WSCF Laboratory
PO Box 650 S3-30
Richland, WA 99352

December 19, 2012

Scot Fitzgerald
CH2M-HILL PRC
PO Box 1600
Richland, WA 99352

Dear Scot Fitzgerald,

REVISED121456 - 699848 [Report ID: 121456]

Reference: (1) SOW, Mod 2, #36587, Release 3
(2) MSC-SD-CD-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Program Plan

This letter contains the following information for sample delivery group WSCF121456

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

Very truly yours,

Electronically signed by Joseph Hale
For Lab Manager, Dan T. Smith
WSCF Analytical Lab
(509) 373-4804

Attachments 4
CC: w/Attachments

File/LB

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages

Including cover page

WSCF SAF Number Cross Reference

Group # WSCF121456
Data Deliverable Date 12/14/12

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
W13-011	B2MN63	121456001	WATER	11/13/12	11/13/12
W13-011	B2MN64	121456002	WATER	11/13/12	11/13/12
W13-011	B2MN67	121456003	WATER	11/13/12	11/13/12
W13-011	B2MN68	121456004	WATER	11/13/12	11/13/12
I13-005	B2MP06	121456005	WATER	11/13/12	11/13/12
I13-005	B2MP07	121456006	WATER	11/13/12	11/13/12
W13-011	B2MNK0	121456007	WATER	11/13/12	11/13/12
W13-011	B2MNK1	121456008	WATER	11/13/12	11/13/12

ATTACHMENT 2

NARRATIVE

Consisting of 7 pages
Including cover page

Attachment 2
Narrative Rev1
WSCF121456

Revision 1: This case narrative replaces the prior in its entirety. 1,4-Dioxane was added per SDR13-064 to samples B2MN63, and B2MN64.

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Master Contract 39818, Revision 3, "Laboratory Analytical Services to CHPRC Soil and Groundwater Remediation Project."*

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 not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

- Sample Issue Resolution Form SDR13-012 regarding Hexachlorophene analysis is attached to this report.
- Sample Issue Resolution Form SDR13-030 regarding VOA analytical list is attached to this report.
- Sample Issue Resolution Form SDR13-064 adding 1,4-Dioxane by 8270 is attached to this report.

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

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.

Attachment 2
Narrative Rev1
WSCF121456

- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

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. Analytical Note(s):

- All applicable QC controls are within the established limits.

ICP-AES Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Calcium – Exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.
- All other applicable 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. Analytical Note(s):

- Batch QC 211122
  - Zinc was detected in the Blank and evaluated.
  - All other applicable QC controls are within the established limits.

Total Alkalinity – The hold time requirement for this analysis was met. A Duplicate and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Total Dissolved Solids – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed for this sample delivery group. Analytical Note(s):

- The duplicate is outside of default RPD limits. Duplicate Relative Percent Difference (RPD) does not apply to results near or below the minimum detectable level. No flags issued.

Attachment 2
Narrative Rev1
WSCF121456

- All other applicable QC controls are within the established limits.

Total Organic Carbon – 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. Analytical Note(s):

- All applicable QC controls are within the established limits.

Organic Comments

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- 3-3'Dichlorobenzidine did not meet the LCS / LCSD RPD acceptance limits. Sample results for this analyte were not flagged. The quality control report was flagged for RPD failure.

- All other applicable 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. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike (Matrix Spikes apply only to Technetium & Tritium), Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

Tritium:

- All applicable QC controls are within the established limits.

Technetium-99:

- All applicable QC controls are within the established limits.

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

Attachment 2
Narrative Rev1
WSCF121456

SAMPLE ISSUE RESOLUTION

SIR NUM	SDR13-012
REV NUM	1
DATE INITIATED	10/15/2012

SAMPLE EVENT INFORMATION

SAF NUM(S)	W13-010
OPERABLE UNIT(S)	
PROJECT(S)	RCRA13
SAMPLE EVENT TITLE(S)	RCRA13
LABORATORY	Waste Sampling & Characterization

SAMPLING INFORMATION

NUMBER OF SAMPLES	18
SAMPLE NUMBERS	B2M171, B2M129, B2M135, B2M165, B2M123, B2M177, B2M9W6, B2M0Y3, B2M0Y9, B2M141, B2M147, B2M153, B2M159, B2M111, B2M194, B2M105, B2M117, B2M1B0, B2M183, B2MN99, B2MNB5, B2MN81, B2MN82, B2MN94, B2MN71, B2MN57, B2MN32, B2MN52, B2MN89, B2MNC0, B2MXL9, B2MN75, B2MN47, B2MN42, B2MXM8, B2MXN9, B2MXN8, B2MXM7, B2MN63, B2MN64
SAMPLE MATRIX	WATER
COLLECTION DATE	10/3/2012 - 11/30/2012
SDG NUM	WSCF121223, WSCF121226, WSCF121230, WSCF121232, WSCF121239, WSCF121241, WSCF121242, WSCF121274, WSCF121275, WSCF121284, WSCF121303, WSCF121398, WSCF121401, WSCF121402, WSCF121404, WSCF121439, WSCF121448, WSCF121450, WSCF121456

ISSUE BACKGROUND

CLASS	Laboratory Issue
TYPE	Cancellation of Analyses
DESCRIPTION	WSCF is not currently calibrated for Hexachlorophene by 8270. The compound is polar thus it sticks to the columns. Therefore, it is not able to be routinely measure in the extract. In order to be able to report the compound it would need to be derivatized. WSCF is currently not setup to derivatize Hexachlorophene.

DISPOSITION

DESCRIPTION	PROPOSED DISPOSITION: Report the data without Hexachlorophene and note issue in narrative.
JUSTIFICATION	ACCEPTED DISPOSITION: Accept proposed resolution and request that WSCF send a weekly update of any further SDGs that are affected to be added to this SIR. SUBMITTED BY: Heather Medley/WSCF DATE: 10/15/12 ACCEPTED BY: Karen Waters-Husted/CHPRC DATE: 10/16/12

A-6003-640 (03/30)

PAGE 1 of 1

Attachment 2
Narrative Rev1
WSCF121456

SAMPLE ISSUE RESOLUTION

SIR NUM	SDR13-030
REV NUM	0
DATE INITIATED	11/2/2012

SAMPLE EVENT INFORMATION

SAF NUM(S)	W13-011
OPERABLE UNIT(S)	NONE
PROJECT(S)	RCRA13
SAMPLE EVENT TITLE(S)	RCRA13
LABORATORY	Waste Sampling & Characterization

SAMPLING INFORMATION

NUMBER OF SAMPLES	11
SAMPLE NUMBERS	B2MN32, B2MN52, B2MN57, B2MN71, B2MN81, B2MN82, B2MN89, B2MN94, B2MN99, B2MNB5, B2MNC0, B2MNX8, B2MNX9, B2MP16, B2MP30, B2MP41, B2MP22, B2MP23, B2MXL9, B2MN75, B2MN47, B2MN42, B2MXM8, B2MXN9, B2MXN8, B2MXM7, B2MN63, B2MN64, B2MP06, B2MP07
SAMPLE MATRIX	WATER
COLLECTION DATE	-
SDG NUM	WSCF121398, WSCF121401, WSCF121402, WSCF121404, WSCF121411, WSCF121419, WSCF121437, WSCF121439, WSCF121448, WSCF121450, WSCF121456

ISSUE BACKGROUND

CLASS	General Laboratory Direction
TYPE	Clarification of Direction
DESCRIPTION	The chain of custodies requested service 8260_VOA_GCMS_IX: COMMON. The SAF also requests some of the add-on for 8260_VOA_GCMS_IX: COMMON Add-ons

DISPOSITION

DESCRIPTION	PROPOSED DISPOSITION: Please confirm the service lists/analytes that need to be reported.
JUSTIFICATION	ACCEPTED DISPOSITION: Use the full list under the "COMMON" service list and add ons, as provided by Doris

SUBMITTED BY: Heather Medley/WSCF DATE: 11/2/12

A-6003-640 (03/30)

PAGE 1 of 1

Attachment 2
Narrative Rev1
WSCF121456

SAMPLE ISSUE RESOLUTION

SIR NUM	SDR13-064
REV NUM	0
DATE INITIATED	12/12/2012

SAMPLE EVENT INFORMATION

SAF NUM(S)	W13-011, X13-012, W13-012, I13-007, W13-002, W13-010
OPERABLE UNIT(S)	NONE, 100-NR-2
PROJECT(S)	SURV13, CERC13, RCRA13
SAMPLE EVENT TITLE(S)	SURV13, CERC13, RCRA13
LABORATORY	Waste Sampling & Characterization

SAMPLING INFORMATION

NUMBER OF SAMPLES	63
SAMPLE NUMBERS	B2M0Y3, B2M0Y9, B2M105, B2M111, B2M117, B2M123, B2M129, B2M135, B2M141, B2M147, B2M153, B2M159, B2M165, B2M171, B2M177, B2M183, B2M194, B2M1B0, B2M9W6, B2MN27, B2MN32, B2MN37, B2MN42, B2MN47, B2MN52, B2MN57, B2MN64, B2MN71, B2MN75, B2MN81, B2MN82, B2MN89, B2MN94, B2MN99, B2MNB5, B2MNC0, B2MXD6, B2MXL9, B2MXM7, B2MXM8, B2MXN9, B2N3D3, B2N3D5, B2N905, B2N906, B2N910, B2N914, B2N915, B2N919, B2N923, B2N926, B2N931, B2N935, B2N938, B2N941, B2N945, B2N946, B2N950, B2N953, B2N957, B2N958, B2N962, B2N965
SAMPLE MATRIX	WATER
COLLECTION DATE	10/3/2012 - 12/6/2012
SDG NUM	WSCF121241, WSCF121242, WSCF121404, WSCF121448, WSCF121284, WSCF121439, WSCF121226, WSCF121555, WSCF121456, WSCF121275, WSCF121230, WSCF121223, WSCF121303, WSCF121402, WSCF121401, WSCF121398, WSCF121274, WSCF121232, WSCF121450, WSCF121239

ISSUE BACKGROUND

CLASS	Sample Management Issues
TYPE	Addition of Analyses
DESCRIPTION	Missed adding Appendix IX constituent 1,4-Dioxane to the new service list.
DISPOSITION DESCRIPTION	Proposed disposition: Request that WSCF report the missing data for 1,4-Dioxane for the listed samples. SMR will add necessary information to the affected data packages.
JUSTIFICATION	Accepted disposition: WSCF understands SMR missed having 1,4-dioxane reported for the Appendix IX 8270 service list. The data is available. WSCF has added 1,4-dioxane to the yellow highlighted samples above in addition to B2MXN8 (121450), and B2MN63 (121456). The samples not highlighted have not been received by WSCF as of 12/17/12. When they are received 1,4-dioxane will be added.

Submitted by: Karen Waters-Husted/CHPRC DATE: 12/12/12
Accepted by: Heather Medley/WSCF DATE: 12/17/12

A-6003-640 (03/30) PAGE 1 of 1

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 119 pages
Including cover page

WSCF ANALYTICAL RESULTS REPORT

For

CH2M Hill Plateau Remediation

PO Box 1600
Richland, WA 99352

Attention: Scot Fitzgerald

Contract # MOA-FH-CHPRC-2008
Group # WSCF121456
Report Date December 19, 2012

Analytical: Electronically signed by Joseph Hale

Client Services: Electronically signed by Heather Medley

Solid samples results that have a 'Percent Solid' test are reported on a "dry weight basis", except results of TCLP, Percent Solid, and Total Activity. If no `Percent Solid' test is reported then the results are reported on an "as received" basis.

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
210747	210923	5	BLANK	85452	BLANK		ICP-6010 - All possible metals
210747	210923	7	LCS	85454	LCS		ICP-6010 - All possible metals
210747	210923	9	MS	85455	B2MXN4(121450001MS)	121450001	ICP-6010 - All possible metals
210747	210923	10	MSD	85456	B2MXN4(121450001MSD	121450001	ICP-6010 - All possible metals
210747	210923	18	SAMPLE	121456001	B2MN63		ICP-6010 - All possible metals
210747	210923	19	SAMPLE	121456002	B2MN64		ICP-6010 - All possible metals
210747	210923	22	SAMPLE	121456003	B2MN67		ICP-6010 - All possible metals
210747	210923	23	SAMPLE	121456004	B2MN68		ICP-6010 - All possible metals
210747	210923	24	SAMPLE	121456007	B2MNK0		ICP-6010 - All possible metals
210747	210923	25	SAMPLE	121456008	B2MNK1		ICP-6010 - All possible metals
211122	211289	4	BLANK	85827	BLANK		ICP-2008 MS All possible metal
211122	211289	5	LCS	85828	LCS		ICP-2008 MS All possible metal
211122	211289	7	MS	85829	B2MN49(121448006MS)	121448006	ICP-2008 MS All possible metal
211122	211289	8	MSD	85830	B2MN49(121448006MSD	121448006	ICP-2008 MS All possible metal
211122	211289	25	SAMPLE	121456001	B2MN63		ICP-2008 MS All possible metal
211122	211289	26	SAMPLE	121456002	B2MN64		ICP-2008 MS All possible metal
211122	211289	27	SAMPLE	121456003	B2MN67		ICP-2008 MS All possible metal
211122	211289	28	SAMPLE	121456004	B2MN68		ICP-2008 MS All possible metal
211122	211289	29	SAMPLE	121456005	B2MP06		ICP-2008 MS All possible metal
211267	211274	4	BLANK	86053	BLANK		ICP-2008 MS All possible metal
211267	211274	5	LCS	86054	LCS		ICP-2008 MS All possible metal
211267	211274	6	SAMPLE	121456006	B2MP07		ICP-2008 MS All possible metal
211267	211274	7	MS	86055	B2MP07(121456006MS)	121456006	ICP-2008 MS All possible metal

REVISED121456 -

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
211267	211274	8	MSD	86056	B2MP07(121456006MSD	121456006	ICP-2008 MS All possible metal

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
210318	210418	1	BLANK	85000	BLANK		SW-846 8270D Semivolatiles
210318	210418	2	LCS	85001	LCS		SW-846 8270D Semivolatiles
210318	210418	3	LCSD	85004	LCSD		SW-846 8270D Semivolatiles
210318	210418	4	MS	85002	B2MXL9(121439002MS)	121439002	SW-846 8270D Semivolatiles
210318	210418	5	MSD	85003	B2MXL9(121439002MSD	121439002	SW-846 8270D Semivolatiles
210318	210418	14	SAMPLE	121456001	B2MN63		SW-846 8270D Semivolatiles
210318	210418	16	SAMPLE	121456002	B2MN64		SW-846 8270D Semivolatiles

Batch QC List

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
210345	210346	1	BLANK	85126	BLANK		SW-846 8260B Volatiles
210345	210346	2	LCS	85127	LCS		SW-846 8260B Volatiles
210345	210346	3	MS	85128	B2MXM8(121450005MS)	121450005	SW-846 8260B Volatiles
210345	210346	4	MSD	85129	B2MXM8(121450005MSD	121450005	SW-846 8260B Volatiles
210345	210346	13	SAMPLE	121456001	B2MN63		SW-846 8260B Volatiles
210345	210346	14	SAMPLE	121456005	B2MP06		SW-846 8260B Volatiles
210345	210346	15	SAMPLE	121456002	B2MN64		SW-846 8260B Volatiles
210345	210346	16	SAMPLE	121456006	B2MP07		SW-846 8260B Volatiles
210345	210346	17	SAMPLE	121456006	B2MP07		SW-846 8260B Volatiles

REVISED121456 -

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF121456

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
210248	210721	1	BLANK	84931	BLANK		Tritium by LSC
210248	210721	2	LCS	84932	LCS		Tritium by LSC
210248	210721	4	DUP	84933	B2MMW2(121446005DU	121446005	Tritium by LSC
210248	210721	5	MS	84934	B2MMW2(121446005MS)	121446005	Tritium by LSC
210248	210721	11	SAMPLE	121456005	B2MP06		Tritium by LSC
210248	210721	12	SAMPLE	121456006	B2MP07		Tritium by LSC
210414	210626	1	BLANK	85217	BLANK		TC99 by Liquid Scintillation
210414	210626	2	LCS	85218	LCS		TC99 by Liquid Scintillation
210414	210626	4	DUP	85219	B2MPH3(121454005DUP	121454005	TC99 by Liquid Scintillation
210414	210626	5	MS	85220	B2MPH3(121454005MS)	121454005	TC99 by Liquid Scintillation
210414	210626	6	SAMPLE	121456005	B2MP06		TC99 by Liquid Scintillation
210414	210626	7	SAMPLE	121456006	B2MP07		TC99 by Liquid Scintillation

Batch QC List

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
210417	210417	2	BLANK	85225	BLANK		Total Organic Carbon
210417	210417	3	LCS	85226	LCS		Total Organic Carbon
210417	210417	17	MS	85230	B2MNR1(121438009MS)	121438009	Total Organic Carbon
210417	210417	18	MSD	85231	B2MNR1(121438009MSD	121438009	Total Organic Carbon
210417	210417	24	SAMPLE	121456005	B2MP06		Total Organic Carbon
210417	210417	25	SAMPLE	121456006	B2MP07		Total Organic Carbon
210519	210519	1	BLANK	85271	BLANK		Total Dissolved Solids 180 C Dry
210519	210519	2	LCS	85272	LCS		Total Dissolved Solids 180 C Dry
210519	210519	3	SAMPLE	121456005	B2MP06		Total Dissolved Solids 180 C Dry
210519	210519	4	DUP	85273	B2MP06(121456005DUP)	121456005	Total Dissolved Solids 180 C Dry
210519	210519	5	SAMPLE	121456006	B2MP07		Total Dissolved Solids 180 C Dry
210629	210630	1	BLANK	85308	BLANK		Cyanide (W) by Midi/Spectrophotometer
210629	210630	3	LCS	85310	LCS		Cyanide (W) by Midi/Spectrophotometer
210629	210630	4	MS	85311	B2MXM8(121450005MS)	121450005	Cyanide (W) by Midi/Spectrophotometer
210629	210630	5	MSD	85312	B2MXM8(121450005MSD	121450005	Cyanide (W) by Midi/Spectrophotometer
210629	210630	10	SAMPLE	121456001	B2MN63		Cyanide (W) by Midi/Spectrophotometer
210629	210630	11	SAMPLE	121456002	B2MN64		Cyanide (W) by Midi/Spectrophotometer
210653	210653	1	LCS	85361	LCS		Total Alkalinity as mg/L CaCO3 (Water)
210653	210653	9	DUP	85362	B2MN75(121448008DUP)	121448008	Total Alkalinity as mg/L CaCO3 (Water)
210653	210653	13	LCS	85363	LCS		Total Alkalinity as mg/L CaCO3 (Water)
210653	210653	14	SAMPLE	121456001	B2MN63		Total Alkalinity as mg/L CaCO3 (Water)
210653	210653	15	SAMPLE	121456002	B2MN64		Total Alkalinity as mg/L CaCO3 (Water)
210653	210653	16	SAMPLE	121456005	B2MP06		Total Alkalinity as mg/L CaCO3 (Water)

REVISED121456 -

Batch QC List

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
210653	210653	17	SAMPLE	121456006	B2MP07		Total Alkalinity as mg/L CaCO3 (Water)
210653	210653	19	LCS	85364	LCS		Total Alkalinity as mg/L CaCO3 (Water)

Method Reference

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

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, industry methods or HEIS 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 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-505-411	Elemental Analysis by ICP Atomic Emission Spectroscopy (ICP AES)		
	EPA SW-846	6010C	Inductively Coupled Plasma-Atomic Emmision Spectrometry
	HEIS	6010_METALS_ICP	Inductively Coupled Plasma-Atomic Emmision Spectrometry
LA-505-412	Determination of Trace Elements in Waters & Wastes by ICP Mass Spectrometry		
	EPA-600/R-94-111	200.8	Determination of Trace Elements in Waters and Waste by Inductively Coupled Plasma
	HEIS	200.8_METALS_ICPMS	Determination of Trace Elements in Waters and Waste by Inductively Coupled Plasma, Mass Spec.

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

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, industry methods or HEIS 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 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-523-456 Semivolatile Sample Analysis by SW-846 Method 8270D

EPA SW-846	8000B	Determinative Chromagraphic Separations
EPA SW-846	3510C	Separatory Funnel Liquid-Liquid Extraction
EPA SW-846	8270D	Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
EPA SW-846	3545	Pressurized Fluid Extraction (PFE)
HEIS	8270_SVOA_GCMS	Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry(GC/MS)

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

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, industry methods or HEIS 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 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 Volatile Sample Analysis by SW-846 Method 8260B

EPA SW-846	8000B	Determinative Chromographic 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)

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF121456

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, industry methods or HEIS 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 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-508-421 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, by Eichrome ion exchange, LSC

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

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, industry methods or HEIS 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 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-531-411	Alkalinity		
	SM	2320	Alkalinity
	HEIS	2320_ALKALINITY	Alkalinity
LA-344-406	Total Organic Carbon (TOC) Based on SW-846		
	EPA SW-846	9060	Total Organic Carbon
	HEIS	9060_TOC	Total Organic Carbon
LA-519-422	Total Dissolved Solids Dried at 180 C		
	Standard Methods	SM2540C	Filterable Residue
	HEIS	2540C_TDS	Residue, Filterable
LA-695-402	Determination of Cyanide by Mididistillation and		
	EPA	SW-846 Method 9014/9010	Determination of Cyanide by Midi-Distillation and Spectrophotometric Analysis
	SM	4500 CNE	Cyanide, Total
	HEIS	4500E_CN	Cyanide, Total

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**11/28/12**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	U	<19		ug/L	1	19	95	11/29/12
Magnesium	7439-95-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Potassium	7440-09-7	LA-505-411	U	<76		ug/L	1	76	380	11/29/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Sodium	7440-23-5	LA-505-411	U	<10		ug/L	1	10	50	11/29/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	11/29/12
Barium	7440-39-3	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Chromium	7440-47-3	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Vanadium	7440-62-2	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Calcium	7440-70-2	LA-505-411	U	<49		ug/L	1	49	240	11/29/12
Strontium	7440-24-6	LA-505-411	U	<9.0		ug/L	1	9.0	45	11/29/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
ICPMS Prep (W)										**12/06/12**
ICP-2008 MS All possible metal										
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	12/10/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Mercury	7439-97-6	LA-505-412	UD	<0.10		ug/L	2	0.10	0.40	12/10/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Arsenic	7440-38-2	LA-505-412	UD	<0.40		ug/L	2	0.40	4.0	12/10/12
Selenium	7782-49-2	LA-505-412	UD	<2.0		ug/L	2	2.0	20	12/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**11/28/12**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	B	78.7		ug/L	1	19	95	11/29/12
Magnesium	7439-95-4	LA-505-411		31500		ug/L	1	4.0	20	11/29/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Nickel	7440-02-0	LA-505-411	B	8.80		ug/L	1	4.0	20	11/29/12
Potassium	7440-09-7	LA-505-411		11600		ug/L	1	76	380	11/29/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Sodium	7440-23-5	LA-505-411		39800		ug/L	1	10	50	11/29/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	11/29/12
Barium	7440-39-3	LA-505-411		114		ug/L	1	4.0	20	11/29/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Chromium	7440-47-3	LA-505-411		25.0		ug/L	1	5.0	25	11/29/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Vanadium	7440-62-2	LA-505-411	B	13.1		ug/L	1	5.0	25	11/29/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Calcium	7440-70-2	LA-505-411		1.16E5		ug/L	1	49	240	11/29/12
Strontium	7440-24-6	LA-505-411		532		ug/L	1	9.0	45	11/29/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
ICPMS Prep (W)										**12/06/12**
ICP-2008 MS All possible metal										
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	12/10/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Mercury	7439-97-6	LA-505-412	UD	<0.10		ug/L	2	0.10	0.40	12/10/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Arsenic	7440-38-2	LA-505-412	D	4.46		ug/L	2	0.40	4.0	12/10/12
Selenium	7782-49-2	LA-505-412	BD	7.37		ug/L	2	2.0	20	12/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456003
SAF# W13-011
Sample ID B2MN67

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**11/28/12**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	U	<19		ug/L	1	19	95	11/29/12
Magnesium	7439-95-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Potassium	7440-09-7	LA-505-411	U	<76		ug/L	1	76	380	11/29/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Sodium	7440-23-5	LA-505-411	U	<10		ug/L	1	10	50	11/29/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	11/29/12
Barium	7440-39-3	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Chromium	7440-47-3	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Vanadium	7440-62-2	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Calcium	7440-70-2	LA-505-411	U	<49		ug/L	1	49	240	11/29/12
Strontium	7440-24-6	LA-505-411	U	<9.0		ug/L	1	9.0	45	11/29/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456003
SAF# W13-011
Sample ID B2MN67

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
ICPMS Prep (W)										**12/06/12**
ICP-2008 MS All possible metal										
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	12/10/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Mercury	7439-97-6	LA-505-412	UD	<0.10		ug/L	2	0.10	0.40	12/10/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Arsenic	7440-38-2	LA-505-412	UD	<0.40		ug/L	2	0.40	4.0	12/10/12
Selenium	7782-49-2	LA-505-412	UD	<2.0		ug/L	2	2.0	20	12/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456004
SAF# W13-011
Sample ID B2MN68

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**11/28/12**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	B	34.4		ug/L	1	19	95	11/29/12
Magnesium	7439-95-4	LA-505-411		31700		ug/L	1	4.0	20	11/29/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Nickel	7440-02-0	LA-505-411	B	5.10		ug/L	1	4.0	20	11/29/12
Potassium	7440-09-7	LA-505-411		11700		ug/L	1	76	380	11/29/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Sodium	7440-23-5	LA-505-411		40700		ug/L	1	10	50	11/29/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	11/29/12
Barium	7440-39-3	LA-505-411		116		ug/L	1	4.0	20	11/29/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Chromium	7440-47-3	LA-505-411	B	14.6		ug/L	1	5.0	25	11/29/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Vanadium	7440-62-2	LA-505-411	B	12.2		ug/L	1	5.0	25	11/29/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Calcium	7440-70-2	LA-505-411		1.15E5		ug/L	1	49	240	11/29/12
Strontium	7440-24-6	LA-505-411		533		ug/L	1	9.0	45	11/29/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456004
SAF# W13-011
Sample ID B2MN68

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
ICPMS Prep (W)										**12/06/12**
ICP-2008 MS All possible metal										
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	12/10/12
Lead	7439-92-1	LA-505-412	BD	0.110		ug/L	2	0.10	1.0	12/10/12
Mercury	7439-97-6	LA-505-412	UD	<0.10		ug/L	2	0.10	0.40	12/10/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Arsenic	7440-38-2	LA-505-412	D	4.65		ug/L	2	0.40	4.0	12/10/12
Selenium	7782-49-2	LA-505-412	BD	7.81		ug/L	2	2.0	20	12/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456005
SAF# I13-005
Sample ID B2MP06

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep (W)										**12/06/12**
ICP-2008 MS All possible metal										
Aluminum	7429-90-5	LA-505-412	D	253		ug/L	2	10	100	12/10/12
Manganese	7439-96-5	LA-505-412	BD	0.200		ug/L	2	0.20	2.0	12/10/12
Nickel	7440-02-0	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	12/10/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	12/10/12
Barium	7440-39-3	LA-505-412	UD	<0.40		ug/L	2	0.40	4.0	12/10/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	12/10/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Chromium	7440-47-3	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	12/10/12
Cobalt	7440-48-4	LA-505-412	UD	<0.10		ug/L	2	0.10	0.50	12/10/12
Copper	7440-50-8	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	12/10/12
Vanadium	7440-62-2	LA-505-412	UD	<0.40		ug/L	2	0.40	4.0	12/10/12
Zinc	7440-66-6	LA-505-412	BDC	5.38		ug/L	2	2.0	20	12/10/12
Lead	7439-92-1	LA-505-412	BD	0.184		ug/L	2	0.10	1.0	12/10/12
Molybdenum	7439-98-7	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Strontium	7440-24-6	LA-505-412	D	5.05		ug/L	2	0.20	2.0	12/10/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456005
SAF# I13-005
Sample ID B2MP06

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	12/10/12
Uranium	7440-61-1	LA-505-412	UD	<0.10		ug/L	2	0.10	0.50	12/10/12
Arsenic	7440-38-2	LA-505-412	UD	<0.40		ug/L	2	0.40	4.0	12/10/12
Selenium	7782-49-2	LA-505-412	UD	<2.0		ug/L	2	2.0	20	12/10/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456006
SAF# I13-005
Sample ID B2MP07

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep (W)										**12/06/12**
ICP-2008 MS All possible metal										
Aluminum	7429-90-5	LA-505-412	B	8.78		ug/L	1	5.0	50	12/06/12
Manganese	7439-96-5	LA-505-412	B	0.836		ug/L	1	0.10	1.0	12/06/12
Nickel	7440-02-0	LA-505-412	B	0.644		ug/L	1	0.10	1.0	12/06/12
Silver	7440-22-4	LA-505-412	U	<0.050		ug/L	1	0.050	0.50	12/06/12
Antimony	7440-36-0	LA-505-412	U	<0.30		ug/L	1	0.30	3.0	12/06/12
Barium	7440-39-3	LA-505-412		131		ug/L	1	0.20	2.0	12/06/12
Beryllium	7440-41-7	LA-505-412	U	<0.10		ug/L	1	0.10	1.0	12/06/12
Cadmium	7440-43-9	LA-505-412	U	<0.050		ug/L	1	0.050	0.50	12/06/12
Chromium	7440-47-3	LA-505-412		132		ug/L	1	0.10	1.0	12/06/12
Cobalt	7440-48-4	LA-505-412	B	0.110		ug/L	1	0.050	0.25	12/06/12
Copper	7440-50-8	LA-505-412	B	0.222		ug/L	1	0.10	1.0	12/06/12
Vanadium	7440-62-2	LA-505-412		22.5		ug/L	1	0.20	2.0	12/06/12
Zinc	7440-66-6	LA-505-412	U	<1.0		ug/L	1	1.0	10	12/06/12
Lead	7439-92-1	LA-505-412	U	<0.050		ug/L	1	0.050	0.50	12/06/12
Molybdenum	7439-98-7	LA-505-412		5.82		ug/L	1	0.050	0.50	12/06/12
Strontium	7440-24-6	LA-505-412		430		ug/L	1	0.10	1.0	12/06/12
Thallium	7440-28-0	LA-505-412	U	<0.050		ug/L	1	0.050	0.50	12/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456006
SAF# I13-005
Sample ID B2MP07

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Tin	7440-31-5	LA-505-412	U	<0.050		ug/L	1	0.050	0.50	12/06/12
Uranium	7440-61-1	LA-505-412		2.88		ug/L	1	0.050	0.25	12/06/12
Arsenic	7440-38-2	LA-505-412	B	1.71		ug/L	1	0.20	2.0	12/06/12
Selenium	7782-49-2	LA-505-412	B	4.58		ug/L	1	1.0	10	12/06/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456007
SAF# W13-011
Sample ID B2MNK0

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**11/28/12**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	U	<19		ug/L	1	19	95	11/29/12
Magnesium	7439-95-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Potassium	7440-09-7	LA-505-411	U	<76		ug/L	1	76	380	11/29/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Sodium	7440-23-5	LA-505-411	U	<10		ug/L	1	10	50	11/29/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	11/29/12
Barium	7440-39-3	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Chromium	7440-47-3	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Vanadium	7440-62-2	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Calcium	7440-70-2	LA-505-411	U	<49		ug/L	1	49	240	11/29/12
Strontium	7440-24-6	LA-505-411	U	<9.0		ug/L	1	9.0	45	11/29/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456007
SAF# W13-011
Sample ID B2MNK0

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456008
SAF# W13-011
Sample ID B2MNK1

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**11/28/12**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	U	<19		ug/L	1	19	95	11/29/12
Magnesium	7439-95-4	LA-505-411	B	7.20		ug/L	1	4.0	20	11/29/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Potassium	7440-09-7	LA-505-411	U	<76		ug/L	1	76	380	11/29/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Sodium	7440-23-5	LA-505-411	B	12.0		ug/L	1	10	50	11/29/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	11/29/12
Barium	7440-39-3	LA-505-411	B	4.20		ug/L	1	4.0	20	11/29/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Chromium	7440-47-3	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12
Vanadium	7440-62-2	LA-505-411	U	<5.0		ug/L	1	5.0	25	11/29/12
Zinc	7440-66-6	LA-505-411	B	9.00		ug/L	1	5.0	25	11/29/12
Calcium	7440-70-2	LA-505-411	U	<49		ug/L	1	49	240	11/29/12
Strontium	7440-24-6	LA-505-411	U	<9.0		ug/L	1	9.0	45	11/29/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Sample # 121456008
SAF# W13-011
Sample ID B2MNK1

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	11/29/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8270 (W) CLE										**11/13/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Phenol	108-95-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pyrene	129-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Acenaphthene	83-32-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pentachlorophenol	87-86-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Chlorophenol	95-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4-Nitroaniline	100-01-6	LA-523-456	U	<0.9		ug/L	1	0.9	2	11/16/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<1		ug/L	1	1	2	11/16/12
4-Chloroaniline	106-47-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Anthracene	120-12-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Dimethylphthalate	131-11-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Dibenzofuran	132-64-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Benzo(g,h,i)perylene	191-24-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Fluoranthene	206-44-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Acenaphthylene	208-96-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Chrysene	218-01-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Benzo(a)pyrene	50-32-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Dibenzo(a,h)anthracene	53-70-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Benzo(a)anthracene	56-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<0.9		ug/L	1	0.9	2	11/16/12
Isophorone	78-59-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Diethyl phthalate	84-66-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Phenanthrene	85-01-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Fluorene	86-73-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Carbazole	86-74-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Nitroaniline	88-74-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Nitrophenol	88-75-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Naphthalene	91-20-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Methylnaphthalene	91-57-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Methylphenol	95-48-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Nitrobenzene	98-95-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
3-Nitroaniline	99-09-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
3 & 4 Methylphenol, Total	65794-96-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Hexachloroethane	67-72-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Benzyl alcohol	100-51-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Tributyl phosphate	126-73-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Naphthylamine	91-59-8	LA-523-456	U	<1		ug/L	1	1	2	11/16/12
Pyridine	110-86-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitrosopiperidine	100-75-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitrosomethylethylamine	10595-95-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
p-Phenylenediamine	106-50-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Picoline	109-06-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
3,3-Dimethylbenzidine	119-93-7	LA-523-456	U	<4		ug/L	1	4	6	11/16/12
Isosafrole	120-58-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Phentermine	122-09-8	LA-523-456	U	<5		ug/L	1	5	9	11/16/12
1,4-Dioxane	123-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,4-Naphthoquinone	130-15-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1-Naphthylamine	134-32-7	LA-523-456	U	<1		ug/L	1	1	2	11/16/12
Aramite	140-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Kepone	143-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Hexachloropropene	1888-71-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Diallate	2303-16-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pronamide	23950-58-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Isodrin	465-73-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Chlorobenzilate	510-15-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Acetylaminofluorene	53-96-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitrosodiethylamine	55-18-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
3-Methylcholanthrene	56-49-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4-Nitroquinoline-1-oxide	56-57-5	LA-523-456	U	<0.9		ug/L	1	0.9	2	11/16/12
7,12-Dimethylbenz(a)anthracene	57-97-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,3,4,6-Tetrachlorophenol	58-90-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitrosomorpholine	59-89-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pentachlorobenzene	608-93-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Phenacetin	62-44-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Ethyl methanesulfonate	62-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Aniline	62-53-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitrosodimethylamine	62-75-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Methyl methanesulfonate	66-27-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pentachloroethane	76-01-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pentachloronitrobenzene	82-68-8	LA-523-456	U	<1		ug/L	1	1	2	11/16/12
2,6-Dichlorophenol	87-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Dinoseb(..dinitromethylphenol)	88-85-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4-Aminobiphenyl	92-67-1	LA-523-456	U	<1		ug/L	1	1	2	11/16/12
n-Nitrosodibutylamine	924-16-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitrosopyrolidine	930-55-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Safrole	94-59-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
o-Toluidine	95-53-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,2,4,5-Tetrachlorobenzene	95-94-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Acetophenone	98-86-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,3,5-Trinitrobenzene	99-35-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Methyl-5-nitroaniline	99-55-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,3-Dinitrobenzene	99-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
O,O,O-Triethylthiophosphate	126-68-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Parathion	56-38-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Dimethylaminoazobenzene	60-11-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Dimethoate	60-51-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Thionazin	297-97-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Methyl parathion	298-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Phorate	298-02-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Disulfoton	298-04-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Sulfotep	3689-24-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Famfur	52-85-7	LA-523-456	U	<5		ug/L	1	5	9	11/16/12
N-Nitrosodiphenylamin/Diphenyl	DPA+NNDPA	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Methapyrilene	91-80-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8270 (W) CLE										**11/13/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Phenol	108-95-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pyrene	129-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Acenaphthene	83-32-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pentachlorophenol	87-86-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Chlorophenol	95-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4-Nitroaniline	100-01-6	LA-523-456	U	<0.9		ug/L	1	0.9	2	11/16/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<1		ug/L	1	1	2	11/16/12
4-Chloroaniline	106-47-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Anthracene	120-12-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Dimethylphthalate	131-11-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Dibenzofuran	132-64-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Benzo(g,h,i)perylene	191-24-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Fluoranthene	206-44-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Acenaphthylene	208-96-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Chrysene	218-01-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Benzo(a)pyrene	50-32-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Dibenzo(a,h)anthracene	53-70-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Benzo(a)anthracene	56-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<0.9		ug/L	1	0.9	2	11/16/12
Isophorone	78-59-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Diethyl phthalate	84-66-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Phenanthrene	85-01-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Fluorene	86-73-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Carbazole	86-74-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Nitroaniline	88-74-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Nitrophenol	88-75-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Naphthalene	91-20-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Methylnaphthalene	91-57-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Methylphenol	95-48-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Nitrobenzene	98-95-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
3-Nitroaniline	99-09-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
3 & 4 Methylphenol, Total	65794-96-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Hexachloroethane	67-72-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Benzyl alcohol	100-51-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Tributyl phosphate	126-73-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Naphthylamine	91-59-8	LA-523-456	U	<1		ug/L	1	1	2	11/16/12
Pyridine	110-86-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitrosopiperidine	100-75-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitrosomethylethylamine	10595-95-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
p-Phenylenediamine	106-50-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Picoline	109-06-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
3,3-Dimethylbenzidine	119-93-7	LA-523-456	U	<4		ug/L	1	4	6	11/16/12
Isosafrole	120-58-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Phentermine	122-09-8	LA-523-456	U	<5		ug/L	1	5	9	11/16/12
1,4-Dioxane	123-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,4-Naphthoquinone	130-15-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1-Naphthylamine	134-32-7	LA-523-456	U	<1		ug/L	1	1	2	11/16/12
Aramite	140-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Kepone	143-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Hexachloropropene	1888-71-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Diallate	2303-16-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pronamide	23950-58-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Isodrin	465-73-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Chlorobenzilate	510-15-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Acetylaminofluorene	53-96-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitrosodiethylamine	55-18-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
3-Methylcholanthrene	56-49-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4-Nitroquinoline-1-oxide	56-57-5	LA-523-456	U	<0.9		ug/L	1	0.9	2	11/16/12
7,12-Dimethylbenz(a)anthracene	57-97-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2,3,4,6-Tetrachlorophenol	58-90-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitrosomorpholine	59-89-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pentachlorobenzene	608-93-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Phenacetin	62-44-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Ethyl methanesulfonate	62-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Aniline	62-53-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitrosodimethylamine	62-75-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Methyl methanesulfonate	66-27-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pentachloroethane	76-01-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Pentachloronitrobenzene	82-68-8	LA-523-456	U	<1		ug/L	1	1	2	11/16/12
2,6-Dichlorophenol	87-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Dinoseb(..dinitromethylphenol)	88-85-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
4-Aminobiphenyl	92-67-1	LA-523-456	U	<1		ug/L	1	1	2	11/16/12
n-Nitrosodibutylamine	924-16-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
n-Nitrosopyrolidine	930-55-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Safrole	94-59-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
o-Toluidine	95-53-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,2,4,5-Tetrachlorobenzene	95-94-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Acetophenone	98-86-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,3,5-Trinitrobenzene	99-35-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
2-Methyl-5-nitroaniline	99-55-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
1,3-Dinitrobenzene	99-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
O,O,O-Triethylthiophosphate	126-68-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Parathion	56-38-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Dimethylaminoazobenzene	60-11-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Dimethoate	60-51-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Thionazin	297-97-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Methyl parathion	298-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Phorate	298-02-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Disulfoton	298-04-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Sulfotep	3689-24-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Famfur	52-85-7	LA-523-456	U	<5		ug/L	1	5	9	11/16/12
N-Nitrosodiphenylamin/Diphenyl	DPA+NNDPA	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12
Methapyrilene	91-80-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	11/16/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8260B (W)										**11/15/12**
SW-846 8260B Volatiles										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1-Dichloroethane	75-34-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Styrene	100-42-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Dibromochloromethane	124-48-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Total 1,2-Dichloroethene	540-59-0	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
2-Hexanone	591-78-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromomethane	74-83-9	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloromethane	74-87-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroethane	75-00-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methylene chloride	75-09-2	LA-523-455		6.6		ug/L	1	1	5	11/15/12
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromoform	75-25-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromodichloromethane	75-27-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dichloropropane	78-87-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	11/15/12
Tetrahydrofuran	109-99-9	LA-523-455	U	<2		ug/L	1	2	10	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acetonitrile	75-05-8	LA-523-455	U	<2		ug/L	1	2	10	11/15/12
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Propionitrile	107-12-0	LA-523-455	U	<2		ug/L	1	2	10	11/15/12
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	11/15/12
Iodomethane	74-88-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,1,2-Tetrachloroethane	630-20-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2,3-Trichloropropane	96-18-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dibromo-3-chloropropane	96-12-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dibromoethane	106-93-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acrolein	107-02-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acrylonitrile	107-13-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Allyl chloride	107-05-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methylene bromide	74-95-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Dichlorodifluoromethane	75-71-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Ethyl methacrylate	97-63-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Methacrylonitrile	126-98-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl methacrylate	80-62-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Trans-1,4-dichloro-2-butene	110-57-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Vinyl acetate	108-05-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroprene	126-99-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8260B (W)										**11/15/12**
SW-846 8260B Volatiles										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1-Dichloroethane	75-34-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Styrene	100-42-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Dibromochloromethane	124-48-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Total 1,2-Dichloroethene	540-59-0	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
2-Hexanone	591-78-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromomethane	74-83-9	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloromethane	74-87-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroethane	75-00-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromoform	75-25-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromodichloromethane	75-27-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dichloropropane	78-87-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	11/15/12
Tetrahydrofuran	109-99-9	LA-523-455	U	<2		ug/L	1	2	10	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acetonitrile	75-05-8	LA-523-455	U	<2		ug/L	1	2	10	11/15/12
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Propionitrile	107-12-0	LA-523-455	U	<2		ug/L	1	2	10	11/15/12
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	11/15/12
Iodomethane	74-88-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,1,2-Tetrachloroethane	630-20-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2,3-Trichloropropane	96-18-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dibromo-3-chloropropane	96-12-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dibromoethane	106-93-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acrolein	107-02-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acrylonitrile	107-13-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Allyl chloride	107-05-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methylene bromide	74-95-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Dichlorodifluoromethane	75-71-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Ethyl methacrylate	97-63-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Methacrylonitrile	126-98-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl methacrylate	80-62-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Trans-1,4-dichloro-2-butene	110-57-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Vinyl acetate	108-05-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroprene	126-99-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456005
SAF# I13-005
Sample ID B2MP06

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8260B (W)										**11/15/12**
SW-846 8260B Volatiles										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1-Dichloroethane	75-34-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Styrene	100-42-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Dibromochloromethane	124-48-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Total 1,2-Dichloroethene	540-59-0	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456005
SAF# I13-005
Sample ID B2MP06

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
2-Hexanone	591-78-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromomethane	74-83-9	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloromethane	74-87-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroethane	75-00-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromoform	75-25-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromodichloromethane	75-27-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dichloropropane	78-87-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	11/15/12
Tetrahydrofuran	109-99-9	LA-523-455	U	<2		ug/L	1	2	10	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456005
SAF# I13-005
Sample ID B2MP06

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acetonitrile	75-05-8	LA-523-455	U	<2		ug/L	1	2	10	11/15/12
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Propionitrile	107-12-0	LA-523-455	U	<2		ug/L	1	2	10	11/15/12
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	11/15/12
Iodomethane	74-88-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,1,2-Tetrachloroethane	630-20-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2,3-Trichloropropane	96-18-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dibromo-3-chloropropane	96-12-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dibromoethane	106-93-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acrolein	107-02-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acrylonitrile	107-13-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Allyl chloride	107-05-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methylene bromide	74-95-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Dichlorodifluoromethane	75-71-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Ethyl methacrylate	97-63-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456005
SAF# I13-005
Sample ID B2MP06

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Methacrylonitrile	126-98-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl methacrylate	80-62-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Trans-1,4-dichloro-2-butene	110-57-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Vinyl acetate	108-05-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroprene	126-99-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456006
SAF# I13-005
Sample ID B2MP07

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8260B (W)										**11/15/12**
SW-846 8260B Volatiles										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Trichloroethene	79-01-6	LA-523-455		6.6		ug/L	1	1	5	11/15/12
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1-Dichloroethane	75-34-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Styrene	100-42-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Dibromochloromethane	124-48-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Total 1,2-Dichloroethene	540-59-0	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456006
SAF# I13-005
Sample ID B2MP07

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Carbon tetrachloride	56-23-5	LA-523-455		1200		ug/L	1	10	50	11/21/12
2-Hexanone	591-78-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroform	67-66-3	LA-523-455		13		ug/L	1	1	5	11/15/12
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromomethane	74-83-9	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloromethane	74-87-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroethane	75-00-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromoform	75-25-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Bromodichloromethane	75-27-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dichloropropane	78-87-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	11/15/12
Tetrahydrofuran	109-99-9	LA-523-455	U	<2		ug/L	1	2	10	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456006
SAF# I13-005
Sample ID B2MP07

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acetonitrile	75-05-8	LA-523-455	U	<2		ug/L	1	2	10	11/15/12
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Propionitrile	107-12-0	LA-523-455	U	<2		ug/L	1	2	10	11/15/12
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	11/15/12
Iodomethane	74-88-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,1,1,2-Tetrachloroethane	630-20-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2,3-Trichloropropane	96-18-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dibromo-3-chloropropane	96-12-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
1,2-Dibromoethane	106-93-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acrolein	107-02-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Acrylonitrile	107-13-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Allyl chloride	107-05-1	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methylene bromide	74-95-3	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Dichlorodifluoromethane	75-71-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Ethyl methacrylate	97-63-2	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Sample # 121456006
SAF# I13-005
Sample ID B2MP07

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Methacrylonitrile	126-98-7	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Methyl methacrylate	80-62-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Trans-1,4-dichloro-2-butene	110-57-6	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Vinyl acetate	108-05-4	LA-523-455	U	<1		ug/L	1	1	5	11/15/12
Chloroprene	126-99-8	LA-523-455	U	<1		ug/L	1	1	5	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < PQL (or EQL) >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF121456

Sample # 121456005
SAF# I13-005
Sample ID B2MP06

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
TC99 by Liquid Scin. WATER/LIQUID PREP										**11/19/12**
TC99 by Liquid Scintillation										
Technetium-99	14133-76-7	LA-508-421	U	-8.0	4	pCi/L	1	6.4		11/19/12
Tritium by LSC EICHROM WA/LIQ PREP										**11/14/12**
Tritium by LSC										
Tritium	10028-17-8	LA-508-421	U	-50	150	pCi/L	1	290		11/22/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF121456

Sample # 121456006
SAF# I13-005
Sample ID B2MP07

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
TC99 by Liquid Scin. WATER/LIQUID PREP										**11/19/12**
TC99 by Liquid Scintillation										
Technetium-99	14133-76-7	LA-508-421		4300	870	pCi/L	1	6.4		11/19/12
Tritium by LSC EICHROM WA/LIQ PREP										**11/14/12**
Tritium by LSC										
Tritium	10028-17-8	LA-508-421		2200	510	pCi/L	1	290		11/22/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

Sample # 121456001
SAF# W13-011
Sample ID B2MN63

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for Cyanide (W)										**11/19/12**
Cyanide (W) by Midi/Spectrophotometer										
Cyanide	57-12-5	LA-695-402	U	<4.0		ug/L	1	4.0	20	11/19/12
										11/14/12
Total Alkalinity as mg/L CaCO3 (Water)										
Total Alkalinity as CaCO3	ALKALINITY	LA-531-411	U	<1		mg/L	1	1	10	11/14/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

Sample # 121456002
SAF# W13-011
Sample ID B2MN64

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for Cyanide (W)										**11/19/12**
Cyanide (W) by Midi/Spectrophotometer										
Cyanide	57-12-5	LA-695-402	B	18.5		ug/L	1	4.0	20	11/19/12
										11/14/12
Total Alkalinity as mg/L CaCO3 (Water)										
Total Alkalinity as CaCO3	ALKALINITY	LA-531-411		110		mg/L	1	1	10	11/14/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

Sample # 121456005
SAF# I13-005
Sample ID B2MP06

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										11/14/12
Total Alkalinity as mg/L CaCO3 (Water)										
Total Alkalinity as CaCO3	ALKALINITY	LA-531-411	U	<1		mg/L	1	1	10	11/14/12
Carbonate	CO3ALKALINI	LA-531-411	U	<1		mg/L	1	1		11/14/12
Bicarbonate	71-52-3	LA-531-411	U	<1		mg/L	1	1		11/14/12
Hydroxyl ion	84625-61-6	LA-531-411	U	<1		mg/L	1	1		11/14/12
										11/16/12
Total Dissolved Solids 180 C Dry										
Total Dissolved Solids	TDS	LA-519-422	B	22.0		mg/L	1	10	50	11/16/12
										11/15/12
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	U	<0.10		mg/L	1	0.10	0.30	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

Sample # 121456006
SAF# I13-005
Sample ID B2MP07

Matrix WATER
Sampled 11/13/12
Received 11/13/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										11/14/12
Total Alkalinity as mg/L CaCO3 (Water)										
Total Alkalinity as CaCO3	ALKALINITY	LA-531-411		140		mg/L	1	1	10	11/14/12
Carbonate	CO3ALKALINI	LA-531-411	U	<1		mg/L	1	1		11/14/12
Bicarbonate	71-52-3	LA-531-411		140		mg/L	1	1		11/14/12
Hydroxyl ion	84625-61-6	LA-531-411	U	<1		mg/L	1	1		11/14/12
										11/16/12
Total Dissolved Solids 180 C Dry										
Total Dissolved Solids	TDS	LA-519-422		1140		mg/L	1	10	50	11/16/12
										11/15/12
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406		0.554		mg/L	1	0.10	0.30	11/15/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Analytical Batch 210346 (QC Batch: 210345) **Test** SW-846 8260B Volatiles
Associated Samples 121456001, 121456002, 121456005, 121456006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #85126**							
1,1-Dichloroethene	75-35-4		<1	ug/L					U	11/15/12
Trichloroethene	79-01-6		<1	ug/L					U	11/15/12
Benzene	71-43-2		<1	ug/L					U	11/15/12
Toluene	108-88-3		<1	ug/L					U	11/15/12
Chlorobenzene	108-90-7		<1	ug/L					U	11/15/12
1,1-Dichloroethane	75-34-3		<1	ug/L					U	11/15/12
Ethylbenzene	100-41-4		<1	ug/L					U	11/15/12
Styrene	100-42-5		<1	ug/L					U	11/15/12
cis-1,3-Dichloropropene	10061-01-5		<1	ug/L					U	11/15/12
trans-1,3-Dichloropropene	10061-02-6		<1	ug/L					U	11/15/12
1,2-Dichloroethane	107-06-2		<1	ug/L					U	11/15/12
Methyl isobutyl ketone	108-10-1		<1	ug/L					U	11/15/12
Dibromochloromethane	124-48-1		<1	ug/L					U	11/15/12
Tetrachloroethene	127-18-4		<1	ug/L					U	11/15/12
Total Xylenes	1330-20-7		<1	ug/L					U	11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Total 1,2-Dichloroethene	540-59-0		<1	ug/L					U	11/15/12
Carbon tetrachloride	56-23-5		<1	ug/L					U	11/15/12
2-Hexanone	591-78-6		<1	ug/L					U	11/15/12
Acetone	67-64-1		<1	ug/L					U	11/15/12
Chloroform	67-66-3		<1	ug/L					U	11/15/12
1,1,1-Trichloroethane	71-55-6		<1	ug/L					U	11/15/12
Bromomethane	74-83-9		<1	ug/L					U	11/15/12
Chloromethane	74-87-3		<1	ug/L					U	11/15/12
Chloroethane	75-00-3		<1	ug/L					U	11/15/12
Vinyl chloride	75-01-4		<1	ug/L					U	11/15/12
Methylene chloride	75-09-2		<1	ug/L					U	11/15/12
Carbon disulfide	75-15-0		<1	ug/L					U	11/15/12
Bromoform	75-25-2		<1	ug/L					U	11/15/12
Bromodichloromethane	75-27-4		<1	ug/L					U	11/15/12
1,2-Dichloropropane	78-87-5		<1	ug/L					U	11/15/12
Methyl ethyl ketone	78-93-3		<1	ug/L					U	11/15/12
1,1,2-Trichloroethane	79-00-5		<1	ug/L					U	11/15/12
1,1,2,2-Tetrachloroethane	79-34-5		<1	ug/L					U	11/15/12
1-Butanol	71-36-3		<100	ug/L					U	11/15/12
Tetrahydrofuran	109-99-9		<2	ug/L					U	11/15/12
Trichlorofluoromethane	75-69-4		<1	ug/L					U	11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
trans-1,2-Dichloroethene	156-60-5		<1	ug/L					U	11/15/12
Acetonitrile	75-05-8		<2	ug/L					U	11/15/12
cis-1,2-Dichloroethene	156-59-2		<1	ug/L					U	11/15/12
Propionitrile	107-12-0		<2	ug/L					U	11/15/12
Isobutyl alcohol	78-83-1		<200	ug/L					U	11/15/12
Iodomethane	74-88-4		<1	ug/L					U	11/15/12
1,1,1,2-Tetrachloroethane	630-20-6		<1	ug/L					U	11/15/12
1,2,3-Trichloropropane	96-18-4		<1	ug/L					U	11/15/12
1,2-Dibromo-3-chloropropane	96-12-8		<1	ug/L					U	11/15/12
1,2-Dibromoethane	106-93-4		<1	ug/L					U	11/15/12
Acrolein	107-02-8		<1	ug/L					U	11/15/12
Acrylonitrile	107-13-1		<1	ug/L					U	11/15/12
Allyl chloride	107-05-1		<1	ug/L					U	11/15/12
Methylene bromide	74-95-3		<1	ug/L					U	11/15/12
Dichlorodifluoromethane	75-71-8		<1	ug/L					U	11/15/12
Ethyl methacrylate	97-63-2		<1	ug/L					U	11/15/12
Methacrylonitrile	126-98-7		<1	ug/L					U	11/15/12
Methyl methacrylate	80-62-6		<1	ug/L					U	11/15/12
Trans-1,4-dichloro-2-butene	110-57-6		<1	ug/L					U	11/15/12
Vinyl acetate	108-05-4		<1	ug/L					U	11/15/12

* - QC result out of range

n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloroprene	126-99-8		<1	ug/L					U	11/15/12
LCS			**QC Sample #85127**							
1,1-Dichloroethene	75-35-4		24	ug/L	96.1	75 - 125				11/15/12
Trichloroethene	79-01-6		28	ug/L	112.4	75 - 125				11/15/12
Benzene	71-43-2		29	ug/L	115.6	75 - 125				11/15/12
Toluene	108-88-3		29	ug/L	115.5	75 - 125				11/15/12
Chlorobenzene	108-90-7		28	ug/L	112.4	75 - 125				11/15/12
1,1-Dichloroethane	75-34-3		26	ug/L	104.6	75 - 125				11/15/12
Ethylbenzene	100-41-4		30	ug/L	121	75 - 125				11/15/12
Styrene	100-42-5		30	ug/L	121	75 - 125				11/15/12
trans-1,3-Dichloropropene	10061-02-6		29	ug/L	117.5	75 - 125				11/15/12
1,2-Dichloroethane	107-06-2		28	ug/L	110.4	75 - 125				11/15/12
1,1,1-Trichloroethane	71-55-6		30	ug/L	119	75 - 125				11/15/12
Dibromochloromethane	124-48-1		28	ug/L	112.2	75 - 125				11/15/12
Carbon disulfide	75-15-0		22	ug/L	88.4	75 - 125				11/15/12
Bromoform	75-25-2		30	ug/L	118.1	75 - 125				11/15/12
Bromodichloromethane	75-27-4		30	ug/L	120.8	75 - 125				11/15/12
1,2-Dichloropropane	78-87-5		28	ug/L	113	75 - 125				11/15/12
1,1,2-Trichloroethane	79-00-5		28	ug/L	112	75 - 125				11/15/12
1,1,2,2-Tetrachloroethane	79-34-5		27	ug/L	107.7	75 - 125				11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
trans-1,2-Dichloroethene	156-60-5		27	ug/L	107.2	75 - 125				11/15/12
cis-1,2-Dichloroethene	156-59-2		27	ug/L	109.4	75 - 125				11/15/12
MS			**QC Sample #85128**							
			Original 121450005							
1,1-Dichloroethene	75-35-4		23	ug/L	92.2	75 - 125				11/15/12
Trichloroethene	79-01-6		27	ug/L	108.9	75 - 125				11/15/12
Benzene	71-43-2		28	ug/L	112.6	75 - 125				11/15/12
Toluene	108-88-3		28	ug/L	113.6	75 - 125				11/15/12
Chlorobenzene	108-90-7		28	ug/L	111.5	75 - 125				11/15/12
1,1-Dichloroethane	75-34-3		26	ug/L	104.4	75 - 125				11/15/12
Ethylbenzene	100-41-4		30	ug/L	118.2	75 - 125				11/15/12
Styrene	100-42-5		30	ug/L	119.9	75 - 125				11/15/12
trans-1,3-Dichloropropene	10061-02-6		29	ug/L	117.1	75 - 125				11/15/12
1,2-Dichloroethane	107-06-2		27	ug/L	109.7	75 - 125				11/15/12
1,1,1-Trichloroethane	71-55-6		29	ug/L	115.3	75 - 125				11/15/12
Dibromochloromethane	124-48-1		28	ug/L	110.8	75 - 125				11/15/12
Carbon disulfide	75-15-0		21	ug/L	85.1	75 - 125				11/15/12
Bromoform	75-25-2		29	ug/L	117.1	75 - 125				11/15/12
Bromodichloromethane	75-27-4		30	ug/L	119	75 - 125				11/15/12
1,2-Dichloropropane	78-87-5		28	ug/L	113.4	75 - 125				11/15/12
1,1,2-Trichloroethane	79-00-5		28	ug/L	111.1	75 - 125				11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,1,2,2-Tetrachloroethane	79-34-5		26	ug/L	104	75 - 125				11/15/12
trans-1,2-Dichloroethene	156-60-5		27	ug/L	106.1	75 - 125				11/15/12
cis-1,2-Dichloroethene	156-59-2		27	ug/L	106.9	75 - 125				11/15/12
MSD			**QC Sample #85129**							
			Original 121450005					**Paired 85128**		
1,1-Dichloroethene	75-35-4		25	ug/L	98.7	75 - 125	6.90	20		11/15/12
Trichloroethene	79-01-6		28	ug/L	112.8	75 - 125	3.50	20		11/15/12
Benzene	71-43-2		29	ug/L	115.7	75 - 125	2.70	20		11/15/12
Toluene	108-88-3		29	ug/L	116	75 - 125	2.10	20		11/15/12
Chlorobenzene	108-90-7		28	ug/L	113.4	75 - 125	1.70	20		11/15/12
1,1-Dichloroethane	75-34-3		27	ug/L	107.5	75 - 125	2.90	20		11/15/12
Ethylbenzene	100-41-4		30	ug/L	121.1	75 - 125	2.50	20		11/15/12
Styrene	100-42-5		30	ug/L	121	75 - 125	0.90	20		11/15/12
trans-1,3-Dichloropropene	10061-02-6		29	ug/L	117.6	75 - 125	0.40	20		11/15/12
1,2-Dichloroethane	107-06-2		27	ug/L	109.8	75 - 125	0.10	20		11/15/12
1,1,1-Trichloroethane	71-55-6		30	ug/L	118.1	75 - 125	2.40	20		11/15/12
Dibromochloromethane	124-48-1		28	ug/L	113.8	75 - 125	2.60	20		11/15/12
Carbon disulfide	75-15-0		22	ug/L	88.1	75 - 125	3.40	20		11/15/12
Bromoform	75-25-2		30	ug/L	118.8	75 - 125	1.40	20		11/15/12
Bromodichloromethane	75-27-4		30	ug/L	120.8	75 - 125	1.50	20		11/15/12
1,2-Dichloropropane	78-87-5		28	ug/L	113.7	75 - 125	0.20	20		11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,1,2-Trichloroethane	79-00-5		28	ug/L	113	75 - 125	1.60	20		11/15/12
1,1,2,2-Tetrachloroethane	79-34-5		27	ug/L	106.2	75 - 125	2.10	20		11/15/12
trans-1,2-Dichloroethene	156-60-5		28	ug/L	110.9	75 - 125	4.40	20		11/15/12
cis-1,2-Dichloroethene	156-59-2		28	ug/L	110.8	75 - 125	3.60	20		11/15/12

* - QC result out of range n/a - Not Applicable

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

Analytical Batch 210417 (QC Batch: 210417) **Test** Total Organic Carbon
Associated Samples 121456005, 121456006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #85225**							
Total Organic Carbon	TOC		<0.045	mg/L					U	11/15/12
LCS			**QC Sample #85226**							
Total Organic Carbon	TOC		2.18	mg/L	108.8	80 - 120				11/15/12
MS			**QC Sample #85230**							
			Original 121438009							
Total Organic Carbon	TOC		2.15	mg/L	107.5	75 - 125				11/15/12
MSD			**QC Sample #85231**							
			Original 121438009					**Paired**	**85230**	
Total Organic Carbon	TOC		2.16	mg/L	108.2	75 - 125	0.60	20		11/15/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analytical Batch 210418 (QC Batch: 210318) **Test** SW-846 8270D Semivolatiles
Associated Samples 121456001, 121456002

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #85000**						
4-Nitrophenol	100-02-7		<1	ug/L				U	11/15/12
1,4-Dichlorobenzene	106-46-7		<1	ug/L				U	11/15/12
2,4-Dinitrotoluene	121-14-2		<1	ug/L				U	11/15/12
1,2,4-Trichlorobenzene	120-82-1		<1	ug/L				U	11/15/12
Phenol	108-95-2		<1	ug/L				U	11/15/12
Pyrene	129-00-0		<1	ug/L				U	11/15/12
4-Chloro-3-methylphenol	59-50-7		<1	ug/L				U	11/15/12
n-Nitroso-di-n-propylamine	621-64-7		<1	ug/L				U	11/15/12
Acenaphthene	83-32-9		<1	ug/L				U	11/15/12
Pentachlorophenol	87-86-5		<1	ug/L				U	11/15/12
2-Chlorophenol	95-57-8		<1	ug/L				U	11/15/12
4-Nitroaniline	100-01-6		<1	ug/L				U	11/15/12
4-Bromophenyl-phenylether	101-55-3		<1	ug/L				U	11/15/12
2,4-Dimethylphenol	105-67-9		<2	ug/L				U	11/15/12
4-Chloroaniline	106-47-8		<1	ug/L				U	11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis(1-Chloro-2-propyl)ether	108-60-1		<1	ug/L					U	11/15/12
Bis-(2-Chloroethyl) ether	111-44-4		<1	ug/L					U	11/15/12
Bis-(2-Chloroethoxy)methane	111-91-1		<1	ug/L					U	11/15/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<1	ug/L					U	11/15/12
Di-n-octylphthalate	117-84-0		<1	ug/L					U	11/15/12
Hexachlorobenzene	118-74-1		<1	ug/L					U	11/15/12
Anthracene	120-12-7		<1	ug/L					U	11/15/12
2,4-Dichlorophenol	120-83-2		<1	ug/L					U	11/15/12
Dimethylphthalate	131-11-3		<1	ug/L					U	11/15/12
Dibenzofuran	132-64-9		<1	ug/L					U	11/15/12
Benzo(g,h,i)perylene	191-24-2		<1	ug/L					U	11/15/12
Indeno(1,2,3-cd)pyrene	193-39-5		<1	ug/L					U	11/15/12
Benzo(b)fluoranthene	205-99-2		<1	ug/L					U	11/15/12
Fluoranthene	206-44-0		<1	ug/L					U	11/15/12
Benzo(k)fluoranthene	207-08-9		<1	ug/L					U	11/15/12
Acenaphthylene	208-96-8		<1	ug/L					U	11/15/12
Chrysene	218-01-9		<1	ug/L					U	11/15/12
Benzo(a)pyrene	50-32-8		<1	ug/L					U	11/15/12
2,4-Dinitrophenol	51-28-5		<1	ug/L					U	11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Dibenzo(a,h)anthracene	53-70-3		<1	ug/L					U	11/15/12
4,6-Dinitro-2-methylphenol	534-52-1		<1	ug/L					U	11/15/12
1,3-Dichlorobenzene	541-73-1		<1	ug/L					U	11/15/12
Benzo(a)anthracene	56-55-3		<1	ug/L					U	11/15/12
2,6-Dinitrotoluene	606-20-2		<1	ug/L					U	11/15/12
4-Chlorophenyl-phenylether	7005-72-3		<1	ug/L					U	11/15/12
Hexachlorocyclopentadiene	77-47-4		<1	ug/L					U	11/15/12
Isophorone	78-59-1		<1	ug/L					U	11/15/12
Diethyl phthalate	84-66-2		<1	ug/L					U	11/15/12
Di-n-butylphthalate	84-74-2		<1	ug/L					U	11/15/12
Phenanthrene	85-01-8		<1	ug/L					U	11/15/12
Butylbenzylphthalate	85-68-7		<1	ug/L					U	11/15/12
Fluorene	86-73-7		<1	ug/L					U	11/15/12
Carbazole	86-74-8		<1	ug/L					U	11/15/12
Hexachlorobutadiene	87-68-3		<1	ug/L					U	11/15/12
2-Nitroaniline	88-74-4		<1	ug/L					U	11/15/12
2-Nitrophenol	88-75-5		<1	ug/L					U	11/15/12
Naphthalene	91-20-3		<1	ug/L					U	11/15/12
2-Methylnaphthalene	91-57-6		<1	ug/L					U	11/15/12
2-Chloronaphthalene	91-58-7		<1	ug/L					U	11/15/12
3,3-Dichlorobenzidine	91-94-1		<1	ug/L					U	11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
2-Methylphenol	95-48-7		<1	ug/L				U	11/15/12
1,2-Dichlorobenzene	95-50-1		<1	ug/L				U	11/15/12
2,4,5-Trichlorophenol	95-95-4		<1	ug/L				U	11/15/12
Nitrobenzene	98-95-3		<1	ug/L				U	11/15/12
3-Nitroaniline	99-09-2		<1	ug/L				U	11/15/12
3 & 4 Methylphenol, Total	65794-96-9		<1	ug/L				U	11/15/12
Hexachloroethane	67-72-1		<1	ug/L				U	11/15/12
2,4,6-Trichlorophenol	88-06-2		<1	ug/L				U	11/15/12
Benzyl alcohol	100-51-6		<1	ug/L				U	11/15/12
Tributyl phosphate	126-73-8		<1	ug/L				U	11/15/12
2-Naphthylamine	91-59-8		<2	ug/L				U	11/15/12
Pyridine	110-86-1		<1	ug/L				U	11/15/12
n-Nitrosopiperidine	100-75-4		<1	ug/L				U	11/15/12
n-Nitrosomethylethylamine	10595-95-6		<1	ug/L				U	11/15/12
p-Phenylenediamine	106-50-3		<1	ug/L				U	11/15/12
2-Picoline	109-06-8		<1	ug/L				U	11/15/12
3,3-Dimethylbenzidine	119-93-7		<4	ug/L				U	11/15/12
Isosafrole	120-58-1		<1	ug/L				U	11/15/12
Phentermine	122-09-8		<5	ug/L				U	11/15/12
1,4-Dioxane	123-91-1		<1	ug/L				U	11/15/12
1,4-Naphthoquinone	130-15-4		<1	ug/L				U	11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
1-Naphthylamine	134-32-7		<2	ug/L				U	11/15/12
Aramite	140-57-8		<1	ug/L				U	11/15/12
Kepone	143-50-0		<1	ug/L				U	11/15/12
Hexachloropropene	1888-71-7		<1	ug/L				U	11/15/12
Diallate	2303-16-4		<1	ug/L				U	11/15/12
Pronamide	23950-58-5		<1	ug/L				U	11/15/12
Isodrin	465-73-6		<1	ug/L				U	11/15/12
Chlorobenzilate	510-15-6		<1	ug/L				U	11/15/12
2-Acetylaminofluorene	53-96-3		<1	ug/L				U	11/15/12
n-Nitrosodiethylamine	55-18-5		<1	ug/L				U	11/15/12
3-Methylcholanthrene	56-49-5		<1	ug/L				U	11/15/12
4-Nitroquinoline-1-oxide	56-57-5		<1	ug/L				U	11/15/12
7,12-Dimethylbenz(a)anthracene	57-97-6		<1	ug/L				U	11/15/12
2,3,4,6-Tetrachlorophenol	58-90-2		<1	ug/L				U	11/15/12
n-Nitrosomorpholine	59-89-2		<1	ug/L				U	11/15/12
Pentachlorobenzene	608-93-5		<1	ug/L				U	11/15/12
Phenacetin	62-44-2		<1	ug/L				U	11/15/12
Ethyl methanesulfonate	62-50-0		<1	ug/L				U	11/15/12
Aniline	62-53-3		<1	ug/L				U	11/15/12
n-Nitrosodimethylamine	62-75-9		<1	ug/L				U	11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Methyl methanesulfonate	66-27-3		<1	ug/L					U	11/15/12
Pentachloroethane	76-01-7		<1	ug/L					U	11/15/12
Pentachloronitrobenzene	82-68-8		<2	ug/L					U	11/15/12
2,6-Dichlorophenol	87-65-0		<1	ug/L					U	11/15/12
Dinoseb(..dinitromethylphenol)	88-85-7		<1	ug/L					U	11/15/12
4-Aminobiphenyl	92-67-1		<2	ug/L					U	11/15/12
n-Nitrosodibutylamine	924-16-3		<1	ug/L					U	11/15/12
n-Nitrosopyrolidine	930-55-2		<1	ug/L					U	11/15/12
Safrole	94-59-7		<1	ug/L					U	11/15/12
o-Toluidine	95-53-4		<1	ug/L					U	11/15/12
1,2,4,5-Tetrachlorobenzene	95-94-3		<1	ug/L					U	11/15/12
Acetophenone	98-86-2		<1	ug/L					U	11/15/12
1,3,5-Trinitrobenzene	99-35-4		<1	ug/L					U	11/15/12
2-Methyl-5-nitroaniline	99-55-8		<1	ug/L					U	11/15/12
1,3-Dinitrobenzene	99-65-0		<1	ug/L					U	11/15/12
O,O,O-Triethylthiophosphate	126-68-1		<1	ug/L					U	11/15/12
Parathion	56-38-2		<1	ug/L					U	11/15/12
Dimethylaminoazobenzene	60-11-7		<1	ug/L					U	11/15/12
Dimethoate	60-51-5		<1	ug/L					U	11/15/12
Thionazin	297-97-2		<1	ug/L					U	11/15/12

* - QC result out of range

n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Methyl parathion	298-00-0		<1	ug/L					U	11/15/12
Phorate	298-02-2		<1	ug/L					U	11/15/12
Disulfoton	298-04-4		<1	ug/L					U	11/15/12
Sulfotep	3689-24-5		<1	ug/L					U	11/15/12
Famfur	52-85-7		<5	ug/L					U	11/15/12
N-Nitrosodiphenylamin/ Diphenyl	DPA+NNDPA		<1	ug/L					U	11/15/12
Methapyrilene	91-80-5		<1	ug/L					U	11/15/12
LCS			**QC Sample #85001**							
4-Nitrophenol	100-02-7		15	ug/L	50.9	5 - 88				11/15/12
1,2,4-Trichlorobenzene	120-82-1		21	ug/L	70.3	50 - 105				11/15/12
Phenol	108-95-2		14	ug/L	48.1	18 - 89				11/15/12
1,4-Dichlorobenzene	106-46-7		15	ug/L	73.2	47 - 115				11/15/12
2,4-Dinitrotoluene	121-14-2		24	ug/L	79.8	59 - 110				11/15/12
Pyrene	129-00-0		22	ug/L	73.6	64 - 116				11/15/12
4-Chloro-3-methylphenol	59-50-7		24	ug/L	81.5	62 - 109				11/15/12
n-Nitroso-di-n-propylamine	621-64-7		22	ug/L	74.9	61 - 110				11/15/12
Acenaphthene	83-32-9		23	ug/L	76.9	59 - 113				11/15/12
Pentachlorophenol	87-86-5		24	ug/L	81.5	17 - 125				11/15/12
2-Chlorophenol	95-57-8		22	ug/L	74.1	55 - 109				11/15/12
1,4-Dioxane	123-91-1		20	ug/L	67.1	42 - 99				11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
n-Nitrosodimethylamine	62-75-9		22	ug/L	71.7	40 - 103				11/15/12
Benzyl alcohol	100-51-6		24	ug/L	78.8	58 - 108				11/15/12
2-Methylphenol	95-48-7		22	ug/L	74.2	59 - 107				11/15/12
Hexachloroethane	67-72-1		19	ug/L	61.7	43 - 105				11/15/12
2-Nitrophenol	88-75-5		23	ug/L	75.1	48 - 113				11/15/12
2,4-Dimethylphenol	105-67-9		24	ug/L	79.8	58 - 113				11/15/12
2,4-Dichlorophenol	120-83-2		22	ug/L	74.3	52 - 110				11/15/12
Anthracene	120-12-7		24	ug/L	81.3	67 - 113				11/15/12
Naphthalene	91-20-3		21	ug/L	71.5	55 - 110				11/15/12
2-Nitroaniline	88-74-4		26	ug/L	85.2	57 - 114				11/15/12
Dibenzofuran	132-64-9		24	ug/L	79.3	61 - 113				11/15/12
Fluorene	86-73-7		24	ug/L	80	64 - 115				11/15/12
Tributyl phosphate	126-73-8		24	ug/L	79.8	65 - 108				11/15/12
Hexachlorobenzene	118-74-1		24	ug/L	78.4	60 - 117				11/15/12
Dimethoate	60-51-5		13	ug/L	87.8	64 - 108				11/15/12
Carbazole	86-74-8		28	ug/L	92.5	35 - 129				11/15/12
Di-n-butylphthalate	84-74-2		25	ug/L	82.2	70 - 116				11/15/12
3,3-Dichlorobenzidine	91-94-1		18	ug/L	59.6	16 - 117				11/15/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		24	ug/L	79.6	64 - 133				11/15/12
Di-n-octylphthalate	117-84-0		24	ug/L	79	57 - 134				11/15/12
Benzo(a)pyrene	50-32-8		25	ug/L	82.9	63 - 115				11/15/12
2-Picoline	109-06-8		24	ug/L	81	59 - 102				11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis(1-Chloro-2-propyl)ether	108-60-1		21	ug/L	71.2	58 - 111				11/15/12
4-Chloroaniline	106-47-8		27	ug/L	89.7	43 - 125				11/15/12
MS			**QC Sample #85002**							
			Original 121439002							
4-Nitrophenol	100-02-7		12	ug/L	42.2	15 - 57				11/15/12
1,2,4-Trichlorobenzene	120-82-1		21	ug/L	74	51 - 104				11/15/12
Phenol	108-95-2		11	ug/L	39.1	24 - 65				11/15/12
1,4-Dichlorobenzene	106-46-7		14	ug/L	75.9	52 - 114				11/15/12
2,4-Dinitrotoluene	121-14-2		22	ug/L	77.6	57 - 112				11/15/12
Pyrene	129-00-0		20	ug/L	71.5	58 - 119				11/15/12
4-Chloro-3-methylphenol	59-50-7		23	ug/L	81	56 - 115				11/15/12
n-Nitroso-di-n-propylamine	621-64-7		22	ug/L	76	60 - 112				11/15/12
Acenaphthene	83-32-9		22	ug/L	76	60 - 113				11/15/12
Pentachlorophenol	87-86-5		24	ug/L	84.4	32 - 127				11/15/12
2-Chlorophenol	95-57-8		21	ug/L	73.5	52 - 113				11/15/12
1,4-Dioxane	123-91-1		17	ug/L	61.4	39 - 93				11/15/12
n-Nitrosodimethylamine	62-75-9		19	ug/L	65.6	41 - 92				11/15/12
Benzyl alcohol	100-51-6		22	ug/L	76.6	56 - 107				11/15/12
2-Methylphenol	95-48-7		21	ug/L	73.1	46 - 114				11/15/12
Hexachloroethane	67-72-1		18	ug/L	64.9	48 - 102				11/15/12
2-Nitrophenol	88-75-5		21	ug/L	75.2	51 - 114				11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2,4-Dimethylphenol	105-67-9		23	ug/L	79.8	46 - 124				11/15/12
2,4-Dichlorophenol	120-83-2		21	ug/L	74.7	50 - 114				11/15/12
Anthracene	120-12-7		23	ug/L	79.9	64 - 116				11/15/12
Naphthalene	91-20-3		21	ug/L	73	57 - 110				11/15/12
2-Nitroaniline	88-74-4		24	ug/L	84.4	60 - 114				11/15/12
Dibenzofuran	132-64-9		23	ug/L	79.8	61 - 114				11/15/12
Fluorene	86-73-7		23	ug/L	80.4	63 - 116				11/15/12
Tributyl phosphate	126-73-8		23	ug/L	79.6	59 - 113				11/15/12
Hexachlorobenzene	118-74-1		22	ug/L	76.8	58 - 119				11/15/12
Dimethoate	60-51-5		12	ug/L	86.3	53 - 119				11/15/12
Carbazole	86-74-8		26	ug/L	90.2	41 - 122				11/15/12
Di-n-butylphthalate	84-74-2		23	ug/L	81.4	67 - 118				11/15/12
3,3-Dichlorobenzidine	91-94-1		14	ug/L	49.9	16 - 121				11/15/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		23	ug/L	79.5	64 - 134				11/15/12
Di-n-octylphthalate	117-84-0		23	ug/L	82.7	40 - 143				11/15/12
Benzo(a)pyrene	50-32-8		23	ug/L	81.4	61 - 117				11/15/12
2-Picoline	109-06-8		23	ug/L	81.7	50 - 104				11/15/12
Bis(1-Chloro-2-propyl)ether	108-60-1		21	ug/L	73.1	58 - 112				11/15/12
4-Chloroaniline	106-47-8		26	ug/L	91	43 - 118				11/15/12
MSD			**QC Sample #85003**							
			Original 121439002						**Paired 85002**	
4-Nitrophenol	100-02-7		13	ug/L	45.9	15 - 57	8.50	20		11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,2,4-Trichlorobenzene	120-82-1		21	ug/L	75.6	51 - 104	2.10	20		11/15/12
Phenol	108-95-2		12	ug/L	41.1	24 - 65	5.00	20		11/15/12
1,4-Dichlorobenzene	106-46-7		15	ug/L	78.4	52 - 114	3.30	20		11/15/12
2,4-Dinitrotoluene	121-14-2		23	ug/L	79.8	57 - 112	2.80	20		11/15/12
Pyrene	129-00-0		21	ug/L	75.4	58 - 119	5.30	20		11/15/12
4-Chloro-3-methylphenol	59-50-7		23	ug/L	81.4	56 - 115	0.50	20		11/15/12
n-Nitroso-di-n-propylamine	621-64-7		22	ug/L	77.5	60 - 112	2.00	20		11/15/12
Acenaphthene	83-32-9		22	ug/L	79.3	60 - 113	4.20	20		11/15/12
Pentachlorophenol	87-86-5		25	ug/L	89.4	32 - 127	5.70	20		11/15/12
2-Chlorophenol	95-57-8		22	ug/L	76.5	52 - 113	4.00	20		11/15/12
1,4-Dioxane	123-91-1		19	ug/L	65.6	39 - 93	6.60	20		11/15/12
n-Nitrosodimethylamine	62-75-9		20	ug/L	69.5	41 - 92	5.70	20		11/15/12
Benzyl alcohol	100-51-6		22	ug/L	79.3	56 - 107	3.50	20		11/15/12
2-Methylphenol	95-48-7		21	ug/L	75.4	46 - 114	3.10	20		11/15/12
Hexachloroethane	67-72-1		19	ug/L	67.4	48 - 102	3.70	20		11/15/12
2-Nitrophenol	88-75-5		22	ug/L	76.2	51 - 114	1.30	20		11/15/12
2,4-Dimethylphenol	105-67-9		23	ug/L	81.2	46 - 124	1.80	20		11/15/12
2,4-Dichlorophenol	120-83-2		22	ug/L	76.8	50 - 114	2.70	20		11/15/12
Anthracene	120-12-7		24	ug/L	83.2	64 - 116	4.10	20		11/15/12
Naphthalene	91-20-3		21	ug/L	74.7	57 - 110	2.30	20		11/15/12
2-Nitroaniline	88-74-4		24	ug/L	85.8	60 - 114	1.70	20		11/15/12

* - QC result out of range

n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Dibenzofuran	132-64-9		23	ug/L	82.3	61 - 114	3.10	20		11/15/12
Fluorene	86-73-7		23	ug/L	81.9	63 - 116	1.90	20		11/15/12
Tributyl phosphate	126-73-8		23	ug/L	80.2	59 - 113	0.80	20		11/15/12
Hexachlorobenzene	118-74-1		23	ug/L	82.2	58 - 119	6.80	20		11/15/12
Dimethoate	60-51-5		12	ug/L	86.6	53 - 119	0.30	20		11/15/12
Carbazole	86-74-8		27	ug/L	93.7	41 - 122	3.90	20		11/15/12
Di-n-butylphthalate	84-74-2		23	ug/L	82.8	67 - 118	1.70	20		11/15/12
3,3-Dichlorobenzidine	91-94-1		15	ug/L	53.4	16 - 121	6.80	20		11/15/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		23	ug/L	82.9	64 - 134	4.20	20		11/15/12
Di-n-octylphthalate	117-84-0		22	ug/L	77.9	40 - 143	6.00	20		11/15/12
Benzo(a)pyrene	50-32-8		24	ug/L	83.1	61 - 117	2.10	20		11/15/12
2-Picoline	109-06-8		24	ug/L	85.9	50 - 104	5.10	20		11/15/12
Bis(1-Chloro-2-propyl)ether	108-60-1		21	ug/L	74.5	58 - 112	1.90	20		11/15/12
4-Chloroaniline	106-47-8		25	ug/L	89.4	43 - 118	1.80	20		11/15/12
LCSD			**QC Sample #85004**							
									Paired 85001	
4-Nitrophenol	100-02-7		13	ug/L	43.2	5 - 88	16.40	20		11/15/12
1,2,4-Trichlorobenzene	120-82-1		20	ug/L	68.2	50 - 105	3.00	20		11/15/12
Phenol	108-95-2		14	ug/L	45.4	18 - 89	5.80	20		11/15/12
1,4-Dichlorobenzene	106-46-7		14	ug/L	69.2	47 - 115	5.60	20		11/15/12
2,4-Dinitrotoluene	121-14-2		22	ug/L	73.3	59 - 110	8.60	20		11/15/12
Pyrene	129-00-0		20	ug/L	67.7	64 - 116	8.40	20		11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
4-Chloro-3-methylphenol	59-50-7		23	ug/L	77.2	62 - 109	5.50	20		11/15/12
n-Nitroso-di-n-propylamine	621-64-7		22	ug/L	73.6	61 - 110	1.70	20		11/15/12
Acenaphthene	83-32-9		22	ug/L	72.6	59 - 113	5.80	20		11/15/12
Pentachlorophenol	87-86-5		22	ug/L	72.3	17 - 125	12.00	20		11/15/12
2-Chlorophenol	95-57-8		21	ug/L	69.7	55 - 109	6.10	20		11/15/12
1,4-Dioxane	123-91-1		18	ug/L	60.6	42 - 99	10.00	20		11/15/12
n-Nitrosodimethylamine	62-75-9		20	ug/L	67.4	40 - 103	6.10	20		11/15/12
Benzyl alcohol	100-51-6		23	ug/L	76.2	58 - 108	3.30	20		11/15/12
2-Methylphenol	95-48-7		22	ug/L	72.2	59 - 107	2.80	20		11/15/12
Hexachloroethane	67-72-1		18	ug/L	60	43 - 105	2.80	20		11/15/12
2-Nitrophenol	88-75-5		21	ug/L	70.1	48 - 113	6.90	20		11/15/12
2,4-Dimethylphenol	105-67-9		23	ug/L	77.5	58 - 113	2.90	20		11/15/12
2,4-Dichlorophenol	120-83-2		21	ug/L	70.1	52 - 110	5.80	20		11/15/12
Anthracene	120-12-7		23	ug/L	77.8	67 - 113	4.40	20		11/15/12
Naphthalene	91-20-3		21	ug/L	68.5	55 - 110	4.30	20		11/15/12
2-Nitroaniline	88-74-4		24	ug/L	79.4	57 - 114	7.00	20		11/15/12
Dibenzofuran	132-64-9		22	ug/L	74.9	61 - 113	5.80	20		11/15/12
Fluorene	86-73-7		23	ug/L	76	64 - 115	5.10	20		11/15/12
Tributyl phosphate	126-73-8		22	ug/L	74.9	65 - 108	6.40	20		11/15/12
Hexachlorobenzene	118-74-1		22	ug/L	74.4	60 - 117	5.20	20		11/15/12
Dimethoate	60-51-5		12	ug/L	80.9	64 - 108	8.20	20		11/15/12
Carbazole	86-74-8		26	ug/L	85.7	35 - 129	7.50	20		11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
Di-n-butylphthalate	84-74-2		23	ug/L	76.9	70 - 116	6.70	20			11/15/12
3,3-Dichlorobenzidine	91-94-1		13	ug/L	42.9	16 - 117	32.50	20	*	X	11/15/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		23	ug/L	75.3	64 - 133	5.60	20			11/15/12
Di-n-octylphthalate	117-84-0		22	ug/L	74.4	57 - 134	6.10	20			11/15/12
Benzo(a)pyrene	50-32-8		23	ug/L	78.3	63 - 115	5.70	20			11/15/12
2-Picoline	109-06-8		22	ug/L	74.2	59 - 102	8.70	20			11/15/12
Bis(1-Chloro-2-propyl)ether	108-60-1		20	ug/L	67	58 - 111	6.10	20			11/15/12
4-Chloroaniline	106-47-8		25	ug/L	83.8	43 - 125	6.80	20			11/15/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

Analytical Batch 210519 (QC Batch: 210519) **Test** Total Dissolved Solids 180 C Dry
Associated Samples 121456005, 121456006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #85271**								
Total Dissolved Solids	TDS		<10	mg/L						U	11/16/12
LCS			**QC Sample #85272**								
Total Dissolved Solids	TDS		636	mg/L	102.6	80 - 120					11/16/12
DUP			**QC Sample #85273**								
			Original 121456005								
Total Dissolved Solids	TDS	22.0	16.0	mg/L			31.60	5	*	BX	11/16/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF121456

Analytical Batch 210626 (QC Batch: 210414) **Test** TC99 by Liquid Scintillation
Associated Samples 121456005, 121456006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #85217**							
Technetium-99	14133-76-7		-6.5	pCi/L					U	11/19/12
LCS			**QC Sample #85218**							
Technetium-99	14133-76-7		210	pCi/L	98.4	80 - 120				11/19/12
DUP			**QC Sample #85219**							
			Original 121454005							
Technetium-99	14133-76-7		44	pCi/L			4.40	20		11/19/12
MS			**QC Sample #85220**							
			Original 121454005							
Technetium-99	14133-76-7		850	pCi/L	98.4	75 - 120				11/19/12

* - QC result out of range n/a - Not Applicable

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

Analytical Batch 210630 (QC Batch: 210629) **Test** Cyanide (W) by Midi/Spectrophotometer
Associated Samples 121456001, 121456002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #85308**							
Cyanide	57-12-5		<4.0	ug/L					U	11/19/12
LCS			**QC Sample #85310**							
Cyanide	57-12-5		52.5	ug/L	105.1	85 - 115				11/19/12
MS			**QC Sample #85311**							
			Original 121450005							
Cyanide	57-12-5		37.8	ug/L	94.6	75 - 125				11/19/12
MSD			**QC Sample #85312**							
			Original 121450005						**Paired 85311**	
Cyanide	57-12-5		38.9	ug/L	97.4	75 - 125	2.90	20		11/19/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121456

Analytical Batch 210653 (QC Batch: 210653) **Test** Total Alkalinity as mg/L CaCO3 (Water)
Associated Samples 121456001, 121456002, 121456005, 121456006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #85361**							
Total Alkalinity as CaCO3	ALKALINITY		98	mg/L	97.6	80 - 120				11/14/12
DUP			**QC Sample #85362**							
			Original 121448008							
Total Alkalinity as CaCO3	ALKALINITY		95	mg/L			0.00	20		11/14/12
LCS			**QC Sample #85363**							
Total Alkalinity as CaCO3	ALKALINITY		97	mg/L	97.5	80 - 120				11/14/12
LCS			**QC Sample #85364**							
Total Alkalinity as CaCO3	ALKALINITY		98	mg/L	97.7	80 - 120				11/14/12

* - QC result out of range n/a - Not Applicable

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF121456

Analytical Batch 210721 (QC Batch: 210248) **Test** Tritium by LSC
Associated Samples 121456005, 121456006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #84931**							
Tritium	10028-17-8		51	pCi/L					U	11/22/12
LCS			**QC Sample #84932**							
Tritium	10028-17-8		3500	pCi/L	112.6	80 - 120				11/22/12
DUP			**QC Sample #84933**							
			Original 121446005							
Tritium	10028-17-8		620	pCi/L			7.20	20		11/22/12
MS			**QC Sample #84934**							
			Original 121446005							
Tritium	10028-17-8		22000	pCi/L	105	75 - 125				11/22/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analytical Batch 210923 (QC Batch: 210747) **Test** ICP-6010 - All possible metals
Associated Samples 121456001, 121456002, 121456003, 121456004, 121456007, 121456008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #85452**							
Iron	7439-89-6		<19	ug/L					U	11/29/12
Magnesium	7439-95-4		<4.0	ug/L					U	11/29/12
Manganese	7439-96-5		<4.0	ug/L					U	11/29/12
Nickel	7440-02-0		<4.0	ug/L					U	11/29/12
Potassium	7440-09-7		<76	ug/L					U	11/29/12
Silver	7440-22-4		<4.0	ug/L					U	11/29/12
Sodium	7440-23-5		<10	ug/L					U	11/29/12
Antimony	7440-36-0		<36	ug/L					U	11/29/12
Barium	7440-39-3		<4.0	ug/L					U	11/29/12
Cadmium	7440-43-9		<4.0	ug/L					U	11/29/12
Chromium	7440-47-3		<5.0	ug/L					U	11/29/12
Cobalt	7440-48-4		<4.0	ug/L					U	11/29/12
Copper	7440-50-8		<4.0	ug/L					U	11/29/12
Vanadium	7440-62-2		<5.0	ug/L					U	11/29/12
Zinc	7440-66-6		<5.0	ug/L					U	11/29/12
Calcium	7440-70-2		<49	ug/L					U	11/29/12
Strontium	7440-24-6		<9.0	ug/L					U	11/29/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Beryllium	7440-41-7		<4.0	ug/L					U	11/29/12
LCS			**QC Sample #85454**							
Iron	7439-89-6		964	ug/L	96.4	80 - 120				11/29/12
Magnesium	7439-95-4		10500	ug/L	104.7	80 - 120				11/29/12
Manganese	7439-96-5		969	ug/L	96.9	80 - 120				11/29/12
Nickel	7440-02-0		947	ug/L	94.7	80 - 120				11/29/12
Potassium	7440-09-7		11800	ug/L	117.7	80 - 120				11/29/12
Silver	7440-22-4		1000	ug/L	100.1	80 - 120				11/29/12
Sodium	7440-23-5		11900	ug/L	118.6	80 - 120				11/29/12
Antimony	7440-36-0		990	ug/L	99	80 - 120				11/29/12
Barium	7440-39-3		1060	ug/L	105.9	80 - 120				11/29/12
Cadmium	7440-43-9		969	ug/L	96.9	80 - 120				11/29/12
Chromium	7440-47-3		972	ug/L	97.2	80 - 120				11/29/12
Cobalt	7440-48-4		950	ug/L	95	80 - 120				11/29/12
Copper	7440-50-8		1000	ug/L	100.3	80 - 120				11/29/12
Vanadium	7440-62-2		961	ug/L	96.1	80 - 120				11/29/12
Zinc	7440-66-6		1010	ug/L	101.4	80 - 120				11/29/12
Calcium	7440-70-2		19900	ug/L	99.4	80 - 120				11/29/12
Strontium	7440-24-6		929	ug/L	92.9	80 - 120				11/29/12
Beryllium	7440-41-7		1100	ug/L	110.3	80 - 120				11/29/12
MS			**QC Sample #85455**							
			Original 121450001							
Iron	7439-89-6		941	ug/L	94.1	75 - 125				11/29/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Magnesium	7439-95-4		9900	ug/L	99	75 - 125				11/29/12
Manganese	7439-96-5		958	ug/L	95.8	75 - 125				11/29/12
Nickel	7440-02-0		938	ug/L	93.8	75 - 125				11/29/12
Potassium	7440-09-7		10600	ug/L	106	75 - 125				11/29/12
Silver	7440-22-4		998	ug/L	99.8	75 - 125				11/29/12
Sodium	7440-23-5		10800	ug/L	107.7	75 - 125				11/29/12
Antimony	7440-36-0		1020	ug/L	102.1	75 - 125				11/29/12
Barium	7440-39-3		1020	ug/L	102.2	75 - 125				11/29/12
Cadmium	7440-43-9		983	ug/L	98.3	75 - 125				11/29/12
Chromium	7440-47-3		944	ug/L	94.4	75 - 125				11/29/12
Cobalt	7440-48-4		931	ug/L	93.1	75 - 125				11/29/12
Copper	7440-50-8		1000	ug/L	100.2	75 - 125				11/29/12
Vanadium	7440-62-2		949	ug/L	94.9	75 - 125				11/29/12
Zinc	7440-66-6		1010	ug/L	101.1	75 - 125				11/29/12
Calcium	7440-70-2		19300	ug/L	96.4	75 - 125			X	11/29/12
Strontium	7440-24-6		916	ug/L	91.6	75 - 125				11/29/12
Beryllium	7440-41-7		1080	ug/L	107.6	75 - 125				11/29/12
MSD			**QC Sample #85456**							
			Original 121450001					**Paired 85455**		
Iron	7439-89-6		954	ug/L	95.4	75 - 125	1.30	20		11/29/12
Magnesium	7439-95-4		9500	ug/L	95	75 - 125	1.60	20		11/29/12
Manganese	7439-96-5		959	ug/L	95.9	75 - 125	0.10	20		11/29/12
Nickel	7440-02-0		937	ug/L	93.7	75 - 125	0.20	20		11/29/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Potassium	7440-09-7		10400	ug/L	103.5	75 - 125	1.90	20		11/29/12
Silver	7440-22-4		1000	ug/L	100.2	75 - 125	0.40	20		11/29/12
Sodium	7440-23-5		10400	ug/L	104.5	75 - 125	1.90	20		11/29/12
Antimony	7440-36-0		984	ug/L	98.4	75 - 125	3.70	20		11/29/12
Barium	7440-39-3		1040	ug/L	103.6	75 - 125	1.20	20		11/29/12
Cadmium	7440-43-9		985	ug/L	98.5	75 - 125	0.20	20		11/29/12
Chromium	7440-47-3		960	ug/L	96	75 - 125	1.60	20		11/29/12
Cobalt	7440-48-4		938	ug/L	93.8	75 - 125	0.70	20		11/29/12
Copper	7440-50-8		986	ug/L	98.6	75 - 125	1.60	20		11/29/12
Vanadium	7440-62-2		955	ug/L	95.5	75 - 125	0.60	20		11/29/12
Zinc	7440-66-6		1020	ug/L	102.3	75 - 125	1.20	20		11/29/12
Calcium	7440-70-2		19600	ug/L	97.8	75 - 125	0.30	20	X	11/29/12
Strontium	7440-24-6		934	ug/L	93.4	75 - 125	1.40	20		11/29/12
Beryllium	7440-41-7		1080	ug/L	108.1	75 - 125	0.50	20		11/29/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analytical Batch 211274 (QC Batch: 211267) **Test** ICP-2008 MS All possible metal
Associated Samples 121456006

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #86053**						
Aluminum	7429-90-5		<5.0	ug/L				U	12/06/12
Manganese	7439-96-5		<0.10	ug/L				U	12/06/12
Nickel	7440-02-0		<0.10	ug/L				U	12/06/12
Silver	7440-22-4		<0.050	ug/L				U	12/06/12
Antimony	7440-36-0		<0.30	ug/L				U	12/06/12
Barium	7440-39-3		<0.20	ug/L				U	12/06/12
Beryllium	7440-41-7		<0.10	ug/L				U	12/06/12
Cadmium	7440-43-9		<0.050	ug/L				U	12/06/12
Chromium	7440-47-3		<0.10	ug/L				U	12/06/12
Cobalt	7440-48-4		<0.050	ug/L				U	12/06/12
Copper	7440-50-8		<0.10	ug/L				U	12/06/12
Vanadium	7440-62-2		<0.20	ug/L				U	12/06/12
Zinc	7440-66-6		<1.0	ug/L				U	12/06/12
Lead	7439-92-1		<0.050	ug/L				U	12/06/12
Molybdenum	7439-98-7		<0.050	ug/L				U	12/06/12
Strontium	7440-24-6		<0.10	ug/L				U	12/06/12
Thallium	7440-28-0		<0.050	ug/L				U	12/06/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Tin	7440-31-5		<0.050	ug/L					U	12/06/12
Uranium	7440-61-1		<0.050	ug/L					U	12/06/12
Arsenic	7440-38-2		<0.20	ug/L					U	12/06/12
Selenium	7782-49-2		<1.0	ug/L					U	12/06/12
LCS			**QC Sample #86054**							
Aluminum	7429-90-5		396	ug/L	99	85 - 115				12/06/12
Manganese	7439-96-5		40.3	ug/L	100.7	85 - 115				12/06/12
Nickel	7440-02-0		40.1	ug/L	100.3	85 - 115				12/06/12
Silver	7440-22-4		40.2	ug/L	100.5	85 - 115				12/06/12
Antimony	7440-36-0		40.2	ug/L	100.4	85 - 115				12/06/12
Barium	7440-39-3		40.9	ug/L	102.2	85 - 115				12/06/12
Beryllium	7440-41-7		38.5	ug/L	96.3	85 - 115				12/06/12
Cadmium	7440-43-9		42.0	ug/L	105.1	85 - 115				12/06/12
Chromium	7440-47-3		40.0	ug/L	100	85 - 115				12/06/12
Cobalt	7440-48-4		39.9	ug/L	99.7	85 - 115				12/06/12
Copper	7440-50-8		39.8	ug/L	99.4	85 - 115				12/06/12
Vanadium	7440-62-2		40.1	ug/L	100.4	85 - 115				12/06/12
Zinc	7440-66-6		36.8	ug/L	92.1	85 - 115				12/06/12
Lead	7439-92-1		42.1	ug/L	105.3	85 - 115				12/06/12
Molybdenum	7439-98-7		40.6	ug/L	101.6	85 - 115				12/06/12
Strontium	7440-24-6		406	ug/L	101.6	85 - 115				12/06/12
Thallium	7440-28-0		41.7	ug/L	104.4	85 - 115				12/06/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Tin	7440-31-5		40.5	ug/L	101.2	85 - 115				12/06/12
Uranium	7440-61-1		40.8	ug/L	102.1	85 - 115				12/06/12
Arsenic	7440-38-2		39.0	ug/L	97.6	85 - 115				12/06/12
Selenium	7782-49-2		36.9	ug/L	92.2	85 - 115				12/06/12
MS			**QC Sample #86055**							
			Original 121456006							
Aluminum	7429-90-5	8.78	380	ug/L	94.9	70 - 130				12/06/12
Manganese	7439-96-5	0.836	37.0	ug/L	92.6	70 - 130				12/06/12
Nickel	7440-02-0	0.644	34.6	ug/L	86.5	70 - 130				12/06/12
Silver	7440-22-4	<0.050	36.7	ug/L	91.7	70 - 130				12/06/12
Antimony	7440-36-0	<0.30	41.8	ug/L	104.4	70 - 130				12/06/12
Barium	7440-39-3	131	36.2	ug/L	90.5	70 - 130				12/06/12
Beryllium	7440-41-7	<0.10	37.6	ug/L	94	70 - 130				12/06/12
Cadmium	7440-43-9	<0.050	38.0	ug/L	95	70 - 130				12/06/12
Chromium	7440-47-3	132	29.1	ug/L	72.8	70 - 130				12/06/12
Cobalt	7440-48-4	0.110	36.2	ug/L	90.5	70 - 130				12/06/12
Copper	7440-50-8	0.222	34.2	ug/L	85.4	70 - 130				12/06/12
Vanadium	7440-62-2	22.5	37.7	ug/L	94.4	70 - 130				12/06/12
Zinc	7440-66-6	<1.0	32.5	ug/L	81.2	70 - 130				12/06/12
Lead	7439-92-1	<0.050	42.9	ug/L	107.2	70 - 130				12/06/12
Molybdenum	7439-98-7	5.82	43.3	ug/L	108.2	70 - 130				12/06/12
Strontium	7440-24-6	430	405	ug/L	101.2	70 - 130				12/06/12
Thallium	7440-28-0	<0.050	42.6	ug/L	106.4	70 - 130				12/06/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Tin	7440-31-5	<0.050	41.4	ug/L	103.4	70 - 130				12/06/12
Uranium	7440-61-1	2.88	46.1	ug/L	115.2	70 - 130				12/06/12
Arsenic	7440-38-2	1.71	40.6	ug/L	101.5	70 - 130				12/06/12
Selenium	7782-49-2	4.58	37.2	ug/L	92.9	70 - 130				12/06/12
MSD			**QC Sample #86056**							
			Original 121456006						**Paired 86055**	
Aluminum	7429-90-5	8.78	390	ug/L	97.6	70 - 130	2.70	20		12/06/12
Manganese	7439-96-5	0.836	38.1	ug/L	95.3	70 - 130	2.80	20		12/06/12
Nickel	7440-02-0	0.644	35.5	ug/L	88.8	70 - 130	2.60	20		12/06/12
Silver	7440-22-4	<0.050	37.4	ug/L	93.4	70 - 130	1.90	20		12/06/12
Antimony	7440-36-0	<0.30	42.3	ug/L	105.7	70 - 130	1.20	20		12/06/12
Barium	7440-39-3	131	37.4	ug/L	93.5	70 - 130	0.70	20		12/06/12
Beryllium	7440-41-7	<0.10	38.6	ug/L	96.4	70 - 130	2.50	20		12/06/12
Cadmium	7440-43-9	<0.050	38.5	ug/L	96.2	70 - 130	1.30	20		12/06/12
Chromium	7440-47-3	132	33.0	ug/L	82.5	70 - 130	2.40	20		12/06/12
Cobalt	7440-48-4	0.110	37.0	ug/L	92.6	70 - 130	2.30	20		12/06/12
Copper	7440-50-8	0.222	35.1	ug/L	87.8	70 - 130	2.80	20		12/06/12
Vanadium	7440-62-2	22.5	38.7	ug/L	96.8	70 - 130	1.60	20		12/06/12
Zinc	7440-66-6	<1.0	33.2	ug/L	83.1	70 - 130	2.40	20		12/06/12
Lead	7439-92-1	<0.050	43.7	ug/L	109.3	70 - 130	1.90	20		12/06/12
Molybdenum	7439-98-7	5.82	43.7	ug/L	109.4	70 - 130	1.00	20		12/06/12
Strontium	7440-24-6	430	405	ug/L	101.2	70 - 130	0.00	20		12/06/12
Thallium	7440-28-0	<0.050	43.2	ug/L	108	70 - 130	1.50	20		12/06/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Tin	7440-31-5	<0.050	41.5	ug/L	103.8	70 - 130	0.40	20		12/06/12
Uranium	7440-61-1	2.88	47.0	ug/L	117.4	70 - 130	1.80	20		12/06/12
Arsenic	7440-38-2	1.71	41.2	ug/L	102.9	70 - 130	1.30	20		12/06/12
Selenium	7782-49-2	4.58	37.1	ug/L	92.6	70 - 130	0.30	20		12/06/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analytical Batch 211289 (QC Batch: 211122) **Test** ICP-2008 MS All possible metal
Associated Samples 121456001, 121456002, 121456003, 121456004, 121456005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #85827**							
Aluminum	7429-90-5		<5.0	ug/L					U	12/10/12
Manganese	7439-96-5		<0.10	ug/L					U	12/10/12
Nickel	7440-02-0		<0.10	ug/L					U	12/10/12
Silver	7440-22-4		<0.050	ug/L					U	12/10/12
Antimony	7440-36-0		<0.30	ug/L					U	12/10/12
Barium	7440-39-3		<0.20	ug/L					U	12/10/12
Beryllium	7440-41-7		<0.10	ug/L					U	12/10/12
Cadmium	7440-43-9		<0.050	ug/L					U	12/10/12
Chromium	7440-47-3		<0.10	ug/L					U	12/10/12
Cobalt	7440-48-4		<0.050	ug/L					U	12/10/12
Copper	7440-50-8		<0.10	ug/L					U	12/10/12
Vanadium	7440-62-2		<0.20	ug/L					U	12/10/12
Zinc	7440-66-6		1.08	ug/L					B	12/10/12
Lead	7439-92-1		<0.050	ug/L					U	12/10/12
Mercury	7439-97-6		<0.050	ug/L					U	12/10/12
Molybdenum	7439-98-7		<0.050	ug/L					U	12/10/12
Strontium	7440-24-6		<0.10	ug/L					U	12/10/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0		<0.050	ug/L					U	12/10/12
Tin	7440-31-5		<0.050	ug/L					U	12/10/12
Uranium	7440-61-1		<0.050	ug/L					U	12/10/12
Arsenic	7440-38-2		<0.20	ug/L					U	12/10/12
Selenium	7782-49-2		<1.0	ug/L					U	12/10/12
LCS			**QC Sample #85828**							
Aluminum	7429-90-5		424	ug/L	105.9	85 - 115				12/10/12
Manganese	7439-96-5		42.2	ug/L	105.4	85 - 115				12/10/12
Nickel	7440-02-0		41.8	ug/L	104.6	85 - 115				12/10/12
Silver	7440-22-4		43.9	ug/L	109.8	85 - 115				12/10/12
Antimony	7440-36-0		41.1	ug/L	102.8	85 - 115				12/10/12
Barium	7440-39-3		42.1	ug/L	105.3	85 - 115				12/10/12
Beryllium	7440-41-7		43.1	ug/L	107.8	85 - 115				12/10/12
Cadmium	7440-43-9		41.4	ug/L	103.4	85 - 115				12/10/12
Chromium	7440-47-3		42.4	ug/L	106.1	85 - 115				12/10/12
Cobalt	7440-48-4		42.0	ug/L	105.1	85 - 115				12/10/12
Copper	7440-50-8		42.0	ug/L	105	85 - 115				12/10/12
Vanadium	7440-62-2		41.8	ug/L	104.4	85 - 115				12/10/12
Zinc	7440-66-6		41.2	ug/L	103.1	85 - 115				12/10/12
Lead	7439-92-1		42.5	ug/L	106.4	85 - 115				12/10/12
Mercury	7439-97-6		1.90	ug/L	94.8	85 - 115				12/10/12
Molybdenum	7439-98-7		42.1	ug/L	105.3	85 - 115				12/10/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Strontium	7440-24-6		415	ug/L	103.8	85 - 115				12/10/12
Thallium	7440-28-0		42.0	ug/L	105	85 - 115				12/10/12
Tin	7440-31-5		41.7	ug/L	104.2	85 - 115				12/10/12
Uranium	7440-61-1		42.1	ug/L	105.2	85 - 115				12/10/12
Arsenic	7440-38-2		41.9	ug/L	104.7	85 - 115				12/10/12
Selenium	7782-49-2		39.5	ug/L	98.7	85 - 115				12/10/12
MS			**QC Sample #85829**							
			Original 121448006							
Aluminum	7429-90-5		386	ug/L	96.5	70 - 130				12/10/12
Manganese	7439-96-5		37.8	ug/L	94.5	70 - 130				12/10/12
Nickel	7440-02-0		36.2	ug/L	90.4	70 - 130				12/10/12
Silver	7440-22-4		40.4	ug/L	101.1	70 - 130				12/10/12
Antimony	7440-36-0		41.5	ug/L	103.6	70 - 130				12/10/12
Barium	7440-39-3		44.5	ug/L	111.3	70 - 130				12/10/12
Beryllium	7440-41-7		40.7	ug/L	101.8	70 - 130				12/10/12
Cadmium	7440-43-9		39.7	ug/L	99.3	70 - 130				12/10/12
Chromium	7440-47-3		38.3	ug/L	95.8	70 - 130				12/10/12
Cobalt	7440-48-4		37.0	ug/L	92.4	70 - 130				12/10/12
Copper	7440-50-8		35.4	ug/L	88.5	70 - 130				12/10/12
Vanadium	7440-62-2		39.5	ug/L	98.7	70 - 130				12/10/12
Zinc	7440-66-6		37.0	ug/L	92.5	70 - 130				12/10/12
Lead	7439-92-1		41.6	ug/L	103.9	70 - 130				12/10/12
Mercury	7439-97-6		2.04	ug/L	102.2	70 - 130				12/10/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Molybdenum	7439-98-7		42.1	ug/L	105.2	70 - 130				12/10/12
Strontium	7440-24-6		412	ug/L	102.9	70 - 130				12/10/12
Thallium	7440-28-0		41.4	ug/L	103.6	70 - 130				12/10/12
Tin	7440-31-5		41.3	ug/L	103.2	70 - 130				12/10/12
Uranium	7440-61-1		43.1	ug/L	107.8	70 - 130				12/10/12
Arsenic	7440-38-2		41.4	ug/L	103.4	70 - 130				12/10/12
Selenium	7782-49-2		39.3	ug/L	98.2	70 - 130				12/10/12
MSD			**QC Sample #85830**							
			Original 121448006						**Paired 85829**	
Aluminum	7429-90-5		385	ug/L	96.3	70 - 130	0.20	20		12/10/12
Manganese	7439-96-5		37.9	ug/L	94.7	70 - 130	0.20	20		12/10/12
Nickel	7440-02-0		36.2	ug/L	90.6	70 - 130	0.20	20		12/10/12
Silver	7440-22-4		39.3	ug/L	98.3	70 - 130	2.80	20		12/10/12
Antimony	7440-36-0		40.4	ug/L	100.9	70 - 130	2.70	20		12/10/12
Barium	7440-39-3		37.9	ug/L	94.8	70 - 130	5.10	20		12/10/12
Beryllium	7440-41-7		41.2	ug/L	103.1	70 - 130	1.30	20		12/10/12
Cadmium	7440-43-9		39.1	ug/L	97.8	70 - 130	1.50	20		12/10/12
Chromium	7440-47-3		38.3	ug/L	95.8	70 - 130	0.00	20		12/10/12
Cobalt	7440-48-4		36.7	ug/L	91.8	70 - 130	0.60	20		12/10/12
Copper	7440-50-8		35.1	ug/L	87.8	70 - 130	0.80	20		12/10/12
Vanadium	7440-62-2		39.0	ug/L	97.6	70 - 130	0.90	20		12/10/12
Zinc	7440-66-6		36.2	ug/L	90.5	70 - 130	2.10	20		12/10/12
Lead	7439-92-1		40.3	ug/L	100.8	70 - 130	3.00	20		12/10/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Mercury	7439-97-6		2.03	ug/L	101.3	70 - 130	0.80	20		12/10/12
Molybdenum	7439-98-7		40.4	ug/L	100.9	70 - 130	3.80	20		12/10/12
Strontium	7440-24-6		372	ug/L	93	70 - 130	4.80	20		12/10/12
Thallium	7440-28-0		40.5	ug/L	101.2	70 - 130	2.30	20		12/10/12
Tin	7440-31-5		40.0	ug/L	100.1	70 - 130	3.00	20		12/10/12
Uranium	7440-61-1		40.9	ug/L	102.2	70 - 130	3.40	20		12/10/12
Arsenic	7440-38-2		39.8	ug/L	99.6	70 - 130	3.30	20		12/10/12
Selenium	7782-49-2		37.7	ug/L	94.2	70 - 130	3.50	20		12/10/12

* - QC result out of range n/a - Not Applicable

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Analytical Batch 210346 (QC Batch: 210345) **Test** SW-846 8260B Volatiles
Associated Samples 121456001, 121456002, 121456005, 121456006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #121456001**							
1,2-Dichloroethane-d4	17060-07-0				101.6	75 - 125				11/15/12
Toluene-d8	2037-26-5				93.6	75 - 125				11/15/12
4-Bromofluorobenzene	460-00-4				101.7	75 - 125				11/15/12
SAMPLE			**Sample #121456002**							
1,2-Dichloroethane-d4	17060-07-0				104.7	75 - 125				11/15/12
Toluene-d8	2037-26-5				93.4	75 - 125				11/15/12
4-Bromofluorobenzene	460-00-4				102	75 - 125				11/15/12
SAMPLE			**Sample #121456005**							
1,2-Dichloroethane-d4	17060-07-0				104.5	75 - 125				11/15/12
Toluene-d8	2037-26-5				93.2	75 - 125				11/15/12
4-Bromofluorobenzene	460-00-4				101.3	75 - 125				11/15/12
SAMPLE			**Sample #121456006**							
1,2-Dichloroethane-d4	17060-07-0				107.6	75 - 125				11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Toluene-d8	2037-26-5				92.7	75 - 125				11/15/12
4-Bromofluorobenzene	460-00-4				101.8	75 - 125				11/15/12
BLANK			**QC Sample #85126**							
1,2-Dichloroethane-d4	17060-07-0				98.5	75 - 125				11/15/12
Toluene-d8	2037-26-5				94.5	75 - 125				11/15/12
4-Bromofluorobenzene	460-00-4				99.6	75 - 125				11/15/12
LCS			**QC Sample #85127**							
1,2-Dichloroethane-d4	17060-07-0				99.8	75 - 125				11/15/12
Toluene-d8	2037-26-5				92.8	75 - 125				11/15/12
4-Bromofluorobenzene	460-00-4				94.8	75 - 125				11/15/12
MS			**QC Sample #85128**							
			Original 121450005							
1,2-Dichloroethane-d4	17060-07-0				99.8	75 - 125				11/15/12
Toluene-d8	2037-26-5				93.7	75 - 125				11/15/12
4-Bromofluorobenzene	460-00-4				95.8	75 - 125				11/15/12
MSD			**QC Sample #85129**							
			Original 121450005					**Paired**	**85128**	
1,2-Dichloroethane-d4	17060-07-0				97.9	75 - 125	n/a			11/15/12
Toluene-d8	2037-26-5				93	75 - 125	n/a			11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
4-Bromofluorobenzene	460-00-4				95.3	75 - 125	n/a			11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analytical Batch 210418 (QC Batch: 210318) **Test** SW-846 8270D Semivolatiles
Associated Samples 121456001, 121456002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #121456001**							
2-Fluorophenol	367-12-4				54.8	34 - 103				11/16/12
Phenol-d5	4165-62-2				38.4	10 - 93				11/16/12
Nitrobenzene-d5	4165-60-0				74.8	49 - 133				11/16/12
2-Methylnaphthalene-d10	7297-45-2				76.7	60 - 135				11/16/12
2-Fluorobiphenyl	321-60-8				76.2	48 - 132				11/16/12
2,4,6-Tribromophenol	118-79-6				73.6	33 - 134				11/16/12
Fluoranthene-d10	93951-69-0				85.6	62 - 139				11/16/12
Terphenyl-d14	98904-43-9				74.8	56 - 138				11/16/12
SAMPLE			**Sample #121456002**							
2-Fluorophenol	367-12-4				56.1	34 - 103				11/16/12
Phenol-d5	4165-62-2				37.2	10 - 93				11/16/12
Nitrobenzene-d5	4165-60-0				78.9	49 - 133				11/16/12
2-Methylnaphthalene-d10	7297-45-2				81.6	60 - 135				11/16/12
2-Fluorobiphenyl	321-60-8				82.9	48 - 132				11/16/12
2,4,6-Tribromophenol	118-79-6				72.7	33 - 134				11/16/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				95.4	62 - 139				11/16/12
Terphenyl-d14	98904-43-9				79.1	56 - 138				11/16/12
BLANK			**QC Sample #85000**							
2-Fluorophenol	367-12-4				59.2	34 - 103				11/15/12
Phenol-d5	4165-62-2				43.1	10 - 93				11/15/12
Nitrobenzene-d5	4165-60-0				75.8	49 - 133				11/15/12
2-Methylnaphthalene-d10	7297-45-2				78	60 - 135				11/15/12
2-Fluorobiphenyl	321-60-8				78	48 - 132				11/15/12
2,4,6-Tribromophenol	118-79-6				74.5	33 - 134				11/15/12
Fluoranthene-d10	93951-69-0				88.4	62 - 139				11/15/12
Terphenyl-d14	98904-43-9				75.6	56 - 138				11/15/12
LCS			**QC Sample #85001**							
2-Fluorophenol	367-12-4				63.6	34 - 103				11/15/12
Phenol-d5	4165-62-2				48	10 - 93				11/15/12
Nitrobenzene-d5	4165-60-0				78.5	49 - 133				11/15/12
2-Methylnaphthalene-d10	7297-45-2				79.6	60 - 135				11/15/12
2-Fluorobiphenyl	321-60-8				80.4	48 - 132				11/15/12
2,4,6-Tribromophenol	118-79-6				84	33 - 134				11/15/12
Fluoranthene-d10	93951-69-0				92.4	62 - 139				11/15/12
Terphenyl-d14	98904-43-9				78.6	56 - 138				11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #85002**							
			Original 121439002							
2-Fluorophenol	367-12-4				55.1	34 - 103				11/15/12
Phenol-d5	4165-62-2				37.6	10 - 93				11/15/12
Nitrobenzene-d5	4165-60-0				77.4	49 - 133				11/15/12
2-Methylnaphthalene-d10	7297-45-2				79.7	60 - 135				11/15/12
2-Fluorobiphenyl	321-60-8				80.1	48 - 132				11/15/12
2,4,6-Tribromophenol	118-79-6				82.1	33 - 134				11/15/12
Fluoranthene-d10	93951-69-0				90	62 - 139				11/15/12
Terphenyl-d14	98904-43-9				75.8	56 - 138				11/15/12
MSD			**QC Sample #85003**							
			Original 121439002					**Paired**	**85002**	
2-Fluorophenol	367-12-4				59.5	34 - 103	n/a			11/15/12
Phenol-d5	4165-62-2				40	10 - 93	n/a			11/15/12
Nitrobenzene-d5	4165-60-0				79.6	49 - 133	n/a			11/15/12
2-Methylnaphthalene-d10	7297-45-2				81.9	60 - 135	n/a			11/15/12
2-Fluorobiphenyl	321-60-8				83.1	48 - 132	n/a			11/15/12
2,4,6-Tribromophenol	118-79-6				85.4	33 - 134	n/a			11/15/12
Fluoranthene-d10	93951-69-0				92.8	62 - 139	n/a			11/15/12
Terphenyl-d14	98904-43-9				78.9	56 - 138	n/a			11/15/12
LCSD			**QC Sample #85004**							
								Paired	**85001**	
2-Fluorophenol	367-12-4				61.9	34 - 103	n/a			11/15/12

* - QC result out of range n/a - Not Applicable

REVISED121456 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121456

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Phenol-d5	4165-62-2				47.3	10 - 93	n/a			11/15/12
Nitrobenzene-d5	4165-60-0				76.8	49 - 133	n/a			11/15/12
2-Methylnaphthalene-d10	7297-45-2				71.6	60 - 135	n/a			11/15/12
2-Fluorobiphenyl	321-60-8				73.3	48 - 132	n/a			11/15/12
2,4,6-Tribromophenol	118-79-6				76.8	33 - 134	n/a			11/15/12
Fluoranthene-d10	93951-69-0				89.7	62 - 139	n/a			11/15/12
Terphenyl-d14	98904-43-9				74.7	56 - 138	n/a			11/15/12

* - QC result out of range n/a - Not Applicable

Attention: Scot Fitzgerald **Group #** WSCF121456

Quality Control Comments

Department Inorganic

85455 B2MXN4(121450001MS)

Analyte Calcium - ICP-6010 - All possible metals

[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

85456 B2MXN4(121450001MSD)

Analyte Calcium - ICP-6010 - All possible metals

[1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.

Attention: Scot Fitzgerald **Group #** WSCF121456

Quality Control Comments

Department Organic, Semivolatiles

85004 LCSD for HBN 210318 [ORGP/2032

Analyte 3,3-Dichlorobenzidine - SW-846 8270D Semivolatiles

[1] Matrix Spike RPD outside established laboratory limits No flags assigned.

Attention: Scot Fitzgerald **Group #** WSCF121456

Quality Control Comments

Department Wet Chemistry

85273 B2MP06(121456005DUP)

Analyte Total Dissolved Solids - Total Dissolved Solids 180 C Dry

[1] Sample and duplicate RPD = 31.6%, although results are less than 10x the MDL and considered acceptable.

ATTACHMENT4

SAMPLE RECEIPT

Consisting of 11 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

ACKNOWLEDGEMENT OF SAMPLES RECEIVED

WSCF Laboratory
PO Box 650 S3-30
Richland, WA 99352

ATTN: Scot Fitzgerald

Customer Code: CHPRC
PO #: 401647
Work Order #: 121456
Profile #: W13-011-089
Proj. Mgr.:
Phone:

The following samples were received from you on 11/13/2012 1:40:00 PM. 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	Matrix	Collected	Received
		Tests scheduled		
121456001	B2MN63	WATER	11/13/2012 07:45	11/13/2012 13:40
		2008-W; 6010-W; 8260V-W; 8270SV-W; ALK-W; CN-W		
121456002	B2MN64	WATER	11/13/2012 11:23	11/13/2012 13:40
		2008-W; 6010-W; 8260V-W; 8270SV-W; ALK-W; CN-W		
121456003	B2MN67	WATER	11/13/2012 07:45	11/13/2012 13:40
		2008-W; 6010-W		
121456004	B2MN68	WATER	11/13/2012 11:23	11/13/2012 13:40
		2008-W; 6010-W		
121456005	B2MP06	WATER	11/13/2012 09:00	11/13/2012 13:40
		2008-W; 8260V-W; ALK-W; H3-COL-W; TC99-W; TDS-W; TOC-W		
121456006	B2MP07	WATER	11/13/2012 12:54	11/13/2012 13:40
		2008-W; 8260V-W; ALK-W; H3-COL-W; TC99-W; TDS-W; TOC-W		
121456007	B2MNK0	WATER	11/13/2012 09:00	11/13/2012 13:40
		6010-W		
121456008	B2MNK1	WATER	11/13/2012 09:00	11/13/2012 13:40
		6010-W		

Test Acronym Description

Test Acronym	Description
2008-W	ICP-MS (W)
6010-W	ICP-AES (W)
8260V-W	Volatiles by 8260B (W)

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

8270SV-W	Semivolatiles by 8270D (W)
ALK-W	Total Alkalinity (W)
CN-W	Cyanide (Spectroscopy) (W)
H3-COL-W	Tritium by EICHROM Column (W)
TC99-W	Technetium-99 (W)
TDS-W	Total Dissolved Solids (W)
TOC-W	Total Organic Carbon (W)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W13-011-089**

Page 1 of 2

Collector Robert Crow	**Contact/Requester** Karen Waters-Husted	**Telephone No.** 376-4650			
SAF No. W13-011	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** 300071ES20			
Project Title RCRA, NOVEMBER 2012	**Logbook No.** HNF-N-506 36 / 38	**Ice Chest No.** N/A			
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.** N/A			
Protocol RCRA	**Priority:** 31 Days **PRIORITY**	**Offsite Property No.** N/A			

POSSIBLE SAMPLE HAZARDS/REMARKS

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

SPECIAL INSTRUCTIONS Hold Time

FY12 and FY13 samples cannot be in the same SDG.
Site Wide Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 40167.

Total Activity Exemption: Yes ☑ No ☐

121456

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2MN63 1	N	W	11-13-12	0745	1x500-mL G	200.8_HG - ICPMS	28 Days	HNO3 to pH <2
B2MN63	N	W			1x500-mL G/P	200.8_METALS_ICPMS: Antimony (1); 200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Lead (1); 200.8_METALS_ICPMS: Selenium (1); 200.8_METALS_ICPMS: Thallium (1); 200.8_METALS_ICPMS: Tin (1)	6 Months	HNO3 to pH <2
B2MN63	N	W			1x250-mL G/P	2320_ALKALINITY: Alkalinity (1)	14 Days	Cool~4C
B2MN63	N	W			1x250-mL P	4500E_CN: Cyanide (1)	14 Days	NaOH to pH >=12
B2MN63	N	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	6 Months	HNO3 to pH <2
B2MN63	N	W			3x40-mL aGs*	8260_VOA_GCMS_IX: COMMON	14 Days	HCl or H2SO4 to pH <2/Cool~4C
B2MN63	N	W			4x1-L aG	8270_SVOA_GCMS_IX: COMMON	7/40 Days	Cool~4C
B2MN67 3	Y	W			1x500-mL G	200.8_HG - ICPMS	28 Days	HNO3 to pH <2
B2MN67	Y	W			1x500-mL G/P	200.8_METALS_ICPMS: Antimony (1); 200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Lead (1); 200.8_METALS_ICPMS: Selenium (1); 200.8_METALS_ICPMS: Thallium (1); 200.8_METALS_ICPMS: Tin (1)	6 Months	HNO3 to pH <2

	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time 1340
Relinquished By	Robert Crow		NOV 13 2012 1340	Received By	TA Frazier		NOV 13 2012
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil	DS = Drum Solids		
SE = Sediment	DL = Drum Liquids		
SO = Solid	T = Tissue		
SL = Sludge	WI = Wipe		
W = Water	L = Liquid		
O = Oil	V = Vegetation		
A = Air	X = Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 11/6/2012

A-6004-842 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W13-011-089**

Page 2 of 2

Collector Robert Crow		**Contact/Requester** Karen Waters-Husted		**Telephone No.** 376-4650	
SAF No. W13-011		**Sampling Origin** Hanford Site		**Purchase Order/Charge Code** 300071ES20	
Project Title RCRA, NOVEMBER 2012		**Logbook No.** INF-N-506_36/39		**Ice Chest No.** N/A	
Shipped To (Lab) Waste Sampling & Characterization		**Method of Shipment** GOVERNMENT VEHICLE		**Bill of Lading/Air Bill No.** N/A	
Protocol RCRA		**Priority:** 31 Days	**PRIORITY**	**Offsite Property No.** N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

FY12 and FY13 samples cannot be in the same SDG.
Site Wide Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2MN07	Y	W	11/13-12	0745	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
Robert Crow	R Crow		NOV 13 2012 1340	TA Fraz			NOV 13 2012 1340	S = Soil DS = Drum Solids
Relinquished By			Date/Time	Received By			Date/Time	SE = Sediment DL = Drum Liquids
								SO = Solid T = Tissue
Relinquished By			Date/Time	Received By			Date/Time	SL = Sludge W1 = Wipe
								W = Water L = Liquid
								O = Oil V = Vegetation
Relinquished By			Date/Time	Received By			Date/Time	A = Air X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By / Date/Time

PRINTED ON 11/6/2012

A-6004-842 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W13-011-091**

Page 1 of 2

Collector: Robert Crow	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650			
SAF No.: W13-011	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071ES20			
Project Title: RCRA, NOVEMBER 2012	Logbook No.: HNF-N-506 36 / 37	Ice Chest No.: N/A			
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.: N/A			
Protocol: RCRA	Priority: 31 Days	Offsite Property No.: N/A			
POSSIBLE SAMPLE HAZARDS/REMARKS: ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)		SPECIAL INSTRUCTIONS: PRIORITY FY12 and FY13 samples cannot be in the same SDG. Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	Hold Time:	Total Activity Exemption: Yes ☑ No ☐	

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2MN64	N	W	11-13-12	1123	1x500-mL G/P	200.8_HG - ICPMS	28 Days	HNO3 to pH <2
B2MN64	N	W			1x500-mL G/P	200.8_METALS_ICPMS: Antimony (1); 200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Lead (1); 200.8_METALS_ICPMS: Selenium (1); 200.8_METALS_ICPMS: Thallium (1); 200.8_METALS_ICPMS: Tin (1)	6 Months	HNO3 to pH <2
B2MN64	N	W			1x250-mL G/P	2320_ALKALINITY: Alkalinity (1)	14 Days	Cool~4C
B2MN64	N	W			1x250-mL P	4500E_CN: Cyanide (1)	14 Days	NaOH to pH >=12
B2MN64	N	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	6 Months	HNO3 to pH <2
B2MN64	N	W			3x40-mL aGs*	8260_VOA_GCMS_IX: COMMON	14 Days	HCl or H2SO4 to pH <2/Cool~4C
B2MN64	N	W			4x1-L aG	8270_SVOA_GCMS_IX: COMMON	7/40 Days	Cool~4C
B2MN68	Y	W			1x500-mL G	200.8_HG - ICPMS	28 Days	HNO3 to pH <2
B2MN68	Y	W			1x500-mL G/P	200.8_METALS_ICPMS: Antimony (1); 200.8_METALS_ICPMS: Arsenic (1); 200.8_METALS_ICPMS: Lead (1); 200.8_METALS_ICPMS: Selenium (1); 200.8_METALS_ICPMS: Thallium (1); 200.8_METALS_ICPMS: Tin (1)	6 Months	HNO3 to pH <2

	Print	Sign	Date/Time	Print	Sign	Date/Time
Relinquished By	Robert Crow		NOV 13 2012 1342	Received By		NOV 13 2012 1342
Relinquished By			Date/Time	Received By		Date/Time
Relinquished By			Date/Time	Received By		Date/Time
Relinquished By			Date/Time	Received By		Date/Time

Matrix *

S = Soil	DS = Drum Solids	SE = Sediment	DL = Drum Liquids
SO = Solid	T = Tissue	SL = Sludge	WI = Wipe
W = Water	L = Liquid	O = Oil	V = Vegetation
A = Air	X = Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 11/6/2012

A-6004-842 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W13-011-091**

Page 2 of 2

Collector Robert Crow	**Contact/Requester** Karen Waters-Husted	**Telephone No.** 376-4650	
SAF No. W13-011	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** 300071ES20	
Project Title RCRA, NOVEMBER 2012	**Logbook No.** HNF-N-506_36 / 37	**Ice Chest No.** N/A	
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.** N/A	
Protocol RCRA	**Priority:** 31 Days **PRIORITY**	**Offsite Property No.** N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

FY12 and FY13 samples cannot be in the same SDG.
Site Wide Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 4011647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
D2MN68	Y	W	11-13-12	1125	1x500-mL GP	6010_METALS_ICP: List-3 (18)	6 Months	HNO3 to pH <2

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Robert Crow	R Crow	NOV 13 2012 1340	[illegible]	[illegible]	NOV 13 2012 1340
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

S	= Soil	DS	= Drum Solids		
SE	= Sediment	DL	= Drum Liquids		
SO	= Solid	T	= Tissue		
SL	= Sludge	WI	= Wipe		
W	= Water	L	= Liquid		
O	= Oil	V	= Vegetation		
A	= Air	X	= Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer per lab procedure used in process)	Disposed By	Date/Time

PRINTED ON 11/6/2012

A-6004-342 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # 113-005-042

Page 1 of 1

Collector: Robert Crow	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650			
SAF No.: 113-005	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071ES20			
Project Title: 2ZP1, NOVEMBER 2012	Logbook No.: HNF-N-506 36 / 37	Ice Chest No.: N/A			
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.: N/A			
Protocol: CERCLA	Priority: 31 Days	Offsite Property No.: N/A			

POSSIBLE SAMPLE HAZARDS/REMARKS

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

SPECIAL INSTRUCTIONS — **PRIORITY**

200 Area Generator Knowledge Information Form applies
The CACN for all analytical work at WSCF is 40 647.

Hold Time

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2MP06 5	N	W	11-13-12	0720	1x500-mL G/P	160.1_TDS: TDS (1)	7 Days	Cool~4C
B2MP06	N	W			1x500-mL G/P	200.8_METALS_ICPMS: List-1 (26)	6 Months	HNO3 to pH <2
B2MP06	N	W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	6 Months	HNO3 to pH <2
B2MP06	N	W			1x250-mL G/P	2320_ALKALINITY: List-1 (4)	14 Days	Cool~4C
B2MP06	N	W			3x40-mL aGs*	8260_VOA_GCMS_IX: COMMON	14 Days	HCl or H2SO4 to pH <2/Cool~4C
B2MP06	N	W			1x250-mL aG	9060_TOC: TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2MP06	N	W			1x1-L G/P	TC99_3MDSK_LSC: Tc-99 (1)	6 Months	HCl to pH <2
B2MP06	N	W	11-13-12	0720	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	6 Months	None

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Robert Crow	R Crow		NOV 13 2012 1340	TA Final			NOV 13 2012 1340
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time
PRINTED 10/10/2012			

A-6004-842 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **113-005-045**

Page 1 of 1

Collector	Robert Crow	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	113-005	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	22P1, NOVEMBER 2012	**Logbook No.**	HNF-N-506 36 / 37	**Ice Chest No.**	N/A
Shipped To (Lab)	Waste Sampling & Characterization	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	CERCLA	**Priority:**	**31 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

200 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2MP07	N	W	11-13-12	1254	1x500-mL G/P	160.1_TDS: TDS (1)	7 Days	Cool~4C
B2MP07	N	W			1x500-mL G/P	200.8_METALS_ICPMS: List-1 (26)	6 Months	HNO3 to pH <2
B2MP07	N	W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	6 Months	HNO3 to pH <2
B2MP07	N	W			1x250-mL G/P	2320_ALKALINITY: List-1 (4)	14 Days	Cool~4C
B2MP07	N	W			3x40-mL aGs*	8260_VOA_GCMS_IX: COMMON	14 Days	HCl or H2SO4 to pH <2/Cool~4C
B2MP07	N	W			1x250-mL aG	9060_TOC: TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2MP07	N	W			1X1-L G/P	TC99_3MDSK_LSC: Tc-99 (1)	6 Months	HCl to pH <2
B2MP07	N	W	11-13-12	1254	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	6 Months	None

Relinquished By	Print: Robert Crow	Sign	Date/Time NOV 13 2012 1345	Received By	Print	Sign	Date/Time NOV 13 2012 1343
Relinquished By		Date/Time		Received By		Date/Time	
Relinquished By		Date/Time		Received By		Date/Time	
Relinquished By		Date/Time		Received By		Date/Time	

Matrix *

S = Soil	DS = Drum Solids	SE = Sediment	DL = Drum Liquids
SO = Solid	T = Tissue	SL = Sludge	WI = Wipe
W = Water	L = Liquid	O = Oil	V = Vegetation
A = Air	X = Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By / Date/Time

PRINTED ON 10/10/2012

A-6004-842 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W13-011-153**

Page 1 of 1

Collector Robert Crow	**Contact/Requester** Karen Waters-Husted	**Telephone No.** 376-4650			
SAF No. W13-011	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** 300071ES20			
Project Title RCRA, NOVEMBER 2012	**Logbook No.** HNF-N-506 36 / 37	**Ice Chest No.** N/A			
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.** N/A			
Protocol RCRA	**Priority:** 31 Days **PRIORITY**	**Offsite Property No.** N/A			

POSSIBLE SAMPLE HAZARDS/REMARKS

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

FY12 and FY13 samples cannot be in the same SDG.
Site Wide Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2MNK0	N	W	11-13-12	0720	1x500-mL G/P	6010_METALS_ICP: List 3 (18)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time 1740	Received By	Print	Sign	Date/Time 1340	Matrix *
Relinquished By Robert Crow	R Crow	NOV 13 2012	Date/Time	Received By			NOV 13 2012 Date/Time	S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By		Date/Time		Received By		Date/Time		
Relinquished By		Date/Time		Received By		Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time	

PRINTED ON 10/10/2012

A-6004-842 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# **W13-011-156**
Page 1 of 1

Collector	Robert Crow	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	W13-011	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	RCRA, NOVEMBER 2012	**Logbook No.**	HNF-N-506 36 / 37	**Ice Chest No.**	N/A
Shipped To (Lab)	Waste Sampling & Characterization	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	RCRA	**Priority:**	31 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400 5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

FY12 and FY13 samples cannot be in the same SDG.
Site Wide Generator Knowledge Information Form applies
The CACN for all analytical work at WSCF is 401647.

Sample No.		Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2MNK1	8	N	W	11-13-12	0900	1x500-mL G/P	6010_METALS_ICP: List 3 (18)	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Robert Crow		R Crow	NOV 1 3 2012 1340	JA Frazier		[signature]	NOV 1 3 2012 1340
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil	DS = Drum Solids		
SE = Sediment	DL = Drum Liquids		
SO = Solid	T = Tissue		
SL = Sludge	WI = Wipe		
W = Water	L = Liquid		
O = Oil	V = Vegetation		
A = Air	X = Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e g , Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED O 10/10/2012

A-6004-842 (REV 2)