RECEIVED MAY 15, 2008

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Memorandum

M4W41-SLF-08-517

To: H. Hampt E6-35 Date: May 13, 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: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20080639 – SAF NUMBER F08-070

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

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

This letter contains the following information for sample delivery group WSCF20080639:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Analytical Results (Attachment 3)
- Sample Receipt Information (Attachment 4)
- Sample Record Sheet (Attachment 5)

SLF/grf

Attachments 5

M4W41-SLF-08-517

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20080639
Data Deliverable Date: 12-may-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-070	B1TNP4	W08GR00754	SOIL
	B1TNP6	W08GR00752	SOIL

M4W41-SLF-08-517

ATTACHMENT 2

NARRATIVE

Consisting of 5 pages
Including cover page

Introduction

Three S&GRP samples were received at the WSCF Laboratory on March 27, 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 VOA sample and the associated Methanol Blank (B1TNP5) 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 14 through 16, for a complete listing of approved analytical methods.

Inorganic Comments

Ammonia – The hold time requirement for this analysis was 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 page 19 for QC details. Analytical Note(s):

- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TN41 (SDG# 20080591, SAF# F08-070).
- Sample result was D flagged (dilution).
- Matrix Spike and Matrix Spike Duplicate recoveries were less than established laboratory limits. Sample result was N flagged.

All other QC controls are within the established limits.

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 20 through 21 for QC details. Analytical Note(s):

- 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.

Cyanide – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 22 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TN41 (SDG# 20080591, SAF# F08-070).

All QC controls are within the established limits.

ICP-AES 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 23 through 24 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TN41 (SDG# 20080591, SAF# F08-070).

- Lithium - Due to possible Calcium interface, the spectrum was manually checked and calculated. Sample result was E flagged (estimates).

- Aluminum, Iron and Sodium sample results exceeded spiking levels by a factor of 4. Spike recoveries are not valid. Check and high standards were analyzed to ensure sample result linearity because the sample results were greater than the calibration standard.

- No Lithium present in LCS.

All other 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 25 through 29 for QC details. Analytical Note(s):

- Matrix Spikes and Matrix Spike Duplicates were analyzed on sample# B1TN41 (SDG# 20080591, SAF# F08-070) and B1TTD4 (SDG# 20080650).

- Mercury contamination detected in the Blank was evaluated and there was no affect on sample result.

All other QC controls are within the established limits.

Organic Comments

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

Alcohol/Glycols - The hold time requirement for this analysis was 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 page 37 for QC details.

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 38 through 43 for QC details. Analytical Note(s):

- Sample results that were less than the lowest calibration standard, however greater than the method detection limit were J flagged.

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TN41 (SDG# 20080591, SAF# F08-070).

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 44 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TN41 (SDG# 20080591, SAF# F08-070).

All QC controls are within the established limits.

VOA – The holding time requirement for this analysis was 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 45 through 47 for QC details. Analytical Note(s):

- Analysis of the high concentration VOA sample and the associated Methanol Blank (B1TNP5) was not required.

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TTF4 (SDG# 20080651, SAF# F08-089).

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 51 through 56 for QC details. Analytical Note(s):

- Gamma Energy Analysis (Cobalt-60) – Duplicate Relative Percent Difference (RPD) slightly exceeded established laboratory limits due to low sample activity. No flag issued.

- Uranium-235 and 238 – Duplicate RPDs slightly exceeded established laboratory limits due to low sample activities. No flags issued.

All other 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-08-517

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 50 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. E. Fitzgerald 5/14/08

Client Services: P.O. Wiley 5/13/2008

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

Contract#: FH-EIS-20003-MEM-001
Report#: WSCF20080639
Report Date: 13-may-2008
Report WGPP/ver. 5.2
Groundwater Remediation Program

w13qlog v4.2 13-may-2008 06:51:37

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20080639

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W08GR00752	Percent Solids
35806	1	36212	40508	BLANK		Cyanide by Midi/Spectrophotom
35806	2	36212	40508	LCS		Cyanide by Midi/Spectrophotom
35806	4	36212	40508	MS	W08GR00694	Cyanide by Midi/Spectrophotom
35806	5	36212	40508	MSD	W08GR00694	Cyanide by Midi/Spectrophotom
35806	5	36212	40508	SPK-RPD	W08GR00694	Cyanide by Midi/Spectrophotom
35806	8	36212	40508	SAMPLE	W08GR00752	Cyanide by Midi/Spectrophotom
35812	1	36217	40513	BLANK		ICP-200.8 MS All possible meta
35812	2	36217	40513	LCS		ICP-200.8 MS All possible meta
35812	7	36217	40513	MS	W08GR00694	ICP-200.8 MS All possible meta
35812	8	36217	40513	MSD	W08GR00694	ICP-200.8 MS All possible meta
35812	8	36217	40513	SPK-RPD	W08GR00694	ICP-200.8 MS All possible meta
35812	10	36217	40513	SAMPLE	W08GR00752	ICP-200.8 MS All possible meta
35812	4	36217	40513	MS	W08GR00781	ICP-200.8 MS All possible meta
35812	5	36217	40513	MSD	W08GR00781	ICP-200.8 MS All possible meta
35812	5	36217	40513	SPK-RPD	W08GR00781	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	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
35875	13	36280	40566	SAMPLE	W08GR00752	Anions by Ion Chromatography
35886	3	36301	40569	BLANK		Ammonia (N) by IC
35886	12	36301	40569	BLANK		Ammonia (N) by IC
35886	2	36301	40569	LCS		Ammonia (N) by IC
35886	5	36301	40569	DUP	W08GR00694	Ammonia (N) by IC
35886	6	36301	40569	MS	W08GR00694	Ammonia (N) by IC
35886	7	36301	40569	MSD	W08GR00694	Ammonia (N) by IC
35886	7	36301	40569	SPK-RPD	W08GR00694	Ammonia (N) by IC
35886	9	36301	40569	SAMPLE	W08GR00752	Ammonia (N) by IC
35906	1	36325	40618	BLANK		ICP Metals Analysis, Grd H20 P
35906	2	36325	40618	LCS		ICP Metals Analysis, Grd H20 P
35906	4	36325	40618	MS	W08GR00694	ICP Metals Analysis, Grd H20 P
35906	5	36325	40618	MSD	W08GR00694	ICP Metals Analysis, Grd H20 P
35906	5	36325	40618	SPK-RPD	W08GR00694	ICP Metals Analysis, Grd H20 P
35906	7	36325	40618	SAMPLE	W08GR00752	ICP Metals Analysis, Grd H20 P

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Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20080639

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			40600	BLANK		SW-846 8270C Semi-Vols
			40600	LCS		SW-846 8270C Semi-Vols
			40600	MS	W08GR00694	SW-846 8270C Semi-Vols
			40600	MSD	W08GR00694	SW-846 8270C Semi-Vols
			40600	SPK-RPD	W08GR00694	SW-846 8270C Semi-Vols
			40600	SAMPLE	W08GR00752	SW-846 8270C Semi-Vols
			40600	SURR	W08GR00752	SW-846 8270C Semi-Vols
			40612	BLANK		NWTPH-D TPH Diesel Range (Wa)
			40612	LCS		NWTPH-D TPH Diesel Range (Wa)
			40612	MS	W08GR00694	NWTPH-D TPH Diesel Range (Wa)
			40612	MSD	W08GR00694	NWTPH-D TPH Diesel Range (Wa)
			40612	SPK-RPD	W08GR00694	NWTPH-D TPH Diesel Range (Wa)
			40612	SAMPLE	W08GR00752	NWTPH-D TPH Diesel Range (Wa)
			40612	SURR	W08GR00752	NWTPH-D TPH Diesel Range (Wa)
			40624	BLANK		VOA Ground Water Protection
			40624	LCS		VOA Ground Water Protection
			40624	SAMPLE	W08GR00754	VOA Ground Water Protection
			40624	SURR	W08GR00754	VOA Ground Water Protection
			40624	MS	W08GR00786	VOA Ground Water Protection
			40624	MSD	W08GR00786	VOA Ground Water Protection
			40624	SPK-RPD	W08GR00786	VOA Ground Water Protection
36263	1	36679	41002	BLANK		Alcohols, Glycols - 8015
36263	2	36679	41002	LCS		Alcohols, Glycols - 8015
36263	4	36679	41002	DUP	W08GR00752	Alcohols, Glycols - 8015
36263	5	36679	41002	MS	W08GR00752	Alcohols, Glycols - 8015
36263	6	36679	41002	MSD	W08GR00752	Alcohols, Glycols - 8015
36263	3	36679	41002	SAMPLE	W08GR00752	Alcohols, Glycols - 8015
36263	6	36679	41002	SPK-RPD	W08GR00752	Alcohols, Glycols - 8015

w13qlog v4.2 13-may-2008 06:51:37

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20080639

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
35785	1	36191	40626	BLANK		Gamma Energy Analysis-grd H2O
35785	2	36191	40626	LCS		Gamma Energy Analysis-grd H2O
35785	3	36191	40626	DUP	W08GR00752	Gamma Energy Analysis-grd H2O
35785	4	36191	40626	SAMPLE	W08GR00752	Gamma Energy Analysis-grd H2O
35863	1	36269	40629	BLANK		Strontium 89/90
35863	2	36269	40629	LCS		Strontium 89/90
35863	3	36269	40629	DUP	W08GR00752	Strontium 89/90
35863	4	36269	40629	SAMPLE	W08GR00752	Strontium 89/90
35863	5	36269	40629	SURR	W08GR00752	Strontium 89/90
35889	1	36305	40632	BLANK		Uranium Isotopics by AEA
35889	2	36305	40632	LCS		Uranium Isotopics by AEA
35889	3	36305	40632	DUP	W08GR00752	Uranium Isotopics by AEA
35889	12	36305	40632	SAMPLE	W08GR00752	Uranium Isotopics by AEA
35889	13	36305	40632	SURR	W08GR00752	Uranium Isotopics by AEA
35928	1	36343	40636	BLANK		Plutonium Isotopics by AEA
35928	2	36343	40636	LCS		Plutonium Isotopics by AEA
35928	3	36343	40636	DUP	W08GR00752	Plutonium Isotopics by AEA
35928	14	36343	40636	SAMPLE	W08GR00752	Plutonium Isotopics by AEA
35928	15	36343	40636	SURR	W08GR00752	Plutonium Isotopics by AEA
35929	1	36344	40638	BLANK		Americium by AEA
35929	2	36344	40638	LCS		Americium by AEA
35929	3	36344	40638	DUP	W08GR00752	Americium by AEA
35929	14	36344	40638	SAMPLE	W08GR00752	Americium by AEA
35929	15	36344	40638	SURR	W08GR00752	Americium by AEA
35917	1	36332	40686	BLANK		Neptunium by AEA
35917	2	36332	40686	LCS		Neptunium by AEA
35917	3	36332	40686	DUP	W08GR00752	Neptunium by AEA
35917	10	36332	40686	MS	W08GR00752	Neptunium by AEA
35917	6	36332	40686	MSD	W08GR00752	Neptunium by AEA
35917	9	36332	40686	SAMPLE	W08GR00752	Neptunium by AEA
35917	10	36332	40686	SPK-RPD	W08GR00752	Neptunium by AEA
35917	5	36332	40686	MS	W08GR00795	Neptunium by AEA
35917	8	36332	40686	MS	W08GR00796	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-503-401	LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY	
	EPA-600/4-86-024 300.7	Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemical
	HEIS 300.7_CATIONS_IC	Determination of Ammonium by Ion Chromatography
LA-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE	
	HEIS 6010_METALS_ICP	Inductively Coupled Plasma-Atomic Emmision Spectrometry
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
LA-695-402	LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC	
	EPA-600/4-79-020 335.2	Cyanide, Total
	HEIS 335.2_CYANIDE	Cyanide, Total

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-523-455	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
Organics	Organics - Alcohols, Glycols	
	EPA SW-846 8015B	Nonhalogenated Organics Using GC/FID

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: F08-070
Sample # W08GR00752
Client ID: B1TNP6 TRENT WSCF
Matrix: SOIL

Group #: WSCF20080639
Department: Inorganic
Sampled: 03/27/08
Received: 03/27/08

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
Chloride	16887-00-6	LA-533-410	BD	8.36	mg/kg			50.00	1.5		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	26.3	mg/kg			50.00	0.25		04/07/08
Phosphate (P) by IC	PO4-P	LA-533-410	DU	< 2.00	mg/kg			50.00	2.0		04/07/08
Sulfate	14808-79-8	LA-533-410	BD	31.2	mg/kg			50.00	3.5		04/07/08
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 0.200	mg/kg			1.00	0.20		04/01/08
ICP Metals Analysis, Grd H20 P Prep											**04/09/08**
ICP Metals Analysis, Grd H20 P											
Aluminum	7429-90-5	LA-505-411		5.94e+03	mg/kg			99.74	3.0		04/09/08
Iron	7439-89-6	LA-505-411		1.67e+04	mg/kg			99.74	0.90		04/09/08
Nickel	7440-02-0	LA-505-411		10.5	mg/kg			99.74	0.40		04/09/08
Silver	7440-22-4	LA-505-411	U	< 0.499	mg/kg			99.74	0.50		04/09/08
Sodium	7440-23-5	LA-505-411		268	mg/kg			99.74	2.7		04/09/08
Copper	7440-50-8	LA-505-411		11.9	mg/kg			99.74	0.40		04/09/08
Lithium	7439-93-2	LA-505-411	E	8.04	mg/kg			99.74	0.40		04/09/08
Boron	7440-42-8	LA-505-411	U	< 0.798	mg/kg			99.74	0.80		04/09/08
ICP-200.8 MS All possible meta Prep											**04/01/08**
ICP-200.8 MS All possible meta											
Manganese	7439-96-5	LA-505-412		232	mg/kg			0.94	0.0942		04/02/08
Antimony	7440-36-0	LA-505-412	U	< 0.283	mg/kg			0.94	0.283		04/02/08
Barium	7440-39-3	LA-505-412		58.4	mg/kg			0.94	0.188		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)
D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria(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: F08-070
Sample # W08GR00752
Client ID: B1TNP6 TRENT WSCF
Matrix: SOIL

Group #: WSCF20080639
Department: Inorganic
Sampled: 03/27/08
Received: 03/27/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-412		0.190	mg/kg			0.94	0.0471		04/02/08
Cadmium	7440-43-9	LA-505-412	U	< 0.0942	mg/kg			0.94	0.0942		04/02/08
Chromium	7440-47-3	LA-505-412		14.0	mg/kg			0.94	0.471		04/02/08
Cobalt	7440-48-4	LA-505-412		5.53	mg/kg			0.94	0.0471		04/02/08
Vanadium	7440-62-2	LA-505-412		32.5	mg/kg			0.94	0.188		04/02/08
Zinc	7440-66-6	LA-505-412		31.3	mg/kg			0.94	0.754		04/02/08
Lead	7439-92-1	LA-505-412		2.73	mg/kg			0.94	0.0942		04/02/08
Mercury	7439-97-6	LA-505-412	U	< 0.0471	mg/kg			0.94	0.0471		04/02/08
Uranium	7440-61-1	LA-505-412		0.400	mg/kg			0.94	0.0471		04/02/08
Arsenic	7440-38-2	LA-505-412		2.36	mg/kg			0.94	0.377		04/02/08
Selenium	7782-49-2	LA-505-412	U	< 0.283	mg/kg			0.94	0.283		04/02/08
Thallium	7440-28-0	LA-505-412		0.500	mg/kg			0.94	0.0942		04/02/08
Strontium	7440-24-6	LA-505-412		27.6	mg/kg			0.94	0.0942		04/02/08
Nitrogen in ammonium Prep											**04/07/08**
Nitrogen in ammonium											
Nitrogen in ammonium	NH4-N	LA-503-401	DNU	< 0.200	mg/kg			50.00	0.20		04/07/08
Total solids											
Total solids	TS	LA-519-412		97.5	Percent			1.00	0.0		03/31/08

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)
D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria(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: WSCF20080639
Matrix: SOLID
Test: Ammonia (N) by IC

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00694											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Ammonia (N) by IC	7664-41-7	<0.2		RPD			n/a	20.000	U	04/07/08
MS	Ammonia (N) by IC	7664-41-7	0.187458	37.492	% Recov	75.000	125.000		*		04/07/08
MSD	Ammonia (N) by IC	7664-41-7	0.185434	37.087	% Recov	75.000	125.000		*		04/07/08
SPK-RPD	Ammonia (N) by IC	7664-41-7	37.087		RPD			1.086	20.000		04/07/08
BATCH QC											
BLANK	Ammonia (N) by IC	7664-41-7	<4e-3	n/a	mg/L	0.000	0.002			U	04/07/08
BLANK	Ammonia (N) by IC	7664-41-7	<4e-3	n/a	mg/L	0.000	0.002			U	04/07/08
LCS	Ammonia (N) by IC	7664-41-7	90.7239	90.724	% Recov	80.000	120.000				04/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080639
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	Chloride	16887-00-6	2.3368		RPD			3.253	20.000		04/07/08
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	Phosphate (P) by IC	PO4-P	<2		RPD			n/a	20.000	U	04/07/08
DUP	Sulfate	14808-79-8	14.0456		RPD			17.102	20.000		04/07/08
MS	Chloride	16887-00-6	0.955116	95.512	% Recov	75.000	125.000				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	Phosphate (P) by IC	PO4-P	0.919476	95.085	% 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	Chloride	16887-00-6	0.94428	94.428	% 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	Phosphate (P) by IC	PO4-P	0.925338	95.692	% 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	Chloride	16887-00-6	94.428		RPD			1.141	20.000		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	Phosphate (P) by IC	PO4-P	95.692		RPD			0.636	20.000		04/07/08
SPK-RPD	Sulfate	14808-79-8	96.599		RPD			0.673	20.000		04/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080639
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
BATCH QC											
BLANK	Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			U	04/07/08
BLANK	Chloride	16887-00-6	<3e-2	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	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	Phosphate (P) by IC	PO4-P	<4e-2	n/a	mg/L	0.000	0.200			U	04/07/08
BLANK	Phosphate (P) by IC	PO4-P	<4e-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
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	04/07/08
LCS	Chloride	16887-00-6	197.9609	98.488	% Recov	80.000	120.000				04/07/08
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	Phosphate (P) by IC	PO4-P	197.7525	102.251	% 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: WSCF20080639
Matrix: SOLID
Test: Cyanide by Midi/Spectrophotom

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00694											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	1.84	92.462	% Recov	75.000	125.000				04/01/08
MSD	Cyanide by Midi/Spectrophotom	57-12-5	1.78	89.447	% Recov	75.000	125.000				04/01/08
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	89.447		RPD			3.315	20.000		04/01/08
BATCH QC											
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	< 4	n/a	ug/L	-4.000	4.000			U	04/01/08
LCS	Cyanide by Midi/Spectrophotom	57-12-5	49.5	99.000	% Recov	85.000	115.000				04/01/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080639
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

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
MS	Silver	7440-22-4	188.2	95.533	% Recov	75.000	125.000				04/09/08
MS	Aluminum	7429-90-5	1951	990.355	% Recov	75.000	125.000			•	04/09/08
MS	Boron	7440-42-8	186.9	94.873	% Recov	75.000	125.000				04/09/08
MS	Copper	7440-50-8	198.016	100.516	% Recov	75.000	125.000				04/09/08
MS	Iron	7439-89-6	740	375.635	% Recov	75.000	125.000			•	04/09/08
MS	Lithium	7439-93-2	78.88	80.081	% Recov	70.000	130.000				04/09/08
MS	Sodium	7440-23-5	264	134.010	% Recov	75.000	125.000			•	04/09/08
MS	Nickel	7440-02-0	183.64	93.218	% Recov	75.000	125.000				04/09/08
MSD	Silver	7440-22-4	188.6	94.774	% Recov	75.000	125.000				04/09/08
MSD	Aluminum	7429-90-5	1284	645.226	% Recov	75.000	125.000			•	04/09/08
MSD	Boron	7440-42-8	189.2	95.075	% Recov	75.000	125.000				04/09/08
MSD	Copper	7440-50-8	198.216	99.606	% Recov	75.000	125.000				04/09/08
MSD	Iron	7439-89-6	1450	728.643	% Recov	75.000	125.000			•	04/09/08
MSD	Lithium	7439-93-2	89	89.447	% Recov	75.000	125.000				04/09/08
MSD	Sodium	7440-23-5	242	121.608	% Recov	75.000	125.000				04/09/08
MSD	Nickel	7440-02-0	190.64	95.799	% Recov	75.000	125.000				04/09/08
SPK-RPD	Silver	7440-22-4	94.774		RPD			0.798	20.000		04/09/08
SPK-RPD	Aluminum	7429-90-5	645.226		RPD			42.203	20.000	•	04/09/08
SPK-RPD	Boron	7440-42-8	95.075		RPD			0.213	20.000		04/09/08
SPK-RPD	Copper	7440-50-8	99.606		RPD			0.909	20.000		04/09/08
SPK-RPD	Iron	7439-89-6	728.643		RPD			63.935	20.000	•	04/09/08
SPK-RPD	Lithium	7439-93-2	89.447		RPD			11.050	20.000		04/09/08
SPK-RPD	Sodium	7440-23-5	121.608		RPD			9.704	20.000		04/09/08
SPK-RPD	Nickel	7440-02-0	95.799		RPD			2.731	20.000		04/09/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080639
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BATCH QC											
BLANK	Silver	7440-22-4	<5e-3	n/a	ug/mL					U	04/09/08
BLANK	Aluminum	7429-90-5	<3e-2	n/a	ug/mL					U	04/09/08
BLANK	Boron	7440-42-8	<8e-3	n/a	ug/mL					U	04/09/08
BLANK	Copper	7440-50-8	<4e-3	n/a	ug/mL					U	04/09/08
BLANK	Iron	7439-89-6	<9e-3	n/a	ug/mL					U	04/09/08
BLANK	Lithium	7439-93-2	<4e-3	n/a	ug/mL					U	04/09/08
BLANK	Sodium	7440-23-5	<2.7e-2	n/a	ug/mL					U	04/09/08
BLANK	Nickel	7440-02-0	<4e-3	n/a	ug/mL					U	04/09/08
LCS	Silver	7440-22-4	100.4	99.406	% Recov	45.000	155.000				04/09/08
LCS	Aluminum	7429-90-5	7636	92.446	% Recov	44.000	157.000				04/09/08
LCS	Boron	7440-42-8	110	95.652	% Recov	45.000	156.000				04/09/08
LCS	Copper	7440-50-8	64.65	94.380	% Recov	80.000	120.000				04/09/08
LCS	Iron	7439-89-6	14930	111.418	% Recov	47.000	152.000				04/09/08
LCS	Lithium	7439-93-2	<0.39928	n/a	% Recov	80.000	120.000			U	04/09/08
LCS	Sodium	7440-23-5	513.8	87.381	% Recov	51.000	149.000				04/09/08
LCS	Nickel	7440-02-0	53.95	97.032	% Recov	74.000	121.000				04/09/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080639
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00694											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Arsenic	7440-38-2	186.5	93.250	% Recov	70.000	130.000				04/02/08
MS	Barium	7440-39-3	167.79	83.895	% Recov	70.000	130.000				04/02/08
MS	Beryllium	7440-41-7	188.6	94.300	% Recov	70.000	130.000				04/02/08
MS	Cadmium	7440-43-9	194.7	97.350	% Recov	70.000	130.000				04/02/08
MS	Cobalt	7440-48-4	189.88	94.940	% Recov	70.000	130.000				04/02/08
MS	Chromium	7440-47-3	193.74	96.870	% Recov	70.000	130.000				04/02/08
MS	Mercury	7439-97-6	2.08	104.000	% Recov	70.000	130.000				04/02/08
MS	Manganese	7439-96-5	183	91.500	% Recov	70.000	130.000				04/02/08
MS	Lead	7439-92-1	191.98	95.990	% Recov	70.000	130.000				04/02/08
MS	Antimony	7440-36-0	190.2	95.100	% Recov	70.000	130.000				04/02/08
MS	Selenium	7782-49-2	191.2	95.600	% Recov	70.000	130.000				04/02/08
MS	Strontium	7440-24-6	196.43	98.215	% Recov	70.000	130.000				04/02/08
MS	Thallium	7440-28-0	178.02	89.010	% Recov	70.000	130.000				04/02/08
MS	Uranium	7440-61-1	199.24	99.620	% Recov	70.000	130.000				04/02/08
MS	Vanadium	7440-62-2	184.38	92.190	% Recov	70.000	130.000				04/02/08
MS	Zinc	7440-66-6	196.14	98.070	% Recov	70.000	130.000				04/02/08
MSD	Arsenic	7440-38-2	185.7	92.850	% Recov	70.000	130.000				04/02/08
MSD	Barium	7440-39-3	166.49	83.245	% Recov	70.000	130.000				04/02/08
MSD	Beryllium	7440-41-7	187.8	93.900	% Recov	70.000	130.000				04/02/08
MSD	Cadmium	7440-43-9	193.5	96.750	% Recov	70.000	130.000				04/02/08
MSD	Cobalt	7440-48-4	193.48	96.740	% Recov	70.000	130.000				04/02/08
MSD	Chromium	7440-47-3	195.64	97.820	% Recov	70.000	130.000				04/02/08
MSD	Mercury	7439-97-6	2.2	110.000	% Recov	70.000	130.000				04/02/08
MSD	Manganese	7439-96-5	181.2	90.600	% Recov	70.000	130.000				04/02/08
MSD	Lead	7439-92-1	193.78	96.890	% Recov	70.000	130.000				04/02/08
MSD	Antimony	7440-36-0	193.2	96.600	% Recov	70.000	130.000				04/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080639
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Selenium	7782-49-2	191.8	95.900	% Recov	70.000	130.000				04/02/08
MSD	Strontium	7440-24-6	195.23	97.615	% Recov	70.000	130.000				04/02/08
MSD	Thallium	7440-28-0	180.52	90.260	% Recov	70.000	130.000				04/02/08
MSD	Uranium	7440-61-1	200.44	100.220	% Recov	70.000	130.000				04/02/08
MSD	Vanadium	7440-62-2	189.48	94.740	% Recov	70.000	130.000				04/02/08
MSD	Zinc	7440-66-6	200.44	100.220	% Recov	70.000	130.000				04/02/08
SPK-RPD	Arsenic	7440-38-2	92.850		RPD			0.430	20.000		04/02/08
SPK-RPD	Barium	7440-39-3	83.245		RPD			0.778	20.000		04/02/08
SPK-RPD	Beryllium	7440-41-7	93.900		RPD			0.425	20.000		04/02/08
SPK-RPD	Cadmium	7440-43-9	96.750		RPD			0.618	20.000		04/02/08
SPK-RPD	Cobalt	7440-48-4	96.740		RPD			1.878	20.000		04/02/08
SPK-RPD	Chromium	7440-47-3	97.820		RPD			0.976	20.000		04/02/08
SPK-RPD	Mercury	7439-97-6	110.000		RPD			5.607	20.000		04/02/08
SPK-RPD	Manganese	7439-96-5	90.600		RPD			0.988	20.000		04/02/08
SPK-RPD	Lead	7439-92-1	96.890		RPD			0.933	20.000		04/02/08
SPK-RPD	Antimony	7440-36-0	96.600		RPD			1.565	20.000		04/02/08
SPK-RPD	Selenium	7782-49-2	95.900		RPD			0.313	20.000		04/02/08
SPK-RPD	Strontium	7440-24-6	97.615		RPD			0.613	20.000		04/02/08
SPK-RPD	Thallium	7440-28-0	90.260		RPD			1.395	20.000		04/02/08
SPK-RPD	Uranium	7440-61-1	100.220		RPD			0.600	20.000		04/02/08
SPK-RPD	Vanadium	7440-62-2	94.740		RPD			2.728	20.000		04/02/08
SPK-RPD	Zinc	7440-66-6	100.220		RPD			2.169	20.000		04/02/08

Lab ID: W08GR00781
BATCH QC ASSOCIATED WITH SAMPLE

MS	Arsenic	7440-38-2	186.5	93.300	% Recov	70.000	130.000				04/02/08
MS	Barium	7440-39-3	192.09	96.045	% Recov	70.000	130.000				04/02/08
MS	Beryllium	7440-41-7	190.22	95.110	% Recov	70.000	130.000				04/02/08
MS	Cadmium	7440-43-9	198.09	99.045	% Recov	70.000	130.000				04/02/08
MS	Cobalt	7440-48-4	196.65	98.325	% Recov	70.000	130.000				04/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080639
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 03/25/08
Receive Date:03/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Chromium	7440-47-3	198.27	99.135	% Recov	70.000	130.000				04/02/08
MS	Manganese	7439-96-5	201.2	100.600	% Recov	70.000	130.000				04/02/08
MS	Lead	7439-92-1	196.59	98.295	% Recov	70.000	130.000				04/02/08
MS	Antimony	7440-36-0	187.7	93.850	% Recov	70.000	130.000				04/02/08
MS	Selenium	7782-49-2	195.3	97.650	% Recov	70.000	130.000				04/02/08
MS	Thallium	7440-28-0	182.05	91.025	% Recov	70.000	130.000				04/02/08
MS	Vanadium	7440-62-2	188.01	94.005	% Recov	70.000	130.000				04/02/08
MS	Zinc	7440-66-6	200.76	100.380	% Recov	70.000	130.000				04/02/08
MSD	Arsenic	7440-38-2	185.7	92.900	% Recov	70.000	130.000				04/02/08
MSD	Barium	7440-39-3	192.09	96.045	% Recov	70.000	130.000				04/02/08
MSD	Beryllium	7440-41-7	185.02	92.510	% Recov	70.000	130.000				04/02/08
MSD	Cadmium	7440-43-9	195.69	97.845	% Recov	70.000	130.000				04/02/08
MSD	Cobalt	7440-48-4	189.75	94.875	% Recov	70.000	130.000				04/02/08
MSD	Chromium	7440-47-3	191.07	95.535	% Recov	70.000	130.000				04/02/08
MSD	Manganese	7439-96-5	195.8	97.900	% Recov	70.000	130.000				04/02/08
MSD	Lead	7439-92-1	192.19	96.095	% Recov	70.000	130.000				04/02/08
MSD	Antimony	7440-36-0	183.8	91.900	% Recov	70.000	130.000				04/02/08
MSD	Selenium	7782-49-2	190.8	95.400	% Recov	70.000	130.000				04/02/08
MSD	Thallium	7440-28-0	178.15	89.075	% Recov	70.000	130.000				04/02/08
MSD	Vanadium	7440-62-2	180.11	90.055	% Recov	70.000	130.000				04/02/08
MSD	Zinc	7440-66-6	192.26	96.130	% Recov	70.000	130.000				04/02/08
SPK-RPD	Arsenic	7440-38-2	92.9		RPD			0.430	20.000		04/02/08
SPK-RPD	Barium	7440-39-3	96.045		RPD			0.000	20.000		04/02/08
SPK-RPD	Beryllium	7440-41-7	92.510		RPD			2.772	20.000		04/02/08
SPK-RPD	Cadmium	7440-43-9	97.845		RPD			1.219	20.000		04/02/08
SPK-RPD	Cobalt	7440-48-4	94.875		RPD			3.571	20.000		04/02/08
SPK-RPD	Chromium	7440-47-3	95.535		RPD			3.699	20.000		04/02/08
SPK-RPD	Manganese	7439-96-5	97.900		RPD			2.720	20.000		04/02/08
SPK-RPD	Lead	7439-92-1	96.095		RPD			2.263	20.000		04/02/08
SPK-RPD	Antimony	7440-36-0	91.900		RPD			2.100	20.000		04/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080639
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 03/25/08
Receive Date:03/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Selenium	7782-49-2	95.400		RPD			2.331	20.000		04/02/08
SPK-RPD	Thallium	7440-28-0	89.075		RPD			2.165	20.000		04/02/08
SPK-RPD	Vanadium	7440-62-2	90.055		RPD			4.292	20.000		04/02/08
SPK-RPD	Zinc	7440-66-6	96.130		RPD			4.325	20.000		04/02/08
BATCH QC											
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	04/02/08
BLANK	Barium	7440-39-3	<0.2	n/a	ug/L					U	04/02/08
BLANK	Beryllium	7440-41-7	<5e-2	n/a	ug/L					U	04/02/08
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L					U	04/02/08
BLANK	Cobalt	7440-48-4	<5e-2	n/a	ug/L					U	04/02/08
BLANK	Chromium	7440-47-3	<0.5	n/a	ug/L					U	04/02/08
BLANK	Mercury	7439-97-6	5e-2	0.050	ug/L						04/02/08
BLANK	Manganese	7439-96-5	<0.1	n/a	ug/L					U	04/02/08
BLANK	Lead	7439-92-1	<0.1	n/a	ug/L					U	04/02/08
BLANK	Antimony	7440-36-0	<0.3	n/a	ug/L					U	04/02/08
BLANK	Selenium	7782-49-2	<0.3	n/a	ug/L					U	04/02/08
BLANK	Strontium	7440-24-6	<0.1	n/a	ug/L					U	04/02/08
BLANK	Thallium	7440-28-0	<0.1	n/a	ug/L					U	04/02/08
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	04/02/08
BLANK	Vanadium	7440-62-2	<0.2	n/a	ug/L					U	04/02/08
BLANK	Zinc	7440-66-6	<0.8	n/a	ug/L					U	04/02/08
LCS	Arsenic	7440-38-2	128.4	97.273	% Recov	75.000	134.000				04/02/08
LCS	Barium	7440-39-3	303.4	95.110	% Recov	87.000	121.000				04/02/08
LCS	Beryllium	7440-41-7	86.73	96.905	% Recov	70.000	153.000				04/02/08
LCS	Cadmium	7440-43-9	68.96	103.699	% Recov	95.000	124.000				04/02/08
LCS	Cobalt	7440-48-4	74.92	102.490	% Recov	88.000	119.000				04/02/08
LCS	Chromium	7440-47-3	68	93.278	% Recov	77.000	125.000				04/02/08
LCS	Mercury	7439-97-6	8.61	103.986	% Recov	71.000	132.000				04/02/08
LCS	Manganese	7439-96-5	443.4	97.881	% Recov	83.000	118.000				04/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20080639
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	Lead	7439-92-1	128.2	98.615	% Recov	92.000	123.000				04/02/08
LCS	Antimony	7440-36-0	122.8	136.142	% Recov	114.000	260.000				04/02/08
LCS	Selenium	7782-49-2	167.2	103.851	% Recov	52.000	157.000				04/02/08
LCS	Strontium	7440-24-6	51.54	94.743	% Recov	68.000	123.000				04/02/08
LCS	Thallium	7440-28-0	122.4	92.030	% Recov	92.000	123.000				04/02/08
LCS	Uranium	7440-61-1	373.4	93.350	% Recov	81.000	125.000				04/02/08
LCS	Vanadium	7440-62-2	76.61	92.301	% Recov	81.000	122.000				04/02/08
LCS	Zinc	7440-66-6	191.9	108.418	% Recov	85.000	130.000				04/02/08

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-070

Group #: WSCF20080639
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: Mercury prep blank above the MDL. Mercury not not detected. No flag Organics: All results are corrected for moisture and reported on a dry weight basis. cgc ICP-AES: No lithium present in the LCS. Aluminum, iron, and sodium sample results exceed spiking level by a factor of 4 (spike recoveries are not valid). Check and high standards used to ensure aluminum and iron linearity because sample results are greater than the calibration standard. Silver, boron, and lithium have correction equation interferences that make them negative. Silver and boron have no detectable peaks. Lithium does and calcium is the interferent. Calculations had to be made in order to estimate the sample concentration. Co-60/GEA duplicate is flagged for poor RPD but the Co-60 activity is low level. RPD does not apply to low level samples. lmh

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

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-070

Group #: WSCF20080639
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
				U-235/238 duplicate is flagged for poor RPD but the sample activity is low level. RPD does not apply to low level samples. lmh

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-070
Sample # W08GR00752
Client ID: B1TNP6 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080639
Department: Organic
Sampled: 03/27/08
Received: 03/27/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Alcohols, Glycols - 8015 Prep											**04/08/08**
Alcohols, Glycols - 8015											
Diethyl ether	60-29-7	Organics	U	< 5.00e+03	ug/kg			1.00	5.0e+03		04/09/08
Ethylene glycol	107-21-1	Organics	U	< 5.00e+03	ug/kg			1.00	5.0e+03		04/09/08
NWTPH-D TPH Diesel Range (Wa) Prep											**03/31/08**
NWTPH-D TPH Diesel Range (Wa)											
Total Pet. Hydrocarbons Diesel	TPHDIESEL	LA-523-493	U	< 3.10e+03	ug/kg			1.00	3.1e+03		04/09/08
Kerosene	TPHKEROSENE	LA-523-493	U	< 3.10e+03	ug/kg			1.00	3.1e+03		04/09/08
SW-846 8270C Semi-Vols Prep											**04/01/08**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 330	ug/kg			1.00	3.3e+02		04/08/08
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 260	ug/kg			1.00	2.6e+02		04/08/08
Phenol	108-95-2	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Pyrene	129-00-0	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Acenaphthene	83-32-9	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Pentachlorophenol	87-86-5	LA-523-456	U	< 400	ug/kg			1.00	4.0e+02		04/08/08
2-Chlorophenol	95-57-8	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
4-Nitroaniline	100-01-6	LA-523-456	U	< 280	ug/kg			1.00	2.8e+02		04/08/08
4-Bromophenylphenyl ether	101-55-3	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
2,4-Dimethylphenol	105-67-9	LA-523-456	U	< 230	ug/kg			1.00	2.3e+02		04/08/08
4-Chloroaniline	106-47-8	LA-523-456	U	< 290	ug/kg			1.00	2.9e+02		04/08/08

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)
D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria(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: F08-070
Sample # W08GR00752
Client ID: B1TNP6 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080639
Department: Organic
Sampled: 03/27/08
Received: 03/27/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Bis(2-chloro-1-methylethyl)eth	108-60-1	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Bis(2-chloroethyl) ether	111-44-4	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Bis(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Di-n-octylphthalate	117-84-0	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Hexachlorobenzene	118-74-1	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Anthracene	120-12-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
2,4-Dichlorophenol	120-83-2	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		04/08/08
Dimethyl phthalate	131-11-3	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Dibenzofuran	132-64-9	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Benzo(ghi)perylene	191-24-2	LA-523-456	U	< 330	ug/kg			1.00	3.3e+02		04/08/08
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	< 330	ug/kg			1.00	3.3e+02		04/08/08
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	< 200	ug/kg			1.00	2.0e+02		04/08/08
Fluoranthene	206-44-0	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	< 200	ug/kg			1.00	2.0e+02		04/08/08
Acenaphthylene	208-96-8	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Chrysene	218-01-9	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Benzo(a)pyrene	50-32-8	LA-523-456	U	< 230	ug/kg			1.00	2.3e+02		04/08/08
2,4-Dinitrophenol	51-28-5	LA-523-456	U	< 630	ug/kg			1.00	6.3e+02		04/08/08
Dibenz[a,h]anthracene	53-70-3	LA-523-456	U	< 330	ug/kg			1.00	3.3e+02		04/08/08
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	< 330	ug/kg			1.00	3.3e+02		04/08/08
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	< 280	ug/kg			1.00	2.8e+02		04/08/08
Benzo(a)anthracene	56-55-3	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
4-Chlorophenylphenyl ether	7005-72-3	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08

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)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-070
Sample # W08GR00752
Client ID: B1TNP6 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080639
Department: Organic
Sampled: 03/27/08
Received: 03/27/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Isophorone	78-59-1	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Diethylphthalate	84-66-2	LA-523-456	U	< 210	ug/kg			1.00	2.1e+02		04/08/08
Di-n-butylphthalate	84-74-2	LA-523-456	J	400	ug/kg			1.00	1.5e+02		04/08/08
Phenanthrene	85-01-8	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Butylbenzylphthalate	85-68-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
N-Nitrosodiphenylamine	86-30-6	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		04/08/08
Fluorene	86-73-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Carbazole	86-74-8	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Hexachlorobutadiene	87-68-3	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
2-Nitroaniline	88-74-4	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
2-Nitrophenol	88-75-5	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		04/08/08
Naphthalene	91-20-3	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
2-Methylnaphthalene	91-57-6	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
2-Chloronaphthalene	91-58-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
3,3'-Dichlorobenzidine	91-94-1	LA-523-456	U	< 330	ug/kg			1.00	3.3e+02		04/08/08
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	< 220	ug/kg			1.00	2.2e+02		04/08/08
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Nitrobenzene	98-95-3	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
3-Nitroaniline	99-09-2	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		04/08/08
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Hexachloroethane	67-72-1	LA-523-456	U	< 260	ug/kg			1.00	2.6e+02		04/08/08
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08
Tributyl phosphate	126-73-8	LA-523-456	U	< 150	ug/kg			1.00	1.5e+02		04/08/08

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)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-070
Sample # W08GR00754
Client ID: B1TNP4 TRENT WSCF

Matrix: SOIL

Group #: WSCF20080639
Department: Organic
Sampled: 03/27/08
Received: 03/27/08

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	< 0.900	ug/kg			1.00	0.90		04/09/08
Trichloroethene	79-01-6	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Benzene	71-43-2	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Toluene	108-88-3	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Chlorobenzene	108-90-7	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Ethylbenzene	100-41-4	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Styrene	100-42-5	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Dibromochloromethane	124-48-1	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
1,2-Dichloroethene(Total)	540-59-0	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
2-Hexanone	591-78-6	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Acetone	67-64-1	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Chloroform	67-66-3	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Bromomethane	74-83-9	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Chloromethane	74-87-3	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Chloroethane	75-00-3	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08

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)
D - Analyte was identified at a secondary dilution factor(inorg)
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* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-070
Sample # W08GR00754
Client ID: B1TNP4 TRENT WSCF
Matrix: SOIL

Group #: WSCF20080639
Department: Organic
Sampled: 03/27/08
Received: 03/27/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Vinyl chloride	75-01-4	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Methylenechloride	75-09-2	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Carbon disulfide	75-15-0	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Bromoform	75-25-2	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
Bromodichloromethane	75-27-4	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
1,2-Dichloropropane	78-87-5	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
2-Butanone	78-93-3	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
1-Butanol	71-36-3	LA-523-455	U	< 90.0	ug/kg			1.00	90		04/09/08
Trichloromonofluoromethane	75-69-4	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 0.900	ug/kg			1.00	0.90		04/09/08

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)
D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
N - Spike sample recovery is outside control limits.(inorg)
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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
Matrix: SOLID
Test: Alcohols, Glycols - 8015

Sample Date: 03/27/08
Receive Date:03/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00752											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	2-Bromoethanol	540-51-2	17300		RPD			1.719	25.000		04/09/08
DUP	Diethyl ether	60-29-7	<5000		RPD			n/a	25.000	U	04/09/08
DUP	Ethylene glycol	107-21-1	<5000		RPD			n/a	25.000	U	04/09/08
MS	2-Bromoethanol	540-51-2	16700	94.886	% Recov	70.000	125.000				04/09/08
MS	Diethyl ether	60-29-7	7000	98.592	% Recov	75.000	125.000				04/09/08
MS	Ethylene glycol	107-21-1	8800	80.000	% Recov	75.000	125.000				04/09/08
MSD	2-Bromoethanol	540-51-2	17300	98.295	% Recov	70.000	125.000				04/09/08
MSD	Diethyl ether	60-29-7	6500	91.549	% Recov	75.000	125.000				04/09/08
MSD	Ethylene glycol	107-21-1	10000	90.909	% Recov	75.000	125.000				04/09/08
SPK-RPD	2-Bromoethanol	540-51-2	98.295		RPD			3.529	20.000		04/09/08
SPK-RPD	Diethyl ether	60-29-7	91.549		RPD			7.408	20.000		04/09/08
SPK-RPD	Ethylene glycol	107-21-1	90.909		RPD			12.766	20.000		04/09/08
BATCH QC											
BLANK	2-Bromoethanol	540-51-2	18300	103.977	% Recov	75.000	125.000				04/09/08
BLANK	Diethyl ether	60-29-7	<5000	n/a	ug/Kg	0.000	10.000			U	04/09/08
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/Kg	0.000	5.000			U	04/09/08
LCS	2-Bromoethanol	540-51-2	17600	100.000	% Recov	70.000	130.000				04/09/08
LCS	Diethyl ether	60-29-7	6800	95.775	% Recov	70.000	130.000				04/09/08
LCS	Ethylene glycol	107-21-1	8400	76.364	% Recov	70.000	130.000				04/09/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

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
MS	1,2,4-Trichlorobenzene	120-82-1	4189.8	102.000	% Recov	75.000	121.000				04/08/08
MS	1,4-Dichlorobenzene	106-46-7	4089.6	99.500	% Recov	68.000	121.000				04/08/08
MS	2,4-Dinitrotoluene	121-14-2	4169.1	101.000	% Recov	66.000	113.000				04/08/08
MS	2-Fluorophenol(Surr)	367-12-4	4001.2	97.400	% Recov	72.000	120.000				04/08/08
MS	Acenaphthene	83-32-9	4263.6	104.000	% Recov	69.000	125.000				04/08/08
MS	4-Chloro-3-methylphenol	59-50-7	6187.9	100.000	% Recov	68.000	116.000				04/08/08
MS	2-Chlorophenol	95-57-8	6101.7	99.000	% Recov	65.000	124.000				04/08/08
MS	N-Nitrosodi-n-dipropylamine	621-64-7	3919.6	95.400	% Recov	69.000	127.000				04/08/08
MS	2-Fluorobiphenyl(Surr)	321-60-8	3889.5	94.600	% Recov	66.000	122.000				04/08/08
MS	Phenol	108-95-2	5649.4	91.600	% Recov	71.000	122.000				04/08/08
MS	Nitrobenzene-d5(Surr)	4165-60-0	4081.3	99.300	% Recov	63.000	125.000				04/08/08
MS	4-Nitrophenol	100-02-7	5852.9	94.900	% Recov	55.000	113.000				04/08/08
MS	Pentachlorophenol	87-86-5	5471.8	88.800	% Recov	50.000	113.000				04/08/08
MS	Phenol-d5(Surr)	4165-62-2	3720.6	90.500	% Recov	66.000	124.000				04/08/08
MS	Pyrene	129-00-0	4349.1	106.000	% Recov	67.000	125.000				04/08/08
MS	2,4,6-Tribromophenol(Surr)	118-79-6	3965.8	96.500	% Recov	49.000	120.000				04/08/08
MS	Terphenyl-d14(Surr)	98904-43-9	4285.2	104.000	% Recov	58.000	128.000				04/08/08
MSD	1,2,4-Trichlorobenzene	120-82-1	4539.1	110.000	% Recov	75.000	121.000				04/08/08
MSD	1,4-Dichlorobenzene	106-46-7	4518.1	110.000	% Recov	68.000	121.000				04/08/08
MSD	2,4-Dinitrotoluene	121-14-2	4458.8	108.000	% Recov	66.000	113.000				04/08/08
MSD	2-Fluorophenol(Surr)	367-12-4	4438.2	108.000	% Recov	72.000	120.000				04/08/08
MSD	Acenaphthene	83-32-9	4530.8	110.000	% Recov	69.000	125.000				04/08/08
MSD	4-Chloro-3-methylphenol	59-50-7	6237.7	101.000	% Recov	68.000	116.000				04/08/08
MSD	2-Chlorophenol	95-57-8	6899.0	112.000	% Recov	65.000	124.000				04/08/08
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	4467.6	109.000	% Recov	69.000	127.000				04/08/08
MSD	2-Fluorobiphenyl(Surr)	321-60-8	4503.1	110.000	% Recov	66.000	122.000				04/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Phenol	108-95-2	6467.5	105.000	% Recov	71.000	122.000				04/08/08
MSD	Nitrobenzene-d5(Surr)	4165-60-0	4501.3	110.000	% Recov	63.000	125.000				04/08/08
MSD	4-Nitrophenol	100-02-7	6321.7	103.000	% Recov	55.000	113.000				04/08/08
MSD	Pentachlorophenol	87-86-5	6214.9	101.000	% Recov	50.000	113.000				04/08/08
MSD	Phenol-d5(Surr)	4165-62-2	4281.6	104.000	% Recov	66.000	124.000				04/08/08
MSD	Pyrene	129-00-0	4696.2	114.000	% Recov	67.000	125.000				04/08/08
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	4357.4	106.000	% Recov	49.000	120.000				04/08/08
MSD	Terphenyl-d14(Surr)	98904-43-9	5199.0	126.000	% Recov	58.000	128.000				04/08/08
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	110.000		RPD			7.547	20.000		04/08/08
SPK-RPD	1,4-Dichlorobenzene	106-46-7	110.000		RPD			10.024	20.000		04/08/08
SPK-RPD	2,4-Dinitrotoluene	121-14-2	108.000		RPD			6.699	20.000		04/08/08
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	108.000		RPD			10.321	20.000		04/08/08
SPK-RPD	Acenaphthene	83-32-9	110.000		RPD			5.607	20.000		04/08/08
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	101.000		RPD			0.995	20.000		04/08/08
SPK-RPD	2-Chlorophenol	95-57-8	112.000		RPD			12.322	20.000		04/08/08
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	109.000		RPD			13.307	20.000		04/08/08
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	110.000		RPD			15.054	20.000		04/08/08
SPK-RPD	Phenol	108-95-2	105.000		RPD			13.632	20.000		04/08/08
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	110.000		RPD			10.225	20.000		04/08/08
SPK-RPD	4-Nitrophenol	100-02-7	103.000		RPD			8.186	20.000		04/08/08
SPK-RPD	Pentachlorophenol	87-86-5	101.000		RPD			12.856	20.000		04/08/08
SPK-RPD	Phenol-d5(Surr)	4165-62-2	104.000		RPD			13.882	20.000		04/08/08
SPK-RPD	Pyrene	129-00-0	114.000		RPD			7.273	20.000		04/08/08
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	106.000		RPD			9.383	20.000		04/08/08
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	126.000		RPD			19.130	20.000		04/08/08

Lab ID: W08GR00752
BATCH QC ASSOCIATED WITH SAMPLE

SURR	2-Fluorophenol(Surr)	367-12-4	4178.7	103.000	% Recov	72.000	120.000				04/08/08
SURR	2-Fluorobiphenyl(Surr)	321-60-8	4837.7	120.000	% Recov	66.000	122.000				04/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 03/27/08
Receive Date:03/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Nitrobenzene-d5(Surr)	4165-60-0	4262.8	105.000	% Recov	63.000	125.000				04/08/08
SURR	Phenol-d5(Surr)	4165-62-2	4102.0	101.000	% Recov	66.000	124.000				04/08/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	4593.5	113.000	% Recov	49.000	120.000				04/08/08
SURR	Terphenyl-d14(Surr)	98904-43-9	4371.4	108.000	% Recov	58.000	128.000				04/08/08
BATCH QC											
BLANK	1,2-Dichlorobenzene	95-50-1	< 220	n/a	ug/Kg					U	04/08/08
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 150	n/a	ug/Kg					U	04/08/08
BLANK	1,3-Dichlorobenzene	541-73-1	< 270	n/a	ug/Kg					U	04/08/08
BLANK	1,4-Dichlorobenzene	106-46-7	< 250	n/a	ug/Kg					U	04/08/08
BLANK	2,4-Dichlorophenol	120-83-2	< 170	n/a	ug/Kg					U	04/08/08
BLANK	2,4-Dinitrotoluene	121-14-2	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2,4,5-Trichlorophenol	95-95-4	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2,4,6-Trichlorophenol	88-06-2	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2,4-Dimethylphenol	105-67-9	< 230	n/a	ug/Kg					U	04/08/08
BLANK	2,6-Dinitrotoluene	606-20-2	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2-Chloronaphthalene	91-58-7	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2-Fluorophenol(Surr)	367-12-4	3825.0	95.600	% Recov	72.000	120.000				04/08/08
BLANK	2-Methylnaphthalene	91-57-6	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2-Nitroaniline	88-74-4	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2-Nitrophenol	88-75-5	< 170	n/a	ug/Kg					U	04/08/08
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 150	n/a	ug/Kg					U	04/08/08
BLANK	3-Nitroaniline	99-09-2	< 190	n/a	ug/Kg					U	04/08/08
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 330	n/a	ug/Kg					U	04/08/08
BLANK	4-Bromophenylphenyl ether	101-55-3	< 150	n/a	ug/Kg					U	04/08/08
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Acenaphthene	83-32-9	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Acenaphthylene	208-96-8	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Anthracene	120-12-7	< 150	n/a	ug/Kg					U	04/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
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
BLANK	Bis(2-chloroethyl) ether	111-44-4	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Benzo(a)anthracene	56-55-3	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Benzo(b)fluoranthene	205-99-2	< 200	n/a	ug/Kg					U	04/08/08
BLANK	Benzo(ghi)perylene	191-24-2	< 320	n/a	ug/Kg					U	04/08/08
BLANK	Benzo(a)pyrene	50-32-8	< 230	n/a	ug/Kg					U	04/08/08
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Benzo(k)fluoranthene	207-08-9	< 200	n/a	ug/Kg					U	04/08/08
BLANK	Butylbenzylphthalate	85-68-7	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Carbazole	86-74-8	< 150	n/a	ug/Kg					U	04/08/08
BLANK	4-Chloroaniline	106-47-8	< 280	n/a	ug/Kg					U	04/08/08
BLANK	4-Chloro-3-methylphenol	59-50-7	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Chrysene	218-01-9	< 150	n/a	ug/Kg					U	04/08/08
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 330	n/a	ug/Kg					U	04/08/08
BLANK	Dibenz[a,h]anthracene	53-70-3	< 330	n/a	ug/Kg					U	04/08/08
BLANK	Dibenzofuran	132-64-9	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Di-n-butylphthalate	84-74-2	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Diethylphthalate	84-66-2	< 210	n/a	ug/Kg					U	04/08/08
BLANK	Dimethyl phthalate	131-11-3	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2,4-Dinitrophenol	51-28-5	< 620	n/a	ug/Kg					U	04/08/08
BLANK	Di-n-octylphthalate	117-84-0	< 150	n/a	ug/Kg					U	04/08/08
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	4498.1	112.000	% Recov	66.000	122.000				04/08/08
BLANK	Fluorene	86-73-7	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Fluoranthene	206-44-0	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Hexachlorobenzene	118-74-1	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Hexachlorobutadiene	87-68-3	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Hexachlorocyclopentadiene	77-47-4	< 150	n/a	ug/Kg					U	04/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
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
BLANK	Hexachloroethane	67-72-1	< 250	n/a	ug/Kg					U	04/08/08
BLANK	Indeno(1,2,3-cd)pyrene	193-39-5	< 330	n/a	ug/Kg					U	04/08/08
BLANK	Isophorone	78-59-1	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Phenol	108-95-2	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Naphthalene	91-20-3	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	4048.4	101.000	% Recov	63.000	125.000				04/08/08
BLANK	Nitrobenzene	98-95-3	< 150	n/a	ug/Kg					U	04/08/08
BLANK	4-Nitrophenol	100-02-7	< 330	n/a	ug/Kg					U	04/08/08
BLANK	4-Nitroaniline	100-01-6	< 280	n/a	ug/Kg					U	04/08/08
BLANK	N-Nitrosodiphenylamine	86-30-6	< 170	n/a	ug/Kg					U	04/08/08
BLANK	Pentachlorophenol	87-86-5	< 400	n/a	ug/Kg					U	04/08/08
BLANK	Phenanthrene	85-01-8	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Phenol-d5(Surr)	4165-62-2	3798.1	95.000	% Recov	66.000	124.000				04/08/08
BLANK	Pyrene	129-00-0	< 150	n/a	ug/Kg					U	04/08/08
BLANK	Tributyl phosphate	126-73-8	< 150	n/a	ug/Kg					U	04/08/08
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	4215.0	105.000	% Recov	49.000	120.000				04/08/08
BLANK	Terphenyl-d14(Surr)	98904-43-9	4331.8	108.000	% Recov	58.000	128.000				04/08/08
LCS	1,2,4-Trichlorobenzene	120-82-1	3525.3	88.100	% Recov	76.000	118.000				04/08/08
LCS	1,4-Dichlorobenzene	106-46-7	3461.4	86.500	% Recov	68.000	121.000				04/08/08
LCS	2,4-Dinitrotoluene	121-14-2	3641.9	91.000	% Recov	68.000	112.000				04/08/08
LCS	2-Fluorophenol(Surr)	367-12-4	3311.7	82.800	% Recov	50.000	110.000				04/08/08
LCS	Acenaphthene	83-32-9	3669.7	91.700	% Recov	75.000	121.000				04/08/08
LCS	4-Chloro-3-methylphenol	59-50-7	4594.4	76.600	% Recov	68.000	117.000				04/08/08
LCS	2-Chlorophenol	95-57-8	5239.4	87.300	% Recov	84.000	114.000				04/08/08
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	3271.5	81.800	% Recov	76.000	119.000				04/08/08
LCS	2-Fluorobiphenyl(Surr)	321-60-8	3635.2	90.900	% Recov	58.000	109.000				04/08/08
LCS	Phenol	108-95-2	5074.1	84.600	% Recov	80.000	113.000				04/08/08
LCS	Nitrobenzene-d5(Surr)	4165-60-0	3338.3	83.500	% Recov	60.000	118.000				04/08/08
LCS	4-Nitrophenol	100-02-7	5095.3	84.900	% Recov	42.000	123.000				04/08/08
LCS	Pentachlorophenol	87-86-5	4675.5	77.900	% Recov	55.000	120.000				04/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
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	Phenol-d5(Surr)	4165-62-2	3334.3	83.400	% Recov	59.000	116.000				04/08/08
LCS	Pyrene	129-00-0	3709.5	92.700	% Recov	67.000	122.000				04/08/08
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	3451.3	86.300	% Recov	60.000	120.000				04/08/08
LCS	Terphenyl-d14(Surr)	98904-43-9	3667.8	91.700	% Recov	60.000	120.000				04/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
Matrix: SOLID
Test: NWTPH-D TPH Diesel Range (Wa)

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

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00694											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	ortho-Terphenyl Surr	84-15-1	20341	99.000	% Recov	70.000	130.000				04/09/08
MS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	108870	106.000	% Recov	75.000	125.000				04/09/08
MSD	ortho-Terphenyl Surr	84-15-1	20978	102.000	% Recov	70.000	130.000				04/09/08
MSD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	120010	117.000	% Recov	75.000	125.000				04/09/08
SPK-RPD	ortho-Terphenyl Surr	84-15-1	102.000		RPD			2.985	20.000		04/09/08
SPK-RPD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	117.000		RPD			9.865	20.000		04/09/08
Lab ID: W08GR00752											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	ortho-Terphenyl Surr	84-15-1	19806	96.800	% Recov	70.000	130.000				04/09/08
BATCH QC											
BLANK	Kerosene	TPHKEROSENE	< 3000	n/a	ug/Kg					U	04/09/08
BLANK	ortho-Terphenyl Surr	84-15-1	19033	95.200	% Recov	70.000	130.000				04/09/08
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3000	n/a	ug/Kg					U	04/09/08
LCS	ortho-Terphenyl Surr	84-15-1	22253	111.000	% Recov	70.000	130.000				04/09/08
LCS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	119940	120.000	% Recov	80.000	120.000				04/09/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 03/27/08
Receive Date:03/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00754											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	41.700	92.700	% Recov	75.000	125.000				04/09/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	48.820	109.000	% Recov	75.000	125.000				04/09/08
SURR	Toluene-d8(Surr)	2037-26-5	45.100	100.000	% Recov	80.000	126.000				04/09/08
Lab ID: W08GR00786											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,1-Dichloroethene	75-35-4	22.430	87.500	% Recov	63.000	117.000				04/08/08
MS	Benzene	71-43-2	25.380	99.000	% Recov	75.000	129.000				04/08/08
MS	4-Bromofluorobenzene(Surr)	460-00-4	48.450	94.500	% Recov	75.000	125.000				04/08/08
MS	Chlorobenzene	108-90-7	27.830	109.000	% Recov	79.000	119.000				04/08/08
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	54.460	106.000	% Recov	75.000	125.000				04/08/08
MS	Toluene-d8(Surr)	2037-26-5	49.770	97.100	% Recov	75.000	125.000				04/08/08
MS	Toluene	108-88-3	26.570	104.000	% Recov	76.000	120.000				04/08/08
MS	Trichloroethene	79-01-6	21.620	84.300	% Recov	73.000	123.000				04/08/08
MSD	1,1-Dichloroethene	75-35-4	31.700	97.000	% Recov	63.000	117.000				04/08/08
MSD	Benzene	71-43-2	32.460	99.300	% Recov	75.000	129.000				04/08/08
MSD	4-Bromofluorobenzene(Surr)	460-00-4	61.990	94.800	% Recov	75.000	125.000				04/08/08
MSD	Chlorobenzene	108-90-7	35.430	108.000	% Recov	79.000	119.000				04/08/08
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	71.420	109.000	% Recov	75.000	125.000				04/08/08
MSD	Toluene-d8(Surr)	2037-26-5	63.120	96.500	% Recov	75.000	125.000				04/08/08
MSD	Toluene	108-88-3	33.530	103.000	% Recov	76.000	120.000				04/08/08
MSD	Trichloroethene	79-01-6	27.330	83.600	% Recov	73.000	123.000				04/08/08
SPK-RPD	1,1-Dichloroethene	75-35-4	97.000		RPD			10.298	20.000		04/08/08
SPK-RPD	Benzene	71-43-2	99.300		RPD			0.303	20.000		04/08/08
SPK-RPD	4-Bromofluorobenzene(Surr)	460-00-4	94.800		RPD			0.317	20.000		04/08/08
SPK-RPD	Chlorobenzene	108-90-7	108.000		RPD			0.922	20.000		04/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 03/25/08
Receive Date:03/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	109.000		RPD			2.791	20.000		04/08/08
SPK-RPD	Toluene-d8(Surr)	2037-26-5	96.500		RPD			0.620	20.000		04/08/08
SPK-RPD	Toluene	108-88-3	103.000		RPD			0.966	20.000		04/08/08
SPK-RPD	Trichloroethene	79-01-6	83.600		RPD			0.834	20.000		04/08/08
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	1-Butanol	71-36-3	< 100	n/a	ug/Kg					U	04/08/08
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	47.850	95.700	% Recov	75.000	125.000				04/08/08
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.700	107.000	% Recov	75.000	125.000				04/08/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20080639
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	trans-1,2-Dichloroethylene	156-60-5	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Toluene-d8(Surr)	2037-26-5	48.680	97.400	% Recov	80.000	126.000				04/08/08
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Trichloromonofluoromethane	75-69-4	< 1.0	n/a	ug/Kg	0.000	5.000			U	04/08/08
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/Kg					U	04/08/08
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/Kg					U	04/08/08
LCS	1,1-Dichloroethene	75-35-4	20.160	80.600	% Recov	75.000	125.000				04/09/08
LCS	Benzene	71-43-2	25.010	100.000	% Recov	75.000	125.000				04/09/08
LCS	4-Bromofluorobenzene(Surr)	460-00-4	46.100	92.200	% Recov	75.000	125.000				04/09/08
LCS	Chlorobenzene	108-90-7	27.020	108.000	% Recov	75.000	125.000				04/09/08
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.840	106.000	% Recov	75.000	125.000				04/09/08
LCS	Toluene-d8(Surr)	2037-26-5	48.670	97.300	% Recov	80.000	126.000				04/09/08
LCS	Toluene	108-88-3	25.580	102.000	% Recov	75.000	125.000				04/09/08
LCS	Trichloroethene	79-01-6	20.960	83.800	% Recov	75.000	125.000				04/09/08

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-070
Sample # W08GR00752
Client ID: B1TNP6 TRENT WSCF
Matrix: SOIL

Group #: WSCF20080639
Department: Radiochemistry
Sampled: 03/27/08
Received: 03/27/08

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	U	0.0130	pCi/g	+-0.0181	pCi/g	1.00	0.029		04/10/08
Am-243 tracer by AEA	AM243	LA-508-471		3.40	pCi/g			1.00	0.023		04/10/08
Gamma Energy Analysis-grd H2O											
Antimony-125	14234-35-6	LA-508-481	U	-4.22e-03	pCi/g	+-0.0150	pCi/g	1.00	0.025		04/07/08
Cobalt-60	10198-40-0	LA-508-481		0.0171	pCi/g	+-6.84e-03	pCi/g	1.00	9.6e-03		04/07/08
Cesium-137	10045-97-3	LA-508-481	U	-9.84e-03	pCi/g	+-9.84e-03	pCi/g	1.00	9.2e-03		04/07/08
Europium-152	14683-23-9	LA-508-481	U	1.22e-03	pCi/g	+-0.0122	pCi/g	1.00	0.028		04/07/08
Europium-154	15585-10-1	LA-508-481	U	-2.41e-04	pCi/g	+-2.41e-03	pCi/g	1.00	0.032		04/07/08
Europium-155	14391-16-3	LA-508-481	U	0.0285	pCi/g	+-0.0311	pCi/g	1.00	0.042		04/07/08
Radium-226	13982-63-3	LA-508-481		0.375	pCi/g	+-0.0626	pCi/g	1.00	0.018		04/07/08
Radium-228	15262-20-1	LA-508-481		0.540	pCi/g	+-0.0938	pCi/g	1.00	0.031		04/07/08
Neptunium by AEA											
Neptunium-237	13994-20-2	LA-508-471		0.0210	pCi/g	+-0.0189	pCi/g	1.00	0.011		04/09/08
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	-0.0170	pCi/g	+-0.0284	pCi/g	1.00	0.055		04/10/08
Pu-239/240 by AEA	PU-239/240	LA-508-471		0.0120	pCi/g	+-9.60e-03	pCi/g	1.00	4.7e-03		04/10/08
Pu-242 tracer by AEA	PU242	LA-508-471		5.30	pCi/g			1.00	4.6e-03		04/10/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-0.870	pCi/g	+-0.870	pCi/g	1.00	0.31		04/07/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		101	Percent			1.00	0.0		04/07/08
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		0.110	pCi/g	+-0.0407	pCi/g	1.00	0.021		04/09/08
Uranium-235	15117-96-1	LA-508-471		0.0120	pCi/g	+-9.60e-03	pCi/g	1.00	4.7e-03		04/09/08
Uranium-238	U-238	LA-508-471		0.0950	pCi/g	+-0.0352	pCi/g	1.00	4.3e-03		04/09/08

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)
D - Analyte was identified at a secondary dilution factor(inorg)
E - Analyte is an estimate, has potentially larger errors(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria(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: F08-070
Sample # W08GR00752
Client ID: B1TNP6 TRENT WSCF
Matrix: SOIL

Group #: WSCF20080639
Department: Radiochemistry
Sampled: 03/27/08
Received: 03/27/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
U-232 tracer by AEA	U232	LA-508-471		3.50	pCi/g			1.00	0.030		04/09/08

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)
E - Analyte is an estimate, has potentially larger errors(inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

D - Analyte was identified at a secondary dilution factor(inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F08-070 :F08-070

Group #: WSCF20080639
Department: Radiochemistry

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	AC-228				0.47	pCi/g
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error				19	%
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	BI-212				0.40	pCi/g
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error				23	%
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.45	pCi/g
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				14	%
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	CS-134				0.026	pCi/g
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	CS-134 Count Error				33	%
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	K-40				16	pCi/g
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				13	%
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	PB-212				0.66	pCi/g
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error				9.1	%
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	PB-214				0.69	pCi/g
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				23	%
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	SN-126				0.11	pCi/g
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error				27	%
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	TL-208				0.18	pCi/g
W08GR00752	B1TNP6	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error				14	%

RQ=Result Qualifier

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080639
Matrix: SOLID
Test: Gamma Energy Analysis-grd H2O

Sample Date: 03/27/08
Receive Date:03/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00752											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Cobalt-60	10198-40-0	1.365e-2		RPD			22.323	20.000	*	04/07/08
DUP	Cesium-137	10045-97-3	U-6.335e-3		RPD			n/a	20.000		04/07/08
DUP	Europium-152	14683-23-9	U2.524e-3		RPD			n/a	20.000		04/07/08
DUP	Europium-154	15585-10-1	U-2.768e-2		RPD			n/a	20.000		04/07/08
DUP	Europium-155	14391-16-3	U1.368e-2		RPD			n/a	20.000		04/07/08
DUP	Radium-226	13982-63-3	0.3701		RPD			1.289	20.000		04/07/08
DUP	Radium-228	15262-20-1	0.5882		RPD			8.619	20.000		04/07/08
DUP	Antimony-125	14234-35-6	U-2.6e-3		RPD			n/a	20.000		04/07/08
BATCH QC											
BLANK	Cobalt-60	10198-40-0	U-1.012e-4	n/a	pCi/g	-10.000	1000.000				04/09/08
BLANK	Cesium-137	10045-97-3	U-2.322e-3	n/a	pCi/g	-10.000	1000.000				04/09/08
BLANK	Europium-152	14683-23-9	U-2.91e-4	n/a	pCi/g	-10.000	1000.000				04/09/08
BLANK	Europium-154	15585-10-1	U-4.361e-3	n/a	pCi/g	-10.000	1000.000				04/09/08
BLANK	Europium-155	14391-16-3	U2.246e-3	n/a	pCi/g	-10.000	1000.000				04/09/08
BLANK	Radium-226	13982-63-3	5.355e-2	0.054	pCi/g	-10.000	1000.000				04/09/08
BLANK	Radium-228	15262-20-1	4.705e-2	0.047	pCi/g	-10.000	1000.000				04/09/08
BLANK	Antimony-125	14234-35-6	U1.566e-3	n/a	pCi/g	-10.000	1000.000				04/09/08
LCS	Cobalt-60	10198-40-0	10290	103.521	% Recov	80.000	120.000				04/02/08
LCS	Cesium-137	10045-97-3	6245	103.394	% Recov	80.000	120.000				04/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080639
Matrix: SOLID
Test: Americium by AEA

Sample Date: 03/27/08
Receive Date:03/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00752											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Americium-241	14596-10-2	U1.5e-2		RPD			n/a	20.000		04/10/08
DUP	Am-243 tracer by AEA	AM243	3.536	86.970	% Recov	30.000	105.000				04/10/08
SURR	Am-243 tracer by AEA	AM243	3.428	92.710	% Recov	30.000	105.000				04/10/08
BATCH QC											
BLANK	Americium-241	14596-10-2	U1.2e-2	n/a	pCi/g	-10.000	1000.000				04/10/08
BLANK	Am-243 tracer by AEA	AM243	4.024	86.960	% Recov	30.000	105.000				04/10/08
LCS	Americium-241	14596-10-2	11.11	93.755	% Recov	80.000	120.000				04/10/08
LCS	Am-243 tracer by AEA	AM243	11.17	86.510	% Recov	30.000	105.000				04/10/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080639
Matrix: SOLID
Test: Neptunium by AEA

Sample Date: 03/27/08
Receive Date:03/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00752											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Neptunium-237	13994-20-2	U4.5e-3		RPD			n/a	25.000		04/09/08
MS	Neptunium-237	13994-20-2	103.379	103.379	% Recov	75.000	125.000				04/09/08
MSD	Neptunium-237	13994-20-2	92.6	92.600	% Recov	75.000	125.000				04/09/08
SPK-RPD	Neptunium-237	13994-20-2	92.579		% RPD			11.023	20.000		04/09/08
Lab ID: W08GR00795											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Neptunium-237	13994-20-2	96.5	96.500	% Recov	75.000	125.000				04/09/08
Lab ID: W08GR00796											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Neptunium-237	13994-20-2	94.9	94.900	% Recov	75.000	125.000				04/09/08
BATCH QC											
BLANK	Neptunium-237	13994-20-2	1.8e-2	0.018	pCi/G	-10.000	1000.000				04/09/08
LCS	Neptunium-237	13994-20-2	10.93	85.759	% Recov	80.000	120.000				04/09/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080639
Matrix: SOLID
Test: Plutonium Isotopics by AEA

Sample Date: 03/27/08
Receive Date:03/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00752											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Plutonium-238	13981-16-3	U5.7e-3		RPD			n/a	20.000		04/10/08
DUP	Pu-239/240 by AEA	PU-239/240	U3.8e-3		RPD			n/a	20.000		04/10/08
DUP	Pu-242 tracer by AEA	PU242	5.48	72.030	% Recov	30.000	105.000				04/10/08
SURR	Pu-242 tracer by AEA	PU242	5.312	84.520	% Recov	30.000	105.000				04/10/08
BATCH QC											
BLANK	Plutonium-238	13981-16-3	U2.2e-3	n/a	pCi/g	-10.000	1000.000				04/10/08
BLANK	Pu-239/240 by AEA	PU-239/240	1.8e-2	0.018	pCi/g	-10.000	1000.000				04/10/08
BLANK	Pu-242 tracer by AEA	PU242	6.236	74.530	% Recov	30.000	105.000				04/10/08
LCS	Pu-239/240 by AEA	PU-239/240	13	101.207	% Recov	80.000	120.000				04/10/08
LCS	Pu-242 tracer by AEA	PU242	17.3	79.640	% Recov	30.000	105.000				04/10/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080639
Matrix: SOLID
Test: Strontium 89/90

Sample Date: 03/27/08
Receive Date:03/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00752											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	98.4	98.400	% Recov	30.000	105.000				04/07/08
DUP	Strontium-89/90	SR-RAD	U-1.1		RPD			n/a	20.000		04/07/08
SURR	Sr-85 Tracer by Beta Counting	SR85	101.3	101.300	% Recov	30.000	105.000				04/07/08
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	94.4	94.400	% Recov	30.000	105.000				04/07/08
BLANK	Strontium-89/90	10098-97-2	U-4.0E-01	n/a	pCi/g	-10.000	300.000				04/07/08
LCS	Sr-85 Tracer by Beta Counting	SR85	87.8	87.800	% Recov	30.000	105.000				04/07/08
LCS	Strontium-89/90	10098-97-2	70.5	100.284	% Recov	80.000	120.000				04/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20080639
Matrix: SOLID
Test: Uranium Isotopics by AEA

Sample Date: 03/27/08
Receive Date:03/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00752											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	U-232 tracer by AEA	U232	3.639	87.310	% Recov	30.000	105.000				04/09/08
DUP	Uranium-233/234	U-233/234	0.12		RPD			8.696	20.000		04/09/08
DUP	Uranium-235	15117-96-1	1.5e-2		RPD			22.222	20.000 •		04/09/08
DUP	Uranium-238	U-238	0.12		RPD			23.256	20.000 •		04/09/08
SURR	U-232 tracer by AEA	U232	3.528	86.730	% Recov	30.000	105.000				04/09/08
BATCH QC											
BLANK	U-232 tracer by AEA	U232	4.142	76.090	% Recov	30.000	105.000				04/09/08
BLANK	Uranium-233/234	13966-29-5	2.1e-2	0.021	pCi/g	-10.000	1000.000				04/09/08
BLANK	Uranium-235	15117-96-1	7e-3	0.007	pCi/g	-10.000	1000.000				04/09/08
BLANK	Uranium-238	24678-82-8	U2.1e-3	n/a	pCi/g	-10.000	1000.000				04/09/08
LCS	U-232 tracer by AEA	U232	11.49	69.540	% Recov	30.000	105.000				04/09/08
LCS	Uranium-233/234	13966-29-5	N/A	n/a	% Recov	75.000	125.000				04/09/08
LCS	Uranium-235	15117-96-1	N/A	n/a	% Recov	75.000	125.000				04/09/08
LCS	Uranium-238	24678-82-8	19.33	101.978	% Recov	80.000	120.000				04/09/08

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-070

Group #: WSCF20080639
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: Mercury prep blank above the MDL. Mercury not not detected. No flag
				Organics: All results are corrected for moisture and reported on a dry weight basis. cgc
				ICP-AES: No lithium present in the LCS. Aluminum, iron, and sodium sample results exceed spiking level by a factor of 4 (spike recoveries are not valid). Check and high standards used to ensure aluminum and iron linearity because sample results are greater than the calibration standard. Silver, boron, and lithium have correction equation interferences that make them negative. Silver and boron have no detectable peaks. Lithium does and calcium is the interferent. Calculations had to be made in order to estimate the sample concentration.
				Co-60/GEA duplicate is flagged for poor RPD but the Co-60 activity is low level. RPD does not apply to low level samples. lmh

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

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-070

Group #: WSCF20080639
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
				U-235/238 duplicate is flagged for poor RPD but the sample activity is low level. RPD does not apply to low level samples. lmh

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

M4W41-SLF-08-517

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 7 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#: 123163/ES20
Group#: 20080639
Project#: F08-070
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 03/27/08. 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
W08GR00752	B1TNP6	TRENT	Solid, or handle as if solid	03/27/08
		@2008 @8015GPP @AEA-30 @AEA-31 @AEA-32		
		@AEA-33 @GEA-GPP @GPP6010 @IC-30 @SR89_90 @SVOC		
		@TPHD-WA CN-02 NH4-IC PERSOLID		
W08GR00753	B1TNP5	TRENT	Solid, or handle as if solid	03/27/08
W08GR00754	B1TNP4	TRENT	Solid, or handle as if solid	03/27/08
		@VOA-GPP		

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@8015GPP	Alcohols, Glycols - 8015
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@AEA-33	Neptunium by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@GPP6010	ICP Metals Analysis, Grd H20 P
@IC-30	Anions by Ion Chromatography
@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
CN-02	Cyanide by Midi/Spectrophotom
NH4-IC	Ammonia (N) by IC
PERSOLID	Percent Solids

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

COLLECTOR NCO SAMPLER D. Parchen	**COMPANY CONTACT** TRENT, STEVE	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C5857, I-084	**PROJECT DESIGNATION** 200-TW-1 OU Characterization for Well 299-E33-342 - Soil		**SAF NO.** F08-070	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH** 163.2' - 167.1'	**COA** 123163ES20	**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=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 B1TNP3

PRESERVATION	None	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	
TYPE OF CONTAINER	G/P	G	aG	G	G/P	Square Bottle - Poly	
NO. OF CONTAINER(S)	1	1	1	1	1	1	
VOLUME	250mL	250mL	250mL	125g	500mL	500mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	SEE ITEM (6) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**				
20086639							
B1TNP6	SOIL	MAR 27 2008	1010	~	~	~	~

W086R00752

ICED

02Y075 → 24875 019038 N/A

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Fluor Hanford D. E. PARCHEN	1305 MAR 27 2008		
		3/27/08 1305	

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

A-6003-618(01/06)

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-070-018

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N	**DATA TURNAROUND**
NCO SAMPLER	TRENT, STEVE	373-5869	WIDRIG, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C5857, I-084	200-TW-1 OU Characterization for Well 299-E33-342 - Soil		F08-070		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
			123163ES20	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.
(1)ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Manganese, Vanadium, Zinc} ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Uranium} ICP Metals - 6010B (TAL) {Aluminum, Copper, Iron, Nickel, Silver, Sodium} ICP Metals - 6010B (Add-On) {Boron, Lithium} 200.8_HG - ICPMS; Cations (IC) - 300.7 {Nitrogen in ammonium}
(2)Alcohols, Glycols, & Ketones - 8015 {Diethyl ether, Ethylene glycol}
(3)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) {3+4 Methylphenol (cresol, m+p), Tributyl phosphate}
(4)TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - kerosene range}
(5)Cyanide (Total) - 335.2; IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate}
(6)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Radium-226} Gamma Spec - Add-on {Antimony-125, Radium-228} Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Strontium-89,90 -- Total Sr; Americium-241;

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	8N	DATA TURNAROUND
NCO SAMPLER — Fluor Hanford J. E. PARCHEN	TRENT, STEVE	373-5869	WIDRIG, DL	AIR QUALITY	☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.	COA	METHOD OF SHIPMENT
C5857, I-084	200-TW-1 OU Characterization for Well 299-E33-342 - Soil	F08-070	123163ES20	GOVERNMENT VEHICLE

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
		165.3' - 167.7'	N/A	N/A

SHIPPED TO
Waste Sampling & Characterization

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 B1TNP3

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
B1TNP5	SOIL	MAR 27 2008	1010

753

ICED

621060

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. E. PARCHEN	1305 MAR 27 2008	[illegible] 3/27/08 1305	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SIGN/ PRINT NAMES

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.
(1)VOA - 5035/8260 (TCL); VOA - 5035/8260 - (Add-On) {1-Butanol, Trichloromonofluoromethane, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}

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

A-6003-618(01/06)

COLLECTOR NCO SAMPLER Fluor Hanford D. E. PARCHEN	**COMPANY CONTACT** TRENT, STEVE	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** WIDRIG, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days		
SAMPLING LOCATION C5857, I-084	**PROJECT DESIGNATION** 200-TW-1 OU Characterization for Well 299-E33-342 - Soil		**SAF NO.** F08-070
AIR QUALITY ☐			
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH** 165.2' - 167.7'	**COA** 123163ES20
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=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 B1TNP3

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

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B1TNP4	SOIL	MAR 27 2008	1010	✓	✓

754

ICED

6213060 6213060

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

RELINQUISHED BY/REMOVED FROM Fluor Hanford D. E. PARCHEN	DATE/TIME 1305 MAR 27 2008	RECEIVED BY/STORED IN	DATE/TIME 3/27/08 1305
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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, STEVE	373-5869	WIDRIG, DL			
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY**	☐	45 Days / 45 Days
C5857, I-084	200-TW-1 OU Characterization for Well 299-E33-342 - Soil		F08-070			
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**		
			123163ES20	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 (HIGH LEVEL); VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {1-Butanol, Trichloromonofluoromethane, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}
(2)VOA - 5035/8260 (LOW LEVEL); VOA - 5035/8260 (LOW LEVEL) - (Add-On) {1-Butanol, Trichloromonofluoromethane, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}

M4W41-SLF-08-517

ATTACHMENT 5

SAMPLE RECORD SHEET

Consisting of 2 pages
Including cover page

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
BITNP4	K	31.3	37.0	5.7	---	---	---
	L	31.0	36.8	5.8	---	---	---
	M	31.5	37.0	5.5	---	---	---
	N	31.6	36.6	5.0	---	---	---
	P	31.3	37.0	5.7	---	---	---
BITNP5		30.3	—	—	4.0	5	34.3
BITNP4	W	30.4	35.2	4.8	4.1	5	39.3
	X	30.2	35.7	5.5	4.4	5.5	40.1
	Y	30.1	34.7	4.6	3.7	4.5	38.4

[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