Fluor Hanford
WSCF Analytical Chemistry
P.O. Box 1000
Richland, WA 99352
Telephone 373-7495
Telefax 372-0456

0073661

FLUOR

Memorandum

M8141-SLF-06-309

To: S. J. Trent A0-21 Date: October 17, 2006

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

cc: w/Attachments

T. F. Dale	S3-30	J. E. Trechter	S3-30
H. K. Meznarich	S3-30	D. D. Wright	S3-30
P. D. Mix	S3-30	File/LB	

Subject: FINAL RESULTS FOR INVESTIGATION OF WASTE WATER SAMPLE – SAMPLE DELIVERY GROUP WSCF20061110 – SAF NUMBER F06-058

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

(2) HNF-SD-CD-QAPP-017, Rev. 7, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains a narrative (Attachment 1) for sample delivery group WSCF20061110, the analytical results (Attachment 2), and the sample receipt information (Attachment 3).

SLF/cmj

Attachments 3

RECEIVED
AUG 20 2007
EDMC

OCT 2006
RECEIVED

M8141-SLF-06-309

ATTACHMENT 1

NARRATIVE

Consisting of 3 pages
Including cover page

Sample Delivery Group	**WSCF20061110**
Sample Matrix	**WATER**
Sample Visual	**N/A**
SAF Number	**F06-058**
Data Deliverable	**Summary Report**

Introduction

One (1) Investigation of Waste Water sample (B1KKR0) was received at the WSCF Laboratory on September 15, 2006. The sample was analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

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

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report*, page 32, for a complete listing of approved analytical methods.

Inorganic Comments

ICP-AES Metals – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 9-14 for QC details. Analytical Notes:

- Preparation Date: 26-sep-2006.
- Aluminum, Calcium, Iron, Magnesium and Sodium – insufficient spike concentrations. Sample concentrations were greater than four times the spike concentration.

All other QC controls are within the established limits.

Organic Comments

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 22-26 for QC details. Analytical Note:

- Preparation Date: 20-sep-2006.

All QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 27-29 for QC details. Analytical Note:

- Chloroform - sample result (B1KKR0) was J flagged; result was less than the lowest calibration standard but greater than the method detection limit.

All QC controls are within the established limits.

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

Pauline D. Mix
WSCF Client Services

Abbreviations

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

M8141-SLF-06-309

ATTACHMENT 2

ANALYTICAL RESULTS

Consisting of 29 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. Fitzgerald

Client Services: P.D. Mix 10/17/2006

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

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20061110
Report Date: 17-oct-2006
Report WGPP/ver. 2.4
Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F06-058: F06-058
Sample # W060003217
Client ID: B1KKR0 TRENT WSCF

Matrix: WATER

Group #: WSCF20061110
Department: Inorganic
Sampled: 09/15/06
Received: 09/15/06

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**09/26/06**
ICP Metals Analysis, Grd H20 P											
Aluminum	7429-90-5	LA-505-411		5.06e+03	ug/L			1.00	37		09/29/06
Iron	7439-89-6	LA-505-411		1.72e+04	ug/L			1.00	33		09/29/06
Magnesium	7439-95-4	LA-505-411		1.50e+04	ug/L			1.00	15		09/29/06
Manganese	7439-96-5	LA-505-411		370	ug/L			1.00	3.0		09/29/06
Nickel	7440-02-0	LA-505-411		74.0	ug/L			1.00	5.0		09/29/06
Potassium	7440-09-7	LA-505-411		5.92e+03	ug/L			1.00	2.2e+02		09/29/06
Silver	7440-22-4	LA-505-411	U	< 11.0	ug/L			1.00	11		09/29/06
Sodium	7440-23-5	LA-505-411		2.21e+04	ug/L			1.00	1.2e+02		09/29/06
Antimony	7440-36-0	LA-505-411	U	< 72.0	ug/L			1.00	72		09/29/06
Barium	7440-39-3	LA-505-411		81.2	ug/L			1.00	1.0		09/29/06
Cadmium	7440-43-9	LA-505-411	U	< 3.00	ug/L			1.00	3.0		09/29/06
Chromium	7440-47-3	LA-505-411		182	ug/L			1.00	7.0		09/29/06
Cobalt	7440-48-4	LA-505-411	U	< 7.00	ug/L			1.00	7.0		09/29/06
Copper	7440-50-8	LA-505-411		9.20	ug/L			1.00	7.0		09/29/06
Vanadium	7440-62-2	LA-505-411		20.7	ug/L			1.00	14		09/29/06
Zinc	7440-66-6	LA-505-411		34.9	ug/L			1.00	2.0		09/29/06
Calcium	7440-70-2	LA-505-411		4.68e+04	ug/L			1.00	31		09/29/06
Lead	7439-92-1	LA-505-411	U	< 47.0	ug/L			1.00	47		09/29/06
Lithium	7439-93-2	LA-505-411		10.4	ug/L			1.00	6.0		09/29/06
Molybdenum	7439-98-7	LA-505-411		64.4	ug/L			1.00	11		09/29/06
Strontium	7440-24-6	LA-505-411		192	ug/L			1.00	1.0		09/29/06
Thallium	7440-28-0	LA-505-411	U	< 75.0	ug/L			1.00	75		09/29/06
Tin	7440-31-5	LA-505-411	U	< 57.0	ug/L			1.00	57		09/29/06

MDL=Minimum Detection Limit J - Analyte < lowest calibration but >= MDL.(org) U - Analyzed for but not detected above limiting criteria(inorg)
RQ=Result Qualifier U - Analyzed for but not detected above limiting criteria.(org)
TP Err=Total Propagated Error
DF=Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F06-058: F06-058
Sample # W060003217
Client ID: B1KKR0 TRENT WSCF

Matrix: WATER

Group #: WSCF20061110
Department: Inorganic
Sampled: 09/15/06
Received: 09/15/06

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Titanium	7440-32-6	LA-505-411		361	ug/L			1.00	4.0		09/29/06
Arsenic	7440-38-2	LA-505-411	U	< 79.0	ug/L			1.00	79		09/29/06
Beryllium	7440-41-7	LA-505-411	U	< 1.00	ug/L			1.00	1.0		09/29/06
Boron	7440-42-8	LA-505-411		407	ug/L			1.00	21		09/29/06
Bismuth	7440-69-9	LA-505-411	U	< 53.0	ug/L			1.00	53		09/29/06
Phosphorus	7723-14-0	LA-505-411		207	ug/L			1.00	94		09/29/06
Selenium	7782-49-2	LA-505-411	U	< 51.0	ug/L			1.00	51		09/29/06

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20061110
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F06-058
Sample Date: 09/15/06
Receive Date:09/15/06

Lab ID: W060003217
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Silver	7440-22-4	989.1	98.910	% Recov	75.000	125.000				09/29/06
MS	Aluminum	7429-90-5	NA	n/a	% Recov	75.000	125.000				09/29/06
MS	Arsenic	7440-38-2	1058	105.800	% Recov	75.000	125.000				09/29/06
MS	Boron	7440-42-8	1020	102.000	% Recov	70.000	130.000				09/29/06
MS	Barium	7440-39-3	527.1	105.420	% Recov	75.000	125.000				09/29/06
MS	Beryllium	7440-41-7	511.1	102.220	% Recov	75.000	125.000				09/29/06
MS	Bismuth	7440-69-9	1016	101.600	% Recov	75.000	125.000				09/29/06
MS	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				09/29/06
MS	Cadmium	7440-43-9	1012	101.200	% Recov	75.000	125.000				09/29/06
MS	Cobalt	7440-48-4	999.5	99.950	% Recov	75.000	125.000				09/29/06
MS	Chromium	7440-47-3	988.3	98.830	% Recov	75.000	125.000				09/29/06
MS	Copper	7440-50-8	990.7	99.070	% Recov	75.000	125.000				09/29/06
MS	Iron	7439-89-6	NA	n/a	% Recov	75.000	125.000				09/29/06
MS	Potassium	7440-09-7	10736	107.360	% Recov	75.000	125.000				09/29/06
MS	Lithium	7439-93-2	519.7	103.940	% Recov	70.000	130.000				09/29/06
MS	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				09/29/06
MS	Manganese	7439-96-5	1038.4	103.840	% Recov	75.000	125.000				09/29/06
MS	Molybdenum	7439-98-7	1003.6	100.360	% Recov	70.000	130.000				09/29/06
MS	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				09/29/06
MS	Nickel	7440-02-0	975	97.500	% Recov	75.000	125.000				09/29/06
MS	Phosphorus	7723-14-0	1047.6	104.760	% Recov	70.000	130.000				09/29/06
MS	Lead	7439-92-1	1011	101.100	% Recov	75.000	125.000				09/29/06
MS	Antimony	7440-36-0	1062	106.200	% Recov	75.000	125.000				09/29/06
MS	Selenium	7782-49-2	1050	105.000	% Recov	75.000	125.000				09/29/06
MS	Tin	7440-31-5	980.7	98.070	% Recov	70.000	130.000				09/29/06
MS	Strontium	7440-24-6	532.5	106.500	% Recov	70.000	130.000				09/29/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20061110
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F06-058
Sample Date: 09/15/06
Receive Date:09/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Titanium	7440-32-6	1059.7	105.970	% Recov	75.000	125.000				09/29/06
MS	Thallium	7440-28-0	809.1	80.910	% Recov	75.000	125.000				09/29/06
MS	Vanadium	7440-62-2	990.3	99.030	% Recov	75.000	125.000				09/29/06
MS	Zinc	7440-66-6	1007.1	100.710	% Recov	75.000	125.000				09/29/06
MSD	Silver	7440-22-4	979.7	97.970	% Recov	75.000	125.000				09/29/06
MSD	Aluminum	7429-90-5	NA	n/a	% Recov	75.000	125.000				09/29/06
MSD	Arsenic	7440-38-2	1056	105.600	% Recov	75.000	125.000				09/29/06
MSD	Boron	7440-42-8	1017	101.700	% Recov	75.000	125.000				09/29/06
MSD	Barium	7440-39-3	530.5	106.100	% Recov	75.000	125.000				09/29/06
MSD	Beryllium	7440-41-7	513.8	102.760	% Recov	75.000	125.000				09/29/06
MSD	Bismuth	7440-69-9	996.2	99.620	% Recov	75.000	125.000				09/29/06
MSD	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				09/29/06
MSD	Cadmium	7440-43-9	1021	102.100	% Recov	75.000	125.000				09/29/06
MSD	Cobalt	7440-48-4	1001	100.100	% Recov	75.000	125.000				09/29/06
MSD	Chromium	7440-47-3	977.3	97.730	% Recov	75.000	125.000				09/29/06
MSD	Copper	7440-50-8	991.8	99.180	% Recov	75.000	125.000				09/29/06
MSD	Iron	7439-89-6	NA	n/a	% Recov	75.000	125.000				09/29/06
MSD	Potassium	7440-09-7	10836	108.360	% Recov	75.000	125.000				09/29/06
MSD	Lithium	7439-93-2	522.9	104.580	% Recov	75.000	125.000				09/29/06
MSD	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				09/29/06
MSD	Manganese	7439-96-5	1051.4	105.140	% Recov	75.000	125.000				09/29/06
MSD	Molybdenum	7439-98-7	1009.6	100.960	% Recov	75.000	125.000				09/29/06
MSD	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				09/29/06
MSD	Nickel	7440-02-0	971	97.100	% Recov	75.000	125.000				09/29/06
MSD	Phosphorus	7723-14-0	1054.6	105.460	% Recov	75.000	125.000				09/29/06
MSD	Lead	7439-92-1	1025	102.500	% Recov	75.000	125.000				09/29/06
MSD	Antimony	7440-36-0	1071	107.100	% Recov	75.000	125.000				09/29/06
MSD	Selenium	7782-49-2	1064	106.400	% Recov	75.000	125.000				09/29/06
MSD	Tin	7440-31-5	1009	100.900	% Recov	75.000	125.000				09/29/06
MSD	Strontium	7440-24-6	538.7	107.740	% Recov	75.000	125.000				09/29/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20061110
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F06-058
Sample Date: 09/15/06
Receive Date:09/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Titanium	7440-32-6	1060.7	106.070	% Recov	75.000	125.000				09/29/06
MSD	Thallium	7440-28-0	807	80.700	% Recov	75.000	125.000				09/29/06
MSD	Vanadium	7440-62-2	996.3	99.630	% Recov	75.000	125.000				09/29/06
MSD	Zinc	7440-66-6	1000.1	100.010	% Recov	75.000	125.000				09/29/06
SPK-RPD	Silver	7440-22-4	97.970		RPD			0.955	20.000		09/29/06
SPK-RPD	Aluminum	7429-90-5			RPD			n/a	20.000		09/29/06
SPK-RPD	Arsenic	7440-38-2	105.600		RPD			0.189	20.000		09/29/06
SPK-RPD	Boron	7440-42-8	101.700		RPD			0.295	20.000		09/29/06
SPK-RPD	Barium	7440-39-3	106.100		RPD			0.643	20.000		09/29/06
SPK-RPD	Beryllium	7440-41-7	102.760		RPD			0.527	20.000		09/29/06
SPK-RPD	Bismuth	7440-69-9	99.620		RPD			1.968	20.000		09/29/06
SPK-RPD	Calcium	7440-70-2			RPD			n/a	20.000		09/29/06
SPK-RPD	Cadmium	7440-43-9	102.100		RPD			0.885	20.000		09/29/06
SPK-RPD	Cobalt	7440-48-4	100.100		RPD			0.150	20.000		09/29/06
SPK-RPD	Chromium	7440-47-3	97.730		RPD			1.119	20.000		09/29/06
SPK-RPD	Copper	7440-50-8	99.180		RPD			0.111	20.000		09/29/06
SPK-RPD	Iron	7439-89-6			RPD			n/a	20.000		09/29/06
SPK-RPD	Potassium	7440-09-7	108.360		RPD			0.927	20.000		09/29/06
SPK-RPD	Lithium	7439-93-2	104.580		RPD			0.614	20.000		09/29/06
SPK-RPD	Magnesium	7439-95-4			RPD			n/a	20.000		09/29/06
SPK-RPD	Manganese	7439-96-5	105.140		RPD			1.244	20.000		09/29/06
SPK-RPD	Molybdenum	7439-98-7	100.960		RPD			0.596	20.000		09/29/06
SPK-RPD	Sodium	7440-23-5			RPD			n/a	20.000		09/29/06
SPK-RPD	Nickel	7440-02-0	97.100		RPD			0.411	20.000		09/29/06
SPK-RPD	Phosphorus	7723-14-0	105.460		RPD			0.666	20.000		09/29/06
SPK-RPD	Lead	7439-92-1	102.500		RPD			1.375	20.000		09/29/06
SPK-RPD	Antimony	7440-36-0	107.100		RPD			0.844	20.000		09/29/06
SPK-RPD	Selenium	7782-49-2	106.400		RPD			1.325	20.000		09/29/06
SPK-RPD	Tin	7440-31-5	100.900		RPD			2.845	20.000		09/29/06
SPK-RPD	Strontium	7440-24-6	107.740		RPD			1.158	20.000		09/29/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20061110
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F06-058
Sample Date: 09/15/06
Receive Date:09/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Titanium	7440-32-6	106.070		RPD			0.094	20.000		09/29/06
SPK-RPD	Thallium	7440-28-0	80.700		RPD			0.260	20.000		09/29/06
SPK-RPD	Vanadium	7440-62-2	99.630		RPD			0.604	20.000		09/29/06
SPK-RPD	Zinc	7440-66-6	100.010		RPD			0.697	20.000		09/29/06

BATCH QC

BLANK	Silver	7440-22-4	<11	n/a	ug/L					U	09/29/06
BLANK	Aluminum	7429-90-5	<37	n/a	ug/L					U	09/29/06
BLANK	Arsenic	7440-38-2	<79	n/a	ug/L					U	09/29/06
BLANK	Boron	7440-42-8	<21	n/a	ug/L					U	09/29/06
BLANK	Barium	7440-39-3	<1	n/a	ug/L					U	09/29/06
BLANK	Beryllium	7440-41-7	<1	n/a	ug/L					U	09/29/06
BLANK	Bismuth	7440-69-9	<53	n/a	ug/L					U	09/29/06
BLANK	Calcium	7440-70-2	<31	n/a	ug/L					U	09/29/06
BLANK	Cadmium	7440-43-9	<3	n/a	ug/L					U	09/29/06
BLANK	Cobalt	7440-48-4	<7	n/a	ug/L					U	09/29/06
BLANK	Chromium	7440-47-3	<7	n/a	ug/L					U	09/29/06
BLANK	Copper	7440-50-8	<7	n/a	ug/L					U	09/29/06
BLANK	Iron	7439-89-6	<33	n/a	ug/L					U	09/29/06
BLANK	Potassium	7440-09-7	<220	n/a	ug/L					U	09/29/06
BLANK	Lithium	7439-93-2	<6	n/a	ug/L					U	09/29/06
BLANK	Magnesium	7439-95-4	<15	n/a	ug/L					U	09/29/06
BLANK	Manganese	7439-96-5	<3	n/a	ug/L					U	09/29/06
BLANK	Molybdenum	7439-98-7	<11	n/a	ug/L					U	09/29/06
BLANK	Sodium	7440-23-5	<115	n/a	ug/L					U	09/29/06
BLANK	Nickel	7440-02-0	<5	n/a	ug/L					U	09/29/06
BLANK	Phosphorus	7723-14-0	<94	n/a	ug/L					U	09/29/06
BLANK	Lead	7439-92-1	<47	n/a	ug/L					U	09/29/06
BLANK	Antimony	7440-36-0	<72	n/a	ug/L					U	09/29/06
BLANK	Selenium	7782-49-2	<51	n/a	ug/L					U	09/29/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20061110
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F06-058
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Tin	7440-31-5	<57	n/a	ug/L					U	09/29/06
BLANK	Strontium	7440-24-6	<1	n/a	ug/L					U	09/29/06
BLANK	Titanium	7440-32-6	<4	n/a	ug/L					U	09/29/06
BLANK	Thallium	7440-28-0	<75	n/a	ug/L					U	09/29/06
BLANK	Vanadium	7440-62-2	<14	n/a	ug/L					U	09/29/06
BLANK	Zinc	7440-66-6	<2	n/a	ug/L					U	09/29/06
LCS	Silver	7440-22-4	997.6	99.760	% Recov	80.000	120.000				09/29/06
LCS	Aluminum	7429-90-5	1115	111.500	% Recov	80.000	120.000				09/29/06
LCS	Arsenic	7440-38-2	1001	100.100	% Recov	80.000	120.000				09/29/06
LCS	Boron	7440-42-8	1013	101.300	% Recov	80.000	120.000				09/29/06
LCS	Barium	7440-39-3	514.7	102.940	% Recov	80.000	120.000				09/29/06
LCS	Beryllium	7440-41-7	517.1	103.420	% Recov	80.000	120.000				09/29/06
LCS	Bismuth	7440-69-9	1033	103.300	% Recov	80.000	120.000				09/29/06
LCS	Calcium	7440-70-2	1089	108.900	% Recov	80.000	120.000				09/29/06
LCS	Cadmium	7440-43-9	1025	102.500	% Recov	80.000	120.000				09/29/06
LCS	Cobalt	7440-48-4	1018	101.800	% Recov	80.000	120.000				09/29/06
LCS	Chromium	7440-47-3	992.1	99.210	% Recov	80.000	120.000				09/29/06
LCS	Copper	7440-50-8	1003	100.300	% Recov	80.000	120.000				09/29/06
LCS	Iron	7439-89-6	994.6	99.460	% Recov	80.000	120.000				09/29/06
LCS	Potassium	7440-09-7	10560	105.600	% Recov	80.000	120.000				09/29/06
LCS	Lithium	7439-93-2	515.9	103.180	% Recov	80.000	120.000				09/29/06
LCS	Magnesium	7439-95-4	999.7	99.970	% Recov	80.000	120.000				09/29/06
LCS	Manganese	7439-96-5	1034	103.400	% Recov	80.000	120.000				09/29/06
LCS	Molybdenum	7439-98-7	1013	101.300	% Recov	80.000	120.000				09/29/06
LCS	Sodium	7440-23-5	1058	105.800	% Recov	80.000	120.000				09/29/06
LCS	Nickel	7440-02-0	984.3	98.430	% Recov	80.000	120.000				09/29/06
LCS	Phosphorus	7723-14-0	1088	108.800	% Recov	80.000	120.000				09/29/06
LCS	Lead	7439-92-1	1024	102.400	% Recov	80.000	120.000				09/29/06
LCS	Antimony	7440-36-0	1065	106.500	% Recov	80.000	120.000				09/29/06
LCS	Selenium	7782-49-2	1039	103.900	% Recov	80.000	120.000				09/29/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20061110
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

SAF Number: F06-058
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Tin	7440-31-5	1007	100.700	% Recov	80.000	120.000				09/29/06
LCS	Strontium	7440-24-6	519.2	103.840	% Recov	80.000	120.000				09/29/06
LCS	Titanium	7440-32-6	1011	101.100	% Recov	80.000	120.000				09/29/06
LCS	Thallium	7440-28-0	933.3	93.330	% Recov	80.000	120.000				09/29/06
LCS	Vanadium	7440-62-2	994.5	99.450	% Recov	80.000	120.000				09/29/06
LCS	Zinc	7440-66-6	1011	101.100	% Recov	80.000	120.000				09/29/06

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F06-058

Group #: WSCF20061110
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-AES: Aluminum, iron, magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). VOA & SVOA: J-flagged compounds are estimates because the sample concentration is below the level of accurate quantitation.cc

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

This report may not be reproduced, except in its entirety without the written approval of the WSCF Laboratory.

WSCF
METHOD REFERENCES REPORT

Department: Inorganic

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

LA-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE	
	EPA SW-846 6010B	INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY
	HEIS 6010_METALS_ICP	Inductively Coupled Plasma-Atomic Emmision Spectrometry

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

w13qlog v2 17-oct-2006 06:42:40

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20061110

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
29766	1	30131	34139	BLANK		ICP Metals Analysis, Grd H20 P
29766	2	30131	34139	LCS		ICP Metals Analysis, Grd H20 P
29766	4	30131	34139	MS	W060003217	ICP Metals Analysis, Grd H20 P
29766	5	30131	34139	MSD	W060003217	ICP Metals Analysis, Grd H20 P
29766	3	30131	34139	SAMPLE	W060003217	ICP Metals Analysis, Grd H20 P
29766	5	30131	34139	SPK-RPD	W060003217	ICP Metals Analysis, Grd H20 P

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F06-058: F06-058
Sample # W060003217
Client ID: B1KKR0 TRENT WSCF

Matrix: WATER

Group #: WSCF20061110
Department: Organic
Sampled: 09/15/06
Received: 09/15/06

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
SW-846 8270C Semi-Vols Prep											**09/20/06**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 1.10	ug/L			1.00	1.1		09/28/06
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 1.50	ug/L			1.00	1.5		09/28/06
Phenol	108-95-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 2.30	ug/L			1.00	2.3		09/28/06
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Pyrene	129-00-0	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 0.640	ug/L			1.00	0.64		09/28/06
Acenaphthene	83-32-9	LA-523-456	U	< 2.80	ug/L			1.00	2.8		09/28/06
Pentachlorophenol	87-86-5	LA-523-456	U	< 1.60	ug/L			1.00	1.6		09/28/06
2-Chlorophenol	95-57-8	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
4-Nitroaniline	100-01-6	LA-523-456	U	< 1.10	ug/L			1.00	1.1		09/28/06
4-Bromophenylphenyl ether	101-55-3	LA-523-456	U	< 1.10	ug/L			1.00	1.1		09/28/06
2,4-Dimethylphenol	105-67-9	LA-523-456	U	< 1.00	ug/L			1.00	1.0		09/28/06
4-Chloroaniline	106-47-8	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Bis(2-chloro-1-methylethyl)eth	108-60-1	LA-523-456	U	< 1.10	ug/L			1.00	1.1		09/28/06
Bis(2-chloroethyl) ether	111-44-4	LA-523-456	U	< 0.960	ug/L			1.00	0.96		09/28/06
Bis(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456	U	< 0.850	ug/L			1.00	0.85		09/28/06
Di-n-octylphthalate	117-84-0	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Hexachlorobenzene	118-74-1	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Anthracene	120-12-7	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
2,4-Dichlorophenol	120-83-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F06-058: F06-058
Sample # W060003217
Client ID: B1KKR0 TRENT WSCF

Matrix: WATER

Group #: WSCF20061110
Department: Organic
Sampled: 09/15/06
Received: 09/15/06

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Dimethyl phthalate	131-11-3	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Dibenzofuran	132-64-9	LA-523-456	U	< 2.30	ug/L			1.00	2.3		09/28/06
Benzo(ghi)perylene	191-24-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Fluoranthene	206-44-0	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Acenaphthylene	208-96-8	LA-523-456	U	< 2.40	ug/L			1.00	2.4		09/28/06
Chrysene	218-01-9	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Benzo(a)pyrene	50-32-8	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
2,4-Dinitrophenol	51-28-5	LA-523-456	U	< 2.10	ug/L			1.00	2.1		09/28/06
Dibenz[a,h]anthracene	53-70-3	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	< 1.10	ug/L			1.00	1.1		09/28/06
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	< 1.40	ug/L			1.00	1.4		09/28/06
Benzo(a)anthracene	56-55-3	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
4-Chlorophenylphenyl ether	7005-72-3	LA-523-456	U	< 1.80	ug/L			1.00	1.8		09/28/06
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	< 5.30	ug/L			1.00	5.3		09/28/06
Isophorone	78-59-1	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Diethylphthalate	84-66-2	LA-523-456	U	< 2.00	ug/L			1.00	2.0		09/28/06
Di-n-butylphthalate	84-74-2	LA-523-456	U	< 2.40	ug/L			1.00	2.4		09/28/06
Phenanthrene	85-01-8	LA-523-456	U	< 0.590	ug/L			1.00	0.59		09/28/06
Butylbenzylphthalate	85-68-7	LA-523-456	U	< 0.640	ug/L			1.00	0.64		09/28/06
N-Nitrosodiphenylamine	86-30-6	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Fluorene	86-73-7	LA-523-456	U	< 1.50	ug/L			1.00	1.5		09/28/06

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F06-058: F06-058
Sample # W060003217
Client ID: B1KKR0 TRENT WSCF
Matrix: WATER

Group #: WSCF20061110
Department: Organic
Sampled: 09/15/06
Received: 09/15/06

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Carbazole	86-74-8	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Hexachlorobutadiene	87-68-3	LA-523-456	U	< 2.10	ug/L			1.00	2.1		09/28/06
2-Nitroaniline	88-74-4	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
2-Nitrophenol	88-75-5	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Naphthalene	91-20-3	LA-523-456	U	< 2.20	ug/L			1.00	2.2		09/28/06
2-Methylnaphthalene	91-57-6	LA-523-456	U	< 3.20	ug/L			1.00	3.2		09/28/06
2-Chloronaphthalene	91-58-7	LA-523-456	U	< 3.70	ug/L			1.00	3.7		09/28/06
3,3'-Dichlorobenzidine	91-94-1	LA-523-456	U	< 0.850	ug/L			1.00	0.85		09/28/06
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	< 1.60	ug/L			1.00	1.6		09/28/06
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	< 0.690	ug/L			1.00	0.69		09/28/06
Nitrobenzene	98-95-3	LA-523-456	U	< 0.640	ug/L			1.00	0.64		09/28/06
3-Nitroaniline	99-09-2	LA-523-456	U	< 0.640	ug/L			1.00	0.64		09/28/06
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
Hexachloroethane	67-72-1	LA-523-456	U	< 1.50	ug/L			1.00	1.5		09/28/06
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/28/06
VOA Ground Water Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Styrene	100-42-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F06-058: F06-058
Sample # W060003217
Client ID: B1KKR0 TRENT WSCF

Matrix: WATER

Group #: WSCF20061110
Department: Organic
Sampled: 09/15/06
Received: 09/15/06

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Dibromochloromethane	124-48-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
1,2-Dichloroethene(Total)	540-59-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Carbon tetrachloride	56-23-5	LA-523-455		45.0	ug/L			1.00	1.0		09/28/06
2-Hexanone	591-78-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Chloroform	67-66-3	LA-523-455	J	3.00	ug/L			1.00	1.0		09/28/06
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Bromomethane	74-83-9	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Chloromethane	74-87-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Chloroethane	75-00-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Bromoform	75-25-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
Bromodichloromethane	75-27-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
1,2-Dichloropropane	78-87-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		09/28/06

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20061110
Matrix: WATER
Test: SW-846 8270C Semi-Vols

SAF Number: F06-058
Sample Date: 09/15/06
Receive Date:09/15/06

Lab ID: W060003217
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	1,2,4-Trichlorobenzene	120-82-1	15.136	64.300	% Recov	50.000	120.000				09/28/06
MS	1,4-Dichlorobenzene	106-46-7	14.716	62.500	% Recov	41.000	113.000				09/28/06
MS	2,4-Dinitrotoluene	121-14-2	20.973	89.100	% Recov	65.000	109.000				09/28/06
MS	2-Fluorophenol(Surr)	367-12-4	22.650	96.300	% Recov	50.000	110.000				09/28/06
MS	Acenaphthene	83-32-9	19.142	81.400	% Recov	62.000	112.000				09/28/06
MS	4-Chloro-3-methylphenol	59-50-7	34.632	98.100	% Recov	59.000	115.000				09/28/06
MS	2-Chlorophenol	95-57-8	33.012	93.500	% Recov	69.000	111.000				09/28/06
MS	N-Nitrosodi-n-dipropylamine	621-64-7	23.185	98.500	% Recov	69.000	115.000				09/28/06
MS	2-Fluorobiphenyl(Surr)	321-60-8	19.279	81.900	% Recov	58.000	109.000				09/28/06
MS	Phenol	108-95-2	33.773	95.700	% Recov	59.000	115.000				09/28/06
MS	Nitrobenzene-d5(Surr)	4165-60-0	23.792	101.000	% Recov	60.000	118.000				09/28/06
MS	4-Nitrophenol	100-02-7	33.942	96.200	% Recov	32.000	130.000				09/28/06
MS	Pentachlorophenol	87-86-5	34.787	98.600	% Recov	51.000	121.000				09/28/06
MS	Phenol-d5(Surr)	4165-62-2	23.080	98.100	% Recov	59.000	116.000				09/28/06
MS	Pyrene	129-00-0	16.775	71.300	% Recov	58.000	116.000				09/28/06
MS	2,4,6-Tribromophenol(Surr)	118-79-6	21.913	93.100	% Recov	60.000	120.000				09/28/06
MS	Terphenyl-d14(Surr)	98904-43-9	19.034	80.900	% Recov	60.000	120.000				09/28/06
MSD	1,2,4-Trichlorobenzene	120-82-1	11.970	62.800	% Recov	50.000	120.000				09/28/06
MSD	1,4-Dichlorobenzene	106-46-7	11.444	60.100	% Recov	41.000	113.000				09/28/06
MSD	2,4-Dinitrotoluene	121-14-2	16.466	86.400	% Recov	65.000	109.000				09/28/06
MSD	2-Fluorophenol(Surr)	367-12-4	18.950	99.500	% Recov	50.000	110.000				09/28/06
MSD	Acenaphthene	83-32-9	15.094	79.200	% Recov	62.000	112.000				09/28/06
MSD	4-Chloro-3-methylphenol	59-50-7	27.983	97.900	% Recov	59.000	115.000				09/28/06
MSD	2-Chlorophenol	95-57-8	26.693	93.400	% Recov	69.000	111.000				09/28/06
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	18.841	98.900	% Recov	69.000	115.000				09/28/06
MSD	2-Fluorobiphenyl(Surr)	321-60-8	14.491	76.100	% Recov	58.000	109.000				09/28/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20061110
Matrix: WATER
Test: SW-846 8270C Semi-Vols

SAF Number: F06-058
Sample Date: 09/15/06
Receive Date:09/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Phenol	108-95-2	27.640	96.700	% Recov	59.000	115.000				09/28/06
MSD	Nitrobenzene-d5(Surr)	4165-60-0	18.973	99.600	% Recov	60.000	118.000				09/28/06
MSD	4-Nitrophenol	100-02-7	28.244	98.900	% Recov	32.000	130.000				09/28/06
MSD	Pentachlorophenol	87-86-5	28.006	98.000	% Recov	51.000	121.000				09/28/06
MSD	Phenol-d5(Surr)	4165-62-2	19.010	99.800	% Recov	59.000	116.000				09/28/06
MSD	Pyrene	129-00-0	14.258	74.900	% Recov	58.000	116.000				09/28/06
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	17.810	93.500	% Recov	60.000	120.000				09/28/06
MSD	Terphenyl-d14(Surr)	98904-43-9	15.370	80.700	% Recov	60.000	120.000				09/28/06
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	62.800		RPD			2.360	25.000		09/28/06
SPK-RPD	1,4-Dichlorobenzene	106-46-7	60.100		RPD			3.915	25.000		09/28/06
SPK-RPD	2,4-Dinitrotoluene	121-14-2	86.400		RPD			3.077	25.000		09/28/06
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	99.500		RPD			3.269	25.000		09/28/06
SPK-RPD	Acenaphthene	83-32-9	79.200		RPD			2.740	25.000		09/28/06
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	97.900		RPD			0.204	25.000		09/28/06
SPK-RPD	2-Chlorophenol	95-57-8	93.400		RPD			0.107	25.000		09/28/06
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	98.900		RPD			0.405	25.000		09/28/06
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	76.100		RPD			7.342	25.000		09/28/06
SPK-RPD	Phenol	108-95-2	96.700		RPD			1.040	16.000		09/28/06
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	99.600		RPD			1.396	25.000		09/28/06
SPK-RPD	4-Nitrophenol	100-02-7	98.900		RPD			2.768	25.000		09/28/06
SPK-RPD	Pentachlorophenol	87-86-5	98.000		RPD			0.610	25.000		09/28/06
SPK-RPD	Phenol-d5(Surr)	4165-62-2	99.800		RPD			1.718	25.000		09/28/06
SPK-RPD	Pyrene	129-00-0	74.900		RPD			4.925	25.000		09/28/06
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	93.500		RPD			0.429	25.000		09/28/06
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	80.700		RPD			0.248	25.000		09/28/06
SURR	2-Fluorophenol(Surr)	367-12-4	19.978	93.900	% Recov	50.000	110.000				09/28/06
SURR	2-Fluorobiphenyl(Surr)	321-60-8	14.230	66.900	% Recov	58.000	109.000				09/28/06
SURR	Nitrobenzene-d5(Surr)	4165-60-0	20.678	97.200	% Recov	60.000	118.000				09/28/06
SURR	Phenol-d5(Surr)	4165-62-2	20.225	95.100	% Recov	59.000	116.000				09/28/06
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	17.603	82.700	% Recov	60.000	120.000				09/28/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20061110
Matrix: WATER
Test: SW-846 8270C Semi-Vols

SAF Number: F06-058
Sample Date: 09/15/06
Receive Date:09/15/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Terphenyl-d14(Surr)	98904-43-9	14.512	68.200	% Recov	60.000	120.000				09/28/06

BATCH QC

BLANK	1,2-Dichlorobenzene	95-50-1	< 1.5	n/a	ug/L					U	09/28/06
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 2.2	n/a	ug/L					U	09/28/06
BLANK	1,3-Dichlorobenzene	541-73-1	< 1.3	n/a	ug/L					U	09/28/06
BLANK	1,4-Dichlorobenzene	106-46-7	< 1.4	n/a	ug/L					U	09/28/06
BLANK	2,4-Dichlorophenol	120-83-2	< 0.50	n/a	ug/L					U	09/28/06
BLANK	2,4-Dinitrotoluene	121-14-2	< 0.50	n/a	ug/L					U	09/28/06
BLANK	2,4,5-Trichlorophenol	95-95-4	< 0.65	n/a	ug/L					U	09/28/06
BLANK	2,4,6-Trichlorophenol	88-06-2	< 0.50	n/a	ug/L					U	09/28/06
BLANK	2,4-Dimethylphenol	105-67-9	< 0.95	n/a	ug/L					U	09/28/06
BLANK	2,6-Dinitrotoluene	606-20-2	< 0.50	n/a	ug/L					U	09/28/06
BLANK	2-Chloronaphthalene	91-58-7	< 3.5	n/a	ug/L					U	09/28/06
BLANK	2-Fluorophenol(Surr)	367-12-4	18.041	90.200	% Recov	50.000	110.000				09/28/06
BLANK	2-Methylnaphthalene	91-57-6	< 3.0	n/a	ug/L					U	09/28/06
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 0.50	n/a	ug/L					U	09/28/06
BLANK	2-Nitroaniline	88-74-4	< 0.50	n/a	ug/L					U	09/28/06
BLANK	2-Nitrophenol	88-75-5	< 0.50	n/a	ug/L					U	09/28/06
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 0.50	n/a	ug/L	0.000	5.000			U	09/28/06
BLANK	3-Nitroaniline	99-09-2	< 0.60	n/a	ug/L					U	09/28/06
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 1.0	n/a	ug/L					U	09/28/06
BLANK	4-Bromophenylphenyl ether	101-55-3	< 1.0	n/a	ug/L					U	09/28/06
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 1.7	n/a	ug/L					U	09/28/06
BLANK	Acenaphthene	83-32-9	< 2.6	n/a	ug/L					U	09/28/06
BLANK	Acenaphthylene	208-96-8	< 2.3	n/a	ug/L					U	09/28/06
BLANK	Anthracene	120-12-7	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Bis(2-chloroethyl) ether	111-44-4	< 0.90	n/a	ug/L					U	09/28/06
BLANK	Benzo(a)anthracene	56-55-3	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Benzo(b)fluoranthene	205-99-2	< 0.50	n/a	ug/L					U	09/28/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20061110
Matrix: WATER
Test: SW-846 8270C Semi-Vols

SAF Number: F06-058
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Benzo(ghi)perylene	191-24-2	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Benzo(a)pyrene	50-32-8	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 0.80	n/a	ug/L					U	09/28/06
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 1.0	n/a	ug/L	0.000	10.000			U	09/28/06
BLANK	Benzo(k)fluoranthene	207-08-9	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Butylbenzylphthalate	85-68-7	< 0.60	n/a	ug/L					U	09/28/06
BLANK	Carbazole	86-74-8	< 0.50	n/a	ug/L					U	09/28/06
BLANK	4-Chloroaniline	106-47-8	< 0.50	n/a	ug/L					U	09/28/06
BLANK	4-Chloro-3-methylphenol	59-50-7	< 0.50	n/a	ug/L					U	09/28/06
BLANK	2-Chlorophenol	95-57-8	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Chrysene	218-01-9	< 0.50	n/a	ug/L					U	09/28/06
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 0.80	n/a	ug/L					U	09/28/06
BLANK	Dibenz[a,h]anthracene	53-70-3	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Dibenzofuran	132-64-9	< 2.2	n/a	ug/L					U	09/28/06
BLANK	Di-n-butylphthalate	84-74-2	< 2.3	n/a	ug/L					U	09/28/06
BLANK	Diethylphthalate	84-66-2	< 1.9	n/a	ug/L					U	09/28/06
BLANK	Dimethyl phthalate	131-11-3	< 0.50	n/a	ug/L					U	09/28/06
BLANK	2,4-Dinitrophenol	51-28-5	< 2.0	n/a	ug/L					U	09/28/06
BLANK	Di-n-octylphthalate	117-84-0	< 0.50	n/a	ug/L					U	09/28/06
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 0.60	n/a	ug/L					U	09/28/06
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	13.523	67.600	% Recov	58.000	109.000				09/28/06
BLANK	Fluorene	86-73-7	< 1.4	n/a	ug/L					U	09/28/06
BLANK	Fluoranthene	206-44-0	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Hexachlorobenzene	118-74-1	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Hexachlorobutadiene	87-68-3	< 2.0	n/a	ug/L					U	09/28/06
BLANK	Hexachlorocyclopentadiene	77-47-4	< 5.0	n/a	ug/L					U	09/28/06
BLANK	Hexachloroethane	67-72-1	< 1.4	n/a	ug/L					U	09/28/06
BLANK	Indeno(1,2,3-cd)pyrene	193-39-5	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Isophorone	78-59-1	< 0.50	n/a	ug/L					U	09/28/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20061110
Matrix: WATER
Test: SW-846 8270C Semi-Vols

SAF Number: F06-058
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Phenol	108-95-2	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Naphthalene	91-20-3	< 2.1	n/a	ug/L					U	09/28/06
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	19.314	96.600	% Recov	60.000	118.000				09/28/06
BLANK	Nitrobenzene	98-95-3	< 0.60	n/a	ug/L					U	09/28/06
BLANK	4-Nitrophenol	100-02-7	< 1.0	n/a	ug/L					U	09/28/06
BLANK	4-Nitroaniline	100-01-6	< 1.0	n/a	ug/L					U	09/28/06
BLANK	N-Nitrosodiphenylamine	86-30-6	< 0.50	n/a	ug/L					U	09/28/06
BLANK	Pentachlorophenol	87-86-5	< 1.5	n/a	ug/L					U	09/28/06
BLANK	Phenanthrene	85-01-8	< 0.55	n/a	ug/L					U	09/28/06
BLANK	Phenol-d5(Surr)	4165-62-2	18.956	94.800	% Recov	59.000	116.000				09/28/06
BLANK	Pyrene	129-00-0	< 0.50	n/a	ug/L					U	09/28/06
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	13.562	67.800	% Recov	60.000	120.000				09/28/06
BLANK	Terphenyl-d14(Surr)	98904-43-9	18.051	90.300	% Recov	60.000	120.000				09/28/06
LCS	1,2,4-Trichlorobenzene	120-82-1	12.445	62.200	% Recov	46.000	107.000				09/28/06
LCS	1,4-Dichlorobenzene	106-46-7	12.048	60.200	% Recov	42.000	111.000				09/28/06
LCS	2,4-Dinitrotoluene	121-14-2	17.999	90.000	% Recov	59.000	106.000				09/28/06
LCS	2-Fluorophenol(Surr)	367-12-4	19.260	96.300	% Recov	50.000	110.000				09/28/06
LCS	Acenaphthene	83-32-9	17.702	88.500	% Recov	61.000	116.000				09/28/06
LCS	4-Chloro-3-methylphenol	59-50-7	28.015	93.400	% Recov	61.000	106.000				09/28/06
LCS	2-Chlorophenol	95-57-8	28.444	94.800	% Recov	66.000	106.000				09/28/06
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	19.314	96.600	% Recov	71.000	114.000				09/28/06
LCS	2-Fluorobiphenyl(Surr)	321-60-8	15.397	77.000	% Recov	58.000	109.000				09/28/06
LCS	Phenol	108-95-2	28.758	95.900	% Recov	67.000	105.000				09/28/06
LCS	Nitrobenzene-d5(Surr)	4165-60-0	19.466	97.300	% Recov	60.000	118.000				09/28/06
LCS	4-Nitrophenol	100-02-7	21.639	72.100	% Recov	32.000	118.000				09/28/06
LCS	Pentachlorophenol	87-86-5	20.467	68.200	% Recov	62.000	114.000				09/28/06
LCS	Phenol-d5(Surr)	4165-62-2	19.522	97.600	% Recov	59.000	116.000				09/28/06
LCS	Pyrene	129-00-0	16.959	84.800	% Recov	66.000	118.000				09/28/06
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	16.249	81.200	% Recov	60.000	120.000				09/28/06
LCS	Terphenyl-d14(Surr)	98904-43-9	18.207	91.000	% Recov	60.000	120.000				09/28/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20061110
Matrix: WATER
Test: VOA Ground Water Protection

SAF Number: F06-058
Sample Date: 09/15/06
Receive Date:09/15/06

Lab ID: W060003217
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	1,1-Dichloroethene	75-35-4	27.150	109.000	% Recov	63.000	117.000				09/28/06
MS	Benzene	71-43-2	26.100	104.000	% Recov	75.000	129.000				09/28/06
MS	4-Bromofluorobenzene(Surr)	460-00-4	56.190	112.000	% Recov	84.000	116.000				09/28/06
MS	Chlorobenzene	108-90-7	26.990	108.000	% Recov	79.000	119.000				09/28/06
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	51.910	104.000	% Recov	82.000	136.000				09/28/06
MS	Toluene-d8(Surr)	2037-26-5	52.180	104.000	% Recov	89.000	119.000				09/28/06
MS	Toluene	108-88-3	27.790	111.000	% Recov	76.000	120.000				09/28/06
MS	Trichloroethene	79-01-6	26.320	105.000	% Recov	73.000	123.000				09/28/06
MSD	1,1-Dichloroethene	75-35-4	26.820	107.000	% Recov	63.000	117.000				09/28/06
MSD	Benzene	71-43-2	24.640	98.600	% Recov	75.000	129.000				09/28/06
MSD	4-Bromofluorobenzene(Surr)	460-00-4	56.340	113.000	% Recov	84.000	116.000				09/28/06
MSD	Chlorobenzene	108-90-7	25.460	102.000	% Recov	79.000	119.000				09/28/06
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.760	106.000	% Recov	82.000	136.000				09/28/06
MSD	Toluene-d8(Surr)	2037-26-5	54.620	109.000	% Recov	89.000	119.000				09/28/06
MSD	Toluene	108-88-3	26.350	105.000	% Recov	76.000	120.000				09/28/06
MSD	Trichloroethene	79-01-6	24.710	98.800	% Recov	73.000	123.000				09/28/06
SPK-RPD	1,1-Dichloroethene	75-35-4	107.000		RPD			1.852	20.000		09/28/06
SPK-RPD	Benzene	71-43-2	98.600		RPD			5.331	20.000		09/28/06
SPK-RPD	Chlorobenzene	108-90-7	102.000		RPD			5.714	20.000		09/28/06
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	106.000		RPD			1.905	20.000		09/28/06
SPK-RPD	Toluene-d8(Surr)	2037-26-5	109.000		RPD			4.695	20.000		09/28/06
SPK-RPD	Toluene	108-88-3	105.000		RPD			5.556	20.000		09/28/06
SPK-RPD	Trichloroethene	79-01-6	98.800		RPD			6.084	20.000		09/28/06
SURR	4-Bromofluorobenzene(Surr)	460-00-4	54.600	109.000	% Recov	84.000	116.000				09/28/06
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.630	107.000	% Recov	82.000	136.000				09/28/06
SURR	Toluene-d8(Surr)	2037-26-5	54.380	109.000	% Recov	89.000	119.000				09/28/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20061110
Matrix: WATER
Test: VOA Ground Water Protection

SAF Number: F06-058
Sample Date: 09/15/06
Receive Date:09/15/06

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L					U	09/28/06
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L					U	09/28/06
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L					U	09/28/06
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/L	0.000	5.000			U	09/28/06
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L					U	09/28/06
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L					U	09/28/06
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/L					U	09/28/06
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/L					U	09/28/06
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L					U	09/28/06
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	57.770	116.000	% Recov	84.000	116.000				09/28/06
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L					U	09/28/06
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/L					U	09/28/06
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	56.520	113.000	% Recov	82.000	136.000				09/28/06
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/L					U	09/28/06
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L					U	09/28/06

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20061110
Matrix: WATER
Test: VOA Ground Water Protection

SAF Number: F06-058
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	0.000	5.000			U	09/28/06
BLANK	Toluene-d8(Surr)	2037-26-5	55.040	110.000	% Recov	89.000	119.000				09/28/06
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L					U	09/28/06
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L					U	09/28/06
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L					U	09/28/06
LCS	1,1-Dichloroethene	75-35-4	25.390	102.000	% Recov	70.000	130.000				09/28/06
LCS	Benzene	71-43-2	25.820	103.000	% Recov	70.000	130.000				09/28/06
LCS	4-Bromofluorobenzene(Surr)	460-00-4	55.810	112.000	% Recov	84.000	116.000				09/28/06
LCS	Chlorobenzene	108-90-7	26.650	107.000	% Recov	70.000	130.000				09/28/06
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	54.780	110.000	% Recov	82.000	136.000				09/28/06
LCS	Toluene-d8(Surr)	2037-26-5	55.080	110.000	% Recov	89.000	119.000				09/28/06
LCS	Toluene	108-88-3	27.060	108.000	% Recov	70.000	130.000				09/28/06
LCS	Trichloroethene	79-01-6	25.520	102.000	% Recov	70.000	130.000				09/28/06

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F06-058

Group #: WSCF20061110
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-AES: Aluminum, iron, magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). VOA & SVOA: J-flagged compounds are estimates because the sample concentration is below the level of accurate quantitation.cc

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

This report may not be reproduced, except in its entirety without the written approval of the WSCF Laboratory.

WSCF

TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F06-058 :F06-058

Group #: WSCF20061110
Department: Organic

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W060003217	B1KKR0	TRENT	SW-846 8270C Semi-Vols	SMP 18.973 Unknown Ketone	Unknown	18.97388	J	9.1	ug/L
W060003217	B1KKR0	TRENT	SW-846 8270C Semi-Vols	SMP 6.548 2-Butoxyethanol	111-76-2	6.548233		1.8	ug/L

RQ=Result Qualifier J - Analyte < lowest calibration but >= MDL.(org)

This report may not be reproduced, except in its entirety without the written approval of the WSCF Laboratory.

WSCF
METHOD REFERENCES REPORT

Department: Organic

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

LA-523-455	LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846	
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8260B	VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
	HEIS 8260_VOA_GCMS	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
LA-523-456	LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C	
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
	HEIS 8270_SVOA_GCMS	Semivolatile Orgamoc Compounds By Gas Chromatography/Mass Spectrometry (GC/MS)

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

w13qlog v2 17-oct-2006 06:42:40

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20061110

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			34204	BLANK		SW-846 8270C Semi-Vols
			34204	LCS		SW-846 8270C Semi-Vols
			34204	MS	W060003217	SW-846 8270C Semi-Vols
			34204	MSD	W060003217	SW-846 8270C Semi-Vols
			34204	SAMPLE	W060003217	SW-846 8270C Semi-Vols
			34204	SPK-RPD	W060003217	SW-846 8270C Semi-Vols
			34204	SURR	W060003217	SW-846 8270C Semi-Vols
			34273	BLANK		VOA Ground Water Protection
			34273	LCS		VOA Ground Water Protection
			34273	MS	W060003217	VOA Ground Water Protection
			34273	MSD	W060003217	VOA Ground Water Protection
			34273	SAMPLE	W060003217	VOA Ground Water Protection
			34273	SPK-RPD	W060003217	VOA Ground Water Protection
			34273	SURR	W060003217	VOA Ground Water Protection

M8141-SLF-06-309

ATTACHMENT 3

SAMPLE RECEIPT INFORMATION

Consisting of 3 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

10/16/06
File KB

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program
Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 121931/ES10
Group#: 20061110
Project#: F06-058
Proj Mgr: Steve Trent A0-21
Phone: 373-5869

The following samples were received from you on 09/15/06. 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
W060003217	B1KKR0	TRENT @GPP6010 @SVOCGPP @VOA-GPP	Water	09/15/0

Test Acronym Description

Test Acronym	Description
@GPP6010	ICP Metals Analysis, Grd H20 P
@SVOCGPP	SW-846 8270C Semi-Vols
@VOA-GPP	VOA Ground Water Protection

Fluor Hanford Inc. 10/16

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F06-058-004 PAGE 1 OF 1

COLLECTOR: Hughes/Pope / MOKLER	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
PRICE CODE: 7N	DATA TURNAROUND: 45 Days / ~~45 Days~~ 9/15/6	AIR QUALITY: ☐	
SAMPLING LOCATION: C5102	PROJECT DESIGNATION: Investigation of Waste Water	SAF NO.: F06-058	
ICE CHEST NO.:	FIELD LOGBOOK NO.: HNF-N-575-1	COA: 121931ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: Waste Sampling & Characterization 20061110	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

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

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR 173.403 but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE
tied to B1KKP9 (activity scan)

PRESERVATION	HCl or H2SO4 to pH <2/Cool 4C	Cool 4C	HNO3 to pH <2
TYPE OF CONTAINER	aGs*	aG	P
NO. OF CONTAINER(S)	3	4	1
VOLUME	40mL	1L	500mL
SAMPLE ANALYSIS	VOA - 8260B (TCL);	Semi-VOA - 8270B (TCL);	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1KKR0	WATER	~~9/15/6~~	~~1045~~
W060003217		~~9/15/6~~	~~1145~~
		9/15/6	1205

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES: RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	9/15/06 12:25	Victor Bins	12:25 9/15/06
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
(1)ICP Metals - 6010B (TAL); ICP Metals - 6010B (Add-On) {Arsenic, Beryllium, Bismuth, Boron, Lead, Lithium, Molybdenum, Phosphorus, Selenium, Strontium, Thallium, Tin, Titanium}

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