

RECEIVED MAY 25, 2010

REVISION 1

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



42100-SLF-10-187

May 25, 2010

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

Dear Mike,

P&D AND RESULTS FOR SAMPLE DELIVERY GROUP WSCF20091304 – SAF NUMBER F10-011

- References:
- (1) Letter, SL Fitzgerald (RJLG) to MA Neely (CHPRC), Final Results for SDG WSCF20091304 (M4W41-SLF-10-042), dated January 27, 2010
 - (2) Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, 'FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER'
 - (3) HNF-SD-CD-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Plan

On March 1, 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 WSCF20091137.

Please accept our apology for any inconvenience this may have created. If you have any questions, don't hesitate to call on Rich Barker, telephone 373-0103, for assistance.

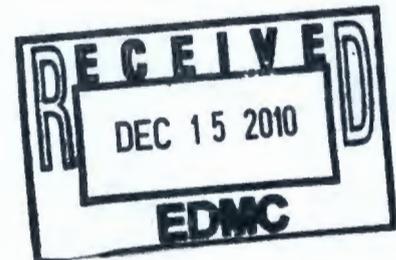
Very truly yours,

S. L. Fitzgerald
 WSCF Analytical Lab

SLF/grf

Attachments 4

| | | |
|-----|-----------------|-------|
| cc: | w/Attachments | |
| | R. L. Barker | S3-30 |
| | H. K. Meznarich | S3-30 |
| | J. E. Trechter | S3-30 |
| | S. J. Trent | R3-50 |
| | File/LB | |



42100-SLF-10-187

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20091304
Data Deliverable Date: 28-jan-2010
Data Deliverable: Cover Sheet

| SAF# | Sample ID | WSCF# | Matrix |
|---------|-----------|------------|--------|
| F10-011 | B22RP1 | W09GR01188 | SOIL |
| | B22RP2 | W09GR01190 | SOIL |

42100-SLF-10-187

ATTACHMENT 2

NARRATIVE

Consisting of 7 pages
Including cover page

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

Three (3) S&GRP samples were received at the WSCF Laboratory on December 14, 2009. The 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 # WSCF20091304 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 16 through 18, 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 21 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01155 (B22RL1 in work order 20091289)
 - Matrix Spike and Matrix Spike Duplicate (MS/MSD) recoveries were outside laboratory limits. Sample results were "N" flagged.

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 22 through 23 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01155 (B22RL1 in work order 20091289)
 - Chloride and Sulfate— Duplicate Relative Percent Difference(s) (RPD) exceeded established laboratory limits. However, since the analyte concentrations in the sample were less than 10X the MDL, the RPD criterion does not apply. No flags issued.

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 24 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01155 (B22RL1 in work order 20091289)

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

- Batch QC analyzed on sample# W09GR01161 (B23463 in work order 20091288)

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 26 through 27 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01155 (B22RL1 in work order 20091289) and W09GR01248 (B22FD8 in work order 20091343)
 - Iron contamination was detected in the Blank and was evaluated. No sample results in this batch were affected.
 - Iron – exceeded spiking levels by a factor of 4. Spike recoveries are not valid.
 - Estimated Boron results due to iron interference. Sample results were “E” flagged.
 - Soil LCS has no certified value for Lithium and Bismuth. The missing elements were spiked into the LCS, digested, analyzed, and reported.

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 28 through 31 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01170 (B22RM0 in work order 20091293)
 - Aluminum – MSD recovery and RPD were 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 39 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01155 (B22RL1 in work order 20091289)

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 41 through 42 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01188 (B22RP1 in work order 20091304)

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 43 through 48 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01188 (B22RP1 in work order 20091304)

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 was analyzed with this delivery group. See page 49 for QC details. Analytical Note(s):

- Batch QC analyzed on sample# W09GR01155 (B22RL1 in work order 20091289)

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

- Batch QC analyzed on sample# W09GR01159 (B22RL2 in work order 20091286)
- B22RP3 – Analysis of this Methanol Blank sample and its associated high concentration VOA sample was not required.

All QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis 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 55 through 62 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# W09GR01170 (B22RM0 in work order 20091293)

All QC controls are within the established limits.
- Gamma Energy Analysis:
 - Batch QC analyzed on sample# W09GR01178 (B238T8 in work order 20091300)

All QC controls are within the established limits.
- Gross Alpha / Gross Beta:
 - Batch QC analyzed on sample# W09GR01170 (B22RM0 in work order 20091293)

All QC controls are within the established limits.
- Isotopic Plutonium analysis:
 - Batch QC analyzed on sample# W09GR01170 (B22RM0 in work order 20091293)

All QC controls are within the established limits.

- Isotopic Uranium analysis:
 - Batch QC analyzed on sample# W09GR01170 (B22RM0 in work order 20091293)

All QC controls are within the established limits.

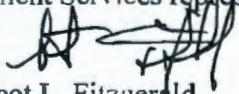
- Strontium-89/90:
 - Batch QC analyzed on sample# W09GR01170 (B22RM0 in work order 20091293)

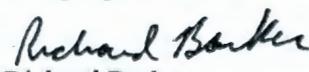
All QC controls are within the established limits.

- Technetium-99:
 - Batch QC analyzed on sample# W09GR01213 (B236R4 in work order 20091319)
 - Technetium-99 – Matrix Spike and RPD are flagged however the scientist has reviewed and approved the batch.

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

 5-25-15
Richard Barker
WSCF Client Services

3/1/2010

Problem and Discrepancy Report

WSCF

SDG WSCF20091304

1. The data package has the following issues:

- a) Case narrative, provide HEIS # and Work Order # for batch QC that was analyzed on a sample from another SDG.

Resolution: *Provide correction.*

Lab Response: **HEIS and work order numbers provided for QC samples.**

- b) Case narrative, rad chem., Technetium-99 - Tc-99 MS recovery was less than the established laboratory limits. Sample result should be N qualified.

Resolution: *Provide qualifiers.*

Lab Response: **Qualifiers added.**

- c) Case narrative, rad chem., Uranium-235 and 238 – Analytical comment about blank contamination is not correct. QC data showed no blank contamination.

Resolution: *Provide correction.*

Lab Response: **Blank contamination comment removed.**

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

42100-SLF-10-187

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 54 pages
Including cover page

**WSCF
ANALYTICAL RESULTS REPORT**

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical:

Will S. Fitzgerald 5-25-10

Client Services:

Richard Barker 5-24-10 Richard Barker

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

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

Contract#: MOA-FH-CHPRC-2008
Report#: WSCF20091304
Report Date: 25-may-2010
Report WGPP/ver. 5.2
Groundwater Remediation Program

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REVISION 1

w13qlog v4.2 25-may-2010 06:36:29

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20091304

| WL# | S# | Batch | QC# | Tray Type | Sample# | Test |
|-------|----|-------|-------|-----------|------------|--------------------------------|
| | | | | SAMPLE | W09GR01188 | Percent Solids |
| 40361 | 2 | 40799 | 45355 | BLNK-PREP | | Hexavalent chromium |
| 40361 | 3 | 40799 | 45355 | LCS | | Hexavalent chromium |
| 40361 | 5 | 40799 | 45355 | DUP | W09GR01161 | Hexavalent chromium |
| 40361 | 6 | 40799 | 45355 | MS | W09GR01161 | Hexavalent chromium |
| 40361 | 7 | 40799 | 45355 | MSD | W09GR01161 | Hexavalent chromium |
| 40361 | 9 | 40799 | 45355 | SPK-POST | W09GR01161 | Hexavalent chromium |
| 40361 | 7 | 40799 | 45355 | SPK-RPD | W09GR01161 | Hexavalent chromium |
| 40361 | 18 | 40799 | 45355 | SAMPLE | W09GR01188 | Hexavalent chromium |
| 40376 | 1 | 40811 | 45369 | BLANK | | Cyanide by Midi/Spectrophotom |
| 40376 | 2 | 40811 | 45369 | LCS | | Cyanide by Midi/Spectrophotom |
| 40376 | 8 | 40811 | 45369 | MS | W09GR01155 | Cyanide by Midi/Spectrophotom |
| 40376 | 9 | 40811 | 45369 | MSD | W09GR01155 | Cyanide by Midi/Spectrophotom |
| 40376 | 9 | 40811 | 45369 | SPK-RPD | W09GR01155 | Cyanide by Midi/Spectrophotom |
| 40376 | 11 | 40811 | 45369 | SAMPLE | W09GR01188 | Cyanide by Midi/Spectrophotom |
| 40379 | 1 | 40815 | 45372 | BLANK | | Ammonia (N) by IC |
| 40379 | 10 | 40815 | 45372 | BLANK | | Ammonia (N) by IC |
| 40379 | 3 | 40815 | 45372 | LCS | | Ammonia (N) by IC |
| 40379 | 5 | 40815 | 45372 | DUP | W09GR01155 | Ammonia (N) by IC |
| 40379 | 6 | 40815 | 45372 | MS | W09GR01155 | Ammonia (N) by IC |
| 40379 | 7 | 40815 | 45372 | MSD | W09GR01155 | Ammonia (N) by IC |
| 40379 | 7 | 40815 | 45372 | SPK-RPD | W09GR01155 | Ammonia (N) by IC |
| 40379 | 9 | 40815 | 45372 | SAMPLE | W09GR01188 | Ammonia (N) by IC |
| 40390 | 2 | 40826 | 45393 | BLANK | | Anions by Ion Chromatography |
| 40390 | 12 | 40826 | 45393 | BLANK | | Anions by Ion Chromatography |
| 40390 | 3 | 40826 | 45393 | LCS | | Anions by Ion Chromatography |
| 40390 | 5 | 40826 | 45393 | DUP | W09GR01155 | Anions by Ion Chromatography |
| 40390 | 6 | 40826 | 45393 | MS | W09GR01155 | Anions by Ion Chromatography |
| 40390 | 7 | 40826 | 45393 | MSD | W09GR01155 | Anions by Ion Chromatography |
| 40390 | 7 | 40826 | 45393 | SPK-RPD | W09GR01155 | Anions by Ion Chromatography |
| 40390 | 11 | 40826 | 45393 | SAMPLE | W09GR01188 | Anions by Ion Chromatography |
| 40392 | 1 | 40838 | 45406 | BLANK | | ICP-200.8 MS All possible meta |
| 40392 | 2 | 40838 | 45406 | LCS | | ICP-200.8 MS All possible meta |
| 40392 | 4 | 40838 | 45406 | MS | W09GR01170 | ICP-200.8 MS All possible meta |
| 40392 | 5 | 40838 | 45406 | MSD | W09GR01170 | ICP-200.8 MS All possible meta |
| 40392 | 5 | 40838 | 45406 | SPK-RPD | W09GR01170 | ICP-200.8 MS All possible meta |
| 40392 | 7 | 40838 | 45406 | SAMPLE | W09GR01188 | ICP-200.8 MS All possible meta |
| 40425 | 1 | 40842 | 45430 | BLANK | | ICP Metals Analysis, Grd H20 P |
| 40425 | 2 | 40842 | 45430 | LCS | | ICP Metals Analysis, Grd H20 P |
| 40425 | 4 | 40842 | 45430 | MS | W09GR01155 | ICP Metals Analysis, Grd H20 P |
| 40425 | 5 | 40842 | 45430 | MSD | W09GR01155 | ICP Metals Analysis, Grd H20 P |
| 40425 | 5 | 40842 | 45430 | SPK-RPD | W09GR01155 | ICP Metals Analysis, Grd H20 P |
| 40425 | 7 | 40842 | 45430 | SAMPLE | W09GR01188 | ICP Metals Analysis, Grd H20 P |
| 40425 | 11 | 40842 | 45430 | MS | W09GR01248 | ICP Metals Analysis, Grd H20 P |
| 40425 | 12 | 40842 | 45430 | MSD | W09GR01248 | ICP Metals Analysis, Grd H20 P |
| 40425 | 12 | 40842 | 45430 | SPK-RPD | W09GR01248 | ICP Metals Analysis, Grd H20 P |

w13qlog v4.2 25-may-2010 06:36:29

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20091304

| WL# | S# | Batch | QC# | Tray Type | Sample# | Test |
|-------|----|-------|-------|-----------|------------|-------------------------------|
| | | | 45402 | BLANK | | SW-846 8270C Semi-Vols |
| | | | 45402 | LCS | | SW-846 8270C Semi-Vols |
| | | | 45402 | MS | W09GR01188 | SW-846 8270C Semi-Vols |
| | | | 45402 | MSD | W09GR01188 | SW-846 8270C Semi-Vols |
| | | | 45402 | SAMPLE | W09GR01188 | SW-846 8270C Semi-Vols |
| | | | 45402 | SPK-RPD | W09GR01188 | SW-846 8270C Semi-Vols |
| | | | 45402 | SURR | W09GR01188 | SW-846 8270C Semi-Vols |
| | | | 45407 | BLANK | | NWTPH-D TPH Diesel Range (Wa) |
| | | | 45407 | LCS | | NWTPH-D TPH Diesel Range (Wa) |
| | | | 45407 | MS | W09GR01155 | NWTPH-D TPH Diesel Range (Wa) |
| | | | 45407 | MSD | W09GR01155 | NWTPH-D TPH Diesel Range (Wa) |
| | | | 45407 | SPK-RPD | W09GR01155 | NWTPH-D TPH Diesel Range (Wa) |
| | | | 45407 | SAMPLE | W09GR01188 | NWTPH-D TPH Diesel Range (Wa) |
| | | | 45407 | SURR | W09GR01188 | NWTPH-D TPH Diesel Range (Wa) |
| | | | 45441 | BLANK | | PCBs complete list |
| | | | 45441 | LCS | | PCBs complete list |
| | | | 45441 | MS | W09GR01188 | PCBs complete list |
| | | | 45441 | MSD | W09GR01188 | PCBs complete list |
| | | | 45441 | SAMPLE | W09GR01188 | PCBs complete list |
| | | | 45441 | SPK-RPD | W09GR01188 | PCBs complete list |
| | | | 45441 | SURR | W09GR01188 | PCBs complete list |
| | | | 45543 | BLANK | | VOA Ground Water Protection |
| | | | 45543 | LCS | | VOA Ground Water Protection |
| | | | 45543 | MS | W09GR01159 | VOA Ground Water Protection |
| | | | 45543 | MSD | W09GR01159 | VOA Ground Water Protection |
| | | | 45543 | SPK-RPD | W09GR01159 | VOA Ground Water Protection |
| | | | 45543 | SAMPLE | W09GR01190 | VOA Ground Water Protection |
| | | | 45543 | SURR | W09GR01190 | VOA Ground Water Protection |
| 40572 | 1 | 41017 | 45574 | BLANK | | Alcohols, Glycols - 8015 |
| 40572 | 2 | 41017 | 45574 | LCS | | Alcohols, Glycols - 8015 |
| 40572 | 4 | 41017 | 45574 | DUP | W09GR01155 | Alcohols, Glycols - 8015 |
| 40572 | 5 | 41017 | 45574 | MS | W09GR01155 | Alcohols, Glycols - 8015 |
| 40572 | 6 | 41017 | 45574 | MSD | W09GR01155 | Alcohols, Glycols - 8015 |
| 40572 | 6 | 41017 | 45574 | SPK-RPD | W09GR01155 | Alcohols, Glycols - 8015 |
| 40572 | 8 | 41017 | 45574 | SAMPLE | W09GR01188 | Alcohols, Glycols - 8015 |

w13qlog v4.2 25-may-2010 06:36:29

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20091304

| WL# | S# | Batch | QC# | Tray Type | Sample# | Test |
|-------|----|-------|-------|-----------|------------|-------------------------------|
| 40364 | 1 | 40802 | 45391 | BLANK | | Gross Alpha on Alpha Plateau |
| 40364 | 2 | 40802 | 45391 | LCS | | Gross Alpha on Alpha Plateau |
| 40364 | 3 | 40802 | 45391 | DUP | W09GR01170 | Gross Alpha on Alpha Plateau |
| 40364 | 7 | 40802 | 45391 | SAMPLE | W09GR01188 | Gross Alpha on Alpha Plateau |
| 40375 | 1 | 40803 | 45392 | BLANK | | Gross Alpha/Gross Beta (AB32) |
| 40375 | 2 | 40803 | 45392 | LCS | | Gross Alpha/Gross Beta (AB32) |
| 40375 | 3 | 40803 | 45392 | DUP | W09GR01170 | Gross Alpha/Gross Beta (AB32) |
| 40375 | 8 | 40803 | 45392 | SAMPLE | W09GR01188 | Gross Alpha/Gross Beta (AB32) |
| 40362 | 1 | 40800 | 45398 | BLANK | | Gamma Energy Analysis-grd H2O |
| 40362 | 2 | 40800 | 45398 | LCS | | Gamma Energy Analysis-grd H2O |
| 40362 | 3 | 40800 | 45398 | DUP | W09GR01178 | Gamma Energy Analysis-grd H2O |
| 40362 | 5 | 40800 | 45398 | SAMPLE | W09GR01188 | Gamma Energy Analysis-grd H2O |
| 40393 | 1 | 40829 | 45415 | BLANK | | Uranium Isotopics by AEA |
| 40393 | 2 | 40829 | 45415 | LCS | | Uranium Isotopics by AEA |
| 40393 | 3 | 40829 | 45415 | DUP | W09GR01170 | Uranium Isotopics by AEA |
| 40393 | 6 | 40829 | 45415 | SAMPLE | W09GR01188 | Uranium Isotopics by AEA |
| 40393 | 7 | 40829 | 45415 | SURR | W09GR01188 | Uranium Isotopics by AEA |
| 40405 | 1 | 40843 | 45416 | BLANK | | Americium by AEA |
| 40405 | 2 | 40843 | 45416 | LCS | | Americium by AEA |
| 40405 | 3 | 40843 | 45416 | DUP | W09GR01170 | Americium by AEA |
| 40405 | 10 | 40843 | 45416 | SAMPLE | W09GR01188 | Americium by AEA |
| 40405 | 11 | 40843 | 45416 | SURR | W09GR01188 | Americium by AEA |
| 40406 | 1 | 40844 | 45417 | BLANK | | Plutonium Isotopics by AEA |
| 40406 | 2 | 40844 | 45417 | LCS | | Plutonium Isotopics by AEA |
| 40406 | 3 | 40844 | 45417 | DUP | W09GR01170 | Plutonium Isotopics by AEA |
| 40406 | 10 | 40844 | 45417 | SAMPLE | W09GR01188 | Plutonium Isotopics by AEA |
| 40406 | 11 | 40844 | 45417 | SURR | W09GR01188 | Plutonium Isotopics by AEA |
| 40395 | 1 | 40831 | 45421 | BLANK | | Strontium 89/90 |
| 40395 | 2 | 40831 | 45421 | LCS | | Strontium 89/90 |
| 40395 | 3 | 40831 | 45421 | DUP | W09GR01170 | Strontium 89/90 |
| 40395 | 12 | 40831 | 45421 | SAMPLE | W09GR01188 | Strontium 89/90 |
| 40395 | 13 | 40831 | 45421 | SURR | W09GR01188 | Strontium 89/90 |
| 40431 | 1 | 40868 | 45436 | BLANK | | TC99 by Liquid Scin. |
| 40431 | 4 | 40868 | 45436 | LCS | | TC99 by Liquid Scin. |
| 40431 | 10 | 40868 | 45436 | SAMPLE | W09GR01188 | TC99 by Liquid Scin. |
| 40431 | 3 | 40868 | 45436 | DUP | W09GR01213 | TC99 by Liquid Scin. |
| 40431 | 2 | 40868 | 45436 | MS | W09GR01213 | TC99 by Liquid Scin. |

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>.

Report Date: 25-may-2010
Report#: WSCF20091304
Report WGPPM/5.2

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REVISION 1

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>.

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Report#: WSCF20091304

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REVISION 1

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>.

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Report #: WSCF20091304
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REVISION 1

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01188
Client ID: B22RP1

**TRENT
WSCF**

Matrix: SOIL

Group #: WSCF20091304
Department: Inorganic
Sampled: 12/14/09
Received: 12/14/09

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|--|------------|------------|----|------------|-------|--------|------|-------|--------|-----|-----------------|
| Anions by Ion Chromatography Prep | | | | | | | | | | | 12/17/09 |
| Anions by Ion Chromatography | | | | | | | | | | | |
| Fluoride | 16984-48-8 | LA-533-410 | DU | < 1.47 | mg/kg | | | 49.00 | 1.5 | | 12/17/09 |
| Chloride | 16887-00-6 | LA-533-410 | BD | 5.64 | mg/kg | | | 49.00 | 2.1 | | 12/17/09 |
| Nitrogen in Nitrite | NO2-N | LA-533-410 | DU | < 0.882 | mg/kg | | | 49.00 | 0.88 | | 12/17/09 |
| Nitrogen in Nitrate | NO3-N | LA-533-410 | DU | < 1.52 | mg/kg | | | 49.00 | 1.5 | | 12/17/09 |
| Phosphate (P) by IC | PO4-P | LA-533-410 | DU | < 3.43 | mg/kg | | | 49.00 | 3.4 | | 12/17/09 |
| Sulfate | 14808-79-8 | LA-533-410 | BD | 5.98 | mg/kg | | | 49.00 | 3.2 | | 12/17/09 |
| Cyanide | | | | | | | | | | | |
| Cyanide | 57-12-5 | LA-695-402 | U | < 0.200 | mg/kg | | | 1.00 | 0.20 | | 12/17/09 |
| Hexavalent Chromium Prep | | | | | | | | | | | 12/16/09 |
| Hexavalent Chromium | | | | | | | | | | | |
| Hexavalent Chromium | 18540-29-9 | LA-265-403 | U | < 0.100 | mg/kg | | | 1.00 | 0.10 | | 12/16/09 |
| ICP Metals Analysis, Grd H2O P Prep | | | | | | | | | | | 12/29/09 |
| ICP Metals Analysis, Grd H2O P | | | | | | | | | | | |
| Iron | 7439-89-6 | LA-505-411 | | 1.75e + 04 | mg/kg | | | 99.88 | 1.8 | | 12/30/09 |
| Lithium | 7439-93-2 | LA-505-411 | | 9.59 | mg/kg | | | 99.88 | 0.40 | | 12/30/09 |
| Boron | 7440-42-8 | LA-505-411 | E | 10.1 | mg/kg | | | 99.88 | 1.9 | | 12/30/09 |
| Bismuth | 7440-69-9 | LA-505-411 | U | < 2.30 | mg/kg | | | 99.88 | 2.3 | | 12/30/09 |
| ICP-200.8 MS All possible meta Prep | | | | | | | | | | | 12/21/09 |
| ICP-200.8 MS All possible meta | | | | | | | | | | | |
| Aluminum | 7429-90-5 | LA-505-412 | N | 4.52e + 03 | mg/kg | | | 0.99 | 4.94 | | 12/22/09 |
| Manganese | 7439-96-5 | LA-505-412 | | 177 | mg/kg | | | 0.99 | 0.0989 | | 12/22/09 |
| Nickel | 7440-02-0 | LA-505-412 | | 7.59 | mg/kg | | | 0.99 | 0.198 | | 12/22/09 |
| Silver | 7440-22-4 | LA-505-412 | U | < 0.0989 | mg/kg | | | 0.99 | 0.0989 | | 12/22/09 |

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)
 E - Analyte is an estimate, has potentially larger errors (inorg)
 U - Analyzed for but not detected above limiting criteria (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. (org)

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

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REVISION 1

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01188
Client ID: B22RP1

TRENT
WSCF

Matrix: SOIL

Group #: WSCF20091304
Department: Inorganic
Sampled: 12/14/09
Received: 12/14/09

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|----------------------------------|-----------|------------|-----|----------|---------|--------|------|-------|--------|-----|---------------|
| Antimony | 7440-38-0 | LA-505-412 | U | < 0.297 | mg/kg | | | 0.99 | 0.297 | | 12/22/09 |
| Barium | 7440-39-3 | LA-505-412 | | 54.4 | mg/kg | | | 0.99 | 0.198 | | 12/22/09 |
| Beryllium | 7440-41-7 | LA-505-412 | | 0.110 | mg/kg | | | 0.99 | 0.0494 | | 12/22/09 |
| Cadmium | 7440-43-9 | LA-505-412 | U | < 0.0989 | mg/kg | | | 0.99 | 0.0989 | | 12/22/09 |
| Chromium | 7440-47-3 | LA-505-412 | | 6.69 | mg/kg | | | 0.99 | 0.494 | | 12/22/09 |
| Cobalt | 7440-48-4 | LA-505-412 | | 4.36 | mg/kg | | | 0.99 | 0.0494 | | 12/22/09 |
| Copper | 7440-50-8 | LA-505-412 | | 16.3 | mg/kg | | | 0.99 | 0.0989 | | 12/22/09 |
| Vanadium | 7440-62-2 | LA-505-412 | | 31.2 | mg/kg | | | 0.99 | 0.198 | | 12/22/09 |
| Zinc | 7440-66-6 | LA-505-412 | | 24.4 | mg/kg | | | 0.99 | 0.791 | | 12/22/09 |
| Lead | 7439-92-1 | LA-505-412 | | 1.99 | mg/kg | | | 0.99 | 0.0989 | | 12/22/09 |
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0494 | mg/kg | | | 0.99 | 0.0494 | | 12/22/09 |
| Thorium | 7440-29-1 | LA-505-412 | | 1.73 | mg/kg | | | 0.99 | 0.0989 | | 12/22/09 |
| Uranium | 7440-61-1 | LA-505-412 | | 0.290 | mg/kg | | | 0.99 | 0.0494 | | 12/22/09 |
| Arsenic | 7440-38-2 | LA-505-412 | | 1.71 | mg/kg | | | 0.99 | 0.396 | | 12/22/09 |
| Selenium | 7782-49-2 | LA-505-412 | | 0.510 | mg/kg | | | 0.99 | 0.297 | | 12/22/09 |
| Thallium | 7440-28-0 | LA-505-412 | U | < 0.0989 | mg/kg | | | 0.99 | 0.0989 | | 12/22/09 |
| Strontium | 7440-24-6 | LA-505-412 | | 21.2 | mg/kg | | | 0.99 | 0.0989 | | 12/22/09 |
| Nitrogen in ammonium Prep | | | | | | | | | | | |
| Nitrogen in ammonium | | | | | | | | | | | |
| Nitrogen in ammonium | NH4-N | LA-503-401 | DNU | < 8.43 | mg/kg | | | 49.00 | 8.43 | | 12/18/09 |
| Total solids | | | | | | | | | | | |
| Total solids | TS | LA-519-412 | | 80.2 | Percent | | | 1.00 | 0.0 | | 12/16/09 |

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)
 E - Analyte is an estimate, has potentially larger errors (inorg)
 U - Analyzed for but not detected above limiting criteria (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. (org)

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

Report WGPP/ver. 5.2
 Groundwater Remediation Program

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REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Ammonia (N) by IC

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

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-------------------|-----------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01155 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Ammonia (N) by IC | 7664-41-7 | <8.6 | | RPD | | | n/a | 20.000 | U | 12/18/09 |
| MS | Ammonia (N) by IC | 7664-41-7 | 0.331496 | 66.299 | % Recov | 80.000 | 120.000 | | | | 12/18/09 |
| MSD | Ammonia (N) by IC | 7664-41-7 | 0.330965 | 66.193 | % Recov | 80.000 | 120.000 | | | | 12/18/09 |
| SPK-RPD | Ammonia (N) by IC | 7664-41-7 | 66.193 | | RPD | | | 0.160 | 20.000 | | 12/18/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Ammonia (N) by IC | 7664-41-7 | <0.172 | n/a | mg/L | 0.000 | 0.002 | | | U | 12/18/09 |
| BLANK | Ammonia (N) by IC | 7664-41-7 | <0.172 | n/a | mg/L | 0.000 | 0.002 | | | U | 12/18/09 |
| LCS | Ammonia (N) by IC | 7664-41-7 | 91.2066 | 91.207 | % Recov | 80.000 | 120.000 | | | | 12/18/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Anions by Ion Chromatography

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

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---|---------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01155 BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Chloride | 16887-00-6 | 5.3394 | | RPD | | | 20.753 | 20.000 | | 12/17/09 |
| DUP | Fluoride | 16984-48-8 | <1.5 | | RPD | | | n/a | 20.000 | U | 12/17/09 |
| DUP | Nitrogen in Nitrite | NO2-N | <0.9 | | RPD | | | n/a | 20.000 | U | 12/17/09 |
| DUP | Nitrogen in Nitrate | NO3-N | <1.55 | | RPD | | | n/a | 20.000 | U | 12/17/09 |
| DUP | Phosphate (P) by IC | PO4-P | <3.5 | | RPD | | | n/a | 20.000 | U | 12/17/09 |
| DUP | Sulfate | 14808-79-8 | 8.1821 | | RPD | | | 20.011 | 20.000 | | 12/17/09 |
| MS | Chloride | 16887-00-6 | 0.883635 | 88.808 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MS | Fluoride | 16984-48-8 | 0.4502 | 88.275 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MS | Nitrogen in Nitrite | NO2-N | 0.4851 | 97.606 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MS | Nitrogen in Nitrate | NO3-N | 0.449 | 99.778 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MS | Phosphate (P) by IC | PO4-P | 0.816406 | 84.427 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MS | Sulfate | 14808-79-8 | 1.816302 | 90.815 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MSD | Chloride | 16887-00-6 | 0.851924 | 85.621 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MSD | Fluoride | 16984-48-8 | 0.439056 | 86.089 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MSD | Nitrogen in Nitrite | NO2-N | 0.477956 | 96.168 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MSD | Nitrogen in Nitrate | NO3-N | 0.445719 | 99.049 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MSD | Phosphate (P) by IC | PO4-P | 0.828536 | 85.681 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| MSD | Sulfate | 14808-79-8 | 1.81969 | 90.984 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| SPK-RPD | Chloride | 16887-00-6 | 85.621 | | RPD | | | 3.654 | 20.000 | | 12/17/09 |
| SPK-RPD | Fluoride | 16984-48-8 | 86.089 | | RPD | | | 2.507 | 20.000 | | 12/17/09 |
| SPK-RPD | Nitrogen in Nitrite | NO2-N | 96.168 | | RPD | | | 1.484 | 20.000 | | 12/17/09 |
| SPK-RPD | Nitrogen in Nitrate | NO3-N | 99.049 | | RPD | | | 0.733 | 20.000 | | 12/17/09 |
| SPK-RPD | Phosphate (P) by IC | PO4-P | 85.681 | | RPD | | | 1.474 | 20.000 | | 12/17/09 |
| SPK-RPD | Sulfate | 14808-79-8 | 90.984 | | RPD | | | 0.186 | 20.000 | | 12/17/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 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 | 12/17/09 |
| BLANK | Chloride | 16887-00-6 | <4.3e-2 | n/a | mg/L | 0.000 | 0.030 | | | U | 12/17/09 |
| BLANK | Fluoride | 16984-48-8 | <3e-2 | n/a | mg/L | 0.000 | 0.030 | | | U | 12/17/09 |
| BLANK | Fluoride | 16984-48-8 | <3e-2 | n/a | mg/L | 0.000 | 0.030 | | | U | 12/17/09 |
| BLANK | Nitrogen in Nitrite | NO2-N | <1.8e-2 | n/a | mg/L | 0.000 | 0.020 | | | U | 12/17/09 |
| BLANK | Nitrogen in Nitrite | NO2-N | <1.8e-2 | n/a | mg/L | 0.000 | 0.020 | | | U | 12/17/09 |
| BLANK | Nitrogen in Nitrate | NO3-N | <3.1e-2 | n/a | mg/L | 0.000 | 0.040 | | | U | 12/17/09 |
| BLANK | Nitrogen in Nitrate | NO3-N | <3.1e-2 | n/a | mg/L | 0.000 | 0.040 | | | U | 12/17/09 |
| BLANK | Phosphate (P) by IC | PO4-P | <7e-2 | n/a | mg/L | 0.000 | 0.200 | | | U | 12/17/09 |
| BLANK | Phosphate (P) by IC | PO4-P | <7e-2 | n/a | mg/L | 0.000 | 0.200 | | | U | 12/17/09 |
| BLANK | Sulfate | 14808-79-8 | <6.6e-2 | n/a | mg/L | 0.000 | 0.200 | | | U | 12/17/09 |
| BLANK | Sulfate | 14808-79-8 | <6.6e-2 | n/a | mg/L | 0.000 | 0.200 | | | U | 12/17/09 |
| LCS | Chloride | 16887-00-6 | 182.5861 | 91.752 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| LCS | Fluoride | 16984-48-8 | 94.0898 | 92.245 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| LCS | Nitrogen in Nitrite | NO2-N | 96.7905 | 97.375 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| LCS | Nitrogen in Nitrate | NO3-N | 89.2389 | 99.265 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| LCS | Phosphate (P) by IC | PO4-P | 181.9395 | 94.074 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |
| LCS | Sulfate | 14808-79-8 | 369.8274 | 92.457 | % Recov | 80.000 | 120.000 | | | | 12/17/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Cyanide by Midi/Spectrophotom

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

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-------------------------------|---------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01155 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Cyanide by Midi/Spectrophotom | 57-12-5 | 1.99 | 99.500 | % Recov | 75.000 | 125.000 | | | | 12/17/09 |
| MSD | Cyanide by Midi/Spectrophotom | 57-12-5 | 1.82 | 91.000 | % Recov | 75.000 | 125.000 | | | | 12/17/09 |
| SPK-RPD | Cyanide by Midi/Spectrophotom | 57-12-5 | 91.000 | | RPD | | | 8.924 | 20.000 | | 12/17/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Cyanide by Midi/Spectrophotom | 57-12-5 | < .2 | n/a | ug/L | -4.000 | 4.000 | | | U | 12/17/09 |
| LCS | Cyanide by Midi/Spectrophotom | 57-12-5 | 62.1 | 113.528 | % Recov | 85.000 | 115.000 | | | | 12/17/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Hexavalent chromium

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

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|---------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01161 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Hexavalent chromium | 18540-29-9 | < 0.10 | | RPD | | | n/a | 15.000 | U | 12/16/09 |
| MS | Hexavalent chromium | 18540-29-9 | 324 | 77.143 | % Recov | 75.000 | 125.000 | | | | 12/16/09 |
| MS | Hexavalent chromium | 18540-29-9 | 17.5 | 88.832 | % Recov | 75.000 | 125.000 | | | | 12/16/09 |
| MSD | Hexavalent chromium | 18540-29-9 | 17.9 | 90.404 | % Recov | 75.000 | 125.000 | | | | 12/16/09 |
| SPK-POST | Hexavalent chromium | 18540-29-9 | 0.0518 | 96.629 | % Recov | 75.000 | 125.000 | | | | 12/16/09 |
| SPK-RPD | Hexavalent chromium | 18540-29-9 | 90.404 | | RPD | | | 1.754 | 20.000 | | 12/16/09 |
| BATCH QC | | | | | | | | | | | |
| BLNK-PREP | Hexavalent chromium | 18540-29-9 | < 0.10 | n/a | ug/g | 0.000 | 2.000 | | | U | 12/16/09 |
| LCS | Hexavalent chromium | 18540-29-9 | 17.4 | 90.625 | % Recov | 80.000 | 120.000 | | | | 12/16/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: ICP Metals Analysis, Grd H2O P

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

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|---------|-----------|----------|----------|---------|-------------|-------------|----------|-----------|----|---------------|
| Lab ID: W09GR01155 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Boron | 7440-42-8 | 194.6 | 96.337 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MS | Bismuth | 7440-69-9 | 199.5 | 98.762 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MS | Iron | 7439-89-6 | 1020 | 504.950 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MS | Lithium | 7439-93-2 | 100.88 | 99.881 | % Recov | 70.000 | 130.000 | | | | 12/30/09 |
| MSD | Boron | 7440-42-8 | 192.8 | 96.400 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MSD | Bismuth | 7440-69-9 | 200.8 | 100.400 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MSD | Iron | 7439-89-6 | -790 | -395.000 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MSD | Lithium | 7439-93-2 | 100.68 | 100.680 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| SPK-RPD | Boron | 7440-42-8 | 96.400 | | RPD | | | 0.065 | 20.000 | | 12/30/09 |
| SPK-RPD | Bismuth | 7440-69-9 | 100.400 | | RPD | | | 1.645 | 20.000 | | 12/30/09 |
| SPK-RPD | Iron | 7439-89-6 | -395.000 | | RPD | | | 1637.017 | 20.000 | | 12/30/09 |
| SPK-RPD | Lithium | 7439-93-2 | 100.680 | | RPD | | | 0.797 | 20.000 | | 12/30/09 |
| Lab ID: W09GR01248 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Boron | 7440-42-8 | 194.87 | 97.435 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MS | Bismuth | 7440-69-9 | 199.3 | 99.650 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MS | Iron | 7439-89-6 | 990 | 495.000 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MS | Lithium | 7439-93-2 | 101.447 | 101.447 | % Recov | 70.000 | 130.000 | | | | 12/30/09 |
| MSD | Boron | 7440-42-8 | 193.57 | 96.303 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MSD | Bismuth | 7440-69-9 | 200.1 | 99.552 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MSD | Iron | 7439-89-6 | 1200 | 597.015 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| MSD | Lithium | 7439-93-2 | 101.947 | 101.947 | % Recov | 75.000 | 125.000 | | | | 12/30/09 |
| SPK-RPD | Boron | 7440-42-8 | 96.303 | | RPD | | | 1.169 | 20.000 | | 12/30/09 |
| SPK-RPD | Bismuth | 7440-69-9 | 99.552 | | RPD | | | 0.098 | 20.000 | | 12/30/09 |
| SPK-RPD | Iron | 7439-89-6 | 597.015 | | RPD | | | 18.684 | 20.000 | | 12/30/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: ICP Metals Analysis, Grd H2O P

Sample Date: 12/28/09
 Receive Date: 12/28/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|-----------------|---------|-----------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| SPK-RPD | Lithium | 7439-93-2 | 101.947 | | RPD | | | 0.492 | 20.000 | | 12/30/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Boron | 7440-42-8 | <1.9e-2 | n/a | ug/mL | | | | | U | 12/30/09 |
| BLANK | Bismuth | 7440-69-9 | <2.3e-2 | n/a | ug/mL | | | | | U | 12/30/09 |
| BLANK | Iron | 7439-89-6 | 6.5e-2 | 0.065 | ug/mL | | | | | | 12/30/09 |
| BLANK | Lithium | 7439-93-2 | <4e-3 | n/a | ug/mL | | | | | U | 12/30/09 |
| LCS | Boron | 7440-42-8 | 135 | 117.391 | % Recov | 45.000 | 156.000 | | | | 12/30/09 |
| LCS | Bismuth | 7440-69-9 | 102 | 102.513 | % Recov | 80.000 | 120.000 | | | | 12/30/09 |
| LCS | Iron | 7439-89-6 | 15634 | 116.672 | % Recov | 47.000 | 152.000 | | | | 12/30/09 |
| LCS | Lithium | 7439-93-2 | 114 | 114.573 | % Recov | 80.000 | 120.000 | | | | 12/30/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: ICP-200.8 MS All possible meta

Sample Date: 12/11/09
 Receive Date: 12/11/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---------------------------------|-----------|-----------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01170 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Silver | 7440-22-4 | 196.5 | 98.250 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Aluminum | 7429-90-5 | 2123 | 106.150 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Arsenic | 7440-38-2 | 198.52 | 99.260 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Barium | 7440-39-3 | 201.75 | 100.875 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Beryllium | 7440-41-7 | 196.6 | 98.300 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Cadmium | 7440-43-9 | 197.2 | 98.600 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Cobalt | 7440-48-4 | 189.67 | 94.835 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Chromium | 7440-47-3 | 191.28 | 95.640 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Copper | 7440-50-8 | 184.27 | 92.135 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Mercury | 7439-97-6 | 1.88 | 94.000 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Manganese | 7439-96-5 | 202.7 | 101.360 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Nickel | 7440-02-0 | 187.09 | 93.545 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Lead | 7439-92-1 | 198.72 | 99.360 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Antimony | 7440-36-0 | 195.4 | 97.700 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Selenium | 7782-49-2 | 197.74 | 98.870 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Strontium | 7440-24-6 | 203.6 | 101.800 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Thorium | 7440-29-1 | 198.52 | 99.260 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Thallium | 7440-28-0 | 195.4 | 97.700 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Uranium | 7440-61-1 | 196.99 | 98.495 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Vanadium | 7440-62-2 | 183.04 | 91.520 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MS | Zinc | 7440-66-6 | 182.19 | 91.095 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Silver | 7440-22-4 | 192.1 | 96.050 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Aluminum | 7429-90-5 | 3506 | 175.300 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Arsenic | 7440-38-2 | 197.42 | 98.710 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Barium | 7440-39-3 | 189.65 | 94.825 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Beryllium | 7440-41-7 | 192.6 | 96.300 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: ICP-200.8 MS All possible meta

Sample Date: 12/11/09
 Receive Date: 12/11/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---------|-----------|-----------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| MSD | Cadmium | 7440-43-9 | 194.4 | 97.200 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Cobalt | 7440-48-4 | 186.47 | 93.235 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Chromium | 7440-47-3 | 190.08 | 95.040 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Copper | 7440-50-8 | 180.27 | 90.135 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Mercury | 7439-97-6 | 1.85 | 92.500 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Manganese | 7439-96-5 | 210.4 | 105.200 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Nickel | 7440-02-0 | 185.29 | 92.645 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Lead | 7439-92-1 | 194.82 | 97.410 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Antimony | 7440-36-0 | 188.2 | 94.100 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Selenium | 7782-49-2 | 194.94 | 97.470 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Strontium | 7440-24-6 | 208 | 104.000 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Thorium | 7440-29-1 | 193.82 | 96.810 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Thallium | 7440-28-0 | 191.2 | 95.600 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Uranium | 7440-61-1 | 191.99 | 95.995 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Vanadium | 7440-62-2 | 184.14 | 92.070 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| MSD | Zinc | 7440-66-6 | 181.59 | 90.795 | % Recov | 70.000 | 130.000 | | | | 12/22/09 |
| SPK-RPD | Silver | 7440-22-4 | 96.050 | | RPD | | | 2.265 | 20.000 | | 12/22/09 |
| SPK-RPD | Aluminum | 7429-90-5 | 175.300 | | RPD | | | 49.138 | 20.000 | | 12/22/09 |
| SPK-RPD | Arsenic | 7440-38-2 | 98.710 | | RPD | | | 0.556 | 20.000 | | 12/22/09 |
| SPK-RPD | Barium | 7440-39-3 | 94.825 | | RPD | | | 6.183 | 20.000 | | 12/22/09 |
| SPK-RPD | Beryllium | 7440-41-7 | 96.300 | | RPD | | | 2.055 | 20.000 | | 12/22/09 |
| SPK-RPD | Cadmium | 7440-43-9 | 97.200 | | RPD | | | 1.430 | 20.000 | | 12/22/09 |
| SPK-RPD | Cobalt | 7440-48-4 | 93.235 | | RPD | | | 1.701 | 20.000 | | 12/22/09 |
| SPK-RPD | Chromium | 7440-47-3 | 95.040 | | RPD | | | 0.629 | 20.000 | | 12/22/09 |
| SPK-RPD | Copper | 7440-50-8 | 90.135 | | RPD | | | 2.195 | 20.000 | | 12/22/09 |
| SPK-RPD | Mercury | 7439-97-6 | 92.500 | | RPD | | | 1.609 | 20.000 | | 12/22/09 |
| SPK-RPD | Manganese | 7439-96-5 | 105.200 | | RPD | | | 3.728 | 20.000 | | 12/22/09 |
| SPK-RPD | Nickel | 7440-02-0 | 92.645 | | RPD | | | 0.967 | 20.000 | | 12/22/09 |
| SPK-RPD | Lead | 7439-92-1 | 97.410 | | RPD | | | 1.982 | 20.000 | | 12/22/09 |
| SPK-RPD | Antimony | 7440-36-0 | 94.100 | | RPD | | | 3.754 | 20.000 | | 12/22/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: ICP-200.8 MS All possible meta

Sample Date: 12/11/09
 Receive Date: 12/11/09

| 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 | 97.470 | | RPD | | | 1.426 | 20.000 | | 12/22/09 |
| SPK-RPD | Strontium | 7440-24-8 | 104.000 | | RPD | | | 2.138 | 20.000 | | 12/22/09 |
| SPK-RPD | Thorium | 7440-29-1 | 98.810 | | RPD | | | 2.499 | 20.000 | | 12/22/09 |
| SPK-RPD | Thallium | 7440-28-0 | 95.600 | | RPD | | | 2.173 | 20.000 | | 12/22/09 |
| SPK-RPD | Uranium | 7440-61-1 | 95.995 | | RPD | | | 2.571 | 20.000 | | 12/22/09 |
| SPK-RPD | Vanadium | 7440-82-2 | 92.070 | | RPD | | | 0.599 | 20.000 | | 12/22/09 |
| SPK-RPD | Zinc | 7440-66-6 | 90.795 | | RPD | | | 0.330 | 20.000 | | 12/22/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Silver | 7440-22-4 | <0.1 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Aluminum | 7429-90-5 | <5 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Arsenic | 7440-38-2 | <0.4 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Barium | 7440-39-3 | <0.2 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Beryllium | 7440-41-7 | <5e-2 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Cadmium | 7440-43-9 | <0.1 | n/e | ug/L | | | | | U | 12/22/09 |
| BLANK | Cobalt | 7440-48-4 | <5e-2 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Chromium | 7440-47-3 | <0.5 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Copper | 7440-50-8 | <0.1 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Mercury | 7439-97-6 | <5e-2 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Manganese | 7439-96-5 | <0.1 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Nickel | 7440-02-0 | <0.2 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Lead | 7439-92-1 | <0.1 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Antimony | 7440-36-0 | <0.3 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Selenium | 7782-49-2 | <0.3 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Strontium | 7440-24-8 | <0.1 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Thorium | 7440-29-1 | <0.1 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Thallium | 7440-28-0 | <0.1 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Uranium | 7440-61-1 | <5e-2 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Vanadium | 7440-82-2 | <0.2 | n/a | ug/L | | | | | U | 12/22/09 |
| BLANK | Zinc | 7440-66-6 | <0.8 | n/a | ug/L | | | | | U | 12/22/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20091304
 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 | 118.3 | 117.129 | % Recov | 81.000 | 128.000 | | | | 12/22/09 |
| LCS | Aluminum | 7429-90-5 | 7165 | 86.743 | % Recov | 47.000 | 122.000 | | | | 12/22/09 |
| LCS | Arsenic | 7440-38-2 | 145.3 | 110.076 | % Recov | 78.000 | 124.000 | | | | 12/22/09 |
| LCS | Barium | 7440-39-3 | 336.8 | 105.580 | % Recov | 77.000 | 119.000 | | | | 12/22/09 |
| LCS | Beryllium | 7440-41-7 | 99.74 | 111.441 | % Recov | 78.000 | 118.000 | | | | 12/22/09 |
| LCS | Cadmium | 7440-43-9 | 78.1 | 117.444 | % Recov | 75.000 | 127.000 | | | | 12/22/09 |
| LCS | Cobalt | 7440-48-4 | 78.43 | 107.291 | % Recov | 75.000 | 124.000 | | | | 12/22/09 |
| LCS | Chromium | 7440-47-3 | 74.72 | 102.497 | % Recov | 67.000 | 119.000 | | | | 12/22/09 |
| LCS | Copper | 7440-50-8 | 62.19 | 90.788 | % Recov | 68.000 | 122.000 | | | | 12/22/09 |
| LCS | Mercury | 7439-97-6 | 9.17 | 110.749 | % Recov | 72.000 | 117.000 | | | | 12/22/09 |
| LCS | Manganese | 7439-96-5 | 475 | 104.857 | % Recov | 72.000 | 123.000 | | | | 12/22/09 |
| LCS | Nickel | 7440-02-0 | 58.14 | 104.568 | % Recov | 73.000 | 123.000 | | | | 12/22/09 |
| LCS | Lead | 7439-92-1 | 143.7 | 110.538 | % Recov | 77.000 | 125.000 | | | | 12/22/09 |
| LCS | Antimony | 7440-36-0 | 129.1 | 143.126 | % Recov | 65.000 | 203.000 | | | | 12/22/09 |
| LCS | Selenium | 7782-49-2 | 184 | 114.286 | % Recov | 82.000 | 129.000 | | | | 12/22/09 |
| LCS | Strontium | 7440-24-6 | 59.34 | 109.081 | % Recov | 77.000 | 118.000 | | | | 12/22/09 |
| LCS | Thorium | 7440-29-1 | 424.4 | 106.100 | % Recov | 79.000 | 108.000 | | | | 12/22/09 |
| LCS | Thallium | 7440-28-0 | 149.3 | 112.256 | % Recov | 55.000 | 130.000 | | | | 12/22/09 |
| LCS | Uranium | 7440-81-1 | 439.6 | 109.900 | % Recov | 84.000 | 110.000 | | | | 12/22/09 |
| LCS | Vanadium | 7440-62-2 | 83.72 | 100.867 | % Recov | 65.000 | 122.000 | | | | 12/22/09 |
| LCS | Zinc | 7440-66-6 | 187.2 | 105.763 | % Recov | 75.000 | 130.000 | | | | 12/22/09 |

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F10-011

Group #: WSCF20091304
Department: Inorganic

| Sample # | Client ID | Lab Area | Test | Comment |
|----------|-----------|----------|------|---|
| | | VALGROUP | | <p>IC Solid: As the analyte concentrations for the QC sample, W09GR01155, are less than 10X the MDL, the relative percent difference (RPD) limits do not apply. SDB 12/23/09</p> <p>ICP-MS: Aluminum MSD recovery 175%. "N" flag</p> <p>Organics: Results are corrected for moisture and reported on a dry weight basis. cgc</p> <p>ICP-AES: High iron preparation blank result; "C" flag if applicable.</p> <p>Soil LCS has no certified lithium and bismuth results. The missing elements were spiked into the LCS, digested, analyzed, and reported.</p> <p>Iron sample result exceeds spiking level by a factor of 4 so spike recoveries are not valid.</p> <p>Sample results less than 5 times the MDL; "B" flag.</p> <p>Estimated boron result due to iron interference; "E" flag.</p> <p>Tc-99 Matrix spike and RPD are flagged however, the scientist has reviewed and approved the batch. lrmh</p> |

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 # W09GR01188
Client ID: B22RP1

TRENT
WSCF

Matrix: SOIL

Group #: WSCF20091304
Department: Organic
Sampled: 12/14/09
Received: 12/14/09

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|-------------|------------|----|------------|-------|--------|------|------|---------|-----|---------------|
| Alcohols, Glycols - 8015 Prep | | | | | | | | | | | |
| Alcohols, Glycols - 8015 | | | | | | | | | | | |
| Diethyl ether | 60-29-7 | Organics | U | < 5.00e+03 | ug/kg | | | 1.00 | 5.0e+03 | | 12/21/09 |
| Ethylene glycol | 107-21-1 | Organics | U | < 5.00e+03 | ug/kg | | | 1.00 | 5.0e+03 | | 12/21/09 |
| NWTPH-D TPH Diesel Range (Wa) Prep | | | | | | | | | | | |
| NWTPH-D TPH Diesel Range (Wa) | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | U | < 6.30 | mg/kg | | | 1.00 | 6.3 | | 12/22/09 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 6.30 | mg/kg | | | 1.00 | 6.3 | | 12/22/09 |
| PCBs complete list Prep | | | | | | | | | | | |
| PCBs complete list | | | | | | | | | | | |
| Aroclor-1016 | 12674-11-2 | LA-523-427 | U | < 12.0 | ug/kg | | | 1.00 | 12 | | 01/04/10 |
| Aroclor-1221 | 11104-28-2 | LA-523-427 | U | < 25.0 | ug/kg | | | 1.00 | 25 | | 01/04/10 |
| Aroclor-1232 | 11141-16-5 | LA-523-427 | U | < 12.0 | ug/kg | | | 1.00 | 12 | | 01/04/10 |
| Aroclor-1242 | 53469-21-9 | LA-523-427 | U | < 12.0 | ug/kg | | | 1.00 | 12 | | 01/04/10 |
| Aroclor-1248 | 12672-29-6 | LA-523-427 | U | < 12.0 | ug/kg | | | 1.00 | 12 | | 01/04/10 |
| Aroclor-1254 | 11097-69-1 | LA-523-427 | U | < 12.0 | ug/kg | | | 1.00 | 12 | | 01/04/10 |
| Aroclor-1260 | 11096-82-5 | LA-523-427 | U | < 12.0 | ug/kg | | | 1.00 | 12 | | 01/04/10 |
| Aroclor-1262 | 37324-23-5 | LA-523-427 | U | < 12.0 | ug/kg | | | 1.00 | 12 | | 01/04/10 |
| Aroclor-1268 | 11100-14-4 | LA-523-427 | U | < 12.0 | ug/kg | | | 1.00 | 12 | | 01/04/10 |
| SW-846 8270C Semi-Vols Prep | | | | | | | | | | | |
| SW-846 8270C Semi-Vols | | | | | | | | | | | |
| 4-Nitrophenol | 100-02-7 | LA-523-456 | U | < 410 | ug/kg | | | 1.00 | 4.1e+02 | | 12/22/09 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-456 | U | < 310 | ug/kg | | | 1.00 | 3.1e+02 | | 12/22/09 |
| Phenol | 108-95-2 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 1,2,4-Trichlorobenzene | 120-82-1 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |

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)
 E - Analyte is an estimate, has potentially larger errors.(inorg)
 U - Analyzed for but not detected above limiting criteria.(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.(org)

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

Report WGPP/ver. 5.2
 Groundwater Remediation Program

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REVISION 1

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01188
Client ID: B22RP1

**TRENT
WSCF**

Matrix: SOIL

Group #: WSCF20091304
Department: Organic
Sampled: 12/14/09
Received: 12/14/09

| 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 | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Pyrene | 129-00-0 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 4-Chloro-3-methylphenol | 59-50-7 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| N-Nitrosodi-n-dipropylamine | 621-64-7 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Acenaphthene | 83-32-9 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Pentachlorophenol | 87-86-5 | LA-523-456 | U | < 500 | ug/kg | | | 1.00 | 5.0e+02 | | 12/22/09 |
| 2-Chlorophenol | 95-57-8 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 4-Nitroaniline | 100-01-6 | LA-523-456 | U | < 350 | ug/kg | | | 1.00 | 3.5e+02 | | 12/22/09 |
| 4-Bromophenylphenyl ether | 101-55-3 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 2,4-Dimethylphenol | 105-67-9 | LA-523-456 | U | < 280 | ug/kg | | | 1.00 | 2.8e+02 | | 12/22/09 |
| 4-Chloroaniline | 106-47-8 | LA-523-456 | U | < 350 | ug/kg | | | 1.00 | 3.5e+02 | | 12/22/09 |
| Bis(2-chloro-1-methylethyl)eth | 108-60-1 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Bis(2-chloroethyl) ether | 111-44-4 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Bis(2-Chloroethoxy)methane | 111-91-1 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Bis(2-ethylhexyl) phthalate | 117-81-7 | LA-523-456 | U | < 500 | ug/kg | | | 1.00 | 5.0e+02 | | 12/22/09 |
| Di-n-octylphthalate | 117-84-0 | LA-523-456 | U | < 500 | ug/kg | | | 1.00 | 5.0e+02 | | 12/22/09 |
| Hexachlorobenzene | 118-74-1 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Anthracene | 120-12-7 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 2,4-Dichlorophenol | 120-83-2 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 12/22/09 |
| Dimethyl phthalate | 131-11-3 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Dibenzofuran | 132-64-9 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Benzo(ghi)perylene | 191-24-2 | LA-523-456 | U | < 400 | ug/kg | | | 1.00 | 4.0e+02 | | 12/22/09 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | LA-523-456 | U | < 410 | ug/kg | | | 1.00 | 4.1e+02 | | 12/22/09 |
| Benzo(b)fluoranthene | 205-99-2 | LA-523-456 | U | < 250 | ug/kg | | | 1.00 | 2.5e+02 | | 12/22/09 |
| Fluoranthene | 206-44-0 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |

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DF=Dilution Factor

B - The analyte < the RDL but > = the IDL/MDL (inorg)
E - Analyte is an estimate, has potentially larger errors.(inorg)
U - Analyzed for but not detected above limiting criteria.(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.(org)

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Report WGPP/ver. 5.2
 Groundwater Remediation Program

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REVISION 1

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01188
Client ID: B22RP1

**TRENT
WSCF**

Matrix: SOIL

Group #: WSCF20091304
Department: Organic
Sampled: 12/14/09
Received: 12/14/09

| 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 | < 250 | ug/kg | | | 1.00 | 2.5e+02 | | 12/22/09 |
| Acenaphthylene | 208-96-8 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Chrysene | 218-01-9 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Benzo(a)pyrene | 50-32-8 | LA-523-456 | U | < 280 | ug/kg | | | 1.00 | 2.8e+02 | | 12/22/09 |
| 2,4-Dinitrophenol | 51-28-5 | LA-523-456 | U | < 770 | ug/kg | | | 1.00 | 7.7e+02 | | 12/22/09 |
| Dibenz[a,h]anthracene | 53-70-3 | LA-523-456 | U | < 410 | ug/kg | | | 1.00 | 4.1e+02 | | 12/22/09 |
| 4,6-Dinitro-2-methylphenol | 534-52-1 | LA-523-456 | U | < 410 | ug/kg | | | 1.00 | 4.1e+02 | | 12/22/09 |
| 1,3-Dichlorobenzene | 541-73-1 | LA-523-456 | U | < 340 | ug/kg | | | 1.00 | 3.4e+02 | | 12/22/09 |
| Benzo(a)anthracene | 56-55-3 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 2,6-Dinitrotoluene | 606-20-2 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 4-Chlorophenylphenyl ether | 7005-72-3 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Hexachlorocyclopentadiene | 77-47-4 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Isophorone | 78-59-1 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Diethylphthalate | 84-66-2 | LA-523-456 | U | < 500 | ug/kg | | | 1.00 | 5.0e+02 | | 12/22/09 |
| Di-n-butylphthalate | 84-74-2 | LA-523-456 | U | < 500 | ug/kg | | | 1.00 | 5.0e+02 | | 12/22/09 |
| Phenanthrene | 85-01-8 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Butylbenzylphthalate | 85-68-7 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| N-Nitrosodiphenylamine | 86-30-6 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 12/22/09 |
| Fluorene | 86-73-7 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Carbazole | 86-74-8 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Hexachlorobutadiene | 87-68-3 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 2-Nitroaniline | 88-74-4 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 2-Nitrophenol | 88-75-5 | LA-523-456 | U | < 210 | ug/kg | | | 1.00 | 2.1e+02 | | 12/22/09 |
| Naphthalene | 91-20-3 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 2-Methylnaphthalene | 91-57-6 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |

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RQ = Result Qualifier

TP Err = Total Propagated Error

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Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01188
Client ID: B22RP1

**TRENT
WSCF**

Matrix: SOIL

Group #: WSCF20091304
Department: Organic
Sampled: 12/14/09
Received: 12/14/09

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|-----------------------------|------------|------------|----|--------|-------|--------|------|------|---------|-----|---------------|
| 2-Chloronaphthalene | 91-58-7 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 3,3'-Dichlorobenzidine | 91-94-1 | LA-523-456 | U | < 410 | ug/kg | | | 1.00 | 4.1e+02 | | 12/22/09 |
| 2-Methylphenol (cresol, o-) | 95-48-7 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 1,2-Dichlorobenzene | 95-50-1 | LA-523-456 | U | < 280 | ug/kg | | | 1.00 | 2.8e+02 | | 12/22/09 |
| 2,4,5-Trichlorophenol | 95-95-4 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Nitrobenzene | 98-95-3 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| 3-Nitroaniline | 99-09-2 | LA-523-456 | U | < 230 | ug/kg | | | 1.00 | 2.3e+02 | | 12/22/09 |
| 3 & 4 Methylphenol Total | 65794-96-9 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Hexachloroethane | 67-72-1 | LA-523-456 | U | < 310 | ug/kg | | | 1.00 | 3.1e+02 | | 12/22/09 |
| 2,4,6-Trichlorophenol | 88-06-2 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |
| Tributyl phosphate | 126-73-8 | LA-523-456 | U | < 190 | ug/kg | | | 1.00 | 1.9e+02 | | 12/22/09 |

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01190
Client ID: B22RP2

TRENT
WSCF

Matrix: SOIL

Group #: WSCF20091304
Department: Organic
Sampled: 12/14/09
Received: 12/14/09

| 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 | | 12/18/09 |
| Trichloroethene | 79-01-6 | LA-523-455 | U | < 0.240 | ug/kg | | | 1.00 | 0.24 | | 12/18/09 |
| Benzene | 71-43-2 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Toluene | 106-88-3 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 1,1-Dichloroethane | 75-34-3 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Ethylbenzene | 100-41-4 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Styrene | 100-42-5 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| cis-1,3-Dichloropropene | 10061-01-5 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| trans-1,3-Dichloropropene | 10061-02-6 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 1,2-Dichloroethane | 107-06-2 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 4-Methyl-2-Pentanone | 108-10-1 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Dibromochloromethane | 124-48-1 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Tetrachloroethene | 127-18-4 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Xylenes (total) | 1330-20-7 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 1,2-Dichloroethene(Total) | 540-59-0 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 2-Hexanone | 591-78-6 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Acetone | 67-64-1 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Chloroform | 67-66-3 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 1,1,1-Trichloroethane | 71-55-6 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Bromomethane | 74-83-9 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Chloromethane | 74-87-3 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Chloroethane | 75-00-3 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |

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Report WGPP/ver. 5.2

Groundwater Remediation Program

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REVISION 1

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01190
Client ID: B22RP2

**TRENT
WSCF**

Matrix: SOIL

Group #: WSCF20091304
Department: Organic
Sampled: 12/14/09
Received: 12/14/09

| 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 | | 12/18/09 |
| Methylenechloride | 75-09-2 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Carbon disulfide | 75-15-0 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Bromoform | 75-25-2 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| Bromodichloromethane | 75-27-4 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 1,2-Dichloropropane | 78-87-5 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 2-Butanone | 78-93-3 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 1,1,2-Trichloroethane | 79-00-5 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| 1-Butanol | 71-36-3 | LA-523-455 | U | < 120 | ug/kg | | | 1.00 | 1.2e+02 | | 12/18/09 |
| Trichloromonofluoromethane | 75-69-4 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| trans-1,2-Dichloroethylene | 156-60-5 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |
| cis-1,2-Dichloroethylene | 156-59-2 | LA-523-455 | U | < 1.20 | ug/kg | | | 1.00 | 1.2 | | 12/18/09 |

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Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Alcohols, Glycols - 8015

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

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-----------------|----------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01155 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | 2-Bromoethanol | 540-51-2 | 13500 | | RPD | | | 24.675 | 25.000 | | 12/21/09 |
| DUP | Diethyl ether | 60-29-7 | <5000 | | RPD | | | n/a | 25.000 | U | 12/21/09 |
| DUP | Ethylene glycol | 107-21-1 | <5000 | | RPD | | | n/a | 25.000 | U | 12/21/09 |
| MS | 2-Bromoethanol | 540-51-2 | 13700 | 77.841 | % Recov | 70.000 | 125.000 | | | | 12/21/09 |
| MS | Diethyl ether | 60-29-7 | 8300 | 116.901 | % Recov | 75.000 | 125.000 | | | | 12/21/09 |
| MS | Ethylene glycol | 107-21-1 | 9300 | 83.784 | % Recov | 75.000 | 125.000 | | | | 12/21/09 |
| MSD | 2-Bromoethanol | 540-51-2 | 15500 | 88.068 | % Recov | 70.000 | 125.000 | | | | 12/21/09 |
| MSD | Diethyl ether | 60-29-7 | 8100 | 114.085 | % Recov | 75.000 | 125.000 | | | | 12/21/09 |
| MSD | Ethylene glycol | 107-21-1 | 10100 | 90.991 | % Recov | 75.000 | 125.000 | | | | 12/21/09 |
| SPK-RPD | 2-Bromoethanol | 540-51-2 | 88.088 | | RPD | | | 12.328 | 20.000 | | 12/21/09 |
| SPK-RPD | Diethyl ether | 60-29-7 | 114.085 | | RPD | | | 2.438 | 20.000 | | 12/21/09 |
| SPK-RPD | Ethylene glycol | 107-21-1 | 90.991 | | RPD | | | 8.247 | 20.000 | | 12/21/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | 2-Bromoethanol | 540-51-2 | 17300 | 98.295 | % Recov | 75.000 | 125.000 | | | | 12/21/09 |
| BLANK | Diethyl ether | 60-29-7 | <5000 | n/a | ug/Kg | 0.000 | 10.000 | | | U | 12/21/09 |
| BLANK | Ethylene glycol | 107-21-1 | <5000 | n/a | ug/Kg | 0.000 | 5.000 | | | U | 12/21/09 |
| LCS | 2-Bromoethanol | 540-51-2 | 18800 | 108.818 | % Recov | 70.000 | 130.000 | | | | 12/21/09 |
| LCS | Diethyl ether | 60-29-7 | 7400 | 104.225 | % Recov | 70.000 | 130.000 | | | | 12/21/09 |
| LCS | Ethylene glycol | 107-21-1 | 10200 | 91.892 | % Recov | 70.000 | 130.000 | | | | 12/21/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: NWTPH-D TPH Diesel Range (Wa)

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

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|--------------------------------|-------|-------------|----------|---------|-------------|-------------|---------|-----------|--------|---------------|
| Lab ID: W09GR01155 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | ortho-Terphenyl | Surr | 84-15-1 | 23.954 | 114.000 | % Recov | 70.000 | 130.000 | | | 12/22/09 |
| MS | Total Pat. Hydrocarbons Diesel | | TPHDIESEL | 112.52 | 107.000 | % Recov | 75.000 | 125.000 | | | 12/22/09 |
| MSD | ortho-Terphenyl | Surr | 84-15-1 | 23.459 | 112.000 | % Recov | 70.000 | 130.000 | | | 12/22/09 |
| MSD | Total Pat. Hydrocarbons Diesel | | TPHDIESEL | 109.09 | 104.000 | % Recov | 75.000 | 125.000 | | | 12/22/09 |
| SPK-RPD | ortho-Terphenyl | Surr | 84-15-1 | 112.000 | | RPD | | | 1.770 | 20.000 | 12/22/09 |
| SPK-RPD | Total Pat. Hydrocarbons Diesel | | TPHDIESEL | 104.000 | | RPD | | | 2.844 | 20.000 | 12/22/09 |
| Lab ID: W09GR01188 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 28.241 | 113.000 | % Recov | 70.000 | 130.000 | | | 12/22/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Kerosene | | TPHKEROSENE | < 5.0 | n/a | ug/Kg | | | | U | 12/22/09 |
| BLANK | ortho-Terphenyl | Surr | 84-15-1 | 23.667 | 118.000 | % Recov | 70.000 | 130.000 | | | 12/22/09 |
| BLANK | Total Pat. Hydrocarbons Diesel | | TPHDIESEL | < 5.0 | n/a | ug/Kg | | | | U | 12/22/09 |
| LCS | ortho-Terphenyl | Surr | 84-15-1 | 23.256 | 116.000 | % Recov | 70.000 | 130.000 | | | 12/22/09 |
| LCS | Total Pat. Hydrocarbons Diesel | | TPHDIESEL | 102.80 | 103.000 | % Recov | 80.000 | 120.000 | | | 12/22/09 |

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: PCBs complete list

Sample Date: 12/14/09
 Receive Date: 12/14/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|----------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01188 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Aroclor-1254 | 11097-69-1 | 255.82 | 103.000 | % Recov | 75.000 | 125.000 | | | | 01/04/10 |
| MS | Decachlorobiphenyl | 2051-24-3 | 236.68 | 95.000 | % Recov | 50.000 | 150.000 | | | | 01/04/10 |
| MS | Tetrachloro-m-xylene | 877-09-8 | 256.80 | 103.000 | % Recov | 50.000 | 150.000 | | | | 01/04/10 |
| MSD | Aroclor-1254 | 11097-69-1 | 274.42 | 111.000 | % Recov | 75.000 | 125.000 | | | | 01/04/10 |
| MSD | Decachlorobiphenyl | 2051-24-3 | 218.81 | 88.300 | % Recov | 50.000 | 150.000 | | | | 01/04/10 |
| MSD | Tetrachloro-m-xylene | 877-09-8 | 264.58 | 107.000 | % Recov | 50.000 | 150.000 | | | | 01/04/10 |
| SPK-RPD | Aroclor-1254 | 11097-69-1 | 111.000 | | RPD | | | 7.477 | 25.000 | | 01/04/10 |
| SPK-RPD | Decachlorobiphenyl | 2051-24-3 | 88.300 | | RPD | | | 7.310 | 20.000 | | 01/04/10 |
| SPK-RPD | Tetrachloro-m-xylene | 877-09-8 | 107.000 | | RPD | | | 3.810 | 20.000 | | 01/04/10 |
| SURR | Decachlorobiphenyl | 2051-24-3 | 258.19 | 104.000 | % Recov | 50.000 | 150.000 | | | | 01/04/10 |
| SURR | Tetrachloro-m-xylene | 877-09-8 | 249.59 | 100.000 | % Recov | 50.000 | 150.000 | | | | 01/04/10 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Aroclor-1018 | 12674-11-2 | < 10 | n/a | UGKG | | | | | U | 01/04/10 |
| BLANK | Aroclor-1221 | 11104-28-2 | < 20 | n/a | ug/Kg | | | | | U | 01/04/10 |
| BLANK | Aroclor-1232 | 11141-16-5 | < 10 | n/a | ug/Kg | | | | | U | 01/04/10 |
| BLANK | Aroclor-1242 | 53469-21-9 | < 10 | n/a | ug/Kg | | | | | U | 01/04/10 |
| BLANK | Aroclor-1248 | 12672-29-6 | < 10 | n/a | ug/Kg | | | | | U | 01/04/10 |
| BLANK | Aroclor-1254 | 11097-69-1 | < 10 | n/a | ug/Kg | | | | | U | 01/04/10 |
| BLANK | Aroclor-1260 | 11096-82-5 | < 10 | n/a | ug/Kg | | | | | U | 01/04/10 |
| BLANK | Aroclor-1262 | 37324-23-5 | < 10 | n/a | ug/Kg | | | | | U | 01/04/10 |
| BLANK | Aroclor-1268 | 11100-14-4 | < 10 | n/a | ug/Kg | | | | | U | 01/04/10 |
| BLANK | Decachlorobiphenyl | 2051-24-3 | 185.67 | 92.800 | % Recov | 50.000 | 150.000 | | | | 01/04/10 |
| BLANK | Tetrachloro-m-xylene | 877-09-8 | 207.75 | 104.000 | % Recov | 50.000 | 150.000 | | | | 01/04/10 |
| LCS | Aroclor-1254 | 11097-69-1 | 209.90 | 105.000 | % Recov | 70.000 | 130.000 | | | | 01/04/10 |
| LCS | Decachlorobiphenyl | 2051-24-3 | 181.65 | 90.800 | % Recov | 50.000 | 150.000 | | | | 01/04/10 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
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 |
|---------|----------------------|----------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| LCS | Tetrachloro-m-xylene | 877-09-8 | 205.87 | 103.000 | % Recov | 50.000 | 150.000 | | | | 01/04/10 |

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: SW-846 8270C Semi-Vols

Sample Date: 12/14/09
 Receive Date: 12/14/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---------------------------------|-----------------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01188 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | 1,2,4-Trichlorobenzene | 120-82-1 | 6592.2 | 88.300 | % Recov | 75.000 | 121.000 | | | | 12/22/09 |
| MS | 1,4-Dichlorobenzene | 106-46-7 | 6407.1 | 85.800 | % Recov | 68.000 | 121.000 | | | | 12/22/09 |
| MS | 2,4-Dinitrotoluene | 121-14-2 | 6374.7 | 85.400 | % Recov | 66.000 | 113.000 | | | | 12/22/09 |
| MS | 2-Fluorophenol(Surr) | 367-12-4 | 4145.2 | 83.300 | % Recov | 72.000 | 120.000 | | | | 12/22/09 |
| MS | Acenaphthene | 83-32-9 | 6644.9 | 89.000 | % Recov | 69.000 | 125.000 | | | | 12/22/09 |
| MS | 4-Chloro-3-methylphenol | 59-50-7 | 6760.1 | 90.500 | % Recov | 68.000 | 116.000 | | | | 12/22/09 |
| MS | 2-Chlorophenol | 95-57-8 | 6511.6 | 87.200 | % Recov | 65.000 | 124.000 | | | | 12/22/09 |
| MS | N-Nitrosodi-n-dipropylamine | 621-64-7 | 6356.3 | 85.100 | % Recov | 69.000 | 127.000 | | | | 12/22/09 |
| MS | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3995.2 | 80.300 | % Recov | 66.000 | 122.000 | | | | 12/22/09 |
| MS | Phenol | 108-95-2 | 6651.8 | 89.100 | % Recov | 71.000 | 122.000 | | | | 12/22/09 |
| MS | Nitrobenzene-d5(Surr) | 4165-60-0 | 4045.4 | 81.300 | % Recov | 63.000 | 125.000 | | | | 12/22/09 |
| MS | 4-Nitrophenol | 100-02-7 | 6276.2 | 84.100 | % Recov | 55.000 | 113.000 | | | | 12/22/09 |
| MS | Pentachlorophenol | 87-86-5 | 6309.4 | 84.500 | % Recov | 50.000 | 113.000 | | | | 12/22/09 |
| MS | Phenol-d5(Surr) | 4165-62-2 | 4052.2 | 81.400 | % Recov | 66.000 | 124.000 | | | | 12/22/09 |
| MS | Pyrene | 129-00-0 | 7434.9 | 99.600 | % Recov | 67.000 | 125.000 | | | | 12/22/09 |
| MS | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 3840.0 | 77.200 | % Recov | 49.000 | 120.000 | | | | 12/22/09 |
| MS | Terphenyl-d14(Surr) | 98904-43-9 | 4546.5 | 91.300 | % Recov | 58.000 | 128.000 | | | | 12/22/09 |
| MSD | 1,2,4-Trichlorobenzene | 120-82-1 | 8647.5 | 98.800 | % Recov | 75.000 | 121.000 | | | | 12/22/09 |
| MSD | 1,4-Dichlorobenzene | 106-46-7 | 8576.5 | 98.000 | % Recov | 68.000 | 121.000 | | | | 12/22/09 |
| MSD | 2,4-Dinitrotoluene | 121-14-2 | 8329.4 | 95.200 | % Recov | 66.000 | 113.000 | | | | 12/22/09 |
| MSD | 2-Fluorophenol(Surr) | 367-12-4 | 5589.4 | 95.800 | % Recov | 72.000 | 120.000 | | | | 12/22/09 |
| MSD | Acenaphthene | 83-32-9 | 8508.1 | 97.200 | % Recov | 69.000 | 125.000 | | | | 12/22/09 |
| MSD | 4-Chloro-3-methylphenol | 59-50-7 | 8739.3 | 99.900 | % Recov | 68.000 | 116.000 | | | | 12/22/09 |
| MSD | 2-Chlorophenol | 95-57-8 | 8757.1 | 100.000 | % Recov | 65.000 | 124.000 | | | | 12/22/09 |
| MSD | N-Nitrosodi-n-dipropylamine | 621-64-7 | 8638.2 | 98.700 | % Recov | 69.000 | 127.000 | | | | 12/22/09 |
| MSD | 2-Fluorobiphenyl(Surr) | 321-60-8 | 5281.7 | 90.600 | % Recov | 66.000 | 122.000 | | | | 12/22/09 |

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: SW-846 8270C Semi-Vols

Sample Date: 12/14/09
 Receive Date: 12/14/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|---------|-----------------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| MSD | Phenol | 108-95-2 | 8727.9 | 99.800 | % Recov | 71.000 | 122.000 | | | | 12/22/09 |
| MSD | Nitrobenzene-d5(Surr) | 4165-60-0 | 5369.4 | 92.100 | % Recov | 63.000 | 125.000 | | | | 12/22/09 |
| MSD | 4-Nitrophenol | 100-02-7 | 8045.5 | 92.000 | % Recov | 55.000 | 113.000 | | | | 12/22/09 |
| MSD | Pentachlorophenol | 87-86-5 | 7929.3 | 90.600 | % Recov | 50.000 | 113.000 | | | | 12/22/09 |
| MSD | Phenol-d5(Surr) | 4165-62-2 | 5428.6 | 93.100 | % Recov | 66.000 | 124.000 | | | | 12/22/09 |
| MSD | Pyrene | 129-00-0 | 9566.0 | 109.000 | % Recov | 67.000 | 125.000 | | | | 12/22/09 |
| MSD | 2,4,6-Tribromophenol(Surr) | 118-79-8 | 5101.8 | 87.500 | % Recov | 49.000 | 120.000 | | | | 12/22/09 |
| MSD | Terphenyl-d14(Surr) | 98904-43-9 | 5942.3 | 102.000 | % Recov | 58.000 | 128.000 | | | | 12/22/09 |
| SPK-RPD | 1,2,4-Trichlorobenzene | 120-82-1 | 98.800 | | RPD | | | 11.224 | 20.000 | | 12/22/09 |
| SPK-RPD | 1,4-Dichlorobenzene | 106-46-7 | 98.000 | | RPD | | | 13.275 | 20.000 | | 12/22/09 |
| SPK-RPD | 2,4-Dinitrotoluene | 121-14-2 | 95.200 | | RPD | | | 10.853 | 20.000 | | 12/22/09 |
| SPK-RPD | 2-Fluorophenol(Surr) | 367-12-4 | 95.800 | | RPD | | | 13.959 | 20.000 | | 12/22/09 |
| SPK-RPD | Acenaphthene | 83-32-9 | 97.200 | | RPD | | | 8.808 | 20.000 | | 12/22/09 |
| SPK-RPD | 4-Chloro-3-methylphenol | 59-50-7 | 99.900 | | RPD | | | 9.874 | 20.000 | | 12/22/09 |
| SPK-RPD | 2-Chlorophenol | 95-57-8 | 100.000 | | RPD | | | 13.675 | 20.000 | | 12/22/09 |
| SPK-RPD | N-Nitrosodi-n-dipropylamine | 621-64-7 | 98.700 | | RPD | | | 14.799 | 20.000 | | 12/22/09 |
| SPK-RPD | 2-Fluorobiphenyl(Surr) | 321-60-8 | 90.600 | | RPD | | | 12.054 | 20.000 | | 12/22/09 |
| SPK-RPD | Phenol | 108-95-2 | 99.800 | | RPD | | | 11.329 | 20.000 | | 12/22/09 |
| SPK-RPD | Nitrobenzene-d5(Surr) | 4165-60-0 | 92.100 | | RPD | | | 12.457 | 20.000 | | 12/22/09 |
| SPK-RPD | 4-Nitrophenol | 100-02-7 | 92.000 | | RPD | | | 8.972 | 20.000 | | 12/22/09 |
| SPK-RPD | Pentachlorophenol | 87-86-5 | 90.600 | | RPD | | | 6.967 | 20.000 | | 12/22/09 |
| SPK-RPD | Phenol-d5(Surr) | 4165-62-2 | 93.100 | | RPD | | | 13.410 | 20.000 | | 12/22/09 |
| SPK-RPD | Pyrene | 129-00-0 | 109.000 | | RPD | | | 9.012 | 20.000 | | 12/22/09 |
| SPK-RPD | 2,4,6-Tribromophenol(Surr) | 118-79-8 | 87.500 | | RPD | | | 12.508 | 20.000 | | 12/22/09 |
| SPK-RPD | Terphenyl-d14(Surr) | 98904-43-9 | 102.000 | | RPD | | | 11.071 | 20.000 | | 12/22/09 |
| SURR | 2-Fluorophenol(Surr) | 367-12-4 | 4168.4 | 83.900 | % Recov | 72.000 | 120.000 | | | | 12/22/09 |
| SURR | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3768.0 | 75.900 | % Recov | 66.000 | 122.000 | | | | 12/22/09 |
| SURR | Nitrobenzene-d5(Surr) | 4165-60-0 | 4229.1 | 85.200 | % Recov | 63.000 | 125.000 | | | | 12/22/09 |
| SURR | Phenol-d5(Surr) | 4165-62-2 | 3825.4 | 77.000 | % Recov | 66.000 | 124.000 | | | | 12/22/09 |
| SURR | 2,4,6-Tribromophenol(Surr) | 118-79-8 | 3203.9 | 64.500 | % Recov | 49.000 | 120.000 | | | | 12/22/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: SW-846 8270C Semi-Vols

Sample Date: 12/14/09
 Receive Date: 12/14/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|-----------------|-----------------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| SURR | Terphenyl-d14(Surr) | 98904-43-9 | 4845.5 | 97.600 | % Recov | 58.000 | 128.000 | | | | 12/22/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | 1,2-Dichlorobenzene | 95-50-1 | < 220 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 1,2,4-Trichlorobenzene | 120-82-1 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 1,3-Dichlorobenzene | 541-73-1 | < 270 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 1,4-Dichlorobenzene | 106-46-7 | < 250 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2,4-Dichlorophenol | 120-83-2 | < 170 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2,4-Dinitrotoluene | 121-14-2 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2,4,5-Trichlorophenol | 95-95-4 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2,4,6-Trichlorophenol | 88-06-2 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2,4-Dimethylphenol | 105-67-9 | < 230 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2,6-Dinitrotoluene | 606-20-2 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2-Chloronaphthalene | 91-58-7 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2-Fluorophenol(Surr) | 367-12-4 | 3921.2 | 98.000 | % Recov | 72.000 | 120.000 | | | | 12/22/09 |
| BLANK | 2-Methylnaphthalene | 91-57-6 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2-Methylphenol (cresol, o-) | 95-48-7 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2-Nitroaniline | 88-74-4 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2-Nitrophenol | 88-75-5 | < 170 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 3 & 4 Methylphenol Total | 65794-96-9 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 3-Nitroaniline | 99-09-2 | < 190 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 4,6-Dinitro-2-methylphenol | 534-52-1 | < 330 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 4-Bromophenyphenyl ether | 101-55-3 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 4-Chlorophenyphenyl ether | 7005-72-3 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Acenaphthene | 83-32-9 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Acenaphthylene | 208-96-8 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Anthracene | 120-12-7 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Bis(2-chloroethyl) ether | 111-44-4 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Benzo(a)anthracene | 56-55-3 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Benzo(b)fluoranthene | 205-99-2 | < 200 | n/a | ug/Kg | | | | | U | 12/22/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20091304
 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 | Benzo(ghi)perylene | 191-24-2 | < 320 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Benzo(a)pyrene | 50-32-8 | < 230 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Bis(2-Chloroethoxy)methana | 111-91-1 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Bis(2-ethylhexyl) phthalate | 117-81-7 | < 400 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Bis(2-chloro-1-methylethyl)eth | 108-60-1 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Benzo(k)fluoranthene | 207-08-9 | < 200 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Butylbenzylphthalate | 85-68-7 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Carbazole | 86-74-8 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 4-Chloroaniline | 106-47-8 | < 280 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 4-Chloro-3-methylphenol | 59-50-7 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2-Chlorophenol | 95-57-8 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Chrysene | 218-01-9 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 3,3'-Dichlorobenzidine | 81-94-1 | < 330 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Dibenz(a,h)anthracene | 53-70-3 | < 330 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Dibenzofuran | 132-64-9 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Di-n-butylphthalate | 84-74-2 | < 400 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Diethylphthalate | 84-66-2 | < 400 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Dimethyl phthalate | 131-11-3 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2,4-Dinitrophenol | 51-28-5 | < 620 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Di-n-octylphthalate | 117-84-0 | < 400 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | N-Nitrosodi-n-dipropylamine | 621-64-7 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3831.4 | 95.800 | % Recov | 66.000 | 122.000 | | | | 12/22/09 |
| BLANK | Fluorene | 86-73-7 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Fluoranthene | 206-44-0 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Hexachlorobenzene | 118-74-1 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Hexachlorobutadiene | 87-68-3 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Hexachlorocyclopentadiene | 77-47-4 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Hexachloroethane | 67-72-1 | < 250 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Indeno(1,2,3-cd)pyrene | 193-39-5 | < 330 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Isophorone | 78-59-1 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
 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 | Phenol | 108-95-2 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Naphthalene | 91-20-3 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Nitrobenzene-d5(Surr) | 4165-60-0 | 3778.8 | 94.500 | % Recov | 63.000 | 125.000 | | | | 12/22/09 |
| BLANK | Nitrobenzene | 98-95-3 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 4-Nitrophenol | 100-02-7 | < 330 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 4-Nitroaniline | 100-01-6 | < 280 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | N-Nitrosodiphenylamine | 86-30-6 | < 170 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Pentachlorophenol | 87-86-5 | < 400 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Phenanthrene | 85-01-8 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Phenol-d5(Surr) | 4165-62-2 | 3858.9 | 96.500 | % Recov | 66.000 | 124.000 | | | | 12/22/09 |
| BLANK | Pyrene | 129-00-0 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | Tributyl phosphate | 126-73-8 | < 150 | n/a | ug/Kg | | | | | U | 12/22/09 |
| BLANK | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 3359.0 | 84.000 | % Recov | 49.000 | 120.000 | | | | 12/22/09 |
| BLANK | Terphenyl-d14(Surr) | 98904-43-9 | 4693.2 | 117.000 | % Recov | 58.000 | 128.000 | | | | 12/22/09 |
| LCS | 1,2,4-Trichlorobenzene | 120-82-1 | 5572.2 | 92.900 | % Recov | 76.000 | 118.000 | | | | 12/22/09 |
| LCS | 1,4-Dichlorobenzene | 106-46-7 | 5380.8 | 89.700 | % Recov | 68.000 | 121.000 | | | | 12/22/09 |
| LCS | 2,4-Dinitrotoluene | 121-14-2 | 5301.9 | 88.400 | % Recov | 68.000 | 112.000 | | | | 12/22/09 |
| LCS | 2-Fluorophenol(Surr) | 367-12-4 | 3548.4 | 88.700 | % Recov | 50.000 | 110.000 | | | | 12/22/09 |
| LCS | Acenaphthene | 83-32-9 | 5461.8 | 91.000 | % Recov | 75.000 | 121.000 | | | | 12/22/09 |
| LCS | 4-Chloro-3-methylphenol | 59-50-7 | 5637.2 | 94.000 | % Recov | 68.000 | 117.000 | | | | 12/22/09 |
| LCS | 2-Chlorophenol | 95-57-8 | 5487.4 | 91.500 | % Recov | 84.000 | 114.000 | | | | 12/22/09 |
| LCS | N-Nitrosodl-n-dipropylamine | 621-64-7 | 5323.8 | 88.700 | % Recov | 76.000 | 119.000 | | | | 12/22/09 |
| LCS | 2-Fluorobiphenyl(Surr) | 321-60-8 | 3482.7 | 87.100 | % Recov | 58.000 | 109.000 | | | | 12/22/09 |
| LCS | Phenol | 108-95-2 | 5341.9 | 89.000 | % Recov | 80.000 | 113.000 | | | | 12/22/09 |
| LCS | Nitrobenzene-d5(Surr) | 4165-60-0 | 3521.5 | 88.000 | % Recov | 60.000 | 118.000 | | | | 12/22/09 |
| LCS | 4-Nitrophenol | 100-02-7 | 5687.7 | 94.800 | % Recov | 42.000 | 123.000 | | | | 12/22/09 |
| LCS | Pentachlorophenol | 87-86-5 | 5179.8 | 86.300 | % Recov | 55.000 | 120.000 | | | | 12/22/09 |
| LCS | Phenol-d5(Surr) | 4165-62-2 | 3454.0 | 86.400 | % Recov | 59.000 | 116.000 | | | | 12/22/09 |
| LCS | Pyrene | 129-00-0 | 5800.6 | 96.700 | % Recov | 67.000 | 122.000 | | | | 12/22/09 |
| LCS | 2,4,6-Tribromophenol(Surr) | 118-79-6 | 3458.4 | 86.500 | % Recov | 60.000 | 120.000 | | | | 12/22/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
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 | Terphenyl-d14(Surr) | 98904-43-9 | 3743.0 | 93.600 | % Recov | 60.000 | 120.000 | | | | 12/22/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: VOA Ground Water Protection

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

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-----------------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01159 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | 1,1-Dichloroethene | 75-35-4 | 22.370 | 85.000 | % Recov | 63.000 | 117.000 | | | | 12/18/09 |
| MS | Benzene | 71-43-2 | 28.370 | 108.000 | % Recov | 75.000 | 129.000 | | | | 12/18/09 |
| MS | 4-Bromofluorobenzene(Surr) | 460-00-4 | 55.720 | 106.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| MS | Chlorobenzene | 108-90-7 | 29.110 | 111.000 | % Recov | 79.000 | 119.000 | | | | 12/18/09 |
| MS | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 57.760 | 110.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| MS | Toluene-d8(Surr) | 2037-26-5 | 52.800 | 100.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| MS | Toluene | 108-88-3 | 29.080 | 111.000 | % Recov | 76.000 | 120.000 | | | | 12/18/09 |
| MS | Trichloroethene | 79-01-6 | 26.300 | 99.900 | % Recov | 73.000 | 123.000 | | | | 12/18/09 |
| MSD | 1,1-Dichloroethene | 75-35-4 | 24.730 | 78.900 | % Recov | 63.000 | 117.000 | | | | 12/18/09 |
| MSD | Benzene | 71-43-2 | 34.280 | 109.000 | % Recov | 75.000 | 129.000 | | | | 12/18/09 |
| MSD | 4-Bromofluorobenzene(Surr) | 460-00-4 | 65.040 | 104.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| MSD | Chlorobenzene | 108-90-7 | 35.090 | 112.000 | % Recov | 79.000 | 119.000 | | | | 12/18/09 |
| MSD | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 67.360 | 108.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| MSD | Toluene-d8(Surr) | 2037-26-5 | 62.850 | 100.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| MSD | Toluene | 108-88-3 | 34.430 | 110.000 | % Recov | 76.000 | 120.000 | | | | 12/18/09 |
| MSD | Trichloroethene | 79-01-6 | 31.360 | 100.000 | % Recov | 73.000 | 123.000 | | | | 12/18/09 |
| SPK-RPD | 1,1-Dichloroethene | 75-35-4 | 78.900 | | RPD | | | 7.444 | 20.000 | | 12/18/09 |
| SPK-RPD | Benzene | 71-43-2 | 109.000 | | RPD | | | 0.922 | 20.000 | | 12/18/09 |
| SPK-RPD | 4-Bromofluorobenzene(Surr) | 460-00-4 | 104.000 | | RPD | | | 1.905 | 20.000 | | 12/18/09 |
| SPK-RPD | Chlorobenzene | 108-90-7 | 112.000 | | RPD | | | 0.897 | 20.000 | | 12/18/09 |
| SPK-RPD | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 108.000 | | RPD | | | 1.835 | 20.000 | | 12/18/09 |
| SPK-RPD | Toluene-d8(Surr) | 2037-26-5 | 100.000 | | RPD | | | 0.000 | 20.000 | | 12/18/09 |
| SPK-RPD | Toluene | 108-88-3 | 110.000 | | RPD | | | 0.905 | 20.000 | | 12/18/09 |
| SPK-RPD | Trichloroethene | 79-01-6 | 100.000 | | RPD | | | 0.100 | 20.000 | | 12/18/09 |

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: VOA Ground Water Protection

Sample Date: 12/14/09
 Receive Date: 12/14/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-----------------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01190 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 61.870 | 103.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 65.540 | 109.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 60.770 | 101.000 | % Recov | 80.000 | 126.000 | | | | 12/18/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | 1,1-Dichloroethane | 75-34-3 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 1,1,1-Trichloroethane | 71-55-6 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 1,1,2-Trichloroethane | 79-00-5 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 1,1,2,2-Tetrachloroethane | 79-34-5 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 1,1-Dichloroethene | 75-35-4 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 1,2-Dichloroethane | 107-06-2 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 1,2-Dichloroethene(Total) | 540-59-0 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 1-Butanol | 71-36-3 | < 100 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 2-Hexanone | 591-78-6 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 4-Methyl-2-Pentanone | 108-10-1 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Acetone | 67-64-1 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Bromodichloromethane | 75-27-4 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Benzene | 71-43-2 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 4-Bromofluorobenzene(Surr) | 460-00-4 | 51.660 | 103.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| BLANK | Bromoform | 75-25-2 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Carbon disulfide | 75-15-0 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Carbon tetrachloride | 56-23-5 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Dibromochloromethane | 124-48-1 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Chloroform | 67-66-3 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Chlorobenzene | 108-90-7 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | cis-1,2-Dichloroethylene | 156-59-2 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | cis-1,3-Dichloropropene | 10061-01-5 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20091304
 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 | Chloroethane | 75-00-3 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 51.290 | 103.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| BLANK | trans-1,2-Dichloroethylene | 156-60-5 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 1,2-Dichloropropane | 78-87-5 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Ethylbenzene | 100-41-4 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Bromomethane | 74-83-9 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Chloromethane | 74-87-3 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | 2-Butanone | 78-93-3 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Methylenechloride | 75-09-2 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Tetrachloroethene | 127-18-4 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Styrene | 100-42-5 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Xylenes (total) | 1330-20-7 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Toluene-d8(Surr) | 2037-26-5 | 49.310 | 98.600 | % Recov | 80.000 | 128.000 | | | | 12/18/09 |
| BLANK | Toluene | 108-88-3 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | trans-1,3-Dichloropropene | 10061-02-6 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Trichloromonofluoromethane | 75-69-4 | < 1.0 | n/a | ug/Kg | 0.000 | 5.000 | | | U | 12/18/09 |
| BLANK | Trichloroethene | 79-01-6 | < 0.20 | n/a | ug/Kg | | | | | U | 12/18/09 |
| BLANK | Vinyl chloride | 75-01-4 | < 1.0 | n/a | ug/Kg | | | | | U | 12/18/09 |
| LCS | 1,1-Dichloroethene | 75-35-4 | 21.520 | 86.100 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| LCS | Benzene | 71-43-2 | 24.430 | 97.700 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| LCS | 4-Bromofluorobenzene(Surr) | 460-00-4 | 51.060 | 102.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| LCS | Chlorobenzene | 108-90-7 | 25.420 | 102.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| LCS | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 52.680 | 105.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| LCS | Toluene-d8(Surr) | 2037-26-5 | 49.700 | 99.400 | % Recov | 80.000 | 128.000 | | | | 12/18/09 |
| LCS | Toluene | 108-88-3 | 24.990 | 100.000 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |
| LCS | Trichloroethene | 79-01-6 | 23.680 | 94.700 | % Recov | 75.000 | 125.000 | | | | 12/18/09 |

REVISION 1

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F10-011

Group #: WSCF20091304
Department: Organic

| Sample # | Client ID | Lab Area | Test | Comment |
|----------|-----------|----------|------|--|
| | | VALGROUP | | <p>IC Solid: As the analyte concentrations for the QC sample, W09GR01155, are less than 10X the MDL, the relative percent difference (RPD) limits do not apply. SOB 12/23/09</p> <p>ICP-MS: Aluminum MSD recovery 175%. "N" flag</p> <p>Organics: Results are corrected for moisture and reported on a dry weight basis. cgc</p> <p>ICP-AES: High iron preparation blank result; "C" flag if applicable.</p> <p>Soil LCS has no certified lithium and bismuth results. The missing elements were spiked into the LCS, digested, analyzed, and reported.</p> <p>Iron sample result exceeds spiking level by a factor of 4 so spike recoveries are not valid.</p> <p>Sample results less than 5 times the MDL; "B" flag.</p> <p>Estimated boron result due to iron interference; "E" flag.</p> <p>Tc-99 Matrix spike and RPD are flagged however, the scientist has reviewed and approved the batch. lmh</p> |

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 # W09GR01188
Client ID: B22RP1

**TRENT
WSCF**

Matrix: SOIL

Group #: WSCF20091304
Department: Radiochemistry
Sampled: 12/14/09
Received: 12/14/09

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|--------------------------------------|------------|------------|----|-----------|---------|-----------|-------|------|---------|-----|---------------|
| Americium by AEA | | | | | | | | | | | |
| Americium-241 | 14598-10-2 | LA-508-471 | U | 5.20e-03 | pCi/g | +0.0267 | pCi/g | 1.00 | 0.047 | | 12/29/09 |
| Am-243 tracer by AEA | AM243 | LA-508-471 | | 4.20 | pCi/g | | | 1.00 | 0.026 | | 12/29/09 |
| Gamma Energy Analysis-grd H2O | | | | | | | | | | | |
| Antimony-125 | 14234-35-6 | LA-508-481 | U | 5.20e-03 | pCi/g | +0.0136 | pCi/g | 1.00 | 0.023 | | 12/17/09 |
| Cobalt-60 | 10198-40-0 | LA-508-481 | U | 1.23e-04 | pCi/g | +1.23e-03 | pCi/g | 1.00 | 8.4e-03 | | 12/17/09 |
| Cesium-137 | 10045-97-3 | LA-508-481 | U | -3.85e-03 | pCi/g | +4.97e-03 | pCi/g | 1.00 | 8.3e-03 | | 12/17/09 |
| Europium-152 | 14883-23-9 | LA-508-481 | U | -0.0129 | pCi/g | +0.0170 | pCi/g | 1.00 | 0.026 | | 12/17/09 |
| Europium-154 | 15585-10-1 | LA-508-481 | U | -5.77e-03 | pCi/g | +0.0185 | pCi/g | 1.00 | 0.027 | | 12/17/09 |
| Europium-155 | 14391-16-3 | LA-508-481 | U | 0.0203 | pCi/g | +0.0219 | pCi/g | 1.00 | 0.038 | | 12/17/09 |
| Gross Alpha on Alpha Plateau | | | | | | | | | | | |
| Gross alpha on alpha plateau | 12587-46-1 | LA-508-415 | U | 0.680 | pCi/g | +0.340 | pCi/g | 1.00 | 0.35 | | 12/21/09 |
| Gross Alpha/Gross Beta (AB32) | | | | | | | | | | | |
| Gross beta | 12587-47-2 | LA-508-415 | | 1.40 | pCi/g | +0.476 | pCi/g | 1.00 | 0.63 | | 12/18/09 |
| Plutonium Isotopics by AEA | | | | | | | | | | | |
| Plutonium-238 | 13981-16-3 | LA-508-471 | U | 1.90e-03 | pCi/g | +0.0190 | pCi/g | 1.00 | 0.070 | | 12/29/09 |
| Pu-239/240 by AEA | PU-239/240 | LA-508-471 | | 0.420 | pCi/g | +0.122 | pCi/g | 1.00 | 0.020 | | 12/29/09 |
| Pu-242 | 13982-10-0 | LA-508-471 | | 6.20 | pCi/g | | | 1.00 | 5.1e-03 | | 12/29/09 |
| Strontium 89/90 | | | | | | | | | | | |
| Strontium-89/90 | SR-RAD | LA-508-415 | U | -0.820 | pCi/g | +0.820 | pCi/g | 1.00 | 0.48 | | 12/28/09 |
| Sr-85 Tracer by Beta Counting | SR85 | LA-508-415 | | 75.9 | Percent | | | 1.00 | 0.0 | | 12/28/09 |
| TC99 by Liquid Scin. | | | | | | | | | | | |
| Tc-99 by Liquid Scin. | 14133-76-7 | LA-508-421 | N | 1.40 | pCi/g | +0.350 | pCi/g | 1.00 | 0.30 | | 12/29/09 |
| Uranium Isotopics by AEA | | | | | | | | | | | |
| Uranium-233/234 | U-233/234 | LA-508-471 | | 0.0690 | pCi/g | +0.0407 | pCi/g | 1.00 | 0.044 | | 12/29/09 |

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)

E - Analyte is an estimate, has potentially larger errors(inorg)

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

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

Report WGPP/ver. 5.2

Groundwater Remediation Program

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REVISION 1

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F10-011
Sample # W09GR01188
Client ID: B22RP1

**TRENT
WSCF**

Matrix: SOIL

Group #: WSCF20091304
Department: Radiochemistry
Sampled: 12/14/09
Received: 12/14/09

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---------------------|------------|------------|----|--------|-------|---------|-------|------|-------|-----|---------------|
| Uranium-235 | 15117-96-1 | LA-508-471 | U | 0.0100 | pCi/g | +0.0178 | pCi/g | 1.00 | 0.032 | | 12/29/09 |
| Uranium-238 | U-238 | LA-508-471 | | 0.0820 | pCi/g | +0.0394 | pCi/g | 1.00 | 0.023 | | 12/29/09 |
| U-232 tracer by AEA | U232 | LA-508-471 | | 4.00 | pCi/g | | | 1.00 | 0.063 | | 12/29/09 |

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)
 E - Analyte is an estimate, has potentially larger errors (inorg)
 U - Analyzed for but not detected above limiting criteria (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. (org)

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

Report WGPP/ver. 5.2
 Groundwater Remediation Program

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REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Americium by AEA

Sample Date: 12/11/09
 Receive Date: 12/11/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|----------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01170 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Americium-241 | 14596-10-2 | U1.3e-2 | | RPD | | | n/a | 20.000 | | 12/29/09 |
| DUP | Am-243 tracer by AEA | AM243 | 4 | 83.140 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |
| Lab ID: W09GR01188 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Am-243 tracer by AEA | AM243 | 4.174 | 96.950 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Americium-241 | 14596-10-2 | U2.2e-2 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/29/09 |
| BLANK | Am-243 tracer by AEA | AM243 | 3.718 | 93.200 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |
| LCS | Americium-241 | 14596-10-2 | 12.43 | 104.895 | % Recov | 80.000 | 120.000 | | | | 12/29/09 |
| LCS | Am-243 tracer by AEA | AM243 | 11.7 | 86.750 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Gamma Energy Analysis-grd H2O

Sample Date: 12/14/09
 Receive Date: 12/14/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|--------------|------------|------------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01178 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Cobalt-60 | 10198-40-0 | 1.187 | | RPD | | | 2.538 | 20.000 | | 12/17/09 |
| DUP | Cesium-137 | 10045-97-3 | 211.3 | | RPD | | | 0.095 | 20.000 | | 12/17/09 |
| DUP | Europium-152 | 14683-23-9 | 1.985 | | RPD | | | 1.216 | 20.000 | | 12/17/09 |
| DUP | Europium-154 | 15585-10-1 | U0.349 | | RPD | | | n/a | 20.000 | | 12/17/09 |
| DUP | Europium-155 | 14391-16-3 | U0.335 | | RPD | | | n/a | 20.000 | | 12/17/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Cobalt-60 | 10198-40-0 | U-3.991e-3 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/21/09 |
| BLANK | Cesium-137 | 10045-97-3 | U-2.709e-3 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/21/09 |
| BLANK | Europium-152 | 14683-23-9 | U5.824e-3 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/21/09 |
| BLANK | Europium-154 | 15585-10-1 | U-2.196e-4 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/21/09 |
| BLANK | Europium-155 | 14391-16-3 | U5.993e-3 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/21/09 |
| BLANK | Antimony-125 | 14234-35-6 | U1.586e-3 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/21/09 |
| LCS | Cobalt-60 | 10198-40-0 | 10600 | 106.640 | % Recov | 80.000 | 120.000 | | | | 12/23/09 |
| LCS | Cesium-137 | 10045-97-3 | 8343 | 105.017 | % Recov | 80.000 | 120.000 | | | | 12/23/09 |

REVISION 1

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Gross Alpha on Alpha Plateau

Sample Date: 12/11/09
 Receive Date: 12/11/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|------------------------------|---------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01170 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Gross alpha on alpha plateau | 12587-46-1 | 1.4 | | RPD | | | 19.355 | 20.000 | | 12/21/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Gross alpha on alpha plateau | 12587-46-1-ap | U1.7E-02 | n/a | pCi/g | -2.000 | 2.000 | | | | 12/21/09 |
| LCS | Gross alpha on alpha plateau | 12587-46-1-ap | 5.5 | 84.615 | % Recov | 80.000 | 120.000 | | | | 12/21/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Gross Alpha/Gross Beta (AB32)

Sample Date: 12/11/09
 Receive Date: 12/11/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01170 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Gross beta | 12587-47-2 | 2.1 | | RPD | | | 15.385 | 20.000 | | 12/18/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Gross beta | 12587-47-2 | U0.35 | n/a | pCi/g | -10.000 | 10.000 | | | | 12/18/09 |
| LCS | Gross beta | 12587-47-2 | 25.2 | 112.701 | % Recov | 80.000 | 120.000 | | | | 12/18/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Plutonium Isotopics by AEA

Sample Date: 12/11/09
 Receive Date: 12/11/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01170 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Plutonium-238 | 13981-16-3 | U-2.2e-3 | | RPD | | | n/a | 20.000 | | 12/29/09 |
| DUP | Pu-239/240 by AEA | PU-239/240 | U-4.4e-7 | | RPD | | | n/a | 20.000 | | 12/29/09 |
| DUP | Pu-242 | 13982-10-0 | 5.9 | 72.655 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |
| Lab ID: W09GR01188 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Pu-242 | 13982-10-0 | 6.172 | 82.070 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Plutonium-238 | 13981-16-3 | U-3e-3 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/29/09 |
| BLANK | Pu-239/240 by AEA | PU-239/240 | U1.1e-2 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/29/09 |
| BLANK | Pu-242 | PU242 | 5.497 | 95.370 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |
| LCS | Pu-239/240 by AEA | PU-239/240 | 12.13 | 94.434 | % Recov | 80.000 | 120.000 | | | | 12/29/09 |
| LCS | Pu-242 | PU242 | 17.3 | 102.460 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Strontium 89/90

Sample Date: 12/11/09
 Receive Date: 12/11/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-------------------------------|------------|-----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01170 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Sr-85 Tracer by Beta Counting | SR85 | 89.3 | 89.300 | % Recov | 30.000 | 105.000 | | | | 12/28/09 |
| DUP | Strontium-89/90 | SR-RAD | U-7.8E-01 | | RPD | | | n/a | 20.000 | | 12/28/09 |
| Lab ID: W09GR01188 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Sr-85 Tracer by Beta Counting | SR85 | 75.9 | 75.900 | % Recov | 30.000 | 105.000 | | | | 12/28/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Sr-85 Tracer by Beta Counting | SR85 | 66.9 | 66.900 | % Recov | 30.000 | 105.000 | | | | 12/28/09 |
| BLANK | Strontium-89/90 | 10098-97-2 | U-3.5E-01 | n/a | pCi/g | -10.000 | 300.000 | | | | 12/28/09 |
| LCS | Sr-85 Tracer by Beta Counting | SR85 | 86.6 | 86.600 | % Recov | 30.000 | 105.000 | | | | 12/28/09 |
| LCS | Strontium-89/90 | 10098-97-2 | 63.7 | 91.655 | % Recov | 80.000 | 120.000 | | | | 12/28/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: TC99 by Liquid Scin.

Sample Date: 12/18/09
 Receive Date: 12/18/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-----------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01213 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Tc-99 by Liquid Scin. | 14133-76-7 | 0.4 | | RPD | | | 93.333 | 20.000 | | 12/29/09 |
| MS | Tc-99 by Liquid Scin. | 14133-76-7 | 18.3 | 47.806 | % Recov | 75.000 | 125.000 | | | | 12/29/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Tc-99 by Liquid Scin. | 14133-76-7 | U-0.1 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/29/09 |
| LCS | Tc-99 by Liquid Scin. | 14133-76-7 | 9.0 | 104.651 | % Recov | 80.000 | 120.000 | | | | 12/29/09 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20091304
 Matrix: SOLID
 Test: Uranium Isotopics by AEA

Sample Date: 12/11/09
 Receive Date: 12/11/09

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|---------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W09GR01170 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | U-232 tracer by AEA | U232 | 3.851 | 48.660 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |
| DUP | Uranium-233/234 | U-233/234 | 0.13 | | RPD | | | 7.407 | 20.000 | | 12/29/09 |
| DUP | Uranium-235 | 15117-96-1 | U1e-2 | | RPD | | | n/a | 20.000 | | 12/29/09 |
| DUP | Uranium-238 | U-238 | 0.13 | | RPD | | | 7.407 | 20.000 | | 12/29/09 |
| Lab ID: W09GR01188 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | U-232 tracer by AEA | U232 | 4.019 | 55.030 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |
| BATCH QC | | | | | | | | | | | |
| BLANK | U-232 tracer by AEA | U232 | 3.579 | 80.980 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |
| BLANK | Uranium-233/234 | 13966-29-5 | U9.3e-3 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/29/09 |
| BLANK | Uranium-235 | 15117-96-1 | U1.4e-2 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/29/09 |
| BLANK | Uranium-238 | 24678-82-8 | U9.3e-3 | n/a | pCi/g | -10.000 | 1000.000 | | | | 12/29/09 |
| LCS | U-232 tracer by AEA | U232 | 11.26 | 66.320 | % Recov | 30.000 | 105.000 | | | | 12/29/09 |
| LCS | Uranium-238 | 24678-82-8 | 17.28 | 91.163 | % Recov | 80.000 | 120.000 | | | | 12/29/09 |

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F10-011

Group #: WSCF20091304
Department: Radiochemistry

| Sample # | Client ID | Lab Area | Test | Comment |
|----------|-----------|----------|------|--|
| | | VALGROUP | | <p>IC Solid: As the analyte concentrations for the QC sample, W09GR01155, are less than 10X the MDL, the relative percent difference (RDP) limits do not apply. SDB 12/23/09</p> <p>ICP-MS: Aluminum MSD recovery 175%. "N" flag</p> <p>Organics: Results are corrected for moisture and reported on a dry weight basis. cgc</p> <p>ICP-AES: High iron preparation blank result; "C" flag if applicable.</p> <p>Soil LCS has no certified lithium and bismuth results. The missing elements were spiked into the LCS, digested, analyzed, and reported.</p> <p>Iron sample result exceeds spiking level by a factor of 4 so spike recoveries are not valid.</p> <p>Sample results less than 5 times the MDL; "B" flag.</p> <p>Estimated boron result due to iron interference; "E" flag.</p> <p>Tc-99 Matrix spike and RPD are flagged however, the scientist has reviewed and approved the batch. Imh</p> |

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 #: WSCF20091304
Department: Radiochemistry

| Sample # | Client ID | Test Name | Peak Name | CAS# | RT | RQ | Result | Units |
|------------|-----------|-----------|-------------------------------|--------------------|----|----|--------|-------|
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | AC-228 | | | 0.50 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | AC-228 Count Error | | | 18 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | BI-212 | | | 0.37 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | BI-212 Count Error | | | 20 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | BI-214 | | | 0.44 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | BI-214 Count Error | | | 13 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | CS-134 | | | 0.032 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | CS-134 Count Error | | | 30 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | K-40 | | | 14 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | K-40 Count Error | | | 12 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | PB-212 | | | 0.59 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | PB-212 Count Error | | | 8.4 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | PB-214 | | | 0.63 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | PB-214 Count Error | | | 21 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | RA-226 | | | 0.34 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | RA-226 Count Error | | | 15 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | RA-228 | | | 0.50 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | RA-228 Count Error | | | 16 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | SN-126 | | | 0.12 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | SN-126 Count Error | | | 28 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | TH-234 | | | 0.62 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | TH-234 Count Error | | | 27 | % |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | TL-208 | | | 0.16 | pCi/g |
| W09GR01188 | B22RP1 | TRENT | Gamma Energy Analysis-grd H2O | TL-208 Count Error | | | 14 | % |

RQ=Result Qualifier

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Groundwater Remediation Program

WGPE v 5.2 Report#: WSCF20091304

Report Date: 25-may-2010

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REVISION 1

42100-SLF-10-187

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION w/SAMPLE RECORD SHEET

Consisting of 8 pages
Including cover page

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

File
RTB
1/28/10

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354
 Attn: Steve Trent

Customer Code: GPP
 PO#: 30214ES10
 Group#: 20091304
 Project#: F10-011
 Proj Mgr: Steve Trent
 Phone: 373-5869

The following samples were received from you on 12/14/09. 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 |
|------------|-----------|--|------------------------------|-------------|
| W09GR01188 | B22RP1 | TRENT @2008 @8015GPP @AB-32 @AEA-30 @AEA-31 @AEA-32 @ALPHA @GEA-GPP @GPP6010 @IC-30 @PCBG @SR89_90 @SVOCGPP @TC99-30 @TPHD-WA CN-02 CR+6 NH4-IC PERSOLID | Solid, or handle as if solid | 12/14/09 |
| W09GR01189 | B22RP3 | TRENT @VOA-GPP | Solid, or handle as if solid | 12/14/09 |
| W09GR01190 | B22RP2 | TRENT @VOA-GPP | Solid, or handle as if solid | 12/14/09 |

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 H2O P |
| @IC-30 | Anions by Ion Chromatography |
| @PCBGPP | PCBs complete list |
| @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 |

11/20/10

COLLECTOR
Rosanne, Ross HELMS, Chamberlain
SAMPLING LOCATION
 C5860 (299-E29-54); I-075
ICE CHEST NO.

COMPANY CONTACT
 DYKMAN, DL
TELEPHONE NO.
 373-2530
PROJECT DESIGNATION
 ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)
FIELD LOGBOOK NO.
 HNF-N-576-2 P 94
ACTUAL SAMPLE DEPTH
 205.9' - 211.4'
OFFSITE PROPERTY NO.
 N/A

PROJECT COORDINATOR
 DYKMAN, DL
PRICE CODE 8N
AIR QUALITY
METHOD OF SHIPMENT
 GOVERNMENT VEHICLE
SAF NO.
 F10-011
COA
 302143ES10
BILL OF LADING/AIR BILL NO.
 N/A

DATA TURNAROUND
 45 Days / 45 Days

SHIPPED TO
 Waste Sampling & Characterization

MATRIX*
 A=Air
 DL=Drum
 Liquids
 DS=Drum
 Solids
 L=Liquid
 O=Oil
 S=Soil
 SE=Sediment
 T=Tissue
 V=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: B22T49

| 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 |

20091304

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME | | | | | | | |
|------------|-------------------|-------------|-------------|---|---|---|---|---|---|---|
| B22RP1 | W05161201188 SOIL | 12-14-09 | 1445 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

CHAIN OF POSSESSION

| | |
|--------------------------------|-----------|
| RELINQUISHED BY/REMOVED FROM | DATE/TIME |
| <i>Larry Rosanne Longhouse</i> | 12-14-09 |
| RELINQUISHED BY/REMOVED FROM | DATE/TIME |

SIGN/ PRINT NAMES

| | |
|-----------------------|---------------|
| RECEIVED BY/STORED IN | DATE/TIME |
| <i>T. Prater</i> | 12/14/09 1525 |
| RECEIVED BY/STORED IN | DATE/TIME |

SPECIAL INSTRUCTIONS
 SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ICED

ORIGINAL

LABORATORY SECTION
 RECEIVED BY
FINAL SAMPLE DISPOSITION
 DISPOSAL METHOD

TITLE
 DATE/TIME
DISPOSED BY
 DATE/TIME

67 OF 72

REVISION 1

COLLECTOR
RODNEY RUST HEWES, Columbus
SAMPLING LOCATION
 CS860 (299-E29-54); I-075
ICE CHEST NO.

COMPANY CONTACT
 DYEKMAN, DL
TELEPHONE NO.
 373-2530
PROJECT DESIGNATION
 ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)

PROJECT COORDINATOR
 DYEKMAN, DL
SAF NO.
 F10-011

PRICE CODE 8N
AIR QUALITY

DATA TURNAROUND
 45 Days / 45 Days

FIELD LOGBOOK NO.
 HNF-N-576-38 *94*
ACTUAL SAMPLE DEPTH
208.7 - 211.4'

COA
 302143E510

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) Cations (IC) - 300.7 (Nitrogen in ammonium)
- (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;

ICED

 ORIGINAL

COLLECTOR
Rosane, Rust, Helms, Chantrelin
SAMPLING LOCATION
CS860 (299-E29-54); I-075

COMPANY CONTACT
DYEKMAN, DL
TELEPHONE NO.
373-2530
PROJECT DESIGNATION
ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well)

PROJECT COORDINATOR
DYEKMAN, DL
SAF NO.
F10-011

PRICE CODE 8N
AIR QUALITY

DATA TURNAROUND
45 Days / 45 Days

ICE CHEST NO.
SHIPPED TO
Waste Sampling & Characterization

FIELD LOGBOOK NO.
HNF-N-576-3P 94
ACTUAL SAMPLE DEPTH
208.9 - 211.4
OFFSITE PROPERTY NO.
N/A

COA
302143ES10
METHOD OF SHIPMENT
GOVERNMENT VEHICLE
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: B22T49

PRESERVATION *Cool-4C*
TYPE OF CONTAINER *3Gs**
NO. OF CONTAINER(S) *1*
VOLUME *40mL*
SAMPLE ANALYSIS
SEE ITEM (1) IN SPECIAL INSTRUCTIONS

| SAMPLE NO. | MATRIX* | SAMPLE DATE | SAMPLE TIME |
|------------|------------------------|-----------------|-------------|
| B22RP3 | <i>W056201189 SOIL</i> | <i>12-14-09</i> | <i>1445</i> |

ICED

| CHAIN OF POSSESSION | DATE/TIME | SIGN/ PRINT NAMES | DATE/TIME |
|---|-----------------|-----------------------------|----------------------|
| RELINQUISHED BY/REMOVED FROM <i>Lab of Rosane, Rust, Helms, Chantrelin</i> | <i>12-14-09</i> | <i>T A P... [Signature]</i> | <i>12/14/09 1525</i> |
| 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
 ** 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 | DATE/TIME | TITLE |
|--------------------------------------|-----------------|-----------|-------------|
| 69 OF 72 FINAL SAMPLE DISPOSITION | DISPOSAL METHOD | DATE/TIME | DISPOSED BY |

ORIGINAL

REVISION 1

COLLECTOR

Ross, Rust, Heems, Chamberlin

COMPANY CONTACT

DYEKMAN, DL

TELEPHONE NO.

373-2530

PROJECT COORDINATOR

DYEKMAN, DL

PRICE CODE

BN

DATA
TURNAROUND
45 Days / 45
Days

SAMPLING LOCATION

CS860 (299-E29-54); T-075

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 94

ACTUAL SAMPLE DEPTH

208.7 211.4

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: B22T49

PRESERVATION

Cool <-7C and >-20C MEOH/Cool-4 C

TYPE OF CONTAINER

gGs* gGs*

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

B22RP2 *2096201190* SOIL

12-14-09 1445

✓ ✓

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

Lacey Rossini - Sunny Rossini 12-14-09

1525

T A Frazier *Sunny Rossini*

12/14/09 1525

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME

ICED

D *OF*

70 of 72

REVISION 1

| | | | | | |
|--|---|--|---|---|---|
| COLLECTOR <i>Rosanne Rust Helms Chamberlin</i> | 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-075 | PROJECT DESIGNATION ARRA 200-LW-2 OU Characterization Vadose Zone - Soil ("K" Well) | SAF NO. F10-011 | AIR QUALITY <input type="checkbox"/> | METHOD OF SHIPMENT GOVERNMENT VEHICLE | |
| ICE CHEST NO. | FIELD LOGBOOK NO. <i>HNF-N-576-3P 94</i> | ACTUAL SAMPLE DEPTH <i>208.9' - 211.4'</i> | COA 302143E510 | | |
| 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)

ICED

 ORIGINAL

S&GRP Operating Procedure

GRP-FS-04-G-030

VOC Soil and Sediment Sampling

Rev. 0, Chg. G

Page 11 of 11

Attachment 1 - Sample Record Sheet

SAMPLE RECORD SHEET

Location: C5860 K-well I-075

Sampler Initials and Date: JLR 12-14-09 e 1445

| 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) |
|---------------|----------------------------|------------------------------|--|-------------------------------------|-----------------------------------|----------------------------------|--------------------------------|
| B22RP2 | K | No Methanol | | 31.7 | 37.0 | 5.3 | No Methanol |
| B22RP2 | L | | | 32.5 | 37.8 | 5.3 | |
| B22RP2 | M | | | 32.1 | 37.4 | 5.3 | |
| B22RP2 | N | | | 32.8 | 38.0 | 5.2 | |
| B22RP2 | P | | | 32.6 | 37.8 | 5.2 | |
| B22RP2 | W | 37.84 | 37.8 | 38.2 | 43.5 | 5.3 | 10 |
| B22RP2 | X | 38.07 | 38.1 | 38.5 | 44.1 | 5.6 | 10 |
| B22RP2 | Y | 37.93 | 37.9 | 38.3 | 43.4 | 5.1 | 10 |
| B22RP3 | * | 38.61 | 38.6 | 39.0 | 39.0 | 0 | 10 |

¹Sample 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.

²Tare 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.

³Initial 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.

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

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