

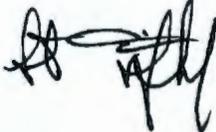
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FLUOR

Memorandum

M4W41-SLF-08-1007

To: H. Hampt E6-35 Date: September 15, 2008

From: S. L. Fitzgerald, Manager
WSCF Analytical Lab 

cc: w/Attachments
T. F. Dale S3-30 J. E. Trechter S3-30
A. J. Kopriva S3-30 S. J. Trent E6-35
H. K. Meznarich S3-30 File/LB
P. D. Mix S3-30

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20081508 – SAF NUMBER F08-134

Reference: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001, October 31, 2002
(2) HNF-SD-CD-QAPP-017, Rev. 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF20081508:

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

SLF/grf

Attachments 4

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M4W41-SLF-08-1007

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20081508
Data Deliverable Date: 03-sep-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-134	B1W1B6	W08GR02799	WATER

M4W41-SLF-08-1007

ATTACHMENT 2

NARRATIVE

Consisting of 5 pages
Including cover page

Introduction

One (1) S&GRP sample was received at the WSCF Laboratory on July 21, 2008. This sample was 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 14 through 16, for a complete listing of approved analytical methods.

Inorganic Comments

Anions – 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 pages 19 through 20 for QC details.

All QC controls are within the established limits.

Cyanide – The hold time requirement (14 days) 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 21 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TTV4 (SDG# 20081443) and B1V7P9 (SDG 20081455).
- The sample result for CN was greater than four times the spike concentration, therefore, the spike recovery information is not valid.

All QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement (24 hours) for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See page 22 for QC details.

All QC controls are within the established limits.

ICP-AES Metals – 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 23 through 25 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1W1X6 (SDG# 20081673, SAF# F08-039).
- Batch QC (B1TTV1) – Calcium, Sodium, Silicon, and Phosphorous sample results exceeded the spiking levels by a factor of four. Spike recoveries are not valid. Check standard was analyzed to ensure Sodium and Phosphorous linearity because sample results were greater than the calibration standard. NOT ALL ANALYTES WERE STARRED!
- Low Lithium recovery was observed in the spike samples, therefore, the Lithium analyte was N flagged.

All other QC controls are within the established limits.

ICP-MS Metals – 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 26 through 29 for QC details.

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 36 for QC details.

All QC controls are within the established limits.

Semi-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 GPP Letter of Instruction. See pages 38 through 43 for QC details. Analytical Notes(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1V7P9, SDG 20081455.

- The surrogate Terphenly-d14 exceeded the laboratory established RPD value for the MS/MSD. The data was accepted since the Terphenly-d14 recovery in the MS/MSD met the laboratory established criteria.

All other QC controls are within the established limits.

TPHD-WA – 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 37 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1V569 (SDG# 20081468, SAF# F08-100).

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 44 through 46 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TVL1 (SDG# 20081492, SAF# F08-052).

All QC controls are within the established limits.

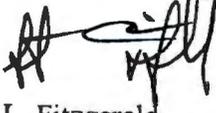
Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike (*Matrix Spikes apply only to Neptunium, Technetium & Tritium and Matrix Spike Duplicate applies to Neptunium*), Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 51 through 59 for QC details. Analytical Note(s):

- Rad Chem analyses requested to be performed on this sample included: Americium by AEA, Gamma Energy Analysis, Plutonium Isotopic by AEA, Sr-89/90, Tc-99 by ICP-MS, Tc-99 by LSC, Tritium by LSC, and Uranium Isotopic by AEA.
- Uranium by AEA: Duplicate was analyzed on sample# B1W1B1, (SDG#20081478, SAF# F08-133).
- Uranium by AEA: The RPD value for the U-234 and U-238 analytes in the duplicate sample B1W1B1 did not meet the limit established by the laboratory.
- Uranium by AEA: The U-232 tracer recovery in sample B1W1B8 was slightly elevated. We accepted the results for this sample since all other QC requirements were acceptable.

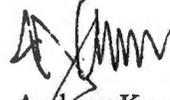
All other QC controls are within the established limits.

I certify that this data package is in compliance with the LOI, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this

hard copy data package has been authorized by the Laboratory Analytical Manager and Client Services as verified by the following signatures.



Scot L. Fitzgerald
WSCF Analytical Laboratory Manager



Andrew Kopriva
WSCF Client Services

M4W41-SLF-08-1007

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 52 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT
for
Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical:

 S. Fitzgerald 9-15-08

Client Services:

 A. Kopriva 9-15-08

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

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Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20081508
Report Date: 12-sep-2008
Report WGPP/ver. 5.2
Groundwater Remediation Program

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20081508

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
37196	2	37626	41950	BLANK		Hexavalent chromium
37196	9	37626	41950	BLANK		Hexavalent chromium
37196	3	37626	41950	LCS		Hexavalent chromium
37196	5	37626	41950	DUP	W08GR02799	Hexavalent chromium
37196	6	37626	41950	MS	W08GR02799	Hexavalent chromium
37196	7	37626	41950	MSD	W08GR02799	Hexavalent chromium
37196	4	37626	41950	SAMPLE	W08GR02799	Hexavalent chromium
37196	7	37626	41950	SPK-RPD	W08GR02799	Hexavalent chromium
37201	2	37630	41958	BLANK		Anions by Ion Chromatography
37201	15	37630	41958	BLANK		Anions by Ion Chromatography
37201	3	37630	41958	LCS		Anions by Ion Chromatography
37201	5	37630	41958	DUP	W08GR02799	Anions by Ion Chromatography
37201	6	37630	41958	MS	W08GR02799	Anions by Ion Chromatography
37201	7	37630	41958	MSD	W08GR02799	Anions by Ion Chromatography
37201	4	37630	41958	SAMPLE	W08GR02799	Anions by Ion Chromatography
37201	7	37630	41958	SPK-RPD	W08GR02799	Anions by Ion Chromatography
37278	1	37708	42027	BLANK		Cyanide by Midi/Spectrophotom
37278	2	37708	42027	LCS		Cyanide by Midi/Spectrophotom
37278	5	37708	42027	MS	W08GR02687	Cyanide by Midi/Spectrophotom
37278	6	37708	42027	MSD	W08GR02687	Cyanide by Midi/Spectrophotom
37278	6	37708	42027	SPK-RPD	W08GR02687	Cyanide by Midi/Spectrophotom
37278	7	37708	42027	SAMPLE	W08GR02799	Cyanide by Midi/Spectrophotom
37278	9	37708	42027	MS	W08P003521	Cyanide by Midi/Spectrophotom
37278	10	37708	42027	MSD	W08P003521	Cyanide by Midi/Spectrophotom
37278	10	37708	42027	SPK-RPD	W08P003521	Cyanide by Midi/Spectrophotom
37558	1	37996	42341	BLANK		ICP-200.8 MS All possible meta
37558	2	37996	42341	LCS		ICP-200.8 MS All possible meta
37558	4	37996	42341	MS	W08GR02623	ICP-200.8 MS All possible meta
37558	5	37996	42341	MSD	W08GR02623	ICP-200.8 MS All possible meta
37558	5	37996	42341	SPK-RPD	W08GR02623	ICP-200.8 MS All possible meta
37558	7	37996	42341	MS	W08GR02799	ICP-200.8 MS All possible meta
37558	8	37996	42341	MSD	W08GR02799	ICP-200.8 MS All possible meta
37558	6	37996	42341	SAMPLE	W08GR02799	ICP-200.8 MS All possible meta
37558	8	37996	42341	SPK-RPD	W08GR02799	ICP-200.8 MS All possible meta
37778	1	38205	42675	BLANK		ICP Metals Analysis, Grd H20 P
37778	2	38205	42675	LCS		ICP Metals Analysis, Grd H20 P
37778	13	38205	42675	SAMPLE	W08GR02799	ICP Metals Analysis, Grd H20 P
37778	4	38205	42675	MS	W08GR03259	ICP Metals Analysis, Grd H20 P
37778	5	38205	42675	MSD	W08GR03259	ICP Metals Analysis, Grd H20 P
37778	5	38205	42675	SPK-RPD	W08GR03259	ICP Metals Analysis, Grd H20 P

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20081508

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			42064	BLANK		SW-846 8270C Semi-Vols
			42064	LCS		SW-846 8270C Semi-Vols
			42064	SAMPLE	W08GR02799	SW-846 8270C Semi-Vols
			42064	SURR	W08GR02799	SW-846 8270C Semi-Vols
			42064	MS	W08P003521	SW-846 8270C Semi-Vols
			42064	MSD	W08P003521	SW-846 8270C Semi-Vols
			42064	SPK-RPD	W08P003521	SW-846 8270C Semi-Vols
			42070	BLANK		NWTPH-D TPH Diesel Range (Wa)
			42070	LCS		NWTPH-D TPH Diesel Range (Wa)
			42070	MS	W08GR02619	NWTPH-D TPH Diesel Range (Wa)
			42070	MSD	W08GR02619	NWTPH-D TPH Diesel Range (Wa)
			42070	SPK-RPD	W08GR02619	NWTPH-D TPH Diesel Range (Wa)
			42070	SAMPLE	W08GR02799	NWTPH-D TPH Diesel Range (Wa)
			42070	SURR	W08GR02799	NWTPH-D TPH Diesel Range (Wa)
			42390	BLANK		VOA Ground Water Protection
			42390	LCS		VOA Ground Water Protection
			42390	MS	W08GR02686	VOA Ground Water Protection
			42390	MSD	W08GR02686	VOA Ground Water Protection
			42390	SPK-RPD	W08GR02686	VOA Ground Water Protection
			42390	SAMPLE	W08GR02799	VOA Ground Water Protection
			42390	SURR	W08GR02799	VOA Ground Water Protection
37859	1	38287	42671	BLANK		Alcohols, Glycols - 8015
37859	2	38287	42671	LCS		Alcohols, Glycols - 8015
37859	4	38287	42671	DUP	W08GR02799	Alcohols, Glycols - 8015
37859	5	38287	42671	MS	W08GR02799	Alcohols, Glycols - 8015
37859	6	38287	42671	MSD	W08GR02799	Alcohols, Glycols - 8015
37859	3	38287	42671	SAMPLE	W08GR02799	Alcohols, Glycols - 8015
37859	6	38287	42671	SPK-RPD	W08GR02799	Alcohols, Glycols - 8015

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20081508

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
37245	1	37684	42128	BLANK		Gamma Energy Analysis-grd H2O
37245	2	37684	42128	LCS		Gamma Energy Analysis-grd H2O
37245	3	37684	42128	DUP	W08GR02799	Gamma Energy Analysis-grd H2O
37245	4	37684	42128	SAMPLE	W08GR02799	Gamma Energy Analysis-grd H2O
37398	1	37823	42142	BLANK		TC99 by ICP-200.8 MS
37398	2	37823	42142	LCS		TC99 by ICP-200.8 MS
37398	8	37823	42142	SAMPLE	W08GR02799	TC99 by ICP-200.8 MS
37369	1	37794	42253	BLANK		Strontium 89/90
37369	2	37794	42253	LCS		Strontium 89/90
37369	3	37794	42253	DUP	W08GR02623	Strontium 89/90
37369	10	37794	42253	SAMPLE	W08GR02799	Strontium 89/90
37369	11	37794	42253	SURR	W08GR02799	Strontium 89/90
37439	1	37871	42282	BLANK		Gross Alpha/Gross Beta (AB32)
37439	2	37871	42282	LCS		Gross Alpha/Gross Beta (AB32)
37439	16	37871	42282	SAMPLE	W08GR02799	Gross Alpha/Gross Beta (AB32)
37439	3	37871	42282	DUP	W08GR02900	Gross Alpha/Gross Beta (AB32)
37458	1	37891	42286	BLANK		Tritium by Liq Sct column prep
37458	4	37891	42286	LCS		Tritium by Liq Sct column prep
37458	3	37891	42286	DUP	W08GR01840	Tritium by Liq Sct column prep
37458	2	37891	42286	MS	W08GR01840	Tritium by Liq Sct column prep
37458	9	37891	42286	SAMPLE	W08GR02799	Tritium by Liq Sct column prep
37632	1	38063	42605	BLANK		TC99 by Liquid Scin.
37632	4	38063	42605	LCS		TC99 by Liquid Scin.
37632	8	38063	42605	SAMPLE	W08GR02799	TC99 by Liquid Scin.
37632	3	38063	42605	DUP	W08GR02926	TC99 by Liquid Scin.
37632	2	38063	42605	MS	W08GR02926	TC99 by Liquid Scin.
37895	1	38323	42772	BLANK		Uranium Isotopics by AEA
37895	2	38323	42772	LCS		Uranium Isotopics by AEA
37895	3	38323	42772	DUP	W08GR02623	Uranium Isotopics by AEA
37895	10	38323	42772	SAMPLE	W08GR02799	Uranium Isotopics by AEA
37895	11	38323	42772	SURR	W08GR02799	Uranium Isotopics by AEA
37896	1	38324	42811	BLANK		Plutonium Isotopics by AEA
37896	2	38324	42811	LCS		Plutonium Isotopics by AEA
37896	3	38324	42811	DUP	W08GR02623	Plutonium Isotopics by AEA
37896	10	38324	42811	SAMPLE	W08GR02799	Plutonium Isotopics by AEA
37896	11	38324	42811	SURR	W08GR02799	Plutonium Isotopics by AEA
37897	1	38325	42813	BLANK		Americium by AEA
37897	2	38325	42813	LCS		Americium by AEA
37897	3	38325	42813	DUP	W08GR02623	Americium by AEA
37897	10	38325	42813	SAMPLE	W08GR02799	Americium by AEA
37897	11	38325	42813	SURR	W08GR02799	Americium by AEA

WSCF

METHOD REFERENCES REPORT

Department: Inorganic

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

LA-265-403	LA-265-403: Hexavalent Chromium analysis by Spectrophotometer EPA SW-846 7196A HEXAVALENT CHROMIUM HEIS 7196_CR6 Hexavalent Chromium
LA-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE HEIS 6010_METALS_ICP Inductively Coupled Plasma-Atomic Emmision Spectrometry
LA-505-412	LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY EPA-600/R-94-111 200.8 DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS HEIS 200.8_METALS_ICPMS Inductively Coupled Plasma - Mass Spectrometry HEIS RADISOTOPES_ICPMS Radioisotopes by ICP/MS
LA-533-410	LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY EPA-600/R-94-111 300.0 DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY HEIS 300.0_ANIONS_IC Determination of Inorganic Anions by Ion Chromatography
LA-695-402	LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC EPA-600/4-79-020 335.2 Cyanide, Total HEIS 335.2_CYANIDE Cyanide, Total

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

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WSCF

METHOD REFERENCES REPORT

Department: Organic

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

LA-523-455	LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846 EPA SW-846 8000B DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS EPA SW-846 8260B VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS) HEIS 8260_VOA_GCMS Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
LA-523-456	LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C EPA SW-846 8000B DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS EPA SW-846 8270C SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS) HEIS 8270_SVOA_GCMS Semivolatile 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.rl.gov/phmc/as-dol>.

Report Date: 12-sep-2008
Report#: WSCF20081508
Report WGPPM/5.2

Page 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
HEIS ALPHA_GPC	GROSS ALPHA GPC
HEIS BETA_GPC	GROSS BETA GPC
HEIS SRTOT_SEP_PRECIP_GPC	Francium 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
LA-508-471	LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP
HEIS PUIISO_IE_PRECIP_AEA	Plutonium by Alpha Energy Analysis
HEIS RAISO_AEA	Radium-226
LA-508-481	LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE
HEIS GAMMA_GS	Gamma Emission Spectrometry

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

Report Date: 12-sep-2008

Report#: WSCF20081508

Report WGPPM/5.2

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-134
Sample # W08GR02799
Client ID: B1W1B6

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081508
Department: Inorganic
Sampled: 07/21/08
Received: 07/21/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	U	< 0.0232	mg/L			1.00	0.023		07/21/08
Chloride	16887-00-6	LA-533-410	U	< 0.0469	mg/L			1.00	0.047		07/21/08
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0128	mg/L			1.00	0.013		07/21/08
Nitrogen in Nitrate	NO3-N	LA-533-410	U	< 0.0121	mg/L			1.00	0.012		07/21/08
Phosphate (P) by IC	PO4-P	LA-533-410	U	< 0.0606	mg/L			1.00	0.061		07/21/08
Sulfate	14808-79-8	LA-533-410	U	< 0.132	mg/L			1.00	0.13		07/21/08
Cyanide											
Cyanide	57-12-5	LA-695-402	UX	< 4.00	ug/L			1.00	4.0		07/27/08
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-265-403	U	< 2.00e-03	mg/L			1.00	2.0e-03		07/22/08
											08/25/08
ICP Metals Analysis, Grd H20 P Prep											
ICP Metals Analysis, Grd H20 P											
Aluminum	7429-90-5	LA-505-411	U	< 52.0	ug/L			1.00	52		08/31/08
Iron	7439-89-6	LA-505-411	U	< 25.0	ug/L			1.00	25		08/31/08
Magnesium	7439-95-4	LA-505-411		62.5	ug/L			1.00	50		08/31/08
Potassium	7440-09-7	LA-505-411	U	< 170	ug/L			1.00	1.7e+02		08/31/08
Sodium	7440-23-5	LA-505-411		142	ug/L			1.00	51		08/31/08
Calcium	7440-70-2	LA-505-411		251	ug/L			1.00	73		08/31/08
Lithium	7439-93-2	LA-505-411	NU	< 4.00	ug/L			1.00	4.0		08/31/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		08/31/08
Boron	7440-42-8	LA-505-411	U	< 20.0	ug/L			1.00	20		08/31/08
Silicon	7440-21-3	LA-505-411		90.5	ug/L			1.00	26		08/31/08
Phosphorus	7723-14-0	LA-505-411	U	< 44.0	ug/L			1.00	44		08/31/08
											08/11/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

N - Spike sample recovery is outside control limits.(inorg)

U - Analyzed for but not detected above limiting criteria.

X - Other flags/notes described in the comments/narrative(inorg)

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-134
Sample # W08GR02799
Client ID: B1W1B6

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081508
Department: Inorganic
Sampled: 07/21/08
Received: 07/21/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP-200.8 MS All possible meta											
Manganese	7439-98-5	LA-505-412		0.180	ug/L			1.00	0.100		08/12/08
Nickel	7440-02-0	LA-505-412	U	< 0.200	ug/L			1.00	0.200		08/12/08
Silver	7440-22-4	LA-505-412	U	< 0.100	ug/L			1.00	0.100		08/12/08
Antimony	7440-38-0	LA-505-412	U	< 0.300	ug/L			1.00	0.300		08/12/08
Barium	7440-39-3	LA-505-412	U	< 0.200	ug/L			1.00	0.200		08/12/08
Cadmium	7440-43-9	LA-505-412	U	< 0.100	ug/L			1.00	0.100		08/12/08
Chromium	7440-47-3	LA-505-412	U	< 0.500	ug/L			1.00	0.500		08/12/08
Cobalt	7440-48-4	LA-505-412	U	< 0.0500	ug/L			1.00	0.0500		08/12/08
Copper	7440-50-8	LA-505-412	U	< 0.100	ug/L			1.00	0.100		08/12/08
Vanadium	7440-62-2	LA-505-412	U	< 0.200	ug/L			1.00	0.200		08/12/08
Zinc	7440-68-6	LA-505-412	U	< 0.800	ug/L			1.00	0.800		08/12/08
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		08/12/08
Mercury	7439-97-6	LA-505-412	U	< 0.0500	ug/L			1.00	0.0500		08/12/08
Uranium	7440-61-1	LA-505-412	U	< 0.0500	ug/L			1.00	0.0500		08/12/08
Arsenic	7440-38-2	LA-505-412	U	< 0.400	ug/L			1.00	0.400		08/12/08
Selenium	7782-49-2	LA-505-412	U	< 0.300	ug/L			1.00	0.300		08/12/08
Thallium	7440-28-0	LA-505-412		0.120	ug/L			1.00	0.100		08/12/08
Strontium	7440-24-6	LA-505-412	U	< 0.100	ug/L			1.00	0.100		08/12/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

N - Spike sample recovery is outside control limits.(inorg)

U - Analyzed for but not detected above limiting criteria.

X - Other flags/notes described in the comments/narrative(inorg)

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date: 07/21/08
 Receive Date: 07/21/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	<4.69e-2		RPD			n/a	20.000	U	07/21/08
DUP	Fluoride	16984-48-8	<2.32e-2		RPD			n/a	20.000	U	07/21/08
DUP	Nitrogen in Nitrite	NO2-N	<1.28e-2		RPD			n/a	20.000	U	07/21/08
DUP	Nitrogen in Nitrate	NO3-N	<1.21e-2		RPD			n/a	20.000	U	07/21/08
DUP	Phosphate (P) by IC	PO4-P	<6.06e-2		RPD			n/a	20.000	U	07/21/08
DUP	Sulfate	14808-79-8	<0.132		RPD			n/a	20.000	U	07/21/08
MS	Chloride	16887-00-6	0.954	95.879	% Recov	80.000	120.000				07/21/08
MS	Fluoride	16984-48-8	0.4844	98.256	% Recov	80.000	120.000				07/21/08
MS	Nitrogen in Nitrite	NO2-N	0.4764	96.829	% Recov	80.000	120.000				07/21/08
MS	Nitrogen in Nitrate	NO3-N	0.4287	96.121	% Recov	80.000	120.000				07/21/08
MS	Phosphate (P) by IC	PO4-P	0.8732	91.243	% Recov	80.000	120.000				07/21/08
MS	Sulfate	14808-79-8	1.9182	97.867	% Recov	80.000	120.000				07/21/08
MSD	Chloride	16887-00-6	0.9635	96.834	% Recov	80.000	120.000				07/21/08
MSD	Fluoride	16984-48-8	0.4817	97.708	% Recov	80.000	120.000				07/21/08
MSD	Nitrogen in Nitrite	NO2-N	0.4857	98.720	% Recov	80.000	120.000				07/21/08
MSD	Nitrogen in Nitrate	NO3-N	0.4481	100.471	% Recov	80.000	120.000				07/21/08
MSD	Phosphate (P) by IC	PO4-P	0.8914	93.145	% Recov	80.000	120.000				07/21/08
MSD	Sulfate	14808-79-8	1.9342	98.684	% Recov	80.000	120.000				07/21/08
SPK-RPD	Chloride	16887-00-6	96.834		RPD			0.991	20.000		07/22/08
SPK-RPD	Fluoride	16984-48-8	97.708		RPD			0.559	20.000		07/22/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	98.720		RPD			1.934	20.000		07/22/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	100.471		RPD			4.425	20.000		07/22/08
SPK-RPD	Phosphate (P) by IC	PO4-P	93.145		RPD			2.063	20.000		07/22/08
SPK-RPD	Sulfate	14808-79-8	98.684		RPD			0.831	20.000		07/22/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
 Matrix: WATER
 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	<4.69e-2	n/a	mg/L	0.000	0.030			U	07/22/08
BLANK	Chloride	16887-00-6	<4.69e-2	n/a	mg/L	0.000	0.030			U	07/21/08
BLANK	Fluoride	16984-48-8	<2.32e-2	n/a	mg/L	0.000	0.030			U	07/22/08
BLANK	Fluoride	16984-48-8	<2.32e-2	n/a	mg/L	0.000	0.030			U	07/21/08
BLANK	Nitrogen in Nitrite	NO2-N	<1.28e-2	n/a	mg/L	0.000	0.020			U	07/21/08
BLANK	Nitrogen in Nitrite	NO2-N	<1.28e-2	n/a	mg/L	0.000	0.020			U	07/22/08
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	07/22/08
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	07/21/08
BLANK	Phosphate (P) by IC	PO4-P	<6.06e-2	n/a	mg/L	0.000	0.200			U	07/22/08
BLANK	Phosphate (P) by IC	PO4-P	<6.06e-2	n/a	mg/L	0.000	0.200			U	07/21/08
BLANK	Sulfate	14808-79-8	<0.132	n/a	mg/L	0.000	0.200			U	07/22/08
BLANK	Sulfate	14808-79-8	<0.132	n/a	mg/L	0.000	0.200			U	07/21/08
LCS	Chloride	16887-00-6	192.5136	95.778	% Recov	80.000	120.000				07/21/08
LCS	Fluoride	16984-48-8	102.8102	103.223	% Recov	80.000	120.000				07/21/08
LCS	Nitrogen in Nitrite	NO2-N	97.5075	98.096	% Recov	80.000	120.000				07/21/08
LCS	Nitrogen in Nitrate	NO3-N	89.5154	99.351	% Recov	80.000	120.000				07/21/08
LCS	Phosphate (P) by IC	PO4-P	183.5094	94.886	% Recov	80.000	120.000				07/21/08
LCS	Sulfate	14808-79-8	386.2547	97.539	% Recov	80.000	120.000				07/21/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: Cyanide by Midi/Spectrophotom

Sample Date: 07/18/08
 Receive Date: 07/18/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02687											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	40	100.000	% Recov	75.000	125.000				07/27/08
MSD	Cyanide by Midi/Spectrophotom	57-12-5	25	62.500	% Recov	75.000	125.000			*	07/27/08
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	62.500		RPD			46.154	20.000	*	07/27/08
Lab ID: W08P003521											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	27.5	68.750	% Recov	75.000	125.000			*	07/27/08
MSD	Cyanide by Midi/Spectrophotom	57-12-5	29.7	74.250	% Recov	75.000	125.000			*	07/27/08
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	74.250		RPD			7.692	20.000		07/27/08
BATCH QC											
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	< 4	n/a	ug/L	-4.000	4.000			U	07/27/08
LCS	Cyanide by Midi/Spectrophotom	57-12-5	46.2	92.400	% Recov	85.000	115.000				07/27/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: Hexavalent chromium

Sample Date: 07/21/08
 Receive Date: 07/21/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Hexavalent chromium	18540-29-9	<0.002		RPD			n/a	15.000	U	07/22/08
MS	Hexavalent chromium	18540-29-9	0.0544	101.493	% Recov	85.000	115.000				07/22/08
MSD	Hexavalent chromium	18540-29-9	0.0544	101.493	% Recov	85.000	115.000				07/22/08
SPK-RPD	Hexavalent chromium	18540-29-9	101.493		RPD			0.000	20.000		07/22/08
BATCH QC											
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	07/22/08
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	07/22/08
LCS	Hexavalent chromium	18540-29-9	0.0504	100.000	% Recov	80.000	120.000				07/22/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date: 08/07/08
 Receive Date: 08/07/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03259 BATCH QC ASSOCIATED WITH SAMPLE											
MS	Aluminum	7429-90-5	1043.5	104.350	% Recov	75.000	125.000				08/31/08
MS	Boron	7440-42-8	937.2	93.720	% Recov	70.000	130.000				08/31/08
MS	Beryllium	7440-41-7	468.1	93.620	% Recov	75.000	125.000				08/31/08
MS	Calcium	7440-70-2	1192	119.200	% Recov	75.000	125.000				08/31/08
MS	Iron	7439-89-6	978.6	97.860	% Recov	75.000	125.000				08/31/08
MS	Potassium	7440-09-7	8656	86.560	% Recov	75.000	125.000				08/31/08
MS	Lithium	7439-93-2	318.6	63.720	% Recov	70.000	130.000			•	08/31/08
MS	Magnesium	7439-95-4	872	87.200	% Recov	75.000	125.000				08/31/08
MS	Sodium	7440-23-5	-8364000	-836400.000	% Recov	75.000	125.000			•	08/31/08
MS	Phosphorus	7723-14-0	860	86.000	% Recov	70.000	130.000				08/31/08
MS	Silicon	7440-21-3	819	81.900	% Recov	70.000	130.000				08/31/08
MSD	Aluminum	7429-90-5	1010.5	101.050	% Recov	75.000	125.000				08/31/08
MSD	Boron	7440-42-8	912.2	91.220	% Recov	75.000	125.000				08/31/08
MSD	Beryllium	7440-41-7	472.6	94.520	% Recov	75.000	125.000				08/31/08
MSD	Calcium	7440-70-2	923	92.300	% Recov	75.000	125.000				08/31/08
MSD	Iron	7439-89-6	977.6	97.760	% Recov	75.000	125.000				08/31/08
MSD	Potassium	7440-09-7	9406	94.060	% Recov	75.000	125.000				08/31/08
MSD	Lithium	7439-93-2	338.9	67.780	% Recov	75.000	125.000			•	08/31/08
MSD	Magnesium	7439-95-4	1014	101.400	% Recov	75.000	125.000				08/31/08
MSD	Sodium	7440-23-5	-8364000	-836400.000	% Recov	75.000	125.000			•	08/31/08
MSD	Phosphorus	7723-14-0	5390	539.000	% Recov	75.000	125.000			•	08/31/08
MSD	Silicon	7440-21-3	1175	117.500	% Recov	75.000	125.000				08/31/08
SPK-RPD	Aluminum	7429-90-5	101.050		RPD			3.213	20.000		08/31/08
SPK-RPD	Boron	7440-42-8	91.220		RPD			2.704	20.000		08/31/08
SPK-RPD	Beryllium	7440-41-7	94.520		RPD			0.957	20.000		08/31/08
SPK-RPD	Calcium	7440-70-2	92.300		RPD			25.437	20.000	•	08/31/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date: 08/07/08
 Receive Date: 08/07/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Iron	7439-89-6	97.760		RPD			0.102	20.000		08/31/08
SPK-RPD	Potassium	7440-09-7	94.060		RPD			8.305	20.000		08/31/08
SPK-RPD	Lithium	7439-93-2	67.780		RPD			6.175	20.000		08/31/08
SPK-RPD	Magnesium	7439-95-4	101.400		RPD			15.058	20.000		08/31/08
SPK-RPD	Sodium	7440-23-5	-836400.000		RPD			-0.000	20.000		08/31/08
SPK-RPD	Phosphorus	7723-14-0	539.000		RPD			144.960	20.000 *		08/31/08
SPK-RPD	Silicon	7440-21-3	117.500		RPD			35.707	20.000 *		08/31/08

BATCH QC

BLANK	Aluminum	7429-90-5	<52	n/a	ug/L					U	08/31/08
BLANK	Boron	7440-42-8	<20	n/a	ug/L					U	08/31/08
BLANK	Beryllium	7440-41-7	<4	n/a	ug/L					U	08/31/08
BLANK	Calcium	7440-70-2	<73	n/a	ug/L					U	08/31/08
BLANK	Iron	7439-89-6	<25	n/a	ug/L					U	08/31/08
BLANK	Potassium	7440-09-7	<170	n/a	ug/L					U	08/31/08
BLANK	Lithium	7439-93-2	<4	n/a	ug/L					U	08/31/08
BLANK	Magnesium	7439-95-4	<50	n/a	ug/L					U	08/31/08
BLANK	Sodium	7440-23-5	<51	n/a	ug/L					U	08/31/08
BLANK	Phosphorus	7723-14-0	<44	n/a	ug/L					U	08/31/08
BLANK	Silicon	7440-21-3	<26	n/a	ug/L					U	08/31/08
LCS	Aluminum	7429-90-5	991.5	99.150	% Recov	80.000	120.000				08/31/08
LCS	Boron	7440-42-8	1002	100.200	% Recov	80.000	120.000				08/31/08
LCS	Beryllium	7440-41-7	542	108.400	% Recov	80.000	120.000				08/31/08
LCS	Calcium	7440-70-2	1065	108.500	% Recov	80.000	120.000				08/31/08
LCS	Iron	7439-89-6	1043	104.300	% Recov	80.000	120.000				08/31/08
LCS	Potassium	7440-09-7	10490	104.900	% Recov	80.000	120.000				08/31/08
LCS	Lithium	7439-93-2	511.6	102.320	% Recov	80.000	120.000				08/31/08
LCS	Magnesium	7439-95-4	987.7	98.770	% Recov	80.000	120.000				08/31/08
LCS	Sodium	7440-23-5	1025	102.500	% Recov	80.000	120.000				08/31/08
LCS	Phosphorus	7723-14-0	1044	104.400	% Recov	80.000	120.000				08/31/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
Matrix: WATER
Test: ICP Metals Analysis, Grd H2O P

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Silicon	7440-21-3	1026	102.600	% Recov	80.000	120.000				08/31/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: ICP-200.8 MS All possible meta

Sample Date: 07/16/08
 Receive Date: 07/17/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02623											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Arsenic	7440-38-2	40.58	101.450	% Recov	70.000	130.000				08/12/08
MS	Cadmium	7440-43-9	39.41	98.525	% Recov	70.000	130.000				08/12/08
MS	Chromium	7440-47-3	40.05	100.125	% Recov	70.000	130.000				08/12/08
MS	Mercury	7439-97-6	2.02	101.000	% Recov	70.000	130.000				08/12/08
MS	Antimony	7440-36-0	41.01	102.525	% Recov	70.000	130.000				08/12/08
MS	Thallium	7440-28-0	40.6	101.500	% Recov	70.000	130.000				08/12/08
MS	Uranium	7440-81-1	42.52	106.300	% Recov	70.000	130.000				08/12/08
MSD	Arsenic	7440-38-2	40.96	102.400	% Recov	70.000	130.000				08/12/08
MSD	Cadmium	7440-43-9	40.02	100.050	% Recov	70.000	130.000				08/12/08
MSD	Chromium	7440-47-3	41.38	103.450	% Recov	70.000	130.000				08/12/08
MSD	Mercury	7439-97-6	2.04	102.000	% Recov	70.000	130.000				08/12/08
MSD	Antimony	7440-36-0	41.84	104.600	% Recov	70.000	130.000				08/12/08
MSD	Thallium	7440-28-0	40.39	100.975	% Recov	70.000	130.000				08/12/08
MSD	Uranium	7440-81-1	42.47	106.175	% Recov	70.000	130.000				08/12/08
SPK-RPD	Arsenic	7440-38-2	102.400		RPD			0.932	20.000		08/12/08
SPK-RPD	Cadmium	7440-43-9	100.050		RPD			1.536	20.000		08/12/08
SPK-RPD	Chromium	7440-47-3	103.450		RPD			3.267	20.000		08/12/08
SPK-RPD	Mercury	7439-97-6	102.000		RPD			0.985	20.000		08/12/08
SPK-RPD	Antimony	7440-36-0	104.600		RPD			2.004	20.000		08/12/08
SPK-RPD	Thallium	7440-28-0	100.975		RPD			0.519	20.000		08/12/08
SPK-RPD	Uranium	7440-81-1	106.175		RPD			0.118	20.000		08/12/08

Lab ID: W08GR02799
BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	41.38	103.450	% Recov	70.000	130.000				08/12/08
MS	Arsenic	7440-38-2	39.42	98.550	% Recov	70.000	130.000				08/12/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: ICP-200.8 MS All possible meta

Sample Date: 07/21/08
 Receive Date: 07/21/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Barium	7440-39-3	41.48	103.700	% Recov	70.000	130.000				08/12/08
MS	Cadmium	7440-43-9	40.48	101.150	% Recov	70.000	130.000				08/12/08
MS	Cobalt	7440-48-4	41.84	104.100	% Recov	70.000	130.000				08/12/08
MS	Chromium	7440-47-3	41.32	103.300	% Recov	70.000	130.000				08/12/08
MS	Copper	7440-50-8	41.62	104.050	% Recov	70.000	130.000				08/12/08
MS	Mercury	7439-97-6	1.96	98.000	% Recov	70.000	130.000				08/12/08
MS	Manganese	7439-96-5	41.25	103.125	% Recov	70.000	130.000				08/12/08
MS	Nickel	7440-02-0	41.59	103.975	% Recov	70.000	130.000				08/12/08
MS	Lead	7439-92-1	40.3	100.750	% Recov	70.000	130.000				08/12/08
MS	Antimony	7440-36-0	40.22	100.550	% Recov	70.000	130.000				08/12/08
MS	Selenium	7782-49-2	38.18	90.450	% Recov	70.000	130.000				08/12/08
MS	Strontium	7440-24-6	39.6	99.000	% Recov	70.000	130.000				08/12/08
MS	Thallium	7440-28-0	39.62	99.050	% Recov	70.000	130.000				08/12/08
MS	Uranium	7440-81-1	40.15	100.375	% Recov	70.000	130.000				08/12/08
MS	Vanadium	7440-62-2	41.39	103.475	% Recov	70.000	130.000				08/12/08
MS	Zinc	7440-66-6	42.5	106.250	% Recov	70.000	130.000				08/12/08
MSD	Silver	7440-22-4	41.03	102.575	% Recov	70.000	130.000				08/12/08
MSD	Arsenic	7440-38-2	39.1	97.750	% Recov	70.000	130.000				08/12/08
MSD	Barium	7440-39-3	40.96	102.400	% Recov	70.000	130.000				08/12/08
MSD	Cadmium	7440-43-9	39.86	99.650	% Recov	70.000	130.000				08/12/08
MSD	Cobalt	7440-48-4	41.85	104.625	% Recov	70.000	130.000				08/12/08
MSD	Chromium	7440-47-3	41.84	104.100	% Recov	70.000	130.000				08/12/08
MSD	Copper	7440-50-8	41.96	104.900	% Recov	70.000	130.000				08/12/08
MSD	Mercury	7439-97-6	1.97	98.500	% Recov	70.000	130.000				08/12/08
MSD	Manganese	7439-96-5	41.77	104.425	% Recov	70.000	130.000				08/12/08
MSD	Nickel	7440-02-0	41.84	104.600	% Recov	70.000	130.000				08/12/08
MSD	Lead	7439-92-1	40.35	100.875	% Recov	70.000	130.000				08/12/08
MSD	Antimony	7440-36-0	40.24	100.600	% Recov	70.000	130.000				08/12/08
MSD	Selenium	7782-49-2	35.9	89.750	% Recov	70.000	130.000				08/12/08
MSD	Strontium	7440-24-6	39.52	98.800	% Recov	70.000	130.000				08/12/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: ICP-200.8 MS All possible meta

Sample Date: 07/21/08
 Receive Date: 07/21/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Thallium	7440-28-0	39.87	99.675	% Recov	70.000	130.000				08/12/08
MSD	Uranium	7440-61-1	40.17	100.425	% Recov	70.000	130.000				08/12/08
MSD	Vanadium	7440-62-2	41.94	104.850	% Recov	70.000	130.000				08/12/08
MSD	Zinc	7440-66-6	42.44	106.100	% Recov	70.000	130.000				08/12/08
SPK-RPD	Silver	7440-22-4	102.575		RPD			0.849	20.000		08/12/08
SPK-RPD	Arsenic	7440-38-2	97.750		RPD			0.815	20.000		08/12/08
SPK-RPD	Barium	7440-39-3	102.400		RPD			1.262	20.000		08/12/08
SPK-RPD	Cadmium	7440-43-9	99.650		RPD			1.494	20.000		08/12/08
SPK-RPD	Cobalt	7440-48-4	104.625		RPD			0.503	20.000		08/12/08
SPK-RPD	Chromium	7440-47-3	104.100		RPD			0.771	20.000		08/12/08
SPK-RPD	Copper	7440-50-8	104.900		RPD			0.814	20.000		08/12/08
SPK-RPD	Mercury	7439-97-6	98.500		RPD			0.509	20.000		08/12/08
SPK-RPD	Manganese	7439-96-5	104.425		RPD			1.253	20.000		08/12/08
SPK-RPD	Nickel	7440-02-0	104.600		RPD			0.599	20.000		08/12/08
SPK-RPD	Lead	7439-92-1	100.875		RPD			0.124	20.000		08/12/08
SPK-RPD	Antimony	7440-36-0	100.600		RPD			0.050	20.000		08/12/08
SPK-RPD	Selenium	7782-49-2	89.750		RPD			0.777	20.000		08/12/08
SPK-RPD	Strontium	7440-24-6	98.800		RPD			0.202	20.000		08/12/08
SPK-RPD	Thallium	7440-28-0	99.675		RPD			0.629	20.000		08/12/08
SPK-RPD	Uranium	7440-61-1	100.425		RPD			0.050	20.000		08/12/08
SPK-RPD	Vanadium	7440-62-2	104.850		RPD			1.320	20.000		08/12/08
SPK-RPD	Zinc	7440-66-6	106.100		RPD			0.141	20.000		08/12/08
BATCH QC											
BLANK	Silver	7440-22-4	<0.1	n/a	ug/L					U	08/12/08
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	08/12/08
BLANK	Barium	7440-39-3	<0.2	n/a	ug/L					U	08/12/08
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L					U	08/12/08
BLANK	Cobalt	7440-48-4	<5e-2	n/a	ug/L					U	08/12/08
BLANK	Chromium	7440-47-3	<0.5	n/a	ug/L					U	08/12/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081508
 Matrix: WATER
 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
BLANK	Copper	7440-50-8	<0.1	n/a	ug/L					U	08/12/08
BLANK	Mercury	7439-97-6	<5e-2	n/a	ug/L					U	08/12/08
BLANK	Manganese	7439-96-5	<0.1	n/a	ug/L					U	08/12/08
BLANK	Nickel	7440-02-0	<0.2	n/a	ug/L					U	08/12/08
BLANK	Lead	7439-92-1	<0.1	n/a	ug/L					U	08/12/08
BLANK	Antimony	7440-36-0	<0.3	n/a	ug/L					U	08/12/08
BLANK	Selenium	7782-49-2	<0.3	n/a	ug/L					U	08/12/08
BLANK	Strontium	7440-24-6	<0.1	n/a	ug/L					U	08/12/08
BLANK	Thallium	7440-28-0	<0.1	n/a	ug/L					U	08/12/08
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	08/12/08
BLANK	Vanadium	7440-62-2	<0.2	n/a	ug/L					U	08/12/08
BLANK	Zinc	7440-66-6	<0.8	n/a	ug/L					U	08/12/08
LCS	Silver	7440-22-4	41.39	103.475	% Recov	85.000	115.000				08/12/08
LCS	Arsenic	7440-38-2	39.86	99.650	% Recov	85.000	115.000				08/12/08
LCS	Barium	7440-39-3	40.31	100.775	% Recov	85.000	115.000				08/12/08
LCS	Cadmium	7440-43-9	39.74	99.350	% Recov	85.000	115.000				08/12/08
LCS	Cobalt	7440-48-4	40.31	100.775	% Recov	85.000	115.000				08/12/08
LCS	Chromium	7440-47-3	40.25	100.625	% Recov	85.000	115.000				08/12/08
LCS	Copper	7440-50-8	40.52	101.300	% Recov	85.000	115.000				08/12/08
LCS	Mercury	7439-97-6	1.92	96.000	% Recov	85.000	115.000				08/12/08
LCS	Manganese	7439-96-5	40.69	101.725	% Recov	85.000	115.000				08/12/08
LCS	Nickel	7440-02-0	40.68	101.700	% Recov	85.000	115.000				08/12/08
LCS	Lead	7439-92-1	40.12	100.300	% Recov	85.000	115.000				08/12/08
LCS	Antimony	7440-36-0	39.24	98.100	% Recov	85.000	115.000				08/12/08
LCS	Selenium	7782-49-2	37.6	94.000	% Recov	85.000	115.000				08/12/08
LCS	Strontium	7440-24-6	40.03	100.075	% Recov	80.000	120.000				08/12/08
LCS	Thallium	7440-28-0	39.59	98.975	% Recov	85.000	115.000				08/12/08
LCS	Uranium	7440-61-1	40.02	100.050	% Recov	85.000	115.000				08/12/08
LCS	Vanadium	7440-62-2	40.66	101.650	% Recov	85.000	115.000				08/12/08
LCS	Zinc	7440-66-6	39.66	99.150	% Recov	85.000	115.000				08/12/08

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-134

Group #: WSCF20081508
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		<p>cyanide: Sample result 9X the spike concentration. Spike recovery information not valid.</p> <p>SVOA: The surrogate, terphenyl-d14, exceeded the 20% relative percent difference (spike-rpd) control limit for the MS/MSD. cgc</p> <p>ICP-AES: No zirconium present in the LCS and spike standards.</p> <p>Sodium, calcium, silicon, and phosphorus sample results exceed spiking level by a factor of 4 so spike recoveries are not valid.</p> <p>High standard used to ensure sodium and phosphorus linearity because sample results are greater than the calibration standard.</p> <p>Low lithium spike recoveries; "N" flag.</p> <p>U-234 & U-238 batch duplicate is flagged for poor RPD due to the inhomogeneity of the sample. lmh</p> <p>U-232 (Tracer) recovery for sample W08GRO2799 is a little high. Since all the other tracers came out fine, this batch has been approved. 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: F08-134
Sample # W08GR02799
Client ID: B1W1B6

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081508
Department: Organic
Sampled: 07/21/08
Received: 07/21/08

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/L			1.00	5.0e+03		07/31/08
Ethylene glycol	107-21-1	Organics	U	< 5.00e+03	ug/L			1.00	5.0e+03		07/31/08
NWTPH-D TPH Diesel Range (Wa) Prep											
NWTPH-D TPH Diesel Range (Wa)											
Total Pet. Hydrocarbons Diesel	TPHDIESEL	LA-523-493	U	< 73.0	ug/L			1.00	73		07/28/08
Kerosene	TPHKEROSENE	LA-523-493	U	< 73.0	ug/L			1.00	73		07/28/08
SW-846 8270C Semi-Vols Prep											
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 1.10	ug/L			1.00	1.1		07/29/08
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 1.50	ug/L			1.00	1.5		07/29/08
Phenol	108-95-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 2.30	ug/L			1.00	2.3		07/29/08
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Pyrene	129-00-0	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 0.630	ug/L			1.00	0.63		07/29/08
Acenaphthene	83-32-9	LA-523-456	U	< 2.70	ug/L			1.00	2.7		07/29/08
Pentachlorophenol	87-86-5	LA-523-456	U	< 1.60	ug/L			1.00	1.6		07/29/08
2-Chlorophenol	95-57-8	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
4-Nitroaniline	100-01-6	LA-523-456	U	< 1.10	ug/L			1.00	1.1		07/29/08
4-Bromophenylphenyl ether	101-55-3	LA-523-456	U	< 1.10	ug/L			1.00	1.1		07/29/08
2,4-Dimethylphenol	105-67-9	LA-523-456	U	< 1.00	ug/L			1.00	1.0		07/29/08
4-Chloroaniline	108-47-8	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

N - Spike sample recovery is outside control limits.(inorg)

U - Analyzed for but not detected above limiting criteria.

X - Other flags/notes described in the comments/narrative(inorg)

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-134
Sample # W08GR02799
Client ID: B1W1B6

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081508
Department: Organic
Sampled: 07/21/08
Received: 07/21/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Bis(2-chloro-1-methylethyl)eth	108-60-1	LA-523-456	U	< 1.10	ug/L			1.00	1.1		07/29/08
Bis(2-chloroethyl) ether	111-44-4	LA-523-456	U	< 0.950	ug/L			1.00	0.95		07/29/08
Bis(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456	U	< 0.840	ug/L			1.00	0.84		07/29/08
Di-n-octylphthalate	117-84-0	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Hexachlorobenzene	118-74-1	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Anthracene	120-12-7	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
2,4-Dichlorophenol	120-83-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Dimethyl phthalate	131-11-3	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Dibenzofuran	132-64-9	LA-523-456	U	< 2.30	ug/L			1.00	2.3		07/29/08
Benzo(ghi)perylene	191-24-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Fluoranthene	206-44-0	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Acenaphthylene	208-96-8	LA-523-456	U	< 2.40	ug/L			1.00	2.4		07/29/08
Chrysene	218-01-9	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Benzo(a)pyrene	50-32-8	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
2,4-Dinitrophenol	51-28-5	LA-523-456	U	< 2.10	ug/L			1.00	2.1		07/29/08
Dibenz(a,h)anthracene	53-70-3	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	< 1.10	ug/L			1.00	1.1		07/29/08
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	< 1.40	ug/L			1.00	1.4		07/29/08
Benzo(a)anthracene	56-55-3	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
4-Chlorophenylphenyl ether	7005-72-3	LA-523-456	U	< 1.80	ug/L			1.00	1.8		07/29/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

N - Spike sample recovery is outside control limits.(inorg)

U - Analyzed for but not detected above limiting criteria.

X - Other flags/notes described in the comments/narrative(inorg)

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-134
Sample # W08GR02799
Client ID: B1W1B6

TRENT
WSCF

Matrix: WATER

Group #: WSCF20081508
Department: Organic
Sampled: 07/21/08
Received: 07/21/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	< 5.30	ug/L			1.00	5.3		07/29/08
Isophorone	78-59-1	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Diethylphthalate	84-66-2	LA-523-456	U	< 2.00	ug/L			1.00	2.0		07/29/08
Di-n-butylphthalate	84-74-2	LA-523-456	U	< 2.40	ug/L			1.00	2.4		07/29/08
Phenanthrene	85-01-8	LA-523-456	U	< 0.580	ug/L			1.00	0.58		07/29/08
Butylbenzylphthalate	85-68-7	LA-523-456	U	< 0.630	ug/L			1.00	0.63		07/29/08
N-Nitrosodiphenylamine	86-30-6	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Fluorene	86-73-7	LA-523-456	U	< 1.50	ug/L			1.00	1.5		07/29/08
Carbazole	86-74-8	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Hexachlorobutadiene	87-68-3	LA-523-456	U	< 2.10	ug/L			1.00	2.1		07/29/08
2-Nitroaniline	88-74-4	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
2-Nitrophenol	88-75-5	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Naphthalene	91-20-3	LA-523-456	U	< 2.20	ug/L			1.00	2.2		07/29/08
2-Methylnaphthalene	91-57-6	LA-523-456	U	< 3.20	ug/L			1.00	3.2		07/29/08
2-Chloronaphthalene	91-58-7	LA-523-456	U	< 3.70	ug/L			1.00	3.7		07/29/08
3,3'-Dichlorobenzidine	91-94-1	LA-523-456	U	< 0.840	ug/L			1.00	0.84		07/29/08
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	< 1.60	ug/L			1.00	1.6		07/29/08
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	< 0.680	ug/L			1.00	0.68		07/29/08
Nitrobenzene	98-95-3	LA-523-456	U	< 0.630	ug/L			1.00	0.63		07/29/08
3-Nitroaniline	99-09-2	LA-523-456	U	< 0.630	ug/L			1.00	0.63		07/29/08
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Hexachloroethane	67-72-1	LA-523-456	U	< 1.50	ug/L			1.00	1.5		07/29/08
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08
Tributyl phosphate	126-73-8	LA-523-456	U	< 0.530	ug/L			1.00	0.53		07/29/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-134
Sample # W08GR02799
Client ID: B1W1B6

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081508
Department: Organic
Sampled: 07/21/08
Received: 07/21/08

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		07/31/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Styrene	100-42-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Dibromochloromethane	124-48-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
1,2-Dichloroethene(Total)	540-59-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
2-Hexanone	591-78-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Bromomethane	74-83-9	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Chloromethane	74-87-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-134
Sample # W08GR02799
Client ID: B1W1B6

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081508
Department: Organic
Sampled: 07/21/08
Received: 07/21/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Chloroethane	75-00-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Bromoform	75-25-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
Bromodichloromethane	75-27-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
1,2-Dichloropropane	78-87-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		07/31/08
Trichloromonofluoromethane	75-69-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
n-Butylbenzene	104-51-8	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		07/31/08

MDL=Minimum Detection Limit

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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: WSCF20081508
 Matrix: WATER
 Test: Alcohols, Glycols - 8015

Sample Date: 07/21/08
 Receive Date: 07/21/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	2-Bromoethanol	540-51-2	17000		RPD			3.468	25.000		07/31/08
DUP	Diethyl ether	60-29-7	<5000		RPD			n/a	25.000	U	07/31/08
DUP	Ethylene glycol	107-21-1	<5000		RPD			n/a	25.000	U	07/31/08
MS	2-Bromoethanol	540-51-2	15900	90.341	% Recov	70.000	125.000				07/31/08
MS	Diethyl ether	60-29-7	7900	111.268	% Recov	75.000	125.000				07/31/08
MS	Ethylene glycol	107-21-1	11000	100.000	% Recov	75.000	125.000				07/31/08
MSD	2-Bromoethanol	540-51-2	16900	96.023	% Recov	70.000	125.000				07/31/08
MSD	Diethyl ether	60-29-7	8700	94.366	% Recov	75.000	125.000				07/31/08
MSD	Ethylene glycol	107-21-1	9100	82.727	% Recov	75.000	125.000				07/31/08
SPK-RPD	2-Bromoethanol	540-51-2	96.023		RPD			6.098	20.000		07/31/08
SPK-RPD	Diethyl ether	60-29-7	94.366		RPD			16.439	20.000		07/31/08
SPK-RPD	Ethylene glycol	107-21-1	82.727		RPD			18.906	20.000		07/31/08
BATCH QC											
BLANK	2-Bromoethanol	540-51-2	16700	94.886	% Recov	75.000	125.000				07/31/08
BLANK	Diethyl ether	60-29-7	<5000	n/a	ug/L	0.000	10.000			U	07/31/08
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/L	0.000	5.000			U	07/31/08
LCS	2-Bromoethanol	540-51-2	16900	96.023	% Recov	70.000	130.000				07/31/08
LCS	Diethyl ether	60-29-7	7000	98.592	% Recov	70.000	130.000				07/31/08
LCS	Ethylene glycol	107-21-1	9700	88.182	% Recov	70.000	130.000				07/31/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date: 07/16/08
 Receive Date: 07/16/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02619											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	ortho-Terphenyl	Surr	84-15-1	390.38	76.500	% Recov	70.000	130.000			07/28/08
MS	Total Pet. Hydrocarbons Diesel		TPHDIESEL	2496.2	97.900	% Recov	75.000	125.000			07/28/08
MSD	ortho-Terphenyl	Surr	84-15-1	365.06	71.800	% Recov	70.000	130.000			07/28/08
MSD	Total Pet. Hydrocarbons Diesel		TPHDIESEL	2801.9	110.000	% Recov	75.000	125.000			07/28/08
SPK-RPD	ortho-Terphenyl	Surr	84-15-1	71.600		RPD			6.617	20.000	07/28/08
SPK-RPD	Total Pet. Hydrocarbons Diesel		TPHDIESEL	110.000		RPD			11.640	20.000	07/28/08
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	ortho-Terphenyl	Surr	84-15-1	404.04	83.200	% Recov	70.000	130.000			07/28/08
BATCH QC											
BLANK	Kerosene		TPHKEROSENE	< 75	n/a	ug/L				U	07/28/08
BLANK	ortho-Terphenyl	Surr	84-15-1	533.50	107.000	% Recov	70.000	130.000			07/28/08
BLANK	Total Pet. Hydrocarbons Diesel		TPHDIESEL	< 75	n/a	ug/L				U	07/28/08
LCS	ortho-Terphenyl	Surr	84-15-1	436.07	87.200	% Recov	70.000	130.000			07/28/08
LCS	Total Pet. Hydrocarbons Diesel		TPHDIESEL	2428.4	97.100	% Recov	80.000	120.000			07/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: SW-846 8270C Semi-Vols

Sample Date: 07/21/08
 Receive Date: 07/21/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	2-Fluorophenol(Surr)	367-12-4	12.906	61.300	% Recov	50.000	110.000				07/29/08
SURR	2-Fluorobiphenyl(Surr)	321-60-8	18.476	87.800	% Recov	58.000	109.000				07/29/08
SURR	Nitrobenzene-d5(Surr)	4165-60-0	18.656	88.600	% Recov	60.000	118.000				07/29/08
SURR	Phenol-d5(Surr)	4165-62-2	15.947	75.700	% Recov	59.000	116.000				07/29/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	17.109	81.300	% Recov	60.000	120.000				07/29/08
SURR	Terphenyl-d14(Surr)	98904-43-9	21.286	101.000	% Recov	60.000	120.000				07/29/08
Lab ID: W08P003521											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,2,4-Trichlorobenzene	120-82-1	18.226	95.700	% Recov	50.000	120.000				07/28/08
MS	1,4-Dichlorobenzene	106-46-7	18.227	95.700	% Recov	41.000	113.000				07/28/08
MS	2,4-Dinitrotoluene	121-14-2	16.953	89.000	% Recov	65.000	109.000				07/28/08
MS	2-Fluorophenol(Surr)	367-12-4	14.466	75.900	% Recov	50.000	110.000				07/28/08
MS	Acenaphthene	83-32-9	17.746	93.200	% Recov	62.000	112.000				07/28/08
MS	4-Chloro-3-methylphenol	59-50-7	19.555	68.400	% Recov	59.000	115.000				07/28/08
MS	2-Chlorophenol	95-57-8	25.756	90.100	% Recov	69.000	111.000				07/28/08
MS	N-Nitrosodi-n-dipropylamine	621-64-7	17.905	94.000	% Recov	69.000	115.000				07/28/08
MS	2-Fluorobiphenyl(Surr)	321-60-8	17.690	92.900	% Recov	58.000	109.000				07/28/08
MS	Phenol	108-95-2	20.503	71.800	% Recov	59.000	115.000				07/28/08
MS	Nitrobenzene-d5(Surr)	4165-60-0	18.038	94.700	% Recov	60.000	118.000				07/28/08
MS	4-Nitrophenol	100-02-7	27.997	98.000	% Recov	32.000	130.000				07/28/08
MS	Pentachlorophenol	87-86-5	24.612	86.100	% Recov	51.000	121.000				07/28/08
MS	Phenol-d5(Surr)	4165-62-2	15.218	79.900	% Recov	59.000	116.000				07/28/08
MS	Pyrene	129-00-0	18.899	99.200	% Recov	58.000	116.000				07/28/08
MS	2,4,6-Tribromophenol(Surr)	118-79-6	16.555	86.900	% Recov	60.000	120.000				07/28/08
MS	Terphenyl-d14(Surr)	98904-43-9	13.945	73.200	% Recov	60.000	120.000				07/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20081508
 Matrix: WATER
 Test: SW-846 8270C Semi-Vols

Sample Date: 07/15/08
 Receive Date: 07/15/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	1,2,4-Trichlorobenzene	120-82-1	18.229	95.700	% Recov	50.000	120.000				07/28/08
MSD	1,4-Dichlorobenzene	106-46-7	17.732	93.100	% Recov	41.000	113.000				07/28/08
MSD	2,4-Dinitrotoluene	121-14-2	17.154	90.100	% Recov	65.000	109.000				07/28/08
MSD	2-Fluorophenol(Surr)	367-12-4	12.408	65.100	% Recov	50.000	110.000				07/28/08
MSD	Acenaphthene	83-32-9	17.803	93.500	% Recov	62.000	112.000				07/28/08
MSD	4-Chloro-3-methylphenol	59-50-7	21.119	73.900	% Recov	59.000	115.000				07/28/08
MSD	2-Chlorophenol	95-57-8	24.318	85.100	% Recov	69.000	111.000				07/28/08
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	17.682	92.800	% Recov	69.000	115.000				07/28/08
MSD	2-Fluorobiphenyl(Surr)	321-60-8	18.084	94.900	% Recov	58.000	109.000				07/28/08
MSD	Phenol	108-95-2	20.684	72.400	% Recov	59.000	115.000				07/28/08
MSD	Nitrobenzene-d5(Surr)	4165-60-0	18.764	98.500	% Recov	60.000	118.000				07/28/08
MSD	4-Nitrophenol	100-02-7	29.448	103.000	% Recov	32.000	130.000				07/28/08
MSD	Pentachlorophenol	87-86-5	27.161	95.100	% Recov	51.000	121.000				07/28/08
MSD	Phenol-d5(Surr)	4165-62-2	15.457	81.100	% Recov	59.000	116.000				07/28/08
MSD	Pyrene	129-00-0	19.509	102.000	% Recov	58.000	116.000				07/28/08
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	18.174	95.400	% Recov	60.000	120.000				07/28/08
MSD	Terphenyl-d14(Surr)	98904-43-9	19.632	103.000	% Recov	60.000	120.000				07/28/08
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	95.700		RPD			0.000	25.000		07/28/08
SPK-RPD	1,4-Dichlorobenzene	106-46-7	93.100		RPD			2.754	25.000		07/28/08
SPK-RPD	2,4-Dinitrotoluene	121-14-2	90.100		RPD			1.228	25.000		07/28/08
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	65.100		RPD			15.319	25.000		07/28/08
SPK-RPD	Acenaphthene	83-32-9	93.500		RPD			0.321	25.000		07/28/08
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	73.900		RPD			7.730	25.000		07/28/08
SPK-RPD	2-Chlorophenol	95-57-8	85.100		RPD			5.708	25.000		07/28/08
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	92.800		RPD			1.285	25.000		07/28/08
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	94.900		RPD			2.130	25.000		07/28/08
SPK-RPD	Phenol	108-95-2	72.400		RPD			0.832	16.000		07/28/08
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	98.500		RPD			3.934	25.000		07/28/08
SPK-RPD	4-Nitrophenol	100-02-7	103.000		RPD			4.975	25.000		07/28/08
SPK-RPD	Pentachlorophenol	87-86-5	95.100		RPD			9.934	25.000		07/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20081508
 Matrix: WATER
 Test: SW-846 8270C Semi-Vols

Sample Date: 07/15/08
 Receive Date: 07/15/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Phenol-d5(Surr)	4165-82-2	81.100		RPD			1.491	25.000		07/28/08
SPK-RPD	Pyrene	129-00-0	102.000		RPD			2.783	25.000		07/28/08
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	95.400		RPD			9.325	25.000		07/28/08
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	103.000		RPD			33.825	25.000		07/28/08

BATCH QC

BLANK	1,2-Dichlorobenzene	95-50-1	< 1.5	n/a	ug/L					U	07/28/08
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 2.2	n/a	ug/L					U	07/28/08
BLANK	1,3-Dichlorobenzene	541-73-1	< 1.3	n/a	ug/L					U	07/28/08
BLANK	1,4-Dichlorobenzene	106-46-7	< 1.4	n/a	ug/L					U	07/28/08
BLANK	2,4-Dichlorophenol	120-83-2	< 0.50	n/a	ug/L					U	07/28/08
BLANK	2,4-Dinitrotoluene	121-14-2	< 0.50	n/a	ug/L					U	07/28/08
BLANK	2,4,5-Trichlorophenol	95-95-4	< 0.65	n/a	ug/L					U	07/28/08
BLANK	2,4,6-Trichlorophenol	88-06-2	< 0.50	n/a	ug/L					U	07/28/08
BLANK	2,4-Dimethylphenol	105-67-9	< 0.95	n/a	ug/L					U	07/28/08
BLANK	2,6-Dinitrotoluene	606-20-2	< 0.50	n/a	ug/L					U	07/28/08
BLANK	2-Chloronaphthalene	91-58-7	< 3.5	n/a	ug/L					U	07/28/08
BLANK	2-Fluorophenol(Surr)	367-12-4	15.628	78.100	% Recov	50.000	110.000				07/28/08
BLANK	2-Methylnaphthalene	91-57-6	< 3.0	n/a	ug/L					U	07/28/08
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 0.50	n/a	ug/L					U	07/28/08
BLANK	2-Nitroaniline	88-74-4	< 0.50	n/a	ug/L					U	07/28/08
BLANK	2-Nitrophenol	88-75-5	< 0.50	n/a	ug/L					U	07/28/08
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 0.50	n/a	ug/L	0.000	5.000			U	07/28/08
BLANK	3-Nitroaniline	99-09-2	< 0.60	n/a	ug/L					U	07/28/08
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 1.0	n/a	ug/L					U	07/28/08
BLANK	4-Bromophenylphenyl ether	101-55-3	< 1.0	n/a	ug/L					U	07/28/08
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 1.7	n/a	ug/L					U	07/28/08
BLANK	Acenaphthene	83-32-9	< 2.6	n/a	ug/L					U	07/28/08
BLANK	Acenaphthylene	208-96-8	< 2.3	n/a	ug/L					U	07/28/08
BLANK	Anthracene	120-12-7	< 0.50	n/a	ug/L					U	07/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: SW-846 8270C Semi-Vols

Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Bis(2-chloroethyl) ether	111-44-4	< 0.90	n/a	ug/L					U	07/28/08
BLANK	Benzo(a)anthracene	56-55-3	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Benzo(b)fluoranthene	205-99-2	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Benzo(ghi)perylene	191-24-2	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Benzo(a)pyrene	50-32-8	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 0.80	n/a	ug/L					U	07/28/08
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 1.0	n/a	ug/L	0.000	10.000			U	07/28/08
BLANK	Benzo(k)fluoranthene	207-08-9	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Butylbenzylphthalate	85-68-7	< 0.60	n/a	ug/L					U	07/28/08
BLANK	Carbazole	86-74-8	< 0.50	n/a	ug/L					U	07/28/08
BLANK	4-Chloroaniline	106-47-8	< 0.50	n/a	ug/L					U	07/28/08
BLANK	4-Chloro-3-methylphenol	59-50-7	< 0.50	n/a	ug/L					U	07/28/08
BLANK	2-Chlorophenol	95-57-8	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Chrysene	218-01-9	< 0.50	n/a	ug/L					U	07/28/08
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 0.80	n/a	ug/L					U	07/28/08
BLANK	Dibenz(a,h)anthracene	53-70-3	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Dibenzofuran	132-64-9	< 2.2	n/a	ug/L					U	07/28/08
BLANK	Di-n-butylphthalate	84-74-2	< 2.3	n/a	ug/L					U	07/28/08
BLANK	Diethylphthalate	84-66-2	< 1.9	n/a	ug/L					U	07/28/08
BLANK	Dimethyl phthalate	131-11-3	< 0.50	n/a	ug/L					U	07/28/08
BLANK	2,4-Dinitrophenol	51-28-5	< 2.0	n/a	ug/L					U	07/28/08
BLANK	Di-n-octylphthalate	117-84-0	< 0.50	n/a	ug/L					U	07/28/08
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 0.60	n/a	ug/L					U	07/28/08
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	19.610	98.000	% Recov	58.000	109.000				07/28/08
BLANK	Fluorene	86-73-7	< 1.4	n/a	ug/L					U	07/28/08
BLANK	Fluoranthene	206-44-0	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Hexachlorobenzene	118-74-1	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Hexachlorobutadiene	87-68-3	< 2.0	n/a	ug/L					U	07/28/08
BLANK	Hexachlorocyclopentadiene	77-47-4	< 5.0	n/a	ug/L					U	07/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: SW-846 8270C Semi-Vols

Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Hexachloroethane	67-72-1	< 1.4	n/a	ug/L					U	07/28/08
BLANK	Indeno(1,2,3-cd)pyrene	193-39-5	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Isophorone	78-59-1	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Phenol	108-95-2	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Naphthalene	91-20-3	< 2.1	n/a	ug/L					U	07/28/08
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	19.569	97.800	% Recov	60.000	118.000				07/28/08
BLANK	Nitrobenzene	98-95-3	< 0.60	n/a	ug/L					U	07/28/08
BLANK	4-Nitrophenol	100-02-7	< 1.0	n/a	ug/L					U	07/28/08
BLANK	4-Nitroaniline	100-01-6	< 1.0	n/a	ug/L					U	07/28/08
BLANK	N-Nitrosodiphenylamine	86-30-6	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Pentachlorophenol	87-86-5	< 1.5	n/a	ug/L					U	07/28/08
BLANK	Phenanthrene	85-01-8	< 0.55	n/a	ug/L					U	07/28/08
BLANK	Phenol-d5(Surr)	4165-62-2	17.973	89.900	% Recov	59.000	118.000				07/28/08
BLANK	Pyrene	129-00-0	< 0.50	n/a	ug/L					U	07/28/08
BLANK	Tributyl phosphate	126-73-8	< 0.50	n/a	ug/L					U	07/28/08
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	17.563	87.800	% Recov	60.000	120.000				07/28/08
BLANK	Terphenyl-d14(Surr)	98904-43-9	21.016	105.000	% Recov	60.000	120.000				07/28/08
LCS	1,2,4-Trichlorobenzene	120-82-1	18.737	93.700	% Recov	46.000	107.000				07/28/08
LCS	1,4-Dichlorobenzene	106-48-7	18.444	92.200	% Recov	42.000	111.000				07/28/08
LCS	2,4-Dinitrotoluene	121-14-2	17.917	89.800	% Recov	59.000	106.000				07/28/08
LCS	2-Fluorophenol(Surr)	367-12-4	16.202	81.000	% Recov	50.000	110.000				07/28/08
LCS	Acenaphthene	83-32-9	18.875	94.400	% Recov	61.000	116.000				07/28/08
LCS	4-Chloro-3-methylphenol	59-50-7	26.833	89.400	% Recov	61.000	106.000				07/28/08
LCS	2-Chlorophenol	95-57-8	26.965	89.900	% Recov	66.000	106.000				07/28/08
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	18.542	92.700	% Recov	71.000	114.000				07/28/08
LCS	2-Fluorobiphenyl(Surr)	321-60-8	18.810	94.000	% Recov	58.000	109.000				07/28/08
LCS	Phenol	108-95-2	24.077	80.300	% Recov	67.000	105.000				07/28/08
LCS	Nitrobenzene-d5(Surr)	4165-60-0	19.683	98.400	% Recov	60.000	118.000				07/28/08
LCS	4-Nitrophenol	100-02-7	26.594	88.600	% Recov	32.000	118.000				07/28/08
LCS	Pentachlorophenol	87-86-5	27.679	92.300	% Recov	62.000	114.000				07/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: SW-846 8270C Semi-Vols

Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Phenol-d5(Surr)	4165-62-2	18.416	92.100	% Recov	59.000	116.000				07/28/08
LCS	Pyrene	129-00-0	20.857	104.000	% Recov	66.000	118.000				07/28/08
LCS	2,4,6-Tribromophenol(Surr)	118-79-6	17.865	89.300	% Recov	60.000	120.000				07/28/08
LCS	Terphenyl-d14(Surr)	98904-43-9	21.387	107.000	% Recov	60.000	120.000				07/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20081508
 Matrix: WATER
 Test: VOA Ground Water Protection

Sample Date: 07/18/08
 Receive Date: 07/18/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02686											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,1-Dichloroethene	75-35-4	23.020	92.100	% Recov	63.000	117.000				07/30/08
MS	Benzene	71-43-2	23.780	95.100	% Recov	75.000	129.000				07/30/08
MS	4-Bromofluorobenzene(Surr)	460-00-4	47.400	94.800	% Recov	75.000	125.000				07/30/08
MS	Chlorobenzene	108-90-7	24.280	97.100	% Recov	79.000	119.000				07/30/08
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.620	107.000	% Recov	75.000	125.000				07/30/08
MS	Toluene-d8(Surr)	2037-26-5	48.000	96.000	% Recov	75.000	125.000				07/30/08
MS	Toluene	108-88-3	23.520	94.100	% Recov	76.000	120.000				07/30/08
MS	Trichloroethene	79-01-6	20.430	81.700	% Recov	73.000	123.000				07/30/08
MSD	1,1-Dichloroethene	75-35-4	22.140	88.600	% Recov	63.000	117.000				07/30/08
MSD	Benzene	71-43-2	24.080	96.300	% Recov	75.000	129.000				07/30/08
MSD	4-Bromofluorobenzene(Surr)	460-00-4	46.670	93.300	% Recov	75.000	125.000				07/30/08
MSD	Chlorobenzene	108-90-7	24.520	98.100	% Recov	79.000	119.000				07/30/08
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.610	105.000	% Recov	75.000	125.000				07/30/08
MSD	Toluene-d8(Surr)	2037-26-5	47.380	94.800	% Recov	75.000	125.000				07/30/08
MSD	Toluene	108-88-3	23.920	95.700	% Recov	76.000	120.000				07/30/08
MSD	Trichloroethene	79-01-6	20.170	80.700	% Recov	73.000	123.000				07/30/08
SPK-RPD	1,1-Dichloroethene	75-35-4	88.600		RPD			3.874	20.000		07/30/08
SPK-RPD	Benzene	71-43-2	96.300		RPD			1.254	20.000		07/30/08
SPK-RPD	4-Bromofluorobenzene(Surr)	460-00-4	93.300		RPD			1.595	20.000		07/30/08
SPK-RPD	Chlorobenzene	108-90-7	98.100		RPD			1.025	20.000		07/30/08
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	105.000		RPD			1.887	20.000		07/30/08
SPK-RPD	Toluene-d8(Surr)	2037-26-5	94.800		RPD			1.258	20.000		07/30/08
SPK-RPD	Toluene	108-88-3	95.700		RPD			1.686	20.000		07/30/08
SPK-RPD	Trichloroethene	79-01-6	80.700		RPD			1.232	20.000		07/30/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081508
 Matrix: WATER
 Test: VOA Ground Water Protection

Sample Date: 07/21/08
 Receive Date: 07/21/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	47.660	95.300	% Recov	75.000	125.000				07/31/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.870	106.000	% Recov	75.000	125.000				07/31/08
SURR	Toluene-d8(Surr)	2037-26-5	47.700	95.400	% Recov	75.000	125.000				07/31/08
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L					U	07/30/08
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L					U	07/30/08
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L					U	07/30/08
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/L	0.000	5.000			U	07/30/08
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L					U	07/30/08
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L					U	07/30/08
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/L					U	07/30/08
BLANK	1-Butanol	71-36-3	< 100	n/a	ug/L					U	07/30/08
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/L					U	07/30/08
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L					U	07/30/08
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	47.100	94.200	% Recov	75.000	125.000				07/30/08
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/L					U	07/30/08
BLANK	n-Butylbenzene	104-51-8	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L					U	07/30/08
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 1.0	n/a	ug/L					U	07/30/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20081508
 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	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/L					U	07/30/08
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.120	106.000	% Recov	75.000	125.000				07/30/08
BLANK	trans-1,2-Dichloroethylene	156-60-5	< 1.0	n/a	ug/L					U	07/30/08
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/L					U	07/30/08
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	0.000	5.000			U	07/30/08
BLANK	Toluene-d8(Surr)	2037-26-5	47.550	95.100	% Recov	75.000	125.000				07/30/08
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L					U	07/30/08
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Trichloromonofluoromethane	75-69-4	< 1.0	n/a	ug/L	0.000	5.000			U	07/30/08
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L					U	07/30/08
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L					U	07/30/08
LCS	1,1-Dichloroethene	75-35-4	21.760	87.000	% Recov	75.000	125.000				07/31/08
LCS	Benzene	71-43-2	24.040	96.200	% Recov	75.000	125.000				07/31/08
LCS	4-Bromofluorobenzene(Surr)	460-00-4	48.240	96.500	% Recov	75.000	125.000				07/31/08
LCS	Chlorobenzene	108-90-7	24.250	97.000	% Recov	75.000	125.000				07/31/08
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.120	104.000	% Recov	75.000	125.000				07/31/08
LCS	Toluene-d8(Surr)	2037-26-5	48.440	96.900	% Recov	75.000	125.000				07/31/08
LCS	Toluene	108-88-3	23.750	95.000	% Recov	75.000	125.000				07/31/08
LCS	Trichloroethene	79-01-6	19.410	77.600	% Recov	75.000	125.000				07/31/08

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-134

Group #: WSCF20081508
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		<p>cyanide: Sample result 9X the spike concentration. Spike recovery information not valid.</p> <p>SVOA: The surrogate, terphenyl-d14, exceeded the 20% relative percent difference (spike-rpd) control limit for the MS/MSD. cgc</p> <p>ICP-AES: No zirconium present in the LCS and spike standards.</p> <p>Sodium, calcium, silicon, and phosphorus sample results exceed spiking level by a factor of 4 so spike recoveries are not valid.</p> <p>High standard used to ensure sodium and phosphorus linearity because sample results are greater than the calibration standard.</p> <p>Low lithium spike recoveries; "N" flag.</p> <p>U-234 & U-238 batch duplicate is flagged for poor RPD due to the inhomogeneity of the sample. Imh</p> <p>U-232 (Tracer) recovery for sample W08GR02799 is a little high. Since all the other tracers came out fine, this batch has been approved. 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 ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-134
Sample # W08GR02799
Client ID: B1W1B6

**TRENT
WSCF**

Matrix: WATER

Group #: WSCF20081508
Department: Radiochemistry
Sampled: 07/21/08
Received: 07/21/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Americium by AEA											
Americium-241	14596-10-2	LA-508-471	U	0.0100	pCi/L	+ -0.0707	pCi/L	1.00	0.13		09/11/08
Am-243 tracer by AEA	AM243	LA-508-471		10.0	pCi/L			1.00	0.066		09/11/08
Gamma Energy Analysis-grd H2O											
Antimony-125	14234-35-6	LA-508-481	U	4.33	pCi/L	+ -11.9	pCi/L	1.00	21		07/25/08
Cobalt-60	10198-40-0	LA-508-481	U	-3.72	pCi/L	+ -3.99	pCi/L	1.00	6.5		07/25/08
Cesium-137	10045-97-3	LA-508-481	U	2.47	pCi/L	+ -4.16	pCi/L	1.00	7.6		07/25/08
Europium-152	14683-23-9	LA-508-481	U	-2.44	pCi/L	+ -11.9	pCi/L	1.00	20		07/25/08
Europium-154	15585-10-1	LA-508-481	U	1.70	pCi/L	+ -9.64	pCi/L	1.00	18		07/25/08
Europium-155	14391-16-3	LA-508-481	U	-0.374	pCi/L	+ -3.74	pCi/L	1.00	22		07/25/08
Gross Alpha/Gross Beta (AB32)											
Gross alpha	12587-46-1	LA-508-415	U	0.350	pCi/L	+ -1.86	pCi/L	1.00	3.4		08/05/08
Gross beta	12587-47-2	LA-508-415		15.0	pCi/L	+ -4.50	pCi/L	1.00	6.0		08/05/08
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	-0.0310	pCi/L	+ -0.0763	pCi/L	1.00	0.14		09/10/08
Pu-239/240 by AEA	PU-239/240	LA-508-471	U	0.0180	pCi/L	+ -0.0225	pCi/L	1.00	0.033		09/10/08
Pu-242 tracer by AEA	PU242	LA-508-471		16.0	pCi/L			1.00	0.048		09/10/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-3.50	pCi/L	+ -3.50	pCi/L	1.00	0.91		07/30/08
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		95.8	Percent			1.00	0.0		07/30/08
TC99 by ICP-200.8 MS											
Technetium by ICP-MS	14133-76-7	LA-505-412		1.30e-03	ug/L			1.00	1.0e-03		08/01/08
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421	U	0.600	pCi/L	+ -3.55	pCi/L	1.00	6.0		08/15/08
Tritium by Liq Sct column prep											

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

N - Spike sample recovery is outside control limits.(inorg)

U - Analyzed for but not detected above limiting criteria.

X - Other flags/notes described in the comments/narrative(inorg)

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-134
Sample # W08GR02799
Client ID: B1W1B6

TRENT
 WSCF

Matrix: WATER

Group #: WSCF20081508
Department: Radiochemistry
Sampled: 07/21/08
Received: 07/21/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium	10028-17-8	LA-508-421	U	-110	pCi/L	+ -110	pCi/L	1.00	2.7e+02		08/07/08
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		0.530	pCi/L	+ -0.164	pCi/L	1.00	0.030		09/09/08
Uranium-235	15117-96-1	LA-508-471		0.0440	pCi/L	+ -0.0299	pCi/L	1.00	0.012		09/09/08
Uranium-238	U-238	LA-508-471		0.500	pCi/L	+ -0.155	pCi/L	1.00	0.030		09/09/08
U-232 tracer by AEA	U232	LA-508-471		10.0	pCi/L			1.00	0.073		09/09/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

N - Spike sample recovery is outside control limits.(inorg)

U - Analyzed for but not detected above limiting criteria.

X - Other flags/notes described in the comments/narrative(inorg)

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

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

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number: F08-134 :F08-134

Group #: WSCF20081508
Department: Radiochemistry

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W08GR02799	B1W1B6	TRENT	Gamma Energy Analysis-grd H2O	BI-214			56	pCi/L
W08GR02799	B1W1B6	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error			33	%
W08GR02799	B1W1B6	TRENT	Gamma Energy Analysis-grd H2O	RA-226			48	pCi/L
W08GR02799	B1W1B6	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error			44	%

RQ=Result Qualifier

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Groundwater Remediation Program

WGPE v 5.2 Report#: WSCF20081508

Report Date: 12-sep-2008

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081508
 Matrix: WATER
 Test: Americium by AEA

Sample Date: 07/16/08
 Receive Date: 07/17/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02623											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Americium-241	14596-10-2	U-4.1e-2		RPD			n/a	20.000		09/10/08
DUP	Am-243 tracer by AEA	AM243	10.01	70.770	% Recov	30.000	105.000				09/10/08
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Am-243 tracer by AEA	AM243	10.01	87.700	% Recov	30.000	105.000				09/11/08
BATCH QC											
BLANK	Americium-241	14596-10-2	U1.4e-2	n/a	pCi/L	-10.000	1000.000				09/10/08
BLANK	Am-243 tracer by AEA	AM243	10.01	59.080	% Recov	30.000	105.000				09/10/08
LCS	Americium-241	14596-10-2	13.3	112.236	% Recov	80.000	120.000				09/10/08
LCS	Am-243 tracer by AEA	AM243	10.01	59.871	% Recov	30.000	105.000				09/10/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081508
 Matrix: WATER
 Test: Gamma Energy Analysis-grd H2O

Sample Date: 07/21/08
 Receive Date: 07/21/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Cobalt-60	10198-40-0	U0.6886		RPD			n/a	20.000		07/28/08
DUP	Cesium-137	10045-97-3	U3.411		RPD			n/a	20.000		07/28/08
DUP	Europium-152	14683-23-9	U-5.474		RPD			n/a	20.000		07/28/08
DUP	Europium-154	15585-10-1	U-8.046		RPD			n/a	20.000		07/28/08
DUP	Europium-155	14391-16-3	U-5.275		RPD			n/a	20.000		07/28/08
DUP	Antimony-125	14234-35-6	U-7.702		RPD			n/a	20.000		07/28/08
BATCH QC											
BLANK	Cobalt-60	10198-40-0	U-0.8623	n/a	pCi/L	-10.000	1000.000				07/29/08
BLANK	Cesium-137	10045-97-3	U-4.206	n/a	pCi/L	-10.000	1000.000				07/29/08
BLANK	Europium-152	14683-23-9	U1.122	n/a	pCi/L	-10.000	1000.000				07/29/08
BLANK	Europium-154	15585-10-1	U2.975	n/a	pCi/L	-10.000	1000.000				07/29/08
BLANK	Europium-155	14391-16-3	U6.486	n/a	pCi/L	-10.000	1000.000				07/29/08
BLANK	Antimony-125	14234-35-6	U-7.202	n/a	pCi/L	-10.000	1000.000				07/29/08
LCS	Cobalt-60	10198-40-0	10400	104.628	% Recov	80.000	120.000				07/25/08
LCS	Cesium-137	10045-97-3	6480	107.285	% Recov	80.000	120.000				07/25/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081508
 Matrix: WATER
 Test: Gross Alpha/Gross Beta (AB32)

Sample Date: 07/24/08
 Receive Date: 07/24/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02900											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross alpha	12587-46-1	U-1.3E+01		RPD			n/a	20.000		08/05/08
DUP	Gross beta	12587-47-2	1.3E+02		RPD			16.667	20.000		08/05/08
BATCH QC											
BLANK	Gross alpha	12587-46-1	U-5.2E-01	n/a	pCi/L	-10.000	10.000				08/05/08
BLANK	Gross beta	12587-47-2	U-1.1E-01	n/a	pCi/L	-10.000	10.000				08/05/08
LCS	Gross alpha	12587-46-1	149.0	96.160	% Recov	80.000	120.000				08/05/08
LCS	Gross beta	12587-47-2	484	107.879	% Recov	80.000	120.000				08/05/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081508
 Matrix: WATER
 Test: Plutonium Isotopics by AEA

Sample Date: 07/16/08
 Receive Date: 07/17/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02623											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Plutonium-238	13981-16-3	U-1.7e-2		RPD			n/a	20.000		09/09/08
DUP	Pu-239/240 by AEA	PU-239/240	U1.3e-2		RPD			n/a	20.000		09/09/08
DUP	Pu-242 tracer by AEA	PU242	15.59	95.780	% Recov	30.000	105.000				09/09/08
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Pu-242 tracer by AEA	PU242	15.59	94.230	% Recov	30.000	105.000				09/10/08
BATCH QC											
BLANK	Plutonium-238	13981-16-3	U1.4e-2	n/a	pCi/L	-10.000	1000.000				09/09/08
BLANK	Pu-239/240 by AEA	PU-239/240	U1.4e-2	n/a	pCi/L	-10.000	1000.000				09/09/08
BLANK	Pu-242 tracer by AEA	PU242	15.59	87.210	% Recov	30.000	105.000				09/09/08
LCS	Pu-239/240 by AEA	PU-239/240	12.39	96.458	% Recov	80.000	120.000				09/09/08
LCS	Pu-242 tracer by AEA	PU242	17.3	97.780	% Recov	30.000	105.000				09/09/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081508
 Matrix: WATER
 Test: Strontium 89/90

Sample Date: 07/16/08
 Receive Date: 07/17/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02623											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	93.5	93.500	% Recov	30.000	105.000				07/30/08
DUP	Strontium-89/90	SR-RAD	U-4.1		RPD			n/a	20.000		07/30/08
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	95.8	95.800	% Recov	30.000	105.000				07/30/08
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	87.5	87.500	% Recov	30.000	105.000				07/30/08
BLANK	Strontium-89/90	10098-97-2	U-8.6E-01	n/a	pCi/L	-10.000	100.000				07/30/08
LCS	Sr-85 Tracer by Beta Counting	SR85	87	87.000	% Recov	30.000	105.000				07/30/08
LCS	Strontium-89/90	10098-97-2	153	110.231	% Recov	80.000	120.000				07/30/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081508
 Matrix: WATER
 Test: TC99 by ICP-200.8 MS

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	Technetium by ICP-MS	14133-76-7	< 1e-3	n/a	ug/L					U	08/01/08
LCS	Technetium by ICP-MS	14133-76-7	0.14	97.902	% Recov	49.000	125.000				08/01/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081508
 Matrix: WATER
 Test: TC99 by Liquid Scin.

Sample Date: 07/25/08
 Receive Date: 07/25/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02926											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tc-99 by Liquid Scin.	14133-76-7	U0.9		RPD			n/a	20.000		08/15/08
MS	Tc-99 by Liquid Scin.	14133-76-7	815.9	108.461	% Recov	75.000	125.000				08/15/08
BATCH QC											
BLANK	Tc-99 by Liquid Scin.	14133-76-7	U-1.9	n/a	pCi/L	-10.000	10.000				08/15/08
LCS	Tc-99 by Liquid Scin.	14133-76-7	200.6	106.645	% Recov	80.000	120.000				08/15/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081508
 Matrix: WATER
 Test: Tritium by Liq Sct column prep

Sample Date: 06/25/08
 Receive Date: 06/25/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR01840 BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	U-5.0E+01		RPD			n/a	20.000		08/07/08
MS	Tritium	10028-17-8	23850.5	92.866	% Recov	75.000	125.000				08/07/08
BATCH QC											
BLANK	Tritium	10028-17-8	U-9.7E+01	n/a	pCi/L	-10.000	1000.000				08/07/08
LCS	Tritium	10028-17-8	2760.0	81.074	% Recov	80.000	120.000				08/07/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081508
 Matrix: WATER
 Test: Uranium Isotopics by AEA

Sample Date: 07/16/08
 Receive Date: 07/17/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR02623											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	U-232 tracer by AEA	U232	10.22	100.190	% Recov	30.000	105.000				09/09/08
DUP	Uranium-233/234	U-233/234	0.66		RPD			20.408	20.000		09/09/08
DUP	Uranium-235	15117-96-1	U8.9e-3		RPD			n/a	20.000		09/09/08
DUP	Uranium-238	U-238	0.29		RPD			47.368	20.000		09/09/08
Lab ID: W08GR02799											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	U-232 tracer by AEA	U232	10.22	106.090	% Recov	30.000	105.000				09/09/08
BATCH QC											
BLANK	U-232 tracer by AEA	U232	10.22	100.650	% Recov	30.000	105.000				09/09/08
BLANK	Uranium-233/234	13966-29-5	4.7e-2	0.047	pCi/L	-10.000	1000.000				09/09/08
BLANK	Uranium-235	15117-96-1	1.8e-2	0.018	pCi/L	-10.000	1000.000				09/09/08
BLANK	Uranium-238	24678-82-8	1.3e-2	0.013	pCi/L	-10.000	1000.000				09/09/08
LCS	U-232 tracer by AEA	U232	11.35	77.670	% Recov	30.000	105.000				09/09/08
LCS	Uranium-233/234	13966-29-5	N/A	n/a	% Recov	75.000	125.000				09/09/08
LCS	Uranium-238	24678-82-8	19.97	105.355	% Recov	80.000	120.000				09/09/08

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-134

Group #: WSCF20081508
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		<p>cyanide: Sample result 9X the spike concentration. Spike recovery information not valid.</p> <p>SVOA: The surrogate, terphenyl-d14, exceeded the 20% relative percent difference (spike-rpd) control limit for the MS/MSD. cgc</p> <p>ICP-AES: No zirconium present in the LCS and spike standards.</p> <p>Sodium, calcium, silicon, and phosphorus sample results exceed spiking level by a factor of 4 so spike recoveries are not valid.</p> <p>High standard used to ensure sodium and phosphorus linearity because sample results are greater than the calibration standard.</p> <p>Low lithium spike recoveries; "N" flag.</p> <p>U-234 & U-238 batch duplicate is flagged for poor RPD due to the inhomogeneity of the sample. Imh</p> <p>U-232 (Tracer) recovery for sample W08GR02799 is a little high. Since all the other tracers came out fine, this batch has been approved. 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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M4W41-SLF-08-1007

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 5 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

ACKNOWLEDGMENT OF SAMPLES RECEIVED

09/03/08
ST

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 123517/ES10
Group#: 20081508
Project#: F08-134
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 07/21/08. 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
W08GR02799	B1W1B6	TRENT @2008 @AEA-32 @SVOCGPP CR+6	Water @AB-32 @GPP6010 @TC99-MS	07/21/08 @AEA-30 @AEA-31 @H3-33 @IC-30 @SR89 @TPHD-WA @VOA-GPP CN-02

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
@GEA-GPP	Gamma Energy Analysis-grd H2O
@GPP6010	ICP Metals Analysis, Grd H2O P
@H3-33	Tritium by Liq Sct column prep
@IC-30	Anions by Ion Chromatography
@SR89_90	Strontium 89/90
@SVOCGPP	SW-846 8270C Semi-Vols
@TC99-30	TC99 by Liquid Scin.
@TC99-MS	TC99 by ICP-200.8 MS
@TPHD-WA	NWTPH-D TPH Diesel Range (Wa)
@VOA-GPP	VOA Ground Water Protection
CN-02	Cyanide by Midi/Spectrophotom
CR+6	Hexavalent chromium

COLLECTOR Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C5862, EB-1-013	PROJECT DESIGNATION 200-BP-5 OU Characterization of Well 699-52-55B ("H") - QC Sampling		SAF NO. F08-134	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO. HANF-N-488-1	ACTUAL SAMPLE DEPTH N/A	COA 123517E510	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization 20081508	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 WL=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)	PRESERVATION	HCl or H2SO4 to pH <2/Cool~4C	Cool~4C	Cool~4C	HCl to pH <2/Cool~4C	HNO3 to pH <2	Cool~4C	NaOH to pH >= 12/Cool~4C	Cool~4C	HNO3 to pH <2(ULTRIX)	HNO3 to pH <2
		TYPE OF CONTAINER	aGs*	aGs*	aG	aG	P	aG	G/P	P	NaGene	P
		NO. OF CONTAINER(S)	4	3	4	4	1	1	1	1	1	1
		VOLUME	40mL	40mL	1000mL	1000mL	500mL	500mL	250mL	120mL	500mL	500mL
SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS VOA	SEE ITEM (2) IN SPECIAL INSTRUCTIONS IUI5	SEE ITEM (3) IN SPECIAL INSTRUCTIONS SVOA	SEE ITEM (4) IN SPECIAL INSTRUCTIONS T.P.O.	SEE ITEM (5) IN SPECIAL INSTRUCTIONS 2008 6010	Chromium Hex - 7196;	Cyanide (Total) - 335.2;	SEE ITEM (6) IN SPECIAL INSTRUCTIONS IC	Tc-99 by ICAMS (Technetium-99)	SEE ITEM (7) IN SPECIAL INSTRUCTIONS SCA	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1W1B6 W086002799	WATER	7-21-08	0946	/	/	/	/	/	/	/	/	/	/
				802901	7312110	029541	029911	029408	029918	023965	029722	029796	029796

CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS			
C Fulton / [Signature]	7-21-08 1045	JA FRAGIER [Signature]	7-21-08 1045								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								

ICED

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

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Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F08-134-003	PAGE 2 OF 3
COLLECTOR	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND
SAMPLING LOCATION C5862, EB-1-013	PROJECT DESIGNATION 200-BP-5 OU Characterization of Well 699-52-55B ("H") - QC Sampling		SAF NO. F08-134	AIR QUALITY <input type="checkbox"/>	45 Days / 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA 123517ES10	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)VOA - 8260B (TCL); VOA - 8260B (Add-On) (1-Butanol, Trichloromonofluoromethane, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(2)Alcohols, Glycols, & Ketones - 8015 (Diethyl ether, Ethylene glycol)

(3)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) (3+4 Methylphenol (cresol, m+p), Tributyl phosphate)

(4)TPH-DieselKerosene Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5)ICP/MS - 200.8 (TAL) (Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc) ICP/MS - 200.8 (Add-on) (Arsenic, Lead, Selenium, Strontium, Thallium, Uranium) ICP Metals - 6010B (TAL)

(Aluminum, Calcium, Iron, Magnesium, Potassium, Sodium) ICP Metals - 6010B (Add-On) (Beryllium, Boron, Lithium, Phosphorus, Silicon) 200.8_HG - ICPMS;

(6)IC Anions - 300.0 (Chloride, Fluoride, Nitrogen In Nitrate, Nitrogen In Nitrite, Phosphate, Sulfate)

(7)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Gamma Spec - Add-on (Antimony-125)

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