



M8141-SLF-06-300

ATTACHMENT 1

**NARRATIVE**

Consisting of 5 pages  
Including cover page

<b>Sample Delivery Group</b>	<b>WSCF20060924</b>
<b>Sample Matrix</b>	<b>Water</b>
<b>Sample Visual</b>	<b>N/A</b>
<b>SAF Number</b>	<b>F06-026</b>
<b>Data Deliverable</b>	<b>Summary Report</b>

### **Introduction**

Two (2) 200-PO-1 WTP Opportunistic Sampling and Analysis ground water samples (B1K9B4 and B1K9B5) were received at the WSCF Laboratory on August 15, 2006. The samples were received in a cool condition with ice present in the coolers, and 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 are included as Attachment 3.

### **Analytical Methodology for Requested Analyses**

Refer to *WSCF Method References Report*, pages 45 through 47, for a complete listing of approved analytical methods. All sample results are reported on an “as received” basis.

### **Organic Comments**

**Total Organic Halide (TOX)** – The holding time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each analytical batch of 20 or less samples. See page 14 for QC details. All QC controls are within the established limits.

**Semi-VOA** – The holding time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each analytical batch of 20 or less samples. See pages 15 through 20 for QC details. All QC controls are within the established limits.

**VOA** – The holding time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each analytical batch of 20 or less samples. See pages 22 through 23 for QC details. All QC controls are within the established limits.

## **Inorganic Comments**

**Alkalinity** – Holding time for this analysis was met. A Sample Duplicate and Laboratory Control Sample were analyzed with each analytical batch of 20 or less samples. See page 26 for QC details. All QC controls are within the established limits.

**Anions** – The holding time for this analysis was met. A Blank, Sample Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each analytical batch of 20 or less samples. See pages 27 through 28 for QC details. All QC controls are within the established limits.

**Cyanide** - The holding time for this analysis was met. A Blank, Preparation Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each analytical batch of 20 or less samples. See page 29 for QC details. All QC controls are within the established limits.

**Hexavalent Chromium** – The holding time for this analysis was met. A Blank, Laboratory Control Sample, Sample Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed with each analytical batch of 20 or less samples. See page 30 for QC details. All QC controls are within the established limits.

**Total Dissolved Solids** - The holding time for this analysis was met. A Blank, Laboratory Control Sample and Sample Duplicate were analyzed with each analytical batch of 20 or less samples. See page 31 for QC details. All QC controls are within the established limits.

**Total Organic Carbon (TOC)** – The holding time for this analysis was met. A Blank, Method Spike, Matrix Spike and Matrix Spike Duplicate were analyzed with each analytical batch of 20 or less samples. See page 32 for QC details. All QC controls are within the established limits.

**ICP-AES Metals (Bismuth only)** – The holding time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicated were analyzed with each analytical batch of 20 or less samples. See page 33 for QC details. All QC controls are within the established limits.

**ICP-MS Metals** – The holding time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each analytical batch of 20 or less samples.. See pages 34 through 36 for QC details. All QC controls are within the established limits.

## **Radiochemistry Comments**

There are no holding times associated with WSCF's radiochemical analysis.

**Gamma Energy Analysis (GEA)** - A Blank, Laboratory Control Sample and Sample Duplicate were analyzed with each analytical batch of 20 or less samples. See page 38 for QC details. All QC controls are within the established limits.

**Gross Alpha/Beta** - A Blank, Laboratory Control Sample and Sample Duplicate were analyzed with each analytical batch of 20 or less samples. See page 39 for QC details. All QC controls are within the established limits.

**Strontium-90** - A Blank, Laboratory Control Sample and Sample Duplicate were analyzed with each analytical batch of 20 or less samples. See page 40 for QC details. All QC controls are within the established limits.

**Technetium-99** - A Blank, Laboratory Control Sample, Matrix Spike and Sample Duplicate were analyzed with each analytical batch of 20 or less samples. See page 41 for QC details. All QC controls are within the established limits.

**Tritium** - A Blank, Laboratory Control Sample, Matrix Spike and Sample Duplicate were analyzed with each analytical batch of 20 or less samples. See page 42 for QC details. All QC controls are within the established limits.

Strontium-85 – Radiochemical Tracer Recovery Data are summarized below:

<b>Radiochemical Tracer Percent Recovery</b>			
<b>Sample Number</b>	<b>Lab Sample ID</b>	<b>Isotope</b>	<b>Tracer Recovery (Percent)</b>
<u><i>Strontium-85</i></u>			
BLANK		Sr-85	90.9
LCS		Sr-85	91.0
B1K9B4	W060002476	Sr-85	81.4
B1K9B4 (Dup)	W060002476	Sr-85	93.2

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.



John E. Trechter  
WSCF Client Services

Abbreviations

Hg – mercury

IC – ion chromatography

ICP – inductively coupled plasma

ICP/AES – ICP/atomic emission spectroscopy

ICP/MS – ICP/mass spectrometry

Total U – total uranium

AT/TB – total alpha/total beta

AEA – Alpha Energy Analysis

WTPH-G – Total Hydrocarbons-Gasoline

Am – americium

Cm – curium

Pu – plutonium

Np – neptunium

GEA – gamma energy analysis

H3 – Tritium

Sr – Strontium 89, 90

WTPH-D – Total Hydrocarbons-Diesel

TSS – Total Suspended Solids

M8141-SLF-06-300

ATTACHMENT 2

**ANALYTICAL RESULTS**

Consisting of 43 pages  
Including cover page

**WSCF**  
**ANALYTICAL RESULTS REPORT**

for

**Groundwater Remediation Program**

**Richland, WA 99354**

**Attention: Steve Trent A0-21**

Analytical:  S. Fitzgerald  
Client Services: John Trechter John Trechter

*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#: WSCF20060924  
Report Date: 18-sep-2006  
Report WGPP/ver. 1.3.1  
Groundwater Remediation Program

# WSCF ANALYTICAL RESULTS REPORT

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

Steve Trent A0-21  
F06-026: F06-026

**Group #:** WSCF20060924

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
<b>Organic</b>														
W060002476	B1K9B4	TRENT	59473-04-0	Total Organic Halides	WATER	LA-523-444	U	< 12.0	ug/L	1.00	12	08/23/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	100-02-7	4-Nitrophenol	WATER	LA-523-456	U	< 0.950	ug/L	1.00	0.95	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	106-46-7	1,4-Dichlorobenzene	WATER	LA-523-456	U	< 1.30	ug/L	1.00	1.3	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	108-95-2	Phenol	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	120-82-1	1,2,4-Trichlorobenzene	WATER	LA-523-456	U	< 2.10	ug/L	1.00	2.1	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	121-14-2	2,4-Dinitrotoluene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	129-00-0	Pyrene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	59-50-7	4-Chloro-3-methylphenol	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	WATER	LA-523-456	U	< 0.570	ug/L	1.00	0.57	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	83-32-9	Acenaphthene	WATER	LA-523-456	U	< 2.50	ug/L	1.00	2.5	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	87-86-5	Pentachlorophenol	WATER	LA-523-456	U	< 1.40	ug/L	1.00	1.4	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	95-57-8	2-Chlorophenol	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	100-01-6	4-Nitroaniline	WATER	LA-523-456	U	< 0.950	ug/L	1.00	0.95	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	101-55-3	4-Bromophenylphenyl ether	WATER	LA-523-456	U	< 0.950	ug/L	1.00	0.95	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	105-67-9	2,4-Dimethylphenol	WATER	LA-523-456	U	< 0.900	ug/L	1.00	0.90	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	106-47-8	4-Chloroaniline	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	108-60-1	Bis(2-chloro-1-methylethyl)eth	WATER	LA-523-456	U	< 0.950	ug/L	1.00	0.95	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	111-44-4	Bis(2-chloroethyl) ether	WATER	LA-523-456	U	< 0.860	ug/L	1.00	0.86	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	111-91-1	Bis(2-Chloroethoxy)methane	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	117-81-7	Bis(2-ethylhexyl) phthalate	WATER	LA-523-456	U	< 0.760	ug/L	1.00	0.76	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	117-84-0	Di-n-octylphthalate	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	118-74-1	Hexachlorobenzene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	120-12-7	Anthracene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	120-83-2	2,4-Dichlorophenol	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	131-11-3	Dimethyl phthalate	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	132-64-9	Dibenzofuran	WATER	LA-523-456	U	< 2.10	ug/L	1.00	2.1	08/28/06	08/15/06	08/15/06

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

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

U - Analyzed for but not detected above limiting criteria.

**DF=Dilution Factor**

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

Report WGPP/ver. 1.3.1

Groundwater Remediation Program

# WSCF

## ANALYTICAL RESULTS REPORT

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

Steve Trent A0-21  
F06-026: F06-026

**Group #:** WSCF20060924

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W060002476	B1K9B4	TRENT	191-24-2	Benzo(ghi)perylene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	193-39-5	Indeno(1,2,3-cd)pyrene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	205-99-2	Benzo(b)fluoranthene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	206-44-0	Fluoranthene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	207-08-9	Benzo(k)fluoranthene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	208-96-8	Acenaphthylene	WATER	LA-523-456	U	< 2.20	ug/L	1.00	2.2	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	218-01-9	Chrysene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	50-32-8	Benzo(a)pyrene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	51-28-5	2,4-Dinitrophenol	WATER	LA-523-456	U	< 1.90	ug/L	1.00	1.9	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	53-70-3	Dibenz[a,h]anthracene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	534-52-1	4,6-Dinitro-2-methylphenol	WATER	LA-523-456	U	< 0.950	ug/L	1.00	0.95	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	541-73-1	1,3-Dichlorobenzene	WATER	LA-523-456	U	< 1.30	ug/L	1.00	1.3	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	56-55-3	Benzo(a)anthracene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	606-20-2	2,6-Dinitrotoluene	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7005-72-3	4-Chlorophenylphenyl ether	WATER	LA-523-456	U	< 1.60	ug/L	1.00	1.6	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	77-47-4	Hexachlorocyclopentadiene	WATER	LA-523-456	U	< 4.80	ug/L	1.00	4.8	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	78-59-1	Isophorone	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	84-66-2	Diethylphthalate	WATER	LA-523-456	U	< 1.80	ug/L	1.00	1.8	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	84-74-2	Di-n-butylphthalate	WATER	LA-523-456	U	< 2.20	ug/L	1.00	2.2	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	85-01-8	Phenanthrene	WATER	LA-523-456	U	< 0.520	ug/L	1.00	0.52	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	85-68-7	Butylbenzylphthalate	WATER	LA-523-456	U	< 0.570	ug/L	1.00	0.57	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	86-30-6	N-Nitrosodiphenylamine	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	86-73-7	Fluorene	WATER	LA-523-456	U	< 1.30	ug/L	1.00	1.3	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	86-74-8	Carbazole	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	87-68-3	Hexachlorobutadiene	WATER	LA-523-456	U	< 1.90	ug/L	1.00	1.9	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	88-74-4	2-Nitroaniline	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	88-75-5	2-Nitrophenol	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06

**MDL = Minimum Detection Limit**

**RQ = Result Qualifier**

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

U - Analyzed for but not detected above limiting criteria.

**DF = Dilution Factor**

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

Report WGPP/ver. 1.3.1

Groundwater Remediation Program

# WSCF

## ANALYTICAL RESULTS REPORT

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

Steve Trent A0-21  
F06-026: F06-026

**Group #:** WSCF20060924

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze	Sample	Receive	
					Method	RQ								
W060002476	B1K9B4	TRENT	91-20-3	Naphthalene	WATER	LA-523-456	U	< 2.00	ug/L	1.00	2.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	91-57-6	2-Methylnaphthalene	WATER	LA-523-456	U	< 2.90	ug/L	1.00	2.9	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	91-58-7	2-Chloronaphthalene	WATER	LA-523-456	U	< 3.30	ug/L	1.00	3.3	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	91-94-1	3,3'-Dichlorobenzidine	WATER	LA-523-456	U	< 0.760	ug/L	1.00	0.76	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	95-48-7	2-Methylphenol (cresol, o-)	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	95-50-1	1,2-Dichlorobenzene	WATER	LA-523-456	U	< 1.40	ug/L	1.00	1.4	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	95-95-4	2,4,5-Trichlorophenol	WATER	LA-523-456	U	< 0.620	ug/L	1.00	0.62	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	98-95-3	Nitrobenzene	WATER	LA-523-456	U	< 0.570	ug/L	1.00	0.57	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	99-09-2	3-Nitroaniline	WATER	LA-523-456	U	< 0.570	ug/L	1.00	0.57	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	65794-96-9	3 & 4 Methylphenol Total	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	67-72-1	Hexachloroethane	WATER	LA-523-456	U	< 1.30	ug/L	1.00	1.3	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	88-06-2	2,4,6-Trichlorophenol	WATER	LA-523-456	U	< 0.480	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	126-73-8	Tributyl phosphate	WATER	LA-523-456		7.50	ug/L	1.00	0.48	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	75-35-4	1,1-Dichloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	79-01-6	Trichloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	71-43-2	Benzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	108-88-3	Toluene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	108-90-7	Chlorobenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	75-34-3	1,1-Dichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	100-41-4	Ethylbenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	100-42-5	Styrene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	10061-01-5	cis-1,3-Dichloropropene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	10061-02-6	trans-1,3-Dichloropropene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	107-06-2	1,2-Dichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	108-10-1	4-Methyl-2-Pentanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	124-48-1	Dibromochloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	127-18-4	Tetrachloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06

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

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

U - Analyzed for but not detected above limiting criteria.

**DF = Dilution Factor**

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

Report WGPP/ver. 1.3.1

Groundwater Remediation Program

# WSCF ANALYTICAL RESULTS REPORT

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

Steve Trent A0-21  
F06-026: F06-026

**Group #:** WSCF20060924

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W060002476	B1K9B4	TRENT	1330-20-7	Xylenes (total)	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	540-59-0	1,2-Dichloroethene(Total)	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	56-23-5	Carbon tetrachloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	591-78-6	2-Hexanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	67-64-1	Acetone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	67-66-3	Chloroform	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	71-55-6	1,1,1-Trichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	74-83-9	Bromomethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	74-87-3	Chloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	75-00-3	Chloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	75-01-4	Vinyl chloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	75-09-2	Methylenechloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	75-15-0	Carbon disulfide	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	75-25-2	Bromoform	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	75-27-4	Bromodichloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	78-87-5	1,2-Dichloropropane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	78-93-3	2-Butanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	79-00-5	1,1,2-Trichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	75-35-4	1,1-Dichloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	79-01-6	Trichloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	71-43-2	Benzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	108-88-3	Toluene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	108-90-7	Chlorobenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	75-34-3	1,1-Dichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	100-41-4	Ethylbenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	100-42-5	Styrene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06

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

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

U - Analyzed for but not detected above limiting criteria.

**DF=Dilution Factor**

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

Report WGPP/ver. 1.3.1

Groundwater Remediation Program

# WSCF

## ANALYTICAL RESULTS REPORT

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

Steve Trent A0-21  
F06-026: F06-026

**Group #:** WSCF20060924

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze	Sample	Receive	
					Method	RQ								
W060002477	B1K9B5	TRENT	10061-01-5	cis-1,3-Dichloropropene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	10061-02-6	trans-1,3-Dichloropropene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	107-06-2	1,2-Dichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	108-10-1	4-Methyl-2-Pentanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	124-48-1	Dibromochloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	127-18-4	Tetrachloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	1330-20-7	Xylenes (total)	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	540-59-0	1,2-Dichloroethene(Total)	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	56-23-5	Carbon tetrachloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	591-78-6	2-Hexanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	67-64-1	Acetone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	67-66-3	Chloroform	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	71-55-6	1,1,1-Trichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	74-83-9	Bromomethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	74-87-3	Chloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	75-00-3	Chloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	75-01-4	Vinyl chloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	75-09-2	Methylenechloride	WATER	LA-523-455		7.40	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	75-15-0	Carbon disulfide	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	75-25-2	Bromoform	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	75-27-4	Bromodichloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	78-87-5	1,2-Dichloropropane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	78-93-3	2-Butanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06
W060002477	B1K9B5	TRENT	79-00-5	1,1,2-Trichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/28/06	08/15/06	08/15/06

**MDL = Minimum Detection Limit**  
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Report WGPP/ver. 1.3.1

Groundwater Remediation Program

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
Matrix: WATER  
Test: Total Organic Halides

SAF Number: F06-026  
Sample Date: 08/10/06  
Receive Date: 08/14/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W060002445

## BATCH QC ASSOCIATED WITH SAMPLE

MS	Total Organic Halides	TOX	156	97.500	% Recov	08/23/06	50.000	150.000	
MSD	Total Organic Halides	TOX	161	100.625	% Recov	08/23/06	50.000	150.000	
SPK-RPD	Total Organic Halides	TOX	100.625	3.155	RPD	08/23/06	0.000	20.000	

## BATCH QC

BLANK	Total Organic Halides	TOX	< 5	n/a	mg/L	08/23/06	0.000	300.000	U
LCS	Total Organic Halides	TOX	394	98.500	%rec	08/23/06	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: SW-846 8270C Semi-Vols

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W060002476									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,2,4-Trichlorobenzene	120-82-1	684.23	68.400	% Recov	08/28/06	50.000	120.000	
MS	1,4-Dichlorobenzene	106-46-7	624.53	62.500	% Recov	08/28/06	41.000	113.000	
MS	2,4-Dinitrotoluene	121-14-2	995.70	99.600	% Recov	08/28/06	65.000	109.000	
MS	2-Fluorophenol	367-12-4	768.31	76.800	% Recov	08/28/06	50.000	110.000	
MS	Acenaphthene	83-32-9	861.48	86.100	% Recov	08/28/06	62.000	112.000	
MS	4-Chloro-3-methylphenol	59-50-7	1555.8	104.000	% Recov	08/28/06	59.000	115.000	
MS	2-Chlorophenol	95-57-8	1070.3	71.400	% Recov	08/28/06	69.000	111.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	997.69	99.800	% Recov	08/28/06	69.000	115.000	
MS	2-Fluorobiphenyl	321-60-8	650.09	65.000	% Recov	08/28/06	58.000	109.000	
MS	Phenol	108-95-2	1075.8	71.700	% Recov	08/28/06	59.000	115.000	
MS	Nitrobenzene-d5	4165-60-0	966.81	96.700	% Recov	08/28/06	60.000	118.000	
MS	4-Nitrophenol	100-02-7	1612.9	108.000	% Recov	08/28/06	32.000	130.000	
MS	Pentachlorophenol	87-86-5	1461.3	97.400	% Recov	08/28/06	51.000	121.000	
MS	Phenol-d5	4165-62-2	676.48	67.600	% Recov	08/28/06	59.000	116.000	
MS	Pyrene	129-00-0	879.53	88.000	% Recov	08/28/06	58.000	116.000	
MS	2,4,6-Tribromophenol	118-79-6	1028.5	103.000	% Recov	08/28/06	60.000	120.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	820.81	82.100	% Recov	08/28/06	60.000	120.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	11.622	61.000	% Recov	08/28/06	50.000	120.000	
MSD	1,4-Dichlorobenzene	106-46-7	10.260	53.900	% Recov	08/28/06	41.000	113.000	
MSD	2,4-Dinitrotoluene	121-14-2	18.443	96.800	% Recov	08/28/06	65.000	109.000	
MSD	2-Fluorophenol	367-12-4	15.043	79.000	% Recov	08/28/06	50.000	110.000	
MSD	Acenaphthene	83-32-9	13.988	73.400	% Recov	08/28/06	62.000	112.000	
MSD	4-Chloro-3-methylphenol	59-50-7	26.772	93.700	% Recov	08/28/06	59.000	115.000	
MSD	2-Chlorophenol	95-57-8	22.761	79.700	% Recov	08/28/06	69.000	111.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	19.994	105.000	% Recov	08/28/06	69.000	115.000	
MSD	2-Fluorobiphenyl	321-60-8	12.822	67.300	% Recov	08/28/06	58.000	109.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: SW-846 8270C Semi-Vols

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Phenol	108-95-2	22.840	79.900	% Recov	08/28/06	59.000	115.000	
MSD	Nitrobenzene-d5	4165-60-0	17.369	91.200	% Recov	08/28/06	60.000	118.000	
MSD	4-Nitrophenol	100-02-7	29.387	103.000	% Recov	08/28/06	32.000	130.000	
MSD	Pentachlorophenol	87-86-5	25.078	87.800	% Recov	08/28/06	51.000	121.000	
MSD	Phenol-d5	4165-62-2	16.220	85.200	% Recov	08/28/06	59.000	116.000	
MSD	Pyrene	129-00-0	14.579	76.500	% Recov	08/28/06	58.000	116.000	
MSD	2,4,6-Tribromophenol	118-79-6	16.379	86.000	% Recov	08/28/06	60.000	120.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	14.134	74.200	% Recov	08/28/06	60.000	120.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	61.000	11.437	RPD	08/28/06	0.000	25.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	53.900	14.777	RPD	08/28/06	0.000	25.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	96.800	2.851	RPD	08/28/06	0.000	25.000	
SPK-RPD	2-Fluorophenol	367-12-4	79.000	2.824	RPD	08/28/06	0.000	25.000	
SPK-RPD	Acenaphthene	83-32-9	73.400	15.925	RPD	08/28/06	0.000	25.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	93.700	10.420	RPD	08/28/06	0.000	25.000	
SPK-RPD	2-Chlorophenol	95-57-8	79.700	10.986	RPD	08/28/06	0.000	25.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	105.000	5.078	RPD	08/28/06	0.000	25.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	67.300	3.477	RPD	08/28/06	0.000	25.000	
SPK-RPD	Phenol	108-95-2	79.900	10.818	RPD	08/28/06	0.000	16.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	91.200	5.854	RPD	08/28/06	0.000	25.000	
SPK-RPD	4-Nitrophenol	100-02-7	103.000	4.739	RPD	08/28/06	0.000	25.000	
SPK-RPD	Pentachlorophenol	87-86-5	87.800	10.367	RPD	08/28/06	0.000	25.000	
SPK-RPD	Phenol-d5	4165-62-2	85.200	23.037	RPD	08/28/06	0.000	25.000	
SPK-RPD	Pyrene	129-00-0	76.500	13.982	RPD	08/28/06	0.000	25.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	86.000	17.989	RPD	08/28/06	0.000	25.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	74.200	10.109	RPD	08/28/06	0.000	25.000	
SURR	2-Fluorophenol	367-12-4	14.353	75.400	% Recov	08/28/06	50.000	110.000	
SURR	2-Fluorobiphenyl	321-60-8	13.976	73.400	% Recov	08/28/06	58.000	109.000	
SURR	Nitrobenzene-d5	4165-60-0	16.208	85.100	% Recov	08/28/06	60.000	118.000	
SURR	Phenol-d5	4165-62-2	14.657	76.900	% Recov	08/28/06	59.000	116.000	
SURR	2,4,6-Tribromophenol	118-79-6	15.296	80.300	% Recov	08/28/06	60.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: SW-846 8270C Semi-Vols

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	Terphenyl-d14 (7Cl)	98904-43-9	11.900	62.500	% Recov	08/28/06	60.000	120.000	
<b>BATCH QC</b>									
BLANK	1,2-Dichlorobenzene	95-50-1	< 1.5	n/a	ug/L	08/28/06			U
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 2.2	n/a	ug/L	08/28/06			U
BLANK	1,3-Dichlorobenzene	541-73-1	< 1.3	n/a	ug/L	08/28/06			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 1.4	n/a	ug/L	08/28/06			U
BLANK	2,4-Dichlorophenol	120-83-2	< 0.50	n/a	ug/L	08/28/06			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 0.50	n/a	ug/L	08/28/06			U
BLANK	2,4,5-Trichlorophenol	95-95-4	< 0.65	n/a	ug/L	08/28/06			U
BLANK	2,4,6-Trichlorophenol	88-06-2	< 0.50	n/a	ug/L	08/28/06			U
BLANK	2,4-Dimethylphenol	105-67-9	< 0.95	n/a	ug/L	08/28/06			U
BLANK	2,6-Dinitrotoluene	606-20-2	< 0.50	n/a	ug/L	08/28/06			U
BLANK	2-Chloronaphthalene	91-58-7	< 3.5	n/a	ug/L	08/28/06			U
BLANK	2-Fluorophenol	367-12-4	16.232	81.200	% Recov	08/28/06	50.000	110.000	
BLANK	2-Methylnaphthalene	91-57-6	< 3.0	n/a	ug/L	08/28/06			U
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 0.50	n/a	ug/L	08/28/06			U
BLANK	2-Nitroaniline	88-74-4	< 0.50	n/a	ug/L	08/28/06			U
BLANK	2-Nitrophenol	88-75-5	< 0.50	n/a	ug/L	08/28/06			U
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 0.50	n/a	ug/L	08/28/06	0.000	5.000	U
BLANK	3-Nitroaniline	99-09-2	< 0.60	n/a	ug/L	08/28/06			U
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 1.0	n/a	ug/L	08/28/06			U
BLANK	4-Bromophenylphenyl ether	101-55-3	< 1.0	n/a	ug/L	08/28/06			U
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 1.7	n/a	ug/L	08/28/06			U
BLANK	Acenaphthene	83-32-9	< 2.6	n/a	ug/L	08/28/06			U
BLANK	Acenaphthylene	208-96-8	< 2.3	n/a	ug/L	08/28/06			U
BLANK	Anthracene	120-12-7	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Bis(2-chloroethyl) ether	111-44-4	< 0.90	n/a	ug/L	08/28/06			U
BLANK	Benzo(a)anthracene	56-55-3	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Benzo(b)fluoranthene	205-99-2	< 0.50	n/a	ug/L	08/28/06			U

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: SW-846 8270C Semi-Vols

SAF Number: F06-026  
 Sample Date:  
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Benzo(ghi)perylene	191-24-2	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Benzo(a)pyrene	50-32-8	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 0.80	n/a	ug/L	08/28/06			U
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 1.0	n/a	ug/L	08/28/06	0.000	10.000	U
BLANK	Benzo(k)fluoranthene	207-08-9	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Butylbenzylphthalate	85-68-7	< 0.60	n/a	ug/L	08/28/06			U
BLANK	Carbazole	86-74-8	< 0.50	n/a	ug/L	08/28/06			U
BLANK	4-Chloroaniline	106-47-8	< 0.50	n/a	ug/L	08/28/06			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 0.50	n/a	ug/L	08/28/06			U
BLANK	2-Chlorophenol	95-57-8	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Chrysene	218-01-9	< 0.50	n/a	ug/L	08/28/06			U
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 0.80	n/a	ug/L	08/28/06			U
BLANK	Dibenz[a,h]anthracene	53-70-3	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Dibenzofuran	132-64-9	< 2.2	n/a	ug/L	08/28/06			U
BLANK	Di-n-butylphthalate	84-74-2	< 2.3	n/a	ug/L	08/28/06			U
BLANK	Diethylphthalate	84-66-2	< 1.9	n/a	ug/L	08/28/06			U
BLANK	Dimethyl phthalate	131-11-3	< 0.50	n/a	ug/L	08/28/06			U
BLANK	2,4-Dinitrophenol	51-28-5	< 2.0	n/a	ug/L	08/28/06			U
BLANK	Di-n-octylphthalate	117-84-0	< 0.50	n/a	ug/L	08/28/06			U
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 0.60	n/a	ug/L	08/28/06			U
BLANK	2-Fluorobiphenyl	321-60-8	16.811	84.100	% Recov	08/28/06	58.000	109.000	U
BLANK	Fluorene	86-73-7	< 1.4	n/a	ug/L	08/28/06			U
BLANK	Fluoranthene	206-44-0	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Hexachlorobenzene	118-74-1	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Hexachlorobutadiene	87-68-3	< 2.0	n/a	ug/L	08/28/06			U
BLANK	Hexachlorocyclopentadiene	77-47-4	< 5.0	n/a	ug/L	08/28/06			U
BLANK	Hexachloroethane	67-72-1	< 1.4	n/a	ug/L	08/28/06			U
BLANK	Indeno(1,2,3-cd)pyrene	193-39-5	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Isophorone	78-59-1	< 0.50	n/a	ug/L	08/28/06			U

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: SW-846 8270C Semi-Vols

SAF Number: F06-026  
 Sample Date:  
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Phenol	108-95-2	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Naphthalene	91-20-3	< 2.1	n/a	ug/L	08/28/06			U
BLANK	Nitrobenzene-d5	4165-60-0	17.342	86.700	% Recov	08/28/06	60.000	118.000	
BLANK	Nitrobenzene	98-95-3	< 0.60	n/a	ug/L	08/28/06			U
BLANK	4-Nitrophenol	100-02-7	< 1.0	n/a	ug/L	08/28/06			U
BLANK	4-Nitroaniline	100-01-6	< 1.0	n/a	ug/L	08/28/06			U
BLANK	N-Nitrosodiphenylamine	86-30-6	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Pentachlorophenol	87-86-5	< 1.5	n/a	ug/L	08/28/06			U
BLANK	Phenanthrene	85-01-8	< 0.55	n/a	ug/L	08/28/06			U
BLANK	Phenol-d5	4165-62-2	17.478	87.400	% Recov	08/28/06	59.000	116.000	
BLANK	Pyrene	129-00-0	< 0.50	n/a	ug/L	08/28/06			U
BLANK	Tributyl phosphate	126-73-8	< 0.50	n/a	ug/L	08/28/06			U
BLANK	2,4,6-Tribromophenol	118-79-6	12.297	61.500	% Recov	08/28/06	60.000	120.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	16.415	82.100	% Recov	08/28/06	60.000	120.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	12.387	61.900	% Recov	08/28/06	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	12.008	60.000	% Recov	08/28/06	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	15.867	79.300	% Recov	08/28/06	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	15.012	75.100	% Recov	08/28/06	50.000	110.000	
LCS	Acenaphthene	83-32-9	15.241	76.200	% Recov	08/28/06	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	23.760	79.200	% Recov	08/28/06	61.000	106.000	
LCS	2-Chlorophenol	95-57-8	24.446	81.500	% Recov	08/28/06	66.000	106.000	
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	16.040	80.200	% Recov	08/28/06	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	14.509	72.500	% Recov	08/28/06	58.000	109.000	
LCS	Phenol	108-95-2	25.450	84.800	% Recov	08/28/06	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	15.976	79.900	% Recov	08/28/06	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	23.278	77.600	% Recov	08/28/06	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	22.840	76.100	% Recov	08/28/06	62.000	114.000	
LCS	Phenol-d5	4165-62-2	15.796	79.000	% Recov	08/28/06	59.000	116.000	
LCS	Pyrene	129-00-0	16.298	81.500	% Recov	08/28/06	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	12.213	61.100	% Recov	08/28/06	60.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
Matrix: WATER  
Test: SW-846 8270C Semi-Vols

SAF Number: F06-026  
Sample Date:  
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Terphenyl-d14 (7Cl)	98904-43-9	15.366	76.800	% Recov	08/28/06	60.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: VOA Ground Water Protection

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W060002476									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,1-Dichloroethene	75-35-4	27.780	111.000	% Recov	08/28/06	63.000	117.000	
MS	Benzene	71-43-2	27.180	109.000	% Recov	08/28/06	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	57.230	114.000	% Recov	08/28/06	84.000	116.000	
MS	Chlorobenzene	108-90-7	26.870	107.000	% Recov	08/28/06	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	52.520	105.000	% Recov	08/28/06	82.000	136.000	
MS	Toluene-d8	2037-26-5	54.240	108.000	% Recov	08/28/06	89.000	119.000	
MS	Toluene	108-88-3	26.960	108.000	% Recov	08/28/06	76.000	120.000	
MS	Trichloroethene	79-01-6	27.240	109.000	% Recov	08/28/06	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	26.160	105.000	% Recov	08/28/06	63.000	117.000	
MSD	Benzene	71-43-2	25.300	101.000	% Recov	08/28/06	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	57.200	114.000	% Recov	08/28/06	84.000	116.000	
MSD	Chlorobenzene	108-90-7	25.520	102.000	% Recov	08/28/06	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	52.110	104.000	% Recov	08/28/06	82.000	136.000	
MSD	Toluene-d8	2037-26-5	54.620	109.000	% Recov	08/28/06	89.000	119.000	
MSD	Toluene	108-88-3	26.360	105.000	% Recov	08/28/06	76.000	120.000	
MSD	Trichloroethene	79-01-6	24.240	97.000	% Recov	08/28/06	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	105.000	5.556	RPD	08/28/06	0.000	20.000	
SPK-RPD	Benzene	71-43-2	101.000	7.619	RPD	08/28/06	0.000	20.000	
SPK-RPD	Chlorobenzene	108-90-7	102.000	4.785	RPD	08/28/06	0.000	20.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	104.000	0.957	RPD	08/28/06	0.000	20.000	
SPK-RPD	Toluene-d8	2037-26-5	109.000	0.922	RPD	08/28/06	0.000	20.000	
SPK-RPD	Toluene	108-88-3	105.000	2.817	RPD	08/28/06	0.000	20.000	
SPK-RPD	Trichloroethene	79-01-6	97.000	11.650	RPD	08/28/06	0.000	20.000	
SURR	4-Bromofluorobenzene	460-00-4	56.470	113.000	% Recov	08/28/06	84.000	116.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	54.480	109.000	% Recov	08/28/06	82.000	136.000	
SURR	Toluene-d8	2037-26-5	54.600	109.000	% Recov	08/28/06	89.000	119.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: VOA Ground Water Protection

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W060002477  
**BATCH QC ASSOCIATED WITH SAMPLE**

SURR	4-Bromofluorobenzene	460-00-4	57.480	115.000	% Recov	08/28/06	84.000	116.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	53.630	107.000	% Recov	08/28/06	82.000	136.000	
SURR	Toluene-d8	2037-26-5	55.270	111.000	% Recov	08/28/06	89.000	119.000	

**BATCH QC**

BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L	08/28/06			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L	08/28/06			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L	08/28/06			U
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/L	08/28/06	0.000	5.000	U
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L	08/28/06			U
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L	08/28/06			U
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/L	08/28/06			U
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/L	08/28/06			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L	08/28/06			U
BLANK	4-Bromofluorobenzene	460-00-4	56.400	113.000	% Recov	08/28/06	84.000	116.000	
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L	08/28/06			U
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/L	08/28/06			U
BLANK	1,2-Dichloroethane-d4	17060-07-0	53.440	107.000	% Recov	08/28/06	82.000	136.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: VOA Ground Water Protection

SAF Number: F06-026  
 Sample Date:  
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/L	08/28/06			U
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	08/28/06	0.000	5.000	U
BLANK	Toluene-d8	2037-26-5	55.200	110.000	% Recov	08/28/06	89.000	119.000	
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L	08/28/06			U
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L	08/28/06			U
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L	08/28/06			U
LCS	1,1-Dichloroethene	75-35-4	24.940	99.800	% Recov	08/28/06	70.000	130.000	
LCS	Benzene	71-43-2	26.370	105.000	% Recov	08/28/06	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	57.170	114.000	% Recov	08/28/06	84.000	116.000	
LCS	Chlorobenzene	108-90-7	26.530	106.000	% Recov	08/28/06	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	52.900	106.000	% Recov	08/28/06	82.000	136.000	
LCS	Toluene-d8	2037-26-5	54.660	109.000	% Recov	08/28/06	89.000	119.000	
LCS	Toluene	108-88-3	27.250	109.000	% Recov	08/28/06	70.000	130.000	
LCS	Trichloroethene	79-01-6	25.370	101.000	% Recov	08/28/06	70.000	130.000	

# WSCF

## ANALYTICAL RESULTS REPORT

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

Steve Trent A0-21  
F06-026: F06-026

**Group #:** WSCF20060924

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
<b>Inorganic</b>														
W060002476	B1K9B4	TRENT	57-12-5	Cyanide	WATER	LA-695-402	U	< 4.00	ug/L	1.00	4.0	08/16/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	18540-29-9	Hexavalent Chromium	WATER	LA-265-403	B	3.30e-03	mg/L	1.00	2.0e-03	08/15/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	ALKALINITY	Total Alkalinity as mg/L CaCO3	WATER	LA-531-411		110	mg/L	1.00	1.0	08/16/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	TDS	Total dissolved solids	WATER	LA-519-422		212	mg/L	1.00	9.0	08/18/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	TOC	Total organic carbon	WATER	LA-344-406		2.46	mg/L	1.00	0.30	08/16/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	16984-48-8	Fluoride	WATER	LA-533-410		0.733	mg/L	1.00	0.029	08/15/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	16887-00-6	Chloride	WATER	LA-533-410		4.63	mg/L	5.00	0.13	08/15/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	NO2-N	Nitrogen in Nitrite	WATER	LA-533-410	U	< 0.0220	mg/L	1.00	0.022	08/15/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	24959-67-9	Bromide	WATER	LA-533-410	U	< 0.120	mg/L	1.00	0.12	08/15/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	NO3-N	Nitrogen in Nitrate	WATER	LA-533-410		0.496	mg/L	1.00	0.044	08/15/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	PO4-P	Phosphate (P) by IC	WATER	LA-533-410	U	< 0.150	mg/L	1.00	0.15	08/15/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	14808-79-8	Sulfate	WATER	LA-533-410		26.0	mg/L	5.00	0.85	08/15/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-69-9	Bismuth	WATER	LA-505-411	U	< 53.0	ug/L	1.00	53	08/23/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7439-96-5	Manganese	WATER	LA-505-412		56.0	ug/L	1.00	0.0200	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-02-0	Nickel	WATER	LA-505-412		0.884	ug/L	1.00	0.0600	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-22-4	Silver	WATER	LA-505-412	U	< 0.0400	ug/L	1.00	0.0400	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-36-0	Antimony	WATER	LA-505-412		2.24	ug/L	1.00	0.300	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-39-3	Barium	WATER	LA-505-412		74.4	ug/L	1.00	0.200	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-41-7	Beryllium	WATER	LA-505-412	U	< 0.0200	ug/L	1.00	0.0200	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-43-9	Cadmium	WATER	LA-505-412	U	< 0.0400	ug/L	1.00	0.0400	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-47-3	Chromium	WATER	LA-505-412		1.12	ug/L	1.00	0.700	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-50-8	Copper	WATER	LA-505-412		0.348	ug/L	1.00	0.200	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-62-2	Vanadium	WATER	LA-505-412		2.20	ug/L	1.00	0.500	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-66-6	Zinc	WATER	LA-505-412		0.710	ug/L	1.00	0.300	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7439-92-1	Lead	WATER	LA-505-412	U	< 0.0500	ug/L	1.00	0.0500	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7439-97-6	Mercury	WATER	LA-505-412		0.0800	ug/L	1.00	0.0400	08/30/06	08/15/06	08/15/06

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

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

U - Analyzed for but not detected above limiting criteria.

**DF= Dilution Factor**

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

Report WGPP/ver. 1.3.1

Groundwater Remediation Program

# WSCF ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent A0-21  
**Project:** F06-026: F06-026

**Group #:** WSCF20060924

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze	Sample	Receive	
					Method	RQ								
W060002476	B1K9B4	TRENT	7440-61-1	Uranium	WATER	LA-505-412		0.354	ug/L	1.00	0.0200	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-38-2	Arsenic	WATER	LA-505-412	U	< 1.00	ug/L	1.00	1.00	08/30/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	7440-28-0	Thallium	WATER	LA-505-412	U	< 0.0300	ug/L	1.00	0.0300	08/30/06	08/15/06	08/15/06

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

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

U - Analyzed for but not detected above limiting criteria.

**DF=Dilution Factor**

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

Report WGPP/ver. 1.3.1

Groundwater Remediation Program

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
Matrix: WATER  
Test: Total Alkalinity as mg/L CaCO<sub>3</sub>

SAF Number: F06-026  
Sample Date: 08/08/06  
Receive Date: 08/08/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W060002384									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Total Alkalinity as mg/L CaCO <sub>3</sub>	ALKALINITY	88	2.247	RPD	08/16/06	0.000	20.000	
BATCH QC									
LCS	Total Alkalinity as mg/L CaCO <sub>3</sub>	ALKALINITY	37.6	103.297	% Recov	08/16/06	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: Anions by Ion Chromatography

SAF Number: F06-026  
 Sample Date: 08/14/06  
 Receive Date: 08/14/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W060002462  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Chloride	16887-00-6	13.7307	2.131	RPD	08/15/06	0.000	20.000	
DUP	Fluoride	16984-48-8	0.1732	7.341	RPD	08/15/06	0.000	20.000	
DUP	Nitrogen in Nitrite	NO2-N	<2.2e-2	n/a	RPD	08/15/06	0.000	20.000	U
DUP	Nitrogen in Nitrate	NO3-N	20.7115	2.866	RPD	08/15/06	0.000	20.000	
DUP	Phosphate (P) by IC	PO4-P	<0.15	n/a	RPD	08/15/06	0.000	20.000	U
DUP	Sulfate	14808-79-8	224.3429	1.810	RPD	08/15/06	0.000	20.000	
MS	Chloride	16887-00-6	0.994585	102.535	% Recov	08/15/06	75.000	125.000	
MS	Fluoride	16984-48-8	0.493	99.596	% Recov	08/15/06	75.000	125.000	
MS	Nitrogen in Nitrite	NO2-N	0.5042	102.272	% Recov	08/15/06	75.000	125.000	
MS	Nitrogen in Nitrate	NO3-N	0.412471	94.821	% Recov	08/15/06	75.000	125.000	
MS	Phosphate (P) by IC	PO4-P	0.7826	82.120	% Recov	08/15/06	75.000	125.000	
MS	Sulfate	14808-79-8	2.066204	104.354	% Recov	08/15/06	75.000	125.000	
MSD	Chloride	16887-00-6	0.970445	100.046	% Recov	08/15/06	75.000	125.000	
MSD	Fluoride	16984-48-8	0.4742	95.798	% Recov	08/15/06	75.000	125.000	
MSD	Nitrogen in Nitrite	NO2-N	0.4797	97.302	% Recov	08/15/06	75.000	125.000	
MSD	Nitrogen in Nitrate	NO3-N	0.401055	92.197	% Recov	08/15/06	75.000	125.000	
MSD	Phosphate (P) by IC	PO4-P	0.7888	82.770	% Recov	08/15/06	75.000	125.000	
MSD	Sulfate	14808-79-8	2.109204	106.525	% Recov	08/15/06	75.000	125.000	

**BATCH QC**

BLANK	Bromide	24959-67-9	<0.12	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Bromide	24959-67-9	<0.12	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Bromide	24959-67-9	<0.12	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Chloride	16887-00-6	<2.6e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Chloride	16887-00-6	<2.6e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Chloride	16887-00-6	<2.6e-2	n/a	mg/L	08/15/06	0.000	300.000	U

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: Anions by Ion Chromatography

SAF Number: F06-026  
 Sample Date:  
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Fluoride	16984-48-8	<2.9e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.9e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.9e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<2.2e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<2.2e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<2.2e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<4.4e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<4.4e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<4.4e-2	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<0.15	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<0.15	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<0.15	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<0.17	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<0.17	n/a	mg/L	08/15/06	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<0.17	n/a	mg/L	08/15/06	0.000	300.000	U
LCS	Bromide	24959-67-9	389.811	97.453	% Recov	08/15/06	80.000	120.000	
LCS	Bromide	24959-67-9	402.1764	100.544	% Recov	08/15/06	80.000	120.000	
LCS	Chloride	16887-00-6	199.362	101.715	% Recov	08/15/06	80.000	120.000	
LCS	Chloride	16887-00-6	209.0678	106.667	% Recov	08/15/06	80.000	120.000	
LCS	Fluoride	16984-48-8	98.1798	98.180	% Recov	08/15/06	80.000	120.000	
LCS	Fluoride	16984-48-8	92.0176	92.018	% Recov	08/15/06	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	94.522	94.902	% Recov	08/15/06	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	96.9238	97.313	% Recov	08/15/06	80.000	120.000	
LCS	Nitrogen in Nitrate	NO3-N	90.7437	103.235	% Recov	08/15/06	80.000	120.000	
LCS	Nitrogen in Nitrate	NO3-N	92.287	104.991	% Recov	08/15/06	80.000	120.000	
LCS	Phosphate (P) by IC	PO4-P	182.3569	94.731	% Recov	08/15/06	80.000	120.000	
LCS	Phosphate (P) by IC	PO4-P	183.0381	95.085	% Recov	08/15/06	80.000	120.000	
LCS	Sulfate	14808-79-8	362.6481	90.662	% Recov	08/15/06	80.000	120.000	
LCS	Sulfate	14808-79-8	392.5081	98.127	% Recov	08/15/06	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: Cyanide by Midi/Spectrophotom

SAF Number: F06-026  
 Sample Date: 08/10/06  
 Receive Date: 08/14/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W060002445  
**BATCH QC ASSOCIATED WITH SAMPLE**

MS	Cyanide by Midi/Spectrophotom	57-12-5	97	97.000	% Recov	08/16/06	75.000	125.000	
MSD	Cyanide by Midi/Spectrophotom	57-12-5	97	97.000	% Recov	08/16/06	75.000	125.000	
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	97.000	0.000	RPD	08/16/06	0.000	20.000	

**BATCH QC**

BLANK	Cyanide by Midi/Spectrophotom	57-12-5	<1	n/a	ug/L	08/16/06	-4.000	4.000	U
BLNK-PREP	Cyanide by Midi/Spectrophotom	57-12-5	<1	n/a	ug/L	08/16/06	-4.000	4.000	U
LCS	Cyanide by Midi/Spectrophotom	57-12-5	98	98.000	% Recov	08/16/06	85.000	115.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: Hexavalent chromium

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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**Lab ID: W060002470**  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Hexavalent chromium	18540-29-9	0.1089	0.000	RPD	08/15/06	0.000	15.000	
MS	Hexavalent chromium	18540-29-9	0.0534	101.136	% Recov	08/15/06	85.000	115.000	
MSD	Hexavalent chromium	18540-29-9	0.0534	101.136	% Recov	08/15/06	85.000	115.000	
SPK-RPD	Hexavalent chromium	18540-29-9	101.136	0.000	RPD	08/15/06	0.000	20.000	

**Lab ID: W060002476**  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Hexavalent chromium	18540-29-9	0.0033	0.000	RPD	08/15/06	0.000	15.000	
MS	Hexavalent chromium	18540-29-9	0.0534	101.136	% Recov	08/15/06	85.000	115.000	
MSD	Hexavalent chromium	18540-29-9	0.0534	101.136	% Recov	08/15/06	85.000	115.000	
SPK-RPD	Hexavalent chromium	18540-29-9	101.136	0.000	RPD	08/15/06	0.000	20.000	

**BATCH QC**

BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	08/15/06	0.000	2.000	U
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	08/15/06	0.000	2.000	U
LCS	Hexavalent chromium	18540-29-9	0.0529	106.439	% Recov	08/15/06	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: Tot Dissolved Solids 180C Dry

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W060002476  
 BATCH QC ASSOCIATED WITH SAMPLE

DUP	Tot Dissolved Solids 180C Dry	TDS	196	7.843	RPD	08/18/06	0.000	20.000	
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BATCH QC

BLANK	Tot Dissolved Solids 180C Dry	TDS	<9	n/a	mg/L	08/18/06	0.000	300.000	U
LCS	Tot Dissolved Solids 180C Dry	TDS	674	100.447	%rec	08/18/06	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: Total Organic Carbon

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W060002476

**BATCH QC ASSOCIATED WITH SAMPLE**

MS	Total Organic Carbon	TOC	1.029	102.900	% Recov	08/16/06	75.000	125.000	
MSD	Total Organic Carbon	TOC	1.037	103.700	% Recov	08/16/06	75.000	125.000	
SPK-RPD	Total Organic Carbon	TOC	103.700	0.774	RPD	08/16/06	0.000	20.000	

**BATCH QC**

BLANK	Total Organic Carbon	TOC	.05193	0.052	mg/L	08/16/06	0.000	300.000	
METHSPIKE	Total Organic Carbon	TOC	.9904	99.040	% Recov	08/16/06	80.000	120.000	
SPK-RSD	Total Organic Carbon	TOC	0.5942	0.594	% RSD	08/16/06	0.000	20.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: ICP Metals Analysis, Grd H2O P

SAF Number: F06-026  
 Sample Date: 08/17/06  
 Receive Date: 08/17/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W060002514  
 BATCH QC ASSOCIATED WITH SAMPLE

MS	Bismuth	7440-69-9	966.7	96.670	% Recov	08/23/06	75.000	125.000	
MSD	Bismuth	7440-69-9	992.2	99.220	% Recov	08/23/06	75.000	125.000	
SPK-RPD	Bismuth	7440-69-9	99.220	2.604	RPD	08/23/06	0.000	20.000	

BATCH QC

BLANK	Bismuth	7440-69-9	<53	n/a	ug/L	08/23/06			U
LCS	Bismuth	7440-69-9	984.3	98.430	% Recov	08/23/06	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: ICP-2008 MS All possible metal

SAF Number: F06-026  
 Sample Date: 08/17/06  
 Receive Date: 08/17/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W060002514									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Silver	7440-22-4	39.3	98.250	% Recov	08/30/06	70.000	130.000	
MS	Arsenic	7440-38-2	38.849	97.122	% Recov	08/30/06	70.000	130.000	
MS	Barium	7440-39-3	33.29	83.225	% Recov	08/30/06	70.000	130.000	
MS	Beryllium	7440-41-7	38.61	96.525	% Recov	08/30/06	70.000	130.000	
MS	Cadmium	7440-43-9	38.24	95.600	% Recov	08/30/06	70.000	130.000	
MS	Chromium	7440-47-3	38.402	96.005	% Recov	08/30/06	70.000	130.000	
MS	Copper	7440-50-8	37.5891	93.973	% Recov	08/30/06	70.000	130.000	
MS	Mercury	7439-97-6	2.357	117.850	% Recov	08/30/06	70.000	130.000	
MS	Manganese	7439-96-5	35.4	88.500	% Recov	08/30/06	70.000	130.000	
MS	Nickel	7440-02-0	37.65	94.125	% Recov	08/30/06	70.000	130.000	
MS	Lead	7439-92-1	40.87	102.175	% Recov	08/30/06	70.000	130.000	
MS	Antimony	7440-36-0	46.6503	116.626	% Recov	08/30/06	70.000	130.000	
MS	Thallium	7440-28-0	41.37693	103.442	% Recov	08/30/06	70.000	130.000	
MS	Uranium	7440-61-1	42.23	105.575	% Recov	08/30/06	70.000	130.000	
MS	Vanadium	7440-62-2	39.418	98.545	% Recov	08/30/06	70.000	130.000	
MS	Zinc	7440-66-6	36.751	91.877	% Recov	08/30/06	70.000	130.000	
MSD	Silver	7440-22-4	39.01	97.525	% Recov	08/30/06	70.000	130.000	
MSD	Arsenic	7440-38-2	38.589	96.472	% Recov	08/30/06	70.000	130.000	
MSD	Barium	7440-39-3	37.59	93.975	% Recov	08/30/06	70.000	130.000	
MSD	Beryllium	7440-41-7	38.03	95.075	% Recov	08/30/06	70.000	130.000	
MSD	Cadmium	7440-43-9	38.48	96.200	% Recov	08/30/06	70.000	130.000	
MSD	Chromium	7440-47-3	38.972	97.430	% Recov	08/30/06	70.000	130.000	
MSD	Copper	7440-50-8	37.5091	93.773	% Recov	08/30/06	70.000	130.000	
MSD	Mercury	7439-97-6	2.267	113.350	% Recov	08/30/06	70.000	130.000	
MSD	Manganese	7439-96-5	36.6	91.500	% Recov	08/30/06	70.000	130.000	
MSD	Nickel	7440-02-0	37.37	93.425	% Recov	08/30/06	70.000	130.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: ICP-2008 MS All possible metal

SAF Number: F06-026  
 Sample Date: 08/17/06  
 Receive Date: 08/17/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Lead	7439-92-1	41.25	103.125	% Recov	08/30/06	70.000	130.000	
MSD	Antimony	7440-36-0	45.7203	114.301	% Recov	08/30/06	70.000	130.000	
MSD	Thallium	7440-28-0	40.71693	101.792	% Recov	08/30/06	70.000	130.000	
MSD	Uranium	7440-61-1	41.4	103.500	% Recov	08/30/06	70.000	130.000	
MSD	Vanadium	7440-62-2	40.478	101.195	% Recov	08/30/06	70.000	130.000	
MSD	Zinc	7440-66-6	35.921	89.802	% Recov	08/30/06	70.000	130.000	
SPK-RPD	Silver	7440-22-4	97.525	0.741	RPD	08/30/06	0.000	20.000	
SPK-RPD	Arsenic	7440-38-2	96.472	0.672	RPD	08/30/06	0.000	20.000	
SPK-RPD	Barium	7440-39-3	93.975	12.133	RPD	08/30/06	0.000	20.000	
SPK-RPD	Beryllium	7440-41-7	95.075	1.514	RPD	08/30/06	0.000	20.000	
SPK-RPD	Cadmium	7440-43-9	96.200	0.626	RPD	08/30/06	0.000	20.000	
SPK-RPD	Chromium	7440-47-3	97.430	1.473	RPD	08/30/06	0.000	20.000	
SPK-RPD	Copper	7440-50-8	93.773	0.213	RPD	08/30/06	0.000	20.000	
SPK-RPD	Mercury	7439-97-6	113.350	3.893	RPD	08/30/06	0.000	20.000	
SPK-RPD	Manganese	7439-96-5	91.500	3.333	RPD	08/30/06	0.000	20.000	
SPK-RPD	Nickel	7440-02-0	93.425	0.746	RPD	08/30/06	0.000	20.000	
SPK-RPD	Lead	7439-92-1	103.125	0.925	RPD	08/30/06	0.000	20.000	
SPK-RPD	Antimony	7440-36-0	114.301	2.014	RPD	08/30/06	0.000	20.000	
SPK-RPD	Thallium	7440-28-0	101.792	1.608	RPD	08/30/06	0.000	20.000	
SPK-RPD	Uranium	7440-61-1	103.500	1.985	RPD	08/30/06	0.000	20.000	
SPK-RPD	Vanadium	7440-62-2	101.195	2.653	RPD	08/30/06	0.000	20.000	
SPK-RPD	Zinc	7440-66-6	89.802	2.284	RPD	08/30/06	0.000	20.000	

## BATCH QC

BLANK	Silver	7440-22-4	<4e-2	n/a	ug/L	08/30/06			U
BLANK	Arsenic	7440-38-2	<1	n/a	ug/L	08/30/06			U
BLANK	Barium	7440-39-3	<0.2	n/a	ug/L	08/30/06			U
BLANK	Beryllium	7440-41-7	<2e-2	n/a	ug/L	08/30/06			U
BLANK	Cadmium	7440-43-9	<4e-2	n/a	ug/L	08/30/06			U
BLANK	Chromium	7440-47-3	<0.7	n/a	ug/L	08/30/06			U

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: ICP-2008 MS All possible metal

SAF Number: F06-026  
 Sample Date:  
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Copper	7440-50-8	<0.2	n/a	ug/L	08/30/06			U
BLANK	Mercury	7439-97-6	<4e-2	n/a	ug/L	08/30/06			U
BLANK	Manganese	7439-96-5	<2e-2	n/a	ug/L	08/30/06			U
BLANK	Nickel	7440-02-0	<6e-2	n/a	ug/L	08/30/06			U
BLANK	Lead	7439-92-1	<5e-2	n/a	ug/L	08/30/06			U
BLANK	Antimony	7440-36-0	<0.3	n/a	ug/L	08/30/06			U
BLANK	Thallium	7440-28-0	<3e-2	n/a	ug/L	08/30/06			U
BLANK	Uranium	7440-61-1	<2e-2	n/a	ug/L	08/30/06			U
BLANK	Vanadium	7440-62-2	<0.5	n/a	ug/L	08/30/06			U
BLANK	Zinc	7440-66-6	<0.3	n/a	ug/L	08/30/06			U
LCS	Silver	7440-22-4	41.54	103.850	% Recov	08/30/06	85.000	115.000	
LCS	Arsenic	7440-38-2	38.15	95.375	% Recov	08/30/06	85.000	115.000	
LCS	Barium	7440-39-3	40	100.000	% Recov	08/30/06	85.000	115.000	
LCS	Beryllium	7440-41-7	38.43	96.075	% Recov	08/30/06	85.000	115.000	
LCS	Cadmium	7440-43-9	39.89	99.725	% Recov	08/30/06	85.000	115.000	
LCS	Chromium	7440-47-3	40.98	102.450	% Recov	08/30/06	85.000	115.000	
LCS	Copper	7440-50-8	40.64	101.600	% Recov	08/30/06	85.000	115.000	
LCS	Mercury	7439-97-6	2.23	111.500	% Recov	08/30/06	85.000	115.000	
LCS	Manganese	7439-96-5	40.26	100.650	% Recov	08/30/06	85.000	115.000	
LCS	Nickel	7440-02-0	40.15	100.375	% Recov	08/30/06	85.000	115.000	
LCS	Lead	7439-92-1	39.88	99.700	% Recov	08/30/06	85.000	115.000	
LCS	Antimony	7440-36-0	44.84	112.100	% Recov	08/30/06	85.000	115.000	
LCS	Thallium	7440-28-0	38.74	96.850	% Recov	08/30/06	85.000	115.000	
LCS	Uranium	7440-61-1	39.82	99.550	% Recov	08/30/06	85.000	115.000	
LCS	Vanadium	7440-62-2	40.51	101.275	% Recov	08/30/06	85.000	115.000	
LCS	Zinc	7440-66-6	38.25	95.625	% Recov	08/30/06	85.000	115.000	

# WSCF ANALYTICAL RESULTS REPORT

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

Steve Trent A0-21  
F06-026: F06-026

**Group #:** WSCF20060924

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
<b>Radiochemistry</b>														
W060002476	B1K9B4	TRENT	14596-10-2	Americium-241	WATER	LA-508-481	U	-45.8	pCi/L	1.00	31	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	Am-241 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 46	pCi/L	1.00	0.0	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	10198-40-0	Cobalt-60	WATER	LA-508-481	U	0.766	pCi/L	1.00	17	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 7.7	pCi/L	1.00	0.0	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	10045-97-3	Cesium-137	WATER	LA-508-481	U	2.25	pCi/L	1.00	19	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 11	pCi/L	1.00	0.0	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	14683-23-9	Europium-152	WATER	LA-508-481	U	-13.3	pCi/L	1.00	48	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 28	pCi/L	1.00	0.0	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	15585-10-1	Europium-154	WATER	LA-508-481	U	-9.43	pCi/L	1.00	44	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 26	pCi/L	1.00	0.0	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	14391-16-3	Europium-155	WATER	LA-508-481	U	-10.7	pCi/L	1.00	46	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	WATER	LA-508-481		+ - 28	pCi/L	1.00	0.0	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	12587-46-1	Gross alpha	WATER	LA-508-415	U	0.580	pCi/L	1.00	1.2	08/17/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	Gross Alpha Method Error	WATER	LA-508-415		+ - 0.58	pCi/L	1.00	0.0	08/17/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	12587-47-2	Gross beta	WATER	LA-508-415		12.0	pCi/L	1.00	1.8	08/17/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	Gross Beta Method Error	WATER	LA-508-415		+ - 2.4	pCi/L	1.00	0.0	08/17/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	SR-RAD	Strontium-89/90	WATER	LA-508-415	U	-0.530	pCi/L	1.00	1.6	08/22/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	Sr-89/90 Rel. Count Error	WATER	LA-508-415		+ - 0.69	pCi/L	1.00	0.0	08/22/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	14133-76-7	Technetium-99	WATER	LA-508-421	U	-2.60	pCi/L	1.00	2.5	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	Tc-99 Counting Error	WATER	LA-508-421		+ - 2.6	pCi/L	1.00	0.0	08/28/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	10028-17-8	Tritium	WATER	LA-508-421		5.60e+03	pCi/L	1.00	2.2e+02	08/19/06	08/15/06	08/15/06
W060002476	B1K9B4	TRENT	E,T,C	H-3 Rel. % Count Error	WATER	LA-508-421		+ - 1.1e+03	pCi/L	1.00	0.0	08/19/06	08/15/06	08/15/06

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

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

U - Analyzed for but not detected above limiting criteria.

**DF=Dilution Factor**

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

Report WGPP/ver. 1.3.1

Groundwater Remediation Program

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: Gamma Energy Analysis-grd H2O

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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**Lab ID: W060002476**  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Americium-241	14596-10-2	U-6.93e1	n/a	RPD	08/21/06	0.000	20.000	
DUP	Cobalt-60	10198-40-0	U6.13e0	n/a	RPD	08/21/06	0.000	20.000	
DUP	Cesium-137	10045-97-3	U-3.7e-1	n/a	RPD	08/21/06	0.000	20.000	
DUP	Europium-152	14683-23-9	U-2.63e1	n/a	RPD	08/21/06	0.000	20.000	
DUP	Europium-154	15585-10-1	U-1.98e0	n/a	RPD	08/21/06	0.000	20.000	
DUP	Europium-155	14391-16-3	U1.48e1	n/a	RPD	08/21/06	0.000	20.000	

**BATCH QC**

BLANK	Americium-241	14596-10-2	U-7.96e0	n/a	pCi/L	08/17/06	-10.000	1000.000	
BLANK	Cobalt-60	10198-40-0	U-3.83e0	n/a	pCi/L	08/17/06	-10.000	1000.000	
BLANK	Cesium-137	10045-97-3	U-3.5e-1	n/a	pCi/L	08/17/06	-10.000	1000.000	
BLANK	Europium-152	14683-23-9	U1.73e0	n/a	pCi/L	08/17/06	-10.000	1000.000	
BLANK	Europium-154	15585-10-1	U2.77e0	n/a	pCi/L	08/17/06	-10.000	1000.000	
BLANK	Europium-155	14391-16-3	U5.50e0	n/a	pCi/L	08/17/06	-10.000	1000.000	
LCS	Americium-241	14596-10-2	4.09e+03	104.337	% Recov	08/17/06	80.000	120.000	
LCS	Cobalt-60	10198-40-0	4.64e+03	110.740	% Recov	08/17/06	80.000	120.000	
LCS	Cesium-137	10045-97-3	4.05e+03	113.128	% Recov	08/17/06	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: Gross Alpha/Gross Beta (AB32)

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W060002476  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Gross alpha	12587-46-1	U1.1	n/a	RPD	08/17/06	0.000	20.000	
DUP	Gross beta	12587-47-2	1.2E+01	0.000	RPD	08/17/06	0.000	20.000	

**BATCH QC**

BLANK	Gross alpha	12587-46-1	1.7E-01	0.170	pCi/L	08/17/06	-10.000	10.000	
BLANK	Gross beta	12587-47-2	1.0	1.000	pCi/L	08/17/06	-10.000	10.000	
LCS	Gross alpha	12587-46-1	35.7	98.077	%rec	08/17/06	75.000	125.000	
LCS	Gross beta	12587-47-2	121.0	108.384	%rec	08/17/06	75.000	125.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: Strontium 89/90

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W060002476  
 BATCH QC ASSOCIATED WITH SAMPLE

DUP	Strontium-89/90	SR-RAD	U-1.3	n/a	RPD	08/22/06	0.000	20.000	
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**BATCH QC**

BLANK	Strontium-89/90	10098-97-2	-1.2	-1.200	pCi/L	08/22/06	-10.000	100.000	
LCS	Strontium-89/90	10098-97-2	166.0	96.601	% Recov	08/22/06	80.000	120.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: TC99 by Liquid Scin.

SAF Number: F06-026  
 Sample Date: 08/15/06  
 Receive Date: 08/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W060002476

**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Technetium-99	14133-76-7	U-2.0	n/a	RPD	08/28/06	0.000	20.000	
MS	Technetium-99	14133-76-7	46.6	103.556	% Recov	08/28/06	75.000	125.000	

**BATCH QC**

BLANK	Technetium-99	14133-76-7	-2.6	-2.600	pCi/L	08/28/06	-10.000	10.000	
LCS	Technetium-99	14133-76-7	113.5	97.341	% Recov	08/28/06	75.000	125.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060924  
 Matrix: WATER  
 Test: Tritium by Liq. Scint.

SAF Number: F06-026  
 Sample Date: 08/10/06  
 Receive Date: 08/14/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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**Lab ID: W060002445**  
**BATCH QC ASSOCIATED WITH SAMPLE**

DUP	Tritium	10028-17-8	-U5.5e+01	n/a	RPD	08/19/06	0.000	20.000	
DUP	H-3 Rel. % Count Error	E,T,C	n/a	n/a	RPD	08/19/06	0.000	1000.000	
MS	Tritium	10028-17-8	4028.65	107.025	% Recov	08/19/06	75.000	125.000	
MS	H-3 Rel. % Count Error	E,T,C	n/a	n/a	% Recov	08/19/06	0.000	1000.000	

**BATCH QC**

BLANK	Tritium	10028-17-8	2.8e+01	28.000	pCi/L	08/19/06	-10.000	400.000	
LCS	Tritium	10028-17-8	1700.0	87.919	% Recov	08/19/06	75.000	125.000	

# WSCF ANALYTICAL COMMENT REPORT

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

Steve Trent A0-21  
F06-026

**Group #:** WSCF20060924

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Sample #	Client ID	Lab Area	Test	Comment
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VALGROUP

SVOA: J-flagged compounds are estimated because the sample concentration is below the level of accurate quantitation (practical quantitation limit-PQL). cgc

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

VALTEST - Test Validation  
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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# WSCF

## TENTATIVELY IDENTIFIED PEAK REPORT

**Attention:** Steve Trent A0-21  
**Project Number** F06-026 :F06-026

**Group #:** WSCF20060924

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W060002476	B1K9B4 TRENT	SW-846 8270C Semi-Vols	SMP 8.162 2-Pyrrolidinone, 1-met	872-50-4	8.162416	J	11	ug/L
W060002476	B1K9B4 TRENT	SW-846 8270C Semi-Vols	SMP 9.514 Unknown Organic Acid	Unknown	9.514533	J	3.6	ug/L

**RQ=Result Qualifier**      J - Analyte is an estimate, has potentially larger errors

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*Groundwater Remediation Program*

WGPPE v 1.1 Report#: 20060924

Report Date: 18-sep-2006

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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-265-403</b>	<b>LA-265-403: Hexavalent Chromium analysis by Spectrophotometer</b> <b>EPA SW-846 7196A</b> <b>HEXAVALENT CHROMIUM</b> <b>HEIS 7196_CR6</b> Hexavalent Chromium
<b>LA-344-406</b>	<b>LA-344-406: TOTAL ORGANIC CARBON (TOC) BASED ON SW-846</b> <b>EPA SW-846 9060</b> <b>TOTAL ORGANIC CARBON</b> <b>HEIS 9060_TOC</b> Total Organic Carbon
<b>LA-505-411</b>	<b>LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE</b> <b>EPA SW-846 6010B</b> <b>INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY</b> <b>HEIS 6010_METALS_ICP</b> Inductively Coupled Plasma-Atomic Emmision Spectrometry
<b>LA-505-412</b>	<b>LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY</b> <b>EPA-600/R-94-111 200.8</b> <b>DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS</b> <b>HEIS 200.8_METALS_ICPMS</b> Inductively Coupled Plasma - Mass Spectrometry
<b>LA-508-415</b>	<b>LA-508-415: OPERATION OF THE PROTEAN 2-INCH ALPHA/BETA COUNTING SYSTEM FOR GROSS</b> <b>None</b> No reference to any industry method.
<b>LA-508-421</b>	<b>Tritium Analysis by Liquid Scintillation Counting for WSCF</b> <b>None</b> No reference to any industry method.
<b>LA-508-481</b>	<b>LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE</b> <b>HEIS GAMMA_GS</b> Gamma Emmision Spectrometry

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: 18-sep-2006

Report#: WSCF20060924

Report WGPPM/O

# WSCF

## METHOD REFERENCES REPORT

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

<b>LA-519-422</b>	<b>LA-519-422: TOTAL DISSOLVED SOLIDS DRIED AT 180 C</b> <b>EPA-600/4-79-020 160.1</b> <b>RESIDUE, FILTERABLE</b>
<b>LA-523-444</b>	<b>LA-523-444: TOTAL ORGANIC HALIDES BASED ON SW-846 METHOD 9020B</b> <b>EPA SW-846 9020B</b> <b>TOTAL ORGANIC HALIDES (TOX)</b>
<b>LA-523-455</b>	<b>LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846</b> <b>EPA SW-846 8000B</b> <b>DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS</b> <b>EPA SW-846 8260B</b> <b>VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b> <b>HEIS 8260_VOA_GCMS</b> <b>Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)</b>
<b>LA-523-456</b>	<b>LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C</b> <b>EPA SW-846 8000B</b> <b>DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS</b> <b>EPA SW-846 8270C</b> <b>SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b> <b>HEIS 8270_SVOA_GCMS</b> <b>Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry (GC/MS)</b>
<b>LA-531-411</b>	<b>LA-531-411: ALKALINITY (TITRIMETRIC)</b> <b>EPA-600/4-79-020 310.1</b> <b>ALKALINITY</b> <b>HEIS 310.1_ALKALINITY</b> <b>Alkalinity</b>
<b>LA-533-410</b>	<b>LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY</b> <b>EPA-600/R-94-111 300.0</b> <b>DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY</b> <b>HEIS 300.0_ANIONS_IC</b> <b>Determination of Inorganic Anions by Ion Chromatography</b>
<b>LA-695-402</b>	<b>LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC</b>

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Report Date: 18-sep-2006

Report#: WSCF20060924

Report WGPPM/O

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# WSCF

## METHOD REFERENCES REPORT

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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.

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EPA-600/4-79-020 335.2  
HEIS 335.2\_CYANIDE

Cyanide, Total  
Cyanide, Total

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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: 18-sep-2006

Report#: WSCF20060924

Report WGPPM/O

## W13q Worklist/Batch/QC Report for Group# WSCF20060924

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
29374	2	29742	33659	BLANK		Anions by Ion Chromatography
29374	8	29742	33659	BLANK		Anions by Ion Chromatography
29374	12	29742	33659	BLANK		Anions by Ion Chromatography
29374	3	29742	33659	LCS		Anions by Ion Chromatography
29374	9	29742	33659	LCS		Anions by Ion Chromatography
29374	5	29742	33659	DUP	W060002462	Anions by Ion Chromatography
29374	6	29742	33659	MS	W060002462	Anions by Ion Chromatography
29374	7	29742	33659	MSD	W060002462	Anions by Ion Chromatography
29374	11	29742	33659	SAMPLE	W060002476	Anions by Ion Chromatography
29383	2	29751	33671	BLANK		Hexavalent chromium
29383	15	29751	33671	BLANK		Hexavalent chromium
29383	3	29751	33671	LCS		Hexavalent chromium
29383	5	29751	33671	DUP	W060002470	Hexavalent chromium
29383	6	29751	33671	MS	W060002470	Hexavalent chromium
29383	7	29751	33671	MSD	W060002470	Hexavalent chromium
29383	7	29751	33671	SPK-RPD	W060002470	Hexavalent chromium
29383	12	29751	33671	DUP	W060002476	Hexavalent chromium
29383	13	29751	33671	MS	W060002476	Hexavalent chromium
29383	14	29751	33671	MSD	W060002476	Hexavalent chromium
29383	11	29751	33671	SAMPLE	W060002476	Hexavalent chromium
29383	14	29751	33671	SPK-RPD	W060002476	Hexavalent chromium
29397	1	29763	33689	BLANK		Total Organic Carbon
29397	2	29763	33689	METHSPIKE		Total Organic Carbon
29397	3	29763	33689	SPK-RSD		Total Organic Carbon
29397	4	29763	33689	MS	W060002476	Total Organic Carbon
29397	5	29763	33689	MSD	W060002476	Total Organic Carbon
29397	7	29763	33689	SAMPLE	W060002476	Total Organic Carbon
29397	5	29763	33689	SPK-RPD	W060002476	Total Organic Carbon
			33690	BLANK		Cyanide by Midi/Spectrophotom
			33690	BLNK-PREP		Cyanide by Midi/Spectrophotom
			33690	LCS		Cyanide by Midi/Spectrophotom
			33690	MS	W060002445	Cyanide by Midi/Spectrophotom
			33690	MSD	W060002445	Cyanide by Midi/Spectrophotom
			33690	SPK-RPD	W060002445	Cyanide by Midi/Spectrophotom
			33690	SAMPLE	W060002476	Cyanide by Midi/Spectrophotom
			33692	LCS		Total Alkalinity as mg/L CaCO3
			33692	DUP	W060002384	Total Alkalinity as mg/L CaCO3
			33692	SAMPLE	W060002476	Total Alkalinity as mg/L CaCO3
29416	1	29783	33717	BLANK		Gross Alpha/Gross Beta (AB32)
29416	2	29783	33717	LCS		Gross Alpha/Gross Beta (AB32)
29416	3	29783	33717	DUP	W060002476	Gross Alpha/Gross Beta (AB32)
29416	4	29783	33717	SAMPLE	W060002476	Gross Alpha/Gross Beta (AB32)
29440	2	29807	33722	BLANK		Tot Dissolved Solids 180C Dry
29440	1	29807	33722	LCS		Tot Dissolved Solids 180C Dry
29440	4	29807	33722	DUP	W060002476	Tot Dissolved Solids 180C Dry
29440	3	29807	33722	SAMPLE	W060002476	Tot Dissolved Solids 180C Dry
29388	1	29756	33735	BLANK		Gamma Energy Analysis-grd H2O

29388	2	29756	33735	LCS		Gamma Energy Analysis-grd H2O
29388	3	29756	33735	DUP	W060002476	Gamma Energy Analysis-grd H2O
29388	4	29756	33735	SAMPLE	W060002476	Gamma Energy Analysis-grd H2O
29463	1	29828	33752	BLANK		ICP Metals Analysis, Grd H2O P
29463	2	29828	33752	LCS		ICP Metals Analysis, Grd H2O P
29463	9	29828	33752	SAMPLE	W060002476	ICP Metals Analysis, Grd H2O P
29463	4	29828	33752	MS	W060002514	ICP Metals Analysis, Grd H2O P
29463	5	29828	33752	MSD	W060002514	ICP Metals Analysis, Grd H2O P
29463	5	29828	33752	SPK-RPD	W060002514	ICP Metals Analysis, Grd H2O P
29414	1	29781	33770	BLANK		Tritium by Liq. Scint.
29414	2	29781	33770	LCS		Tritium by Liq. Scint.
29414	4	29781	33770	DUP	W060002445	Tritium by Liq. Scint.
29414	3	29781	33770	MS	W060002445	Tritium by Liq. Scint.
29414	8	29781	33770	SAMPLE	W060002476	Tritium by Liq. Scint.
29401	1	29768	33785	BLANK		Strontium 89/90
29401	2	29768	33785	LCS		Strontium 89/90
29401	3	29768	33785	DUP	W060002476	Strontium 89/90
29401	4	29768	33785	SAMPLE	W060002476	Strontium 89/90
			33797	BLANK		SW-846 8270C Semi-Vols
			33797	LCS		SW-846 8270C Semi-Vols
			33797	MS	W060002476	SW-846 8270C Semi-Vols
			33797	MSD	W060002476	SW-846 8270C Semi-Vols
			33797	SAMPLE	W060002476	SW-846 8270C Semi-Vols
			33797	SPK-RPD	W060002476	SW-846 8270C Semi-Vols
			33797	SURR	W060002476	SW-846 8270C Semi-Vols
29529	1	29895	33823	BLANK		ICP-2008 MS All possible metal
29529	2	29895	33823	LCS		ICP-2008 MS All possible metal
29529	6	29895	33823	SAMPLE	W060002476	ICP-2008 MS All possible metal
29529	4	29895	33823	MS	W060002514	ICP-2008 MS All possible metal
29529	5	29895	33823	MSD	W060002514	ICP-2008 MS All possible metal
29529	5	29895	33823	SPK-RPD	W060002514	ICP-2008 MS All possible metal
29532	1	29898	33883	BLANK		TC99 by Liquid Scin.
29532	4	29898	33883	LCS		TC99 by Liquid Scin.
29532	3	29898	33883	DUP	W060002476	TC99 by Liquid Scin.
29532	2	29898	33883	MS	W060002476	TC99 by Liquid Scin.
29532	5	29898	33883	SAMPLE	W060002476	TC99 by Liquid Scin.
29568	1	29853	33906	BLANK		Total Organic Halides
29568	2	29853	33906	LCS		Total Organic Halides
29568	5	29853	33906	MS	W060002445	Total Organic Halides
29568	6	29853	33906	MSD	W060002445	Total Organic Halides
29568	6	29853	33906	SPK-RPD	W060002445	Total Organic Halides
29568	9	29853	33906	SAMPLE	W060002476	Total Organic Halides
			33944	BLANK		VOA Ground Water Protection
			33944	LCS		VOA Ground Water Protection
			33944	MS	W060002476	VOA Ground Water Protection
			33944	MSD	W060002476	VOA Ground Water Protection
			33944	SAMPLE	W060002476	VOA Ground Water Protection
			33944	SPK-RPD	W060002476	VOA Ground Water Protection
			33944	SURR	W060002476	VOA Ground Water Protection
			33944	SAMPLE	W060002477	VOA Ground Water Protection
			33944	SURR	W060002477	VOA Ground Water Protection

M8141-SLF-06-300

ATTACHMENT 3

**SAMPLE RECEIPT INFORMATION**

Consisting of 5 pages  
Including cover page

**Waste Sampling and Characterization Facility**

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

*File*  
*09/14/06*  
*[Signature]*

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354  
 Attn: Steve Trent A0-21

Customer Code: GPP  
 PO#: 121523/ES20  
 Group#: 20060924  
 Project#: F06-026  
 Proj Mgr: Steve Trent A0-21  
 Phone: 373-5886

The following samples were received from you on 08/15/06. 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
W060002476	B1K9B4	TRENT @2008 @AB-32 @GEA-GPP @GPP6010 @H3-31 @IC-30 @SR89_90 @SVOCGPP @TC99-30 @VOA-GPP ALKAL CN-02 CR+6 TDS-30 TOC-30 TOX	Water	08/15/06
W060002477	B1K9B5	TRENT @VOA-GPP	Water	08/15/06

Test Acronym Description

Test Acronym	Description
@2008	ICP-2008 MS All possible metal
@AB-32	Gross Alpha/Gross Beta (AB32)
@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
@SR89_90	Strontium 89/90
@SVOCGPP	SW-846 8270C Semi-Vols
@TC99-30	TC99 by Liquid Scin.
@VOA-GPP	VOA Ground Water Protection
ALKALI	Total Alkalinity as mg/L CaCO3
CN-02	Cyanide by Midi/Spectrophotom
CR+6	Hexavalent chromium
TDS-30	Tot Dissolved Solids 180C Dry
TOC-30	Total Organic Carbon
TOX	Total Organic Halides

*[Handwritten initials]*

COLLECTOR <b>K. J. YOUNG</b> 09/14/06		COMPANY CONTACT CUMMINS, GD.	TELEPHONE NO. 372-2484	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C4997, 20060924		PROJECT DESIGNATION 200-PO-1 WTP Opportunistic Sampling and Analysis - Groundwater		SAF NO. F06-026	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.		FIELD LOGBOOK NO. <b>ES-WTP-H11G</b>	COA 121523ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE		
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.		

MATRIX* OL = OTHER LIQUID OS = OTHER SOLID S = SOIL W = WATER	SPECIAL HANDLING AND/OR STORAGE	POSSIBLE SAMPLE HAZARDS/ REMARKS
---------------------------------------------------------------------------	---------------------------------	----------------------------------

SAMPLE NO.	LAB ID	MATRIX*	SAMPLE DATE	SAMPLE TIME	NO./TYPE CONTAINER(S)	ANALYSIS	PRESERVATION
B1K9B4		W	8/15/06	1230	3X40mL aGs*	VOA - 8260B (TCL);	HCl or H2SO4 to pH <2/Cool 4C
B1K9B4 (F)	20060002476	W	↓	↓	4X1000mL aG	Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) {METHYLPHEN, TRIBUPH}	Cool 4C
B1K9B4 (F)		W			1X120mL P	IC Anions - 300.0 {BROMIDE, CHLORIDE, FLUORIDE, NO2-N, NO3-N, PO4-P, SULFATE}	Cool 4C
B1K9B4 (F)		W			1X1000mL G/P	Cyanide (Total) - 335.2 {CYANIDE}	NaOH to pH >= 12/Cool 4C
B1K9B4 (F)		W			1X125mL G/P	Alkalinity - 310.1 {ALKALINITY}	Cool 4C
B1K9B4 (F)		W			2X125mL G/P	TDS - 160.1 {TDS}	Cool 4C
B1K9B4 (F)		W			1X500mL Ga	Chromium Hex - 7196 {CR+6}	Cool 4C

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <b>K. J. YOUNG</b>	DATE/TIME 8/15/06 1425	RECEIVED BY/STORED IN <b>TA FRAZIER</b>	DATE/TIME 8/15/06 1425	VOA's not Filtered All other samples Filtered <div style="border: 1px solid black; padding: 5px; display: inline-block;">                     ICED Initial Date                      8-15-06                 </div>	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

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

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<b>COLLECTOR</b> K. J. YOUNG		<b>COMPANY CONTACT</b> CUMMINS, GD		<b>TELEPHONE NO.</b> 372-2484	<b>PROJECT COORDINATOR</b> TRENT, SJ	<b>PRICE CODE</b> 7N	<b>DATA TURNAROUND</b> 45 Days / 45 Days
<b>SAMPLING LOCATION</b> C4997,		<b>PROJECT DESIGNATION</b> 200-PO-1 WTP Opportunistic Sampling and Analysis - Groundwater			<b>SAF NO.</b> F06-026	<b>AIR QUALITY</b> <input type="checkbox"/>	
<b>ICE CHEST NO.</b>		<b>FIELD LOGBOOK NO.</b> ES-WTP-4110	<b>COA</b> 121523ES20		<b>METHOD OF SHIPMENT</b> GOVERNMENT VEHICLE		
<b>SHIPPED TO</b> Waste Sampling & Characterization		<b>OFFSITE PROPERTY NO.</b>			<b>BILL OF LADING/AIR BILL NO.</b>		

SAMPLE NO.	LAB ID	MATRIX*	SAMPLE DATE	SAMPLE TIME	NO./TYPE CONTAINER(S)	ANALYSIS	PRESERVATION
B1K9B4 (F)		W	8/15/06	1230	1X125mL G/P	Trace Elements by ICP/MS - 200.8 {Ag, Ba, Be, Bi, Cd, Cr, Cu, Mn, Ni, Pb, Sb, Tl, V, Zn} ICP/MS - 200.8 (Add-on) {As, U} ICP/MS - 200.8 (Hg) {Hg}	HNO3 to pH <2
B1K9B4 (F)		W	↓	↓	2X250mL aGs*	TOX - 9020 {TOX}	H2SO4 to pH <2/Cool 4C
B1K9B4 (F)		W			1X250mL aGs*	TOC - 9060 {TOC}	HCl or H2SO4 to pH <2/Cool 4C
B1K9B4 (F)		W			1X1000mL G/P	Gamma Spectroscopy {Am-241, Co-60, Cs-137, Eu-152, Eu-154, Eu-155}	HNO3 to pH <2
B1K9B4 (F)		W			1X1000mL G/P	Gross Alpha; Gross Beta;	HNO3 to pH <2
B1K9B4 (F)		W			2X1L G/P	Strontium-89,90 -- Total Sr;	HNO3 to pH <2
B1K9B4 (F)		W			2X1L G/P	Technetium-99 {Tc-99}	None

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM K. J. YOUNG	DATE/TIME 8/15/06 1425	RECEIVED BY/STORED IN TA FRAZIER	DATE/TIME 8/15/06 1425	
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	

ICED  
*[Signature]*  
 8-15-06 Initial Date

<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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<b>COLLECTOR</b> K. J. YOUNG		<b>COMPANY CONTACT</b> CUMMINS, GD		<b>TELEPHONE NO.</b> 372-2484	<b>PROJECT COORDINATOR</b> TRENT, SJ	<b>PRICE CODE</b> 7N	<b>DATA TURNAROUND</b> 45 Days / 45 Days
<b>SAMPLING LOCATION</b> C4997,		<b>PROJECT DESIGNATION</b> 200-PO-1 WTP Opportunistic Sampling and Analysis - Groundwater			<b>SAF NO.</b> F06-026	<b>AIR QUALITY</b> <input type="checkbox"/>	
<b>ICE CHEST NO.</b>		<b>FIELD LOGBOOK NO.</b> ES-WTP-H116	<b>COA</b> 121523ES20		<b>METHOD OF SHIPMENT</b> GOVERNMENT VEHICLE		
<b>SHIPPED TO</b> Waste Sampling & Characterization		<b>OFFSITE PROPERTY NO.</b>			<b>BILL OF LADING/AIR BILL NO.</b>		

SAMPLE NO.	LAB ID	MATRIX*	SAMPLE DATE	SAMPLE TIME	NO./TYPE CONTAINER(S)	ANALYSIS	PRESERVATION
B1K9B4 (F)		W	8/15/06	1230	1X500mL P	Tritium - H3;	None
B1K9B5	2477	W	↓	↓	3X40mL aGs*	VOA - 8260B (TCL);	HCl or H2SO4 to pH <2/Cool 4C

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
K. J. YOUNG	8/15/06 1425	JA PRAZIER	8/15/06 1425	
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	

ICED  
*[Signature]* Initial  
 8-15-06 Date

<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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