REV. 1

RECEIVED MAY 29, 2008

0079486

REVISED 5-29-08

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

FLUOR

Memorandum

M4W41-SLF-08-570

To:	H. Hampt	E6-35	Date:	May 29, 2008
From:	S. L. Fitzgerald, Manager WSCF Analytical Lab			
cc:	w/Attachments			
	T. F. Dale	S3-30	J. E. Trechter	S3-30
	H. K. Meznarich	S3-30	S. J. Trent	E6-35
	P. D. Mix	S3-30	File/LB	

Subject: P&D SDG WSCF20080561 – ANALYTICAL RESULT FOR 1,2,4-TRIMETHYLBENZENE – SAF NUMBER F08-043

Reference:
(1) Memo, SL Fitzgerald to H Hampt, Final Results for SDG WSCF20080561 (M4W41-SLF-08-491), dated May 8, 2008

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

(3) HNF-SD-CD-QAPP-017, Rev. 8, Waste Sampling & Characterization Facility Quality Assurance Plan

Due to a WSCF Laboratory error, the analytical result for 1,2,4-Trimethylbenzene was inadvertently left out of the final report issued May 8, 2008 (Reference 1). The Laboratory error has now been corrected and this letter contains the following P&D information for sample delivery group WSCF20080561:

- Copy of P&D SDG #WSCF20080561
- Analytical Result – Replacement page 23 of 54 (1,2,4-Trimethylbenzene)

Please accept our apology for any inconvenience this may have created. If you have any questions, don't hesitate to call on Pauline Mix, telephone 372-1488, for assistance.

SLF/grf

Attachments
As noted

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DEC 16 2008
EDMC

M4W41-SLF-08-491

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20080561
Data Deliverable Date: 05-may-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-043	B1TDD1	W08GR00665	SOIL
	B1TDD3	W08GR00663	SOIL

M4W41-SLF-08-491

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Introduction

Three S&GRP samples were received at the WSCF Laboratory on March 19, 2008. Two of the samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter. Analysis of the high concentration VOAs and the associated Methanol Blank (B1TDD2) were not required.

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4. Additionally, a copy of the sample record sheet is included as Attachment 5.

It should be noted that the attached chain of custody was stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the sample container.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report,* pages 13 through 15, for a complete listing of approved analytical methods.

Inorganic Comments

Anions – Holding time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See pages 17 through 18 for QC details. Analytical Note(s):

- Sample Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TN41 (SDG# 20080591, SAF# F08-070).
- Sample results were D flagged if dilution(s) were required.
- Sample results that were less than the reportable limit, however greater than the method detection limit were B flagged.

All QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See pages 19 through 21 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TDC4 (SDG# 20080543, SAF# F08-043).

All QC controls are within the established limits.

Organic Comments

All organic results corrected for moisture and reported on a dry weight basis.

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See pages 27 through 28 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TDD0 (SDG# 20080543, SAF# F08-043).

All QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GPP Letter of Instruction. See pages 29 through 32 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TFC3 (SDG# 20080797, SAF# F08-066).

All QC controls are within the established limits.

TPHD-WA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 33 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TDC4 (SDG# 20080543, SAF# F08-043).

All QC controls are within the established limits.

VOA – The holding time requirement for this analysis was not met. See comment below. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample, were analyzed with this delivery group per the GRP Letter of Instruction. See pages 34 through 36 for QC details. Analytical Note(s):

- Hold Time missed - Sample was collected in the field on March 6 and delivered to the WSCF Laboratory on March 19, 2008. Sample was analyzed on March 26, 2008.

- Analysis of the high concentration VOAs and the associated Methanol Blank (B1TDD2) were not required.

All QC controls are within the established limits.

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 41 through 46 for QC details.

All QC controls are within the established limits.

I certify that this data package is in compliance with the LOI, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager and Client Services as verified by the following signatures.

Scot L. Fitzgerald
WSCF Analytical Laboratory Manager

John E. Trechter
WSCF Client Services

M4W41-SLF-08-491

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 39 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. Fitzgerald 5/8/08

Client Services: P.D. Mix 5/8/2008

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#: WSCF20080561
Report Date: 7-may-2008
Report WGPP/ver. 5.2
Groundwater Remediation Program

w13qlog v4.2 07-may-2008 07:46:45

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20080561

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W08GR00663	Percent Solids
35736	1	36140	40437	BLANK		ICP-200.8 MS All possible meta
35736	2	36140	40437	LCS		ICP-200.8 MS All possible meta
35736	4	36140	40437	MS	W08GR00628	ICP-200.8 MS All possible meta
35736	5	36140	40437	MSD	W08GR00628	ICP-200.8 MS All possible meta
35736	5	36140	40437	SPK-RPD	W08GR00628	ICP-200.8 MS All possible meta
35736	8	36140	40437	SAMPLE	W08GR00663	ICP-200.8 MS All possible meta
35875	2	36280	40566	BLANK		Anions by Ion Chromatography
35875	17	36280	40566	BLANK		Anions by Ion Chromatography
35875	3	36280	40566	LCS		Anions by Ion Chromatography
35875	11	36280	40566	SAMPLE	W08GR00663	Anions by Ion Chromatography
35875	5	36280	40566	DUP	W08GR00694	Anions by Ion Chromatography
35875	6	36280	40566	MS	W08GR00694	Anions by Ion Chromatography
35875	7	36280	40566	MSD	W08GR00694	Anions by Ion Chromatography
35875	7	36280	40566	SPK-RPD	W08GR00694	Anions by Ion Chromatography

w13qlog v4.2 07-may-2008 07:46:45

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20080561

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			40412	BLANK		PCBs complete list
			40412	LCS		PCBs complete list
			40412	MS	W08GR00632	PCBs complete list
			40412	MSD	W08GR00632	PCBs complete list
			40412	SPK-RPD	W08GR00632	PCBs complete list
			40412	SAMPLE	W08GR00663	PCBs complete list
			40412	SURR	W08GR00663	PCBs complete list
			40413	BLANK		NWTPH-D TPH Diesel Range (Wa)
			40413	LCS		NWTPH-D TPH Diesel Range (Wa)
			40413	MS	W08GR00628	NWTPH-D TPH Diesel Range (Wa)
			40413	MSD	W08GR00628	NWTPH-D TPH Diesel Range (Wa)
			40413	SPK-RPD	W08GR00628	NWTPH-D TPH Diesel Range (Wa)
			40413	SAMPLE	W08GR00663	NWTPH-D TPH Diesel Range (Wa)
			40413	SURR	W08GR00663	NWTPH-D TPH Diesel Range (Wa)
			40836	BLANK		SW-846 8270C Semi-Vols
			40836	LCS		SW-846 8270C Semi-Vols
			40836	SAMPLE	W08GR00663	SW-846 8270C Semi-Vols
			40836	SURR	W08GR00663	SW-846 8270C Semi-Vols
			40836	MS	W08GR01029	SW-846 8270C Semi-Vols
			40836	MSD	W08GR01029	SW-846 8270C Semi-Vols
			40836	SPK-RPD	W08GR01029	SW-846 8270C Semi-Vols
			40898	BLANK		VOA Ground Water Protection
			40898	LCS		VOA Ground Water Protection
			40898	MS	W08GR00665	VOA Ground Water Protection
			40898	MSD	W08GR00665	VOA Ground Water Protection
			40898	SAMPLE	W08GR00665	VOA Ground Water Protection
			40898	SPK-RPD	W08GR00665	VOA Ground Water Protection
			40898	SURR	W08GR00665	VOA Ground Water Protection

w13qlog v4.2 07-may-2008 07:46:45

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20080561

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
35633	1	36039	40386	BLANK		Gamma Energy Analysis-grd H2O
35633	2	36039	40386	LCS		Gamma Energy Analysis-grd H2O
35633	3	36039	40386	DUP	W08GR00663	Gamma Energy Analysis-grd H2O
35633	4	36039	40386	SAMPLE	W08GR00663	Gamma Energy Analysis-grd H2O
35683	1	36089	40474	BLANK		Strontium 89/90
35683	2	36089	40474	LCS		Strontium 89/90
35683	3	36089	40474	DUP	W08GR00663	Strontium 89/90
35683	4	36089	40474	SAMPLE	W08GR00663	Strontium 89/90
35683	5	36089	40474	SURR	W08GR00663	Strontium 89/90
35796	1	36201	40794	BLANK		Uranium Isotopics by AEA
35796	2	36201	40794	LCS		Uranium Isotopics by AEA
35796	3	36201	40794	DUP	W08GR00663	Uranium Isotopics by AEA
35796	4	36201	40794	SAMPLE	W08GR00663	Uranium Isotopics by AEA
35796	5	36201	40794	SURR	W08GR00663	Uranium Isotopics by AEA
35835	1	36241	40799	BLANK		Plutonium Isotopics by AEA
35835	2	36241	40799	LCS		Plutonium Isotopics by AEA
35835	3	36241	40799	DUP	W08GR00663	Plutonium Isotopics by AEA
35835	4	36241	40799	SAMPLE	W08GR00663	Plutonium Isotopics by AEA
35835	5	36241	40799	SURR	W08GR00663	Plutonium Isotopics by AEA
35836	1	36242	40800	BLANK		Americium by AEA
35836	2	36242	40800	LCS		Americium by AEA
35836	3	36242	40800	DUP	W08GR00663	Americium by AEA
35836	4	36242	40800	SAMPLE	W08GR00663	Americium by AEA
35836	5	36242	40800	SURR	W08GR00663	Americium by AEA
36175	1	36592	40928	BLANK		Neptunium by AEA
36175	2	36592	40928	LCS		Neptunium by AEA
36175	3	36592	40928	DUP	W08GR00663	Neptunium by AEA
36175	5	36592	40928	MS	W08GR00663	Neptunium by AEA
36175	6	36592	40928	MSD	W08GR00663	Neptunium by AEA
36175	4	36592	40928	SAMPLE	W08GR00663	Neptunium by AEA
36175	6	36592	40928	SPK-RPD	W08GR00663	Neptunium by AEA
36175	8	36592	40928	MS	W08GR00694	Neptunium by AEA
36175	10	36592	40928	MS	W08GR00695	Neptunium by AEA

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-505-412	LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY	
	EPA-600/R-94-111 200.8	DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS
	HEIS 200.8_METALS_ICPMS	Inductively Coupled Plasma - Mass Spectrometry
	HEIS RADISOTOPES_ICPMS	Radioisotopes by ICP/MS
LA-519-412	LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C	
	EPA-600/4-79-020 160.1	Resisual, Filterable
	EPA-600/4-79-020 160.3	RESIDUE, TOTAL
	HEIS 160.1_TDS	Residual, Filterable
	Standard Methods 2540B	Total Solids Dried at 103-105 C
LA-533-410	LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY	
	EPA-600/R-94-111 300.0	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
	HEIS 300.0_ANIONS_IC	Determination of Inorganic Anions by Ion Chromatography

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

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-523-427	LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY	
	EPA SW-846 3510C	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION
	EPA SW-846 3545	PRESSURIZED FLUID EXTRACTION (PFE)
	EPA SW-846 3665A	SULFURIC ACID/PERMANGANATE CLEANUP
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8082A	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
	HEIS 8082_PCB_GC	Polychlorinated Biphenyls (PCBs) by Gas Chromatography
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)
LA-523-493	NWTPH-Diesel and/or Gasoline	
	HEIS WTPH_DIESEL (HEIS)	Total Petroleum Hydrocarbons in Diesel
	WDOE TPHD	Total Petroleum Hydrocarbons in Diesel

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.

WSCF
METHOD REFERENCES REPORT

Department: Radiochemistry

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-508-415 LA-508-415: OPERATION OF THE PROTEAN 2-INCH ALPHA/BETA COUNTING SYSTEM FOR GROSS

HEIS ALPHA_GPC	GROSS ALPHA GPC
HEIS BETA_GPC	GROSS BETA GPC
HEIS SRTOT_SEP_PRECIP_GPC	Strontium 89/90

LA-508-471 LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP

HEIS PUISO_IE_PRECIP_AEA	Plutonium by Alpha Energy Analysis
HEIS RAISO_AEA	Radium-226

LA-508-481 LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE

HEIS GAMMA_GS	Gamma 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.

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-043
Sample # W08GR00663
Client ID: B1TDD3 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080561
Department: Inorganic
Sampled: 03/06/08
Received: 03/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography Prep											**04/07/08**
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	DU	< 0.300	mg/kg			50.00	0.30		04/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.500	mg/kg			50.00	0.50		04/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	5.23	mg/kg			50.00	0.25		04/07/08
Sulfate	14808-79-8	LA-533-410	BD	11.4	mg/kg			50.00	3.5		04/07/08
ICP-200.8 MS All possible meta Prep											**03/27/08**
ICP-200.8 MS All possible meta											
Nickel	7440-02-0	LA-505-412		10.5	mg/kg			0.97	0.194		03/27/08
Silver	7440-22-4	LA-505-412	U	< 0.0969	mg/kg			0.97	0.0969		03/27/08
Barium	7440-39-3	LA-505-412		98.4	mg/kg			0.97	0.194		03/27/08
Beryllium	7440-41-7	LA-505-412		0.290	mg/kg			0.97	0.0485		03/27/08
Cadmium	7440-43-9	LA-505-412	U	< 0.0969	mg/kg			0.97	0.0969		03/27/08
Chromium	7440-47-3	LA-505-412		8.53	mg/kg			0.97	0.485		03/27/08
Copper	7440-50-8	LA-505-412		14.1	mg/kg			0.97	0.0969		03/27/08
Zinc	7440-66-6	LA-505-412		46.7	mg/kg			0.97	0.775		03/27/08
Lead	7439-92-1	LA-505-412		4.02	mg/kg			0.97	0.0969		03/27/08
Mercury	7439-97-6	LA-505-412	U	< 0.0485	mg/kg			0.97	0.0485		03/27/08
Arsenic	7440-38-2	LA-505-412		2.32	mg/kg			0.97	0.388		03/27/08
Selenium	7782-49-2	LA-505-412		0.370	mg/kg			0.97	0.291		03/27/08
Total solids											
Total solids	TS	LA-519-412		94.9	Percent			1.00	0.0		04/28/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080561
Matrix: SOLID
Test: Anions by Ion Chromatography

Sample Date: 03/19/08
Receive Date:03/20/08

Lab ID: W08GR00694

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
DUP	Fluoride	16984-48-8	<0.3		RPD			n/a	20.000	U	04/07/08
DUP	Nitrogen in Nitrite	NO2-N	<0.5		RPD			n/a	20.000	U	04/07/08
DUP	Nitrogen in Nitrate	NO3-N	3.388		RPD			15.779	20.000		04/07/08
DUP	Sulfate	14808-79-8	14.0456		RPD			17.102	20.000		04/07/08
MS	Fluoride	16984-48-8	0.483634	97.115	% Recov	75.000	125.000				04/07/08
MS	Nitrogen in Nitrite	NO2-N	0.485538	97.694	% Recov	75.000	125.000				04/07/08
MS	Nitrogen in Nitrate	NO3-N	0.453794	100.843	% Recov	75.000	125.000				04/07/08
MS	Sulfate	14808-79-8	1.925564	97.251	% Recov	75.000	125.000				04/07/08
MSD	Fluoride	16984-48-8	0.479034	96.192	% Recov	75.000	125.000				04/07/08
MSD	Nitrogen in Nitrite	NO2-N	0.470814	94.731	% Recov	75.000	125.000				04/07/08
MSD	Nitrogen in Nitrate	NO3-N	0.449032	99.785	% Recov	75.000	125.000				04/07/08
MSD	Sulfate	14808-79-8	1.912654	96.599	% Recov	75.000	125.000				04/07/08
SPK-RPD	Fluoride	16984-48-8	96.192		RPD			0.955	20.000		04/07/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	94.731		RPD			3.080	20.000		04/07/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	99.785		RPD			1.055	20.000		04/07/08
SPK-RPD	Sulfate	14808-79-8	96.599		RPD			0.673	20.000		04/07/08

BATCH QC

BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	04/07/08
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	04/07/08
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	04/07/08
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	04/07/08
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	04/07/08
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	04/07/08
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	04/07/08
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	04/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20080561
Matrix: SOLID
Test: Anions by Ion Chromatography

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Fluoride	16984-48-8	104.9652	105.387	% Recov	80.000	120.000				04/07/08
LCS	Nitrogen in Nitrite	NO2-N	99.9855	100.589	% Recov	80.000	120.000				04/07/08
LCS	Nitrogen in Nitrate	NO3-N	92.3455	102.492	% Recov	80.000	120.000				04/07/08
LCS	Sulfate	14808-79-8	388.7195	98.161	% Recov	80.000	120.000				04/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080561
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 03/04/08
Receive Date:03/17/08

Lab ID: W08GR00628
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	187	93.500	% Recov	70.000	130.000				03/27/08
MS	Arsenic	7440-38-2	187.5	93.750	% Recov	70.000	130.000				03/27/08
MS	Barium	7440-39-3	199.25	99.625	% Recov	70.000	130.000				03/27/08
MS	Beryllium	7440-41-7	174.19	87.095	% Recov	70.000	130.000				03/27/08
MS	Cadmium	7440-43-9	197.4	98.700	% Recov	70.000	130.000				03/27/08
MS	Chromium	7440-47-3	193.85	96.925	% Recov	70.000	130.000				03/27/08
MS	Copper	7440-50-8	187.95	93.975	% Recov	70.000	130.000				03/27/08
MS	Mercury	7439-97-6	2.12	106.000	% Recov	70.000	130.000				03/27/08
MS	Nickel	7440-02-0	192.94	96.470	% Recov	70.000	130.000				03/27/08
MS	Lead	7439-92-1	193.4	96.700	% Recov	70.000	130.000				03/27/08
MS	Selenium	7782-49-2	197	98.500	% Recov	70.000	130.000				03/27/08
MS	Zinc	7440-66-6	201.65	100.825	% Recov	70.000	130.000				03/27/08
MSD	Silver	7440-22-4	184.2	92.100	% Recov	70.000	130.000				03/27/08
MSD	Arsenic	7440-38-2	187.7	93.850	% Recov	70.000	130.000				03/27/08
MSD	Barium	7440-39-3	192.55	96.275	% Recov	70.000	130.000				03/27/08
MSD	Beryllium	7440-41-7	173.99	86.995	% Recov	70.000	130.000				03/27/08
MSD	Cadmium	7440-43-9	198.9	99.450	% Recov	70.000	130.000				03/27/08
MSD	Chromium	7440-47-3	194.55	97.275	% Recov	70.000	130.000				03/27/08
MSD	Copper	7440-50-8	186.25	93.125	% Recov	70.000	130.000				03/27/08
MSD	Mercury	7439-97-6	2	100.000	% Recov	70.000	130.000				03/27/08
MSD	Nickel	7440-02-0	190.94	95.470	% Recov	70.000	130.000				03/27/08
MSD	Lead	7439-92-1	192.1	96.050	% Recov	70.000	130.000				03/27/08
MSD	Selenium	7782-49-2	194.8	97.400	% Recov	70.000	130.000				03/27/08
MSD	Zinc	7440-66-6	191.45	95.725	% Recov	70.000	130.000				03/27/08
SPK-RPD	Silver	7440-22-4	92.100		RPD			1.509	20.000		03/27/08
SPK-RPD	Arsenic	7440-38-2	93.850		RPD			0.107	20.000		03/27/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080561
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 03/04/08
Receive Date:03/17/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Barium	7440-39-3	96.275		RPD			3.420	20.000		03/27/08
SPK-RPD	Beryllium	7440-41-7	86.995		RPD			0.115	20.000		03/27/08
SPK-RPD	Cadmium	7440-43-9	99.450		RPD			0.757	20.000		03/27/08
SPK-RPD	Chromium	7440-47-3	97.275		RPD			0.360	20.000		03/27/08
SPK-RPD	Copper	7440-50-8	93.125		RPD			0.909	20.000		03/27/08
SPK-RPD	Mercury	7439-97-6	100.000		RPD			5.825	20.000		03/27/08
SPK-RPD	Nickel	7440-02-0	95.470		RPD			1.042	20.000		03/27/08
SPK-RPD	Lead	7439-92-1	96.050		RPD			0.674	20.000		03/27/08
SPK-RPD	Selenium	7782-49-2	97.400		RPD			1.123	20.000		03/27/08
SPK-RPD	Zinc	7440-66-6	95.725		RPD			5.190	20.000		03/27/08

BATCH QC

BLANK	Silver	7440-22-4	<0.1	n/a	ug/L					U	03/27/08
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	03/27/08
BLANK	Barium	7440-39-3	<0.2	n/a	ug/L					U	03/27/08
BLANK	Beryllium	7440-41-7	<5e-2	n/a	ug/L					U	03/27/08
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L					U	03/27/08
BLANK	Chromium	7440-47-3	<0.5	n/a	ug/L					U	03/27/08
BLANK	Copper	7440-50-8	<0.1	n/a	ug/L					U	03/27/08
BLANK	Mercury	7439-97-6	<5e-2	n/a	ug/L					U	03/27/08
BLANK	Nickel	7440-02-0	<0.2	n/a	ug/L					U	03/27/08
BLANK	Lead	7439-92-1	<0.1	n/a	ug/L					U	03/27/08
BLANK	Selenium	7782-49-2	<0.3	n/a	ug/L					U	03/27/08
BLANK	Zinc	7440-66-6	<0.8	n/a	ug/L					U	03/27/08
LCS	Silver	7440-22-4	106.9	105.842	% Recov	98.000	134.000				03/27/08
LCS	Arsenic	7440-38-2	136.4	103.333	% Recov	75.000	134.000				03/27/08
LCS	Barium	7440-39-3	320.4	100.439	% Recov	87.000	121.000				03/27/08
LCS	Beryllium	7440-41-7	84.38	94.279	% Recov	70.000	153.000				03/27/08
LCS	Cadmium	7440-43-9	74.93	112.677	% Recov	95.000	124.000				03/27/08
LCS	Chromium	7440-47-3	73.15	100.343	% Recov	77.000	125.000				03/27/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080561
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Copper	7440-50-8	71.79	104.803	% Recov	84.000	122.000				03/27/08
LCS	Mercury	7439-97-6	7.72	93.237	% Recov	71.000	132.000				03/27/08
LCS	Nickel	7440-02-0	60.19	108.255	% Recov	90.000	121.000				03/27/08
LCS	Lead	7439-92-1	135.2	104.000	% Recov	92.000	123.000				03/27/08
LCS	Selenium	7782-49-2	181	112.422	% Recov	52.000	157.000				03/27/08
LCS	Zinc	7440-66-6	209.5	118.362	% Recov	85.000	130.000				03/27/08

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-043
Sample # W08GR00663
Client ID: B1TDD3 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080561
Department: Organic
Sampled: 03/06/08
Received: 03/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
NWTPH-D TPH Diesel Range (Wa) Prep											**03/20/08**
NWTPH-D TPH Diesel Range (Wa)											
Total Pet. Hydrocarbons Diesel	TPHDIESEL	LA-523-493	U	< 3.20e+03	ug/kg			1.00	3.2e+03		03/25/08
Kerosene	TPHKEROSENE	LA-523-493	U	< 3.20e+03	ug/kg			1.00	3.2e+03		03/25/08
PCBs complete list Prep											**03/20/08**
PCBs complete list											
Aroclor-1016	12674-11-2	LA-523-427	U	< 10.0	ug/kg			1.00	10		03/25/08
Aroclor-1221	11104-28-2	LA-523-427	U	< 21.0	ug/kg			1.00	21		03/25/08
Aroclor-1232	11141-16-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		03/25/08
Aroclor-1242	53469-21-9	LA-523-427	U	< 10.0	ug/kg			1.00	10		03/25/08
Aroclor-1248	12672-29-6	LA-523-427	U	< 10.0	ug/kg			1.00	10		03/25/08
Aroclor-1254	11097-69-1	LA-523-427	U	< 10.0	ug/kg			1.00	10		03/25/08
Aroclor-1260	11096-82-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		03/25/08
Aroclor-1262	37324-23-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		03/25/08
Aroclor-1268	11100-14-4	LA-523-427	U	< 10.0	ug/kg			1.00	10		03/25/08
SW-846 8270C Semi-Vols Prep											**03/20/08**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 210	ug/kg			1.00	2.1e+02		04/28/08
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 250	ug/kg			1.00	2.5e+02		04/28/08
Phenol	108-95-2	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/28/08
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/28/08
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/28/08
Pyrene	129-00-0	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/28/08
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/28/08
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/28/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-043
Sample # W08GR00663
Client ID: B1TDD3 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080561
Department: Organic
Sampled: 03/06/08
Received: 03/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Acenaphthene	83-32-9	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/28/08
Pentachlorophenol	87-86-5	LA-523-456	U	< 210	ug/kg			1.00	2.1e+02		04/28/08
2-Chlorophenol	95-57-8	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/28/08
Tributyl phosphate	126-73-8	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/28/08
1,2,4-Trimethylbenzene	95-63-6	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		04/28/08

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

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U - Analyzed for but not detected above limiting criteria(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-043
Sample # W08GR00665
Client ID: B1TDD1 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080561
Department: Organic
Sampled: 03/06/08
Received: 03/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
VOA Ground Water Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Trichloroethene	79-01-6	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Benzene	71-43-2	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Toluene	108-88-3	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Chlorobenzene	108-90-7	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Ethylbenzene	100-41-4	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Styrene	100-42-5	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Dibromochloromethane	124-48-1	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
1,2-Dichloroethene(Total)	540-59-0	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
2-Hexanone	591-78-6	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Acetone	67-64-1	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Chloroform	67-66-3	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Bromomethane	74-83-9	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Chloromethane	74-87-3	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Chloroethane	75-00-3	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08

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

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U - Analyzed for but not detected above limiting criteria(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-043
Sample # W08GR00665
Client ID: B1TDD1 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080561
Department: Organic
Sampled: 03/06/08
Received: 03/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Vinyl chloride	75-01-4	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Methylenechloride	75-09-2	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Carbon disulfide	75-15-0	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Bromoform	75-25-2	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Bromodichloromethane	75-27-4	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
1,2-Dichloropropane	78-87-5	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
2-Butanone	78-93-3	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Hexane	110-54-3	LA-523-455	U	< 0.920	ug/kg			1.00	0.92		03/26/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 1.80	ug/kg			1.00	1.8		03/26/08
Acetonitrile	75-05-8	LA-523-455	U	< 1.80	ug/kg			1.00	1.8		03/26/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F08-043 :F08-043

Group #: WSCF20080561
Department: Organic

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W08GR00663	B1TDD3	TRENT	SW-846 8270C Semi-Vols	SMP 13.547 Di-n-butylphthalate	84-74-2	13.54793		1.9e+02	ug/kg
W08GR00665	B1TDD1	TRENT	VOA Ground Water Protection	SMP 6.985 Unknown	Unknown	6.985983	J	27	ug/kg

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

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080561
Matrix: SOLID
Test: PCBs complete list

Sample Date: 03/05/08
Receive Date:03/17/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00632											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Aroclor-1260	11096-82-5	269.09	124.000	% Recov	75.000	125.000				03/25/08
MS	Decachlorobiphenyl	2051-24-3	949.18	109.000	% Recov	50.000	150.000				03/25/08
MS	Tetrachloro-m-xylene	877-09-8	906.21	104.000	% Recov	50.000	150.000				03/25/08
MSD	Aroclor-1260	11096-82-5	249.17	117.000	% Recov	75.000	125.000				03/25/08
MSD	Decachlorobiphenyl	2051-24-3	452.72	106.000	% Recov	50.000	150.000				03/25/08
MSD	Tetrachloro-m-xylene	877-09-8	449.46	105.000	% Recov	50.000	150.000				03/25/08
SPK-RPD	Aroclor-1260	11096-82-5	117.000		RPD			5.809	25.000		03/25/08
SPK-RPD	Decachlorobiphenyl	2051-24-3	106.000		RPD			2.791	20.000		03/25/08
SPK-RPD	Tetrachloro-m-xylene	877-09-8	105.000		RPD			0.957	20.000		03/25/08
Lab ID: W08GR00663											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Decachlorobiphenyl	2051-24-3	435.00	104.000	% Recov	50.000	150.000				03/25/08
SURR	Tetrachloro-m-xylene	877-09-8	426.86	102.000	% Recov	50.000	150.000				03/25/08
BATCH QC											
BLANK	Aroclor-1016	12674-11-2	< 10	n/a	UGKG					U	03/25/08
BLANK	Aroclor-1221	11104-28-2	< 20	n/a	ug/Kg					U	03/25/08
BLANK	Aroclor-1232	11141-16-5	< 10	n/a	ug/Kg					U	03/25/08
BLANK	Aroclor-1242	53469-21-9	< 10	n/a	ug/Kg					U	03/25/08
BLANK	Aroclor-1248	12672-29-6	< 10	n/a	ug/Kg					U	03/25/08
BLANK	Aroclor-1254	11097-69-1	< 10	n/a	ug/Kg					U	03/25/08
BLANK	Aroclor-1260	11096-82-5	< 10	n/a	ug/Kg					U	03/25/08
BLANK	Aroclor-1262	37324-23-5	< 10	n/a	ug/Kg					U	03/25/08
BLANK	Aroclor-1268	11100-14-4	< 10	n/a	ug/Kg					U	03/25/08
BLANK	Decachlorobiphenyl	2051-24-3	377.09	94.300	% Recov	50.000	150.000				03/25/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080561
Matrix: SOLID
Test: PCBs complete list

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Tetrachloro-m-xylene	877-09-8	369.27	92.300	% Recov	50.000	150.000				03/25/08
LCS	Aroclor-1260	11096-82-5	217.13	109.000	% Recov	70.000	130.000				03/25/08
LCS	Decachlorobiphenyl	2051-24-3	388.67	97.200	% Recov	50.000	150.000				03/25/08
LCS	Tetrachloro-m-xylene	877-09-8	371.22	92.800	% Recov	50.000	150.000				03/25/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080561
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 03/06/08
Receive Date:03/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00663											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	2-Fluorobiphenyl(Surr)	321-60-8	4279.8	102.000	% Recov	66.000	122.000				04/28/08
SURR	Nitrobenzene-d5(Surr)	4165-60-0	4254.7	101.000	% Recov	63.000	125.000				04/28/08
SURR	Phenol-d5(Surr)	4165-62-2	4133.5	98.300	% Recov	66.000	124.000				04/28/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	3819.0	90.800	% Recov	49.000	120.000				04/28/08
SURR	Terphenyl-d14(Surr)	98904-43-9	4590.6	109.000	% Recov	58.000	128.000				04/28/08
Lab ID: W08GR01029											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,2,4-Trichlorobenzene	120-82-1	4124.0	91.500	% Recov	75.000	121.000				04/28/08
MS	1,4-Dichlorobenzene	106-46-7	4060.5	90.100	% Recov	68.000	121.000				04/28/08
MS	2,4-Dinitrotoluene	121-14-2	3675.8	81.600	% Recov	66.000	113.000				04/28/08
MS	Acenaphthene	83-32-9	3942.9	87.500	% Recov	69.000	125.000				04/28/08
MS	4-Chloro-3-methylphenol	59-50-7	6115.7	90.500	% Recov	68.000	116.000				04/28/08
MS	2-Chlorophenol	95-57-8	6212.5	91.900	% Recov	65.000	124.000				04/28/08
MS	N-Nitrosodi-n-dipropylamine	621-64-7	4139.7	91.900	% Recov	69.000	127.000				04/28/08
MS	2-Fluorobiphenyl(Surr)	321-60-8	3761.7	83.500	% Recov	66.000	122.000				04/28/08
MS	Phenol	108-95-2	6112.9	90.400	% Recov	71.000	122.000				04/28/08
MS	Nitrobenzene-d5(Surr)	4165-60-0	3935.1	87.300	% Recov	63.000	125.000				04/28/08
MS	4-Nitrophenol	100-02-7	5027.0	74.400	% Recov	55.000	113.000				04/28/08
MS	Pentachlorophenol	87-86-5	6481.6	95.900	% Recov	50.000	113.000				04/28/08
MS	Phenol-d5(Surr)	4165-62-2	3872.1	85.900	% Recov	66.000	124.000				04/28/08
MS	Pyrene	129-00-0	4841.2	107.000	% Recov	67.000	125.000				04/28/08
MS	2,4,6-Tribromophenol(Surr)	118-79-6	4229.2	93.900	% Recov	49.000	120.000				04/28/08
MS	Terphenyl-d14(Surr)	98904-43-9	4782.9	106.000	% Recov	58.000	128.000				04/28/08
MSD	1,2,4-Trichlorobenzene	120-82-1	4543.7	101.000	% Recov	75.000	121.000				04/28/08
MSD	1,4-Dichlorobenzene	106-46-7	4810.2	107.000	% Recov	68.000	121.000				04/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080561
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/03/08
Receive Date:04/15/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	2,4-Dinitrotoluene	121-14-2	4290.7	95.300	% Recov	66.000	113.000				04/28/08
MSD	Acenaphthene	83-32-9	4498.6	99.900	% Recov	69.000	125.000				04/28/08
MSD	4-Chloro-3-methylphenol	59-50-7	6881.6	102.000	% Recov	68.000	116.000				04/28/08
MSD	2-Chlorophenol	95-57-8	7138.8	106.000	% Recov	65.000	124.000				04/28/08
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	4979.2	111.000	% Recov	69.000	127.000				04/28/08
MSD	2-Fluorobiphenyl(Surr)	321-60-8	4236.1	94.100	% Recov	66.000	122.000				04/28/08
MSD	Phenol	108-95-2	7096.6	105.000	% Recov	71.000	122.000				04/28/08
MSD	Nitrobenzene-d5(Surr)	4165-60-0	4396.1	97.600	% Recov	63.000	125.000				04/28/08
MSD	4-Nitrophenol	100-02-7	5824.7	86.200	% Recov	55.000	113.000				04/28/08
MSD	Pentachlorophenol	87-86-5	6102.3	90.300	% Recov	50.000	113.000				04/28/08
MSD	Phenol-d5(Surr)	4165-62-2	4599.4	102.000	% Recov	66.000	124.000				04/28/08
MSD	Pyrene	129-00-0	4986.9	111.000	% Recov	67.000	125.000				04/28/08
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	4152.4	92.200	% Recov	49.000	120.000				04/28/08
MSD	Terphenyl-d14(Surr)	98904-43-9	4671.5	104.000	% Recov	58.000	128.000				04/28/08
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	101.000		RPD			9.870	20.000		04/28/08
SPK-RPD	1,4-Dichlorobenzene	106-46-7	107.000		RPD			17.149	20.000		04/28/08
SPK-RPD	2,4-Dinitrotoluene	121-14-2	95.300		RPD			15.489	20.000		04/28/08
SPK-RPD	Acenaphthene	83-32-9	99.900		RPD			13.234	20.000		04/28/08
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	102.000		RPD			11.948	20.000		04/28/08
SPK-RPD	2-Chlorophenol	95-57-8	106.000		RPD			14.250	20.000		04/28/08
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	111.000		RPD			18.827	20.000		04/28/08
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	94.100		RPD			11.937	20.000		04/28/08
SPK-RPD	Phenol	108-95-2	105.000		RPD			14.944	20.000		04/28/08
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	97.600		RPD			11.141	20.000		04/28/08
SPK-RPD	4-Nitrophenol	100-02-7	86.200		RPD			14.695	20.000		04/28/08
SPK-RPD	Pentachlorophenol	87-86-5	90.300		RPD			6.015	20.000		04/28/08
SPK-RPD	Phenol-d5(Surr)	4165-62-2	102.000		RPD			17.137	20.000		04/28/08
SPK-RPD	Pyrene	129-00-0	111.000		RPD			3.670	20.000		04/28/08
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	92.200		RPD			1.827	20.000		04/28/08
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	104.000		RPD			1.905	20.000		04/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080561
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 04/03/08
Receive Date:04/15/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BATCH QC											
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 140	n/a	ug/Kg					U	04/28/08
BLANK	1,4-Dichlorobenzene	106-46-7	< 240	n/a	ug/Kg					U	04/28/08
BLANK	2,4-Dinitrotoluene	121-14-2	< 140	n/a	ug/Kg					U	04/28/08
BLANK	Acenaphthene	83-32-9	< 140	n/a	ug/Kg					U	04/28/08
BLANK	4-Chloro-3-methylphenol	59-50-7	< 140	n/a	ug/Kg					U	04/28/08
BLANK	2-Chlorophenol	95-57-8	< 140	n/a	ug/Kg					U	04/28/08
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 140	n/a	ug/Kg					U	04/28/08
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	3506.8	87.700	% Recov	66.000	122.000				04/28/08
BLANK	Phenol	108-95-2	< 140	n/a	ug/Kg					U	04/28/08
BLANK	Nitrobenzene-d5(Surr)	4165 60-0	3466.7	86.700	% Recov	63.000	125.000				04/28/08
BLANK	4-Nitrophenol	100-02-7	< 200	n/a	ug/Kg					U	04/28/08
BLANK	Pentachlorophenol	87-86-5	< 200	n/a	ug/Kg					U	04/28/08
BLANK	Phenol-d5(Surr)	4165-62-2	3574.5	89.400	% Recov	66.000	124.000				04/28/08
BLANK	Pyrene	129-00-0	< 140	n/a	ug/Kg					U	04/28/08
BLANK	Tributyl phosphate	126-73-8	< 140	n/a	ug/Kg					U	04/28/08
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	2872.0	71.800	% Recov	49.000	120.000				04/28/08
BLANK	Terphenyl-d14(Surr)	98904-43-9	4144.8	104.000	% Recov	58.000	128.000				04/28/08
LCS	1,2,4-Trichlorobenzene	120-82-1	3980.2	99.500	% Recov	76.000	118.000				04/28/08
LCS	1,4-Dichlorobenzene	106-46-7	4023.1	101.000	% Recov	68.000	121.000				04/28/08
LCS	2,4-Dinitrotoluene	121-14-2	3695.0	92.400	% Recov	68.000	112.000				04/28/08
LCS	Acenaphthene	83-32-9	3927.0	98.200	% Recov	75.000	121.000				04/28/08
LCS	4-Chloro-3-methylphenol	59-50-7	5677.5	94.600	% Recov	68.000	117.000				04/28/08
LCS	2-Chlorophenol	95-57-8	6032.7	101.000	% Recov	84.000	114.000				04/28/08
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	4252.6	106.000	% Recov	76.000	119.000				04/28/08
LCS	2-Fluorobiphenyl(Surr)	321-60-8	3983.4	99.600	% Recov	58.000	109.000				04/28/08
LCS	Phenol	108-95-2	6007.3	100.000	% Recov	80.000	113.000				04/28/08
LCS	Nitrobenzene d5(Surr)	4165-60-0	3826.2	95.700	% Recov	60.000	118.000				04/28/08
LCS	4-Nitrophenol	100-02-7	5282.2	88.000	% Recov	42.000	123.000				04/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080561
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Pentachlorophenol	87-86-5	5809.2	96.800	% Recov	55.000	120.000				04/28/08
LCS	Phenol-d5(Surr)	4165-62-2	4005.7	100.000	% Recov	59.000	116.000				04/28/08
LCS	Pyrene	129-00-0	4073.3	102.000	% Recov	67.000	122.000				04/28/08
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	3818.9	95.500	% Recov	60.000	120.000				04/28/08
LCS	Terphenyl-d14(Surr)	98904-43-9	3980.8	99.500	% Recov	60.000	120.000				04/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080561
Matrix: SOLID
Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date: 03/04/08
Receive Date:03/17/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00628											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	ortho-Terphenyl Surr	84-15-1	19406	93.700	% Recov	70.000	130.000				03/25/08
MS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	102960	99.400	% Recov	75.000	125.000				03/25/08
MSD	ortho-Terphenyl Surr	84-15-1	16380	78.900	% Recov	70.000	130.000				03/25/08
MSD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	97130	93.600	% Recov	75.000	125.000				03/25/08
SPK-RPD	ortho-Terphenyl Surr	84-15-1	78.900		RPD			17.149	20.000		03/25/08
SPK-RPD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	93.600		RPD			6.010	20.000		03/25/08
Lab ID: W08GR00663											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	ortho-Terphenyl Surr	84-15-1	17804	82.600	% Recov	70.000	130.000				03/25/08
BATCH QC											
BLANK	Kerosene	TPHKEROSENE	< 3000	n/a	ug/Kg					U	03/25/08
BLANK	ortho-Terphenyl Surr	84-15-1	16514	82.600	% Recov	70.000	130.000				03/25/08
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3000	n/a	ug/Kg					U	03/25/08
LCS	ortho-Terphenyl Surr	84-15-1	15505	77.500	% Recov	70.000	130.000				03/25/08
LCS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	88868	88.900	% Recov	80.000	120.000				03/25/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080561
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 03/06/08
Receive Date:03/19/08

Lab ID: W08GR00665
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	28.970	106.000	% Recov	63.000	117.000				03/26/08
MS	Benzene	71-43-2	29.000	106.000	% Recov	75.000	129.000				03/26/08
MS	4-Bromofluorobenzene(Surr)	460-00-4	56.560	103.000	% Recov	75.000	125.000				03/26/08
MS	Chlorobenzene	108-90-7	27.750	101.000	% Recov	79.000	119.000				03/26/08
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	63.030	115.000	% Recov	75.000	125.000				03/26/08
MS	Toluene-d8(Surr)	2037-26-5	57.390	105.000	% Recov	75.000	125.000				03/26/08
MS	Toluene	108-88-3	29.060	106.000	% Recov	76.000	120.000				03/26/08
MS	Trichloroethene	79-01-6	24.140	88.000	% Recov	73.000	123.000				03/26/08
MSD	1,1-Dichloroethene	75-35-4	25.560	109.000	% Recov	63.000	117.000				03/26/08
MSD	Benzene	71-43-2	25.720	109.000	% Recov	75.000	129.000				03/26/08
MSD	4-Bromofluorobenzene(Surr)	460-00-4	48.640	103.000	% Recov	75.000	125.000				03/26/08
MSD	Chlorobenzene	108-90-7	24.870	106.000	% Recov	79.000	119.000				03/26/08
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.010	113.000	% Recov	75.000	125.000				03/26/08
MSD	Toluene-d8(Surr)	2037-26-5	48.340	103.000	% Recov	75.000	125.000				03/26/08
MSD	Toluene	108-88-3	25.330	108.000	% Recov	76.000	120.000				03/26/08
MSD	Trichloroethene	79-01-6	21.210	90.200	% Recov	73.000	123.000				03/26/08
SPK-RPD	1,1-Dichloroethene	75-35-4	109.000		RPD			2.791	20.000		03/26/08
SPK-RPD	Benzene	71-43-2	109.000		RPD			2.791	20.000		03/26/08
SPK-RPD	4-Bromofluorobenzene(Surr)	460-00-4	103.000		RPD			0.000	20.000		03/26/08
SPK-RPD	Chlorobenzene	108-90-7	106.000		RPD			4.831	20.000		03/26/08
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	113.000		RPD			1.754	20.000		03/26/08
SPK-RPD	Toluene-d8(Surr)	2037-26-5	103.000		RPD			1.923	20.000		03/26/08
SPK-RPD	Toluene	108-88-3	108.000		RPD			1.869	20.000		03/26/08
SPK-RPD	Trichloroethene	79-01-6	90.200		RPD			2.469	20.000		03/26/08
SURR	4-Bromofluorobenzene(Surr)	460-00-4	48.400	105.000	% Recov	75.000	125.000				03/26/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	54.420	118.000	% Recov	75.000	125.000				03/26/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080561
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 03/06/08
Receive Date:03/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Toluene-d8(Surr)	2037-26-5	47.930	104.000	% Recov	80.000	126.000				03/26/08
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	1,1,2,2-Tetrachloroethane	79 34-5	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	52.480	105.000	% Recov	75.000	125.000				03/26/08
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	58.390	117.000	% Recov	75.000	125.000				03/26/08
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Hexane	110-54-3	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/Kg					U	03/26/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080561
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Styrene	100 42-5	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Tetrahydrofuran	109-99-9	< 2.0	n/a	ug/Kg					U	03/26/08
BLANK	Toluene-d8(Surr)	2037-26-5	51.920	104.000	% Recov	80.000	126.000				03/26/08
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/Kg					U	03/26/08
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/Kg					U	03/26/08
LCS	1,1-Dichloroethene	75-35-4	27.130	109.000	% Recov	75.000	125.000				03/26/08
LCS	Benzene	71-43-2	27.060	108.000	% Recov	75.000	125.000				03/26/08
LCS	4-Bromofluorobenzene(Surr)	460-00-4	51.430	103.000	% Recov	75.000	125.000				03/26/08
LCS	Chlorobenzene	108-90-7	26.100	104.000	% Recov	75.000	125.000				03/26/08
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	57.920	116.000	% Recov	75.000	125.000				03/26/08
LCS	Toluene-d8(Surr)	2037-26-5	51.700	103.000	% Recov	80.000	126.000				03/26/08
LCS	Toluene	108-88-3	26.560	106.000	% Recov	75.000	125.000				03/26/08
LCS	Trichloroethene	79-01-6	22.210	88.800	% Recov	75.000	125.000				03/26/08

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-043

Group #: WSCF20080561
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		Organics: All results are corrected for moisture and reported on a dry weight basis. cgc

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
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-043
Sample # W08GR00663
Client ID: B1TDD3 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080561
Department: Radiochemistry
Sampled: 03/06/08
Received: 03/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Americium by AEA											
Americium-241	14596-10-2	LA-508-471		0.260	pCi/g	+-0.0832	pCi/g	1.00	0.048		04/08/08
Am-243 tracer by AEA	AM243	LA-508-471		3.80	pCi/g			1.00	0.030		04/08/08
Gamma Energy Analysis-grd H2O											
Cobalt-60	10198-40-0	LA-508-481	U	-6.57e-04	pCi/g	+-6.57e-03	pCi/g	1.00	0.040		03/20/08
Cesium-137	10045-97-3	LA-508-481		2.13	pCi/g	+-0.368	pCi/g	1.00	0.066		03/20/08
Europium-152	14683-23-9	LA-508-481	U	-0.106	pCi/g	+-0.199	pCi/g	1.00	0.30		03/20/08
Europium-154	15585-10-1	LA-508-481	U	-2.64e-03	pCi/g	+-0.0264	pCi/g	1.00	0.13		03/20/08
Europium-155	14391-16-3	LA-508-481	U	0.0661	pCi/g	+-0.538	pCi/g	1.00	0.88		03/20/08
Niobium-94	14681-63-1	LA-508-481	U	5.31e-03	pCi/g	+-0.0330	pCi/g	1.00	0.057		03/20/08
Radium-226	13982-63-3	LA-508-481		0.471	pCi/g	+-0.139	pCi/g	1.00	0.12		03/20/08
Radium-228	15262-20-1	LA-508-481		0.632	pCi/g	+-0.190	pCi/g	1.00	0.16		03/20/08
Neptunium by AEA											
Neptunium-237	13994-20-2	LA-508-471		0.240	pCi/g	+-0.0696	pCi/g	1.00	0.041		05/02/08
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471		0.0750	pCi/g	+-0.0330	pCi/g	1.00	0.020		04/08/08
Pu-239/240 by AEA	PU-239/240	LA-508-471		1.10	pCi/g	+-0.297	pCi/g	1.00	5.9e-03		04/08/08
Pu-242 tracer by AEA	PU242	LA-508-471		6.00	pCi/g			1.00	5.9e-03		04/08/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		1.20e+03	pCi/g	+-144	pCi/g	1.00	0.40		03/31/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		89.0	Percent			1.00	0.0		03/31/08
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		0.560	pCi/g	+-0.157	pCi/g	1.00	0.014		04/02/08
Uranium-235	15117-96-1	LA-508-471		0.0380	pCi/g	+-0.0220	pCi/g	1.00	0.020		04/02/08
Uranium-238	U-238	LA-508-471		0.520	pCi/g	+-0.151	pCi/g	1.00	5.3e-03		04/02/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-043
Sample # W08GR00663
Client ID: B1TDD3 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080561
Department: Radiochemistry
Sampled: 03/06/08
Received: 03/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
U-232 tracer by AEA	U232	LA-508-471		4.00	pCi/g			1.00	0.039		04/02/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F08-043 :F08-043

Group #: WSCF20080561
Department: Radiochemistry

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W08GR00663	B1TDD3	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.54	pCi/g
W08GR00663	B1TDD3	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				31	%
W08GR00663	B1TDD3	TRENT	Gamma Energy Analysis-grd H2O	K-40				12	pCi/g
W08GR00663	B1TDD3	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				15	%
W08GR00663	B1TDD3	TRENT	Gamma Energy Analysis-grd H2O	PB-212				0.60	pCi/g
W08GR00663	B1TDD3	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error				36	%
W08GR00663	B1TDD3	TRENT	Gamma Energy Analysis-grd H2O	PB-214				0.61	pCi/g
W08GR00663	B1TDD3	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				40	%
W08GR00663	B1TDD3	TRENT	Gamma Energy Analysis-grd H2O	TL-208				0.19	pCi/g
W08GR00663	B1TDD3	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error				48	%

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

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080561
Matrix: SOLID
Test: Gamma Energy Analysis-grd H2O

Sample Date: 03/06/08
Receive Date:03/19/08

Lab ID: W08GR00663

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
DUP	Cobalt-60	10198-40-0	U2.317e-2		RPD			n/a	20.000		03/20/08
DUP	Cesium-137	10045-97-3	2.357		RPD			10.071	20.000		03/20/08
DUP	Europium-152	14683-23-9	U6.697e-2		RPD			n/a	20.000		03/20/08
DUP	Europium-154	15585-10-1	U5.047e-2		RPD			n/a	20.000		03/20/08
DUP	Europium-155	14391-16-3	U0.4628		RPD			n/a	20.000		03/20/08
DUP	Niobium-94	14681-63-1	U-4.884e-3		RPD			n/a	20.000		03/20/08
DUP	Radium-226	13982-63-3	0.4824		RPD			2.476	20.000		03/20/08
DUP	Radium-228	15262-20-1	0.7325		RPD			14.652	20.000		03/20/08

BATCH QC

BLANK	Cobalt-60	10198-40-0	U1.938e-3	n/a	pCi/g	-10.000	1000.000				03/24/08
BLANK	Cesium-137	10045-97-3	U-1.48e-3	n/a	pCi/g	-10.000	1000.000				03/24/08
BLANK	Europium-152	14683-23-9	U-2.787e-3	n/a	pCi/g	-10.000	1000.000				03/24/08
BLANK	Europium-154	15585-10-1	U-1.214e-2	n/a	pCi/g	-10.000	1000.000				03/24/08
BLANK	Europium-155	14391-16-3	U-3.258e-4	n/a	pCi/g	-10.000	1000.000				03/24/08
BLANK	Niobium-94	14681-63-1	U1.757e-3	n/a	pCi/g	-10.000	1000.000				03/24/08
BLANK	Radium-226	13982-63-3	0.1314	0.131	pCi/g	-10.000	1000.000				03/24/08
BLANK	Radium-228	15262-20-1	7.331e-2	0.073	pCi/g	-10.000	1000.000				03/24/08
LCS	Cobalt-60	10198-40-0	10250	103.119	% Recov	80.000	120.000				03/24/08
LCS	Cesium-137	10045-97-3	6430	106.457	% Recov	80.000	120.000				03/24/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080561
Matrix: SOLID
Test: Americium by AEA

Sample Date: 03/06/08
Receive Date:03/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00663											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Americium-241	14596-10-2	0.29		RPD			10.909	20.000		04/08/08
DUP	Am-243 tracer by AEA	AM243	3.862	95.500	% Recov	30.000	105.000				04/08/08
SURR	Am-243 tracer by AEA	AM243	3.84	84.640	% Recov	30.000	105.000				04/08/08
BATCH QC											
BLANK	Americium-241	14596-10-2	U4.1e-3	n/a	pCi/g	-10.000	1000.000				04/08/08
BLANK	Am-243 tracer by AEA	AM243	4.024	75.730	% Recov	30.000	105.000				04/08/08
LCS	Americium-241	14596-10-2	11.3	95.359	% Recov	80.000	120.000				04/08/08
LCS	Am-243 tracer by AEA	AM243	11.17	86.910	% Recov	30.000	105.000				04/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080561
Matrix: SOLID
Test: Neptunium by AEA

Sample Date: 03/06/08
Receive Date:03/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00663											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Neptunium-237	13994-20-2	0.3		RPD			22.222	25.000		05/02/08
MS	Neptunium-237	13994-20-2	100.6	100.600	% Recov	75.000	125.000				05/02/08
MSD	Neptunium-237	13994-20-2	100.6	100.600	% Recov	75.000	125.000				05/02/08
SPK-RPD	Neptunium-237	13994-20-2	100.600		% RPD			0.000	20.000		05/02/08
Lab ID: W08GR00694											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Neptunium-237	13994-20-2	100.4	100.400	% Recov	75.000	125.000				05/02/08
Lab ID: W08GR00695											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Neptunium-237	13994-20-2	99.2	99.200	% Recov	75.000	125.000				05/02/08
BATCH QC											
BLANK	Neptunium-237	13994-20-2	2e-2	0.020	pCi/G	-10.000	1000.000				05/02/08
LCS	Neptunium-237	13994-20-2	13.12	102.942	% Recov	80.000	120.000				05/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080561
Matrix: SOLID
Test: Plutonium Isotopics by AEA

Sample Date: 03/06/08
Receive Date:03/19/08

Lab ID: W08GR00663

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
DUP	Plutonium-238	13981-16-3	U2.1e-2		RPD			n/a	20.000		04/08/08
DUP	Pu-239/240 by AEA	PU-239/240	1		RPD			9.524	20.000		04/08/08
DUP	Pu-242 tracer by AEA	PU242	5.985	82.370	% Recov	30.000	105.000				04/08/08
SURR	Pu-242 tracer by AEA	PU242	5.95	70.880	% Recov	30.000	105.000				04/08/08

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Plutonium-238	13981-16-3	U-9.8e-3	n/a	pCi/g	-10.000	1000.000				04/08/08
BLANK	Pu-239/240 by AEA	PU-239/240	U2e-3	n/a	pCi/g	-10.000	1000.000				04/08/08
BLANK	Pu-242 tracer by AEA	PU242	6.236	90.800	% Recov	30.000	105.000				04/08/08
LCS	Pu-239/240 by AEA	PU-239/240	12.62	98.248	% Recov	80.000	120.000				04/08/08
LCS	Pu-242 tracer by AEA	PU242	17.3	89.610	% Recov	30.000	105.000				04/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080561
Matrix: SOLID
Test: Strontium 89/90

Sample Date: 03/06/08
Receive Date:03/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00663											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	90.3	90.300	% Recov	30.000	105.000				03/31/08
DUP	Strontium-89/90	SR-RAD	1.4E+03		RPD			15.385	20.000		03/31/08
SURR	Sr-85 Tracer by Beta Counting	SR85	89.0	89.000	% Recov	30.000	105.000				03/31/08
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	81	81.000	% Recov	30.000	105.000				03/31/08
BLANK	Strontium-89/90	10098-97-2	U1.8E-01	n/a	pCi/g	-10.000	300.000				03/31/08
LCS	Sr-85 Tracer by Beta Counting	SR85	87.7	87.700	% Recov	30.000	105.000				03/31/08
LCS	Strontium-89/90	10098-97-2	64.8	92.176	% Recov	80.000	120.000				03/31/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080561
Matrix: SOLID
Test: Uranium Isotopics by AEA

Sample Date: 03/06/08
Receive Date:03/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00663											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	U-232 tracer by AEA	U232	3.975	91.030	% Recov	30.000	105.000				04/02/08
DUP	Uranium-233/234	U-233/234	0.52		RPD			7.407	20.000		04/02/08
DUP	Uranium-235	15117-96-1	4.1e-2		RPD			7.595	20.000		04/02/08
DUP	Uranium-238	U-238	0.46		RPD			12.245	20.000		04/02/08
SURR	U-232 tracer by AEA	U232	3.953	82.960	% Recov	30.000	105.000				04/02/08
BATCH QC											
BLANK	U-232 tracer by AEA	U232	4.142	82.650	% Recov	30.000	105.000				04/02/08
BLANK	Uranium-233/234	13966-29-5	1.6e-2	0.016	pCi/g	-10.000	1000.000				04/02/08
BLANK	Uranium-235	15117-96-1	6.5e-3	0.006	pCi/g	-10.000	1000.000				04/02/08
BLANK	Uranium-238	24678-82-8	U2e-3	n/a	pCi/g	-10.000	1000.000				04/02/08
LCS	U-232 tracer by AEA	U232	11.5	72.160	% Recov	30.000	105.000				04/02/08
LCS	Uranium-233/234	13966-29-5	N/A	n/a	% Recov	75.000	125.000				04/02/08
LCS	Uranium-235	15117-96-1	N/A	n/a	% Recov	75.000	125.000				04/02/08
LCS	Uranium-238	24678-82-8	19	100.237	% Recov	80.000	120.000				04/02/08

M4W41-SLF-08-491

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 6 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

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program
Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 123215/ES20
Group#: 20080561
Project#: F08-043
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 03/19/08. 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
W08GR00663	B1TDD3	TRENT @2008 @AEA-30 @AEA-31 @AEA-32 @AEA-33 @GEA-GPP @IC-30 @PCBGPP @SR89_90 @SVOCGPP @TPHD PERSOLID	Solid, or handle as if solid	03/06/08
W08GR00664	B1TDD2	TRENT	Solid, or handle as if solid	03/06/08
W08GR00665	B1TDD1	TRENT @VOA-GPP	Solid, or handle as if solid	03/06/08

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@AEA-33	Neptunium by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@IC-30	Anions by Ion Chromatography
@PCBGPP	PCBs complete list
@SR89_90	Strontium 89/90
@SVOCGPP	SW-846 8270C Semi-Vols
@TPHD-WA	NWTPH-D TPH Diesel Range (Wa)
@VOA-GPP	VOA Ground Water Protection
PERSOLID	Percent Solids

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	DATA TURNAROUND
NCO Sampler Fulton	TRENT, SJ	373-5869	WIDRIG, DL	8N	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY**	
C5941, I-004	216-A-30 Crib Sampling		F08-043	☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
		15.6'-14.1'	123215ES20	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Waste Sampling & Characterization	N/A		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)

SPECIAL HANDLING AND/OR STORAGE
Radioactive tie to B1TDB6

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	
TYPE OF CONTAINER	aG	aG	aG	G/P	G/P	Square Bottle - Poly	
NO. OF CONTAINER(S)	1	1	1	1	1	1	
VOLUME	120mL	120mL	120mL	120mL	120mL	500mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	

20080561

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1TDD3	SOIL	3-6-08	1045	✓	✓	✓	✓	✓	✓
W0860200663									

ICED

LOT # 024875

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton	3-6-08 1145	MO 509 Fridge	3-6-08 1145
MO-509 Fridge	3-18-08 0705	Ed Kawa	3-18-08 0705
Ed Kawa	3-18-08 0730	T A Frazier	3-18-08 0730

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)Semi-VOA - 8270B (Add-On) {1,2,4-Trimethylbenzene, Tributyl phosphate}
(2)TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range}
(3)ICP/MS - 200.8 (TAL) {Barium, Cadmium, Chromium, Copper, Nickel, Silver, Zinc} ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium} 200.8_HG - ICPMS;
(4)IC Anions - 300.0 {Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate}
(5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Radium-226} Gamma Spec - Add-on {Niobium-94, Radium-228} Isotopic Uranium; Neptunium-237; Strontium-89,90 -- Total Sr; Isotopic Plutonium; Americium-241 {Americium-241}

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

A-6003-618(01/06)

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	8N	DATA TURNAROUND
NCO Sampler Fulton	TRENT, SJ	373-5869	WIDRIG, DL			
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY**	☐	45 Days / 45 Days
C5941, I-004	216-A-30 Crib Sampling		F08-043			
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**		
		15.6 - 18.1'	123215ES20	GOVERNMENT VEHICLE		
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**			
Waste Sampling & Characterization	N/A		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)

SPECIAL HANDLING AND/OR STORAGE
Radioactive tie to B1TDB6

PRESERVATION	Cool~4C
TYPE OF CONTAINER	aGs*
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B1TDD2	SOIL	3-6-08	1045	✓
664				

Lot # 6215060

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton	3-6-08 1145	MO 504 Fridge	3-6-08 1145
MO 504 Fridge	3-19-08 0705		3-19-08 0705
El Kouri	3-19-08 0730	T A Frazier	3-19-08 0730

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)VOA - 5035/8260 (TCL); VOA - 5035/8260 - (Add-On) {Acetonitrile, Hexane, Tetrahydrofuran}

ICED

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

A-6003-618(01/06)

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	8N	DATA TURNAROUND
NCO Sampler Fulton	TRENT, SJ	373-5869	WIDRIG, DL	AIR QUALITY	☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**			
C5941, I-004	216-A-30 Crib Sampling		F08-043			
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**		
		15.6' - 18.1'	123215ES20	GOVERNMENT VEHICLE		
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**			
Waste Sampling & Characterization	N/A		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)

SPECIAL HANDLING AND/OR STORAGE
Radioactive tie to B1TDB6

PRESERVATION	Cool <-7C and >-20C	MEOH/Cool~4 C	
TYPE OF CONTAINER	aGs*	aGs*	
NO. OF CONTAINER(S)	5	3	
VOLUME	40mL	40mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1TDD1 065	SOIL	3-6-08	1045	✓	✓								

LOT # 621506 0

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Chris Fulton	3-6-08 1145	MO 509 Fridge	3-6-08 1145
MO 509 Fridge	3-19-08 0705	Ed Kaser	3-19-08 0705
Ed Kaser	3-19-08 0730	T A Frazier	3-19-08 0730

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ICED

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

A-6003-618(01/06)

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
NCO Sampler	TRENT, SJ	373-5869	WIDRIG, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	**45 Days / 45 Days**
C5941, I-004	216-A-30 Crib Sampling		F08-043		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
			123215ES20	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Waste Sampling & Characterization	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

** Analytical batch QC must be run on a sample associated with this SAF.
** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL); VOA - 5035/8260 (LOW LEVEL) - (Add-On) {Acetonitrile, Hexane, Tetrahydrofuran}
(2)VOA - 5035/8260 (HIGH LEVEL); VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {Acetonitrile, Hexane, Tetrahydrofuran}

ICED

M4W41-SLF-08-491

ATTACHMENT 5

SAMPLE RECORD SHEET

Consisting of 2 pages
Including cover page

C5941

I-004

SAMPLE RECORD SHEET

Sample Number	Sample Suffix[1]	Empty Weight[2] (g)	Weight with Sample[3] (g)	Weight of Sample[4] (g)	Methanol Added (g)	Methanol Added (mL)	Weight of Methanol and Sample
BITDD1	K	31.5	37.3	5.8	---	---	---
	L	31.4	37.1	5.7	---	---	---
	M	31.8	36.6	4.8	---	---	---
	N	31.4	37.0	5.6	---	---	---
	P	31.1	35.5	4.4	---	---	---
BITDD2		30.0	30.0	0	4.0	5.0 mL	34.0
BITDD1	W	30.1	34.6	4.5	3.9	5.0 mL	38.5
	X	30.1	36.1	6.0	5.2	6.5 mL	41.3
	Y	30.3	36.3	6.0	5.3	6.5 mL	41.6

[1]Sample suffix of L, K, M, N and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7C and -20C.
Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

[2]Empty weight is to include all labels, stickers, bags, and anything else that will be associated with the bottle when it is weighed with the sample.
[3]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.
[4]Sample weight is the vial with sample minus the vial empty

Depth = 15.6' – 18.1' Bgs

Fisher Methanol used for preservation

VOA's could possibly be compromised

Do to time issues.

Read and Understood By

Signed	Date	Signed	Date
	3-6-08		3-12-08

[redacted]

Problems and Discrepancies

SDG WSCF20080561

WSCF
May 27, 2008

1. The data package received is missing 1, 2, 4-Trimethylbenzene. Please add the missing data and reissue the hardcopy data package.

WSCF Response

Laboratory error has been corrected and data package has been reissued.