

RECEIVED OCTOBER 1, 2008

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FLUOR**Memorandum**

M4W41-SLF-08-1114

To: H. Hampt E6-35 Date: October 1, 2008

From: S. L. Fitzgerald, Manager
 WSCF Analytical Lab *Kevin Hampton for SLF*

cc: w/Attachments

| | | | |
|-----------------|-------|----------------|-------|
| T. F. Dale | S3-30 | P. D. Mix | S3-30 |
| D. Felmy (PNNL) | K6-75 | J. E. Trechter | S3-30 |
| A. J. Kopriva | S3-30 | S. J. Trent | E6-35 |
| H. K. Meznarich | S3-30 | File/LB | |

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20081912

Reference: 1) Letter of Instruction for Analytical Services for the Groundwater Performance Assessment Project and Analytical Laboratory Transition Plan, FH-0602422, September 19, 2006

2) HNF-SD-CD-QAPP-017, Rev. 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This transmittal contains the following information for sample delivery group WSCF20081912:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Issue Resolution Form (Attachment 3)
- Analytical Results (Attachment 4)

SLF/grf

Attachments 4

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 FEB 03 2009

EDMC

M4W41-SLF-08-1114

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20081912
Data Deliverable Date: 02-oct-2008
Data Deliverable: Cover Sheet

| SAF# | Sample ID | WSCF# | Matrix |
|---------|-----------|------------|--------|
| I08-059 | B1WXW4 | W08P004328 | WATER |
| | B1WXW5 | W08P004329 | WATER |
| | B1WY05 | W08P004324 | WATER |
| W08-009 | B1X058 | W08P004327 | WATER |
| | B1X094 | W08P004325 | WATER |
| | B1X1D2 | W08P004326 | WATER |

M4W41-SLF-08-1114

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Introduction

Six groundwater samples were received at the WSCF Laboratory on September 4, 2008. Samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

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.

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

Analytical Methodology for Requested Analyses

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

Inorganic Comments

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

- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1WDN7 (SDG# 20081887).

All QC controls are within the established limits.

Cyanide – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 23 for QC details. Analytical note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1X1B0 (SDG# 20081905).

All QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See page 24 for QC details. Analytical Note(s):

- Mercury – Laboratory Control Sample recovery slightly exceeded established laboratory limits. No flag issued.

All other QC controls are within the established limits.

Total Alkalinity – The hold time requirement for this analysis was met. A Duplicate and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 25 for QC details. Analytical Note(s):

- Duplicates were analyzed on samples B1W1C5 (SDG# 20081896, SAF# F08-098) and B1X1B0 (SDG# 20081905).

All QC controls are within the established limits.

Total Organic Halides – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See page 26 for QC details. Analytical Note(s):

- Matrix Spikes, Matrix Spike Duplicates were analyzed on samples B1W2W8 (SDG# 20081860), B1X0P4 (SDG# 20081892) and B1X0X5 (SDG# 20081907).
- TOX – Due to a LABCORE “glitch”, the time between the prep and the analysis is in error. Normally, the time between prep and analysis is approximately one hour before the first sample is analyzed in the batch. Refer to e-mails, dated 9/25/2008, from Jim Douglas and Gerald Ross, addressing this problem in LABCORE.

All QC controls are within the established limits.

Organic Comments

Alcohol/Glycols - The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 32 for QC details. Analytical Note(s):

- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1WDW6 (SDG# 20081849).

All QC controls are within the established limits.

TPHD-WA – The hold time requirements for this analysis were not met. See comment below. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 33 for QC details.

All QC controls are within the established limits.

TPHG-WA – 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 34 for QC details. Analytical Note(s):

- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1WDN1 (SDG# 20081849)

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 per the GRP Letter of Instruction. See pages 35 through 37 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1VM85 (SDG# 20081891).
- Sample results that were less than the lowest calibration limit, however greater than the method detection limit, were J flagged.
- Acetone, Benzene and Methylene Chloride contamination detected in the Blank was evaluated, and affected sample results in this batch were B flagged.
- Acetone (B1WY05) – Sample result was also E flagged (estimate). Sample result was greater than the calibration standard.

All other QC controls are within the established limits.

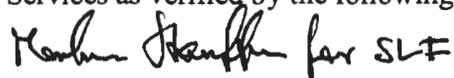
Radiochemistry Comments

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 44 through 46 for QC details. Analytical Note(s):

- Strontium-89/90 and 85 (tracer) – Duplicate QC was sample# B1WTL0 (SDG# 20081892).
- Tritium – Duplicate and Matrix Spike were analyzed on sample# B1VML2 (SDG# 20081862).

All QC controls are within the established limits.

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


Scot L. Fitzgerald
WSCF Analytical Laboratory Manager


Pauline D. Mix
WSCF Client Services

M4W41-SLF-08-1114

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 39 pages
Including cover page

**WSCF
ANALYTICAL RESULTS REPORT**

for

**GPAP
Richland, WA 99352**

Attention: Steve Trent E6-35

Analytical: M. Stauffer M. Stauffer 10/1/08

Client Services: EDM, P. D. Mir 9/30/08

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

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Report#: WSCF20081912
Report Date: 30-sep-2008
Report WGPP/ver. 5.2
GPAP

Page 1

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20081912

| WL# | S# | Batch | QC# | Tray Type | Sample# | Test |
|-------|----|-------|-------|-----------|------------|--------------------------------|
| 37935 | 1 | 38361 | 42779 | LCS | | Total Alkalinity as mg/L CaCO3 |
| 37935 | 14 | 38361 | 42779 | LCS | | Total Alkalinity as mg/L CaCO3 |
| 37935 | 24 | 38361 | 42779 | LCS | | Total Alkalinity as mg/L CaCO3 |
| 37935 | 36 | 38361 | 42779 | LCS | | Total Alkalinity as mg/L CaCO3 |
| 37935 | 44 | 38361 | 42779 | LCS | | Total Alkalinity as mg/L CaCO3 |
| 37935 | 3 | 38361 | 42779 | DUP | W08GR03580 | Total Alkalinity as mg/L CaCO3 |
| 37935 | 26 | 38361 | 42779 | DUP | W08P004309 | Total Alkalinity as mg/L CaCO3 |
| 37935 | 34 | 38361 | 42779 | SAMPLE | W08P004325 | Total Alkalinity as mg/L CaCO3 |
| 37935 | 35 | 38361 | 42779 | SAMPLE | W08P004326 | Total Alkalinity as mg/L CaCO3 |
| 37935 | 37 | 38361 | 42779 | SAMPLE | W08P004327 | Total Alkalinity as mg/L CaCO3 |
| 37987 | 3 | 38411 | 42822 | BLANK | | Ammonia (N) by IC |
| 37987 | 11 | 38411 | 42822 | BLANK | | Ammonia (N) by IC |
| 37987 | 1 | 38411 | 42822 | LCS | | Ammonia (N) by IC |
| 37987 | 5 | 38411 | 42822 | DUP | W08P004270 | Ammonia (N) by IC |
| 37987 | 6 | 38411 | 42822 | MS | W08P004270 | Ammonia (N) by IC |
| 37987 | 7 | 38411 | 42822 | MSD | W08P004270 | Ammonia (N) by IC |
| 37987 | 7 | 38411 | 42822 | SPK-RPD | W08P004270 | Ammonia (N) by IC |
| 37987 | 10 | 38411 | 42822 | SAMPLE | W08P004329 | Ammonia (N) by IC |
| 38031 | 1 | 38453 | 42860 | BLANK | | ICP-200.8 MS All possible meta |
| 38031 | 2 | 38453 | 42860 | LCS | | ICP-200.8 MS All possible meta |
| 38031 | 16 | 38453 | 42860 | SAMPLE | W08P004324 | ICP-200.8 MS All possible meta |
| 38031 | 17 | 38453 | 42860 | SAMPLE | W08P004328 | ICP-200.8 MS All possible meta |
| 38031 | 4 | 38453 | 42860 | MS | W08P004329 | ICP-200.8 MS All possible meta |
| 38031 | 5 | 38453 | 42860 | MSD | W08P004329 | ICP-200.8 MS All possible meta |
| 38031 | 3 | 38453 | 42860 | SAMPLE | W08P004329 | ICP-200.8 MS All possible meta |
| 38031 | 5 | 38453 | 42860 | SPK-RPD | W08P004329 | ICP-200.8 MS All possible meta |
| 38037 | 1 | 38458 | 42865 | BLANK | | Cyanide by Midi/Spectrophotom |
| 38037 | 2 | 38458 | 42865 | LCS | | Cyanide by Midi/Spectrophotom |
| 38037 | 5 | 38458 | 42865 | MS | W08P004309 | Cyanide by Midi/Spectrophotom |
| 38037 | 6 | 38458 | 42865 | MSD | W08P004309 | Cyanide by Midi/Spectrophotom |
| 38037 | 6 | 38458 | 42865 | SPK-RPD | W08P004309 | Cyanide by Midi/Spectrophotom |
| 38037 | 14 | 38458 | 42865 | SAMPLE | W08P004329 | Cyanide by Midi/Spectrophotom |
| 38044 | 1 | 38464 | 42873 | BLANK | | Total Organic Halides |
| 38044 | 3 | 38464 | 42873 | LCS | | Total Organic Halides |
| 38044 | 6 | 38464 | 42873 | MS | W08P004241 | Total Organic Halides |
| 38044 | 7 | 38464 | 42873 | MSD | W08P004241 | Total Organic Halides |
| 38044 | 7 | 38464 | 42873 | SPK-RPD | W08P004241 | Total Organic Halides |
| 38044 | 12 | 38464 | 42873 | MS | W08P004291 | Total Organic Halides |
| 38044 | 13 | 38464 | 42873 | MSD | W08P004291 | Total Organic Halides |
| 38044 | 13 | 38464 | 42873 | SPK-RPD | W08P004291 | Total Organic Halides |
| 38044 | 20 | 38464 | 42873 | MS | W08P004315 | Total Organic Halides |
| 38044 | 21 | 38464 | 42873 | MSD | W08P004315 | Total Organic Halides |
| 38044 | 21 | 38464 | 42873 | SPK-RPD | W08P004315 | Total Organic Halides |
| 38044 | 24 | 38464 | 42873 | SAMPLE | W08P004329 | Total Organic Halides |

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20081912

| WL# | S# | Batch | QC# | Tray Type | Sample# | Test |
|-------|----|-------|-------|-----------|------------|-------------------------------|
| | | | 42910 | BLANK | | VOA Ground Water Protection |
| | | | 42910 | LCS | | VOA Ground Water Protection |
| | | | 42910 | MS | W08P004273 | VOA Ground Water Protection |
| | | | 42910 | MSD | W08P004273 | VOA Ground Water Protection |
| | | | 42910 | SPK-RPD | W08P004273 | VOA Ground Water Protection |
| | | | 42910 | SAMPLE | W08P004324 | VOA Ground Water Protection |
| | | | 42910 | SURR | W08P004324 | VOA Ground Water Protection |
| | | | 42910 | SAMPLE | W08P004329 | VOA Ground Water Protection |
| | | | 42910 | SURR | W08P004329 | VOA Ground Water Protection |
| 38142 | 1 | 38563 | 42988 | BLANK | | NWTPH-GX TPH Gasoline Range |
| 38142 | 2 | 38563 | 42988 | LCS | | NWTPH-GX TPH Gasoline Range |
| 38142 | 4 | 38563 | 42988 | DUP | W08P004214 | NWTPH-GX TPH Gasoline Range |
| 38142 | 5 | 38563 | 42988 | MS | W08P004214 | NWTPH-GX TPH Gasoline Range |
| 38142 | 6 | 38563 | 42988 | MSD | W08P004214 | NWTPH-GX TPH Gasoline Range |
| 38142 | 6 | 38563 | 42988 | SPK-RPD | W08P004214 | NWTPH-GX TPH Gasoline Range |
| 38142 | 8 | 38563 | 42988 | SAMPLE | W08P004329 | NWTPH-GX TPH Gasoline Range |
| 38144 | 1 | 38564 | 42991 | BLANK | | Alcohols, Glycols - 8015 |
| 38144 | 2 | 38564 | 42991 | LCS | | Alcohols, Glycols - 8015 |
| 38144 | 4 | 38564 | 42991 | DUP | W08P004211 | Alcohols, Glycols - 8015 |
| 38144 | 5 | 38564 | 42991 | MS | W08P004211 | Alcohols, Glycols - 8015 |
| 38144 | 6 | 38564 | 42991 | MSD | W08P004211 | Alcohols, Glycols - 8015 |
| 38144 | 6 | 38564 | 42991 | SPK-RPD | W08P004211 | Alcohols, Glycols - 8015 |
| 38144 | 12 | 38564 | 42991 | SAMPLE | W08P004329 | Alcohols, Glycols - 8015 |
| | | | 43072 | BLANK | | NWTPH-D TPH Diesel Range (Wa) |
| | | | 43072 | LCS | | NWTPH-D TPH Diesel Range (Wa) |
| | | | 43072 | MS | W08P004329 | NWTPH-D TPH Diesel Range (Wa) |
| | | | 43072 | MSD | W08P004329 | NWTPH-D TPH Diesel Range (Wa) |
| | | | 43072 | SAMPLE | W08P004329 | NWTPH-D TPH Diesel Range (Wa) |
| | | | 43072 | SPK-RPD | W08P004329 | NWTPH-D TPH Diesel Range (Wa) |
| | | | 43072 | SURR | W08P004329 | NWTPH-D TPH Diesel Range (Wa) |

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20081912

| WL# | S# | Batch | QC# | Tray Type | Sample# | Test |
|-------|----|-------|-------|-----------|------------|--------------------------------|
| 37953 | 1 | 38377 | 42975 | BLANK | | Tritium by Liq Sct column prep |
| 37953 | 2 | 38377 | 42975 | LCS | | Tritium by Liq Sct column prep |
| 37953 | 4 | 38377 | 42975 | DUP | W08P004252 | Tritium by Liq Sct column prep |
| 37953 | 3 | 38377 | 42975 | MS | W08P004252 | Tritium by Liq Sct column prep |
| 37953 | 14 | 38377 | 42975 | SAMPLE | W08P004324 | Tritium by Liq Sct column prep |
| 37953 | 15 | 38377 | 42975 | SAMPLE | W08P004329 | Tritium by Liq Sct column prep |
| 38004 | 1 | 38425 | 42996 | BLANK | | TC99 by Liquid Scin. |
| 38004 | 2 | 38425 | 42996 | LCS | | TC99 by Liquid Scin. |
| 38004 | 4 | 38425 | 42996 | DUP | W08P004325 | TC99 by Liquid Scin. |
| 38004 | 3 | 38425 | 42996 | MS | W08P004325 | TC99 by Liquid Scin. |
| 38004 | 5 | 38425 | 42996 | SAMPLE | W08P004325 | TC99 by Liquid Scin. |
| 38004 | 6 | 38425 | 42996 | SAMPLE | W08P004326 | TC99 by Liquid Scin. |
| 38004 | 7 | 38425 | 42996 | SAMPLE | W08P004327 | TC99 by Liquid Scin. |
| 38016 | 1 | 38438 | 43057 | BLANK | | Strontium 89/90 |
| 38016 | 2 | 38438 | 43057 | LCS | | Strontium 89/90 |
| 38016 | 3 | 38438 | 43057 | DUP | W08P004289 | Strontium 89/90 |
| 38016 | 12 | 38438 | 43057 | SAMPLE | W08P004329 | Strontium 89/90 |
| 38016 | 13 | 38438 | 43057 | SURR | W08P004329 | Strontium 89/90 |

WSCF

METHOD REFERENCES REPORT

Department: Inorganic

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

| | |
|-------------------|--|
| LA-503-401 | LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY EPA-600/4-86-024 300.7 Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemical HEIS 300.7_CATIONS_IC Determination of Ammonium by Ion Chromatography |
| LA-505-412 | LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY EPA-600/R-94-111 200.8 DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS HEIS 200.8_METALS_ICPMS Inductively Coupled Plasma - Mass Spectrometry HEIS RADISOTOPES_ICPMS Radioisotopes by ICP/MS |
| LA-523-444 | LA-523-444: TOTAL ORGANIC HALIDES BASED ON SW-846 METHOD 9020B EPA SW-846 9020B TOTAL ORGANIC HALIDES (TOX) HEIS 9020_TOX Total Organic Halides based on SW846 Method 9020B |
| LA-531-411 | LA-531-411: ALKALINITY (TITRIMETRIC) HEIS 2320B Alkalinity Standard Methods 2320B Alkalinity |
| LA-695-402 | LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC EPA-600/4-79-020 335.2 Cyanide, Total HEIS 335.2_CYANIDE Cyanide, Total |

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

Report Date: 30-sep-2008
Report#: WSCF20081912
Report WGPPM/5.2

13 of 54

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-523-443 | LA-523-443: GAS CHROMATOGRAPH ANALYSIS OF GASOLINE RANGE TOTAL PETROLEUM HYDROCA HEIS WTPH GASOLINE Total Petroleum Hydrocarbons, Gasoline WDOE TPH NWTPH-G Volatile Petroleum Products Method for Soil and Water |
| LA-523-455 | LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846 EPA SW-846 8000B DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS EPA SW-846 8260B VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS) HEIS 8260_VOA_GCMS Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) |
| LA-523-493 | NWTPH-Diesel and/or Gasoline HEIS WTPH DIESEL (HEIS) Total Petroleum Hydrocarbons in Diesel WDOE TPHD Total Petroleum Hydrocarbons in Diesel |
| Organics | Organics - Alcohols, Glycols EPA SW-846 8015B Nonhalogenated Organics Using GC/FID |

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

Report Date: 30-sep-2008
Report#: WSCF20081912
Report WGPPM/5.2

14 of 54

WSCF METHOD REFERENCES REPORT

Department: Radiochemistry

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

| | |
|---------------------------|---|
| LA-508-415 | LA-508-415: OPERATION OF THE PROTEAN 2-INCH ALPHA/BETA COUNTING SYSTEM FOR GROSS |
| HEIS ALPHA_GPC | GROSS ALPHA GPC |
| HEIS BETA_GPC | GROSS BETA GPC |
| HEIS SRTOT_SEP_PRECIP_GPC | Plutonium 89/90 |
| LA-508-421 | LA-508-421: OPERATION OF THE TRI-CARB MODEL 2500TR LIQUID SCINTILLATION ANALYZER |
| HEIS ALPHA_LSC | A/B Liquid Scintillation |
| HEIS BETA_LSC | A/B Liquid Scintillation |
| HEIS TC99_3MDSK_LSC | TC99 by Liquid Scintillation |
| HEIS TRITIUM_EIE_LSC | Tritium Liquid Scintillation |

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: 30-sep-2008
Report#: WSCF20081912
Report WGPPM/5.2

Page 2

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I08-059

Sample # W08P004324

Client ID: B1WY05 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Inorganic

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|-------------------------------------|-----------|------------|----|--------|------|--------|------|------|--------|-----|---------------|
| ICP-200.8 MS All possible meta Prep | | | | | | | | | | | 09/15/08 |
| ICP-200.8 MS All possible meta | | | | | | | | | | | |
| Uranium | 7440-61-1 | LA-505-412 | | 8.98 | ug/L | | | 1.00 | 0.0500 | | 09/16/08 |

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

B - The Analyte detected in both the BLANK and the SAMPLE.(org)

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

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

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

GPAP

16 of 54

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-009
Sample # W08P004325
Client ID: B1X094 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20081912
Department: Inorganic
Sampled: 09/04/08
Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|--|------------|------------|----|--------|------|--------|------|------|-----|-----|---------------|
| Total Alkalinity as mg/L CaCO₃ | | | | | | | | | | | |
| Total Alkalinity as mg/L CaCO ₃ | ALKALINITY | LA-531-411 | | 97.0 | mg/L | | | 1.00 | 1.0 | | 09/10/08 |

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

B - The Analyte detected in both the BLANK and the SAMPLE.(org)
 J - Analyte < lowest calibration but > = MDL.(org)
 U - Analyzed for but not detected above limiting criteria.(org)

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

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

Report WGPP/ver. 5.2
 GPAP

17 of 54

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: W08-009

Sample # W08P004326

Client ID: B1X1D2 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Inorganic

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|--|------------|------------|----|--------|------|--------|------|------|-----|-----|---------------|
| Total Alkalinity as mg/L CaCO₃ | | | | | | | | | | | |
| Total Alkalinity as mg/L CaCO ₃ | ALKALINITY | LA-531-411 | | 80.0 | mg/L | | | 1.00 | 1.0 | | 09/10/08 |

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

B - The Analyte detected in both the BLANK and the SAMPLE.(org)

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

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

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

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

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

Report WGPP/ver. 5.2

GPAP

18 of 54

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-009
Sample # W08P004327
Client ID: B1X058 PNNL-GPP
 WSCF

Matrix: WATER

Group #: WSCF20081912
Department: Inorganic
Sampled: 09/04/08
Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---------------------------------------|------------|------------|----|--------|------|--------|------|------|-----|-----|---------------|
| Total Alkalinity as mg/L CaCO3 | | | | | | | | | | | |
| Total Alkalinity as mg/L CaCO3 | ALKALINITY | LA-531-411 | | 98.0 | mg/L | | | 1.00 | 1.0 | | 09/10/08 |

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

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Report WGPP/ver. 5.2
GPAP

19 of 54

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I08-059

Sample # W08P004328

Client ID: B1WXW4

PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Inorganic

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|-------------------------------------|-----------|------------|----|----------|------|--------|------|------|--------|-----|---------------|
| ICP-200.8 MS All possible meta Prep | | | | | | | | | | | 09/15/08 |
| ICP-200.8 MS All possible meta | | | | | | | | | | | |
| Lead | 7439-92-1 | LA-505-412 | U | < 0.100 | ug/L | | | 1.00 | 0.100 | | 09/16/08 |
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0500 | ug/L | | | 1.00 | 0.0500 | | 09/16/08 |
| Arsenic | 7440-38-2 | LA-505-412 | | 4.47 | ug/L | | | 1.00 | 0.400 | | 09/16/08 |

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

B - The Analyte detected in both the BLANK and the SAMPLE.(org)

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Report WGPP/ver. 5.2

GPAP

20 of 54

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-059
Sample # W08P004329
Client ID: B1WXW5

**PNNL-GPP
WSCF**

Matrix: WATER

Group #: WSCF20081912
Department: Inorganic
Sampled: 09/04/08
Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|--|------------|------------|----|------------|------|--------|------|------|---------|-----|-----------------|
| Cyanide | | | | | | | | | | | |
| Cyanide | 57-12-5 | LA-695-402 | U | < 4.00 | ug/L | | | 1.00 | 4.0 | | 09/15/08 |
| ICP-200.8 MS All possible meta Prep | | | | | | | | | | | 09/15/08 |
| ICP-200.8 MS All possible meta | | | | | | | | | | | |
| Lead | 7439-92-1 | LA-505-412 | U | < 0.100 | ug/L | | | 1.00 | 0.100 | | 09/15/08 |
| Mercury | 7439-97-6 | LA-505-412 | U | < 0.0500 | ug/L | | | 1.00 | 0.0500 | | 09/15/08 |
| Uranium | 7440-61-1 | LA-505-412 | | 1.04 | ug/L | | | 1.00 | 0.0500 | | 09/15/08 |
| Arsenic | 7440-38-2 | LA-505-412 | | 4.44 | ug/L | | | 1.00 | 0.400 | | 09/15/08 |
| Nitrogen in ammonium | | | | | | | | | | | |
| Nitrogen in ammonium | NH4-N | LA-503-401 | U | < 9.32e-03 | mg/L | | | 1.00 | 9.3e-03 | | 09/12/08 |
| Total Organic Halides Prep | | | | | | | | | | | 09/08/08 |
| Total Organic Halides | | | | | | | | | | | |
| Total Organic Halides | 59473-04-0 | LA-523-444 | | 7.29 | ug/L | | | 1.00 | 5.0 | | 09/15/08 |

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

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Report WGPP/ver. 5.2
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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081912
 Matrix: WATER
 Test: Ammonia (N) by IC

Sample Date: 08/29/08
 Receive Date: 08/29/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-------------------|-----------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004270 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Ammonia (N) by IC | 7664-41-7 | <9.32e-3 | | RPD | | | n/a | 20.000 | U | 09/12/08 |
| MS | Ammonia (N) by IC | 7664-41-7 | 0.4938 | 99.157 | % Recov | 80.000 | 120.000 | | | | 09/12/08 |
| MSD | Ammonia (N) by IC | 7664-41-7 | 0.5005 | 100.502 | % Recov | 80.000 | 120.000 | | | | 09/12/08 |
| SPK-RPD | Ammonia (N) by IC | 7664-41-7 | 100.502 | | RPD | | | 1.347 | 20.000 | | 09/12/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Ammonia (N) by IC | 7664-41-7 | <9.32e-3 | n/a | mg/L | 0.000 | 0.002 | | | U | 09/12/08 |
| BLANK | Ammonia (N) by IC | 7664-41-7 | <9.32e-3 | n/a | mg/L | 0.000 | 0.002 | | | U | 09/12/08 |
| LCS | Ammonia (N) by IC | 7664-41-7 | 109.7054 | 109.705 | % Recov | 80.000 | 120.000 | | | | 09/12/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081912
 Matrix: WATER
 Test: Cyanide by Midi/Spectrophotom

Sample Date: 09/03/08
 Receive Date: 09/03/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-------------------------------|---------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004309 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Cyanide by Midi/Spectrophotom | 57-12-5 | 41.2 | 103.000 | % Recov | 75.000 | 125.000 | | | | 09/15/08 |
| MSD | Cyanide by Midi/Spectrophotom | 57-12-5 | 41.2 | 103.000 | % Recov | 75.000 | 125.000 | | | | 09/15/08 |
| SPK-RPD | Cyanide by Midi/Spectrophotom | 57-12-5 | 103.000 | | RPD | | | 0.000 | 20.000 | | 09/15/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Cyanide by Midi/Spectrophotom | 57-12-5 | < 4 | n/a | ug/L | -4.000 | 4.000 | | | U | 09/15/08 |
| LCS | Cyanide by Midi/Spectrophotom | 57-12-5 | 48.6 | 97.200 | % Recov | 85.000 | 115.000 | | | | 09/15/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081912
 Matrix: WATER
 Test: ICP-200.8 MS All possible meta

Sample Date: 09/04/08
 Receive Date: 09/04/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|---------|-----------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004329 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Arsenic | 7440-38-2 | 42.23 | 105.575 | % Recov | 70.000 | 130.000 | | | | 09/15/08 |
| MS | Mercury | 7439-97-6 | 2.31 | 115.500 | % Recov | 70.000 | 130.000 | | | | 09/15/08 |
| MS | Lead | 7439-92-1 | 44.03 | 110.075 | % Recov | 70.000 | 130.000 | | | | 09/15/08 |
| MS | Uranium | 7440-61-1 | 44.095 | 110.237 | % Recov | 70.000 | 130.000 | | | | 09/15/08 |
| MSD | Arsenic | 7440-38-2 | 42.44 | 106.100 | % Recov | 70.000 | 130.000 | | | | 09/15/08 |
| MSD | Mercury | 7439-97-6 | 2.26 | 113.000 | % Recov | 70.000 | 130.000 | | | | 09/15/08 |
| MSD | Lead | 7439-92-1 | 43.95 | 109.875 | % Recov | 70.000 | 130.000 | | | | 09/15/08 |
| MSD | Uranium | 7440-61-1 | 44.335 | 110.838 | % Recov | 70.000 | 130.000 | | | | 09/15/08 |
| SPK-RPD | Arsenic | 7440-38-2 | 106.100 | | RPD | | | 0.496 | 20.000 | | 09/16/08 |
| SPK-RPD | Mercury | 7439-97-6 | 113.000 | | RPD | | | 2.188 | 20.000 | | 09/16/08 |
| SPK-RPD | Lead | 7439-92-1 | 109.875 | | RPD | | | 0.182 | 20.000 | | 09/16/08 |
| SPK-RPD | Uranium | 7440-61-1 | 110.838 | | RPD | | | 0.544 | 20.000 | | 09/16/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Arsenic | 7440-38-2 | <0.4 | n/a | ug/L | | | | | U | 09/16/08 |
| BLANK | Mercury | 7439-97-6 | <5e-2 | n/a | ug/L | | | | | U | 09/16/08 |
| BLANK | Lead | 7439-92-1 | <0.1 | n/a | ug/L | | | | | U | 09/16/08 |
| BLANK | Uranium | 7440-61-1 | <5e-2 | n/a | ug/L | | | | | U | 09/16/08 |
| LCS | Arsenic | 7440-38-2 | 44.82 | 112.050 | % Recov | 85.000 | 115.000 | | | | 09/16/08 |
| LCS | Mercury | 7439-97-6 | 2.34 | 117.000 | % Recov | 85.000 | 115.000 | | | | 09/16/08 |
| LCS | Lead | 7439-92-1 | 43.47 | 108.675 | % Recov | 85.000 | 115.000 | | | | 09/16/08 |
| LCS | Uranium | 7440-61-1 | 42.04 | 105.100 | % Recov | 85.000 | 115.000 | | | | 09/16/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081912
 Matrix: WATER
 Test: Total Alkalinity as mg/L CaCO₃

Sample Date: 09/02/08
 Receive Date: 09/03/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|--|------------|----------|----------|----------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08GR03580 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Total Alkalinity as mg/L CaCO ₃ | ALKALINITY | 106.3 | | RPD | | | 8.296 | 20.000 | | 09/10/08 |
| Lab ID: W08P004309 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Total Alkalinity as mg/L CaCO ₃ | ALKALINITY | 87.07 | | RPD | | | 0.710 | 20.000 | | 09/10/08 |
| BATCH QC | | | | | | | | | | | |
| LCS | Total Alkalinity as mg/L CaCO ₃ | ALKALINITY | 32.44 | 108.859 | %Recover | 80.000 | 120.000 | | | | 09/10/08 |
| LCS | Total Alkalinity as mg/L CaCO ₃ | ALKALINITY | 32.48 | 108.993 | %Recover | 80.000 | 120.000 | | | | 09/10/08 |
| LCS | Total Alkalinity as mg/L CaCO ₃ | ALKALINITY | 32.14 | 107.852 | %Recover | 80.000 | 120.000 | | | | 09/10/08 |
| LCS | Total Alkalinity as mg/L CaCO ₃ | ALKALINITY | 32.89 | 110.369 | %Recover | 80.000 | 120.000 | | | | 09/10/08 |
| LCS | Total Alkalinity as mg/L CaCO ₃ | ALKALINITY | 32.55 | 109.228 | %Recover | 80.000 | 120.000 | | | | 09/10/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081912
 Matrix: WATER
 Test: Total Organic Halides

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

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-----------------------|-------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004241 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Total Organic Halides | TOX | 43.1 | 107.750 | % Recov | 50.000 | 150.000 | | | | 09/15/08 |
| MSD | Total Organic Halides | TOX | 43.6 | 109.000 | % Recov | 50.000 | 150.000 | | | | 09/15/08 |
| SPK-RPD | Total Organic Halides | TOX | 109.000 | | RPD | | | 1.153 | 20.000 | | 09/15/08 |
| Lab ID: W08P004291 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Total Organic Halides | TOX | 40.6 | 101.500 | % Recov | 50.000 | 150.000 | | | | 09/15/08 |
| MSD | Total Organic Halides | TOX | 41.5 | 103.750 | % Recov | 50.000 | 150.000 | | | | 09/15/08 |
| SPK-RPD | Total Organic Halides | TOX | 103.750 | | RPD | | | 2.192 | 20.000 | | 09/15/08 |
| Lab ID: W08P004315 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | Total Organic Halides | TOX | 44.7 | 111.750 | % Recov | 50.000 | 150.000 | | | | 09/15/08 |
| MSD | Total Organic Halides | TOX | 45.7 | 114.250 | % Recov | 50.000 | 150.000 | | | | 09/15/08 |
| SPK-RPD | Total Organic Halides | TOX | 114.250 | | RPD | | | 2.212 | 20.000 | | 09/15/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Total Organic Halides | TOX | <5 | n/a | ug/L | 0.000 | 300.000 | | | U | 09/15/08 |
| LCS | Total Organic Halides | TOX | 424 | 106.000 | %rec | 80.000 | 120.000 | | | | 09/15/08 |

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20081912
Department: Inorganic

| Sample # | Client ID | Lab Area | Test | Comment |
|----------|-----------|----------|------|---|
| | | VALGROUP | | ICP-MS: Mercury LCS 117%. Spike recoveries good and sample result below the MDL. No flag. VOA: Acetone and methylene chloride flagged "B" due to carryover into blank sample from the analysis of a waste sample. MS 9/29/08 |

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 E6-35

SAF Number: I08-059

Sample # W08P004324

Client ID: B1WY05

PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Organic

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|------------------------------------|-----------|------------|----|--------|------|--------|------|------|---------|-----|---------------|
| VOA Ground Water Protection | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Trichloroethene | 79-01-6 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Benzene | 71-43-2 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Toluene | 108-88-3 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 1,1-Dichloroethane | 75-34-3 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Ethylbenzene | 100-41-4 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 1,2-Dichloroethane | 107-06-2 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 4-Methyl-2-Pentanone | 108-10-1 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Tetrachloroethene | 127-18-4 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Xylenes (total) | 1330-20-7 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | | 130 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Acetone | 67-64-1 | LA-523-455 | BE | 250 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Chloroform | 67-66-3 | LA-523-455 | J | 3.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 1,1,1-Trichloroethane | 71-55-6 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Vinyl chloride | 75-01-4 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Methylenechloride | 75-09-2 | LA-523-455 | B | 85.0 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Carbon disulfide | 75-15-0 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 2-Butanone | 78-93-3 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 1,1,2-Trichloroethane | 79-00-5 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 1-Butanol | 71-36-3 | LA-523-455 | U | < 100 | ug/L | | | 1.00 | 1.0e+02 | | 09/12/08 |
| Tetrahydrofuran | 109-99-9 | LA-523-455 | U | < 2.00 | ug/L | | | 1.00 | 2.0 | | 09/12/08 |
| trans-1,2-Dichloroethylene | 156-60-5 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| cis-1,2-Dichloroethylene | 156-59-2 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |

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RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

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

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Report WGPP/ver. 5.2

GPAP

28 of 54

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I08-059

Sample # W08P004324

Client ID: B1WY05

PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Organic

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---------------------|----------|------------|----|--------|------|--------|------|------|-----|-----|---------------|
| Ethyl cyanide | 107-12-0 | LA-523-455 | U | < 2.00 | ug/L | | | 1.00 | 2.0 | | 09/12/08 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

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Report WGPP/ver. 5.2

GPAP

29 of 54

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I08-059

Sample #: W08P004329

Client ID: B1WXW5

PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Organic

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---|-------------|------------|----|------------|------|--------|------|------|---------|-----|---------------|
| Alcohols, Glycols - 8015 Prep | | | | | | | | | | | |
| Alcohols, Glycols - 8015 | | | | | | | | | | | |
| Ethyl acetate | 141-78-6 | Organics | U | < 5.00e+03 | ug/L | | | 1.00 | 5.0e+03 | | 09/09/08 |
| NWTPH-D TPH Diesel Range (Wa) Prep | | | | | | | | | | | |
| NWTPH-D TPH Diesel Range (Wa) | | | | | | | | | | | |
| Total Pet. Hydrocarbons Diesel | TPHDIESEL | LA-523-493 | U | < 71.0 | ug/L | | | 1.00 | 71 | | 09/16/08 |
| Kerosene | TPHKEROSENE | LA-523-493 | U | < 95.0 | ug/L | | | 1.00 | 95 | | 09/16/08 |
| NWTPH-GX TPH Gasoline Range Prep | | | | | | | | | | | |
| NWTPH-GX TPH Gasoline Range | | | | | | | | | | | |
| Total Pet. Hydrocarbons Gas | TPHGASOLINE | LA-523-443 | U | < 50.0 | ug/L | | | 1.00 | 50 | | 09/09/08 |
| VOA Ground Water Protection | | | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Trichloroethene | 79-01-6 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Benzene | 71-43-2 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Toluene | 108-88-3 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Chlorobenzene | 108-90-7 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 1,1-Dichloroethane | 75-34-3 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Ethylbenzene | 100-41-4 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 1,2-Dichloroethane | 107-06-2 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 4-Methyl-2-Pentanone | 108-10-1 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Tetrachloroethene | 127-18-4 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Xylenes (total) | 1330-20-7 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Carbon tetrachloride | 56-23-5 | LA-523-455 | | 7.40 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Acetone | 67-64-1 | LA-523-455 | B | 170 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Chloroform | 67-66-3 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

B - The Analyte detected in both the BLANK and the SAMPLE.(org)

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

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

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

GPAP

30 of 54

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-059
Sample # W08P004329
Client ID: B1WXW5

PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912
Department: Organic
Sampled: 09/04/08
Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|----------------------------|----------|------------|----|--------|------|--------|------|------|---------|-----|---------------|
| 1,1,1-Trichloroethane | 71-55-6 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Vinyl chloride | 75-01-4 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Methylenechloride | 75-09-2 | LA-523-455 | B | 83.0 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Carbon disulfide | 75-15-0 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 2-Butanone | 78-93-3 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 1,1,2-Trichloroethane | 79-00-5 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| 1-Butanol | 71-36-3 | LA-523-455 | U | < 100 | ug/L | | | 1.00 | 1.0e+02 | | 09/12/08 |
| Tetrahydrofuran | 109-99-9 | LA-523-455 | U | < 2.00 | ug/L | | | 1.00 | 2.0 | | 09/12/08 |
| trans-1,2-Dichloroethylene | 156-60-5 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| cis-1,2-Dichloroethylene | 156-59-2 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |
| Ethyl cyanide | 107-12-0 | LA-523-455 | U | < 2.00 | ug/L | | | 1.00 | 2.0 | | 09/12/08 |
| 1,4-Dichlorobenzene | 106-46-7 | LA-523-455 | U | < 1.00 | ug/L | | | 1.00 | 1.0 | | 09/12/08 |

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

B - The Analyte detected in both the BLANK and the SAMPLE.(org)
 J - Analyte < lowest calibration but > = MDL.(org)
 U - Analyzed for but not detected above limiting criteria.(org)

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

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

Report WGPP/ver. 5.2
 GPAP

31 of 54

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20081912
 Matrix: WATER
 Test: Alcohols, Glycols - 8015

Sample Date: 08/26/08
 Receive Date: 08/26/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|----------------|----------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004211 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | 2-Bromoethanol | 540-51-2 | 17700 | | RPD | | | 0.567 | 25.000 | | 09/08/08 |
| DUP | Ethyl acetate | 141-78-6 | < 5000 | | RPD | | | n/a | 25.000 | U | 09/08/08 |
| MS | 2-Bromoethanol | 540-51-2 | 17200 | 97.727 | % Recov | 70.000 | 125.000 | | | | 09/08/08 |
| MS | Ethyl acetate | 141-78-6 | 7300 | 81.111 | % Recov | 75.000 | 125.000 | | | | 09/08/08 |
| MSD | 2-Bromoethanol | 540-51-2 | 17500 | 99.432 | % Recov | 70.000 | 125.000 | | | | 09/08/08 |
| MSD | Ethyl acetate | 141-78-6 | 7400 | 82.222 | % Recov | 75.000 | 125.000 | | | | 09/08/08 |
| SPK-RPD | 2-Bromoethanol | 540-51-2 | 99.432 | | RPD | | | 1.730 | 20.000 | | 09/08/08 |
| SPK-RPD | Ethyl acetate | 141-78-6 | 82.222 | | RPD | | | 1.360 | 20.000 | | 09/08/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | 2-Bromoethanol | 540-51-2 | 18600 | 105.682 | % Recov | 75.000 | 125.000 | | | | 09/08/08 |
| BLANK | Ethyl acetate | 141-78-6 | < 5000 | n/a | ug/L | 0.000 | 5.000 | | | U | 09/08/08 |
| LCS | 2-Bromoethanol | 540-51-2 | 18100 | 102.841 | % Recov | 70.000 | 130.000 | | | | 09/08/08 |
| LCS | Ethyl acetate | 141-78-6 | 9500 | 105.556 | % Recov | 70.000 | 130.000 | | | | 09/08/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081912
 Matrix: WATER
 Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date: 09/04/08
 Receive Date: 09/04/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|--------------------------------|-------|-------------|----------|---------|-------------|-------------|---------|-----------|--------|---------------|
| Lab ID: W08P004329 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | ortho-Terphenyl | Surr | 84-15-1 | 476.52 | 100.000 | % Recov | 70.000 | 130.000 | | | 09/18/08 |
| MS | Total Pet. Hydrocarbons Diesel | | TPHDIESEL | 2395.6 | 101.000 | % Recov | 75.000 | 125.000 | | | 09/16/08 |
| MSD | ortho-Terphenyl | Surr | 84-15-1 | 521.71 | 110.000 | % Recov | 70.000 | 130.000 | | | 09/18/08 |
| MSD | Total Pet. Hydrocarbons Diesel | | TPHDIESEL | 2624.5 | 110.000 | % Recov | 75.000 | 125.000 | | | 09/18/08 |
| SPK-RPD | ortho-Terphenyl | Surr | 84-15-1 | 110.000 | | RPD | | | 9.524 | 20.000 | 09/18/08 |
| SPK-RPD | Total Pet. Hydrocarbons Diesel | | TPHDIESEL | 110.000 | | RPD | | | 8.531 | 20.000 | 09/18/08 |
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 448.13 | 94.100 | % Recov | 70.000 | 130.000 | | | 09/18/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Kerosene | | TPHKEROSENE | < 100 | n/a | ug/L | | | | U | 09/18/08 |
| BLANK | ortho-Terphenyl | Surr | 84-15-1 | 435.51 | 87.100 | % Recov | 70.000 | 130.000 | | | 09/18/08 |
| BLANK | Total Pet. Hydrocarbons Diesel | | TPHDIESEL | < 75 | n/a | ug/L | | | | U | 09/18/08 |
| LCS | ortho-Terphenyl | Surr | 84-15-1 | 530.49 | 106.000 | % Recov | 70.000 | 130.000 | | | 09/18/08 |
| LCS | Total Pet. Hydrocarbons Diesel | | TPHDIESEL | 2605.7 | 104.000 | % Recov | 80.000 | 120.000 | | | 09/18/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081912
 Matrix: WATER
 Test: NWTPH-GX TPH Gasoline Range

Sample Date: 08/26/08
 Receive Date: 08/26/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-----------------------------|-------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004214 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Total Pet. Hydrocarbons Gas | TPHGASOLINE | <50 | | RPD | | | n/a | 20.000 | U | 09/09/08 |
| MS | Total Pet. Hydrocarbons Gas | TPHGASOLINE | 2700 | 108.000 | % Recov | 75.000 | 125.000 | | | | 09/09/08 |
| MSD | Total Pet. Hydrocarbons Gas | TPHGASOLINE | 2700 | 108.000 | % Recov | 75.000 | 125.000 | | | | 09/09/08 |
| SPK-RPD | Total Pet. Hydrocarbons Gas | TPHGASOLINE | 108.000 | | RPD | | | 0.000 | 20.000 | | 09/09/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Total Pet. Hydrocarbons Gas | TPHGASOLINE | <50 | n/a | mg/L | 0.000 | 300.000 | | | U | 09/09/08 |
| LCS | Total Pet. Hydrocarbons Gas | TPHGASOLINE | 2500 | 100.000 | %rec | 80.000 | 120.000 | | | | 09/09/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20081912
 Matrix: WATER
 Test: VOA Ground Water Protection

Sample Date: 08/29/08
 Receive Date: 08/29/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-----------------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004273 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| MS | 1,1-Dichloroethene | 75-35-4 | 20.270 | 81.100 | % Recov | 63.000 | 117.000 | | | | 09/11/08 |
| MS | Benzene | 71-43-2 | 23.580 | 94.300 | % Recov | 75.000 | 129.000 | | | | 09/11/08 |
| MS | 4-Bromofluorobenzene(Surr) | 460-00-4 | 47.950 | 95.900 | % Recov | 75.000 | 125.000 | | | | 09/11/08 |
| MS | Chlorobenzene | 108-90-7 | 24.260 | 97.000 | % Recov | 79.000 | 119.000 | | | | 09/11/08 |
| MS | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 48.130 | 96.300 | % Recov | 75.000 | 125.000 | | | | 09/11/08 |
| MS | Toluene-d8(Surr) | 2037-26-5 | 45.630 | 91.300 | % Recov | 75.000 | 125.000 | | | | 09/11/08 |
| MS | Toluene | 108-88-3 | 23.590 | 94.400 | % Recov | 76.000 | 120.000 | | | | 09/11/08 |
| MS | Trichloroethene | 79-01-6 | 21.370 | 85.500 | % Recov | 73.000 | 123.000 | | | | 09/11/08 |
| MSD | 1,1-Dichloroethene | 75-35-4 | 19.500 | 78.000 | % Recov | 63.000 | 117.000 | | | | 09/11/08 |
| MSD | Benzene | 71-43-2 | 23.410 | 93.600 | % Recov | 75.000 | 129.000 | | | | 09/11/08 |
| MSD | 4-Bromofluorobenzene(Surr) | 460-00-4 | 48.340 | 96.700 | % Recov | 75.000 | 125.000 | | | | 09/11/08 |
| MSD | Chlorobenzene | 108-90-7 | 24.270 | 97.100 | % Recov | 79.000 | 119.000 | | | | 09/11/08 |
| MSD | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 47.890 | 95.800 | % Recov | 75.000 | 125.000 | | | | 09/11/08 |
| MSD | Toluene-d8(Surr) | 2037-26-5 | 45.470 | 90.900 | % Recov | 75.000 | 125.000 | | | | 09/11/08 |
| MSD | Toluene | 108-88-3 | 23.430 | 93.700 | % Recov | 76.000 | 120.000 | | | | 09/11/08 |
| MSD | Trichloroethene | 79-01-6 | 20.880 | 83.500 | % Recov | 73.000 | 123.000 | | | | 09/11/08 |
| SPK-RPD | 1,1-Dichloroethene | 75-35-4 | 78.000 | | RPD | | | 3.897 | 20.000 | | 09/11/08 |
| SPK-RPD | Benzene | 71-43-2 | 93.600 | | RPD | | | 0.745 | 20.000 | | 09/11/08 |
| SPK-RPD | 4-Bromofluorobenzene(Surr) | 460-00-4 | 96.700 | | RPD | | | 0.831 | 20.000 | | 09/11/08 |
| SPK-RPD | Chlorobenzene | 108-90-7 | 97.100 | | RPD | | | 0.103 | 20.000 | | 09/11/08 |
| SPK-RPD | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 95.800 | | RPD | | | 0.521 | 20.000 | | 09/11/08 |
| SPK-RPD | Toluene-d8(Surr) | 2037-26-5 | 90.900 | | RPD | | | 0.439 | 20.000 | | 09/11/08 |
| SPK-RPD | Toluene | 108-88-3 | 93.700 | | RPD | | | 0.744 | 20.000 | | 09/11/08 |
| SPK-RPD | Trichloroethene | 79-01-6 | 83.500 | | RPD | | | 2.367 | 20.000 | | 09/11/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20081912
 Matrix: WATER
 Test: VOA Ground Water Protection

Sample Date: 09/04/08
 Receive Date: 09/04/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-----------------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004324 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 48.160 | 96.300 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 49.480 | 99.000 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 46.280 | 92.600 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| Lab ID: W08P004329 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | 4-Bromofluorobenzene(Surr) | 460-00-4 | 48.190 | 96.400 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| SURR | 1,2-Dichloroethane-d4(Surr) | 17060-07-0 | 49.230 | 98.500 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| SURR | Toluene-d8(Surr) | 2037-26-5 | 46.500 | 93.000 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | 1,1-Dichloroethane | 75-34-3 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | 1,1,1-Trichloroethane | 71-55-6 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | 1,1,2-Trichloroethane | 79-00-5 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | 1,1-Dichloroethene | 75-35-4 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | 1,2-Dichloroethane | 107-06-2 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | 1,4-Dichlorobenzene | 106-46-7 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | 1-Butanol | 71-36-3 | < 100 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | 4-Methyl-2-Pentanone | 108-10-1 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Acetone | 67-64-1 | 3400 | 3400.000 | ug/L | | | | | | 09/11/08 |
| BLANK | Benzene | 71-43-2 | 2.2 | 2.200 | ug/L | | | | | | 09/11/08 |
| BLANK | 4-Bromofluorobenzene(Surr) | 460-00-4 | 48.420 | 96.800 | % Recov | 75.000 | 125.000 | | | | 09/11/08 |
| BLANK | Carbon disulfide | 75-15-0 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Carbon tetrachloride | 56-23-5 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Chloroform | 67-66-3 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Chlorobenzene | 108-90-7 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | cis-1,2-Dichloroethylene | 156-59-2 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081912
 Matrix: WATER
 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 | 1,2-Dichloroethane-d4(Surr) | 17080-07-0 | 48.920 | 93.800 | % Recov | 75.000 | 125.000 | | | | 09/11/08 |
| BLANK | trans-1,2-Dichloroethylene | 156-60-5 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Ethylbenzene | 100-41-4 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Ethyl cyanide | 107-12-0 | < 2.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | 2-Butanone | 78-93-3 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Methylenechloride | 75-09-2 | 620 | 620.000 | ug/L | | | | | | 09/11/08 |
| BLANK | Tetrachloroethene | 127-18-4 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Xylenes (total) | 1330-20-7 | < 1.0 | n/a | ug/L | 0.000 | 5.000 | | | U | 09/11/08 |
| BLANK | Tetrahydrofuran | 109-99-9 | < 2.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Toluene-d8(Surr) | 2037-26-5 | 45.640 | 91.300 | % Recov | 75.000 | 125.000 | | | | 09/11/08 |
| BLANK | Toluene | 108-88-3 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Trichloroethene | 79-01-6 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| BLANK | Vinyl chloride | 75-01-4 | < 1.0 | n/a | ug/L | | | | | U | 09/11/08 |
| LCS | 1,1-Dichloroethene | 75-35-4 | 20.560 | 82.200 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| LCS | Benzene | 71-43-2 | 23.890 | 95.600 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| LCS | 4-Bromofluorobenzene(Surr) | 480-00-4 | 47.750 | 95.500 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| LCS | Chlorobenzene | 108-90-7 | 24.610 | 98.400 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| LCS | 1,2-Dichloroethane-d4(Surr) | 17080-07-0 | 49.400 | 98.800 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| LCS | Toluene-d8(Surr) | 2037-26-5 | 46.480 | 93.000 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| LCS | Toluene | 108-88-3 | 23.840 | 95.400 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |
| LCS | Trichloroethene | 79-01-6 | 19.960 | 79.800 | % Recov | 75.000 | 125.000 | | | | 09/12/08 |

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20081912
Department: Organic

| Sample # | Client ID | Lab Area | Test | Comment |
|----------|-----------|----------|------|---|
| | | VALGROUP | | ICP-MS: Mercury LCS 117%. Spike recoveries good and sample result below the MDL. No flag. VOA: Acetone and methylene chloride flagged "B" due to carryover into blank sample from the analysis of a waste sample. MS 9/29/08 |

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 E6-35

SAF Number: 108-059

Sample # W08P004324

Client ID: B1WY05 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Radiochemistry

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|--------------------------------|------------|------------|----|--------|-------|--------|-------|------|----------|-----|---------------|
| Tritium by Liq Sct column prep | | | | | | | | | | | |
| Tritium | 10028-17-8 | LA-508-421 | | 330 | pCi/L | + -155 | pCi/L | 1.00 | 2.3e +02 | | 09/18/08 |

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

B - The Analyte detected in both the BLANK and the SAMPLE.(org)

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

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

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

GPAP

39 of 54

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: W08-009

Sample # W08P004325

Client ID: B1X094 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Radiochemistry

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|-----------------------|------------|------------|----|--------|-------|---------|-------|------|-----|-----|---------------|
| TC99 by Liquid Scin. | | | | | | | | | | | |
| Tc-99 by Liquid Scin. | 14133-76-7 | LA-508-421 | | 12.0 | pCi/L | + -4.44 | pCi/L | 1.00 | 5.7 | | 09/17/08 |

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

B - The Analyte detected in both the BLANK and the SAMPLE.(org)

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

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

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

GPAP

40 of 54

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: W08-009

Sample # W08P004326

Client ID: B1X1D2 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Radiochemistry

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|----------------------|------------|------------|----|----------|-------|-------------|-------|------|-----|-----|---------------|
| TC99 by Liquid Scin. | 14133-76-7 | LA-508-421 | | 1.40e+04 | pCi/L | + -2.80e+03 | pCi/L | 1.00 | 5.7 | | 09/17/08 |

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

B - The Analyte detected in both the BLANK and the SAMPLE.(org)

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

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

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

GPAP

41 OF 54

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: W08-009

Sample # W08P004327

Client ID: B1X058 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Radiochemistry

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|----------------------|------------|------------|----|--------|-------|---------|-------|------|-----|-----|---------------|
| TC99 by Liquid Scin. | 14133-76-7 | LA-508-421 | | 140 | pCi/L | + -28.0 | pCi/L | 1.00 | 5.7 | | 09/17/08 |

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

B - The Analyte detected in both the BLANK and the SAMPLE.(org)

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

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

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

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

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

Report WGPP/ver. 5.2

GPAP

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I08-059

Sample # W08P004329

Client ID: B1WXW5 PNNL-GPP
WSCF

Matrix: WATER

Group #: WSCF20081912

Department: Radiochemistry

Sampled: 09/04/08

Received: 09/04/08

| Test Performed | CAS # | Method | RQ | Result | Unit | TP Err | Unit | DF | MDL | PQL | Analysis Date |
|---------------------------------------|------------|------------|----|----------|---------|-----------|-------|------|---------|-----|---------------|
| Strontium 89/90 | | | | | | | | | | | |
| Strontium-89/90 | SR-RAD | LA-508-415 | U | 0.0730 | pCi/L | +0.730 | pCi/L | 1.00 | 1.2 | | 09/15/08 |
| Sr-85 Tracer by Beta Counting | SR85 | LA-508-415 | | 82.0 | Percent | | | 1.00 | 0.0 | | 09/15/08 |
| Tritium by Liq Sct column prep | | | | | | | | | | | |
| Tritium | 10028-17-8 | LA-508-421 | | 6.40e+04 | pCi/L | +1.28e+04 | pCi/L | 1.00 | 2.3e+02 | | 09/18/08 |

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

B - The Analyte detected in both the BLANK and the SAMPLE.(org)

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

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

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

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

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

Report WGPP/ver. 5.2

GPAP

43 of 54

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081912
 Matrix: WATER
 Test: Strontium 89/90

Sample Date: 09/02/08
 Receive Date: 09/02/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-------------------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004289 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Sr-85 Tracer by Beta Counting | SR85 | 84.3 | 84.300 | % Recov | 30.000 | 105.000 | | | | 09/15/08 |
| DUP | Strontium-89/90 | SR-RAD | 67.1 | | RPD | | | 0.598 | 20.000 | | 09/15/08 |
| Lab ID: W08P004329 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| SURR | Sr-85 Tracer by Beta Counting | SR85 | 82.0 | 82.000 | % Recov | 30.000 | 105.000 | | | | 09/15/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Sr-85 Tracer by Beta Counting | SR85 | 88.1 | 88.100 | % Recov | 30.000 | 105.000 | | | | 09/15/08 |
| BLANK | Strontium-89/90 | 10098-97-2 | U-2.0 | n/a | pCi/L | -10.000 | 100.000 | | | | 09/15/08 |
| LCS | Sr-85 Tracer by Beta Counting | SR85 | 85.5 | 85.500 | % Recov | 30.000 | 105.000 | | | | 09/15/08 |
| LCS | Strontium-89/90 | 10098-97-2 | 153.0 | 110.231 | % Recov | 80.000 | 120.000 | | | | 09/15/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081912
 Matrix: WATER
 Test: TC99 by Liquid Scin.

Sample Date: 09/04/08
 Receive Date: 09/04/08

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|-----------------------|------------|----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004325 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Tc-99 by Liquid Scin. | 14133-76-7 | 10.5 | | RPD | | | 9.955 | 20.000 | | 09/17/08 |
| MS | Tc-99 by Liquid Scin. | 14133-76-7 | 674.6 | 105.963 | % Recov | 75.000 | 125.000 | | | | 09/17/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Tc-99 by Liquid Scin. | 14133-76-7 | U1.5 | n/a | pCi/L | -10.000 | 10.000 | | | | 09/17/08 |
| LCS | Tc-99 by Liquid Scin. | 14133-76-7 | 167.1 | 104.962 | % Recov | 80.000 | 120.000 | | | | 09/17/08 |

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081912
 Matrix: WATER
 Test: Tritium by Liq Sct column prep

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

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Lower Limit | Upper Limit | RPD(%) | RPD Limit | RQ | Analysis Date |
|--|---------|------------|-----------|----------|---------|-------------|-------------|--------|-----------|----|---------------|
| Lab ID: W08P004252 | | | | | | | | | | | |
| BATCH QC ASSOCIATED WITH SAMPLE | | | | | | | | | | | |
| DUP | Tritium | 10028-17-8 | 9.5E+03 | | RPD | | | 5.405 | 20.000 | | 09/18/08 |
| MS | Tritium | 10028-17-8 | 21380.0 | 95.112 | % Recov | 75.000 | 125.000 | | | | 09/18/08 |
| BATCH QC | | | | | | | | | | | |
| BLANK | Tritium | 10028-17-8 | U-5.1E+01 | n/a | pCi/L | -10.000 | 1000.000 | | | | 09/18/08 |
| LCS | Tritium | 10028-17-8 | 3160 | 93.323 | % Recov | 80.000 | 120.000 | | | | 09/18/08 |

M4W41-SLF-08-1114

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

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
10/02/08
 |

ACKNOWLEDGMENT OF SAMPLES RECEIVED

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20081912

The following samples were received from you on 09/04/08. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

| Sample# | Sample Id | Tests Scheduled | Matrix | Sample Date |
|------------|-----------|--|---------------------------------------|-------------|
| W08P004324 | B1WY05 | PNNL-GPP @2008 @H3-33 | Water @VOA-GPP | 09/04/08 |
| W08P004325 | B1X094 | PNNL-GPP @TC99-30 ALKALI | Water | 09/04/08 |
| W08P004326 | B1X1D2 | PNNL-GPP @TC99-30 ALKALI | Water | 09/04/08 |
| W08P004327 | B1X058 | PNNL-GPP @TC99-30 ALKALI | Water | 09/04/08 |
| W08P004328 | B1WXW4 | PNNL-GPP @2008 | Water | 09/04/08 |
| W08P004329 | B1WXW5 | PNNL-GPP @2008 @8015GPP @H3-33 @TPHG-WA @VOA-GPP CN-02 | Water @SR89_90 @TPHD-WA NH4-IC TOX | 09/04/08 |

Test Acronym Description

| Test Acronym | Description |
|--------------|--------------------------------|
| @2008 | ICP-200.8 MS All possible meta |
| @8015GPP | Alcohols, Glycols - 8015 |
| @H3-33 | Tritium by Liq Sct column prep |
| @SR89_90 | Strontium 89/90 |
| @TC99-30 | TC99 by Liquid Scin. |
| @TPHD-WA | NWTPH-D TPH Diesel Range (Wa) |
| @TPHG-WA | NWTPH-GX TPH Gasoline Range |
| @VOA-GPP | VOA Ground Water Protection |
| ALKALI | Total Alkalinity as mg/L CaCO3 |
| CN-02 | Cyanide by Midi/Spectrophotom |
| NH4-IC | Ammonia (N) by IC |
| TOX | Total Organic Halides |

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

108-059-35

Page 1 of 1

| | | | | |
|--------------------------------------|---|-------------------------------|-------|----------------------|
| Collector D. J. Sparks | Contact/Requester Mike Neely | Telephone No. 509-373-0654 | MSIN | FAX |
| SAF No. 108-059 | Sampling Origin Hanford Site | Purchase Order/Charge Code | | |
| Project Title 2UPL SEPTEMBER 2008 | Shipped To (Lab) Waste Sampling & Characterization | Ice Chest No. 3-WL313 | Temp. | |
| Protocol SURV | Method of Shipment Govt. Vehicle | Bill of Lading/Air Bill No. | | Offsite Property No. |
| Priority: 30 Days | | PRIORITY | | |

POSSIBLE SAMPLE HAZARDS/REMARKS
 ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time
 200 Area Generator Knowledge Information Form applies.

Total Activity Exemption: Yes No

ICED

| Sample No. | Lab ID | * | Date | Time | No/Type Container | Sample Analysis | Holding Time | Preservative |
|------------|--------|---|--------|------|-------------------|--|--------------|-------------------------------|
| B1WXW4 (F) | 4328 | W | 9-4-08 | 1110 | 1x500-mL G/P | 200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Lead (1) | 6 Months | HNO3 to pH <2 |
| B1WXW4 (F) | ↓ | W | | | 1x500-mL G/P | 200.8_METALS_ICPMS: Mercury (1) | 6 Months | HNO3 to pH <2 |
| B1WXW5 | 4329 | W | | | 4x40-mL aGs* | 8260_VOA_GCMS: List-2 (25) | 14 Days | HCl or H2SO4 to pH <2 Cool-4C |
| B1WXW5 | | W | | | 1x500-mL G/P | 200.8_METALS_ICPMS: Uranium (1) | 6 Months | HNO3 to pH <2 |
| B1WXW5 | | W | | | 1x250-mL G | TRITIUM_EIE_LSC: Tritium (1) | 6 Months | None |
| B1WXW5 | | W | | | 1x1-L G/P | Strontium-89,90 -- Total Sr | 6 Months | HNO3 to pH <2 |
| B1WXW5 | | W | | | 1x500-mL G/P | 200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Lead (1) | 6 Months | HNO3 to pH <2 |
| B1WXW5 | | W | | | 3x40-mL aGs* | Alcohols, Glycols, & Ketones - 8015 | 14 Days | Cool-4C |
| B1WXW5 | | W | | | 1x500-mL G/P | 200.8_METALS_ICPMS: Mercury (1) | 6 Months | HNO3 to pH <2 |
| B1WXW5 | | W | | | 1x250-mL G/P | 300.7_CATIONS_IC: Ammonia (1) | 28 Days | H2SO4 to pH <2 |
| B1WXW5 | | W | | | 1x250-mL G/P | 335.2_CYANIDE: Cyanide (1) | 14 Days | NaOH to pH >= 12 Cool-4C |
| B1WXW5 | | W | | | 1x1000-mL aGs* | 9020_TOX: TOX (1) | 28 Days | H2SO4 to pH <2 Cool-4C |
| B1WXW5 | | W | | | 3x1000-mL aG | TPH-DieselKerosene Range - WTPH-D; TPH-DieselKerosene Range - WTPH-D | 14/40 Days | HCl to pH <2 Cool-4C |
| B1WXW5 | ↓ | W | | | 3x1000-mL aGs* | TPH-Gasoline Range - WTPH-G | 14 Days | HCl to pH <2 Cool-4C |

| | | | | | | | | |
|--|--|----------------------------|--------------------------------|-----------------------------------|-----------------------------|----------------------------|--------------------------------|---|
| Relinquished By D. J. Sparks | Print <i>[Signature]</i> | Sign <i>[Signature]</i> | Date/Time SEP 04 2008 12:45 | Received By <i>[Signature]</i> | Print <i>[Signature]</i> | Sign <i>[Signature]</i> | Date/Time SEP 04 2008 1:245 | Matrix * |
| Relinquished By | Date/Time | Received By | Date/Time | Relinquished By | Date/Time | Received By | Date/Time | S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other |
| Relinquished By | Date/Time | Received By | Date/Time | Relinquished By | Date/Time | Received By | Date/Time | |
| Relinquished By | Date/Time | Received By | Date/Time | Relinquished By | Date/Time | Received By | Date/Time | |
| FINAL SAMPLE DISPOSITION | Disposal Method (e.g., Return to customer, per lab procedure, used in process) | | Disposed By | | Date/Time | | | |

491066

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

I08-059-35

Page 2 of 1

| | | | | |
|--------------------|---------------------------------|-------------------------------|------|-----|
| SAF No. I08-059 | Contact/Requestor Mike Neely | Telephone No. 509-373-0654 | MSIN | FAX |
|--------------------|---------------------------------|-------------------------------|------|-----|

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

ICED

| | | | | | | | | |
|---|---------------------------|--|--|--|-----------------------------|----------------------------|--|--|
| Relinquished By D. J. Smith <i>[Signature]</i> | Print Smith | Sign <i>[Signature]</i> | Date/Time SEP 04 2008 ¹²⁴⁵ | Received By CA Hudon <i>[Signature]</i> | Print <i>[Signature]</i> | Sign <i>[Signature]</i> | Date/Time SEP 04 2008 ¹²⁴⁵ | Matrix * |
| Relinquished By | | | Date/Time | Received By | | | Date/Time | S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other |
| Relinquished By | | | Date/Time | Received By | | | Date/Time | |
| Relinquished By | | | Date/Time | Received By | | | Date/Time | |
| Relinquished By | | | Date/Time | Received By | | | Date/Time | |
| FINAL SAMPLE DISPOSITION | | Disposal Method (e.g., Return to customer, per lab procedure, used in process) | | | Disposed By | | Date/Time | |

54 of 54