	RPD	01/31/05	0.000	20.000	
DUP	Europium-152	14683-23-9	U-2.86e0	n/a	RPD	01/31/05	0.000	20.000	
DUP	Europium-154	15585-10-1	U5.04e+00	n/a	RPD	01/31/05	0.000	20.000	
DUP	Europium-155	14391-16-3	U-5.16e0	n/a	RPD	01/31/05	0.000	20.000	

**BATCH QC**

BLANK	Cobalt-60	10198-40-0	U5.05e-1	n/a	pCi/L	01/27/05	-10.000	1000.000	
BLANK	Cesium-137	10045-97-3	U-4.5e-1	n/a	pCi/L	01/27/05	-10.000	1000.000	
BLANK	Europium-152	14683-23-9	U-5.73e0	n/a	pCi/L	01/27/05	-10.000	1000.000	
BLANK	Europium-154	15585-10-1	U3.15e-1	n/a	pCi/L	01/27/05	-10.000	1000.000	
BLANK	Europium-155	14391-16-3	U4.84e0	n/a	pCi/L	01/27/05	-10.000	1000.000	
LCS	Cobalt-60	10198-40-0	4.44e+03	105.967	% Recov	01/27/05	80.000	120.000	
LCS	Cesium-137	10045-97-3	3.89e+03	108.659	% Recov	01/27/05	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
Matrix: WATER  
Test: Neptunium by AEA

SAF Number: F03-019  
Sample Date: 01/25/05  
Receive Date: 01/25/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000144 BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Neptunium-237	13994-20-2	2.5E-01	161.011	RPD	02/03/05	0.000	20.000	*
BATCH QC									
BLANK	Neptunium-237	13994-20-2	U0.00	n/a	pCi/L	02/03/05	-10.000	1000.000	
LCS	Neptunium-237	13994-20-2	26.0	26.000	% Recov	02/03/05	75.000	125.000	*

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: Plutonium Isotopics by AEA

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050000176  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Pu-239/240 by AEA	PU-239/240	U4.0e-03	n/a	RPD	02/02/05	0.000	20.000	
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**BATCH QC**

BLANK	Pu-239/240 by AEA	PU-239/240	3.8e-02	0.038	pCi/L	02/02/05	-10.000	1000.000	
LCS	Pu-239/240 by AEA	PU-239/240	9.9e+00	80.488	% Recov	02/02/05	75.000	125.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: TC99 by Liquid Scin.

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
<b>Lab ID: W050000176</b>									
<b>BATCH QC ASSOCIATED WITH SAMPLE</b>									
DUP	Technetium-99	14133-76-7	U1.5	n/a	RPD	01/31/05	0.000	20.000	
MS	Technetium-99	14133-76-7	45.	100.000	% Recov	01/31/05	75.000	125.000	
<b>BATCH QC</b>									
BLANK	Technetium-99	14133-76-7	-0.4	-0.400	pCi/L	01/31/05	-10.000	10.000	
LCS	Technetium-99	14133-76-7	112.4	99.822	% Recov	01/31/05	75.000	125.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: Tritium by Liq. Scint.

SAF Number: F03-019  
 Sample Date: 01/25/05  
 Receive Date: 01/25/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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**Lab ID: W050000144**  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Tritium	10028-17-8	U4.6E+01	n/a	RPD	02/02/05	0.000	20.000	
DUP	H-3 Rel. % Count Error	E,T,C	n/a	n/a	RPD	02/02/05	0.000	1000.000	
MS	Tritium	10028-17-8	2324.0	94.771	% Recov	02/02/05	75.000	125.000	
MS	H-3 Rel. % Count Error	E,T,C	n/a	n/a	Ratio	02/02/05	0.000	1000.000	

**BATCH QC**

BLANK	Tritium	10028-17-8	U-1.8E+01	n/a	pCi/L	02/02/05	-10.000	400.000	
LCS	Tritium	10028-17-8	1910.0	96.714	% Recov	02/02/05	75.000	125.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050186  
 Matrix: WATER  
 Test: Uranium Isotopics by AEA

SAF Number: F03-019  
 Sample Date: 01/26/05  
 Receive Date: 01/26/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050000176  
 BATCH QC ASSOCIATED WITH SAMPLE

DUP	Uranium-238	U-238	9.0e-02	72.727	RPD	02/02/05	0.000	20.000	•
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BATCH QC

BLANK	Uranium-238	24678-82-8	U1.4e-02	n/a	pCi/L	02/02/05	-10.000	1000.000	
LCS	Uranium-238	24678-82-8	2.0e+01	105.513	% Recov	02/02/05	75.000	125.000	

# WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent  
Project Number F03-019

Group #: WSCF20050186

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		<p>W05000176,178/U ISO &amp; Am-241 dup is flagged but the sample activity is low level. RPD does not apply to low level samples.lmh</p> <p>W05000176,178/Np237 duplicate in this batch is flagged but the sample activity is low level so the RPD does not apply. The Np237 LCS recovery is low so the sample results are estimated values.lmh</p> <p>SVOA: Surrogate Terphenyl-d14 is out low in the MS and MSD but its recovery in the sample and the LCS was good. den</p> <p>VOA: A J-flag of a target compound indicates that it was found at a concentration less than the lowest calibration standard but greater than the detection limit. gar</p> <p>ICP-AES: Calcium, Magnesium, Sodium spiking levels were insufficient for the sample content, NA spike results.</p> <p>Cr(VI): Sample not analyzed within 24 hours of sampling.</p>

Lab Areas: VALGROUP - Group Validation  
LOGSAMP - Login for Sample

VALTEST - Test Validation  
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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Report Date: 28-feb-2005

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# WSCF

## TENTATIVELY IDENTIFIED PEAK REPORT

**Attention:**  
**Project Number**

Steve Trent  
F03-019 :F03-019

**Group #:** WSCF20050186

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W050000176	B19NM9	GRP TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error			22	%
W050000176	B19NM9	GRP TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error			22	%
W050000176	B19NM9	GRP TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error			23	%
W050000176	B19NM9	GRP TRENT	Gamma Energy Analysis-grd H2O	PB-214			1.2e+02	pCi/L
W050000176	B19NM9	GRP TRENT	Gamma Energy Analysis-grd H2O	BI-214			1.2e+02	pCi/L
W050000176	B19NM9	GRP TRENT	Gamma Energy Analysis-grd H2O	RA-226			1.2e+02	pCi/L
W050000176	B19NM9	GRP TRENT	SW-846 8270B Semi-Vols	SMP 14.493 Unknown	Unknown	14.49355	J 15	ug/L
W050000176	B19NM9	GRP TRENT	SW-846 8270B Semi-Vols	SMP 18.386 9-Octadecenoic acid, 1	7431-95-0	18.38688	J 1.2e+02	ug/L
W050000176	B19NM9	GRP TRENT	SW-846 8270B Semi-Vols	SMP 4.090 Butanoic acid	107-92-6	4.090866	J 12	ug/L
W050000176	B19NM9	GRP TRENT	SW-846 8270B Semi-Vols	SMP 5.122 Unknown	Unknown	5.122966	J 35	ug/L
W050000176	B19NM9	GRP TRENT	SW-846 8270B Semi-Vols	SMP 5.674 1-Hexanol, 2-ethyl-	104-76-7	5.674783	J 2.4e+02	ug/L
W050000176	B19NM9	GRP TRENT	SW-846 8270B Semi-Vols	SMP 5.930 Unknown	Unknown	5.93025	J 7.9	ug/L
W050000176	B19NM9	GRP TRENT	SW-846 8270B Semi-Vols	SMP 6.042 Unknown	Unknown	6.04265	J 9.0	ug/L
W050000176	B19NM9	GRP TRENT	SW-846 8270B Semi-Vols	SMP 6.666 1,6-Hexanediol	629-11-8	6.666	J 12	ug/L
W050000176	B19NM9	GRP TRENT	SW-846 8270B Semi-Vols	SMP 7.360 Unknown	Unknown	7.360866	J 9.3	ug/L
W050000176	B19NM9	GRP TRENT	SW-846 8270B Semi-Vols	SMP 7.728 Unknown	Unknown	7.72875	J 28	ug/L
W050000176	B19NM9	GRP TRENT	VOA Ground Water Protection	SMP 26.640 1-Hexanol, 2-ethyl-	104-76-7	26.64041	J 32	ug/L
W050000178	B1B9N2	GRP TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error			22	%
W050000178	B1B9N2	GRP TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error			22	%
W050000178	B1B9N2	GRP TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error			23	%
W050000178	B1B9N2	GRP TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error			43	%
W050000178	B1B9N2	GRP TRENT	Gamma Energy Analysis-grd H2O	PB-214			1.1e+02	pCi/L
W050000178	B1B9N2	GRP TRENT	Gamma Energy Analysis-grd H2O	BI-214			1.2e+02	pCi/L
W050000178	B1B9N2	GRP TRENT	Gamma Energy Analysis-grd H2O	RA-226			1.2e+02	pCi/L
W050000178	B1B9N2	GRP TRENT	SW-846 8270B Semi-Vols	SMP 14.304 Unknown	Unknown	14.30438	J 7.8	ug/L

**RQ=Result Qualifier**

J - Analyte is an estimate, has potentially larger errors

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**Groundwater Remediation Program**

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# WSCF

## TENTATIVELY IDENTIFIED PEAK REPORT

**Attention:**  
**Project Number**

Steve Trent  
F03-019 :F03-019

**Group #:** WSCF20050186

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 14.478 Unknown	Unknown	14.4781	J	9.1	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 14.610 Unknown Phthalate	Unknown	14.61093	J	29	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 15.745 Unknown	Unknown	15.74521	J	17	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 16.368 Unknown	Unknown	16.36856	J	13	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 18.351 Unknown	Unknown	18.351	J	1.6e+02	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 19.137 Unknown	Unknown	19.13783	J	12	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 20.129 Unknown Hydrocarbon	Unknown	20.12905	J	13	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 20.875 Unknown Hydrocarbon	Unknown	20.87501	J	12	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 21.600 Unknown Hydrocarbon	Unknown	21.60055	J	29	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 22.295 Unknown Hydrocarbon	Unknown	22.29541	J	16	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 22.969 Unknown Hydrocarbon	Unknown	22.96985	J	20	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 23.644 Unknown Hydrocarbon	Unknown	23.6443	J	16	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 24.288 Unknown Hydrocarbon	Unknown	24.28808	J	50	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 5.127 Unknown	Unknown	5.12795	J	35	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 5.669 1-Hexanol, 2-ethyl-	104-76-7	5.66955	J	2.1e+02	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 6.425 Unknown Organic Acid	Unknown	6.425733	J	9.9	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 6.670 1,6-Hexanediol	629-11-8	6.670983	J	17	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 7.365 Unknown	Unknown	7.36585	J	15	ug/L
W050000178	B1B9N2	GRP TRENT SW-846 8270B Semi-Vols	SMP 8.214 Unknown	Unknown	8.214016	J	37	ug/L
W050000178	B1B9N2	GRP TRENT VOA Ground Water Protection	SMP 26.640 1-Hexanol, 2-ethyl-	104-76-7	26.64051	J	42	ug/L

**RQ=Result Qualifier**

J - Analyte is an estimate, has potentially larger errors

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*Groundwater Remediation Program*

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## 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.

<b>LA-212-402</b>	Determination of pH Direct Measurement EPA SW-846 9040B pH ELECTROMETRIC MEASUREMENT EPA-600/4-79-020 150.1 pH
<b>LA-265-403</b>	LA-265-403: Hexavalent Chromium analysis by Spectrophotometer EPA SW-846 7196 HEXAVALENT CHROMIUM
<b>LA-503-401</b>	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
<b>LA-505-411</b>	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE EPA SW-846 6010B INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY
<b>LA-505-412</b>	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
<b>LA-508-421</b>	Tritium Analysis by Liquid Scintillation Counting for WSCF None No reference to any industry method.
<b>LA-508-471</b>	LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP None No reference to any industry method.
<b>LA-508-481</b>	LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE None No reference to any industry method.

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.

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# 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.

<b>LA-523-455</b>	<b>LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846</b> <b>EPA SW-846 8000B</b> DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS <b>EPA SW-846 8260B</b> VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
<b>LA-523-456</b>	<b>LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C</b> <b>EPA SW-846 8000B</b> DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS <b>EPA SW-846 8270C</b> SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
<b>LA-533-410</b>	<b>LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY</b> <b>EPA-600/R-94-111 300</b> DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY

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.

Report Date: 24-feb-2005

Report#: WSCF20050186

Report WGPPM/O

## W13q Worklist/Batch/QC Report for Group# WSCF20050186

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
24827	4	25182	28545	LCS		pH Direct Measurement
24827	6	25182	28545	DUP	W050000176	pH Direct Measurement
24827	5	25182	28545	SAMPLE	W050000176	pH Direct Measurement
24827	7	25182	28545	SAMPLE	W050000178	pH Direct Measurement
24851	2	25206	28562	BLANK		Anions by Ion Chromatography
24851	9	25206	28562	BLANK		Anions by Ion Chromatography
24851	3	25206	28562	LCS		Anions by Ion Chromatography
24851	5	25206	28562	DUP	W050000176	Anions by Ion Chromatography
24851	6	25206	28562	MS	W050000176	Anions by Ion Chromatography
24851	7	25206	28562	MSD	W050000176	Anions by Ion Chromatography
24851	4	25206	28562	SAMPLE	W050000176	Anions by Ion Chromatography
24851	8	25206	28562	SAMPLE	W050000178	Anions by Ion Chromatography
24830	1	25186	28563	BLANK		TC99 by Liquid Scin.
24830	2	25186	28563	LCS		TC99 by Liquid Scin.
24830	4	25186	28563	DUP	W050000176	TC99 by Liquid Scin.
24830	3	25186	28563	MS	W050000176	TC99 by Liquid Scin.
24830	5	25186	28563	SAMPLE	W050000176	TC99 by Liquid Scin.
24830	6	25186	28563	SAMPLE	W050000178	TC99 by Liquid Scin.
24872	2	25227	28570	BLANK		Ammonia (N) by IC
24872	11	25227	28570	BLANK		Ammonia (N) by IC
24872	3	25227	28570	LCS		Ammonia (N) by IC
24872	5	25227	28570	DUP	W050000176	Ammonia (N) by IC
24872	6	25227	28570	MS	W050000176	Ammonia (N) by IC
24872	7	25227	28570	MSD	W050000176	Ammonia (N) by IC
24872	4	25227	28570	SAMPLE	W050000176	Ammonia (N) by IC
24872	8	25227	28570	SAMPLE	W050000178	Ammonia (N) by IC
24821	1	25177	28573	BLANK		Gamma Energy Analysis-grd H2O
24821	2	25177	28573	LCS		Gamma Energy Analysis-grd H2O
24821	3	25177	28573	DUP	W050000176	Gamma Energy Analysis-grd H2O
24821	4	25177	28573	SAMPLE	W050000176	Gamma Energy Analysis-grd H2O
24821	5	25177	28573	SAMPLE	W050000178	Gamma Energy Analysis-grd H2O
24882	1	25235	28589	BLANK		ICP-2008 MS All possible metal
24882	2	25235	28589	LCS		ICP-2008 MS All possible metal
24882	4	25235	28589	MS	W050000144	ICP-2008 MS All possible metal
24882	5	25235	28589	MSD	W050000144	ICP-2008 MS All possible metal
24882	0	25235	28589	SPK-RPD	W050000144	ICP-2008 MS All possible metal
		25235	28589	MS	W050000163	ICP-2008 MS All possible metal
		25235	28589	MSD	W050000163	ICP-2008 MS All possible metal
24882	6	25235	28589	SAMPLE	W050000176	ICP-2008 MS All possible metal
24882	7	25235	28589	SAMPLE	W050000178	ICP-2008 MS All possible metal
		25235	28589	MS	W05C000026	ICP-2008 MS All possible metal
		25235	28589	MSD	W05C000026	ICP-2008 MS All possible metal
24829	1	25185	28590	BLANK		Tritium by Liq. Scint.
24829	2	25185	28590	LCS		Tritium by Liq. Scint.
24829	3	25185	28590	DUP	W050000144	Tritium by Liq. Scint.
24829	4	25185	28590	MS	W050000144	Tritium by Liq. Scint.
24829	6	25185	28590	SAMPLE	W050000176	Tritium by Liq. Scint.
24829	7	25185	28590	SAMPLE	W050000178	Tritium by Liq. Scint.

24878	1	25231	28632	BLANK		Neptunium by AEA
24878	2	25231	28632	LCS		Neptunium by AEA
24878	3	25231	28632	DUP	W050000144	Neptunium by AEA
24878	5	25231	28632	SAMPLE	W050000176	Neptunium by AEA
24878	6	25231	28632	SAMPLE	W050000178	Neptunium by AEA
24893	1	25248	28633	BLANK		Plutonium Isotopics by AEA
24893	2	25248	28633	LCS		Plutonium Isotopics by AEA
24893	3	25248	28633	DUP	W050000176	Plutonium Isotopics by AEA
24893	4	25248	28633	SAMPLE	W050000176	Plutonium Isotopics by AEA
24893	5	25248	28633	SAMPLE	W050000178	Plutonium Isotopics by AEA
24894	1	25249	28634	BLANK		Americium by AEA
24894	2	25249	28634	LCS		Americium by AEA
24894	3	25249	28634	DUP	W050000176	Americium by AEA
24894	4	25249	28634	SAMPLE	W050000176	Americium by AEA
24894	5	25249	28634	SAMPLE	W050000178	Americium by AEA
24892	1	25247	28635	BLANK		Uranium Isotopics by AEA
24892	2	25247	28635	LCS		Uranium Isotopics by AEA
24892	3	25247	28635	DUP	W050000176	Uranium Isotopics by AEA
24892	4	25247	28635	SAMPLE	W050000176	Uranium Isotopics by AEA
24892	5	25247	28635	SAMPLE	W050000178	Uranium Isotopics by AEA
		28648		BLANK		SW-846 8270B Semi-Vols
		28648		LCS		SW-846 8270B Semi-Vols
		28648		SAMPLE	W050000176	SW-846 8270B Semi-Vols
		28648		SURR	W050000176	SW-846 8270B Semi-Vols
		28648		MS	W050000178	SW-846 8270B Semi-Vols
		28648		MSD	W050000178	SW-846 8270B Semi-Vols
		28648		SAMPLE	W050000178	SW-846 8270B Semi-Vols
		28648		SPK-RPD	W050000178	SW-846 8270B Semi-Vols
		28648		SURR	W050000178	SW-846 8270B Semi-Vols
24842	2	25197	28766	BLANK		Hexavalent chromium
24842	9	25197	28766	BLANK		Hexavalent chromium
24842	3	25197	28766	LCS		Hexavalent chromium
24842	5	25197	28766	DUP	W050000176	Hexavalent chromium
24842	6	25197	28766	MS	W050000176	Hexavalent chromium
24842	7	25197	28766	MSD	W050000176	Hexavalent chromium
24842	4	25197	28766	SAMPLE	W050000176	Hexavalent chromium
24842	7	25197	28766	SPK-RPD	W050000176	Hexavalent chromium
24842	8	25197	28766	SAMPLE	W050000178	Hexavalent chromium
25142	1	25502	28893	BLANK		ICP Metals Analysis, Grd H20 P
25142	2	25502	28893	LCS		ICP Metals Analysis, Grd H20 P
25142	4	25502	28893	MS	W050000176	ICP Metals Analysis, Grd H20 P
25142	5	25502	28893	MSD	W050000176	ICP Metals Analysis, Grd H20 P
25142	3	25502	28893	SAMPLE	W050000176	ICP Metals Analysis, Grd H20 P
25142	0	25502	28893	SPK-RPD	W050000176	ICP Metals Analysis, Grd H20 P
25142	6	25502	28893	SAMPLE	W050000178	ICP Metals Analysis, Grd H20 P
		28916		MS	W050000176	VOA Ground Water Protection
		28916		MSD	W050000176	VOA Ground Water Protection
		28916		SAMPLE	W050000176	VOA Ground Water Protection
		28916		SPK-RPD	W050000176	VOA Ground Water Protection
		28916		SURR	W050000176	VOA Ground Water Protection
		28916		SAMPLE	W050000178	VOA Ground Water Protection
		28916		SURR	W050000178	VOA Ground Water Protection

28916	SAMPLE	W050000179	VOA Ground Water Protection
28916	SURR	W050000179	VOA Ground Water Protection
28917	SAMPLE	W050000176	VOA Ground Water Protection
28917	SAMPLE	W050000178	VOA Ground Water Protection

M8141-SLF-05-104

ATTACHMENT 3

**SAMPLE RECEIPT INFORMATION**

Consisting of 5 pages  
Including cover page

*File*  
*VB*  


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2/24/05

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354  
Attn: Steve Trent

Customer Code: GPP  
PO#: 119325/ES10  
Group#: 20050186  
Project#: F03-019  
Proj Mgr: Steve Trent A0-21  
Phone: 373-5869

The following samples were received from you on 01/26/05. 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
W050000176	B19NM9	GRP @2008 @GEA-GPP @VOA-GPP	TRENT Water @AEA-30 @AEA-31 @GPP6010 @H3-31 CR+6 NH4-IC	01/26/05 @AEA-32 @AEA-33 @IC-30 @SVOCGPP @TC99 PH-30
W050000178	B1B9N2	GRP @2008 @GEA-GPP @VOA-GPP	TRENT Water @AEA-30 @AEA-31 @GPP6010 @H3-31 CR+6 NH4-IC	01/26/05 @AEA-32 @AEA-33 @IC-30 @SVOCGPP @TC99 PH-30
W050000179	B1B9X7	GRP @VOA-GPP	TRENT Water	01/26/05

Test Acronym Description

Test Acronym	Description
@2008	ICP-2008 MS All possible metal
@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
@H3-31	Tritium by Liq. Scint.
@IC-30	Anions by Ion Chromatography
@SVOCGPP	SW-846 8270B Semi-Vols
@TC99-30	TC99 by Liquid Scin.
@VOA-GPP	VOA Ground Water Protection
CR+6	Hexavalent chromium
NH4-IC	Ammonia (N) by IC
PH-30	pH Direct Measurement

2/24/05

FLUOR Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							F03-019-044		PAGE 1 OF 2			
<b>COLLECTOR</b> Pope/Pfister/Wiberg/Tyra		<b>COMPANY CONTACT</b> Steve Trent		<b>TELEPHONE NO.</b> 373-5869		<b>PROJECT COORDINATOR</b> TRENT, SJ			<b>PRICE CODE</b> 7N		<b>DATA TURNAROUND</b> 45 Days / 45 Days			
<b>SAMPLING LOCATION</b> 216-Z-9/C3426; Interval 527FT - 529.5FT		<b>PROJECT DESIGNATION</b> 216-Z-9 Trench Characterization Borehole - Water				<b>SAF NO.</b> F03-019			<b>AIR QUALITY</b> <input type="checkbox"/>					
<b>ICE CHEST NO.</b>		<b>FIELD LOGBOOK NO.</b> HNF-N-360 1		<b>COA</b> 119325E510		<b>METHOD OF SHIPMENT</b> Government Vehicle								
<b>SHIPPED TO</b> Waste Sampling & Characterization		<b>OFFSITE PROPERTY NO.</b> N/A				<b>BILL OF LADING/AIR BILL NO.</b> N/A								
<b>MATRIX*</b> A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	<b>POSSIBLE SAMPLE HAZARDS/ REMARKS</b> RADIOACTIVE TIE TO: B19PF9		<b>PRESERVATION</b>		None	HCl or H2SO4 to pH <2/Cool 4C	Cool 4C	HNO3 to pH <2	Cool 4C	Cool 4C	H2SO4 to pH <2	None	HNO3 to pH <2	HNO3 to pH <2
			<b>TYPE OF CONTAINER</b>		P	aGs*	aG	P	P	P	P	P	P	P
			<b>NO. OF CONTAINER(S)</b>		2	3	4	1	1	1	1	1	1	2
			<b>VOLUME</b>		1L	40mL	1000mL	500mL	500mL	500mL	1000mL	1000mL	1000mL	1000mL
<b>SPECIAL HANDLING AND/OR STORAGE</b> N/A 20050186		<b>SAMPLE ANALYSIS</b>		Technetium-99;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Cations (IC) - 300.7 (Nitrogen in ammonium)	pH - 150.1;	SEE ITEM (6) IN SPECIAL INSTRUCTIONS	Isotopic Uranium;	
<b>SAMPLE NO.</b>	<b>MATRIX*</b>	<b>SAMPLE DATE</b>	<b>SAMPLE TIME</b>											
B19NM9 (F)	WATER W05 000176	1/26/05	1305	X	X	X	X	X	X	X	X	X	X	X
B1B9N2 (F)	WATER 178-157	1/26/05	1305	X	X	X	X	X	X	X	X	X	X	X
<b>CHAIN OF POSSESSION</b>				<b>SIGN/ PRINT NAMES</b>				<b>SPECIAL INSTRUCTIONS</b>						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		(2)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, Acetonitrile, Hexane, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene} (3)Semi-VOA - 8270A (TCL); Semi-VOA -- 8270A (Add-On) {1,2,4-Trimethylbenzene, Cyclohexanone, Tributyl phosphate} (4)ICP Metals - 6010A (TAL); ICP Metals - 6010A (Add-on) {Arsenic, Beryllium, Bismuth, Lead, Lithium, Phosphorus, Selenium, Strontium} ICP/MS - 200.8 (Add-on) {Mercury, Uranium} (5)IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate} (6)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}						
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								
<b>LABORATORY SECTION</b>		<b>RECEIVED BY</b>				<b>TITLE</b>				<b>DATE/TIME</b>				
<b>FINAL SAMPLE DISPOSITION</b>		<b>DISPOSAL METHOD</b>				<b>DISPOSED BY</b>				<b>DATE/TIME</b>				

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214102

FLUOR Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F03-019-044		PAGE 2 OF 2	
<b>COLLECTOR</b> Pope/Pfister/Wlberg/Tyra		<b>COMPANY CONTACT</b> Steve Trent		<b>TELEPHONE NO.</b> 373-5869		<b>PROJECT COORDINATOR</b> TRENT, SJ		<b>PRICE CODE</b> 7N		<b>DATA TURNAROUND</b> 45 Days / 45 Days	
<b>SAMPLING LOCATION</b> 216-Z-9/C3426; Interval 527FT - 529.5FT		<b>PROJECT DESIGNATION</b> 216-Z-9 Trench Characterization Borehole - Water				<b>SAF NO.</b> F03-019		<b>AIR QUALITY</b> <input type="checkbox"/>			
<b>ICE CHEST NO.</b>		<b>FIELD LOGBOOK NO.</b> HNF-N-360 1		<b>COA</b> 119325ES10		<b>METHOD OF SHIPMENT</b> Government Vehicle					
<b>SHIPPED TO</b> Waste Sampling & Characterization		<b>OFFSITE PROPERTY NO.</b> N/A				<b>BILL OF LADING/AIR BILL NO.</b> N/A					
<b>MATRIX*</b> A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	<b>POSSIBLE SAMPLE HAZARDS/ REMARKS</b> RADIOACTIVE TIE TO: B19PF9		<b>PRESERVATION</b>		HNO3 to pH <2	HNO3 to pH <2	HNO3 to pH <2	None	None		
			<b>TYPE OF CONTAINER</b>		P	P	P	P	P		
			<b>NO. OF CONTAINER(S)</b>		1	1	1	2	1		
			<b>VOLUME</b>		1000mL	1000mL	1000mL	1000mL	500mL		
	<b>SPECIAL HANDLING AND/OR STORAGE</b> N/A 20050186 36°F		<b>SAMPLE ANALYSIS</b>		Isotopic Plutonium;	Americium-241;	Neptunium-237;	Technetium-99;	Tritium - H3;		
<b>SAMPLE NO.</b>	<b>MATRIX*</b>	<b>SAMPLE DATE</b>	<b>SAMPLE TIME</b>								
B19NM9 (F)	WATER	1/26/05	1305	X	X	X	X	X			
B1B9N2 (F)	WATER	1/26/05	1305	X	X	X	X	X			
<b>CHAIN OF POSSESSION</b>				<b>SIGN/ PRINT NAMES</b>				<b>SPECIAL INSTRUCTIONS</b>			
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		Delete Tc-99 - P/W/ty 1-24-2005			
David Tyra/De... 1/26/05		15:40		Victor B... 1/26/05		16:15					
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					
<b>LABORATORY SECTION</b>		<b>RECEIVED BY</b>				<b>TITLE</b>				<b>DATE/TIME</b>	
<b>FINAL SAMPLE DISPOSITION</b>		<b>DISPOSAL METHOD</b>				<b>DISPOSED BY</b>				<b>DATE/TIME</b>	

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ADMINISTRATIVE VERIFICATION FORM

VERIFICATION DATE: 03/03/05

VERIFIER: PC LEE

SAF NO.: F03-019

SAF TITLE: 200-Z-9 TRENCH CHARACTERIZATION  
BOREHOLE - WATER

SDG NO.: WSCF20050186

SDR NO(s): NONE

DATA PACKAGE DEFICIENCIES: NONE

DATE SENT TO LAB: NA

DATE LAB RESPONDED: NA

DATE VERIFICATION CLOSED: 03/03/05