Rev. 1

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FLUOR

Memorandum

M4W41-SLF-08-191

To: H. Hampt E6-35 Date: February 20, 2008

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

cc: w/Attachments

T. F. Dale	S3-30	J. E. Trechter	S3-30
H. K. Meznarich	S3-30	S. J. Trent	E6-35
P. D. Mix	S3-30	File/LB	

Subject: CORRECTED BLANK UNIT FOR NEPTUNIUM-237 – SAMPLE DELIVERY GROUP WSCF20071596 – SAF NUMBER F07-058

Reference:
(1) Memo, SL Fitzgerald to H Hampt, Final Results for SDG WSCF20071596 (M4W41-SLF-07-750), dated October 18, 2007
(2) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001, October 31, 2002
(3) HNF-SD-CD-QAPP-017, Rev. 8, Waste Sampling & Characterization Facility Quality Assurance Plan

The Blank unit for Neptunium-237 was incorrectly reported as % recovery (Reference 1). This transmittal contains the following corrected page for sample delivery group WSCF20071596:

- Analytical Results (Page 47 of 56)

Please accept our apology for any inconvenience this may have created. If you have any questions, don't hesitate to call on John Trechter, telephone 373-7046, for assistance.

SLF/grf

Attachment

REVISED
Dayes
2/26/08

FEB 2008
RECEIVED

RECEIVED
MAY 22 2012
EDMC

M4W41-SLF-07-750

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#:	WSCF20071596
Data Deliverable Date:	18-oct-2007
Data Deliverable:	Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F07-058	B1PLH0	W07GR02361	WATER

M4W41-SLF-07-750

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Sample Delivery Group	**WSCF20071596**
Sample Matrix	**Water**
Data Deliverable	**Summary Report**

Introduction

One groundwater sample was received at the WSCF Laboratory on September 6, 2007. 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" and initialed by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the sample container.

Analytical Methodology for Requested Analyses

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

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See pages 18 through 19 for QC details. Analytical Note(s):

- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1NF30 (SDG# 20071595, SAF# F07-045).
- Sample results are D flagged if dilution(s) are required.
- Sample results that were less than the reportable limit, however greater than the method detection limit, were B flagged.

All QC controls are within the established limits.

Cyanide – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 20 for QC details.

All QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See page 21 for QC details.

All QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See pages 22 through 24 for QC details.

All QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See pages 30 through 31 for QC details.

All QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with this delivery group per the GPP Letter of Instruction. See pages 32 through 37 for QC details. Analytical Note(s):

- 2-Chlorophenol – Matrix Spike Duplicate was less than established laboratory limits. Additionally, the Spike Relative Percent Difference (RDP) exceeded established laboratory limits.
- 2-Fluorophenol (Surrogate) – Spike RPD exceeded established laboratory limits.

All other QC controls are within the established limits.

TPHD-WA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank, Laboratory Control Sample and a Laboratory Control Sample Duplicate were analyzed with this delivery group. See page 38 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1PDT5 (SDG# 20071601).

All QC controls are within the established limits.

TPHG-WA – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank, Laboratory Control Sample and Laboratory Control Sample Duplicate were analyzed with this delivery group. See page 39 for QC details.

All QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 44 through 51 for QC details. Analytical Note(s):

- Gross Alpha – Duplicate Relative Percent Difference (RPD) exceeded established laboratory limits.
- Gamma Energy Analysis – Duplicate was analyzed on sample# B1P108 (SDG# 20071593, SAF# F07-052).
- Americium-243 (tracer) – Laboratory Control Sample recovery exceeded established laboratory limits.
- Strontium-85 (tracer) and 89,90 – Duplicates were analyzed on sample# B1P108 (SDG# 20071593, SAF# F07-052).
- Technetium-99 – Duplicate was analyzed on sample# B1N8B4 (SDG# 20071537, SAF# F07-035) and the Matrix Spike was analyzed on sample# B1PK09 (SDG#20071542, SAF# F07-006).
- Uranium-235 – Duplicate RDP exceeded established laboratory limits.

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

Pauline D. Mix
WSCF Client Services

Abbreviations

Hg – mercury
IC – ion chromatography
ICP – inductively coupled plasma
ICP/AES – ICP/atomic emission spectroscopy
ICP/MS – ICP/mass spectrometry
Total U – total uranium
AT/TB – total alpha/total beta
AEA – Alpha Energy Analysis
WTPH-G – Total Hydrocarbons-Gasoline
Am – americium
Cm - curium
Pu – plutonium
Np – neptunium
GEA – gamma energy analysis
H3 – Tritium
Sr – Strontium 89, 90
WTPH-D – Total Hydrocarbons-Diesel
TSS – Total Suspended Solids

M4W41-SLF-07-750

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 45 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. Fitzgerald 10/18/07

Client Services: P.D. Mix 10/17/2007

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#: WSCF20071596
Report Date: 16-oct-2007
Report WGPP/ver. 5.2
Groundwater Remediation Program

w13qlog v4.2 16-oct-2007 16:24:27

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20071596

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
33222	2	33626	37714	BLANK		Anions by Ion Chromatography
33222	12	33626	37714	BLANK		Anions by Ion Chromatography
33222	3	33626	37714	LCS		Anions by Ion Chromatography
33222	5	33626	37714	DUP	W07GR02360	Anions by Ion Chromatography
33222	6	33626	37714	MS	W07GR02360	Anions by Ion Chromatography
33222	7	33626	37714	MSD	W07GR02360	Anions by Ion Chromatography
33222	7	33626	37714	SPK-RPD	W07GR02360	Anions by Ion Chromatography
33222	8	33626	37714	SAMPLE	W07GR02361	Anions by Ion Chromatography
33268	2	33672	37753	BLANK		Hexavalent chromium
33268	8	33672	37753	BLANK		Hexavalent chromium
33268	3	33672	37753	LCS		Hexavalent chromium
33268	5	33672	37753	DUP	W07GR02361	Hexavalent chromium
33268	6	33672	37753	MS	W07GR02361	Hexavalent chromium
33268	7	33672	37753	MSD	W07GR02361	Hexavalent chromium
33268	4	33672	37753	SAMPLE	W07GR02361	Hexavalent chromium
33268	7	33672	37753	SPK-RPD	W07GR02361	Hexavalent chromium
33388	1	33790	37878	BLANK		ICP-200.8 MS All possible meta
33388	2	33790	37878	LCS		ICP-200.8 MS All possible meta
33388	4	33790	37878	MS	W07GR02361	ICP-200.8 MS All possible meta
33388	5	33790	37878	MSD	W07GR02361	ICP-200.8 MS All possible meta
33388	3	33790	37878	SAMPLE	W07GR02361	ICP-200.8 MS All possible meta
33388	5	33790	37878	SPK-RPD	W07GR02361	ICP-200.8 MS All possible meta
33411	1	33812	37938	BLANK		Cyanide by Midi/Spectrophotom
33411	2	33812	37938	LCS		Cyanide by Midi/Spectrophotom
33411	4	33812	37938	MS	W07GR02361	Cyanide by Midi/Spectrophotom
33411	5	33812	37938	MSD	W07GR02361	Cyanide by Midi/Spectrophotom
33411	3	33812	37938	SAMPLE	W07GR02361	Cyanide by Midi/Spectrophotom
33411	5	33812	37938	SPK-RPD	W07GR02361	Cyanide by Midi/Spectrophotom
33411	7	33812	37938	MS	W07P001796	Cyanide by Midi/Spectrophotom
33411	8	33812	37938	MSD	W07P001796	Cyanide by Midi/Spectrophotom
33411	8	33812	37938	SPK-RPD	W07P001796	Cyanide by Midi/Spectrophotom

w13qlog v4.2 16-oct-2007 16:24:27

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20071596

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			37798	BLANK		NWTPH-D TPH Diesel Range (Wa)
			37798	LCS		NWTPH-D TPH Diesel Range (Wa)
			37798	SAMPLE	W07GR02361	NWTPH-D TPH Diesel Range (Wa)
			37798	SURR	W07GR02361	NWTPH-D TPH Diesel Range (Wa)
			37798	MS	W07P001789	NWTPH-D TPH Diesel Range (Wa)
			37798	MSD	W07P001789	NWTPH-D TPH Diesel Range (Wa)
			37798	SPK-RPD	W07P001789	NWTPH-D TPH Diesel Range (Wa)
			37859	BLANK		SW-846 8270C Semi-Vols
			37859	LCS		SW-846 8270C Semi-Vols
			37859	MS	W07GR02361	SW-846 8270C Semi-Vols
			37859	MSD	W07GR02361	SW-846 8270C Semi-Vols
			37859	SAMPLE	W07GR02361	SW-846 8270C Semi-Vols
			37859	SPK-RPD	W07GR02361	SW-846 8270C Semi-Vols
			37859	SURR	W07GR02361	SW-846 8270C Semi-Vols
			38034	BLANK		PCBs complete list
			38034	LCS		PCBs complete list
			38034	MS	W07GR02361	PCBs complete list
			38034	MSD	W07GR02361	PCBs complete list
			38034	SAMPLE	W07GR02361	PCBs complete list
			38034	SPK-RPD	W07GR02361	PCBs complete list
			38034	SURR	W07GR02361	PCBs complete list
33703	1	34101	38251	BLANK		NWTPH-GX TPH Gasoline Range
33703	2	34101	38251	LCS		NWTPH-GX TPH Gasoline Range
33703	4	34101	38251	DUP	W07GR02361	NWTPH-GX TPH Gasoline Range
33703	5	34101	38251	MS	W07GR02361	NWTPH-GX TPH Gasoline Range
33703	6	34101	38251	MSD	W07GR02361	NWTPH-GX TPH Gasoline Range
33703	3	34101	38251	SAMPLE	W07GR02361	NWTPH-GX TPH Gasoline Range
33703	6	34101	38251	SPK-RPD	W07GR02361	NWTPH-GX TPH Gasoline Range
33703	8	34101	38251	DUP	W07P001778	NWTPH-GX TPH Gasoline Range
33703	9	34101	38251	MS	W07P001778	NWTPH-GX TPH Gasoline Range
33703	10	34101	38251	MSD	W07P001778	NWTPH-GX TPH Gasoline Range
33703	10	34101	38251	SPK-RPD	W07P001778	NWTPH-GX TPH Gasoline Range

w13qlog v4.2 16-oct-2007 16:24:27

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20071596

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
33370	1	33771	37863	BLANK		TC99 by Liquid Scin.
33370	2	33771	37863	LCS		TC99 by Liquid Scin.
33370	4	33771	37863	DUP	W07GR02297	TC99 by Liquid Scin.
33370	3	33771	37863	MS	W07GR02300	TC99 by Liquid Scin.
33370	10	33771	37863	SAMPLE	W07GR02361	TC99 by Liquid Scin.
33259	1	33662	37931	BLANK		Gross Alpha/Gross Beta (AB32)
33259	2	33662	37931	LCS		Gross Alpha/Gross Beta (AB32)
33259	3	33662	37931	DUP	W07GR02361	Gross Alpha/Gross Beta (AB32)
33259	4	33662	37931	SAMPLE	W07GR02361	Gross Alpha/Gross Beta (AB32)
33217	1	33621	37935	BLANK		Gamma Energy Analysis-grd H2O
33217	2	33621	37935	LCS		Gamma Energy Analysis-grd H2O
33217	3	33621	37935	DUP	W07GR02354	Gamma Energy Analysis-grd H2O
33217	5	33621	37935	SAMPLE	W07GR02361	Gamma Energy Analysis-grd H2O
33503	1	33902	38103	BLANK		Strontium 89/90
33503	2	33902	38103	LCS		Strontium 89/90
33503	3	33902	38103	DUP	W07GR02354	Strontium 89/90
33503	6	33902	38103	SAMPLE	W07GR02361	Strontium 89/90
33503	7	33902	38103	SURR	W07GR02361	Strontium 89/90
33558	1	33955	38140	BLANK		Plutonium Isotopics by AEA
33558	2	33955	38140	LCS		Plutonium Isotopics by AEA
33558	3	33955	38140	DUP	W07GR02361	Plutonium Isotopics by AEA
33558	4	33955	38140	SAMPLE	W07GR02361	Plutonium Isotopics by AEA
33558	5	33955	38140	SURR	W07GR02361	Plutonium Isotopics by AEA
33550	1	33952	38141	BLANK		Uranium Isotopics by AEA
33550	2	33952	38141	LCS		Uranium Isotopics by AEA
33550	3	33952	38141	DUP	W07GR02361	Uranium Isotopics by AEA
33550	4	33952	38141	SAMPLE	W07GR02361	Uranium Isotopics by AEA
33550	5	33952	38141	SURR	W07GR02361	Uranium Isotopics by AEA
33555	1	33957	38158	BLANK		Americium by AEA
33555	2	33957	38158	LCS		Americium by AEA
33555	3	33957	38158	DUP	W07GR02361	Americium by AEA
33555	4	33957	38158	SAMPLE	W07GR02361	Americium by AEA
33555	5	33957	38158	SURR	W07GR02361	Americium by AEA
33646	1	34043	38246	BLANK		Neptunium by AEA
33646	2	34043	38246	LCS		Neptunium by AEA
33646	3	34043	38246	DUP	W07GR02361	Neptunium by AEA
33646	5	34043	38246	MS	W07GR02361	Neptunium by AEA
33646	6	34043	38246	MSD	W07GR02361	Neptunium by AEA
33646	4	34043	38246	SAMPLE	W07GR02361	Neptunium by AEA
33646	6	34043	38246	SPK-RPD	W07GR02361	Neptunium by AEA

WSCF
METHOD REFERENCES REPORT

Department: Inorganic

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

LA-265-403 LA-265-403: Hexavalent Chromium analysis by Spectrophotometer

EPA SW-846 7196A	HEXAVALENT CHROMIUM
HEIS 7196_CR6	Hexavalent Chromium

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

LA-533-410 LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY

EPA-600/R-94-111 300.0	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
HEIS 300.0_ANIONS_IC	Determination of Inorganic Anions by Ion Chromatography

LA-695-402 LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC

EPA-600/4-79-020 335.2	Cyanide, Total
HEIS 335.2_CYANIDE	Cyanide, Total

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

WSCF
METHOD REFERENCES REPORT

Department: Organic

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

LA-523-427 LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY

EPA SW-846 3510C	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION
EPA SW-846 3545	PRESSURIZED FLUID EXTRACTION (PFE)
EPA SW-846 3665A	SULFURIC ACID/PERMANGANATE CLEANUP
EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
EPA SW-846 8082A	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
HEIS 8082_PCB_GC	Polychlorinated Biphenyls (PCBs) by Gas Chromatography

LA-523-443 LA-523-443: GAS CHROMATOGRAPH ANALYSIS OF GASOLINE RANGE TOTAL PETROLEUM HYDROCA

HEIS WTPH_GASOLINE	Total Petroleum Hydrocarbons, Gasoline
WDOE TPH NWTPH-G	Volatile Petroleum Products Method for Soil and Water

LA-523-456 LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C

EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
EPA SW-846 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
HEIS 8270_SVOA_GCMS	Semivolatile Orgamoc Compounds By Gas Chromatography/Mass Spectrometry (GC/MS)

LA-523-493 NWTPH-Diesel and/or Gasoline

HEIS WTPH_DIESEL (HEIS)	Total Petroleum Hydrocarbons in Diesel
WDOE TPHD	Total Petroleum Hydrocarbons in Diesel

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

WSCF
METHOD REFERENCES REPORT

Department: Radiochemistry

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

LA-508-415 LA-508-415: OPERATION OF THE PROTEAN 2-INCH ALPHA/BETA COUNTING SYSTEM FOR GROSS

HEIS	**ALPHA_GPC**	GROSS ALPHA GPC
HEIS	**BETA_GPC**	GROSS BETA GPC
HEIS	**SRTOT_SEP_PRECIP_GPC**	Strontium 89/90

LA-508-421 LA-508-421: OPERATION OF THE TRI-CARB MODEL 2500TR LIQUID SCINTILLATION ANALYZER

HEIS	**ALPHA_LSC**	A/B Liquid Scintilillation
HEIS	**BETA_LSC**	A/B Liquid Scintilallation
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	**PUISO_IE_PRECIP_AEA**	Plutonium by Alpha Energy Analysis
HEIS	**RAISO_AEA**	Radium-226

LA-508-481 LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE

HEIS	**GAMMA_GS**	Gamma Emmision Spectrometry

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-058
Sample # W07GR02361
Client ID: B1PLH0 TRENT WSCF

Matrix: WATER

Group #: WSCF20071596
Department: Inorganic
Sampled: 09/06/07
Received: 09/06/07

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	BD	0.118	mg/L			2.00	0.012		09/07/07
Nitrogen in Nitrite	NO2-N	LA-533-410	BD	0.0449	mg/L			2.00	0.020		09/07/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	15.7	mg/L			10.00	0.050		09/07/07
Phosphate (P) by IC	PO4-P	LA-533-410	DU	< 0.0800	mg/L			2.00	0.080		09/07/07
Sulfate	14808-79-8	LA-533-410	D	73.2	mg/L			2.00	0.14		09/07/07
Cyanide											
Cyanide	57-12-5	LA-695-402	U	< 4.00	ug/L			1.00	4.0		09/18/07
Hexavalent Chromium											
Hexavalent Chromium	18540-29-9	LA-265-403	B	2.60e-03	mg/L			1.00	2.0e-03		09/06/07
ICP-200.8 MS All possible meta Prep											**09/19/07**
ICP-200.8 MS All possible meta											
Manganese	7439-96-5	LA-505-412		119	ug/L			1.00	0.100		09/19/07
Nickel	7440-02-0	LA-505-412		1.89	ug/L			1.00	0.200		09/19/07
Silver	7440-22-4	LA-505-412	U	< 0.100	ug/L			1.00	0.100		09/19/07
Antimony	7440-36-0	LA-505-412		0.437	ug/L			1.00	0.300		09/19/07
Barium	7440-39-3	LA-505-412		40.9	ug/L			1.00	0.200		09/19/07
Cadmium	7440-43-9	LA-505-412	U	< 0.100	ug/L			1.00	0.100		09/19/07
Chromium	7440-47-3	LA-505-412		1.05	ug/L			1.00	0.500		09/19/07
Copper	7440-50-8	LA-505-412		0.356	ug/L			1.00	0.100		09/19/07
Vanadium	7440-62-2	LA-505-412		0.314	ug/L			1.00	0.200		09/19/07
Zinc	7440-66-6	LA-505-412		1.22	ug/L			1.00	0.800		09/19/07
Lead	7439-92-1	LA-505-412	U	< 0.100	ug/L			1.00	0.100		09/19/07
Mercury	7439-97-6	LA-505-412	U	< 0.0500	ug/L			1.00	0.0500		09/19/07
Uranium	7440-61-1	LA-505-412		11.0	ug/L			1.00	0.0500		09/19/07

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-058
Sample # W07GR02361
Client ID: B1PLH0 TRENT WSCF

Matrix: WATER

Group #: WSCF20071596
Department: Inorganic
Sampled: 09/06/07
Received: 09/06/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Arsenic	7440-38-2	LA-505-412	U	< 0.400	ug/L			1.00	0.400		09/19/07
Selenium	7782-49-2	LA-505-412		4.97	ug/L			1.00	0.300		09/19/07
Thallium	7440-28-0	LA-505-412	U	< 0.100	ug/L			1.00	0.100		09/19/07

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20071596
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02360											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Fluoride	16984-48-8	0.3181		RPD			1.297	20.000		09/07/07
DUP	Nitrogen in Nitrite	NO2-N	<1e-2		RPD			n/a	20.000	U	09/07/07
DUP	Nitrogen in Nitrate	NO3-N	32.1516		RPD			1.562	20.000		09/07/07
DUP	Phosphate (P) by IC	PO4-P	<4e-2		RPD			n/a	20.000	U	09/07/07
DUP	Sulfate	14808-79-8	47.1478		RPD			1.784	20.000		09/07/07
MS	Fluoride	16984-48-8	0.5153	102.649	% Recov	75.000	125.000				09/07/07
MS	Nitrogen in Nitrite	NO2-N	0.5211	104.639	% Recov	75.000	125.000				09/07/07
MS	Nitrogen in Nitrate	NO3-N	0.422525	93.686	% Recov	75.000	125.000				09/07/07
MS	Phosphate (P) by IC	PO4-P	0.8657	90.744	% Recov	75.000	125.000				09/07/07
MS	Sulfate	14808-79-8	1.891875	95.549	% Recov	75.000	125.000				09/07/07
MSD	Fluoride	16984-48-8	0.5235	104.283	% Recov	75.000	125.000				09/07/07
MSD	Nitrogen in Nitrite	NO2-N	0.5129	102.992	% Recov	75.000	125.000				09/07/07
MSD	Nitrogen in Nitrate	NO3-N	0.432795	95.963	% Recov	75.000	125.000				09/07/07
MSD	Phosphate (P) by IC	PO4-P	0.8709	91.289	% Recov	75.000	125.000				09/07/07
MSD	Sulfate	14808-79-8	1.92679	97.313	% Recov	75.000	125.000				09/07/07
SPK-RPD	Fluoride	16984-48-8	104.283		RPD			1.579	20.000		09/08/07
SPK-RPD	Nitrogen in Nitrite	NO2-N	102.992		RPD			1.586	20.000		09/08/07
SPK-RPD	Nitrogen in Nitrate	NO3-N	95.963		RPD			2.401	20.000		09/08/07
SPK-RPD	Phosphate (P) by IC	PO4-P	91.289		RPD			0.599	20.000		09/08/07
SPK-RPD	Sulfate	14808-79-8	97.313		RPD			1.829	20.000		09/08/07
BATCH QC											
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/07/07
BLANK	Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			U	09/08/07
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/08/07
BLANK	Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			U	09/07/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20071596
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
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/08/07
BLANK	Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			U	09/07/07
BLANK	Phosphate (P) by IC	PO4-P	<4e-2	n/a	mg/L	0.000	0.200			U	09/07/07
BLANK	Phosphate (P) by IC	PO4-P	<4e-2	n/a	mg/L	0.000	0.200			U	09/08/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/07/07
BLANK	Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			U	09/08/07
LCS	Fluoride	16984-48-8	100.5693	99.574	% Recov	80.000	120.000				09/07/07
LCS	Nitrogen in Nitrite	NO2-N	101.613	101.613	% Recov	80.000	120.000				09/07/07
LCS	Nitrogen in Nitrate	NO3-N	90.8181	99.581	% Recov	80.000	120.000				09/07/07
LCS	Phosphate (P) by IC	PO4-P	185.9567	96.451	% Recov	80.000	120.000				09/07/07
LCS	Sulfate	14808-79-8	376.0728	94.018	% Recov	80.000	120.000				09/07/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20071596
Matrix: WATER
Test: Cyanide by Midi/Spectrophotom

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	36.5	93.350	% Recov	75.000	125.000				09/18/07
MSD	Cyanide by Midi/Spectrophotom	57-12-5	38.8	99.233	% Recov	75.000	125.000				09/18/07
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	99.233		RPD			6.110	20.000		09/18/07
Lab ID: W07P001796											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Cyanide by Midi/Spectrophotom	57-12-5	39.9	102.046	% Recov	75.000	125.000				09/18/07
MSD	Cyanide by Midi/Spectrophotom	57-12-5	38.8	99.233	% Recov	75.000	125.000				09/18/07
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	99.233		RPD			2.795	20.000		09/18/07
BATCH QC											
BLANK	Cyanide by Midi/Spectrophotom	57-12-5	0.1	0.100	ug/L	-4.000	4.000				09/18/07
LCS	Cyanide by Midi/Spectrophotom	57-12-5	47.9	97.955	% Recov	85.000	115.000				09/18/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20071596
Matrix: WATER
Test: Hexavalent chromium

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Hexavalent chromium	18540-29-9	<0.002		RPD			n/a	15.000	U	09/06/07
MS	Hexavalent chromium	18540-29-9	0.0527	99.811	% Recov	85.000	115.000				09/06/07
MSD	Hexavalent chromium	18540-29-9	0.0514	97.348	% Recov	85.000	115.000				09/06/07
SPK-RPD	Hexavalent chromium	18540-29-9	97.348		RPD			2.498	20.000		09/06/07
BATCH QC											
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/06/07
BLANK	Hexavalent chromium	18540-29-9	<0.002	n/a	mg/L	0.000	2.000			U	09/06/07
LCS	Hexavalent chromium	18540-29-9	0.0500	100.604	% Recov	80.000	120.000				09/06/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20071596
Matrix: WATER
Test: ICP-200.8 MS All possible meta

Sample Date: 09/06/07
Receive Date:09/06/07

Lab ID: W07GR02361
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Silver	7440-22-4	38.55	96.375	% Recov	70.000	130.000				09/19/07
MS	Arsenic	7440-38-2	39.12	97.800	% Recov	70.000	130.000				09/19/07
MS	Barium	7440-39-3	40.61	101.525	% Recov	70.000	130.000				09/19/07
MS	Cadmium	7440-43-9	37.7	94.250	% Recov	70.000	130.000				09/19/07
MS	Chromium	7440-47-3	37.71	94.275	% Recov	70.000	130.000				09/19/07
MS	Copper	7440-50-8	37.0138	92.535	% Recov	70.000	130.000				09/19/07
MS	Mercury	7439-97-6	2.176	108.800	% Recov	70.000	130.000				09/19/07
MS	Manganese	7439-96-5	40	100.000	% Recov	70.000	130.000				09/19/07
MS	Nickel	7440-02-0	37.063	92.657	% Recov	70.000	130.000				09/19/07
MS	Lead	7439-92-1	41.4	103.500	% Recov	70.000	130.000				09/19/07
MS	Antimony	7440-36-0	45.6027	114.007	% Recov	70.000	130.000				09/19/07
MS	Selenium	7782-49-2	36.599	91.497	% Recov	70.000	130.000				09/19/07
MS	Thallium	7440-28-0	39.39	98.475	% Recov	70.000	130.000				09/19/07
MS	Uranium	7440-61-1	40.54	101.350	% Recov	70.000	130.000				09/19/07
MS	Vanadium	7440-62-2	37.8962	94.741	% Recov	70.000	130.000				09/19/07
MS	Zinc	7440-66-6	35.782	89.455	% Recov	70.000	130.000				09/19/07
MSD	Silver	7440-22-4	38.62	96.550	% Recov	70.000	130.000				09/19/07
MSD	Arsenic	7440-38-2	38.95	97.375	% Recov	70.000	130.000				09/19/07
MSD	Barium	7440-39-3	39.95	99.875	% Recov	70.000	130.000				09/19/07
MSD	Cadmium	7440-43-9	38	95.000	% Recov	70.000	130.000				09/19/07
MSD	Chromium	7440-47-3	37.88	94.700	% Recov	70.000	130.000				09/19/07
MSD	Copper	7440-50-8	37.1138	92.784	% Recov	70.000	130.000				09/19/07
MSD	Mercury	7439-97-6	2.212	110.600	% Recov	70.000	130.000				09/19/07
MSD	Manganese	7439-96-5	39.6	99.000	% Recov	70.000	130.000				09/19/07
MSD	Nickel	7440-02-0	37.853	94.633	% Recov	70.000	130.000				09/19/07
MSD	Lead	7439-92-1	41.36	103.400	% Recov	70.000	130.000				09/19/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20071596
Matrix: WATER
Test: ICP-200.8 MS All possible meta

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Antimony	7440-36-0	45.5727	113.932	% Recov	70.000	130.000				09/19/07
MSD	Selenium	7782-49-2	35.899	89.748	% Recov	70.000	130.000				09/19/07
MSD	Thallium	7440-28-0	39.33	98.325	% Recov	70.000	130.000				09/19/07
MSD	Uranium	7440-61-1	40.29	100.725	% Recov	70.000	130.000				09/19/07
MSD	Vanadium	7440-62-2	38.1362	95.341	% Recov	70.000	130.000				09/19/07
MSD	Zinc	7440-66-6	35.052	87.630	% Recov	70.000	130.000				09/19/07
SPK-RPD	Silver	7440-22-4	96.550		RPD			0.181	20.000		09/19/07
SPK-RPD	Arsenic	7440-38-2	97.375		RPD			0.436	20.000		09/19/07
SPK-RPD	Barium	7440-39-3	99.875		RPD			1.639	20.000		09/19/07
SPK-RPD	Cadmium	7440-43-9	95.000		RPD			0.793	20.000		09/19/07
SPK-RPD	Chromium	7440-47-3	94.700		RPD			0.450	20.000		09/19/07
SPK-RPD	Copper	7440-50-8	92.784		RPD			0.269	20.000		09/19/07
SPK-RPD	Mercury	7439-97-6	110.600		RPD			1.641	20.000		09/19/07
SPK-RPD	Manganese	7439-96-5	99.000		RPD			1.005	20.000		09/19/07
SPK-RPD	Nickel	7440-02-0	94.633		RPD			2.110	20.000		09/19/07
SPK-RPD	Lead	7439-92-1	103.400		RPD			0.097	20.000		09/19/07
SPK-RPD	Antimony	7440-36-0	113.932		RPD			0.066	20.000		09/19/07
SPK-RPD	Selenium	7782-49-2	89.748		RPD			1.930	20.000		09/19/07
SPK-RPD	Thallium	7440-28-0	98.325		RPD			0.152	20.000		09/19/07
SPK-RPD	Uranium	7440-61-1	100.725		RPD			0.619	20.000		09/19/07
SPK-RPD	Vanadium	7440-62-2	95.341		RPD			0.631	20.000		09/19/07
SPK-RPD	Zinc	7440-66-6	87.630		RPD			2.061	20.000		09/19/07

BATCH QC

BLANK	Silver	7440-22-4	<0.1	n/a	ug/L					U	09/19/07
BLANK	Arsenic	7440-38-2	<0.4	n/a	ug/L					U	09/19/07
BLANK	Barium	7440-39-3	<0.2	n/a	ug/L					U	09/19/07
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L					U	09/19/07
BLANK	Chromium	7440-47-3	<0.5	n/a	ug/L					U	09/19/07
BLANK	Copper	7440-50-8	<0.1	n/a	ug/L					U	09/19/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20071596
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	Mercury	7439-97-6	<5e-2	n/a	ug/L					U	09/19/07
BLANK	Manganese	7439-96-5	<0.1	n/a	ug/L					U	09/19/07
BLANK	Nickel	7440-02-0	<0.2	n/a	ug/L					U	09/19/07
BLANK	Lead	7439-92-1	<0.1	n/a	ug/L					U	09/19/07
BLANK	Antimony	7440-36-0	<0.3	n/a	ug/L					U	09/19/07
BLANK	Selenium	7782-49-2	<0.3	n/a	ug/L					U	09/19/07
BLANK	Thallium	7440-28-0	<0.1	n/a	ug/L					U	09/19/07
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	09/19/07
BLANK	Vanadium	7440-62-2	<0.2	n/a	ug/L					U	09/19/07
BLANK	Zinc	7440-66-6	<0.8	n/a	ug/L					U	09/19/07
LCS	Silver	7440-22-4	39.54	98.850	% Recov	85.000	115.000				09/19/07
LCS	Arsenic	7440-38-2	38.02	95.050	% Recov	85.000	115.000				09/19/07
LCS	Barium	7440-39-3	39.01	97.525	% Recov	85.000	115.000				09/19/07
LCS	Cadmium	7440-43-9	38.96	97.400	% Recov	85.000	115.000				09/19/07
LCS	Chromium	7440-47-3	39.47	98.675	% Recov	85.000	115.000				09/19/07
LCS	Copper	7440-50-8	39.82	99.550	% Recov	85.000	115.000				09/19/07
LCS	Mercury	7439-97-6	2.098	104.900	% Recov	85.000	115.000				09/19/07
LCS	Manganese	7439-96-5	38.82	97.050	% Recov	85.000	115.000				09/19/07
LCS	Nickel	7440-02-0	39.84	99.600	% Recov	85.000	115.000				09/19/07
LCS	Lead	7439-92-1	40.19	100.475	% Recov	85.000	115.000				09/19/07
LCS	Antimony	7440-36-0	45.24	113.100	% Recov	85.000	115.000				09/19/07
LCS	Selenium	7782-49-2	37.25	93.125	% Recov	85.000	115.000				09/19/07
LCS	Thallium	7440-28-0	38.02	95.050	% Recov	85.000	115.000				09/19/07
LCS	Uranium	7440-61-1	37.43	93.575	% Recov	85.000	115.000				09/19/07
LCS	Vanadium	7440-62-2	38.4	96.000	% Recov	85.000	115.000				09/19/07
LCS	Zinc	7440-66-6	38.96	97.400	% Recov	85.000	115.000				09/19/07

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-058
Sample # W07GR02361
Client ID: B1PLH0 TRENT WSCF

Matrix: WATER

Group #: WSCF20071596
Department: Organic
Sampled: 09/06/07
Received: 09/06/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
NWTPH-D TPH Diesel Range (Wa) Prep											**09/10/07**
NWTPH-D TPH Diesel Range (Wa)											
Total Pet. Hydrocarbons Diesel	TPHDIESEL	LA-523-493	U	< 71.0	ug/L			1.00	71		09/13/07
Kerosene	TPHKEROSENE	LA-523-493	U	< 71.0	ug/L			1.00	71		09/13/07
NWTPH-GX TPH Gasoline Range Prep											**09/14/07**
NWTPH-GX TPH Gasoline Range											
Total Pet. Hydrocarbons Gas	TPHGASOLINE	LA-523-443	U	< 250	ug/L			1.00	50		09/14/07
PCBs complete list Prep											**09/12/07**
PCBs complete list											
Aroclor-1016	12674-11-2	LA-523-427	U	< 0.110	ug/L			1.00	0.11		09/27/07
Aroclor-1221	11104-28-2	LA-523-427	U	< 0.210	ug/L			1.00	0.21		09/27/07
Aroclor-1232	11141-16-5	LA-523-427	U	< 0.110	ug/L			1.00	0.11		09/27/07
Aroclor-1242	53469-21-9	LA-523-427	U	< 0.110	ug/L			1.00	0.11		09/27/07
Aroclor-1248	12672-29-6	LA-523-427	U	< 0.110	ug/L			1.00	0.11		09/27/07
Aroclor-1254	11097-69-1	LA-523-427	U	< 0.110	ug/L			1.00	0.11		09/27/07
Aroclor-1260	11096-82-5	LA-523-427	U	< 0.110	ug/L			1.00	0.11		09/27/07
Aroclor-1262	37324-23-5	LA-523-427	U	< 0.110	ug/L			1.00	0.11		09/27/07
Aroclor-1268	11100-14-4	LA-523-427	U	< 0.110	ug/L			1.00	0.11		09/27/07
SW-846 8270C Semi-Vols Prep											**09/11/07**
SW-846 8270C Semi-Vols											
4-Nitrophenol	100-02-7	LA-523-456	U	< 0.970	ug/L			1.00	0.97		09/17/07
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	< 1.40	ug/L			1.00	1.4		09/17/07
Phenol	108-95-2	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	< 2.10	ug/L			1.00	2.1		09/17/07
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-058
Sample # W07GR02361
Client ID: B1PLH0 TRENT WSCF

Matrix: WATER

Group #: WSCF20071596
Department: Organic
Sampled: 09/06/07
Received: 09/06/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Pyrene	129-00-0	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	U	< 0.580	ug/L			1.00	0.58		09/17/07
Acenaphthene	83-32-9	LA-523-456	U	< 2.50	ug/L			1.00	2.5		09/17/07
Pentachlorophenol	87-86-5	LA-523-456	U	< 1.50	ug/L			1.00	1.5		09/17/07
2-Chlorophenol	95-57-8	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
4-Nitroaniline	100-01-6	LA-523-456	U	< 0.970	ug/L			1.00	0.97		09/17/07
4-Bromophenylphenyl ether	101-55-3	LA-523-456	U	< 0.970	ug/L			1.00	0.97		09/17/07
2,4-Dimethylphenol	105-67-9	LA-523-456	U	< 0.920	ug/L			1.00	0.92		09/17/07
4-Chloroaniline	106-47-8	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Bis(2-chloro-1-methylethyl)eth	108-60-1	LA-523-456	U	< 0.970	ug/L			1.00	0.97		09/17/07
Bis(2-chloroethyl) ether	111-44-4	LA-523-456	U	< 0.870	ug/L			1.00	0.87		09/17/07
Bis(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Bis(2-ethylhexyl) phthalate	117-81-7	LA-523-456	U	< 0.780	ug/L			1.00	0.78		09/17/07
Di-n-octylphthalate	117-84-0	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Hexachlorobenzene	118-74-1	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Anthracene	120-12-7	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
2,4-Dichlorophenol	120-83-2	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Dimethyl phthalate	131-11-3	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Dibenzofuran	132-64-9	LA-523-456	U	< 2.10	ug/L			1.00	2.1		09/17/07
Benzo(ghi)perylene	191-24-2	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Fluoranthene	206-44-0	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07

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

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-058
Sample # W07GR02361
Client ID: B1PLH0 TRENT WSCF

Matrix: WATER

Group #: WSCF20071596
Department: Organic
Sampled: 09/06/07
Received: 09/06/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Acenaphthylene	208-96-8	LA-523-456	U	< 2.20	ug/L			1.00	2.2		09/17/07
Chrysene	218-01-9	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Benzo(a)pyrene	50-32-8	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
2,4-Dinitrophenol	51-28-5	LA-523-456	U	< 1.90	ug/L			1.00	1.9		09/17/07
Dibenz[a,h]anthracene	53-70-3	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	< 0.970	ug/L			1.00	0.97		09/17/07
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	< 1.30	ug/L			1.00	1.3		09/17/07
Benzo(a)anthracene	56-55-3	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
4-Chlorophenylphenyl ether	7005-72-3	LA-523-456	U	< 1.70	ug/L			1.00	1.7		09/17/07
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	< 4.90	ug/L			1.00	4.9		09/17/07
Isophorone	78-59-1	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Diethylphthalate	84-66-2	LA-523-456	U	< 1.80	ug/L			1.00	1.8		09/17/07
Di-n-butylphthalate	84-74-2	LA-523-456	U	< 2.20	ug/L			1.00	2.2		09/17/07
Phenanthrene	85-01-8	LA-523-456	U	< 0.530	ug/L			1.00	0.53		09/17/07
Butylbenzylphthalate	85-68-7	LA-523-456	U	< 0.580	ug/L			1.00	0.58		09/17/07
N-Nitrosodiphenylamine	86-30-6	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Fluorene	86-73-7	LA-523-456	U	< 1.40	ug/L			1.00	1.4		09/17/07
Carbazole	86-74-8	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Hexachlorobutadiene	87-68-3	LA-523-456	U	< 1.90	ug/L			1.00	1.9		09/17/07
2-Nitroaniline	88-74-4	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
2-Nitrophenol	88-75-5	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Naphthalene	91-20-3	LA-523-456	U	< 2.00	ug/L			1.00	2.0		09/17/07
2-Methylnaphthalene	91-57-6	LA-523-456	U	< 2.90	ug/L			1.00	2.9		09/17/07
2-Chloronaphthalene	91-58-7	LA-523-456	U	< 3.40	ug/L			1.00	3.4		09/17/07

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-058
Sample # W07GR02361
Client ID: B1PLH0 TRENT WSCF

Matrix: WATER

Group #: WSCF20071596
Department: Organic
Sampled: 09/06/07
Received: 09/06/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
3,3'-Dichlorobenzidine	91-94-1	LA-523-456	U	< 0.780	ug/L			1.00	0.78		09/17/07
2-Methylphenol (cresol, o-)	95-48-7	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	< 1.50	ug/L			1.00	1.5		09/17/07
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	< 0.630	ug/L			1.00	0.63		09/17/07
Nitrobenzene	98-95-3	LA-523-456	U	< 0.580	ug/L			1.00	0.58		09/17/07
3-Nitroaniline	99-09-2	LA-523-456	U	< 0.580	ug/L			1.00	0.58		09/17/07
3 & 4 Methylphenol Total	65794-96-9	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Hexachloroethane	67-72-1	LA-523-456	U	< 1.40	ug/L			1.00	1.4		09/17/07
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Tributyl phosphate	126-73-8	LA-523-456	U	< 0.490	ug/L			1.00	0.49		09/17/07
Dimethoate	60-51-5	LA-523-456	U	< 0.970	ug/L			1.00	0.97		09/17/07

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

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

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F07-058 :F07-058

Group #: WSCF20071596
Department: Organic

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W07GR02361	B1PLH0 TRENT	SW-846 8270C Semi-Vols	SMP 5.656 n-Hexadecanoic acid	57-10-3	5.656583	J	4.2	ug/L
W07GR02361	B1PLH0 TRENT	SW-846 8270C Semi-Vols	SMP 6.313 2-Butoxyethanol	111-76-2	6.313933		3.9	ug/L
W07GR02361	B1PLH0 TRENT	SW-846 8270C Semi-Vols	SMP 6.442 Ethane, 1,1,2,2-tetrac	79-34-5	6.4422	J	18	ug/L
W07GR02361	B1PLH0 TRENT	SW-846 8270C Semi-Vols	SMP 7.243 2-Pyrrolidinone, 1-met	872-50-4	7.24385	J	78	ug/L
W07GR02361	B1PLH0 TRENT	SW-846 8270C Semi-Vols	SMP 7.537 Unknown Organic Acid	Unknown	7.5378	J	8.1	ug/L
W07GR02361	B1PLH0 TRENT	SW-846 8270C Semi-Vols	SMP 7.756 Unknown	Unknown	7.756916	J	6.1	ug/L
W07GR02361	B1PLH0 TRENT	SW-846 8270C Semi-Vols	SMP 8.098 Benzoic acid	65-85-0	8.09895		7.7	ug/L
W07GR02361	B1PLH0 TRENT	SW-846 8270C Semi-Vols	SMP 8.120 Unknown Organic Acid	Unknown	8.120333	J	4.7	ug/L

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

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20071596
Matrix: WATER
Test: PCBs complete list

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Aroclor-1260	11096-82-5	2.2885	114.000	% Recov	75.000	125.000				09/27/07
MS	Decachlorobiphenyl	2051-24-3	2.1607	108.000	% Recov	50.000	150.000				09/27/07
MS	Tetrachloro-m-xylene	877-09-8	2.0362	102.000	% Recov	50.000	150.000				09/27/07
MSD	Aroclor-1260	11096-82-5	2.2984	109.000	% Recov	75.000	125.000				09/27/07
MSD	Decachlorobiphenyl	2051-24-3	2.1185	101.000	% Recov	50.000	150.000				09/27/07
MSD	Tetrachloro-m-xylene	877-09-8	2.2486	107.000	% Recov	50.000	150.000				09/27/07
SPK-RPD	Aroclor-1260	11096-82-5	109.000		RPD			4.484	25.000		09/27/07
SPK-RPD	Decachlorobiphenyl	2051-24-3	101.000		RPD			6.699	20.000		09/27/07
SPK-RPD	Tetrachloro-m-xylene	877-09-8	107.000		RPD			4.785	20.000		09/27/07
SURR	Decachlorobiphenyl	2051-24-3	2.1182	101.000	% Recov	50.000	150.000				09/27/07
SURR	Tetrachloro-m-xylene	877-09-8	2.1344	101.000	% Recov	50.000	150.000				09/27/07
BATCH QC											
BLANK	Aroclor-1016	12674-11-2	< 0.10	n/a	ug/L					U	09/27/07
BLANK	Aroclor-1221	11104-28-2	< 0.20	n/a	ug/L					U	09/27/07
BLANK	Aroclor-1232	11141-16-5	< 0.10	n/a	ug/L					U	09/27/07
BLANK	Aroclor-1242	53469-21-9	< 0.10	n/a	ug/L					U	09/27/07
BLANK	Aroclor-1248	12672-29-6	< 0.10	n/a	ug/L					U	09/27/07
BLANK	Aroclor-1254	11097-69-1	< 0.10	n/a	ug/L					U	09/27/07
BLANK	Aroclor-1260	11096-82-5	< 0.10	n/a	ug/L					U	09/27/07
BLANK	Aroclor-1262	37324-23-5	< 0.10	n/a	ug/L					U	09/27/07
BLANK	Aroclor-1268	11100-14-4	< 0.10	n/a	ug/L					U	09/27/07
BLANK	Decachlorobiphenyl	2051-24-3	2.1217	106.000	% Recov	50.000	150.000				09/27/07
BLANK	Tetrachloro-m-xylene	877-09-8	2.0880	104.000	% Recov	50.000	150.000				09/27/07
LCS	Aroclor-1260	11096-82-5	1.9866	99.300	% Recov	70.000	130.000				09/27/07
LCS	Decachlorobiphenyl	2051-24-3	1.8795	94.000	% Recov	50.000	150.000				09/27/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20071596
Matrix: WATER
Test: PCBs complete list

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Tetrachloro-m-xylene	877-09-8	1.6334	81.700	% Recov	50.000	150.000				09/27/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071596
Matrix: WATER
Test: SW-846 8270C Semi-Vols

Sample Date: 09/06/07
Receive Date:09/06/07

Lab ID: W07GR02361
BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	1,2,4-Trichlorobenzene	120-82-1	18.657	96.100	% Recov	50.000	120.000				09/17/07
MS	1,4-Dichlorobenzene	106-46-7	18.055	93.000	% Recov	41.000	113.000				09/17/07
MS	2,4-Dinitrotoluene	121-14-2	18.045	92.900	% Recov	65.000	109.000				09/17/07
MS	2-Fluorophenol(Surr)	367-12-4	17.798	91.700	% Recov	50.000	110.000				09/17/07
MS	Acenaphthene	83-32-9	18.619	95.900	% Recov	62.000	112.000				09/17/07
MS	4-Chloro-3-methylphenol	59-50-7	28.909	99.300	% Recov	59.000	115.000				09/17/07
MS	2-Chlorophenol	95-57-8	27.410	94.100	% Recov	69.000	111.000				09/17/07
MS	N-Nitrosodi-n-dipropylamine	621-64-7	18.286	94.200	% Recov	69.000	115.000				09/17/07
MS	2-Fluorobiphenyl(Surr)	321-60-8	17.381	89.500	% Recov	58.000	109.000				09/17/07
MS	Phenol	108-95-2	22.967	78.900	% Recov	59.000	115.000				09/17/07
MS	Nitrobenzene-d5(Surr)	4165-60-0	18.848	97.100	% Recov	60.000	118.000				09/17/07
MS	4-Nitrophenol	100-02-7	30.837	106.000	% Recov	32.000	130.000				09/17/07
MS	Pentachlorophenol	87-86-5	28.626	98.300	% Recov	51.000	121.000				09/17/07
MS	Phenol-d5(Surr)	4165-62-2	15.618	80.400	% Recov	59.000	116.000				09/17/07
MS	Pyrene	129-00-0	16.742	86.200	% Recov	58.000	116.000				09/17/07
MS	2,4,6-Tribromophenol(Surr)	118-79-6	19.154	98.600	% Recov	60.000	120.000				09/17/07
MS	Terphenyl-d14(Surr)	98904-43-9	14.849	76.500	% Recov	60.000	120.000				09/17/07
MSD	1,2,4-Trichlorobenzene	120-82-1	18.264	94.100	% Recov	50.000	120.000				09/17/07
MSD	1,4-Dichlorobenzene	106-46-7	17.688	91.100	% Recov	41.000	113.000				09/17/07
MSD	2,4-Dinitrotoluene	121-14-2	18.718	96.400	% Recov	65.000	109.000				09/17/07
MSD	2-Fluorophenol(Surr)	367-12-4	12.004	61.800	% Recov	50.000	110.000				09/17/07
MSD	Acenaphthene	83-32-9	18.274	94.100	% Recov	62.000	112.000				09/17/07
MSD	4-Chloro-3-methylphenol	59-50-7	27.953	96.000	% Recov	59.000	115.000				09/17/07
MSD	2-Chlorophenol	95-57-8	19.254	66.100	% Recov	69.000	111.000				09/17/07
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	18.400	94.800	% Recov	69.000	115.000				09/17/07
MSD	2-Fluorobiphenyl(Surr)	321-60-8	17.029	87.700	% Recov	58.000	109.000				09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071596
Matrix: WATER
Test: SW-846 8270C Semi-Vols

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Phenol	108-95-2	24.763	85.000	% Recov	59.000	115.000				09/17/07
MSD	Nitrobenzene-d5(Surr)	4165-60-0	18.780	96.700	% Recov	60.000	118.000				09/17/07
MSD	4-Nitrophenol	100-02-7	28.463	97.700	% Recov	32.000	130.000				09/17/07
MSD	Pentachlorophenol	87-86-5	28.874	99.100	% Recov	51.000	121.000				09/17/07
MSD	Phenol-d5(Surr)	4165-62-2	17.146	88.300	% Recov	59.000	116.000				09/17/07
MSD	Pyrene	129-00-0	17.529	90.300	% Recov	58.000	116.000				09/17/07
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	19.441	100.000	% Recov	60.000	120.000				09/17/07
MSD	Terphenyl-d14(Surr)	98904-43-9	16.994	87.500	% Recov	60.000	120.000				09/17/07
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	94.100		RPD			2.103	25.000		09/17/07
SPK-RPD	1,4-Dichlorobenzene	106-46-7	91.100		RPD			2.064	25.000		09/17/07
SPK-RPD	2,4-Dinitrotoluene	121-14-2	96.400		RPD			3.698	25.000		09/17/07
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	61.800		RPD			38.958	25.000 *		09/17/07
SPK-RPD	Acenaphthene	83-32-9	94.100		RPD			1.895	25.000		09/17/07
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	96.000		RPD			3.379	25.000		09/17/07
SPK-RPD	2-Chlorophenol	95-57-8	66.100		RPD			34.956	25.000 *		09/17/07
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	94.800		RPD			0.635	25.000		09/17/07
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	87.700		RPD			2.032	25.000		09/17/07
SPK-RPD	Phenol	108-95-2	85.000		RPD			7.444	16.000		09/17/07
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	96.700		RPD			0.413	25.000		09/17/07
SPK-RPD	4-Nitrophenol	100-02-7	97.700		RPD			8.149	25.000		09/17/07
SPK-RPD	Pentachlorophenol	87-86-5	99.100		RPD			0.811	25.000		09/17/07
SPK-RPD	Phenol-d5(Surr)	4165-62-2	88.300		RPD			9.366	25.000		09/17/07
SPK-RPD	Pyrene	129-00-0	90.300		RPD			4.646	25.000		09/17/07
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	100.000		RPD			1.410	25.000		09/17/07
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	87.500		RPD			13.415	25.000		09/17/07
SURR	2-Fluorophenol(Surr)	367-12-4	19.413	100.000	% Recov	50.000	110.000				09/17/07
SURR	2-Fluorobiphenyl(Surr)	321-60-8	17.179	88.500	% Recov	58.000	109.000				09/17/07
SURR	Nitrobenzene-d5(Surr)	4165-60-0	19.049	98.100	% Recov	60.000	118.000				09/17/07
SURR	Phenol-d5(Surr)	4165-62-2	18.273	94.100	% Recov	59.000	116.000				09/17/07
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	19.039	98.100	% Recov	60.000	120.000				09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071596
Matrix: WATER
Test: SW-846 8270C Semi-Vols

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Terphenyl-d14(Surr)	98904-43-9	17.322	89.200	% Recov	60.000	120.000				09/17/07
BATCH QC											
BLANK	1,2-Dichlorobenzene	95-50-1	< 1.5	n/a	ug/L					U	09/17/07
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 2.2	n/a	ug/L					U	09/17/07
BLANK	1,3-Dichlorobenzene	541-73-1	< 1.3	n/a	ug/L					U	09/17/07
BLANK	1,4-Dichlorobenzene	106-46-7	< 1.4	n/a	ug/L					U	09/17/07
BLANK	2,4-Dichlorophenol	120-83-2	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2,4-Dinitrotoluene	121-14-2	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2,4,5-Trichlorophenol	95-95-4	< 0.65	n/a	ug/L					U	09/17/07
BLANK	2,4,6-Trichlorophenol	88-06-2	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2,4-Dimethylphenol	105-67-9	< 0.95	n/a	ug/L					U	09/17/07
BLANK	2,6-Dinitrotoluene	606-20-2	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2-Chloronaphthalene	91-58-7	< 3.5	n/a	ug/L					U	09/17/07
BLANK	2-Fluorophenol(Surr)	367-12-4	17.258	86.300	% Recov	50.000	110.000				09/17/07
BLANK	2-Methylnaphthalene	91-57-6	< 3.0	n/a	ug/L					U	09/17/07
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2-Nitroaniline	88-74-4	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2-Nitrophenol	88-75-5	< 0.50	n/a	ug/L					U	09/17/07
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 0.50	n/a	ug/L	0.000	5.000			U	09/17/07
BLANK	3-Nitroaniline	99-09-2	< 0.60	n/a	ug/L					U	09/17/07
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 1.0	n/a	ug/L					U	09/17/07
BLANK	4-Bromophenylphenyl ether	101-55-3	< 1.0	n/a	ug/L					U	09/17/07
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 1.7	n/a	ug/L					U	09/17/07
BLANK	Acenaphthene	83-32-9	< 2.6	n/a	ug/L					U	09/17/07
BLANK	Acenaphthylene	208-96-8	< 2.3	n/a	ug/L					U	09/17/07
BLANK	Anthracene	120-12-7	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Bis(2-chloroethyl) ether	111-44-4	< 0.90	n/a	ug/L					U	09/17/07
BLANK	Benzo(a)anthracene	56-55-3	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Benzo(b)fluoranthene	205-99-2	< 0.50	n/a	ug/L					U	09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071596
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	Benzo(ghi)perylene	191-24-2	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Benzo(a)pyrene	50-32-8	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 0.80	n/a	ug/L					U	09/17/07
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 1.0	n/a	ug/L	0.000	10.000			U	09/17/07
BLANK	Benzo(k)fluoranthene	207-08-9	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Butylbenzylphthalate	85-68-7	< 0.60	n/a	ug/L					U	09/17/07
BLANK	Carbazole	86-74-8	< 0.50	n/a	ug/L					U	09/17/07
BLANK	4-Chloroaniline	106-47-8	< 0.50	n/a	ug/L					U	09/17/07
BLANK	4-Chloro-3-methylphenol	59-50-7	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2-Chlorophenol	95-57-8	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Chrysene	218-01-9	< 0.50	n/a	ug/L					U	09/17/07
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 0.80	n/a	ug/L					U	09/17/07
BLANK	Dibenz[a,h]anthracene	53-70-3	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Dibenzofuran	132-64-9	< 2.2	n/a	ug/L					U	09/17/07
BLANK	Di-n-butylphthalate	84-74-2	< 2.3	n/a	ug/L					U	09/17/07
BLANK	Diethylphthalate	84-66-2	< 1.9	n/a	ug/L					U	09/17/07
BLANK	Dimethyl phthalate	131-11-3	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2,4-Dinitrophenol	51-28-5	< 2.0	n/a	ug/L					U	09/17/07
BLANK	Di-n-octylphthalate	117-84-0	< 0.50	n/a	ug/L					U	09/17/07
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 0.60	n/a	ug/L					U	09/17/07
BLANK	Dimethoate	60-51-5	< 1.0	n/a	ug/kg					U	09/17/07
BLANK	2-Fluorobiphenyl(Surr)	321-60-8	15.637	78.200	% Recov	58.000	109.000				09/17/07
BLANK	Fluorene	86-73-7	< 1.4	n/a	ug/L					U	09/17/07
BLANK	Fluoranthene	206-44-0	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Hexachlorobenzene	118-74-1	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Hexachlorobutadiene	87-68-3	< 2.0	n/a	ug/L					U	09/17/07
BLANK	Hexachlorocyclopentadiene	77-47-4	< 5.0	n/a	ug/L					U	09/17/07
BLANK	Hexachloroethane	67-72-1	< 1.4	n/a	ug/L					U	09/17/07
BLANK	Indeno(1,2,3-cd)pyrene	193-39-5	< 0.50	n/a	ug/L					U	09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071596
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	Isophorone	78-59-1	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Phenol	108-95-2	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Naphthalene	91-20-3	< 2.1	n/a	ug/L					U	09/17/07
BLANK	Nitrobenzene-d5(Surr)	4165-60-0	18.192	91.000	% Recov	60.000	118.000				09/17/07
BLANK	Nitrobenzene	98-95-3	< 0.60	n/a	ug/L					U	09/17/07
BLANK	4-Nitrophenol	100-02-7	< 1.0	n/a	ug/L					U	09/17/07
BLANK	4-Nitroaniline	100-01-6	< 1.0	n/a	ug/L					U	09/17/07
BLANK	N-Nitrosodiphenylamine	86-30-6	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Pentachlorophenol	87-86-5	< 1.5	n/a	ug/L					U	09/17/07
BLANK	Phenanthrene	85-01-8	< 0.55	n/a	ug/L					U	09/17/07
BLANK	Phenol-d5(Surr)	4165-62-2	17.391	87.000	% Recov	59.000	116.000				09/17/07
BLANK	Pyrene	129-00-0	< 0.50	n/a	ug/L					U	09/17/07
BLANK	Tributyl phosphate	126-73-8	< 0.50	n/a	ug/L					U	09/17/07
BLANK	2,4,6-Tribromophenol(Surr)	118-79-6	16.112	80.600	% Recov	60.000	120.000				09/17/07
BLANK	Terphenyl-d14(Surr)	98904-43-9	16.136	80.700	% Recov	60.000	120.000				09/17/07
LCS	1,2,4-Trichlorobenzene	120-82-1	17.551	87.800	% Recov	46.000	107.000				09/17/07
LCS	1,4-Dichlorobenzene	106-46-7	16.571	82.900	% Recov	42.000	111.000				09/17/07
LCS	2,4-Dinitrotoluene	121-14-2	18.216	91.100	% Recov	59.000	106.000				09/17/07
LCS	2-Fluorophenol(Surr)	367-12-4	18.924	94.600	% Recov	50.000	110.000				09/17/07
LCS	Acenaphthene	83-32-9	19.007	95.000	% Recov	61.000	116.000				09/17/07
LCS	4-Chloro-3-methylphenol	59-50-7	27.596	92.000	% Recov	61.000	106.000				09/17/07
LCS	2-Chlorophenol	95-57-8	28.196	94.000	% Recov	66.000	106.000				09/17/07
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	18.536	92.700	% Recov	71.000	114.000				09/17/07
LCS	2-Fluorobiphenyl(Surr)	321-60-8	17.886	89.400	% Recov	58.000	109.000				09/17/07
LCS	Phenol	108-95-2	28.624	95.400	% Recov	67.000	105.000				09/17/07
LCS	Nitrobenzene-d5(Surr)	4165-60-0	18.968	94.800	% Recov	60.000	118.000				09/17/07
LCS	4-Nitrophenol	100-02-7	24.160	80.500	% Recov	32.000	118.000				09/17/07
LCS	Pentachlorophenol	87-86-5	26.051	86.800	% Recov	62.000	114.000				09/17/07
LCS	Phenol-d5(Surr)	4165-62-2	19.492	97.500	% Recov	59.000	116.000				09/17/07
LCS	Pyrene	129-00-0	18.674	93.400	% Recov	66.000	118.000				09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20071596
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	2,4,6-Tribromophenol(Surr)	118-79-6	18.400	92.000	% Recov	60.000	120.000				09/17/07
LCS	Terphenyl-d14(Surr)	98904-43-9	18.533	92.700	% Recov	60.000	120.000				09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071596
Matrix: WATER
Test: NWTPH-D TPH Diesel Range (Wa)

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	ortho-Terphenyl Surr	84-15-1	401.43	84.300	% Recov	70.000	130.000				09/13/07
Lab ID: W07P001789											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	ortho-Terphenyl Surr	84-15-1	528.40	108.000	% Recov	70.000	130.000				09/14/07
MS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	2564.7	105.000	% Recov	75.000	125.000				09/14/07
MSD	ortho-Terphenyl Surr	84-15-1	531.70	108.000	% Recov	70.000	130.000				09/14/07
MSD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	2535.2	103.000	% Recov	75.000	125.000				09/14/07
SPK-RPD	ortho-Terphenyl Surr	84-15-1	108.000		RPD			0.000	20.000		09/13/07
SPK-RPD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	103.000		RPD			1.923	20.000		09/13/07
BATCH QC											
BLANK	Kerosene	TPHKEROSENE	< 120	n/a	ug/L					U	09/13/07
BLANK	ortho-Terphenyl Surr	84-15-1	414.04	82.800	% Recov	70.000	130.000				09/13/07
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 120	n/a	ug/L					U	09/13/07
LCS	ortho-Terphenyl Surr	84-15-1	441.27	88.300	% Recov	70.000	130.000				09/13/07
LCS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	2036.9	81.500	% Recov	80.000	120.000				09/13/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20071596
Matrix: WATER
Test: NWTPH-GX TPH Gasoline Range

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250		RPD			n/a	20.000	U	09/14/07
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	2060	82.400	% Recov	75.000	125.000				09/14/07
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	2140	85.600	% Recov	75.000	125.000				09/14/07
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	85.6		RPD			3.800	20.000		09/14/07
Lab ID: W07P001778											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250		RPD			n/a	20.000	U	09/14/07
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	1920	76.800	% Recov	75.000	125.000				09/14/07
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	2070	82.800	% Recov	75.000	125.000				09/14/07
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	82.800		RPD			7.519	20.000		09/14/07
BATCH QC											
BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	mg/L	0.000	300.000			U	09/14/07
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	2020	80.800	%rec	80.000	120.000				09/14/07

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F07-058

Group #: WSCF20071596
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		TPH-Diesel: All QC parameters are within control limits.cgc
				SVOA: The 66% recovery of the matrix spike compound, 2-chlorophenol, was 3% below the 69% lower control limit. Hence, it also exceeded the spike rpd limit of 20%. The surrogate, 2-fluorophenol, spike relative percent difference of 39% exceeded the 20% maximum relative percent difference control limit. The MSD result was within control limits but lower than normal while the MS result was higher than normal. cgc/gar
				Gross alpha duplicate is flagged for poor RPD. Since all the other QC checks came out fine, this batch has been approved. lmh
				W07GR02361/U235 Duplicate is flagged for poor RPD. Since all the other QC checks came out fine, this batch has been approved. lmh
				Am243 (tracer recovery) came out high for the LCS. Since all the other tracer recoveries for the Am241 test came out fine, this batch has been approved. lmh

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: F07-058
Sample # W07GR02361
Client ID: B1PLH0 TRENT WSCF

Matrix: WATER

Group #: WSCF20071596
Department: Radiochemistry
Sampled: 09/06/07
Received: 09/06/07

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	0.0180	pCi/L	+-0.0263	pCi/L	1.00	0.044		10/03/07
Am-243 tracer by AEA	AM243	LA-508-471		10.0	pCi/L			1.00	0.027		10/03/07
Gamma Energy Analysis-grd H2O											
Cobalt-60	10198-40-0	LA-508-481	U	0.217	pCi/L	+-2.17	pCi/L	1.00	10		09/11/07
Cesium-137	10045-97-3	LA-508-481	U	-4.71	pCi/L	+-6.15	pCi/L	1.00	10		09/11/07
Europium-152	14683-23-9	LA-508-481	U	7.93	pCi/L	+-18.7	pCi/L	1.00	29		09/11/07
Europium-154	15585-10-1	LA-508-481	U	-4.26	pCi/L	+-16.2	pCi/L	1.00	28		09/11/07
Europium-155	14391-16-3	LA-508-481	U	-7.49	pCi/L	+-19.3	pCi/L	1.00	32		09/11/07
Gross Alpha/Gross Beta (AB32)											
Gross alpha	12587-46-1	LA-508-415		8.80	pCi/L	+-2.11	pCi/L	1.00	1.1		09/11/07
Gross beta	12587-47-2	LA-508-415		24.0	pCi/L	+-3.36	pCi/L	1.00	2.6		09/11/07
Neptunium by AEA											
Neptunium-237	13994-20-2	LA-508-471		0.0540	pCi/L	+-0.0346	pCi/L	1.00	0.038		10/10/07
Plutonium Isotopics by AEA											
Plutonium-238	13981-16-3	LA-508-471	U	0.0610	pCi/L	+-0.0781	pCi/L	1.00	0.13		10/03/07
Pu-239/240 by AEA	PU-239/240	LA-508-471	U	0.0230	pCi/L	+-0.0336	pCi/L	1.00	0.056		10/03/07
Pu-242 tracer by AEA	PU242	LA-508-471		16.0	pCi/L			1.00	0.043		10/03/07
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	U	-1.90	pCi/L	+-2.09	pCi/L	1.00	0.87		09/27/07
Sr-85 Tracer by Beta Counting	SR85	LA-508-415		94.4	Percent			1.00	0.0		09/27/07
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		18.0	pCi/L	+-4.50	pCi/L	1.00	4.2		09/17/07
Uranium Isotopics by AEA											
Uranium-233/234	U-233/234	LA-508-471		3.10	pCi/L	+-0.837	pCi/L	1.00	0.047		10/03/07

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-058
Sample # W07GR02361
Client ID: B1PLH0 TRENT WSCF

Matrix: WATER

Group #: WSCF20071596
Department: Radiochemistry
Sampled: 09/06/07
Received: 09/06/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Uranium-235	15117-96-1	LA-508-471		0.250	pCi/L	+-0.0950	pCi/L	1.00	0.013		10/03/07
Uranium-238	U-238	LA-508-471		3.10	pCi/L	+-0.837	pCi/L	1.00	0.032		10/03/07
U-232 tracer by AEA	U232	LA-508-471		10.0	pCi/L			1.00	0.073		10/03/07

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria.(org)

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

WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent
Project Number F07-058 :F07-058

Group #: WSCF20071596
Department: Radiochemistry

Sample #	Client ID		Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W07GR02361	B1PLH0	TRENT	Gamma Energy Analysis-grd H2O	BI-214				2.1e+02	pCi/L
W07GR02361	B1PLH0	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error				24	%
W07GR02361	B1PLH0	TRENT	Gamma Energy Analysis-grd H2O	PB-214				1.1e+02	pCi/L
W07GR02361	B1PLH0	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error				25	%
W07GR02361	B1PLH0	TRENT	Gamma Energy Analysis-grd H2O	RA-226				1.2e+02	pCi/L
W07GR02361	B1PLH0	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error				26	%

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

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20071596
Matrix: WATER
Test: Gross Alpha/Gross Beta (AB32)

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross alpha	12587-46-1	5.7		RPD			42.759	20.000 *		09/11/07
DUP	Gross beta	12587-47-2	23.1		RPD			5.474	20.000		09/11/07
BATCH QC											
BLANK	Gross alpha	12587-46-1	U-4.5e-02	n/a	pCi/L	-10.000	10.000				09/11/07
BLANK	Gross beta	12587-47-2	U-5.3E-01	n/a	pCi/L	-10.000	10.000				09/11/07
LCS	Gross alpha	12587-46-1	38.7	99.897	% Recov	80.000	120.000				09/11/07
LCS	Gross beta	12587-47-2	123.0	109.626	% Recov	80.000	120.000				09/11/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20071596
Matrix: WATER
Test: Gamma Energy Analysis-grd H2O

Sample Date: 09/06/07
Receive Date:09/06/07

Lab ID: W07GR02354

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
DUP	Cesium-137	10045-97-3	U1.421		RPD			n/a	20.000		09/10/07

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Cobalt-60	10198-40-0	U-4.981	n/a	pCi/L	-10.000	1000.000				09/10/07
BLANK	Cesium-137	10045-97-3	U-4.925e-2	n/a	pCi/L	-10.000	1000.000				09/10/07
BLANK	Europium-152	14683-23-9	U-9.682	n/a	pCi/L	-10.000	1000.000				09/10/07
BLANK	Europium-154	15585-10-1	U16.88	n/a	pCi/L	-10.000	1000.000				09/10/07
BLANK	Europium-155	14391-16-3	U7.425	n/a	pCi/L	-10.000	1000.000				09/10/07
LCS	Cobalt-60	10198-40-0	9982	100.423	% Recov	80.000	120.000				09/10/07
LCS	Cesium-137	10045-97-3	6524	108.013	% Recov	80.000	120.000				09/10/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071596
Matrix: WATER
Test: Americium by AEA

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Americium-241	14596-10-2	5.2e-2		RPD			n/a	20.000		10/03/07
DUP	Am-243 tracer by AEA	AM243	9.988	95.950	% Recov	30.000	105.000				10/03/07
SURR	Am-243 tracer by AEA	AM243	9.988	91.350	% Recov	30.000	105.000				10/03/07
BATCH QC											
BLANK	Americium-241	14596-10-2	7.9e-2	0.079	pCi/L	-10.000	1000.000				10/03/07
BLANK	Am-243 tracer by AEA	AM243	9.988	99.470	% Recov	30.000	105.000				10/03/07
LCS	Americium-241	14596-10-2	10.25	86.498	% Recov	80.000	120.000				10/03/07
LCS	Am-243 tracer by AEA	AM243	11.09	111.490	% Recov	30.000	105.000				10/03/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071596
Matrix: WATER
Test: Neptunium by AEA

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Neptunium-237	13994-20-2	4.5e-2		RPD			18.182	20.000		10/10/07
MS	Neptunium-237	13994-20-2	96.675	96.675	% Recov	75.000	125.000				10/10/07
MSD	Neptunium-237	13994-20-2	104.246	104.246	% Recov	75.000	125.000				10/10/07
SPK-RPD	Neptunium-237	13994-20-2	104.246		% RPD			7.515	20.000		10/10/07
BATCH QC											
BLANK	Neptunium-237	13994-20-2	U-8.2e-3	n/a	pCi/L	-10.000	1000.000				10/10/07
LCS	Neptunium-237	13994-20-2	12.89	101.138	% Recov	80.000	120.000				10/10/07

REVISED
Dhyes
2/26/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071596
Matrix: WATER
Test: Plutonium Isotopics by AEA

Sample Date: 09/06/07
Receive Date:09/06/07

Lab ID: W07GR02361

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
DUP	Plutonium-238	13981-16-3	U5.2e-2		RPD			n/a	20.000		10/03/07
DUP	Pu-239/240 by AEA	PU-239/240	U3.8e-2		RPD			n/a	20.000		10/03/07
DUP	Pu-242 tracer by AEA	PU242	15.6	87.050	% Recov	30.000	105.000				10/03/07
SURR	Pu-242 tracer by AEA	PU242	15.6	90.170	% Recov	30.000	105.000				10/03/07

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Plutonium-238	13981-16-3	U5.1e-2	n/a	pCi/L	-10.000	1000.000				10/03/07
BLANK	Pu-239/240 by AEA	PU-239/240	U2.3e-2	n/a	pCi/L	-10.000	1000.000				10/03/07
BLANK	Pu-242 tracer by AEA	PU242	15.6	92.940	% Recov	30.000	105.000				10/03/07
LCS	Pu-239/240 by AEA	PU-239/240	12.74	99.183	% Recov	80.000	120.000				10/03/07
LCS	Pu-242 tracer by AEA	PU242	17.32	86.960	% Recov	30.000	105.000				10/03/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071596
Matrix: WATER
Test: Strontium 89/90

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02354											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Sr-85 Tracer by Beta Counting	SR85	88.8	88.800	% Recov	30.000	105.000				09/27/07
DUP	Strontium-89/90	SR-RAD	U5.1E-01		RPD			n/a	20.000		09/27/07
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	Sr-85 Tracer by Beta Counting	SR85	94.4	94.400	% Recov	30.000	105.000				09/27/07
BATCH QC											
BLANK	Sr-85 Tracer by Beta Counting	SR85	98.5	98.500	% Recov	30.000	105.000				09/27/07
BLANK	Strontium-89/90	10098-97-2	U-1.2	n/a	pCi/L	-10.000	100.000				09/27/07
LCS	Sr-85 Tracer by Beta Counting	SR85	89.0	89.000	% Recov	30.000	105.000				09/27/07
LCS	Strontium-89/90	10098-97-2	183.0	109.778	% Recov	80.000	120.000				09/27/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071596
Matrix: WATER
Test: TC99 by Liquid Scin.

Sample Date: 08/28/07
Receive Date:08/28/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02297											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Technetium-99	14133-76-7	U-4.1		RPD			n/a	20.000		09/17/07
Lab ID: W07GR02300											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Technetium-99	14133-76-7	169.5	104.501	% Recov	75.000	125.000				09/17/07
BATCH QC											
BLANK	Technetium-99	14133-76-7	U-5.1	n/a	pCi/L	-10.000	10.000				09/17/07
LCS	Technetium-99	14133-76-7	203.2	100.247	% Recov	80.000	120.000				09/17/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071596
Matrix: WATER
Test: Uranium Isotopics by AEA

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	U-232 tracer by AEA	U232	10.4	85.790	% Recov	30.000	105.000				10/03/07
DUP	Uranium-233/234	U-233/234	3.1		RPD			0.000	20.000		10/03/07
DUP	Uranium-235	15117-96-1	0.16		RPD			43.902	20.000		10/03/07
DUP	Uranium-238	U-238	3.1		RPD			0.000	20.000		10/03/07
SURR	U-232 tracer by AEA	U232	10.4	94.640	% Recov	30.000	105.000				10/03/07
BATCH QC											
BLANK	U-232 tracer by AEA	U232	10.4	88.060	% Recov	30.000	105.000				10/03/07
BLANK	Uranium-233/234	13966-29-5	U4.6e-3	n/a	pCi/L	-10.000	1000.000				10/03/07
BLANK	Uranium-235	15117-96-1	U5e-3	n/a	pCi/L	-10.000	1000.000				10/03/07
BLANK	Uranium-238	24678-82-8	U9.2e-3	n/a	pCi/L	-10.000	1000.000				10/03/07
LCS	U-232 tracer by AEA	U232	11.54	86.110	% Recov	30.000	105.000				10/03/07
LCS	Uranium-233/234	13966-29-5	n/a	n/a	% Recov	75.000	125.000				10/03/07
LCS	Uranium-238	24678-82-8	21	110.789	% Recov	80.000	120.000				10/03/07

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F07-058

Group #: WSCF20071596
Department: Radiochemistry

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		TPH-Diesel: All QC parameters are within control limits.cgc SVOA: The 66% recovery of the matrix spike compound, 2-chlorophenol, was 3% below the 69% lower control limit. Hence, it also exceeded the spike rpd limit of 20%. The surrogate, 2-fluorophenol, spike relative percent difference of 39% exceeded the 20% maximum relative percent difference control limit. The MSD result was within control limits but lower than normal while the MS result was higher than normal. cgc/gar Gross alpha duplicate is flagged for poor RPD. Since all the other QC checks came out fine, this batch has been approved. lmh W07GR02361/U235 Duplicate is flagged for poor RPD. Since all the other QC checks came out fine, this batch has been approved. lmh Am243 (tracer recovery) came out high for the LCS. Since all the other tracer recoveries for the Am241 test came out fine, this batch has been approved. lmh

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-07-750

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 4 pages
Including cover page

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

File
10/18/07

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program
Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 122585/ES10
Group#: 20071596
Project#: F07-058
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 09/06/07. 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
W07GR02361	B1PLH0	TRENT	Water					09/06/07
		@2008	@AB-32	@AEA-30	@AEA-31	@AEA-32		
		@AEA-33	@GEA-GPP	@IC-30	@PCBGPP	@SR89_90	@SVOC	
		@TC99-30	@TPHD-WA	@TPHG-WA	CN-02	CR+6		

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@AB-32	Gross Alpha/Gross Beta (AB32)
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@AEA-33	Neptunium by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@IC-30	Anions by Ion Chromatography
@PCBGPP	PCBs complete list
@SR89_90	Strontium 89/90
@SVOCGPP	SW-846 8270C Semi-Vols
@TC99-30	TC99 by Liquid Scin.
@TPHD-WA	NWTPH-D TPH Diesel Range (Wa)
@TPHG-WA	NWTPH-GX TPH Gasoline Range
CN-02	Cyanide by Midi/Spectrophotom
CR+6	Hexavalent chromium

Fluor Hanford Inc. 10/18/07

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F07-058-011

COLLECTOR POPE 20071536

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 7N

DATA TURNAROUND 45 Days / 45 Days

SAMPLING LOCATION C5515, I-Water 3221

PROJECT DESIGNATION 216-A-2 and 216-A-21 Characterization Sampling and Analysis - Groundwat

SAF NO. F07-058

AIR QUALITY

ICE CHEST NO.

FIELD LOGBOOK NO.

COA 122585ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

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

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993) Radiological tie to B1PLF8

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	HCl to pH <2/Cool~4C	HCl to pH <2/Cool~4C	HNO3 to pH <2	Cool~4C	Cool~4C	Cool~4C	NaOH to pH >= 12/Cool~4C	HNO3 to pH <2	HNO3 to pH <2
TYPE OF CONTAINER	aG	aG	aGs*	G/P	aG	aG	P	G/P	Square Bottle - Poly	G/P
NO. OF CONTAINER(S)	4	3	3	1	1	4	1	1	1	1
VOLUME	1000mL	1000mL	1000mL	125mL	500mL	1000mL	120mL	250mL	500mL	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TPH-Gasoline Range - WTPH-G;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	PCBs - 8082;	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	Cyanide (Total) - 335.2;	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Gross Alpha; Gross Beta;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1PLH0 WD76R02361	WATER	9.6.07	0825	X	X	X	X	X	X	X	X	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
S.S. Pope / [signature] 9.6.07	1425	TA Frazier / [signature]	9/6/07 1425

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

(1)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) {Dimethoate, Tributyl phosphate}
(2)TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range}
(3)ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Copper, Manganese, Nickel, Silver, Vanadium, Zinc} ICP/MS - 200.8 (Add-on) {Arsenic, Lead, Selenium, Thallium, Uranium} 200.8_HG - ICPMS;
(4)IC Anions - 300.0 {Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate}
(5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

ICED
Initial
Date

LABORATORY SECTION RECEIVED BY TITLE DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD DISPOSED BY DATE/TIME

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F07-058-011 PAGE 2 OF 2

COLLECTOR Pope

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 7N

DATA TURNAROUND 45 Days / 45 Days

SAMPLING LOCATION C5515, I-Water 322'

PROJECT DESIGNATION 216-A-2 and 216-A-21 Characterization Sampling and Analysis - Groundwat

SAF NO. F07-058

AIR QUALITY

ICE CHEST NO.

FIELD LOGBOOK NO.

COA 122585ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

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

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993) Radiological tie to B1PLF8

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2	HNO3 to pH<2	HNO3 to pH <2	HNO3 to pH <2	HNO3 to pH <2	HCl to pH <2
TYPE OF CONTAINER	G/P	G/P	P	G/P	G/P	G/P
NO. OF CONTAINER(S)	1	1	1	1	1	2
VOLUME	1000mL	1000mL	1000mL	1000mL	1000mL	1000mL
SAMPLE ANALYSIS	Americium-241;	Isotopic Uranium;	Isotopic Plutonium;	Neptunium-237;	Strontium-89,90 – Total Sr;	Technetium-99;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1PLH0	WATER	9.6.07	0825	X	X	X	X	X	X		

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.S. Pope / [illegible] 9.6.07	1425	TA Frazier / [illegible]	9/6/07 1425

ICED
Initial
Date

LABORATORY SECTION RECEIVED BY TITLE DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD DISPOSED BY DATE/TIME

Fluor Hanford
WSCF Analytical Lab
P.O. Box 1000
Richland, WA 99352
Telephone 373-7495
Telefax 372-0456

FLUOR

Memorandum

M4W41-SLF-07-750

To: H. Hampt E6-35 Date: October 18, 2007

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

cc: w/Attachments

T. F. Dale	S3-30	S. J. Trent	E6-35
H. K. Meznarich	S3-30	D. D. Wright	S3-30
P. D. Mix	S3-30	File/LB	
J. E. Trechter	S3-30		

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20071596 – SAF NUMBER F07-058

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

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

This letter contains the following information for sample delivery group WSCF20071596:

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

SLF/grf

Attachments 4

These pages replaced per laboratory direction.
DAyes

OCT 2007
RECEIVED

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20071596
Matrix: WATER
Test: Neptunium by AEA

Sample Date: 09/06/07
Receive Date:09/06/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR02361											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Neptunium-237	13994-20-2	4.5e-2		RPD			18.182	20.000		10/10/07
MS	Neptunium-237	13994-20-2	96.675	96.675	% Recov	75.000	125.000				10/10/07
MSD	Neptunium-237	13994-20-2	104.246	104.246	% Recov	75.000	125.000				10/10/07
SPK-RPD	Neptunium-237	13994-20-2	104.246		% RPD			7.515	20.000		10/10/07
BATCH QC											
BLANK	Neptunium-237	13994-20-2	U-8.2e-3	n/a	% Recov	-10.000	1000.000				10/10/07
LCS	Neptunium-237	13994-20-2	12.89	101.138	% Recov	80.000	120.000				10/10/07