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Mission Support Alliance
P.O. Box 650
Richland, Washington 99352

42100-SLF-10-212

June 2, 2010

Mr. M. A. Neely, Manager
Analytical Services
CH2M HILL Plateau Remediation Company
PO Box 1600 MSIN R3-60
Richland, WA 99352

Dear Mike,

P&D & RESUBMITTAL OF SAMPLE DELIVERY GROUP WSCF20091234 – SAF NUMBER F10-011

Reference(s):
1) Letter, SL Fitzgerald to MA Neely (CHPRC), Final Results for SDG WSCF20091234 (M4W41-SLF-10-017), dated January 14, 2010
2) Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, 'FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER'
3) HNF-SD-CP-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Program Plan

On February 17, 2010, the subject P&D was received by the WSCF Laboratory. This letter replaces Reference 1 submittal in its entirety together with the P&D data for sample delivery group WSCF20091234.

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

Very truly yours,

S. L. Fitzgerald
WSCF Analytical Lab

SLF/grf

Attachments 4

cc: w/Attachments

H. A. Medley	S3-30
H. K. Meznarich	S3-30
J. E. Trechter	S3-30
S. J. Trent	R3-50
File/LB	

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42100-SLF-10-212

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20091234
Data Deliverable Date: 14-jan-2010
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F10-011	B22RJ6	W09GR01061	SOIL
	B22RJ7	W09GR01071	SOIL
	B22RJ9	W09GR01072	SOIL
	B22RK0	W09GR01074	SOIL

42100-SLF-10-212

ATTACHMENT 2

NARRATIVE & P&D

Consisting of 9 pages
Including cover page

P&D Correction – Case Narrative Replaces the Prior Submittal in its Entirety

Introduction

Six (6) S&GRP samples were received at the WSCF Laboratory on November 30, 2009. However, only four of the samples were analyzed; samples B22RJ8 and B22RK1 were not needed to perform the requested analyses. The four samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

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 completed P&D # WSCF20091234 is included with this case narrative.

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 transport container.

The following generic data qualifiers (i.e., B, D, and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wetchem analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report,* pages 21 through 23, 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. See page 28 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01037 (B22V43 in work order 20091216)
    - Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are out of limits possibly due to heterogeneity of sample.

All other QC controls are within the established limits.

Anions – Hold 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. See pages 29 through 30 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01037 (B22V43 in work order 20091216)
    - Sulfate – Duplicate is flagged for RPD out of laboratory limits. The RPD criterion does not apply to results near or below the minimum detection limit. (W09GR01037 results = 5.94 ug/g)

All other 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. See page 31 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01086 (B23331 in work order 20091244)
    - LCS is within acceptable range. Calibration standard expired 12-1-09 and was verified against new standard at 99% recovery. Sample results were "X" flagged.

All other QC controls are within the established limits.

Hexavalent Chromium – 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. See page 32 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01036 (B22X26 in work order 20091214)

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. See pages 33 through 34 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01072 (B22RJ9 in work order 20091234)
    - Boron – Estimated results due to Iron interference. Sample results were "E" flagged

- Iron – exceeded spiking levels by a factor of 4. Spike recoveries are not valid.

- Batch QC analyzed on sample# W09GR01099 (B22RK2 in work order 20091249)
  - Boron – Estimated results due to Iron interference. Sample results were "E" flagged
  - Iron – exceeded spiking levels by a factor of 4. Spike recoveries are not valid.

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. See pages 35 through 38 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01037 (B22V43 in work order 20091216)
  - The Aluminum concentration of the parent sample exceeded spiking levels by a factor of 4. Spike recoveries for the Matrix Spike and Matrix Spike duplicate are not valid. Sample results were "X" flagged.
  - Manganese Matrix Spike and Matrix Spike Duplicate recoveries are outside laboratory limits. Sample results were "N" flagged.

All other QC controls are within the established limits.

Organic Comments

Sample concentrations are corrected for moisture content 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. See page 53 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01033 (B22V40 in work order 20091211)

All QC controls are within the established limits.

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 55 through 56 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01061 (B22RJ6 in work order 20091234)

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. See pages 57 through 67 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01086 (B23331 in work order 20091244)
- Batch QC analyzed on sample# W09GR01114 (B22TB3 in work order 20091257)

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 54 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01061 (B22RJ6 in work order 20091234)

All QC controls are within the established limits.

VOA – 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. See pages 68 through 71 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01035 (B22V38 in work order 20091211)
- B22RJ8 and B22RK1 – Analyses of these Methanol Blank samples and their associated high concentration VOA samples were not required.

All QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for these analyses was met. A Duplicate, Matrix Spike (Matrix Spikes apply only to Technetium), Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 78 through 85 for QC details. Analytical Note(s):

- Rad Chem requested to be performed included: Americium-241 by AEA, Gamma Energy Analysis, Gross Alpha and Beta analysis, Plutonium Isotopic and Uranium Isotopic by AEA, Strontium-89/90, and Technetium-99 by LSC.
- Americium-241:
    - Batch QC analyzed on sample# W09GR01061 (B22RJ6 in work order 20091234)

    All QC controls are within the established limits.
- Gamma Energy Analysis:

- Batch QC analyzed on sample# W09GR01061 (B22RJ6 in work order 20091234)

All QC controls are within the established limits.

- Gross Alpha / Gross Beta:
  - Batch QC analyzed on sample# W09GR01061 (B22RJ6 in work order 20091234)
  - High Alpha activity will spill over into the Beta channel and will bias the Gross Beta result high. No flag issued.

All QC controls are within the established limits.

- Isotopic Plutonium analysis:
  - Batch QC analyzed on sample# W09GR01061 (B22RJ6 in work order 20091234)

All QC controls are within the established limits.

- Isotopic Uranium analysis:
  - Batch QC analyzed on sample# W09GR01061 (B22RJ6 in work order 20091234)
  - Uranium-238 Duplicate Relative Percent Differences (RPD) exceeded established laboratory limits. The RPD criterion does not apply to results near or below the minimum detectable activity. No flags issued.
  - The Uranium-238 Blank is less than two times the MDC. "B" Flag is not required.

All other QC controls are within the established limits.

- Strontium-89/90:
  - Batch QC analyzed on sample# W09GR01061 (B22RJ6 in work order 20091234)
  - Duplicate is flagged for poor RPD due to heterogeneity of the sample.

All other QC controls are within the established limits.

- Technetium-99:
  - Batch QC analyzed on sample# W09GR01033 (B22V40 in work order 20091211)
  - Duplicate Relative Percent Differences (RPD) exceeded established laboratory limits. The RPD criterion does not apply to results near or below the minimum detectable activity. No flags issued.

- The Blank is less than two times the MDC. "B" Flag is not required.

All other QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by the following signatures.

Scot L. Fitzgerald
WSCF Analytical Laboratory Manager

Heather Medley
WSCF Client Services

2/17/2010

Problem and Discrepancy Report
WSCF
SDG WSCF20091234

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1. The data package has the following issues:

a) Case narrative, **Introduction,** page 5/100 first paragraph, second sentence – Since not all of the samples received by the WSCF were analyzed in accordance with COC requirements, please include additional wording, so that it is clear that only 4 samples were analyzed.

Resolution: *Provide discussion.*
Lab Response: **Discussion provided: "However, only four of the samples were analyzed; samples B22RJ8 and B22RK1 were not needed to perform the requested analyses."**

b) Case narrative, for Inorganic, Organics, and radchem comments - Please identify the HEIS, SAF and SDG numbers associated with the Batch QC sample (matrix spike and matrix spike duplicate).

Resolution: *Provide corrections.*
Lab Response: **HEIS, SAF, and SDG numbers associated with the Batch QC samples supplied.**

c) Case narrative, Inorganic Comments, ICP-MS, page 6 of 67, second sub-bullet - Please correct the analytical comment to state that the Matrix Spike Duplicate recoveries were outside acceptable limits.

Resolution: *Provide correction.*
Lab Response: **Comment corrected to read "Matrix Spike Duplicate".**

d) Case narrative, Radiochemistry Comments, Tc-99– Provide an analytical comment regarding application of the "B" qualifier.

Resolution: *Provide correction.*
Lab Response: **Analytical comment added: "The Blank is less than two times the MDC. 'B' Flag is not required."**

e) Analytical Results report, for U-238 and Tc-99 – Review analytical results and "B" qualify.

Resolution: *Provide correction.*

Lab Response: **"B" qualification not required. Analytical comment added: "The Uranium-238 Blank is less than two times the MDC. 'B' Flag is not required."**

f) Case narrative, Radiochemistry Comments, Uranium-238, page 8 of 100 - Please identify the Uranium isotope (U-238).

Resolution: *Provide correction.*

Lab Response: **Uranium-238 isotope identified in Radiochemistry comments.**

g) Case narrative, Radiochemistry Comments, U-238, page 8 of 100 – Please provide a brief analytical comment about the blank contamination impact on sample data. Also, include in the analytical comment a statement regarding application of the "B" qualifier.

Resolution: *Provide correction.*

Lab Response: **See (e) above.**

Please correct the issues and resubmit the hard copy and electronic data package.

42100-SLF-10-212

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 77 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. Fitzgerald 6/2/10

Client Services: Heather Medley Heather Medley 6/2/10

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

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Contract#: MOA-FH-CHPRC-2008
Report#: WSCF20091234
Report Date: 19-may-2010
Report WGPP/ver. 5.2
Groundwater Remediation Program

w13qlog v4.2 19-may-2010 12:41:24

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20091234

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
				SAMPLE	W09GR01061	Percent Solids
				SAMPLE	W09GR01072	Percent Solids
40273	2	40701	45268	BLANK		Anions by Ion Chromatography
40273	14	40701	45268	BLANK		Anions by Ion Chromatography
40273	3	40701	45268	LCS		Anions by Ion Chromatography
40273	5	40701	45268	DUP	W09GR01037	Anions by Ion Chromatography
40273	6	40701	45268	MS	W09GR01037	Anions by Ion Chromatography
40273	7	40701	45268	MSD	W09GR01037	Anions by Ion Chromatography
40273	7	40701	45268	SPK-RPD	W09GR01037	Anions by Ion Chromatography
40273	12	40701	45268	SAMPLE	W09GR01061	Anions by Ion Chromatography
40273	13	40701	45268	SAMPLE	W09GR01072	Anions by Ion Chromatography
40275	1	40703	45269	BLANK		Ammonia (N) by IC
40275	11	40703	45269	BLANK		Ammonia (N) by IC
40275	3	40703	45269	LCS		Ammonia (N) by IC
40275	5	40703	45269	DUP	W09GR01037	Ammonia (N) by IC
40275	6	40703	45269	MS	W09GR01037	Ammonia (N) by IC
40275	7	40703	45269	MSD	W09GR01037	Ammonia (N) by IC
40275	7	40703	45269	SPK-RPD	W09GR01037	Ammonia (N) by IC
40275	9	40703	45269	SAMPLE	W09GR01061	Ammonia (N) by IC
40275	10	40703	45269	SAMPLE	W09GR01072	Ammonia (N) by IC
40269	2	40698	45270	BLNK-PREP		Hexavalent chromium
40269	3	40698	45270	LCS		Hexavalent chromium
40269	5	40698	45270	DUP	W09GR01036	Hexavalent chromium
40269	6	40698	45270	MS	W09GR01036	Hexavalent chromium
40269	7	40698	45270	MSD	W09GR01036	Hexavalent chromium
40269	9	40698	45270	SPK-POST	W09GR01036	Hexavalent chromium
40269	7	40698	45270	SPK-RPD	W09GR01036	Hexavalent chromium
40269	18	40698	45270	SAMPLE	W09GR01061	Hexavalent chromium
40269	19	40698	45270	SAMPLE	W09GR01072	Hexavalent chromium
40293	18	40726	45282	BLANK		ICP-200.8 MS All possible meta
40293	19	40726	45282	LCS		ICP-200.8 MS All possible meta
40293	21	40726	45282	MS	W09GR01037	ICP-200.8 MS All possible meta
40293	22	40726	45282	MSD	W09GR01037	ICP-200.8 MS All possible meta
40293	22	40726	45282	SPK-RPD	W09GR01037	ICP-200.8 MS All possible meta
40293	27	40726	45282	SAMPLE	W09GR01061	ICP-200.8 MS All possible meta
40293	28	40726	45282	SAMPLE	W09GR01072	ICP-200.8 MS All possible meta
40295	1	40728	45296	BLANK		ICP Metals Analysis, Grd H20 P
40295	2	40728	45296	LCS		ICP Metals Analysis, Grd H20 P
40295	4	40728	45296	MS	W09GR01072	ICP Metals Analysis, Grd H20 P
40295	5	40728	45296	MSD	W09GR01072	ICP Metals Analysis, Grd H20 P
40295	3	40728	45296	SAMPLE	W09GR01072	ICP Metals Analysis, Grd H20 P
40295	5	40728	45296	SPK-RPD	W09GR01072	ICP Metals Analysis, Grd H20 P
40296	1	40729	45298	BLANK		ICP Metals Analysis, Grd H20 P
40296	2	40729	45298	LCS		ICP Metals Analysis, Grd H20 P
40296	6	40729	45298	SAMPLE	W09GR01061	ICP Metals Analysis, Grd H20 P
40296	4	40729	45298	MS	W09GR01099	ICP Metals Analysis, Grd H20 P

40296	5	40729	45298	MSD	W09GR01099	ICP Metals Analysis, Grd H20 P
40296	5	40729	45298	SPK-RPD	W09GR01099	ICP Metals Analysis, Grd H20 P
40372	1	40809	45365	BLANK		Cyanide by Midi/Spectrophotom
40372	2	40809	45365	LCS		Cyanide by Midi/Spectrophotom
40372	3	40809	45365	SAMPLE	W09GR01061	Cyanide by Midi/Spectrophotom
40372	4	40809	45365	SAMPLE	W09GR01072	Cyanide by Midi/Spectrophotom
40372	6	40809	45365	MS	W09GR01086	Cyanide by Midi/Spectrophotom
40372	7	40809	45365	MSD	W09GR01086	Cyanide by Midi/Spectrophotom
40372	7	40809	45365	SPK-RPD	W09GR01086	Cyanide by Midi/Spectrophotom

w13qlog v4.2 19-may-2010 12:41:24

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20091234

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			45287	BLANK		PCBs complete list
			45287	LCS		PCBs complete list
			45287	MS	W09GR01061	PCBs complete list
			45287	MSD	W09GR01061	PCBs complete list
			45287	SAMPLE	W09GR01061	PCBs complete list
			45287	SPK-RPD	W09GR01061	PCBs complete list
			45287	SURR	W09GR01061	PCBs complete list
			45287	SAMPLE	W09GR01072	PCBs complete list
			45287	SURR	W09GR01072	PCBs complete list
			45317	BLANK		SW-846 8270C Semi-Vols
			45317	LCS		SW-846 8270C Semi-Vols
			45317	SAMPLE	W09GR01061	SW-846 8270C Semi-Vols
			45317	SURR	W09GR01061	SW-846 8270C Semi-Vols
			45317	MS	W09GR01086	SW-846 8270C Semi-Vols
			45317	MSD	W09GR01086	SW-846 8270C Semi-Vols
			45317	SPK-RPD	W09GR01086	SW-846 8270C Semi-Vols
			45343	BLANK		SW-846 8270C Semi-Vols
			45343	LCS		SW-846 8270C Semi-Vols
			45343	SAMPLE	W09GR01072	SW-846 8270C Semi-Vols
			45343	SURR	W09GR01072	SW-846 8270C Semi-Vols
			45343	MS	W09GR01114	SW-846 8270C Semi-Vols
			45343	MSD	W09GR01114	SW-846 8270C Semi-Vols
			45343	SPK-RPD	W09GR01114	SW-846 8270C Semi-Vols
			45404	BLANK		VOA Ground Water Protection
			45404	LCS		VOA Ground Water Protection
			45404	MS	W09GR01035	VOA Ground Water Protection
			45404	MSD	W09GR01035	VOA Ground Water Protection
			45404	SPK-RPD	W09GR01035	VOA Ground Water Protection
			45404	SAMPLE	W09GR01071	VOA Ground Water Protection
			45404	SURR	W09GR01071	VOA Ground Water Protection
			45404	SAMPLE	W09GR01074	VOA Ground Water Protection
			45404	SURR	W09GR01074	VOA Ground Water Protection
40401	1	40837	45405	BLANK		Alcohols, Glycols - 8015
40401	2	40837	45405	LCS		Alcohols, Glycols - 8015
40401	4	40837	45405	DUP	W09GR01033	Alcohols, Glycols - 8015
40401	5	40837	45405	MS	W09GR01033	Alcohols, Glycols - 8015
40401	6	40837	45405	MSD	W09GR01033	Alcohols, Glycols - 8015
40401	6	40837	45405	SPK-RPD	W09GR01033	Alcohols, Glycols - 8015
40401	9	40837	45405	SAMPLE	W09GR01061	Alcohols, Glycols - 8015
40401	10	40837	45405	SAMPLE	W09GR01072	Alcohols, Glycols - 8015
			45412	BLANK		NWTPH-D TPH Diesel Range (Wa)
			45412	LCS		NWTPH-D TPH Diesel Range (Wa)
			45412	MS	W09GR01061	NWTPH-D TPH Diesel Range (Wa)
			45412	MSD	W09GR01061	NWTPH-D TPH Diesel Range (Wa)
			45412	SAMPLE	W09GR01061	NWTPH-D TPH Diesel Range (Wa)
			45412	SPK-RPD	W09GR01061	NWTPH-D TPH Diesel Range (Wa)
			45412	SURR	W09GR01061	NWTPH-D TPH Diesel Range (Wa)

45412	SAMPLE	W09GR01072	NWTPH-D TPH Diesel Range (Wa)
45412	SURR	W09GR01072	NWTPH-D TPH Diesel Range (Wa)

w13qlog v4.2 19-may-2010 12:41:24

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20091234

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
40325	1	40759	45318	BLANK		Uranium Isotopics by AEA
40325	2	40759	45318	LCS		Uranium Isotopics by AEA
40325	3	40759	45318	DUP	W09GR01061	Uranium Isotopics by AEA
40325	4	40759	45318	SAMPLE	W09GR01061	Uranium Isotopics by AEA
40325	5	40759	45318	SURR	W09GR01061	Uranium Isotopics by AEA
40325	6	40759	45318	SAMPLE	W09GR01072	Uranium Isotopics by AEA
40325	7	40759	45318	SURR	W09GR01072	Uranium Isotopics by AEA
40277	1	40706	45321	BLANK		TC99 by Liquid Scin.
40277	2	40706	45321	LCS		TC99 by Liquid Scin.
40277	4	40706	45321	DUP	W09GR01033	TC99 by Liquid Scin.
40277	3	40706	45321	MS	W09GR01033	TC99 by Liquid Scin.
40277	8	40706	45321	SAMPLE	W09GR01061	TC99 by Liquid Scin.
40277	9	40706	45321	SAMPLE	W09GR01072	TC99 by Liquid Scin.
40264	1	40693	45350	BLANK		Gamma Energy Analysis-grd H2O
40264	2	40693	45350	LCS		Gamma Energy Analysis-grd H2O
40264	3	40693	45350	DUP	W09GR01061	Gamma Energy Analysis-grd H2O
40264	4	40693	45350	SAMPLE	W09GR01061	Gamma Energy Analysis-grd H2O
40264	5	40693	45350	SAMPLE	W09GR01072	Gamma Energy Analysis-grd H2O
40420	1	40858	45433	BLANK		Strontium 89/90
40420	2	40858	45433	LCS		Strontium 89/90
40420	3	40858	45433	DUP	W09GR01061	Strontium 89/90
40420	4	40858	45433	SAMPLE	W09GR01061	Strontium 89/90
40420	5	40858	45433	SURR	W09GR01061	Strontium 89/90
40420	6	40858	45433	SAMPLE	W09GR01072	Strontium 89/90
40420	7	40858	45433	SURR	W09GR01072	Strontium 89/90
40270	1	40699	45439	BLANK		Gross Alpha on Alpha Plateau
40270	2	40699	45439	LCS		Gross Alpha on Alpha Plateau
40270	3	40699	45439	DUP	W09GR01061	Gross Alpha on Alpha Plateau
40270	4	40699	45439	SAMPLE	W09GR01061	Gross Alpha on Alpha Plateau
40270	5	40699	45439	SAMPLE	W09GR01072	Gross Alpha on Alpha Plateau
40271	1	40700	45440	BLANK		Gross Alpha/Gross Beta (AB32)
40271	2	40700	45440	LCS		Gross Alpha/Gross Beta (AB32)
40271	3	40700	45440	DUP	W09GR01061	Gross Alpha/Gross Beta (AB32)
40271	4	40700	45440	SAMPLE	W09GR01061	Gross Alpha/Gross Beta (AB32)
40271	5	40700	45440	SAMPLE	W09GR01072	Gross Alpha/Gross Beta (AB32)
40326	1	40760	45448	BLANK		Plutonium Isotopics by AEA
40326	2	40760	45448	LCS		Plutonium Isotopics by AEA
40326	3	40760	45448	DUP	W09GR01061	Plutonium Isotopics by AEA
40326	4	40760	45448	SAMPLE	W09GR01061	Plutonium Isotopics by AEA
40326	5	40760	45448	SURR	W09GR01061	Plutonium Isotopics by AEA
40326	6	40760	45448	SAMPLE	W09GR01072	Plutonium Isotopics by AEA
40326	7	40760	45448	SURR	W09GR01072	Plutonium Isotopics by AEA
40327	1	40761	45451	BLANK		Americium by AEA
40327	2	40761	45451	LCS		Americium by AEA
40327	3	40761	45451	DUP	W09GR01061	Americium by AEA

40327	4	40761	45451	SAMPLE	W09GR01061	Americium by AEA
40327	5	40761	45451	SURR	W09GR01061	Americium by AEA
40327	6	40761	45451	SAMPLE	W09GR01072	Americium by AEA
40327	7	40761	45451	SURR	W09GR01072	Americium 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-265-403 LA-265-403: Hexavalent Chromium analysis by Spectrophotometer
None No reference to any industry method.

LA-503-401 LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY
None No reference to any industry method.

LA-505-411 LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE
None No reference to any industry method.

LA-505-412 LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY
None No reference to any industry method.

LA-519-412 LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C
None No reference to any industry method.

LA-533-410 LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY
None No reference to any industry method.

LA-695-402 LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC
None No reference to any industry method.

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

WSCF
METHOD REFERENCES REPORT

Department: Organic

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

LA-523-427	LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY	
	EPA SW-846 8082A	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
LA-523-455	LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846	
	None	No reference to any industry method.
LA-523-456	LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C	
	None	No reference to any industry method.
LA-523-493	NWTPH-Diesel and/or Gasoline	
	None	No reference to any industry method.
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
None No reference to any industry method.

LA-508-421 LA-508-421: OPERATION OF THE TRI-CARB MODEL 2500TR LIQUID SCINTILLATION ANALYZER
None No reference to any industry method.

LA-508-471 LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP
None No reference to any industry method.

LA-508-481 LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE
None No reference to any industry method.

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: F10-011
Sample # W09GR01061
Client ID: B22RJ6 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20091234
Department: Inorganic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography Prep											**12/01/09**
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	BD	2.70	mg/kg			49.74	1.5		12/01/09
Chloride	16887-00-6	LA-533-410	BD	3.32	mg/kg			49.74	2.1		12/01/09
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.895	mg/kg			49.74	0.90		12/01/09
Nitrogen in Nitrate	NO3-N	LA-533-410	BD	1.87	mg/kg			49.74	1.5		12/01/09
Phosphate (P) by IC	PO4-P	LA-533-410	DU	< 3.48	mg/kg			49.74	3.5		12/01/09
Sulfate	14808-79-8	LA-533-410	BD	48.7	mg/kg			49.74	3.3		12/01/09
Cyanide											
Cyanide	57-12-5	LA-695-402	UX	< 0.200	mg/kg			1.00	0.20		12/10/09
Hexavalent Chromium Prep											**12/01/09**
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-265-403		0.600	mg/kg			1.00	0.10		12/02/09
ICP Metals Analysis, Grd H20 P Prep											**12/04/09**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		1.45e+04	mg/kg			96.97	1.7		12/06/09
Lithium	7439-93-2	LA-505-411		7.48	mg/kg			96.97	0.39		12/06/09
Boron	7440-42-8	LA-505-411	BE	7.71	mg/kg			96.97	1.8		12/06/09
Bismuth	7440-69-9	LA-505-411	U	< 2.23	mg/kg			96.97	2.2		12/06/09
ICP-200.8 MS All possible meta Prep											**12/03/09**
ICP-200.8 MS All possible meta											
Aluminum	7429-90-5	LA-505-412	X	5.23e+03	mg/kg			1.01	5.04		12/03/09
Manganese	7439-96-5	LA-505-412	N	97.9	mg/kg			1.01	0.101		12/03/09
Nickel	7440-02-0	LA-505-412		5.47	mg/kg			1.01	0.202		12/03/09
Silver	7440-22-4	LA-505-412		0.120	mg/kg			1.01	0.101		12/03/09

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)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor
E - Analyte is an estimate, has potentially larger errors(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: F10-011
Sample # W09GR01061
Client ID: B22RJ6 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20091234
Department: Inorganic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Antimony	7440-36-0	LA-505-412	U	< 0.302	mg/kg			1.01	0.302		12/03/09
Barium	7440-39-3	LA-505-412		58.1	mg/kg			1.01	0.202		12/03/09
Beryllium	7440-41-7	LA-505-412		0.130	mg/kg			1.01	0.0504		12/03/09
Cadmium	7440-43-9	LA-505-412	U	< 0.101	mg/kg			1.01	0.101		12/03/09
Chromium	7440-47-3	LA-505-412		37.8	mg/kg			1.01	0.504		12/03/09
Cobalt	7440-48-4	LA-505-412		2.78	mg/kg			1.01	0.0504		12/03/09
Copper	7440-50-8	LA-505-412		8.02	mg/kg			1.01	0.101		12/03/09
Vanadium	7440-62-2	LA-505-412		30.9	mg/kg			1.01	0.202		12/03/09
Zinc	7440-66-6	LA-505-412		24.3	mg/kg			1.01	0.806		12/03/09
Lead	7439-92-1	LA-505-412		6.14	mg/kg			1.01	0.101		12/03/09
Mercury	7439-97-6	LA-505-412		0.160	mg/kg			1.01	0.0504		12/03/09
Thorium	7440-29-1	LA-505-412		11.6	mg/kg			1.01	0.101		12/03/09
Uranium	7440-61-1	LA-505-412		0.570	mg/kg			1.01	0.0504		12/03/09
Arsenic	7440-38-2	LA-505-412		5.06	mg/kg			1.01	0.403		12/03/09
Selenium	7782-49-2	LA-505-412		0.670	mg/kg			1.01	0.302		12/03/09
Thallium	7440-28-0	LA-505-412	U	< 0.101	mg/kg			1.01	0.101		12/03/09
Strontium	7440-24-6	LA-505-412		16.7	mg/kg			1.01	0.101		12/03/09
Nitrogen in ammonium Prep											**12/01/09**
Nitrogen in ammonium											
Nitrogen in ammonium	NH4-N	LA-503-401	DNU	< 8.55	mg/kg			49.74	8.55		12/02/09
Total solids											
Total solids	TS	LA-519-412		88.8	Percent			1.00	0.0		12/03/09

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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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: F10-011
Sample # W09GR01072
Client ID: B22RJ9 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20091234
Department: Inorganic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography Prep											**12/01/09**
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	DU	< 1.48	mg/kg			49.40	1.5		12/01/09
Chloride	16887-00-6	LA-533-410	DU	< 2.12	mg/kg			49.40	2.1		12/01/09
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.889	mg/kg			49.40	0.89		12/01/09
Nitrogen in Nitrate	NO3-N	LA-533-410	DU	< 1.53	mg/kg			49.40	1.5		12/01/09
Phosphate (P) by IC	PO4-P	LA-533-410	DU	< 3.46	mg/kg			49.40	3.5		12/01/09
Sulfate	14808-79-8	LA-533-410	BD	31.1	mg/kg			49.40	3.3		12/01/09
Cyanide											
Cyanide	57-12-5	LA-695-402	UX	< 0.200	mg/kg			1.00	0.20		12/10/09
Hexavalent Chromium Prep											**12/01/09**
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-265-403		1.31	mg/kg			1.00	0.10		12/02/09
ICP Metals Analysis, Grd H20 P Prep											**12/04/09**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		1.66e+04	mg/kg			98.42	1.8		12/06/09
Lithium	7439-93-2	LA-505-411		10.4	mg/kg			98.42	0.39		12/06/09
Boron	7440-42-8	LA-505-411	E	10.4	mg/kg			98.42	1.9		12/06/09
Bismuth	7440-69-9	LA-505-411	U	< 2.26	mg/kg			98.42	2.3		12/06/09
ICP-200.8 MS All possible meta Prep											**12/03/09**
ICP-200.8 MS All possible meta											
Aluminum	7429-90-5	LA-505-412	X	5.97e+03	mg/kg			1.00	4.98		12/03/09
Manganese	7439-96-5	LA-505-412	N	204	mg/kg			1.00	0.0997		12/03/09
Nickel	7440-02-0	LA-505-412		16.1	mg/kg			1.00	0.199		12/03/09
Silver	7440-22-4	LA-505-412	U	< 0.0997	mg/kg			1.00	0.0997		12/03/09

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)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor
E - Analyte is an estimate, has potentially larger errors(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: F10-011
Sample # W09GR01072
Client ID: B22RJ9 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20091234
Department: Inorganic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Antimony	7440-36-0	LA-505-412	U	< 0.299	mg/kg			1.00	0.299		12/03/09
Barium	7440-39-3	LA-505-412		109	mg/kg			1.00	0.199		12/03/09
Beryllium	7440-41-7	LA-505-412		0.210	mg/kg			1.00	0.0498		12/03/09
Cadmium	7440-43-9	LA-505-412	U	< 0.0997	mg/kg			1.00	0.0997		12/03/09
Chromium	7440-47-3	LA-505-412		80.7	mg/kg			1.00	0.498		12/03/09
Cobalt	7440-48-4	LA-505-412		4.56	mg/kg			1.00	0.0498		12/03/09
Copper	7440-50-8	LA-505-412		13.7	mg/kg			1.00	0.0997		12/03/09
Vanadium	7440-62-2	LA-505-412		27.3	mg/kg			1.00	0.199		12/03/09
Zinc	7440-66-6	LA-505-412		27.8	mg/kg			1.00	0.797		12/03/09
Lead	7439-92-1	LA-505-412		4.89	mg/kg			1.00	0.0997		12/03/09
Mercury	7439-97-6	LA-505-412		0.0500	mg/kg			1.00	0.0498		12/03/09
Thorium	7440-29-1	LA-505-412		3.06	mg/kg			1.00	0.0997		12/03/09
Uranium	7440-61-1	LA-505-412		3.87	mg/kg			1.00	0.0498		12/03/09
Arsenic	7440-38-2	LA-505-412		4.46	mg/kg			1.00	0.399		12/03/09
Selenium	7782-49-2	LA-505-412		0.690	mg/kg			1.00	0.299		12/03/09
Thallium	7440-28-0	LA-505-412	U	< 0.0997	mg/kg			1.00	0.0997		12/03/09
Strontium	7440-24-6	LA-505-412		22.5	mg/kg			1.00	0.0997		12/03/09
Nitrogen in ammonium Prep											**12/01/09**
Nitrogen in ammonium											
Nitrogen in ammonium	NH4-N	LA-503-401	DNU	< 8.50	mg/kg			49.40	8.50		12/02/09
Total solids											
Total solids	TS	LA-519-412		96.3	Percent			1.00	0.0		12/03/09

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)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor
E - Analyte is an estimate, has potentially larger errors(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
Matrix: SOLID
Test: Ammonia (N) by IC

Sample Date: 11/23/09
Receive Date:11/23/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01037											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Ammonia (N) by IC	7664-41-7	<8.588837		RPD			n/a	20.000	U	12/02/09
MS	Ammonia (N) by IC	7664-41-7	0.311586	62.317	% Recov	80.000	120.000		*		12/02/09
MSD	Ammonia (N) by IC	7664-41-7	0.313114	62.623	% Recov	80.000	120.000		*		12/02/09
SPK-RPD	Ammonia (N) by IC	7664-41-7	62.623		RPD			0.490	20.000		12/02/09
BATCH QC											
BLANK	Ammonia (N) by IC	7664-41-7	<0.172	n/a	mg/L	0.000	0.002			U	12/01/09
BLANK	Ammonia (N) by IC	7664-41-7	<0.172	n/a	mg/L	0.000	0.002			U	12/02/09
LCS	Ammonia (N) by IC	7664-41-7	105.116	105.116	% Recov	80.000	120.000				12/01/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
Matrix: SOLID
Test: Anions by Ion Chromatography

Sample Date: 11/23/09
Receive Date:11/23/09

Lab ID: W09GR01037
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	<2.147205		RPD			n/a	20.000	U	12/01/09
DUP	Fluoride	16984-48-8	<1.49805		RPD			n/a	20.000	U	12/01/09
DUP	Nitrogen in Nitrite	NO2-N	<0.89883		RPD			n/a	20.000	U	12/01/09
DUP	Nitrogen in Nitrate	NO3-N	4.064		RPD			0.815	20.000		12/01/09
DUP	Phosphate (P) by IC	PO4-P	<3.49545		RPD			n/a	20.000	U	12/01/09
DUP	Sulfate	14808-79-8	7.349		RPD			21.222	20.000 •		12/01/09
MS	Chloride	16887-00-6	0.983714	98.866	% Recov	80.000	120.000				12/01/09
MS	Fluoride	16984-48-8	0.470196	92.195	% Recov	80.000	120.000				12/01/09
MS	Nitrogen in Nitrite	NO2-N	0.482299	97.042	% Recov	80.000	120.000				12/01/09
MS	Nitrogen in Nitrate	NO3-N	0.467199	103.822	% Recov	80.000	120.000				12/01/09
MS	Phosphate (P) by IC	PO4-P	0.839947	86.861	% Recov	80.000	120.000				12/01/09
MS	Sulfate	14808-79-8	1.917348	95.867	% Recov	80.000	120.000				12/01/09
MSD	Chloride	16887-00-6	0.989461	99.443	% Recov	80.000	120.000				12/01/09
MSD	Fluoride	16984-48-8	0.456105	89.432	% Recov	80.000	120.000				12/01/09
MSD	Nitrogen in Nitrite	NO2-N	0.495295	99.657	% Recov	80.000	120.000				12/01/09
MSD	Nitrogen in Nitrate	NO3-N	0.470758	104.613	% Recov	80.000	120.000				12/01/09
MSD	Phosphate (P) by IC	PO4-P	0.840445	86.913	% Recov	80.000	120.000				12/01/09
MSD	Sulfate	14808-79-8	1.898545	94.927	% Recov	80.000	120.000				12/01/09
SPK-RPD	Chloride	16887-00-6	99.443		RPD			0.582	20.000		12/01/09
SPK-RPD	Fluoride	16984-48-8	89.432		RPD			3.042	20.000		12/01/09
SPK-RPD	Nitrogen in Nitrite	NO2-N	99.657		RPD			2.659	20.000		12/01/09
SPK-RPD	Nitrogen in Nitrate	NO3-N	104.613		RPD			0.759	20.000		12/01/09
SPK-RPD	Phosphate (P) by IC	PO4-P	86.913		RPD			0.060	20.000		12/01/09
SPK-RPD	Sulfate	14808-79-8	94.927		RPD			0.985	20.000		12/01/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
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	<4.3e-2	n/a	mg/L	0.000	0.030			U	12/01/09
BLANK	Chloride	16887-00-6	<4.3e-2	n/a	mg/L	0.000	0.030			U	12/01/09
BLANK	Fluoride	16984-48-8	<3e-2	n/a	mg/L	0.000	0.030			U	12/01/09
BLANK	Fluoride	16984-48-8	<3e-2	n/a	mg/L	0.000	0.030			U	12/01/09
BLANK	Nitrogen in Nitrite	NO2-N	<1.8e-2	n/a	mg/L	0.000	0.020			U	12/01/09
BLANK	Nitrogen in Nitrite	NO2-N	<1.8e-2	n/a	mg/L	0.000	0.020			U	12/01/09
BLANK	Nitrogen in Nitrate	NO3-N	<3.1e-2	n/a	mg/L	0.000	0.040			U	12/01/09
BLANK	Nitrogen in Nitrate	NO3-N	<3.1e-2	n/a	mg/L	0.000	0.040			U	12/01/09
BLANK	Phosphate (P) by IC	PO4-P	<7e-2	n/a	mg/L	0.000	0.200			U	12/01/09
BLANK	Phosphate (P) by IC	PO4-P	<7e-2	n/a	mg/L	0.000	0.200			U	12/01/09
BLANK	Sulfate	14808-79-8	<6.6e-2	n/a	mg/L	0.000	0.200			U	12/01/09
BLANK	Sulfate	14808-79-8	<6.6e-2	n/a	mg/L	0.000	0.200			U	12/01/09
LCS	Chloride	16887-00-6	190.433	95.695	% Recov	80.000	120.000				12/01/09
LCS	Fluoride	16984-48-8	97.918	95.998	% Recov	80.000	120.000				12/01/09
LCS	Nitrogen in Nitrite	NO2-N	98.609	99.204	% Recov	80.000	120.000				12/01/09
LCS	Nitrogen in Nitrate	NO3-N	89.39	99.433	% Recov	80.000	120.000				12/01/09
LCS	Phosphate (P) by IC	PO4-P	185.161	95.740	% Recov	80.000	120.000				12/01/09
LCS	Sulfate	14808-79-8	376.596	94.149	% Recov	80.000	120.000				12/01/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
Matrix: SOLID
Test: Cyanide by Midi/Spectrophotom

Sample Date: 12/01/09
Receive Date:12/01/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01086											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	1.79	89.500	% Recov	75.000	125.000				12/10/09
MSD	Cyanide by Midi/Spectrophotom	57-12-5	1.83	91.500	% Recov	75.000	125.000				12/10/09
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	91.500		RPD			2.210	20.000		12/10/09
BATCH QC											
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	<0.2	n/a	ug/L	-4.000	4.000			U	12/10/09
LCS	Cyanide by Midi/Spectrophotom	57-12-5	63.1	115.356	% Recov	85.000	115.000				12/10/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
Matrix: SOLID
Test: Hexavalent chromium

Sample Date: 11/23/09
Receive Date: 11/23/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01036											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Hexavalent chromium	18540-29-9	< 0.10		RPD			n/a	15.000	U	12/02/09
MS	Hexavalent chromium	18540-29-9	16.6	90.710	% Recov	75.000	125.000				12/02/09
MS	Hexavalent chromium	18540-29-9	384	75.294	% Recov	75.000	125.000				12/02/09
MSD	Hexavalent chromium	18540-29-9	17.2	91.489	% Recov	75.000	125.000				12/02/09
SPK-POST	Hexavalent chromium	18540-29-9	0.0544	101.873	% Recov	75.000	125.000				12/02/09
SPK-RPD	Hexavalent chromium	18540-29-9	91.489		RPD			0.855	20.000		12/02/09
BATCH QC											
BLNK-PREP	Hexavalent chromium	18540-29-9	< 0.10	n/a	ug/g	0.000	2.000			U	12/02/09
LCS	Hexavalent chromium	18540-29-9	16.9	91.848	% Recov	80.000	120.000				12/02/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 11/30/09
Receive Date: 11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01072											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Boron	7440-42-8	94.18	95.131	% Recov	75.000	125.000				12/06/09
MS	Bismuth	7440-69-9	99.94	100.949	% Recov	75.000	125.000				12/06/09
MS	Iron	7439-89-6	-790	-797.980	% Recov	75.000	125.000			*	12/06/09
MS	Lithium	7439-93-2	52.71	105.420	% Recov	70.000	130.000				12/06/09
MSD	Boron	7440-42-8	93.68	94.626	% Recov	75.000	125.000				12/06/09
MSD	Bismuth	7440-69-9	99.3	100.303	% Recov	75.000	125.000				12/06/09
MSD	Iron	7439-89-6	-730	-737.374	% Recov	75.000	125.000			*	12/06/09
MSD	Lithium	7439-93-2	50.39	100.780	% Recov	75.000	125.000				12/06/09
SPK-RPD	Boron	7440-42-8	94.626		RPD			0.532	20.000		12/06/09
SPK-RPD	Bismuth	7440-69-9	100.303		RPD			0.642	20.000		12/06/09
SPK-RPD	Iron	7439-89-6	-737.374		RPD			-7.895	20.000 *		12/06/09
SPK-RPD	Lithium	7439-93-2	100.780		RPD			4.500	20.000		12/06/09
BATCH QC											
BLANK	Boron	7440-42-8	<1.9e-2	n/a	ug/mL					U	12/06/09
BLANK	Bismuth	7440-69-9	<2.3e-2	n/a	ug/mL					U	12/06/09
BLANK	Iron	7439-89-6	<1.8e-2	n/a	ug/mL					U	12/06/09
BLANK	Lithium	7439-93-2	<4e-3	n/a	ug/mL					U	12/06/09
LCS	Boron	7440-42-8	128.5	111.739	% Recov	45.000	156.000				12/06/09
LCS	Bismuth	7440-69-9	95.67	95.862	% Recov	80.000	120.000				12/06/09
LCS	Iron	7439-89-6	18570	138.582	% Recov	47.000	152.000				12/06/09
LCS	Lithium	7439-93-2	115.3	115.531	% Recov	80.000	120.000				12/06/09
Lab ID: W09GR01099											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Boron	7440-42-8	91.424	92.347	% Recov	75.000	125.000				12/06/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
Matrix: SOLID
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 12/01/09
Receive Date: 12/01/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Bismuth	7440-69-9	96.32	97.293	% Recov	75.000	125.000				12/06/09
MS	Iron	7439-89-6	-660	-666.667	% Recov	75.000	125.000		•		12/06/09
MS	Lithium	7439-93-2	48	96.000	% Recov	70.000	130.000				12/06/09
MSD	Boron	7440-42-8	91.094	92.014	% Recov	75.000	125.000				12/06/09
MSD	Bismuth	7440-69-9	95.6	96.566	% Recov	75.000	125.000				12/06/09
MSD	Iron	7439-89-6	250	252.525	% Recov	75.000	125.000		•		12/06/09
MSD	Lithium	7439-93-2	46.72	93.440	% Recov	75.000	125.000				12/06/09
SPK-RPD	Boron	7440-42-8	92.014		RPD			0.361	20.000		12/06/09
SPK-RPD	Bismuth	7440-69-9	96.566		RPD			0.750	20.000		12/06/09
SPK-RPD	Iron	7439-89-6	252.525		RPD			-443.902	20.000 •		12/06/09
SPK-RPD	Lithium	7439-93-2	93.440		RPD			2.703	20.000		12/06/09

BATCH QC

BLANK	Boron	7440-42-8	<1.9e-2	n/a	ug/mL					U	12/06/09
BLANK	Bismuth	7440-69-9	<2.3e-2	n/a	ug/mL					U	12/06/09
BLANK	Iron	7439-89-6	<1.8e-2	n/a	ug/mL					U	12/06/09
BLANK	Lithium	7439-93-2	<4e-3	n/a	ug/mL					U	12/06/09
LCS	Boron	7440-42-8	127.9	111.217	% Recov	45.000	156.000				12/06/09
LCS	Bismuth	7440-69-9	95.68	95.680	% Recov	80.000	120.000				12/06/09
LCS	Iron	7439-89-6	17330	129.328	% Recov	47.000	152.000				12/06/09
LCS	Lithium	7439-93-2	110.7	110.700	% Recov	80.000	120.000				12/06/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 11/23/09
Receive Date:11/23/09

Lab ID: W09GR01037
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	100.6	100.600	% Recov	70.000	130.000				12/03/09
MS	Aluminum	7429-90-5	1878	187.800	% Recov	70.000	130.000			•	12/03/09
MS	Arsenic	7440-38-2	103.02	103.020	% Recov	70.000	130.000				12/03/09
MS	Barium	7440-39-3	105.25	105.250	% Recov	70.000	130.000				12/03/09
MS	Beryllium	7440-41-7	100.92	100.920	% Recov	70.000	130.000				12/03/09
MS	Cadmium	7440-43-9	100.7	100.700	% Recov	70.000	130.000				12/03/09
MS	Cobalt	7440-48-4	94.88	94.880	% Recov	70.000	130.000				12/03/09
MS	Chromium	7440-47-3	95.81	95.810	% Recov	70.000	130.000				12/03/09
MS	Copper	7440-50-8	101.42	101.420	% Recov	70.000	130.000				12/03/09
MS	Mercury	7439-97-6	2.08	104.000	% Recov	70.000	130.000				12/03/09
MS	Manganese	7439-96-5	141.1	141.100	% Recov	70.000	130.000			•	12/03/09
MS	Nickel	7440-02-0	94.69	94.690	% Recov	70.000	130.000				12/03/09
MS	Lead	7439-92-1	100.03	100.030	% Recov	70.000	130.000				12/03/09
MS	Antimony	7440-36-0	93.06	93.060	% Recov	70.000	130.000				12/03/09
MS	Selenium	7782-49-2	101.05	101.050	% Recov	70.000	130.000				12/03/09
MS	Strontium	7440-24-6	111.75	111.750	% Recov	70.000	130.000				12/03/09
MS	Thorium	7440-29-1	100.9	100.900	% Recov	70.000	130.000				12/03/09
MS	Thallium	7440-28-0	100.9	100.900	% Recov	70.000	130.000				12/03/09
MS	Uranium	7440-61-1	100.58	100.580	% Recov	70.000	130.000				12/03/09
MS	Vanadium	7440-62-2	100.87	100.870	% Recov	70.000	130.000				12/03/09
MS	Zinc	7440-66-6	98.31	98.310	% Recov	70.000	130.000				12/03/09
MSD	Silver	7440-22-4	102.5	102.500	% Recov	70.000	130.000				12/03/09
MSD	Aluminum	7429-90-5	2736	273.600	% Recov	70.000	130.000			•	12/03/09
MSD	Arsenic	7440-38-2	107.22	107.220	% Recov	70.000	130.000				12/03/09
MSD	Barium	7440-39-3	113.85	113.850	% Recov	70.000	130.000				12/03/09
MSD	Beryllium	7440-41-7	106.92	106.920	% Recov	70.000	130.000				12/03/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 11/23/09
Receive Date:11/23/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Cadmium	7440-43-9	103.7	103.700	% Recov	70.000	130.000				12/03/09
MSD	Cobalt	7440-48-4	96.88	96.880	% Recov	70.000	130.000				12/03/09
MSD	Chromium	7440-47-3	98.51	98.510	% Recov	70.000	130.000				12/03/09
MSD	Copper	7440-50-8	95.72	95.720	% Recov	70.000	130.000				12/03/09
MSD	Mercury	7439-97-6	2.21	110.500	% Recov	70.000	130.000				12/03/09
MSD	Manganese	7439-96-5	157.5	157.500	% Recov	70.000	130.000				12/03/09
MSD	Nickel	7440-02-0	100.39	100.390	% Recov	70.000	130.000				12/03/09
MSD	Lead	7439-92-1	103.83	103.830	% Recov	70.000	130.000				12/03/09
MSD	Antimony	7440-36-0	96.15	96.150	% Recov	70.000	130.000				12/03/09
MSD	Selenium	7782-49-2	105.95	105.950	% Recov	70.000	130.000				12/03/09
MSD	Strontium	7440-24-6	118.25	118.250	% Recov	70.000	130.000				12/03/09
MSD	Thorium	7440-29-1	105.3	105.300	% Recov	70.000	130.000				12/03/09
MSD	Thallium	7440-28-0	104	104.000	% Recov	70.000	130.000				12/03/09
MSD	Uranium	7440-61-1	103.08	103.080	% Recov	70.000	130.000				12/03/09
MSD	Vanadium	7440-62-2	101.07	101.070	% Recov	70.000	130.000				12/03/09
MSD	Zinc	7440-66-6	102.51	102.510	% Recov	70.000	130.000				12/03/09
SPK-RPD	Silver	7440-22-4	102.500		RPD			1.871	20.000		12/03/09
SPK-RPD	Aluminum	7429-90-5	273.600		RPD			37.191	20.000 *		12/03/09
SPK-RPD	Arsenic	7440-38-2	107.220		RPD			3.995	20.000		12/03/09
SPK-RPD	Barium	7440-39-3	113.850		RPD			7.850	20.000		12/03/09
SPK-RPD	Beryllium	7440-41-7	106.920		RPD			5.774	20.000		12/03/09
SPK-RPD	Cadmium	7440-43-9	103.700		RPD			2.935	20.000		12/03/09
SPK-RPD	Cobalt	7440-48-4	96.880		RPD			2.086	20.000		12/03/09
SPK-RPD	Chromium	7440-47-3	98.510		RPD			2.779	20.000		12/03/09
SPK-RPD	Copper	7440-50-8	95.720		RPD			5.783	20.000		12/03/09
SPK-RPD	Mercury	7439-97-6	110.500		RPD			6.061	20.000		12/03/09
SPK-RPD	Manganese	7439-96-5	157.500		RPD			10.985	20.000		12/03/09
SPK-RPD	Nickel	7440-02-0	100.390		RPD			5.844	20.000		12/03/09
SPK-RPD	Lead	7439-92-1	103.830		RPD			3.728	20.000		12/03/09
SPK-RPD	Antimony	7440-36-0	96.150		RPD			3.266	20.000		12/03/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
Matrix: SOLID
Test: ICP-200.8 MS All possible meta

Sample Date: 11/23/09
Receive Date:11/23/09

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	105.950		RPD			4.734	20.000		12/03/09
SPK-RPD	Strontium	7440-24-6	118.250		RPD			5.652	20.000		12/03/09
SPK-RPD	Thorium	7440-29-1	105.300		RPD			4.268	20.000		12/03/09
SPK-RPD	Thallium	7440-28-0	104.000		RPD			3.026	20.000		12/03/09
SPK-RPD	Uranium	7440-61-1	103.080		RPD			2.455	20.000		12/03/09
SPK-RPD	Vanadium	7440-62-2	101.070		RPD			0.198	20.000		12/03/09
SPK-RPD	Zinc	7440-66-6	102.510		RPD			4.183	20.000		12/03/09

BATCH QC

BLANK	Silver	7440-22-4	<0.1	n/a	ug/L					U	12/03/09
BLANK	Aluminum	7429-90-5	<5	n/a	ug/L					U	12/03/09
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	12/03/09
BLANK	Barium	7440-39-3	<0.2	n/a	ug/L					U	12/03/09
BLANK	Beryllium	7440-41-7	<5e-2	n/a	ug/L					U	12/03/09
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L					U	12/03/09
BLANK	Cobalt	7440-48-4	<5e-2	n/a	ug/L					U	12/03/09
BLANK	Chromium	7440-47-3	<0.5	n/a	ug/L					U	12/03/09
BLANK	Copper	7440-50-8	<0.1	n/a	ug/L					U	12/03/09
BLANK	Mercury	7439-97-6	<5e-2	n/a	ug/L					U	12/03/09
BLANK	Manganese	7439-96-5	<0.1	n/a	ug/L					U	12/03/09
BLANK	Nickel	7440-02-0	<0.2	n/a	ug/L					U	12/03/09
BLANK	Lead	7439-92-1	<0.1	n/a	ug/L					U	12/03/09
BLANK	Antimony	7440-36-0	<0.3	n/a	ug/L					U	12/03/09
BLANK	Selenium	7782-49-2	<0.3	n/a	ug/L					U	12/03/09
BLANK	Strontium	7440-24-6	<0.1	n/a	ug/L					U	12/03/09
BLANK	Thorium	7440-29-1	<0.1	n/a	ug/L					U	12/03/09
BLANK	Thallium	7440-28-0	<0.1	n/a	ug/L					U	12/03/09
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	12/03/09
BLANK	Vanadium	7440-62-2	<0.2	n/a	ug/L					U	12/03/09
BLANK	Zinc	7440-66-6	<0.8	n/a	ug/L					U	12/03/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091234
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	Silver	7440-22-4	110.7	109.604	% Recov	81.000	128.000				12/03/09
LCS	Aluminum	7429-90-5	9086	110.000	% Recov	47.000	122.000				12/03/09
LCS	Arsenic	7440-38-2	143	108.333	% Recov	78.000	124.000				12/03/09
LCS	Barium	7440-39-3	326.1	102.226	% Recov	77.000	119.000				12/03/09
LCS	Beryllium	7440-41-7	98.55	110.112	% Recov	78.000	118.000				12/03/09
LCS	Cadmium	7440-43-9	71.15	106.992	% Recov	75.000	127.000				12/03/09
LCS	Cobalt	7440-48-4	75	102.599	% Recov	75.000	124.000				12/03/09
LCS	Chromium	7440-47-3	75.45	103.498	% Recov	67.000	119.000				12/03/09
LCS	Copper	7440-50-8	69.6	101.606	% Recov	68.000	122.000				12/03/09
LCS	Mercury	7439-97-6	8.3	100.242	% Recov	72.000	117.000				12/03/09
LCS	Manganese	7439-96-5	471.4	104.062	% Recov	72.000	123.000				12/03/09
LCS	Nickel	7440-02-0	58.71	105.594	% Recov	73.000	123.000				12/03/09
LCS	Lead	7439-92-1	139.4	107.231	% Recov	77.000	125.000				12/03/09
LCS	Antimony	7440-36-0	121.3	134.479	% Recov	65.000	203.000				12/03/09
LCS	Selenium	7782-49-2	187.5	116.460	% Recov	82.000	129.000				12/03/09
LCS	Strontium	7440-24-6	57.61	105.901	% Recov	77.000	118.000				12/03/09
LCS	Thorium	7440-29-1	398.9	99.725	% Recov	79.000	108.000				12/03/09
LCS	Thallium	7440-28-0	136.7	102.782	% Recov	55.000	130.000				12/03/09
LCS	Uranium	7440-61-1	406.9	101.725	% Recov	84.000	110.000				12/03/09
LCS	Vanadium	7440-62-2	87.64	105.590	% Recov	65.000	122.000				12/03/09
LCS	Zinc	7440-66-6	187.1	105.706	% Recov	75.000	130.000				12/03/09

REVISION 1

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F10-011

Group #: WSCF20091234
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS:Aluminum sample concentration more than 4X spike amount. Spike information not valid."X" flag Manganese spike recoveries above 130%. "N" flag Organics: Data moisture corrected and results reported on a dry weight basis. DTS ICP-AES: Sample W09GR1072 and W09GR1061 Estimated boron result due to iron interference; "E" flag. Iron sample result exceeds spiking level by a factor of 4 so spike recoveries are not valid. Sample result less than 5 times the MDL; "B" flag. Tc-99 & U-238 / Blank preps are less than 2 times the MDA. lmh U-238, Tc-99 batch dup is flagged for poor RPD due to the low countrate. RPD does not apply. Cyanide: LCS within acceptance range. Calibration standard was expired 12-1-09 was was verified against the new standard at 99% recovery "X" flag W09GR01061 & W09GR01072/Sr89/90 duplicate is flagged for

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

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WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F10-011

Group #: WSCF20091234
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
				poor RPD due to the inhomogeneity of the sample. Imh W09GR01061 high alpha acitivity will spill over into the beta channel and will bias the gross beta result high. IC Cation - MS/MSD out of limits. Possibly due to non-homogeneity of sample. Data N-flagged. DTS

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01061
Client ID: B22RJ6 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Alcohols, Glycols - 8015 Prep											**12/03/09**
Alcohols, Glycols - 8015											
Diethyl ether	60-29-7	Organics	U	< 5.00e+03	ug/kg			1.00	5.0e+03		12/03/09
Ethylene glycol	107-21-1	Organics	U	< 5.00e+03	ug/kg			1.00	5.0e+03		12/03/09
NWTPH-D TPH Diesel Range (Wa) Prep											**12/02/09**
NWTPH-D TPH Diesel Range (Wa)											
Total Pet. Hydrocarbons Diesel	TPHDIESEL	LA-523-493	U	< 5.60	mg/kg			1.00	5.6		12/08/09
Kerosene	TPHKEROSENE	LA-523-493	U	< 5.60	mg/kg			1.00	5.6		12/08/09
PCBs complete list Prep											**12/01/09**
PCBs complete list											
Aroclor-1016	12674-11-2	LA-523-427	U	< 11.0	ug/kg			1.00	11		12/04/09
Aroclor-1221	11104-28-2	LA-523-427	U	< 22.0	ug/kg			1.00	22		12/04/09
Aroclor-1232	11141-16-5	LA-523-427	U	< 11.0	ug/kg			1.00	11		12/04/09
Aroclor-1242	53469-21-9	LA-523-427	U	< 11.0	ug/kg			1.00	11		12/04/09
Aroclor-1248	12672-29-6	LA-523-427	U	< 11.0	ug/kg			1.00	11		12/04/09
Aroclor-1254	11097-69-1	LA-523-427	U	< 11.0	ug/kg			1.00	11		12/04/09
Aroclor-1260	11096-82-5	LA-523-427	U	< 11.0	ug/kg			1.00	11		12/04/09
Aroclor-1262	37324-23-5	LA-523-427	U	< 11.0	ug/kg			1.00	11		12/04/09
Aroclor-1268	11100-14-4	LA-523-427	U	< 11.0	ug/kg			1.00	11		12/04/09
SW-846 8270C Semi-Vols Prep											**12/02/09**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 370	ug/kg			1.00	3.7e+02		12/07/09
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 280	ug/kg			1.00	2.8e+02		12/07/09
Phenol	108-95-2	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09

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)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor
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U - Analyzed for but not detected above limiting criteria(inorg)
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01061
Client ID: B22RJ6 GPP TRENT WSCF

Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Pyrene	129-00-0	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Acenaphthene	83-32-9	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Pentachlorophenol	87-86-5	LA-523-456	U	< 450	ug/kg			1.00	4.5e+02		12/07/09
2-Chlorophenol	95-57-8	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
4-Nitroaniline	100-01-6	LA-523-456	U	< 310	ug/kg			1.00	3.1e+02		12/07/09
4-Bromophenylphenyl ether	101-55-3	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
2,4-Dimethylphenol	105-67-9	LA-523-456	U	< 250	ug/kg			1.00	2.5e+02		12/07/09
4-Chloroaniline	106-47-8	LA-523-456	U	< 320	ug/kg			1.00	3.2e+02		12/07/09
Bis(2-chloro-1-methylethyl)eth	108-60-1	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Bis(2-chloroethyl) ether	111-44-4	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Bis(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456	U	< 450	ug/kg			1.00	4.5e+02		12/07/09
Di-n-octylphthalate	117-84-0	LA-523-456	U	< 450	ug/kg			1.00	4.5e+02		12/07/09
Hexachlorobenzene	118-74-1	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Anthracene	120-12-7	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
2,4-Dichlorophenol	120-83-2	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		12/07/09
Dimethyl phthalate	131-11-3	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Dibenzofuran	132-64-9	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Benzo(ghi)perylene	191-24-2	LA-523-456	U	< 360	ug/kg			1.00	3.6e+02		12/07/09
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	< 370	ug/kg			1.00	3.7e+02		12/07/09
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	< 220	ug/kg			1.00	2.2e+02		12/07/09
Fluoranthene	206-44-0	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01061
Client ID: B22RJ6 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	< 230	ug/kg			1.00	2.3e+02		12/07/09
Acenaphthylene	208-96-8	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Chrysene	218-01-9	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Benzo(a)pyrene	50-32-8	LA-523-456	U	< 250	ug/kg			1.00	2.5e+02		12/07/09
2,4-Dinitrophenol	51-28-5	LA-523-456	U	< 700	ug/kg			1.00	7.0e+02		12/07/09
Dibenz[a,h]anthracene	53-70-3	LA-523-456	U	< 370	ug/kg			1.00	3.7e+02		12/07/09
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	< 370	ug/kg			1.00	3.7e+02		12/07/09
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	< 310	ug/kg			1.00	3.1e+02		12/07/09
Benzo(a)anthracene	56-55-3	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
4-Chlorophenylphenyl ether	7005-72-3	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Isophorone	78-59-1	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Diethylphthalate	84-66-2	LA-523-456	U	< 450	ug/kg			1.00	4.5e+02		12/07/09
Di-n-butylphthalate	84-74-2	LA-523-456	U	< 450	ug/kg			1.00	4.5e+02		12/07/09
Phenanthrene	85-01-8	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Butylbenzylphthalate	85-68-7	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
N-Nitrosodiphenylamine	86-30-6	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		12/07/09
Fluorene	86-73-7	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Carbazole	86-74-8	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Hexachlorobutadiene	87-68-3	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
2-Nitroaniline	88-74-4	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
2-Nitrophenol	88-75-5	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		12/07/09
Naphthalene	91-20-3	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
2-Methylnaphthalene	91-57-6	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01061
Client ID: B22RJ6 GPP TRENT WSCF

Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
2-Chloronaphthalene	91-58-7	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
3,3'-Dichlorobenzidine	91-94-1	LA-523-456	U	< 370	ug/kg			1.00	3.7e+02		12/07/09
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	< 250	ug/kg			1.00	2.5e+02		12/07/09
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Nitrobenzene	98-95-3	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
3-Nitroaniline	99-09-2	LA-523-456	U	< 210	ug/kg			1.00	2.1e+02		12/07/09
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Hexachloroethane	67-72-1	LA-523-456	U	< 280	ug/kg			1.00	2.8e+02		12/07/09
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09
Tributyl phosphate	126-73-8	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/07/09

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01071
Client ID: B22RJ7 GPP WSCF TRENT

Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

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	< 1.00	ug/kg			1.00	1.0		12/01/09
Trichloroethene	79-01-6	LA-523-455	U	< 0.210	ug/kg			1.00	0.21		12/01/09
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Styrene	100-42-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Dibromochloromethane	124-48-1	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
1,2-Dichloroethene(Total)	540-59-0	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
2-Hexanone	591-78-6	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Bromomethane	74-83-9	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Chloromethane	74-87-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Chloroethane	75-00-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01071
Client ID: B22RJ7 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Bromoform	75-25-2	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
Bromodichloromethane	75-27-4	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
1,2-Dichloropropane	78-87-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/kg			1.00	1.0e+02		12/01/09
Trichloromonofluoromethane	75-69-4	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/kg			1.00	1.0		12/01/09

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RQ=Result Qualifier
TP Err=Total Propagated Error
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01072
Client ID: B22RJ9 GPP TRENT WSCF

Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Alcohols, Glycols - 8015 Prep											**12/03/09**
Alcohols, Glycols - 8015											
Diethyl ether	60-29-7	Organics	U	< 5.00e+03	ug/kg			1.00	5.0e+03		12/03/09
Ethylene glycol	107-21-1	Organics	U	< 5.00e+03	ug/kg			1.00	5.0e+03		12/03/09
NWTPH-D TPH Diesel Range (Wa) Prep											**12/02/09**
NWTPH-D TPH Diesel Range (Wa)											
Total Pet. Hydrocarbons Diesel	TPHDIESEL	LA-523-493	U	< 5.20	mg/kg			1.00	5.2		12/09/09
Kerosene	TPHKEROSENE	LA-523-493	U	< 5.20	mg/kg			1.00	5.2		12/09/09
PCBs complete list Prep											**12/01/09**
PCBs complete list											
Aroclor-1016	12674-11-2	LA-523-427	U	< 10.0	ug/kg			1.00	10		12/04/09
Aroclor-1221	11104-28-2	LA-523-427	U	< 20.0	ug/kg			1.00	20		12/04/09
Aroclor-1232	11141-16-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		12/04/09
Aroclor-1242	53469-21-9	LA-523-427	U	< 10.0	ug/kg			1.00	10		12/04/09
Aroclor-1248	12672-29-6	LA-523-427	U	< 10.0	ug/kg			1.00	10		12/04/09
Aroclor-1254	11097-69-1	LA-523-427	U	< 10.0	ug/kg			1.00	10		12/04/09
Aroclor-1260	11096-82-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		12/04/09
Aroclor-1262	37324-23-5	LA-523-427	U	< 10.0	ug/kg			1.00	10		12/04/09
Aroclor-1268	11100-14-4	LA-523-427	U	< 10.0	ug/kg			1.00	10		12/04/09
SW-846 8270C Semi-Vols Prep											**12/06/09**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 340	ug/kg			1.00	3.4e+02		12/14/09
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 260	ug/kg			1.00	2.6e+02		12/14/09
Phenol	108-95-2	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01072
Client ID: B22RJ9 GPP TRENT WSCF

Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Pyrene	129-00-0	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Acenaphthene	83-32-9	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Pentachlorophenol	87-86-5	LA-523-456	U	< 410	ug/kg			1.00	4.1e+02		12/14/09
2-Chlorophenol	95-57-8	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
4-Nitroaniline	100-01-6	LA-523-456	U	< 290	ug/kg			1.00	2.9e+02		12/14/09
4-Bromophenylphenyl ether	101-55-3	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
2,4-Dimethylphenol	105-67-9	LA-523-456	U	< 230	ug/kg			1.00	2.3e+02		12/14/09
4-Chloroaniline	106-47-8	LA-523-456	U	< 290	ug/kg			1.00	2.9e+02		12/14/09
Bis(2-chloro-1-methylethyl)eth	108-60-1	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Bis(2-chloroethyl) ether	111-44-4	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Bis(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456	U	< 410	ug/kg			1.00	4.1e+02		12/14/09
Di-n-octylphthalate	117-84-0	LA-523-456	U	< 410	ug/kg			1.00	4.1e+02		12/14/09
Hexachlorobenzene	118-74-1	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Anthracene	120-12-7	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
2,4-Dichlorophenol	120-83-2	LA-523-456	U	< 180	ug/kg			1.00	1.8e+02		12/14/09
Dimethyl phthalate	131-11-3	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Dibenzofuran	132-64-9	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Benzo(ghi)perylene	191-24-2	LA-523-456	U	< 330	ug/kg			1.00	3.3e+02		12/14/09
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	< 340	ug/kg			1.00	3.4e+02		12/14/09
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	< 210	ug/kg			1.00	2.1e+02		12/14/09
Fluoranthene	206-44-0	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01072
Client ID: B22RJ9 GPP TRENT WSCF

Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	< 210	ug/kg			1.00	2.1e+02		12/14/09
Acenaphthylene	208-96-8	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Chrysene	218-01-9	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Benzo(a)pyrene	50-32-8	LA-523-456	U	< 230	ug/kg			1.00	2.3e+02		12/14/09
2,4-Dinitrophenol	51-28-5	LA-523-456	U	< 640	ug/kg			1.00	6.4e+02		12/14/09
Dibenz(a,h)anthracene	53-70-3	LA-523-456	U	< 340	ug/kg			1.00	3.4e+02		12/14/09
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	< 340	ug/kg			1.00	3.4e+02		12/14/09
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	< 280	ug/kg			1.00	2.8e+02		12/14/09
Benzo(a)anthracene	56-55-3	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
4-Chlorophenylphenyl ether	7005-72-3	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Isophorone	78-59-1	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Diethylphthalate	84-66-2	LA-523-456	U	< 410	ug/kg			1.00	4.1e+02		12/14/09
Di-n-butylphthalate	84-74-2	LA-523-456		560	ug/kg			1.00	4.1e+02		12/14/09
Phenanthrene	85-01-8	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Butylbenzylphthalate	85-68-7	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
N-Nitrosodiphenylamine	86-30-6	LA-523-456	U	< 170	ug/kg			1.00	1.7e+02		12/14/09
Fluorene	86-73-7	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Carbazole	86-74-8	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Hexachlorobutadiene	87-68-3	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
2-Nitroaniline	88-74-4	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
2-Nitrophenol	88-75-5	LA-523-456	U	< 180	ug/kg			1.00	1.8e+02		12/14/09
Naphthalene	91-20-3	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
2-Methylnaphthalene	91 57-6	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01072
Client ID: B22RJ9 GPP TRENT WSCF

Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
2-Chloronaphthalene	91-58-7	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
3,3'-Dichlorobenzidine	91-94-1	LA-523-456	U	< 340	ug/kg			1.00	3.4e+02		12/14/09
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	< 230	ug/kg			1.00	2.3e+02		12/14/09
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Nitrobenzene	98-95-3	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
3-Nitroaniline	99-09-2	LA-523-456	U	< 190	ug/kg			1.00	1.9e+02		12/14/09
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Hexachloroethane	67-72-1	LA-523-456	U	< 260	ug/kg			1.00	2.6e+02		12/14/09
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09
Tributyl phosphate	126-73-8	LA-523-456	U	< 160	ug/kg			1.00	1.6e+02		12/14/09

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01074
Client ID: B22RK0 GPP WSCF TRENT

Matrix: SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

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	< 1.20	ug/kg			1.00	1.2		12/01/09
Trichloroethene	79-01-6	LA-523-455	U	< 0.240	ug/kg			1.00	0.24		12/01/09
Benzene	71-43-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Toluene	108-88-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Chlorobenzene	108-90-7	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Ethylbenzene	100-41-4	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Styrene	100-42-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Dibromochloromethane	124-48-1	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
1,2-Dichloroethene(Total)	540-59-0	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
2-Hexanone	591-78-6	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Acetone	67-64-1	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Chloroform	67-66-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Bromomethane	74-83-9	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Chloromethane	74-87-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Chloroethane	75-00-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01074
Client ID: B22RK0 GPP WSCF TRENT **Matrix:** SOIL

Group #: WSCF20091234
Department: Organic
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Vinyl chloride	75-01-4	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Methylenechloride	75-09-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Carbon disulfide	75-15-0	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Bromoform	75-25-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
Bromodichloromethane	75-27-4	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
1,2-Dichloropropane	78-87-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
2-Butanone	78-93-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
1-Butanol	71-36-3	LA-523-455	U	< 120	ug/kg			1.00	1.2e+02		12/01/09
Trichloromonofluoromethane	75-69-4	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		12/01/09

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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: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: Alcohols, Glycols - 8015

Sample Date: 11/20/09
Receive Date:11/20/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01033											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	2-Bromoethanol	540-51-2	17000		RPD			3.468	25.000		12/03/09
DUP	Diethyl ether	60-29-7	<5000		RPD			n/a	25.000	U	12/03/09
DUP	Ethylene glycol	107-21-1	<5000		RPD			n/a	25.000	U	12/03/09
MS	2-Bromoethanol	540-51-2	16600	94.318	% Recov	70.000	125.000				12/03/09
MS	Diethyl ether	60-29-7	5900	83.099	% Recov	75.000	125.000				12/03/09
MS	Ethylene glycol	107-21-1	11800	107.273	% Recov	75.000	125.000				12/03/09
MSD	2-Bromoethanol	540-51-2	16300	92.614	% Recov	70.000	125.000				12/03/09
MSD	Diethyl ether	60-29-7	5800	81.690	% Recov	75.000	125.000				12/03/09
MSD	Ethylene glycol	107-21-1	12000	109.091	% Recov	75.000	125.000				12/03/09
SPK-RPD	2-Bromoethanol	540-51-2	92.614		RPD			1.823	20.000		12/03/09
SPK-RPD	Diethyl ether	60-29-7	81.690		RPD			1.710	20.000		12/03/09
SPK-RPD	Ethylene glycol	107-21-1	109.091		RPD			1.681	20.000		12/03/09
BATCH QC											
BLANK	2-Bromoethanol	540-51-2	18000	102.273	% Recov	75.000	125.000				12/03/09
BLANK	Diethyl ether	60-29-7	<5000	n/a	ug/Kg	0.000	10.000			U	12/03/09
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/Kg	0.000	5.000			U	12/03/09
LCS	2-Bromoethanol	540-51-2	17600	100.000	% Recov	70.000	130.000				12/03/09
LCS	Diethyl ether	60-29-7	6400	90.141	% Recov	70.000	130.000				12/03/09
LCS	Ethylene glycol	107-21-1	9100	82.727	% Recov	70.000	130.000				12/03/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date: 11/30/09
Receive Date:11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01061											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	ortho-Terphenyl Surr	84-15-1	26.668	119.000	% Recov	70.000	130.000				12/08/09
MS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	129.15	115.000	% Recov	75.000	125.000				12/08/09
MSD	ortho-Terphenyl Surr	84-15-1	24.965	111.000	% Recov	70.000	130.000				12/08/09
MSD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	117.51	104.000	% Recov	75.000	125.000				12/08/09
SPK-RPD	ortho-Terphenyl Surr	84-15-1	111.000		RPD			6.957	20.000		12/08/09
SPK-RPD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	104.000		RPD			10.046	20.000		12/08/09
SURR	ortho-Terphenyl Surr	84-15-1	22.529	100.000	% Recov	70.000	130.000				12/08/09
Lab ID: W09GR01072											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	ortho-Terphenyl Surr	84-15-1	37.077	89.100	% Recov	70.000	130.000				12/09/09
BATCH QC											
BLANK	Kerosene	TPHKEROSENE	< 5.0	n/a	ug/Kg					U	12/08/09
BLANK	ortho-Terphenyl Surr	84-15-1	19.616	98.100	% Recov	70.000	130.000				12/08/09
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 5.0	n/a	ug/Kg					U	12/08/09
LCS	ortho-Terphenyl Surr	84-15-1	16.628	83.100	% Recov	70.000	130.000				12/08/09
LCS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	87.626	87.600	% Recov	80.000	120.000				12/08/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: PCBs complete list

Sample Date: 11/30/09
Receive Date:11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01061											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Aroclor-1254	11097-69-1	253.72	115.000	% Recov	75.000	125.000				12/04/09
MS	Decachlorobiphenyl	2051-24-3	211.72	96.100	% Recov	50.000	150.000				12/04/09
MS	Tetrachloro-m-xylene	877-09-8	193.43	87.800	% Recov	50.000	150.000				12/04/09
MSD	Aroclor-1254	11097-69-1	271.55	122.000	% Recov	75.000	125.000				12/04/09
MSD	Decachlorobiphenyl	2051-24-3	219.83	98.900	% Recov	50.000	150.000				12/04/09
MSD	Tetrachloro-m-xylene	877-09-8	196.54	88.400	% Recov	50.000	150.000				12/04/09
SPK-RPD	Aroclor-1254	11097-69-1	122.000		RPD			5.907	25.000		12/04/09
SPK-RPD	Decachlorobiphenyl	2051-24-3	98.900		RPD			2.872	20.000		12/04/09
SPK-RPD	Tetrachloro-m-xylene	877-09-8	88.400		RPD			0.681	20.000		12/04/09
SURR	Decachlorobiphenyl	2051-24-3	196.58	89.200	% Recov	50.000	150.000				12/04/09
SURR	Tetrachloro-m-xylene	877-09-8	192.68	87.400	% Recov	50.000	150.000				12/04/09
Lab ID: W09GR01072											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Decachlorobiphenyl	2051-24-3	185.26	91.000	% Recov	50.000	150.000				12/04/09
SURR	Tetrachloro-m-xylene	877-09-8	185.95	91.300	% Recov	50.000	150.000				12/04/09
BATCH QC											
BLANK	Aroclor-1016	12674-11-2	< 10	n/a	UGKG					U	12/04/09
BLANK	Aroclor-1221	11104-28-2	< 20	n/a	ug/Kg					U	12/04/09
BLANK	Aroclor-1232	11141-16-5	< 10	n/a	ug/Kg					U	12/04/09
BLANK	Aroclor-1242	53469-21-9	< 10	n/a	ug/Kg					U	12/04/09
BLANK	Aroclor-1248	12672-29-6	< 10	n/a	ug/Kg					U	12/04/09
BLANK	Aroclor-1254	11097-69-1	< 10	n/a	ug/Kg					U	12/04/09
BLANK	Aroclor-1260	11096-82-5	< 10	n/a	ug/Kg					U	12/04/09
BLANK	Aroclor-1262	37324-23-5	< 10	n/a	ug/Kg					U	12/04/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: PCBs complete list

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Aroclor-1268	11100-14-4	< 10	n/a	ug/Kg					U	12/04/09
BLANK	Decachlorobiphenyl	2051-24-3	211.22	106.000	% Recov	50.000	150.000				12/04/09
BLANK	Tetrachloro-m-xylene	877-09-8	189.68	94.800	% Recov	50.000	150.000				12/04/09
LCS	Aroclor-1254	11097-69-1	237.23	119.000	% Recov	70.000	130.000				12/04/09
LCS	Decachlorobiphenyl	2051-24-3	216.31	108.000	% Recov	50.000	150.000				12/04/09
LCS	Tetrachloro-m-xylene	877-09-8	192.26	96.100	% Recov	50.000	150.000				12/04/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 11/30/09
Receive Date:11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01061											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	2-Fluorophenol(Surr)	367-12-4	3901.0	86.800	% Recov	72.000	120.000				12/07/09
SURR	2-Fluorobiphenyl(Surr)	321-60-8	3865.9	86.000	% Recov	66.000	122.000				12/07/09
SURR	Nitrobenzene-d5(Surr)	4165-60-0	3744.4	83.300	% Recov	63.000	125.000				12/07/09
SURR	Phenol-d5(Surr)	4165-62-2	3924.9	87.300	% Recov	66.000	124.000				12/07/09
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	3624.1	80.600	% Recov	49.000	120.000				12/07/09
SURR	Terphenyl-d14(Surr)	98904-43-9	4582.4	102.000	% Recov	58.000	128.000				12/07/09
Lab ID: W09GR01086											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,2,4-Trichlorobenzene	120-82-1	5898.0	92.400	% Recov	75.000	121.000				12/10/09
MS	1,4-Dichlorobenzene	106-46-7	5741.1	90.000	% Recov	68.000	121.000				12/10/09
MS	2,4-Dinitrotoluene	121-14-2	5712.6	89.500	% Recov	66.000	113.000				12/10/09
MS	2-Fluorophenol(Surr)	367-12-4	4632.0	109.000	% Recov	72.000	120.000				12/10/09
MS	Acenaphthene	83-32-9	5949.4	93.200	% Recov	69.000	125.000				12/10/09
MS	4-Chloro-3-methylphenol	59-50-7	6044.3	94.700	% Recov	68.000	116.000				12/10/09
MS	2-Chlorophenol	95-57-8	5915.3	92.700	% Recov	65.000	124.000				12/10/09
MS	N-Nitrosodi-n-dipropylamine	621-64-7	6063.1	95.000	% Recov	69.000	127.000				12/10/09
MS	2-Fluorobiphenyl(Surr)	321-60-8	4543.1	107.000	% Recov	66.000	122.000				12/10/09
MS	Phenol	108-95-2	6014.4	94.200	% Recov	71.000	122.000				12/10/09
MS	Nitrobenzene-d5(Surr)	4165-60-0	4576.6	108.000	% Recov	63.000	125.000				12/10/09
MS	4-Nitrophenol	100-02-7	5715.6	89.600	% Recov	55.000	113.000				12/10/09
MS	Pentachlorophenol	87-86-5	5402.7	84.700	% Recov	50.000	113.000				12/10/09
MS	Phenol-d5(Surr)	4165-62-2	4443.6	104.000	% Recov	66.000	124.000				12/10/09
MS	Pyrene	129-00-0	6583.3	103.000	% Recov	67.000	125.000				12/10/09
MS	2,4,6-Tribromophenol(Surr)	118-79-6	4526.4	106.000	% Recov	49.000	120.000				12/10/09
MS	Terphenyl-d14(Surr)	98904-43-9	4982.0	117.000	% Recov	58.000	128.000				12/10/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 12/01/09
Receive Date:12/01/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	1,2,4-Trichlorobenzene	120-82-1	5901.3	92.700	% Recov	75.000	121.000				12/10/09
MSD	1,4-Dichlorobenzene	106-46-7	6048.4	95.000	% Recov	68.000	121.000				12/10/09
MSD	2,4-Dinitrotoluene	121-14-2	5974.1	93.900	% Recov	66.000	113.000				12/10/09
MSD	2-Fluorophenol(Surr)	367-12-4	4115.6	97.000	% Recov	72.000	120.000				12/10/09
MSD	Acenaphthene	83-32-9	5978.8	93.900	% Recov	69.000	125.000				12/10/09
MSD	4-Chloro-3-methylphenol	59-50-7	6206.9	97.500	% Recov	68.000	116.000				12/10/09
MSD	2-Chlorophenol	95-57-8	6051.1	95.100	% Recov	65.000	124.000				12/10/09
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	6272.2	98.600	% Recov	69.000	127.000				12/10/09
MSD	2-Fluorobiphenyl(Surr)	321-60-8	4020.4	94.800	% Recov	66.000	122.000				12/10/09
MSD	Phenol	108-95-2	6175.4	97.000	% Recov	71.000	122.000				12/10/09
MSD	Nitrobenzene-d5(Surr)	4165-60-0	4106.5	96.800	% Recov	63.000	125.000				12/10/09
MSD	4-Nitrophenol	100-02-7	5962.4	93.700	% Recov	55.000	113.000				12/10/09
MSD	Pentachlorophenol	87-86-5	5470.8	86.000	% Recov	50.000	113.000				12/10/09
MSD	Phenol-d5(Surr)	4165-62-2	4058.4	95.700	% Recov	66.000	124.000				12/10/09
MSD	Pyrene	129-00-0	6418.3	101.000	% Recov	67.000	125.000				12/10/09
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	4110.4	96.900	% Recov	49.000	120.000				12/10/09
MSD	Terphenyl-d14(Surr)	98904-43-9	4287.6	101.000	% Recov	58.000	128.000				12/10/09
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	92.700		RPD			0.324	20.000		12/07/09
SPK-RPD	1,4-Dichlorobenzene	106-46-7	95.000		RPD			5.405	20.000		12/07/09
SPK-RPD	2,4-Dinitrotoluene	121-14-2	93.900		RPD			4.798	20.000		12/07/09
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	97.000		RPD			11.650	20.000		12/07/09
SPK-RPD	Acenaphthene	83-32-9	93.900		RPD			0.748	20.000		12/07/09
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	97.500		RPD			2.914	20.000		12/07/09
SPK-RPD	2-Chlorophenol	95-57-8	95.100		RPD			2.556	20.000		12/07/09
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	98.600		RPD			3.719	20.000		12/07/09
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	94.800		RPD			12.091	20.000		12/07/09
SPK-RPD	Phenol	108-95-2	97.000		RPD			2.929	20.000		12/07/09
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	96.800		RPD			10.938	20.000		12/07/09
SPK-RPD	4-Nitrophenol	100-02-7	93.700		RPD			4.474	20.000		12/07/09
SPK-RPD	Pentachlorophenol	87-86-5	86.000		RPD			1.523	20.000		12/07/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 12/01/09
Receive Date:12/01/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Phenol-d5(Surr)	4165-62-2	95.700		RPD			8.312	20.000		12/07/09
SPK-RPD	Pyrene	129-00-0	101.000		RPD			1.961	20.000		12/07/09
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	96.900		RPD			8.970	20.000		12/07/09
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	101.000		RPD			14.679	20.000		12/07/09

BATCH QC

BLANK	1,2-Dichlorobenzene	95-50-1	< 220	n/a	ug/Kg					U	12/07/09
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 150	n/a	ug/Kg					U	12/07/09
BLANK	1,3-Dichlorobenzene	541-73-1	< 270	n/a	ug/Kg					U	12/07/09
BLANK	1,4-Dichlorobenzene	106-46-7	< 250	n/a	ug/Kg					U	12/07/09
BLANK	2,4-Dichlorophenol	120-83-2	< 170	n/a	ug/Kg					U	12/07/09
BLANK	2,4-Dinitrotoluene	121-14-2	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2,4,5-Trichlorophenol	95-95-4	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2,4,6-Trichlorophenol	88-06-2	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2,4-Dimethylphenol	105-67-9	< 230	n/a	ug/Kg					U	12/07/09
BLANK	2,6-Dinitrotoluene	606-20-2	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2-Chloronaphthalene	91-58-7	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2-Fluorophenol(Surr)	367-12-4	3695.7	92.400	% Recov	72.000	120.000				12/07/09
BLANK	2-Methylnaphthalene	91-57-6	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2-Nitroaniline	88-74-4	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2-Nitrophenol	88-75-5	< 170	n/a	ug/Kg					U	12/07/09
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 150	n/a	ug/Kg					U	12/07/09
BLANK	3-Nitroaniline	99-09-2	< 190	n/a	ug/Kg					U	12/07/09
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 330	n/a	ug/Kg					U	12/07/09
BLANK	4-Bromophenylphenyl ether	101-55-3	< 150	n/a	ug/Kg					U	12/07/09
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Acenaphthene	83-32-9	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Acenaphthylene	208-96-8	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Anthracene	120-12-7	< 150	n/a	ug/Kg					U	12/07/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
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	12/07/09
BLANK	Benzo(a)anthracene	56-55-3	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Benzo(b)fluoranthene	205-99-2	< 200	n/a	ug/Kg					U	12/07/09
BLANK	Benzo(ghi)perylene	191-24-2	< 320	n/a	ug/Kg					U	12/07/09
BLANK	Benzo(a)pyrene	50-32-8	< 230	n/a	ug/Kg					U	12/07/09
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 400	n/a	ug/Kg					U	12/07/09
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Benzo(k)fluoranthene	207-08-9	< 200	n/a	ug/Kg					U	12/07/09
BLANK	Butylbenzylphthalate	85-68-7	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Carbazole	86-74-8	< 150	n/a	ug/Kg					U	12/07/09
BLANK	4-Chloroaniline	106-47-8	< 280	n/a	ug/Kg					U	12/07/09
BLANK	4-Chloro-3-methylphenol	59-50-7	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Chrysene	218-01-9	< 150	n/a	ug/Kg					U	12/07/09
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 330	n/a	ug/Kg					U	12/07/09
BLANK	Dibenz[a,h]anthracene	53-70-3	< 330	n/a	ug/Kg					U	12/07/09
BLANK	Dibenzofuran	132-64-9	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Di-n-butylphthalate	84-74-2	< 400	n/a	ug/Kg					U	12/07/09
BLANK	Diethylphthalate	84-66-2	< 400	n/a	ug/Kg					U	12/07/09
BLANK	Dimethyl phthalate	131-11-3	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2,4-Dinitrophenol	51-28-5	< 620	n/a	ug/Kg					U	12/07/09
BLANK	Di-n-octylphthalate	117-84-0	< 400	n/a	ug/Kg					U	12/07/09
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	3767.3	94.200	% Recov	66.000	122.000				12/07/09
BLANK	Fluorene	86-73-7	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Fluoranthene	206-44-0	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Hexachlorobenzene	118-74-1	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Hexachlorobutadiene	87-68-3	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Hexachlorocyclopentadiene	77-47-4	< 150	n/a	ug/Kg					U	12/07/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
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	12/07/09
BLANK	Indeno(1,2,3-cd)pyrene	193-39-5	< 330	n/a	ug/Kg					U	12/07/09
BLANK	Isophorone	78-59-1	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Phenol	108-95-2	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Naphthalene	91-20-3	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	3600.5	90.000	% Recov	63.000	125.000				12/07/09
BLANK	Nitrobenzene	98-95-3	< 150	n/a	ug/Kg					U	12/07/09
BLANK	4-Nitrophenol	100-02-7	< 330	n/a	ug/Kg					U	12/07/09
BLANK	4-Nitroaniline	100-01-6	< 280	n/a	ug/Kg					U	12/07/09
BLANK	N-Nitrosodiphenylamine	86-30-6	< 170	n/a	ug/Kg					U	12/07/09
BLANK	Pentachlorophenol	87-86-5	< 400	n/a	ug/Kg					U	12/07/09
BLANK	Phenanthrene	85-01-8	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Phenol-d5(Surr)	4165-62-2	3627.8	90.700	% Recov	66.000	124.000				12/07/09
BLANK	Pyrene	129-00-0	< 150	n/a	ug/Kg					U	12/07/09
BLANK	Tributyl phosphate	126-73-8	< 150	n/a	ug/Kg					U	12/07/09
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	3389.6	84.700	% Recov	49.000	120.000				12/07/09
BLANK	Terphenyl-d14(Surr)	98904-43-9	4042.9	101.000	% Recov	58.000	128.000				12/07/09
LCS	1,2,4-Trichlorobenzene	120-82-1	5346.4	89.100	% Recov	76.000	118.000				12/07/09
LCS	1,4-Dichlorobenzene	106-46-7	5225.3	87.100	% Recov	68.000	121.000				12/07/09
LCS	2,4-Dinitrotoluene	121-14-2	5107.3	85.100	% Recov	68.000	112.000				12/07/09
LCS	2-Fluorophenol(Surr)	367-12-4	3111.8	77.800	% Recov	50.000	110.000				12/07/09
LCS	Acenaphthene	83-32-9	5295.2	88.300	% Recov	75.000	121.000				12/07/09
LCS	4-Chloro-3-methylphenol	59-50-7	5516.0	91.900	% Recov	68.000	117.000				12/07/09
LCS	2-Chlorophenol	95-57-8	5268.7	87.800	% Recov	84.000	114.000				12/07/09
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	5434.5	90.600	% Recov	76.000	119.000				12/07/09
LCS	2-Fluorobiphenyl(Surr)	321-60-8	3295.1	82.400	% Recov	58.000	109.000				12/07/09
LCS	Phenol	108-95-2	5382.1	89.700	% Recov	80.000	113.000				12/07/09
LCS	Nitrobenzene-d5(Surr)	4165-60-0	3113.4	77.800	% Recov	60.000	118.000				12/07/09
LCS	4-Nitrophenol	100-02-7	4891.5	81.500	% Recov	42.000	123.000				12/07/09
LCS	Pentachlorophenol	87-86-5	4882.3	81.400	% Recov	55.000	120.000				12/07/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
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	3227.3	80.700	% Recov	59.000	116.000				12/07/09
LCS	Pyrene	129-00-0	5638.9	94.000	% Recov	67.000	122.000				12/07/09
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	3306.5	82.700	% Recov	60.000	120.000				12/07/09
LCS	Terphenyl-d14(Surr)	98904-43-9	3694.3	92.400	% Recov	60.000	120.000				12/07/09

Lab ID: W09GR01072
BATCH QC ASSOCIATED WITH SAMPLE

SURR	2-Fluorophenol(Surr)	367-12-4	4048.9	97.800	% Recov	72.000	120.000				12/14/09
SURR	2-Fluorobiphenyl(Surr)	321-60-8	3946.9	95.300	% Recov	66.000	122.000				12/14/09
SURR	Nitrobenzene-d5(Surr)	4165-60-0	3979.6	96.100	% Recov	63.000	125.000				12/14/09
SURR	Phenol-d5(Surr)	4165-62-2	4042.2	97.600	% Recov	66.000	124.000				12/14/09
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	3661.3	88.400	% Recov	49.000	120.000				12/14/09
SURR	Terphenyl-d14(Surr)	98904-43-9	4095.3	98.900	% Recov	58.000	128.000				12/14/09

Lab ID: W09GR01114
BATCH QC ASSOCIATED WITH SAMPLE

MS	1,2,4-Trichlorobenzene	120-82-1	6472.4	104.000	% Recov	75.000	121.000				12/10/09
MS	1,4-Dichlorobenzene	106-46-7	6266.8	100.000	% Recov	68.000	121.000				12/10/09
MS	2,4-Dinitrotoluene	121-14-2	6278.0	101.000	% Recov	66.000	113.000				12/10/09
MS	2-Fluorophenol(Surr)	367-12-4	7857.9	94.400	% Recov	72.000	120.000				12/10/09
MS	Acenaphthene	83-32-9	6471.1	104.000	% Recov	69.000	125.000				12/10/09
MS	4-Chloro-3-methylphenol	59-50-7	6546.7	105.000	% Recov	68.000	116.000				12/10/09
MS	2-Chlorophenol	95-57-8	6533.3	105.000	% Recov	65.000	124.000				12/10/09
MS	N-Nitrosodi-n-dipropylamine	621-64-7	6704.6	107.000	% Recov	69.000	127.000				12/10/09
MS	2-Fluorobiphenyl(Surr)	321-60-8	7822.1	94.000	% Recov	66.000	122.000				12/10/09
MS	Phenol	108-95-2	6603.7	106.000	% Recov	71.000	122.000				12/10/09
MS	Nitrobenzene-d5(Surr)	4165-60-0	7669.0	92.100	% Recov	63.000	125.000				12/10/09
MS	4-Nitrophenol	100-02-7	5813.0	93.100	% Recov	55.000	113.000				12/10/09
MS	Pentachlorophenol	87-86-5	5720.8	91.600	% Recov	50.000	113.000				12/10/09
MS	Phenol-d5(Surr)	4165-62-2	7872.8	94.600	% Recov	66.000	124.000				12/10/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 12/02/09
Receive Date: 12/03/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Pyrene	129-00-0	7125.0	114.000	% Recov	67.000	125.000				12/10/09
MS	2,4,6-Tribromophenol(Surr)	118-79-6	7590.4	91.200	% Recov	49.000	120.000				12/10/09
MS	Terphenyl-d14(Surr)	98904-43-9	8676.3	104.000	% Recov	58.000	128.000				12/10/09
MSD	1,2,4-Trichlorobenzene	120-82-1	6360.5	102.000	% Recov	75.000	121.000				12/10/09
MSD	1,4-Dichlorobenzene	106-46-7	6218.1	99.500	% Recov	68.000	121.000				12/10/09
MSD	2,4-Dinitrotoluene	121-14-2	6358.0	102.000	% Recov	66.000	113.000				12/10/09
MSD	2-Fluorophenol(Surr)	367-12-4	3943.5	94.600	% Recov	72.000	120.000				12/10/09
MSD	Acenaphthene	83-32-9	6390.7	102.000	% Recov	69.000	125.000				12/10/09
MSD	4-Chloro-3-methylphenol	59-50-7	6716.3	107.000	% Recov	68.000	116.000				12/10/09
MSD	2-Chlorophenol	95-57-8	6419.5	103.000	% Recov	65.000	124.000				12/10/09
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	6624.0	106.000	% Recov	69.000	127.000				12/10/09
MSD	2-Fluorobiphenyl(Surr)	321-60-8	3874.6	93.000	% Recov	66.000	122.000				12/10/09
MSD	Phenol	108-95-2	6530.5	104.000	% Recov	71.000	122.000				12/10/09
MSD	Nitrobenzene-d5(Surr)	4165-60-0	3959.7	95.000	% Recov	63.000	125.000				12/10/09
MSD	4-Nitrophenol	100-02-7	6554.0	105.000	% Recov	55.000	113.000				12/10/09
MSD	Pentachlorophenol	87-86-5	6005.2	96.100	% Recov	50.000	113.000				12/10/09
MSD	Phenol-d5(Surr)	4165-62-2	3835.6	92.000	% Recov	66.000	124.000				12/10/09
MSD	Pyrene	129-00-0	6661.2	107.000	% Recov	67.000	125.000				12/10/09
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	3900.8	93.600	% Recov	49.000	120.000				12/10/09
MSD	Terphenyl-d14(Surr)	98904-43-9	4024.7	96.600	% Recov	58.000	128.000				12/10/09
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	102.000		RPD			1.942	20.000		12/10/09
SPK-RPD	1,4-Dichlorobenzene	106-46-7	99.500		RPD			0.501	20.000		12/10/09
SPK-RPD	2,4-Dinitrotoluene	121-14-2	102.000		RPD			0.985	20.000		12/10/09
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	94.600		RPD			0.212	20.000		12/10/09
SPK-RPD	Acenaphthene	83-32-9	102.000		RPD			1.942	20.000		12/10/09
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	107.000		RPD			1.887	20.000		12/10/09
SPK-RPD	2-Chlorophenol	95-57-8	103.000		RPD			1.923	20.000		12/10/09
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	106.000		RPD			0.939	20.000		12/10/09
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	93.000		RPD			1.070	20.000		12/10/09
SPK-RPD	Phenol	108-95-2	104.000		RPD			1.905	20.000		12/10/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: SW-846 8270C Semi-Vols

Sample Date: 12/02/09
Receive Date:12/03/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	95.000		RPD			3.100	20.000		12/10/09
SPK-RPD	4-Nitrophenol	100-02-7	105.000		RPD			12.014	20.000		12/10/09
SPK-RPD	Pentachlorophenol	87-86-5	96.100		RPD			4.795	20.000		12/10/09
SPK-RPD	Phenol-d5(Surr)	4165-62-2	92.000		RPD			2.787	20.000		12/10/09
SPK-RPD	Pyrene	129-00-0	107.000		RPD			6.335	20.000		12/10/09
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	93.600		RPD			2.597	20.000		12/10/09
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	96.600		RPD			7.378	20.000		12/10/09

BATCH QC

BLANK	1,2-Dichlorobenzene	95-50-1	< 220	n/a	ug/Kg					U	12/10/09
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 150	n/a	ug/Kg					U	12/10/09
BLANK	1,3-Dichlorobenzene	541-73-1	< 270	n/a	ug/Kg					U	12/10/09
BLANK	1,4-Dichlorobenzene	106-46-7	< 250	n/a	ug/Kg					U	12/10/09
BLANK	2,4-Dichlorophenol	120-83-2	< 170	n/a	ug/Kg					U	12/10/09
BLANK	2,4-Dinitrotoluene	121-14-2	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2,4,5-Trichlorophenol	95-95-4	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2,4,6-Trichlorophenol	88-06-2	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2,4-Dimethylphenol	105-67-9	< 230	n/a	ug/Kg					U	12/10/09
BLANK	2,6-Dinitrotoluene	606-20-2	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2-Chloronaphthalene	91-58-7	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2-Fluorophenol(Surr)	367-12-4	3420.1	85.500	% Recov	72.000	120.000				12/10/09
BLANK	2-Methylnaphthalene	91-57-6	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2-Nitroaniline	88-74-4	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2-Nitrophenol	88-75-5	< 170	n/a	ug/Kg					U	12/10/09
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 150	n/a	ug/Kg					U	12/10/09
BLANK	3-Nitroaniline	99-09-2	< 190	n/a	ug/Kg					U	12/10/09
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 330	n/a	ug/Kg					U	12/10/09
BLANK	4-Bromophenylphenyl ether	101-55-3	< 150	n/a	ug/Kg					U	12/10/09
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 150	n/a	ug/Kg					U	12/10/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
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	Acenaphthene	83-32-9	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Acenaphthylene	208-96-8	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Anthracene	120-12-7	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Bis(2-chloroethyl) ether	111-44-4	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Benzo(a)anthracene	56-55-3	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Benzo(b)fluoranthene	205-99-2	< 200	n/a	ug/Kg					U	12/10/09
BLANK	Benzo(ghi)perylene	191-24-2	< 320	n/a	ug/Kg					U	12/10/09
BLANK	Benzo(a)pyrene	50-32-8	< 230	n/a	ug/Kg					U	12/10/09
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 400	n/a	ug/Kg					U	12/10/09
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Benzo(k)fluoranthene	207-08-9	< 200	n/a	ug/Kg					U	12/10/09
BLANK	Butylbenzylphthalate	85-68-7	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Carbazole	86-74-8	< 150	n/a	ug/Kg					U	12/10/09
BLANK	4-Chloroaniline	106-47-8	< 280	n/a	ug/Kg					U	12/10/09
BLANK	4-Chloro-3-methylphenol	59-50-7	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Chrysene	218-01-9	< 150	n/a	ug/Kg					U	12/10/09
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 330	n/a	ug/Kg					U	12/10/09
BLANK	Dibenz[a,h]anthracene	53-70-3	< 330	n/a	ug/Kg					U	12/10/09
BLANK	Dibenzofuran	132-64-9	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Di-n-butylphthalate	84-74-2	< 400	n/a	ug/Kg					U	12/10/09
BLANK	Diethylphthalate	84-66-2	< 400	n/a	ug/Kg					U	12/10/09
BLANK	Dimethyl phthalate	131-11-3	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2,4-Dinitrophenol	51-28-5	< 620	n/a	ug/Kg					U	12/10/09
BLANK	Di-n-octylphthalate	117-84-0	< 400	n/a	ug/Kg					U	12/10/09
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	3379.3	84.500	% Recov	66.000	122.000				12/10/09
BLANK	Fluorene	86-73-7	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Fluoranthene	206-44-0	< 150	n/a	ug/Kg					U	12/10/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
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	Hexachlorobenzene	118-74-1	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Hexachlorobutadiene	87-68-3	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Hexachlorocyclopentadiene	77-47-4	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Hexachloroethane	67-72-1	< 250	n/a	ug/Kg					U	12/10/09
BLANK	Indeno(1,2,3-cd)pyrene	193-39-5	< 330	n/a	ug/Kg					U	12/10/09
BLANK	Isophorone	78-59-1	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Phenol	108-95-2	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Naphthalene	91-20-3	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	3441.7	86.000	% Recov	63.000	125.000				12/10/09
BLANK	Nitrobenzene	98-95-3	< 150	n/a	ug/Kg					U	12/10/09
BLANK	4-Nitrophenol	100-02-7	< 330	n/a	ug/Kg					U	12/10/09
BLANK	4-Nitroaniline	100-01-6	< 280	n/a	ug/Kg					U	12/10/09
BLANK	N-Nitrosodiphenylamine	86-30-6	< 170	n/a	ug/Kg					U	12/10/09
BLANK	Pentachlorophenol	87-86-5	< 400	n/a	ug/Kg					U	12/10/09
BLANK	Phenanthrene	85-01-8	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Phenol-d5(Surr)	4165-62-2	3362.7	84.100	% Recov	66.000	124.000				12/10/09
BLANK	Pyrene	129-00-0	< 150	n/a	ug/Kg					U	12/10/09
BLANK	Tributyl phosphate	126-73-8	< 150	n/a	ug/Kg					U	12/10/09
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	2873.5	71.800	% Recov	49.000	120.000				12/10/09
BLANK	Terphenyl-d14(Surr)	98904-43-9	3702.0	92.600	% Recov	58.000	128.000				12/10/09
LCS	1,2,4-Trichlorobenzene	120-82-1	5395.0	89.900	% Recov	76.000	118.000				12/10/09
LCS	1,4-Dichlorobenzene	106-46-7	5425.8	90.400	% Recov	68.000	121.000				12/10/09
LCS	2,4-Dinitrotoluene	121-14-2	5430.0	90.500	% Recov	68.000	112.000				12/10/09
LCS	2-Fluorophenol(Surr)	367-12-4	3456.4	86.400	% Recov	50.000	110.000				12/10/09
LCS	Acenaphthene	83-32-9	5401.5	90.000	% Recov	75.000	121.000				12/10/09
LCS	4-Chloro-3-methylphenol	59-50-7	5534.6	92.200	% Recov	68.000	117.000				12/10/09
LCS	2-Chlorophenol	95-57-8	5491.8	91.500	% Recov	84.000	114.000				12/10/09
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	5723.5	95.400	% Recov	76.000	119.000				12/10/09
LCS	2-Fluorobiphenyl(Surr)	321-60-8	3404.7	85.100	% Recov	58.000	109.000				12/10/09
LCS	Phenol	108-95-2	5579.3	93.000	% Recov	80.000	113.000				12/10/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
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	Nitrobenzene-d5(Surr)	4165-60-0	3455.4	86.400	% Recov	60.000	118.000				12/10/09
LCS	4-Nitrophenol	100-02-7	5522.4	92.000	% Recov	42.000	123.000				12/10/09
LCS	Pentachlorophenol	87-86-5	4339.7	72.300	% Recov	55.000	120.000				12/10/09
LCS	Phenol-d5(Surr)	4165-62-2	3504.1	87.600	% Recov	59.000	116.000				12/10/09
LCS	Pyrene	129-00-0	5791.4	96.500	% Recov	67.000	122.000				12/10/09
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	3382.3	84.600	% Recov	60.000	120.000				12/10/09
LCS	Terphenyl-d14(Surr)	98904-43-9	3541.4	88.500	% Recov	60.000	120.000				12/10/09

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 11/20/09
Receive Date:11/20/09

Lab ID: W09GR01035
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	1,1-Dichloroethene	75-35-4	26.150	102.000	% Recov	63.000	117.000				12/01/09
MS	Benzene	71-43-2	25.060	97.900	% Recov	75.000	129.000				12/01/09
MS	4-Bromofluorobenzene(Surr)	460-00-4	55.760	109.000	% Recov	75.000	125.000				12/01/09
MS	Chlorobenzene	108-90-7	27.130	106.000	% Recov	79.000	119.000				12/01/09
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	60.620	118.000	% Recov	75.000	125.000				12/01/09
MS	Toluene-d8(Surr)	2037-26-5	52.710	103.000	% Recov	75.000	125.000				12/01/09
MS	Toluene	108-88-3	28.310	111.000	% Recov	76.000	120.000				12/01/09
MS	Trichloroethene	79-01-6	24.750	96.700	% Recov	73.000	123.000				12/01/09
MSD	1,1-Dichloroethene	75-35-4	22.420	94.600	% Recov	63.000	117.000				12/01/09
MSD	Benzene	71-43-2	21.490	90.700	% Recov	75.000	129.000				12/01/09
MSD	4-Bromofluorobenzene(Surr)	460-00-4	51.140	108.000	% Recov	75.000	125.000				12/01/09
MSD	Chlorobenzene	108-90-7	22.950	96.900	% Recov	79.000	119.000				12/01/09
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	55.400	117.000	% Recov	75.000	125.000				12/01/09
MSD	Toluene-d8(Surr)	2037-26-5	48.780	103.000	% Recov	75.000	125.000				12/01/09
MSD	Toluene	108-88-3	24.300	103.000	% Recov	76.000	120.000				12/01/09
MSD	Trichloroethene	79-01-6	21.360	90.200	% Recov	73.000	123.000				12/01/09
SPK-RPD	1,1-Dichloroethene	75-35-4	94.600		RPD			7.528	20.000		12/01/09
SPK-RPD	Benzene	71-43-2	90.700		RPD			7.635	20.000		12/01/09
SPK-RPD	4-Bromofluorobenzene(Surr)	460-00-4	108.000		RPD			0.922	20.000		12/01/09
SPK-RPD	Chlorobenzene	108-90-7	96.900		RPD			8.970	20.000		12/01/09
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	117.000		RPD			0.851	20.000		12/01/09
SPK-RPD	Toluene-d8(Surr)	2037-26-5	103.000		RPD			0.000	20.000		12/01/09
SPK-RPD	Toluene	108-88-3	103.000		RPD			7.477	20.000		12/01/09
SPK-RPD	Trichloroethene	79-01-6	90.200		RPD			6.956	20.000		12/01/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
Matrix: SOLID
Test: VOA Ground Water Protection

Sample Date: 11/30/09
Receive Date:11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01071											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	56.130	108.000	% Recov	75.000	125.000				12/01/09
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	55.890	107.000	% Recov	75.000	125.000				12/01/09
SURR	Toluene-d8(Surr)	2037-26-5	54.720	105.000	% Recov	80.000	126.000				12/01/09
Lab ID: W09GR01074											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	59.860	99.100	% Recov	75.000	125.000				12/01/09
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	59.010	97.700	% Recov	75.000	125.000				12/01/09
SURR	Toluene-d8(Surr)	2037-26-5	60.810	101.000	% Recov	80.000	126.000				12/01/09
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	1-Butanol	71-36-3	< 100	n/a	ug/Kg					U	12/01/09
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	53.560	107.000	% Recov	75.000	125.000				12/01/09
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/Kg					U	12/01/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
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	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	59.570	119.000	% Recov	75.000	125.000				12/01/09
BLANK	trans-1,2-Dichloroethylene	156-60-5	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Toluene-d8(Surr)	2037-26-5	51.320	103.000	% Recov	80.000	126.000				12/01/09
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/Kg					U	12/01/09
BLANK	Trichloromonofluoromethane	75-69-4	< 1.0	n/a	ug/Kg	0.000	5.000			U	12/01/09
BLANK	Trichloroethene	79-01-6	< 0.20	n/a	ug/Kg					U	12/01/09
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/Kg					U	12/01/09
LCS	1,1-Dichloroethene	75-35-4	26.270	105.000	% Recov	75.000	125.000				12/01/09
LCS	Benzene	71-43-2	22.430	89.700	% Recov	75.000	125.000				12/01/09
LCS	4-Bromofluorobenzene(Surr)	460-00-4	53.760	108.000	% Recov	75.000	125.000				12/01/09
LCS	Chlorobenzene	108-90-7	25.640	103.000	% Recov	75.000	125.000				12/01/09
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	59.920	120.000	% Recov	75.000	125.000				12/01/09
LCS	Toluene-d8(Surr)	2037-26-5	51.530	103.000	% Recov	80.000	126.000				12/01/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091234
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
LCS	Toluene	108-88-3	25.780	103.000	% Recov	75.000	125.000				12/01/09
LCS	Trichloroethene	79-01-6	23.100	92.400	% Recov	75.000	125.000				12/01/09

REVISION 1

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F10-011

Group #: WSCF20091234
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS:Aluminum sample concentration more than 4X spike amount. Spike information not valid."X" flag Manganese spike recoveries above 130%. "N" flag Organics: Data moisture corrected and results reported on a dry weight basis. DTS ICP-AES: Sample W09GR1072 and W09GR1061 Estimated boron result due to iron interference; "E" flag. Iron sample result exceeds spiking level by a factor of 4 so spike recoveries are not valid. Sample result less than 5 times the MDL; "B" flag. Tc-99 & U-238 / Blank preps are less than 2 times the MDA. lmh U-238, Tc-99 batch dup is flagged for poor RPD due to the low countrate. RPD does not apply. Cyanide: LCS within acceptance range. Calibration standard was expired 12-1-09 was was verified against the new standard at 99% recovery "X" flag W09GR01061 & W09GR01072/Sr89/90 duplicate is flagged for

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

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WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F10-011

Group #: WSCF20091234
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
				poor RPD due to the inhomogeneity of the sample. Imh W09GR01061 high alpha acitivity will spill over into the beta channel and will bias the gross beta result high.
				IC Cation - MS/MSD out of limits. Possibly due to non-homogeneity of sample. Data N-flagged. DTS

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01061
Client ID: B22RJ6 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20091234
Department: Radiochemistry
Sampled: 11/30/09
Received: 11/30/09

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		30.0	pCi/g	+-7.80	pCi/g	1.00	0.49		01/04/10
Am-243 tracer by AEA	AM243	LA-508-471		42.0	pCi/g			1.00	0.21		01/04/10
Gamma Energy Analysis-grd H2O											
Antimony-125	14234-35-6	LA-508-481	U	0.0468	pCi/g	+-0.468	pCi/g	1.00	1.0		12/01/09
Cobalt-60	10198-40-0	LA-508-481	U	-0.0207	pCi/g	+-0.0542	pCi/g	1.00	0.099		12/01/09
Cesium-137	10045-97-3	LA-508-481		48.5	pCi/g	+-6.13	pCi/g	1.00	0.20		12/01/09
Europium-152	14683-23-9	LA-508-481	U	0.0520	pCi/g	+-0.520	pCi/g	1.00	0.92		12/01/09
Europium-154	15585-10-1	LA-508-481	U	0.109	pCi/g	+-0.177	pCi/g	1.00	0.38		12/01/09
Europium-155	14391-16-3	LA-508-481	U	0.152	pCi/g	+-0.532	pCi/g	1.00	0.81		12/01/09
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415		1.20e+03	pCi/g	+-120	pCi/g	1.00	0.56		12/30/09
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		170	pCi/g	+-17.0	pCi/g	1.00	0.60		12/29/09
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	5.80	pCi/g	+-4.41	pCi/g	1.00	6.5		01/04/10
Pu-239/240 by AEA	PU-239/240	LA-508-471		1.90e+03	pCi/g	+-475	pCi/g	1.00	0.57		01/04/10
Pu-242	13982-10-0	LA-508-471		1.20e+03	pCi/g			1.00	0.56		01/04/10
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		55.6	pCi/g	+-7.23	pCi/g	1.00	0.41		12/30/09
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		82.1	Percent			1.00	0.0		12/30/09
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		2.20	pCi/g	+-0.495	pCi/g	1.00	0.30		12/04/09
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		0.120	pCi/g	+-0.0636	pCi/g	1.00	0.055		12/09/09

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)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor
E - Analyte is an estimate, has potentially larger errors(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: F10-011
Sample # W09GR01061
Client ID: B22RJ6 GPP TRENT WSCF **Matrix:** SOIL

Group #: WSCF20091234
Department: Radiochemistry
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Uranium-235	15117-96-1	LA-508-471	U	5.10e-03	pCi/g	+-0.0510	pCi/g	1.00	0.051		12/09/09
Uranium-238	U-238	LA-508-471		0.100	pCi/g	+-0.0530	pCi/g	1.00	0.037		12/09/09
U-232 tracer by AEA	U232	LA-508-471		10.0	pCi/g			1.00	0.10		12/09/09

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)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor
E - Analyte is an estimate, has potentially larger errors(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: F10-011
Sample # W09GR01072
Client ID: B22RJ9 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20091234
Department: Radiochemistry
Sampled: 11/30/09
Received: 11/30/09

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		3.10	pCi/g	+-0.837	pCi/g	1.00	0.084		01/04/10
Am-243 tracer by AEA	AM243	LA-508-471		10.0	pCi/g			1.00	0.059		01/04/10
Gamma Energy Analysis-grd H2O											
Antimony-125	14234-35-6	LA-508-481	U	0.0192	pCi/g	+-0.0455	pCi/g	1.00	0.075		12/02/09
Cobalt-60	10198-40-0	LA-508-481	U	9.01e-03	pCi/g	+-0.0131	pCi/g	1.00	0.023		12/02/09
Cesium-137	10045-97-3	LA-508-481		2.41	pCi/g	+-0.305	pCi/g	1.00	0.024		12/02/09
Europium-152	14683-23-9	LA-508-481	U	-0.0231	pCi/g	+-0.0817	pCi/g	1.00	0.076		12/02/09
Europium-154	15585-10-1	LA-508-481	U	-0.0179	pCi/g	+-0.0511	pCi/g	1.00	0.073		12/02/09
Europium-155	14391-16-3	LA-508-481	U	0.0410	pCi/g	+-0.0520	pCi/g	1.00	0.084		12/02/09
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415		111	pCi/g	+-11.1	pCi/g	1.00	0.63		12/30/09
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		24.0	pCi/g	+-2.64	pCi/g	1.00	0.61		12/29/09
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471		1.40	pCi/g	+-0.980	pCi/g	1.00	1.4		01/04/10
Pu-239/240 by AEA	PU-239/240	LA-508-471		190	pCi/g	+-49.4	pCi/g	1.00	0.13		01/04/10
Pu-242	13982-10-0	LA-508-471		150	pCi/g			1.00	0.50		01/04/10
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415		6.30	pCi/g	+-1.26	pCi/g	1.00	0.37		12/30/09
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		90.2	Percent			1.00	0.0		12/30/09
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		0.800	pCi/g	+-0.256	pCi/g	1.00	0.30		12/04/09
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		1.10	pCi/g	+-0.319	pCi/g	1.00	0.040		12/09/09

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)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor
E - Analyte is an estimate, has potentially larger errors(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: F10-011
Sample # W09GR01072
Client ID: B22RJ9 GPP TRENT WSCF
Matrix: SOIL

Group #: WSCF20091234
Department: Radiochemistry
Sampled: 11/30/09
Received: 11/30/09

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Uranium-235	15117-96-1	LA-508-471		0.0710	pCi/g	+-0.0447	pCi/g	1.00	0.016		12/09/09
Uranium-238	U-238	LA-508-471		1.00	pCi/g	+-0.290	pCi/g	1.00	0.015		12/09/09
U-232 tracer by AEA	U232	LA-508-471		9.90	pCi/g			1.00	0.11		12/09/09

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)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor
E - Analyte is an estimate, has potentially larger errors(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: **Radiochemistry**

SDG Number: WSCF20091234
Matrix: SOLID
Test: Americium by AEA

Sample Date: 11/30/09
Receive Date:11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01061											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Americium-241	14596-10-2	27		RPD			10.526	20.000		01/04/10
DUP	Am-243 tracer by AEA	AM243	41.91	90.250	% Recov	30.000	105.000				01/04/10
SURR	Am-243 tracer by AEA	AM243	41.91	52.190	% Recov	30.000	105.000				01/04/10
Lab ID: W09GR01072											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Am-243 tracer by AEA	AM243	10.25	88.610	% Recov	30.000	105.000				01/04/10
BATCH QC											
BLANK	Americium-241	14596-10-2	U-3.1e-2	n/a	pCi/g	-10.000	1000.000				01/04/10
BLANK	Am-243 tracer by AEA	AM243	10.33	97.290	% Recov	30.000	105.000				01/04/10
LCS	Americium-241	14596-10-2	12.76	99.338	% Recov	80.000	120.000				01/04/10
LCS	Am-243 tracer by AEA	AM243	11.7	84.380	% Recov	30.000	105.000				01/04/10

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091234
Matrix: SOLID
Test: Gamma Energy Analysis-grd H2O

Sample Date: 11/30/09
Receive Date:11/30/09

Lab ID: W09GR01061

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
DUP	Cobalt-60	10198-40-0	U3.998e-2		RPD			n/a	20.000		12/01/09
DUP	Cesium-137	10045-97-3	48.28		RPD			0.537	20.000		12/01/09
DUP	Europium-152	14683-23-9	U-0.1412		RPD			n/a	20.000		12/01/09
DUP	Europium-154	15585-10-1	U-9.016e-2		RPD			n/a	20.000		12/01/09
DUP	Europium-155	14391-16-3	U-6.1e-2		RPD			n/a	20.000		12/01/09
DUP	Antimony-125	14234-35-6	U2.051e-2		RPD			n/a	20.000		12/01/09

BATCH QC

BLANK	Cobalt-60	10198-40-0	U1.048e-3	n/a	pCi/g	-10.000	1000.000				12/01/09
BLANK	Cesium-137	10045-97-3	U9.812e-4	n/a	pCi/g	-10.000	1000.000				12/01/09
BLANK	Europium-152	14683-23-9	U-8.046e-3	n/a	pCi/g	-10.000	1000.000				12/01/09
BLANK	Europium-154	15585-10-1	U-1.044e-2	n/a	pCi/g	-10.000	1000.000				12/01/09
BLANK	Europium-155	14391-16-3	U5.413e-3	n/a	pCi/g	-10.000	1000.000				12/01/09
BLANK	Antimony-125	14234-35-6	U-3.814e-3	n/a	pCi/g	-10.000	1000.000				12/01/09
LCS	Cobalt-60	10198-40-0	10450	105.131	% Recov	80.000	120.000				12/01/09
LCS	Cesium-137	10045-97-3	6228	103.113	% Recov	80.000	120.000				12/01/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091234
Matrix: SOLID
Test: Gross Alpha on Alpha Plateau

Sample Date: 11/30/09
Receive Date:11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01061											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross alpha on alpha plateau	12587-46-1	1440		RPD			18.182	20.000		12/30/09
BATCH QC											
BLANK	Gross alpha on alpha plateau	12587-46-1-ap	U-2.1E-01	n/a	pCi/g	-2.000	2.000				12/30/09
LCS	Gross alpha on alpha plateau	12587-46-1-ap	6.2	95.385	% Recov	80.000	120.000				12/30/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091234
Matrix: SOLID
Test: Gross Alpha/Gross Beta (AB32)

Sample Date: 11/30/09
Receive Date:11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01061											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross beta	12587-47-2	170		RPD			1.749	20.000		12/29/09
BATCH QC											
BLANK	Gross beta	12587-47-2	U1.4E-01	n/a	pCi/g	-10.000	10.000				12/29/09
LCS	Gross beta	12587-47-2	24.1	107.782	% Recov	80.000	120.000				12/29/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091234
Matrix: SOLID
Test: Plutonium Isotopics by AEA

Sample Date: 11/30/09
Receive Date:11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01061											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Plutonium-238	13981-16-3	8.7		RPD			n/a	20.000		01/04/10
DUP	Pu-239/240 by AEA	PU-239/240	2000		RPD			5.128	20.000		01/04/10
DUP	Pu-242	13982-10-0	1239	81.110	% Recov	30.000	105.000				01/04/10
SURR	Pu-242	13982-10-0	1239	74.750	% Recov	30.000	105.000				01/04/10
Lab ID: W09GR01072											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Pu-242	13982-10-0	151.6	84.970	% Recov	30.000	105.000				01/04/10
BATCH QC											
BLANK	Plutonium-238	13981-16-3	U-1	n/a	pCi/g	-10.000	1000.000				01/04/10
BLANK	Pu-239/240 by AEA	PU-239/240	U7.7e-2	n/a	pCi/g	-10.000	1000.000				01/04/10
BLANK	Pu-242	PU242	152.8	50.090	% Recov	30.000	105.000				01/04/10
LCS	Pu-239/240 by AEA	PU-239/240	13	101.207	% Recov	80.000	120.000				01/04/10
LCS	Pu-242	PU242	17.3	49.510	% Recov	30.000	105.000				01/04/10

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091234
Matrix: SOLID
Test: Strontium 89/90

Sample Date: 11/30/09
Receive Date:11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01061											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	79.2	79.200	% Recov	30.000	105.000				12/30/09
DUP	Strontium-89/90	SR-RAD	45.4		RPD			20.198	20.000 *		12/30/09
SURR	Sr-85 Tracer by Beta Counting	SR85	82.1	82.100	% Recov	30.000	105.000				12/30/09
Lab ID: W09GR01072											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	90.2	90.200	% Recov	30.000	105.000				12/30/09
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	74.2	74.200	% Recov	30.000	105.000				12/30/09
BLANK	Strontium-89/90	10098-97-2	U0.33	n/a	pCi/g	-10.000	300.000				12/30/09
LCS	Sr-85 Tracer by Beta Counting	SR85	85	85.000	% Recov	30.000	105.000				12/30/09
LCS	Strontium-89/90	10098-97-2	69.4	99.856	% Recov	80.000	120.000				12/30/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091234
Matrix: SOLID
Test: TC99 by Liquid Scin.

Sample Date: 11/20/09
Receive Date:11/20/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01033											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tc-99 by Liquid Scin.	14133-76-7	0.5		RPD			33.333	20.000 *		12/04/09
MS	Tc-99 by Liquid Scin.	14133-76-7	388.5	81.276	% Recov	75.000	125.000				12/04/09
BATCH QC											
BLANK	Tc-99 by Liquid Scin.	14133-76-7	0.5	0.500	pCi/g	-10.000	1000.000				12/04/09
LCS	Tc-99 by Liquid Scin.	14133-76-7	10.5	102.941	% Recov	80.000	120.000				12/04/09

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091234
Matrix: SOLID
Test: Uranium Isotopics by AEA

Sample Date: 11/30/09
Receive Date:11/30/09

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W09GR01061											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	U-232 tracer by AEA	U232	10.09	87.170	% Recov	30.000	105.000				12/09/09
DUP	Uranium-233/234	U-233/234	0.14		RPD			15.385	20.000		12/09/09
DUP	Uranium-235	15117-96-1	U1.1e-2		RPD			n/a	20.000		12/09/09
DUP	Uranium-238	U-238	0.14		RPD			33.333	20.000 *		12/09/09
SURR	U-232 tracer by AEA	U232	10.09	76.850	% Recov	30.000	105.000				12/09/09
Lab ID: W09GR01072											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	U-232 tracer by AEA	U232	9.875	70.340	% Recov	30.000	105.000				12/09/09
BATCH QC											
BLANK	U-232 tracer by AEA	U232	10.15	81.020	% Recov	30.000	105.000				12/09/09
BLANK	Uranium-233/234	13966-29-5	U5.4e-3	n/a	pCi/g	-10.000	1000.000				12/09/09
BLANK	Uranium-235	15117-96-1	U-9.9e-8	n/a	pCi/g	-10.000	1000.000				12/09/09
BLANK	Uranium-238	24678-82-8	2.7e-2	0.027	pCi/g	-10.000	1000.000				12/09/09
LCS	U-232 tracer by AEA	U232	11.27	71.250	% Recov	30.000	105.000				12/09/09
LCS	Uranium-238	24678-82-8	18.18	95.911	% Recov	80.000	120.000				12/09/09

REVISION 1

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F10-011

Group #: WSCF20091234
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS:Aluminum sample concentration more than 4X spike amount. Spike information not valid."X" flag Manganese spike recoveries above 130%. "N" flag Organics: Data moisture corrected and results reported on a dry weight basis. DTS ICP-AES: Sample W09GR1072 and W09GR1061 Estimated boron result due to Iron interference; "E" flag. Iron sample result exceeds spiking level by a factor of 4 so spike recoveries are not valid. Sample result less than 5 times the MDL; "B" flag. Tc-99 & U-238 / Blank preps are less than 2 times the MDA. lmh U-238, Tc-99 batch dup is flagged for poor RPD due to the low countrate. RPD does not apply. Cyanide: LCS within acceptance range. Calibration standard was expired 12-1-09 was was verified against the new standard at 99% recovery "X" flag W09GR01061 & W09GR01072/Sr89/90 duplicate is flagged for

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

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WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F10-011

Group #: WSCF20091234
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
				poor RPD due to the inhomogeneity of the sample. Imh W09GR01061 high alpha acitivity will spill over into the beta channel and will bias the gross beta result high.
				IC Cation - MS/MSD out of limits. Possibly due to non-homogeneity of sample. Data N-flagged. DTS

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

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WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F10-011 :F10-011

Group #: WSCF20091234
Department: Radiochemistry

Sample #	Client ID			Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W09GR01061	B22RJ6	GPP	TRENT	Gamma Energy Analysis-grd H2O	AM-241				30	pCi/g
W09GR01061	B22RJ6	GPP	TRENT	Gamma Energy Analysis-grd H2O	AM-241 Count Error				13	%
W09GR01061	B22RJ6	GPP	TRENT	Gamma Energy Analysis-grd H2O	K-40				17	pCi/g
W09GR01061	B22RJ6	GPP	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				18	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	AC-228				0.93	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error				25	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	AM-241				2.5	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	AM-241 Count Error				12	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-212				0.54	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error				45	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-214				0.66	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				16	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	CS-134				0.049	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	CS-134 Count Error				38	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	K-40				21	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error				12	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-212				1.0	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error				8.7	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-214				1.3	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				25	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-226				0.56	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error				16	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-228				0.83	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	RA-228 Count Error				17	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	SN-126				0.20	pCi/g

RQ=Result Qualifier

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WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F10-011 :F10-011

Group #: WSCF20091234
Department: Radiochemistry

Sample #	Client ID			Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error				30	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	TH-234				1.8	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	TH-234 Count Error				19	%
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	TL-208				0.32	pCi/g
W09GR01072	B22RJ9	GPP	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error				14	%

RQ=Result Qualifier

REVISION 1

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42100-SLF-10-212

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION w/SAMPLE RECORD SHEETS

Consisting of 15 pages
Including cover page

REVISION 1

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

11/19/10

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 30214ES10
Group#: 20091234
Project#: F10-011
Proj Mgr: Steve Trent
Phone: 373-5869

The following samples were received from you on 11/30/09. 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
W09GR01061	B22RJ6	GPP @2008 @AEA-32 @SR89_90 NH4-IC	TRENT Solid, or handle as if solid @8015GPP @AB-32 @AEA-30 @AEA-31 @ALPHA @GEA-GPP @GPP6010 @IC-30 @PCBG @SVOCGPP @TC99-30 @TPHD-WA CN-02 CR+6 PERSOLID	11/30/09
W09GR01070	B22RJ8	GPP @VOA-GPP	TRENT Solid, or handle as if solid	11/30/09
W09GR01071	B22RJ7	GPP @VOA-GPP	TRENT Solid, or handle as if solid	11/30/09
W09GR01072	B22RJ9	GPP @2008 @AEA-32 @SR89_90 NH4-IC	TRENT Solid, or handle as if solid @8015GPP @AB-32 @AEA-30 @AEA-31 @ALPHA @GEA-GPP @GPP6010 @IC-30 @PCBG @SVOCGPP @TC99-30 @TPHD-WA CN-02 CR+6 PERSOLID	11/30/09
W09GR01073	B22RK1	GPP @VOA-GPP	TRENT Solid, or handle as if solid	11/30/09
W09GR01074	B22RK0	GPP @VOA-GPP	TRENT Solid, or handle as if solid	11/30/09

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@8015GPP	Alcohols, Glycols - 8015
@AB-32	Gross Alpha/Gross Beta (AB32)
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@ALPHA	Gross Alpha on Alpha Plateau
@GEA-GPP	Gamma Energy Analysis-grd H2O
@GPP6010	ICP Metals Analysis, Grd H20 P
@IC-30	Anions by Ion Chromatography
@PCBGPP	PCBs complete list

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 30214ES10
Group#: 20091234
Project#: F10-011
Proj Mgr: Steve Trent
Phone: 373-5869

Test Acronym Description

Test Acronym	Description
@SR89_90	Strontium 89/90
@SVOCGPP	SW-846 8270C Semi-Vols
@TC99-30	TC99 by Liquid Scin.
@TPHD-WA	NWTPH-D TPH Diesel Range (Wa)
@VOA-GPP	VOA Ground Water Protection
CN-02	Cyanide by Midi/Spectrophotom
CR+6	Hexavalent chromium
NH4-IC	Ammonia (N) by IC
PERSOLID	Percent Solids

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

1/171

F10-011-002

COLLECTOR: Rusane-Turner Rust	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL
PRICE CODE: 8N	DATA TURNAROUND: 45 Days / 45 Days		
SAMPLING LOCATION: C5860 (299-E29-54); I-007A	PROJECT DESIGNATION: ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)	SAF NO.: F10-011	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-576-p57	ACTUAL SAMPLE DEPTH: 74.7-76.4 feet	COA: 302143ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE			
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A	BILL OF LADING/AIR BILL NO.: N/A	

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE: RADIOACTIVE TIE TO: B22T39

20091234

PRESERVATION	Cool~4C	Cool~4C	None	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None
TYPE OF CONTAINER	aG/S	aG	G/P	G/P	G/P	G	aG	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	3	1	1	1	1	1	1	1	1
VOLUME	40mL	250mL	120mL	120mL	120mL	60mL	250mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	Total Cyanide - 9014;	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	SEE ITEM (6) IN SPECIAL INSTRUCTIONS	SEE ITEM (7) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22RJ6 W0916201061	SOIL	11-30-09	0907	✓	✓	✓	✓	✓	✓	✓	✓	✓

ICED

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Steve Rust / Rust 11-30-09	1705	MD Kessler / MD Kessler	11-30-09 1705
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

ORIGINAL

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

REVISION 1

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-011-002	PAGE 2 OF 2
COLLECTOR Roshne-Jensen Rust	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C5860 (299-E29-54); I-007A	**PROJECT DESIGNATION** ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)		**SAF NO.** F10-011	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-576-3 p 87	**ACTUAL SAMPLE DEPTH** 74.7-76.4 feet	**COA** 302143ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)Alcohols, Glycols, & Ketones - 8015 (Ethylene glycol, Diethyl ether)
(2)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) (Tributyl phosphate, 3+4 Methylphenol (cresol, m+p)) TPH-DieselKerosene Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
(3)ICP/MS - 200.8 (TAL) (Aluminum, Antimony, Barium, Chromium, Cobalt, Cadmium, Copper, Zinc, Manganese, Nickel, Vanadium, Silver) ICP/MS - 200.8 (Add-on) (Arsenic, Lead, Strontium, Thallium, Beryllium, Thorium, Uranium, Selenium) ICP Metals - 6010B (TAL) (Iron) ICP Metals - 6010B (Add-On) (Boron, Bismuth, Lithium) 200.8_HG - ICPMS (Mercury)
(4)IC Anions - 300.0 (Phosphorus in phosphate, Chloride, Nitrogen in Nitrite, Fluoride, Nitrogen in Nitrate, Sulfate) Ammonia - 350.1;
(5)PCBs - 8082 (Aroclor-1262, Aroclor-1260, Aroclor-1254, Aroclor-1242, Aroclor-1232, Aroclor-1268, Aroclor-1221, Aroclor-1016, Aroclor-1248)
(6)Gamma Spectroscopy (Europium-155, Cesium-137, Europium-154, Europium-152, Cobalt-60) Gamma Spec - Add-on (Antimony-125)
(7)Gross Alpha (Gross alpha) Gross Beta (Gross beta) Americium-241; Technetium-99 (Technetium-99) Isotopic Uranium (Uranium-233/234, Uranium-235, Uranium-238) Isotopic Plutonium; Strontium-89,90 -- Total Sr;

ORIGINAL

A-6003-618(01/06)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-011-004

COLLECTOR: Susan Turner-Rust	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL
PRICE CODE: 8N	DATA TURNAROUND: 45 Days / 45 Days	AIR QUALITY: ☐	SAMPLING LOCATION: C5860 (299-E29-54); I-007A
PROJECT DESIGNATION: ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)	SAF NO.: F10-011	ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-576-3 pg 87
ACTUAL SAMPLE DEPTH: 74.7 - 76.4 feet	COA: 302143ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	SHIPPED TO: Waste Sampling & Characterization
OFFSITE PROPERTY NO.: N/A	BILL OF LADING/AIR BILL NO.: N/A		

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE: RADIOACTIVE TIE TO: B22T39

PRESERVATION	Cool-4C
TYPE OF CONTAINER	8Ga*
NO. OF CONTAINER(S)	1
VOLUME	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22RJ8 W0916020070	SOIL	11-30-09	0907	✓

ICED

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Susan Rust [signature]	11-30-09 1705	MD Keesler MD Keesler	11-30-09 1705

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to 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 (TCL); VOA - 5035/8260 - (Add-On)
{Trichloromonofluoromethane, 1-Butanol, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}

☐ ORIGINAL

LABORATORY SECTION: RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION: DISPOSAL METHOD | DISPOSED BY | DATE/TIME

A-6003-618(01/06)

REVISION 1

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-011-003

COLLECTOR: Rosanne Turner Rust	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 8N	DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: C5860 (299-E29-54); I-007A	PROJECT DESIGNATION: ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)		SAF NO.: F10-011	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-576-3 p 87	ACTUAL SAMPLE DEPTH: 74.7-76.4 feet	COA: 302143ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE: RADIOACTIVE TIE TO: B22T39

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	PRESERVATION	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS
B22RJ7 W076R8/071	SOIL	11-30-09	0907	Cool <-7C and >-20C: ✓	aGs*	5	40mL	SEE ITEM (1) IN SPECIAL INSTRUCTIONS
				MEOH/Cool~4 C: ✓	aGs*	3	40mL	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

ICED

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: Steve Rust STR cooler	DATE/TIME: 11-30-09 1205	RECEIVED BY/STORED IN: MD Kessler MD Kessler	DATE/TIME: 11-30-09 1205
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

ORIGINAL

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

A-6003-618(01/06)

REVISION 1

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-011-003	PAGE 2 OF 2
COLLECTOR Rosine Turner Rust	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C5860 (299-E29-54); I-007A	PROJECT DESIGNATION ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)		SAF NO. F10-011	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-576-3 p87	ACTUAL SAMPLE DEPTH 74.7-76.4 bmt	COA 302143ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL); VOA - 5035/8260 (LOW LEVEL) - (Add-On) {Trichloromonofluoromethane, 1-Butanol, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}
(2)VOA - 5035/8260 (HIGH LEVEL); VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {Trichloromonofluoromethane, 1-Butanol, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}

ORIGINAL

A-6003-618(01/06)

REVISION 1

Attachment 1 - Sample Record Sheet

SAMPLE RECORD SHEET

Location: C S 8 6 0 K-well I-007A

Sampler Initials and Date: 11-30-09 SL

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weight[5] (grams)	Methanol in sample bottle (ml)
B22RJ7	K	No Methanol		32.9	38.3	5.4	No Methanol
B22RJ7	L			32.2	37.6	5.4	
B22RJ7	M			32.3	38.1	5.8	
B22RJ7	N			32.0	37.3	5.3	
B22RJ7	P			32.3	37.7	5.4	
B22RJ7	W	38.28	38.3	38.7	44.4	5.7	10
B22RJ7	X	37.90	37.9	38.2	43.7	5.5	10
B22RJ7	Y	38.00	38.0	38.4	44.1	5.7	10
B22RJ8	*	37.90	38.0	38.6	38.6	0	10

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

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool these samples to 4°C ± 2°C.

[2]Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

[3]Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[4]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[5]Soil weight is the vial with sample minus Initial Weight.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-011-007

COLLECTOR: Rosanne Rust	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 8N	DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: C5860 (299-E29-54); I-008A	PROJECT DESIGNATION: ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)		SAF NO.: F10-011	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-576-3 p 87	ACTUAL SAMPLE DEPTH: 77.1-79.4 ft	COA: 302143ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE: RADIOACTIVE TIE TO: B22T90

PRESERVATION	Cool~4C	Cool~4C	None	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None
TYPE OF CONTAINER	aG/S	aG	G/P	G/P	G/P	G	aG	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	3	1	1	1	1	1	1	1	1
VOLUME	40mL	250mL	120mL	120mL	120mL	60mL	250mL	500mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	Total Cyanide - 9014;	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	SEE ITEM (6) IN SPECIAL INSTRUCTIONS	SEE ITEM (7) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22RJ9 W9620/072	SOIL	NOV 30 2009	1311	✓	✓	✓	✓	✓	✓	✓	✓	✓

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CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
Rosanne Rust	NOV 30 2009 1305	Vicky Sue	11/30/09 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	

☐ ORIGINAL

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

REVISION 1

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-011-007	PAGE 2 OF 2
COLLECTOR Rosane Rust	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C5860 (299-E29-54); I-008A	PROJECT DESIGNATION ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)		SAF NO. F10-011	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-576-3 p87	ACTUAL SAMPLE DEPTH 77.1-79.4 ft	COA 302143ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)Alcohols, Glycols, & Ketones - 8015 {Ethylene glycol, Diethyl ether}
(2)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) {Tributyl phosphate, 3+4 Methylphenol (cresol, m+p)} TPH-DieselKerosene Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range}
(3)ICP/MS - 200.8 (TAL) {Aluminum, Antimony, Barium, Chromium, Cobalt, Cadmium, Copper, Zinc, Manganese, Nickel, Vanadium, Silver} ICP/MS - 200.8 (Add-on) {Arsenic, Lead, Strontium, Thallium, Beryllium, Thorium, Uranium, Selenium} ICP Metals - 6010B (TAL) {Iron} ICP Metals - 6010B (Add-On) {Boron, Bismuth, Lithium} 200.8_HG - ICPMS {Mercury}
(4)IC Anions - 300.0 {Phosphorus in phosphate, Chloride, Nitrogen in Nitrite, Fluoride, Nitrogen in Nitrate, Sulfate} Ammonia - 350.1;
(5)PCBs - 8082 {Aroclor-1262, Aroclor-1260, Aroclor-1254, Aroclor-1242, Aroclor-1232, Aroclor-1268, Aroclor-1221, Aroclor-1016, Aroclor-1248}
(6)Gamma Spectroscopy {Europium-155, Cesium-137, Europium-154, Europium-152, Cobalt-60} Gamma Spec - Add-on {Antimony-125}
(7)Gross Alpha {Gross alpha} Gross Beta {Gross beta} Americium-241; Technetium-99 {Technetium-99} Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238} Isotopic Plutonium; Strontium-89,90 -- Total Sr;

NOV 30 2009

ORIGINAL

ICED

REVISION 1

A-6003-618(01/06)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-011-009

COLLECTOR: Rosane Rust	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL
PRICE CODE: BN	AIR QUALITY: ☐	DATA TURNAROUND: 45 Days / 45 Days	
SAMPLING LOCATION: C5860 (299-E29-54); I-008A	PROJECT DESIGNATION: ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)	SAF NO.: F10-011	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-576-3 p.87	ACTUAL SAMPLE DEPTH: 77.1-79.4 ft	COA: 302143ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE	SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A	BILL OF LADING/AIR BILL NO.: N/A

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE: RADIOACTIVE TIE TO: B22T90

PRESERVATION	Cool~4C MeOH
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	
B22RK1 W096D01073	SOIL	NOV 30 2009	1311	✓

ICED

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rosane Rust	NOV 30 2009 1300	Victor Sims	11/30/09 1300

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to 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 (TCL); VOA - 5035/8260 - (Add-On) {Trichloromonofluoromethane, 1-Butanol, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}

LABORATORY SECTION: RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION: DISPOSAL METHOD | DISPOSED BY | DATE/TIME

ORIGINAL

A-6003-618(01/06)

REVISION 1

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-011-008

COLLECTOR: Roshne Rust	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL
PRICE CODE: 8N	DATA TURNAROUND: 45 Days / 45 Days		
SAMPLING LOCATION: C5860 (299-E29-54); I-008A	PROJECT DESIGNATION: ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)	SAF NO.: F10-011	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-576-3 p 87	ACTUAL SAMPLE DEPTH: 77.1-79.4 ft	COA: 302143ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE			
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A	BILL OF LADING/AIR BILL NO.: N/A	

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B22T90

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

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22RK0 W19620674	SOIL	NOV 30 2009	1311	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Steve Rutherford	NOV 30 2009 1305	Victor Sims	11/30/09 1305

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

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

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COLLECTOR Rosane Rust	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N AIR QUALITY ☐	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C5860 (299-E29-54); I-008A	PROJECT DESIGNATION ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)		SAF NO. F10-011		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-576-3 p 87	ACTUAL SAMPLE DEPTH 77.1-79.4 ft	COA 302143ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
** All VOA samples will be collected using EPA Method 5035A.
** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.
** The laboratory is to use one of the low level VOA bottles for moisture content determination.
** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL); VOA - 5035/8260 (LOW LEVEL) - (Add-On) {Trichloromonofluoromethane, 1-Butanol, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}
(2)VOA - 5035/8260 (HIGH LEVEL); VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {Trichloromonofluoromethane, 1-Butanol, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}

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Attachment 1 - Sample Record Sheet

SAMPLE RECORD SHEET

Location: C5860 K-Well I-008A

Sampler Initials and Date: [illegible] 11-30-09

Sample Number	Sample Suffix[1]	Tare Weight provided (grams)	Tare Weight prior to sample[2] (grams)	Initial Weight[3] (grams)	Total Weight[4] (grams)	Soil Weight[5] (grams)	Methanol in sample bottle (ml)
B22RK0	K	No Methanol		31.6	35.9	4.3	No Methanol
B22RK0	L			31.5	36.7	5.2	
B22RK0	M			31.2	35.8	4.6	
B22RK0	N			32.0	36.8	4.8	
B22RK0	P			31.8	36.5	4.7	
B22RK0	W	38.67	38.7	39.1	43.9	4.8	10
B22RK0	X	37.94	38.0	38.3	43.2	4.9	10
B22RK0	Y	37.95	38.0	38.4	42.9	4.5	10
B22RK1	*	38.16	38.2	38.6	38.6	0	10

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

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

Sample suffix of "*" relates to methanol blank. Cool these samples to 4°C ± 2°C.

[2]Tare weight prior to sample must be within +/- 0.2 grams of Vendors tare weight or bottle cannot be used. Weigh only the bottle, no labels, stickers or bags.

[3]Initial weight is to include all labels, stickers, bags, methanol (for vendor filled methanol samples with suffix W,X,Y and *) spin bars (for samples with suffix K,L,M,N and P) and anything else that will be associated with the bottle when it is weighed with the sample.

[4]Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

[5]Soil weight is the vial with sample minus Initial Weight.