

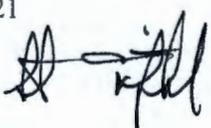
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1212897

# FLUOR

## Memorandum

To: S. J. Trent A0-21 Date: M8141-SLF-05-074  
February 3, 2005

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

cc: w/Attachments w/o Attachments

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

Subject: FINAL RESULTS FOR 216-Z-9 TRENCH CHARACTERIZATION BOREHOLE - WATER -  
SAMPLE DELIVERY GROUP WSCF20050146- SAF NUMBER F03-019

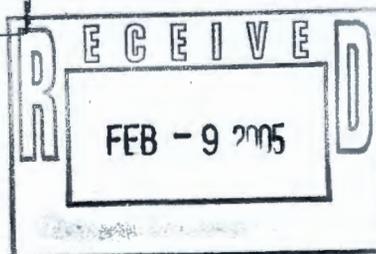
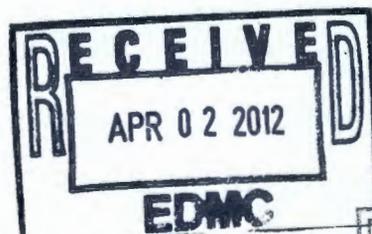
Reference: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001,  
October 31, 2002

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

This letter contains a narrative (Attachment 1) for sample delivery group WSCF20050146, the analytical results (Attachment 2), and the sample receipt information (Attachment 3).

SLF/grf

Attachments 3



M8141-SLF-05-074

ATTACHMENT 1

**NARRATIVE**

Consisting of 3 pages  
Including cover page

<b>Sample Delivery Group</b>	<b>WSCF20050146</b>
<b>Sample Matrix</b>	<b>Water</b>
<b>Sample Visual</b>	<b>N/A</b>
<b>SAF Number</b>	<b>F03-019</b>
<b>Data Deliverable</b>	<b>Summary Report</b>

### Introduction

One (1) 216-Z-9 Trench Characterization Borehole 216-Z-9/C3426, 520' – 522.5, GRP sample (B1B9W4) was received at the WSCF Laboratory on January 24, 2005. The sample was analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

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

### Analytical Methodology for Requested Analyses

#### **Organic**

- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

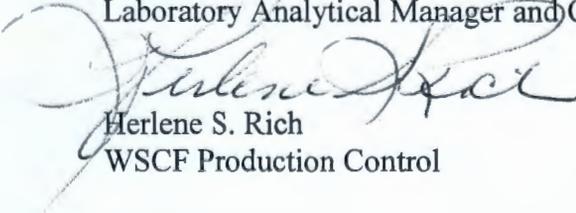
#### Organic Comments

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 9 through 11 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C352 (SDG# 20050122, SAF# F05-007).

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.



Herlene S. Rich  
WSCF Production Control

Abbreviations

Hg – mercury

IC – ion chromatography

ICP – inductively coupled plasma

ICP/AES – ICP/atomic emission spectroscopy

ICP/MS – ICP/mass spectrometry

Total U – total uranium

AT/TB – total alpha/total beta

AEA – Alpha Energy Analysis

WTPH-G – Total Hydrocarbons-Gasoline

Am – americium

Cm - curium

Pu – plutonium

Np – neptunium

GEA – gamma energy analysis

H3 – Tritium

Sr – Strontium 89, 90

WTPH-D – Total Hydrocarbons-Diesel

TSS – Total Suspended Solids

M8141-SLF-05-074

ATTACHMENT 2

**ANALYTICAL RESULTS**

Consisting of 11 pages  
Including cover page

**WSCF  
ANALYTICAL RESULTS REPORT**

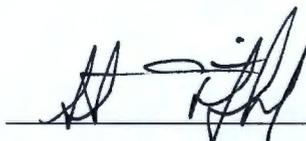
for

**Groundwater Remediation Program**

**Richland, WA 99354**

**Attention: Steve Trent**

Analytical:

 S. Fitzgerald

Client Services:

PDWij P.O. M.P. 2/3/2005

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

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

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

Report#: WSCF20050146

Report Date: 3-feb-2005

Report WGPP/ver. 1.1

Groundwater Remediation Program

Page 1

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050146

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
<b>Organic</b>														
W050000095	B1B9W4	TRENT	75-35-4	1,1-Dichloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	79-01-6	Trichloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	71-43-2	Benzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	108-88-3	Toluene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	108-90-7	Chlorobenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	75-34-3	1,1-Dichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	100-41-4	Ethylbenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	100-42-5	Styrene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	10061-01-5	cis-1,3-Dichloropropene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	10061-02-6	trans-1,3-Dichloropropene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	107-06-2	1,2-Dichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	108-10-1	4-Methyl-2-Pentanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	124-48-1	Dibromochloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	127-18-4	Tetrachloroethene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	1330-20-7	Xylenes (total)	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	540-59-0	1,2-Dichloroethene(Total)	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	56-23-5	Carbon tetrachloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	591-78-6	2-Hexanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	67-64-1	Acetone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	67-66-3	Chloroform	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	71-55-6	1,1,1-Trichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	74-83-9	Bromomethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	79-34-5	1,1,1,2,2-Tetrachloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	74-87-3	Chloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	75-00-3	Chloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	75-01-4	Vinyl chloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05

**MDL=Minimum Detection Limit**

U - Analyzed for but not detected above limiting criteria.

**RQ=Result Qualifier**

**DF=Dilution Factor**

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

Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF

## ANALYTICAL RESULTS REPORT

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

Steve Trent  
F03-019: F03-019

**Group #:** WSCF20050146

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze	Sample	Receive	
					Method	RQ								
W050000095	B1B9W4	TRENT	75-09-2	Methylenechloride	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	75-15-0	Carbon disulfide	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	75-25-2	Bromoform	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	75-27-4	Bromodichloromethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	78-87-5	1,2-Dichloropropane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	78-93-3	2-Butanone	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	79-00-5	1,1,2-Trichloroethane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	71-36-3	1-Butanol	WATER	LA-523-455	U	< 20.0	ug/L	1.00	20	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	110-54-3	Hexane	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	104-51-8	n-Butylbenzene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	156-60-5	trans-1,2-Dichloroethylene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	75-05-8	Acetonitrile	WATER	LA-523-455	U	< 2.00	ug/L	1.00	2.0	02/01/05	01/21/05	01/24/05
W050000095	B1B9W4	TRENT	156-59-2	cis-1,2-Dichloroethylene	WATER	LA-523-455	U	< 1.00	ug/L	1.00	1.0	02/01/05	01/21/05	01/24/05

**MDL = Minimum Detection Limit**

U - Analyzed for but not detected above limiting criteria.

**RQ = Result Qualifier**

**DF = Dilution Factor**

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

Report WGPP/ver. 1.1

Groundwater Remediation Program

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050146  
 Matrix: WATER  
 Test: VOA Ground Water Protection

SAF Number: F03-019  
 Sample Date: 01/19/05  
 Receive Date: 01/19/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050000086									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,1-Dichloroethene	75-35-4	25.880	104.000	% Recov	02/01/05	63.000	117.000	
MS	Benzene	71-43-2	27.990	112.000	% Recov	02/01/05	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	57.530	115.000	% Recov	02/01/05	84.000	116.000	
MS	Chlorobenzene	108-90-7	28.160	113.000	% Recov	02/01/05	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	57.680	115.000	% Recov	02/01/05	82.000	136.000	
MS	Toluene-d8	2037-26-5	52.920	106.000	% Recov	02/01/05	89.000	119.000	
MS	Toluene	108-88-3	26.970	108.000	% Recov	02/01/05	76.000	120.000	
MS	Trichloroethene	79-01-6	26.510	106.000	% Recov	02/01/05	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	26.530	106.000	% Recov	02/01/05	63.000	117.000	
MSD	Benzene	71-43-2	27.700	111.000	% Recov	02/01/05	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	56.680	113.000	% Recov	02/01/05	84.000	116.000	
MSD	Chlorobenzene	108-90-7	28.250	113.000	% Recov	02/01/05	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	57.680	115.000	% Recov	02/01/05	82.000	136.000	
MSD	Toluene-d8	2037-26-5	53.460	107.000	% Recov	02/01/05	89.000	119.000	
MSD	Toluene	108-88-3	27.350	109.000	% Recov	02/01/05	76.000	120.000	
MSD	Trichloroethene	79-01-6	26.170	105.000	% Recov	02/01/05	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	106.000	1.905	RPD	02/01/05	0.000	10.000	
SPK-RPD	Benzene	71-43-2	111.000	0.897	RPD	02/01/05	0.000	10.000	
SPK-RPD	Chlorobenzene	108-90-7	113.000	0.000	RPD	02/01/05	0.000	10.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	115.000	0.000	RPD	02/01/05	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	107.000	0.939	RPD	02/01/05	0.000	25.000	
SPK-RPD	Toluene	108-88-3	109.000	0.922	RPD	02/01/05	0.000	10.000	
SPK-RPD	Trichloroethene	79-01-6	105.000	0.948	RPD	02/01/05	0.000	10.000	

Lab ID: W050000095  
 BATCH QC ASSOCIATED WITH SAMPLE

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050146  
 Matrix: WATER  
 Test: VOA Ground Water Protection

SAF Number: F03-019  
 Sample Date: 01/21/05  
 Receive Date: 01/24/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	4-Bromofluorobenzene	460-00-4	56.230	112.000	% Recov	02/01/05	84.000	116.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	57.190	114.000	% Recov	02/01/05	82.000	136.000	
SURR	Toluene-d8	2037-26-5	55.870	112.000	% Recov	02/01/05	89.000	119.000	

## BATCH QC

BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L	02/01/05			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L	02/01/05			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L	02/01/05			U
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/L	02/01/05	0.000	5.000	U
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L	02/01/05			U
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L	02/01/05			U
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/L	02/01/05			U
BLANK	1-Butanol	71-36-3	< 20	n/a	ug/L	02/01/05			U
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/L	02/01/05			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L	02/01/05			U
BLANK	4-Bromofluorobenzene	460-00-4	56.230	112.000	% Recov	02/01/05	84.000	116.000	
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/L	02/01/05			U
BLANK	n-Butylbenzene	104-51-8	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/L	02/01/05			U
RI ANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L	02/01/05			U
RI ANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L	02/01/05			U
RI ANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L	02/01/05			U
RI ANK	cis-1,2-Dichloroethylene	156-59-2	< 1.0	n/a	ug/L	02/01/05			U
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/L	02/01/05			U
BLANK	1,2-Dichloroethane-d4	17060-07-0	55.240	110.000	% Recov	02/01/05	82.000	136.000	

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050146  
 Matrix: WATER  
 Test: VOA Ground Water Protection

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	trans-1,2-Dichloroethylene	156-60-5	< 1.0	n/a	ug/L	02/01/05			U
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Hexane	110-54-3	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/L	02/01/05			U
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	02/01/05	0.000	5.000	U
BLANK	Toluene-d8	2037-26-5	53.840	108.000	% Recov	02/01/05	89.000	119.000	
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L	02/01/05			U
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L	02/01/05			U
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L	02/01/05			U
LCS	1,1-Dichloroethene	75-35-4	25.240	101.000	% Recov	02/01/05	70.000	130.000	
LCS	Benzene	71-43-2	28.510	114.000	% Recov	02/01/05	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	56.490	113.000	% Recov	02/01/05	84.000	116.000	
LCS	Chlorobenzene	108-90-7	27.770	111.000	% Recov	02/01/05	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	59.000	118.000	% Recov	02/01/05	82.000	136.000	
LCS	Toluene-d8	2037-26-5	55.000	110.000	% Recov	02/01/05	89.000	119.000	
LCS	Toluene	108-88-3	26.940	108.000	% Recov	02/01/05	70.000	130.000	
LCS	Trichloroethene	79-01-6	26.600	106.000	% Recov	02/01/05	70.000	130.000	

**WSCF**  
**ANALYTICAL COMMENT REPORT**

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

**Group #:** 20050146

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Sample #	Client ID	Lab Area	Test	Comment
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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**

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

**Group #:** 20050146

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Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
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RQ=Result Qualifier

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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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<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>

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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: 3-feb-2005  
Report#: WSCF20050146  
Report WGPPM/O

W13q Worklist/Batch/QC Report for Group# WSCF20050146

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			28626	BLANK		VOA Ground Water Protection
			28626	LCS		VOA Ground Water Protection
			28626	MS	W050000086	VOA Ground Water Protection
			28626	MSD	W050000086	VOA Ground Water Protection
			28626	SPK-RPD	W050000086	VOA Ground Water Protection
			28626	SAMPLE	W050000095	VOA Ground Water Protection
			28626	SURR	W050000095	VOA Ground Water Protection

M8141-SLF-05-074

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

2/23/05

ACKNOWLEDGMENT OF SAMPLES RECEIVED

File KB

Groundwater Remediation Program

Richland, WA 99354  
Attn: Steve Trent

Customer Code: GPP  
PO#: 119325/ES10  
Group#: 20050146  
Project#: F03-019  
Proj Mgr: Steve Trent A0-21  
Phone: 373-5869

The following samples were received from you on 01/24/05. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W050000095	B1B9W4	TRENT @VOA-GPP	Water	01/21/05

Test Acronym Description

Test Acronym	Description
@VOA-GPP	VOA Ground Water Protection

FLUOR Hanford Inc. 2/23		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F03-019-105	PAGE 1 OF 1
COLLECTOR Pope/Pfister/Wiberg/Tyra		COMPANY CONTACT Steve Trent	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION 216-Z-9/C3426 520' - 522.5'		PROJECT DESIGNATION 216-Z-9 Trench Characterization Borehole - Water		SAF NO. F03-019	AIR QUALITY	
ICE CHEST NO.		FIELD LOGBOOK NO. HNF N-3601	COA 119325E10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization		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=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	HCl or H2SO4 to pH <2/Cool 4C																		
		TYPE OF CONTAINER	aGs*																		
		NO. OF CONTAINER(S)	3																		
		VOLUME	40mL																		
	SPECIAL HANDLING AND/OR STORAGE N/A	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS																		

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME																		
B1B9W4	WATER	1-24-05	1430	X																	
WCS000095																					

CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS													
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					(1)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, Acetonitrile, Hexane, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}													
J.S. Pope / ASH	1-21-05 1630	MU-626 Ref. #1	1-21-05 1630																		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME																		
MO-016 Ref. #1	1-24-05 0600	J.S. Pope / ASH	1-24-05 0600																		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME																		
J.S. Pope / ASH	1-24-05 0755	K. B. B. B.	1/24/05 0755																		
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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