

**WSCF Laboratory**

PO Box 650 S3-30  
Richland, WA 99352



December 18, 2012

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

Dear Scot Fitzgerald,

REVISED121223 - 698392 [Report ID: 121223]

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 WSCF121223

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

Very truly yours,

A handwritten signature in black ink, appearing to read "Dan T. Smith".

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

Attachments 4

CC: w/Attachments

File/LB

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**ATTACHMENT 1**

**COVER SHEET**

Consisting of 2 pages  
Including cover page

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**WSCF SAF Number Cross Reference**

Group # WSCF121223  
 Data Deliverable Date 11/05/12

<b>SAF #</b>	<b>Sample ID</b>	<b>Sample #</b>	<b>Matrix</b>	<b>Sampled</b>	<b>Received</b>
W13-010	B2M215	121223001	WATER	10/03/12	10/03/12
W13-010	B2M216	121223002	WATER	10/03/12	10/03/12
W13-010	B2M217	121223003	WATER	10/03/12	10/03/12
W13-010	B2M236	121223004	WATER	10/03/12	10/03/12
W13-010	B2M237	121223005	WATER	10/03/12	10/03/12
W13-010	B2M238	121223006	WATER	10/03/12	10/03/12
W13-010	B2M131	121223007	WATER	10/03/12	10/03/12
W13-010	B2M173	121223008	WATER	10/03/12	10/03/12
W13-010	B2M8H3	121223009	WATER	10/03/12	10/03/12
W13-010	B2M8H4	121223010	WATER	10/03/12	10/03/12
W13-010	B2M8K4	121223011	WATER	10/03/12	10/03/12
W13-010	B2M8K5	121223012	WATER	10/03/12	10/03/12
W13-010	B2M129	121223013	WATER	10/03/12	10/03/12
W13-010	B2M171	121223014	WATER	10/03/12	10/03/12

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ATTACHMENT 2

**NARRATIVE**

Consisting of 8 pages  
Including cover page

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Attachment 2  
**Narrative Rev2**  
WSCF121223

**Revision 1: This case narrative replaces the prior in its entirety. P&D correction is adding Kerosene to samples B2M129 and B2M171.**

**Revision 2: This case narrative replaces the prior in its entirety. 1,4-Dioxane was added per SDR13-064 to samples B2M129 and B2M171.**

### **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 by Method 8270 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.

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**Narrative Rev2**  
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- 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**

**Chemical Oxygen Demand** – Hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

**Cyanide** – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. 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):

- All 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 208256
  - Vanadium was detected in the Blank and evaluated.
- Batch QC 208257
  - Vanadium, Strontium, Copper and Aluminum were detected in the Blank and evaluated.
- Batch QC 208900
  - Sample Issue Resolution Form SDR13-018 regarding Mercury LCS failure is attached to this report.
  - All other applicable QC controls are within the established limits.

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**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 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.

**Total Organic Halides** – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

#### **Organic Comments**

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

- All applicable QC controls are within the established limits.

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

- 4-Nitrophenol and Pentachlorophenol did not meet the MS / MSD RPD acceptance limits. Sample results for this analyte were not flagged. The quality control report was flagged for RPD failure.
- The Blank, MS, MSD and samples B2M129 (121242013) and B2M171 (121223014) did not meet the acceptance limits for surrogate Phenol-d5. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.
- All other applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

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**TPHG-WA** – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All 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.

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.

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Attachment 2  
**Narrative Rev2**  
WSCF121223

## SAMPLE ISSUE RESOLUTION

SIR NUM SDR13-012  
REV NUM 0  
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 B2M0Y3, B2M0Y9, B2M105, B2M111, B2M117, B2M123, B2M129, B2M135, B2M141, B2M147, B2M153, B2M159, B2M165, B2M171, B2M177, B2M194, B2M1B0, B2M9W6

SAMPLE MATRIX WATER

COLLECTION DATE 10/3/2012 - 10/10/2012

SDG NUM WSCF121241, WSCF121242, WSCF121284, WSCF121226, WSCF121275, WSCF121230, WSCF121223, WSCF121274, WSCF121232, WSCF121239

### 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

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**Narrative Rev2**  
WSCF121223

**Problem and Discrepancy Report****WSCF****SDG WSCF121223**

11/06/2012

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**1. The data package has the following issues:**

- a) TPHKEROSENE for sample number B2M129, and B2M171 was not reported in the electronic or hardcopy data packages.

**Resolution:** *Provide appropriate correction***Lab Response:** **the results have been added**

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Attachment 2  
**Narrative Rev2**  
 WSCF121223

**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, B2M180, B2M9W6, B2MN27, B2MN32, B2MN37, B2MN42, B2MN47, B2MN52, B2MN57, B2MN64, B2MN71, B2MN75, B2MN81, B2MN82, B2MN89, B2MN94, B2MN99, B2MN85, B2MNCO, 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

ATTACHMENT 3

**ANALYTICAL RESULTS**

Consisting of 123 pages  
Including cover page

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**WSCF ANALYTICAL RESULTS REPORT**

For

CH2M Hill Plateau Remediation

PO Box 1600  
Richland, WA 99352

Attention: Scot Fitzgerald

**Contract #** MOA-FH-CHPRC-2008  
**Group #** WSCF121223  
**Report Date** December 18, 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.*

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## Batch QC List

Attention Scot Fitzgerald  
Department Inorganic

Group #

WSCF121223

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208198	208205	5	BLANK	82193	BLANK		ICP-6010 - All possible metals
208198	208205	7	LCS	82195	LCS		ICP-6010 - All possible metals
208198	208205	8	SAMPLE	121223007	B2M131		ICP-6010 - All possible metals
208198	208205	9	MS	82196	B2M131(121223007MS)	121223007	ICP-6010 - All possible metals
208198	208205	10	MSD	82197	B2M131(121223007MSD)	121223007	ICP-6010 - All possible metals
208198	208205	11	SAMPLE	121223008	B2M173		ICP-6010 - All possible metals
208198	208205	12	SAMPLE	121223013	B2M129		ICP-6010 - All possible metals
208198	208205	13	SAMPLE	121223014	B2M171		ICP-6010 - All possible metals
208256	208291	4	BLANK	82381	BLANK		ICP-2008 MS All possible metal
208256	208291	5	LCS	82382	LCS		ICP-2008 MS All possible metal
208256	208291	7	MS	82383	B2M1M4(121215007MS)	121215007	ICP-2008 MS All possible metal
208256	208291	8	MSD	82384	B2M1M4(121215007MSD)	121215007	ICP-2008 MS All possible metal
208256	208291	27	SAMPLE	121223007	B2M131		ICP-2008 MS All possible metal
208256	208291	28	SAMPLE	121223008	B2M173		ICP-2008 MS All possible metal
208256	208291	29	SAMPLE	121223009	B2M8H3		ICP-2008 MS All possible metal
208257	208292	4	BLANK	82385	BLANK		ICP-2008 MS All possible metal
208257	208292	5	LCS	82386	LCS		ICP-2008 MS All possible metal
208257	208292	6	SAMPLE	121223010	B2M8H4		ICP-2008 MS All possible metal
208257	208292	7	MS	82387	B2M8H4(121223010MS)	121223010	ICP-2008 MS All possible metal
208257	208292	8	MSD	82388	B2M8H4(121223010MSD)	121223010	ICP-2008 MS All possible metal
208257	208292	9	SAMPLE	121223012	B2M8K5		ICP-2008 MS All possible metal
208257	208292	10	SAMPLE	121223013	B2M129		ICP-2008 MS All possible metal
208257	208292	11	SAMPLE	121223014	B2M171		ICP-2008 MS All possible metal

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## Batch QC List

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121223

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208507	208508	3	BLANK	82881	BLANK		Chemical Oxygen Demand
208507	208508	4	LCS	82882	LCS		Chemical Oxygen Demand
208507	208508	9	MS	82885	B2M129(121223013MS)	121223013	Chemical Oxygen Demand
208507	208508	10	MSD	82886	B2M129(121223013MSD)	121223013	Chemical Oxygen Demand
208507	208508	11	SAMPLE	121223013	B2M129		Chemical Oxygen Demand
208507	208508	12	SAMPLE	121223014	B2M171		Chemical Oxygen Demand
208900	208911	4	BLANK	83185	BLANK		ICP-2008 MS All possible metal
208900	208911	5	LCS	83186	LCS		ICP-2008 MS All possible metal
208900	208911	6	SAMPLE	121223011	B2M8K4		ICP-2008 MS All possible metal
208900	208911	7	MS	83187	B2M8K4(121223011MS)	121223011	ICP-2008 MS All possible metal
208900	208911	8	MSD	83188	B2M8K4(121223011MSD)	121223011	ICP-2008 MS All possible metal
209136	209139	1	BLANK	83612	BLANK		Total Organic Halides
209136	209139	2	LCS	83613	LCS		Total Organic Halides
209136	209139	10	MS	83619	B2M237(121223005MS)	121223005	Total Organic Halides
209136	209139	11	MSD	83620	B2M237(121223005MSD)	121223005	Total Organic Halides
209136	209139	12	SAMPLE	121223005	B2M237		Total Organic Halides
209136	209139	13	SAMPLE	121223006	B2M238		Total Organic Halides
209136	209139	14	SAMPLE	121223013	B2M129		Total Organic Halides
209136	209139	15	SAMPLE	121223014	B2M171		Total Organic Halides
209143	209144	1	BLANK	83634	BLANK		Total Organic Halides
209143	209144	2	LCS	83635	LCS		Total Organic Halides
209143	209144	4	MS	83636	B2M215(121223001MS)	121223001	Total Organic Halides
209143	209144	5	MSD	83637	B2M215(121223001MSD)	121223001	Total Organic Halides

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REVISION 2

Batch QC List

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121223

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
209143	209144	6	SAMPLE	121223001	B2M215		Total Organic Halides
209143	209144	7	SAMPLE	121223002	B2M216		Total Organic Halides
209143	209144	8	SAMPLE	121223003	B2M217		Total Organic Halides
209143	209144	9	SAMPLE	121223004	B2M236		Total Organic Halides

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## Batch QC List

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group # WSCF121223

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208245	208258	1	BLANK	82350	BLANK		Extractable Diesel and Petroleum
208245	208258	2	LCS	82351	LCS		Extractable Diesel and Petroleum
208245	208258	3	MS	82352	B2M129(121223013MS)	121223013	Extractable Diesel and Petroleum
208245	208258	4	MSD	82353	B2M129(121223013MSD)	121223013	Extractable Diesel and Petroleum
208245	208258	6	SAMPLE	121223013	B2M129		Extractable Diesel and Petroleum
208245	208258	12	SAMPLE	121223014	B2M171		Extractable Diesel and Petroleum
208488	208850	1	BLANK	82826	BLANK		SW-846 8270D Semivolatiles
208488	208850	2	LCS	82827	LCS		SW-846 8270D Semivolatiles
208488	208850	3	MS	82828	B2M0Y3(121239001MS)	121239001	SW-846 8270D Semivolatiles
208488	208850	4	MSD	82829	B2M0Y3(121239001MSD)	121239001	SW-846 8270D Semivolatiles
208488	208850	5	SAMPLE	121223014	B2M171		SW-846 8270D Semivolatiles
208488	208850	6	SAMPLE	121223013	B2M129		SW-846 8270D Semivolatiles
208650	208887	1	BLANK	82953	BLANK		PCBs by EPA SW-846 Method 8082
208650	208887	2	LCS	82954	LCS		PCBs by EPA SW-846 Method 8082
208650	208887	3	MS	82955	B2M129(121223013MS)	121223013	PCBs by EPA SW-846 Method 8082
208650	208887	4	MSD	82956	B2M129(121223013MSD)	121223013	PCBs by EPA SW-846 Method 8082
208650	208887	14	SAMPLE	121223013	B2M129		PCBs by EPA SW-846 Method 8082
208650	208887	15	SAMPLE	121223014	B2M171		PCBs by EPA SW-846 Method 8082

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## Batch QC List

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group #

WSCF121223

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208456	208457	1	BLANK	82689	BLANK		SW-846 8260B Volatiles
208456	208457	2	LCS	82690	LCS		SW-846 8260B Volatiles
208456	208457	3	MS	82691	B2M129(121223013MS)	121223013	SW-846 8260B Volatiles
208456	208457	4	MSD	82692	B2M129(121223013MSD)	121223013	SW-846 8260B Volatiles
208456	208457	5	SAMPLE	121223014	B2M171		SW-846 8260B Volatiles
208456	208457	6	SAMPLE	121223013	B2M129		SW-846 8260B Volatiles
208756	208757	1	BLANK	82983	BLANK		Gasoline Range (W)
208756	208757	2	LCS	82984	LCS		Gasoline Range (W)
208756	208757	3	MS	82985	B2M129(121223013MS)	121223013	Gasoline Range (W)
208756	208757	4	MSD	82986	B2M129(121223013MSD)	121223013	Gasoline Range (W)
208756	208757	5	DUP	82987	B2M129(121223013DUP)	121223013	Gasoline Range (W)
208756	208757	6	SAMPLE	121223013	B2M129		Gasoline Range (W)
208756	208757	7	SAMPLE	121223014	B2M171		Gasoline Range (W)

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## Batch QC List

Attention Scot Fitzgerald  
Department Wet Chemistry

Group #

WSCF121223

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208264	208264	2	BLANK	82404	BLANK		Total Organic Carbon
208264	208264	3	LCS	82405	LCS		Total Organic Carbon
208264	208264	17	MS	82436	B2M0M9(121218006MS) 121218006		Total Organic Carbon
208264	208264	18	MSD	82437	B2M0M9(121218006MSD 121218006		Total Organic Carbon
208264	208264	20	SAMPLE	121223001	B2M215		Total Organic Carbon
208264	208264	21	SAMPLE	121223002	B2M216		Total Organic Carbon
208264	208264	22	SAMPLE	121223003	B2M217		Total Organic Carbon
208264	208264	23	SAMPLE	121223004	B2M236		Total Organic Carbon
208264	208264	24	SAMPLE	121223005	B2M237		Total Organic Carbon
208264	208264	25	SAMPLE	121223006	B2M238		Total Organic Carbon
208264	208264	26	SAMPLE	121223013	B2M129		Total Organic Carbon
208264	208264	27	SAMPLE	121223014	B2M171		Total Organic Carbon
208469	208469	1	LCS	82711	LCS		Total Alkalinity as mg/L CaCO3 (Water)
208469	208469	3	DUP	82712	B2M1J4(121208020DUP) 121208020		Total Alkalinity as mg/L CaCO3 (Water)
208469	208469	8	SAMPLE	121223013	B2M129		Total Alkalinity as mg/L CaCO3 (Water)
208469	208469	9	SAMPLE	121223014	B2M171		Total Alkalinity as mg/L CaCO3 (Water)
208469	208469	13	LCS	82713	LCS		Total Alkalinity as mg/L CaCO3 (Water)
208476	208482	1	BLANK	82749	BLANK		Cyanide (W) by Midi/Spectrophotometer
208476	208482	4	LCS	82752	LCS		Cyanide (W) by Midi/Spectrophotometer
208476	208482	5	MS	82753	B2LDT5(121203010MS) 121203010		Cyanide (W) by Midi/Spectrophotometer
208476	208482	6	MSD	82754	B2LDT5(121203010MSD) 121203010		Cyanide (W) by Midi/Spectrophotometer
208476	208482	10	SAMPLE	121223013	B2M129		Cyanide (W) by Midi/Spectrophotometer
208476	208482	11	SAMPLE	121223014	B2M171		Cyanide (W) by Midi/Spectrophotometer

REVISED121223 -

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121223

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.
LA-523-444	Total Organic Halides Based on SW-846 Method 9020B		
	EPA SW-846	9020B	Total Organic Halides (TOX)
	HEIS	9020_TOX	Total Organic Halides (TOX)
LA-523-470	Chemical Oxygen Demand		
	EPA-600/4-79-020	410.4	Chemical Oxygen Demand
	HEIS	410.4_COD	Chemical Oxygen Demand

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>

REVISED121223 -

Attention Scot Fitzgerald  
Department Organic, Semivolatiles

Group # WSCF121223

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-523-427	Polychlorinated Biphenyls (PCB'S) by Gas Chromatography		
	EPA SW-846	3510C	Separatory Funnel Liquid-Liquid Extraction
	EPA SW-846	3545	Pressurized Fluid Extraction (PFE)
	EPA SW-846	3665A	Sulfuric Acid/Permanganate Cleanup
	EPA SW-846	8000B	Determinative Chromatographic Separations
	EPA SW-846	8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography
	HEIS	8082_PCB_GC	Polychlorinated Biphenyls (PCBs) by Gas Chromatography
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
	EPA SW-846	3545	Pressurized Fluid Extraction (PFE)
			Chromatography/Mass Spectrometry (GC/MS)
	HEIS	8270_SVOA_GCMS	Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry(GC/MS)
LA-523-493	NWTPH-Dx, Extractible Diesel and Petroleum Productions Analysis in Soil and Water		
	WDOE	WDOE	Total Petroleum Hydrocarbons in Diesel
	HEIS	WTPH_DIESEL	TPH Diesel

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>

REVISED121223 -

Attention Scot Fitzgerald  
Department Organic, Volatiles

Group # WSCF121223

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-523-443	Gas Chromatography Analysis of Gasoline Range Total Petroleum Hydrocarbons in Water		
	EPA	NWTPH-G	"Analytical Methods for Petroleum Hydrocarbons, June 1997, NWTPH-G, Volatile Petroleum Products Method for Soil and Water
	HEIS	WTPH_GASOLINE	Total Petroleum Hydrocarbons, Gasoline
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>

REVISED121223 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121223

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
	HEIS	2320_ALKALINITY
LA-344-406	Total Organic Carbon (TOC) Based on SW-846	
	EPA SW-846	9060
	HEIS	9060_TOC
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
	HEIS	4500E_CN
		Cyanide, Total
		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>

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223001  
**SAF#** W13-010  
**Sample ID** B2M215

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/08/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/08/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223002  
**SAF#** W13-010  
**Sample ID** B2M216

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/08/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/08/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223003  
**SAF#** W13-010  
**Sample ID** B2M217

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/08/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/08/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223004  
**SAF#** W13-010  
**Sample ID** B2M236

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/08/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/08/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223005  
**SAF#** W13-010  
**Sample ID** B2M237

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/08/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/08/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223006  
**SAF#** W13-010  
**Sample ID** B2M238

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/08/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/08/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

<b>Sample #</b>	121223007	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M131	<b>Received</b>	10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>ICPAES Prep (W)</b>										10/04/12
<b>ICP-6010 - All possible metals</b>										
Iron	7439-89-6	LA-505-411	B	31.3		ug/L	1	19	95	10/05/12
Magnesium	7439-95-4	LA-505-411		13800		ug/L	1	4.0	20	10/05/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Nickel	7440-02-0	LA-505-411	B	6.30		ug/L	1	4.0	20	10/05/12
Potassium	7440-09-7	LA-505-411		6930		ug/L	1	76	380	10/05/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Sodium	7440-23-5	LA-505-411		22100		ug/L	1	10	50	10/05/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	10/05/12
Barium	7440-39-3	LA-505-411		78.3		ug/L	1	4.0	20	10/05/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Chromium	7440-47-3	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/05/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Vanadium	7440-62-2	LA-505-411	B	15.1		ug/L	1	5.0	25	10/05/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/05/12
Calcium	7440-70-2	LA-505-411		43000		ug/L	1	49	240	10/05/12
Strontium	7440-24-6	LA-505-411		219		ug/L	1	9.0	45	10/05/12

MDL = Minimum Detection Limit

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ = Result Qualifier

C - Analyte was found in the Associated Blank. (Inorganic)

X,Y or Z - See comment detail and/or narrative.

TP Err = Total Propagated Error

D - Analyte was reported at a secondary dilution factor.

PQL is equivalent to Estimated Quantitation Limit (EQL)

DF = Dilution Factor

E - Analyte is an estimate, see comment section.

o - LCS recovery outside established laboratory acceptance limits.

+ - Indicates more than nine qualifier

N - MS and/or MSD recovery outside control limits.

o - LCS recovery outside established laboratory acceptance limits.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

<b>Sample #</b>	121223007	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M131	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Titanium	7440-32-6	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
<b>ICPMS Prep (W)</b>										
<b>ICP-2008 MS All possible metal</b>										
Aluminum	7429-90-5	LA-505-412	UD	<10		ug/L	2	10	100	10/09/12
Manganese	7439-96-5	LA-505-412	BD	0.936		ug/L	2	0.20	2.0	10/09/12
Nickel	7440-02-0	LA-505-412	D	3.78		ug/L	2	0.20	2.0	10/09/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	10/09/12
Barium	7440-39-3	LA-505-412	D	80.2		ug/L	2	0.40	4.0	10/09/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/09/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Chromium	7440-47-3	LA-505-412	D	6.66		ug/L	2	0.20	2.0	10/09/12
Cobalt	7440-48-4	LA-505-412	BD	0.120		ug/L	2	0.10	0.50	10/09/12
Copper	7440-50-8	LA-505-412	BD	0.508		ug/L	2	0.20	2.0	10/09/12
Vanadium	7440-62-2	LA-505-412	DC	21.3		ug/L	2	0.40	4.0	10/09/12
Zinc	7440-66-6	LA-505-412	UD	<2.0		ug/L	2	2.0	20	10/09/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Molybdenum	7439-98-7	LA-505-412	D	5.84		ug/L	2	0.10	1.0	10/09/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223007  
**SAF#** W13-010  
**Sample ID** B2M131

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium	7440-24-6	LA-505-412	D	241		ug/L	2	0.20	2.0	10/09/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Arsenic	7440-38-2	LA-505-412	BD	3.84		ug/L	2	0.40	4.0	10/09/12
Selenium	7782-49-2	LA-505-412	BD	2.92		ug/L	2	2.0	20	10/09/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

<b>Sample #</b>	121223008	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M173	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
<b>ICPAES Prep (W)</b>										10/04/12
<b>ICP-6010 - All possible metals</b>										
Iron	7439-89-6	LA-505-411	U	<19		ug/L	1	19	95	10/05/12
Magnesium	7439-95-4	LA-505-411		19900		ug/L	1	4.0	20	10/05/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Potassium	7440-09-7	LA-505-411		8530		ug/L	1	76	380	10/05/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Sodium	7440-23-5	LA-505-411		28300		ug/L	1	10	50	10/05/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	10/05/12
Barium	7440-39-3	LA-505-411		58.0		ug/L	1	4.0	20	10/05/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Chromium	7440-47-3	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/05/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Vanadium	7440-62-2	LA-505-411	B	14.5		ug/L	1	5.0	25	10/05/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/05/12
Calcium	7440-70-2	LA-505-411		65100		ug/L	1	49	240	10/05/12
Strontium	7440-24-6	LA-505-411		316		ug/L	1	9.0	45	10/05/12

MDL = Minimum Detection Limit

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ = Result Qualifier

C - Analyte was found in the Associated Blank. (Inorganic)

X,Y or Z - See comment detail and/or narrative.

TP Err = Total Propagated Error

D - Analyte was reported at a secondary dilution factor.

PQL is equivalent to Estimated Quantitation Limit (EQL)

DF = Dilution Factor

E - Analyte is an estimate, see comment section.

o - LCS recovery outside established laboratory acceptance limits.

+ - Indicates more than nine qualifier

N - MS and/or MSD recovery outside control limits.

o - LCS recovery outside established laboratory acceptance limits.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

<b>Sample #</b>	121223008	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M173	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Titanium	7440-32-6	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
<b>ICPMS Prep (W)</b>										
<b>ICP-2008 MS All possible metal</b>										
Aluminum	7429-90-5	LA-505-412	UD	<10		ug/L	2	10	100	10/09/12
Manganese	7439-96-5	LA-505-412	BD	0.278		ug/L	2	0.20	2.0	10/09/12
Nickel	7440-02-0	LA-505-412	BD	0.638		ug/L	2	0.20	2.0	10/09/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	10/09/12
Barium	7440-39-3	LA-505-412	D	60.3		ug/L	2	0.40	4.0	10/09/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/09/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Chromium	7440-47-3	LA-505-412	D	3.11		ug/L	2	0.20	2.0	10/09/12
Cobalt	7440-48-4	LA-505-412	UD	<0.10		ug/L	2	0.10	0.50	10/09/12
Copper	7440-50-8	LA-505-412	BD	0.354		ug/L	2	0.20	2.0	10/09/12
Vanadium	7440-62-2	LA-505-412	DC	18.3		ug/L	2	0.40	4.0	10/09/12
Zinc	7440-66-6	LA-505-412	UD	<2.0		ug/L	2	2.0	20	10/09/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Molybdenum	7439-98-7	LA-505-412	D	6.68		ug/L	2	0.10	1.0	10/09/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

<b>Sample #</b>	121223008	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M173	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Strontium	7440-24-6	LA-505-412	D	355		ug/L	2	0.20	2.0	10/09/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Arsenic	7440-38-2	LA-505-412	D	4.82		ug/L	2	0.40	4.0	10/09/12
Selenium	7782-49-2	LA-505-412	BD	6.13		ug/L	2	2.0	20	10/09/12

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RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223009  
**SAF#** W13-010  
**Sample ID** B2M8H3

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>ICPMS Prep (W)</b>										10/09/12
<b>ICP-2008 MS All possible metal</b>										
Mercury	7439-97-6	LA-505-412	UD	<0.10		ug/L	2	0.10	0.40	10/09/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223010  
**SAF#** W13-010  
**Sample ID** B2M8H4

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>ICPMS Prep (W)</b>										10/09/12
<b>ICP-2008 MS All possible metal</b>										
Mercury	7439-97-6	LA-505-412	U	<0.050		ug/L	1	0.050	0.20	10/09/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223011  
**SAF#** W13-010  
**Sample ID** B2M8K4

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>ICPMS Prep (W)</b>										10/19/12
<b>ICP-2008 MS All possible metal</b>										
Mercury	7439-97-6	LA-505-412	Uo	<0.050		ug/L	1	0.050	0.20	10/19/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223012  
**SAF#** W13-010  
**Sample ID** B2M8K5

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep (W)										10/09/12
ICP-2008 MS All possible metal										
Mercury	7439-97-6	LA-505-412	UD	<0.10		ug/L	2	0.10	0.40	10/09/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
<b>ICPAES Prep (W)</b>										10/04/12
<b>ICP-6010 - All possible metals</b>										
Iron	7439-89-6	LA-505-411	B	84.9		ug/L	1	19	95	10/05/12
Magnesium	7439-95-4	LA-505-411		13900		ug/L	1	4.0	20	10/05/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Nickel	7440-02-0	LA-505-411	B	10.8		ug/L	1	4.0	20	10/05/12
Potassium	7440-09-7	LA-505-411		6890		ug/L	1	76	380	10/05/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Sodium	7440-23-5	LA-505-411		21900		ug/L	1	10	50	10/05/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	10/05/12
Barium	7440-39-3	LA-505-411		78.9		ug/L	1	4.0	20	10/05/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Chromium	7440-47-3	LA-505-411	B	15.8		ug/L	1	5.0	25	10/05/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Vanadium	7440-62-2	LA-505-411	B	16.7		ug/L	1	5.0	25	10/05/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/05/12
Calcium	7440-70-2	LA-505-411		44000		ug/L	1	49	240	10/05/12
Strontium	7440-24-6	LA-505-411		226		ug/L	1	9.0	45	10/05/12

MDL = Minimum Detection Limit

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RQ = Result Qualifier

C - Analyte was found in the Associated Blank. (Inorganic)

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TP Err = Total Propagated Error

D - Analyte was reported at a secondary dilution factor.

PQL is equivalent to Estimated Quantitation Limit (EQL)

DF = Dilution Factor

E - Analyte is an estimate, see comment section.

o - LCS recovery outside established laboratory acceptance limits.

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Titanium	7440-32-6	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
<b>ICPMS Prep (W)</b>										
<b>ICP-2008 MS All possible metal</b>										
Aluminum	7429-90-5	LA-505-412	BDC	10.2		ug/L	2	10	100	10/09/12
Manganese	7439-96-5	LA-505-412	BD	1.87		ug/L	2	0.20	2.0	10/09/12
Nickel	7440-02-0	LA-505-412	D	7.27		ug/L	2	0.20	2.0	10/09/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	10/09/12
Barium	7440-39-3	LA-505-412	D	89.3		ug/L	2	0.40	4.0	10/09/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/09/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Chromium	7440-47-3	LA-505-412	D	16.1		ug/L	2	0.20	2.0	10/09/12
Cobalt	7440-48-4	LA-505-412	BD	0.176		ug/L	2	0.10	0.50	10/09/12
Copper	7440-50-8	LA-505-412	BDC	0.758		ug/L	2	0.20	2.0	10/09/12
Vanadium	7440-62-2	LA-505-412	D	23.6		ug/L	2	0.40	4.0	10/09/12
Zinc	7440-66-6	LA-505-412	BD	9.21		ug/L	2	2.0	20	10/09/12
Lead	7439-92-1	LA-505-412	BD	0.342		ug/L	2	0.10	1.0	10/09/12
Molybdenum	7439-98-7	LA-505-412	D	6.52		ug/L	2	0.10	1.0	10/09/12

MDL = Minimum Detection Limit

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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.

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Strontium	7440-24-6	LA-505-412	D	268		ug/L	2	0.20	2.0	10/09/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Arsenic	7440-38-2	LA-505-412	D	4.24		ug/L	2	0.40	4.0	10/09/12
Selenium	7782-49-2	LA-505-412	BD	3.09		ug/L	2	2.0	20	10/09/12
<b>Preparation for COD (W)</b>										<b>10/11/12</b>
<b>Chemical Oxygen Demand</b>										
Chemical Oxygen Demand	COD	LA-523-470	U	<10		mg/L	1	10	50	10/11/12
<b>Preparation for TOX (W)</b>										<b>10/08/12</b>
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/08/12

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TP Err = Total Propagated Error

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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.

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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.

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
<b>ICPAES Prep (W)</b>										10/04/12
<b>ICP-6010 - All possible metals</b>										
Iron	7439-89-6	LA-505-411	U	<19		ug/L	1	19	95	10/05/12
Magnesium	7439-95-4	LA-505-411		19800		ug/L	1	4.0	20	10/05/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Potassium	7440-09-7	LA-505-411		8460		ug/L	1	76	380	10/05/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Sodium	7440-23-5	LA-505-411		27900		ug/L	1	10	50	10/05/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	10/05/12
Barium	7440-39-3	LA-505-411		57.3		ug/L	1	4.0	20	10/05/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Chromium	7440-47-3	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/05/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Vanadium	7440-62-2	LA-505-411	B	13.0		ug/L	1	5.0	25	10/05/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/05/12
Calcium	7440-70-2	LA-505-411		65200		ug/L	1	49	240	10/05/12
Strontium	7440-24-6	LA-505-411		320		ug/L	1	9.0	45	10/05/12

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N - MS and/or MSD recovery outside control limits.

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X,Y or Z - See comment detail and/or narrative.

PQL is equivalent to Estimated Quantitation Limit (EQL)

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Titanium	7440-32-6	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/05/12
<b>ICPMS Prep (W)</b>										
<b>ICP-2008 MS All possible metal</b>										
Aluminum	7429-90-5	LA-505-412	UD	<10		ug/L	2	10	100	10/09/12
Manganese	7439-96-5	LA-505-412	BD	0.212		ug/L	2	0.20	2.0	10/09/12
Nickel	7440-02-0	LA-505-412	BD	0.594		ug/L	2	0.20	2.0	10/09/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	10/09/12
Barium	7440-39-3	LA-505-412	D	58.8		ug/L	2	0.40	4.0	10/09/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/09/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Chromium	7440-47-3	LA-505-412	D	2.98		ug/L	2	0.20	2.0	10/09/12
Cobalt	7440-48-4	LA-505-412	UD	<0.10		ug/L	2	0.10	0.50	10/09/12
Copper	7440-50-8	LA-505-412	BDC	0.440		ug/L	2	0.20	2.0	10/09/12
Vanadium	7440-62-2	LA-505-412	D	17.2		ug/L	2	0.40	4.0	10/09/12
Zinc	7440-66-6	LA-505-412	UD	<2.0		ug/L	2	2.0	20	10/09/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Molybdenum	7439-98-7	LA-505-412	D	6.54		ug/L	2	0.10	1.0	10/09/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF121223

**Sample #** 121223014  
**SAF#** W13-010  
**Sample ID** B2M171

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium	7440-24-6	LA-505-412	D	344		ug/L	2	0.20	2.0	10/09/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/09/12
Arsenic	7440-38-2	LA-505-412	D	4.69		ug/L	2	0.40	4.0	10/09/12
Selenium	7782-49-2	LA-505-412	BD	5.98		ug/L	2	2.0	20	10/09/12
<b>Preparation for COD (W)</b>										<b>10/11/12</b>
<b>Chemical Oxygen Demand</b>										
Chemical Oxygen Demand	COD	LA-523-470	U	<10		mg/L	1	10	50	10/11/12
<b>Preparation for TOX (W)</b>										<b>10/08/12</b>
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/08/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for 8082 (W) SPE</b>										10/09/12
<b>PCBs by EPA SW-846 Method 8082</b>										
Aroclor-1016	12674-11-2	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
Aroclor-1221	11104-28-2	LA-523-427	U	<0.2		ug/L	1	0.2	0.4	10/17/12
Aroclor-1232	11141-16-5	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
Aroclor-1242	53469-21-9	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
Aroclor-1248	12672-29-6	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
Aroclor-1254	11097-69-1	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
Aroclor-1260	11096-82-5	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
<b>Preparation for 8270 (W) CLE</b>										10/10/12
<b>SW-846 8270D Semivolatiles</b>										
4-Nitrophenol	100-02-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Phenol	108-95-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pyrene	129-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Acenaphthene	83-32-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pentachlorophenol	87-86-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Chlorophenol	95-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4-Nitroaniline	100-01-6	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/16/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<1		ug/L	1	1	2	10/16/12
4-Chloroaniline	106-47-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Bis-(2-Chloroethyl)ether	111-44-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Anthracene	120-12-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Dimethylphthalate	131-11-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Dibenzofuran	132-64-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzo(g,h,i)perylene	191-24-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Fluoranthene	206-44-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Acenaphthylene	208-96-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Chrysene	218-01-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzo(a)pyrene	50-32-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Dibenzo(a,h)anthracene	53-70-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzo(a)anthracene	56-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/16/12
Isophorone	78-59-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Diethyl phthalate	84-66-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Phenanthrene	85-01-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Fluorene	86-73-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Carbazole	86-74-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Nitroaniline	88-74-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Nitrophenol	88-75-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Naphthalene	91-20-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Methylnaphthalene	91-57-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Methylphenol	95-48-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Nitrobenzene	98-95-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
3-Nitroaniline	99-09-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
3 & 4 Methylphenol, Total	65794-96-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Hexachloroethane	67-72-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzyl alcohol	100-51-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Tributyl phosphate	126-73-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Naphthylamine	91-59-8	LA-523-456	U	<1		ug/L	1	1	2	10/16/12
Pyridine	110-86-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosopiperidine	100-75-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosomethylethylamine	10595-95-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
p-Phenylenediamine	106-50-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Picoline	109-06-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
3,3-Dimethylbenzidine	119-93-7	LA-523-456	U	<4		ug/L	1	4	6	10/16/12
Isosafrole	120-58-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Phentermine	122-09-8	LA-523-456	U	<5		ug/L	1	5	9	10/16/12
1,4-Dioxane	123-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,4-Naphthoquinone	130-15-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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RQ = Result Qualifier

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PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
1-Naphthylamine	134-32-7	LA-523-456	U	<1		ug/L	1	1	2	10/16/12
Aramite	140-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Kepone	143-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Hexachloropropene	1888-71-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Diallate	2303-16-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pronamide	23950-58-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Isodrin	465-73-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Chlorobenzilate	510-15-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Acetylaminofluorene	53-96-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosodiethylamine	55-18-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
3-Methylcholanthrene	56-49-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4-Nitroquinoline-1-oxide	56-57-5	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/16/12
7,12-Dimethylbenz(a)anthracene	57-97-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,3,4,6-Tetrachlorophenol	58-90-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosomorpholine	59-89-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pentachlorobenzene	608-93-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Phenacetin	62-44-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Ethyl methanesulfonate	62-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Aniline	62-53-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosodimethylamine	62-75-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Methyl methanesulfonate	66-27-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pentachloroethane	76-01-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pentachloronitrobenzene	82-68-8	LA-523-456	U	<1		ug/L	1	1	2	10/16/12
2,6-Dichlorophenol	87-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Dinoseb(..dinitromethyl phenol)	88-85-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4-Aminobiphenyl	92-67-1	LA-523-456	U	<1		ug/L	1	1	2	10/16/12
n-Nitrosodibutylamine	924-16-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosopyrrolidine	930-55-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Safrole	94-59-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
o-Toluidine	95-53-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,2,4,5-Tetrachlorobenzene	95-94-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Acetophenone	98-86-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,3,5-Trinitrobenzene	99-35-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methyl-5-nitroaniline	99-55-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,3-Dinitrobenzene	99-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
O,O,O-Triethylthiophosphate	126-68-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Parathion	56-38-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Dimethylaminoazobenzene	60-11-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Dimethoate	60-51-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Thionazin	297-97-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Methyl parathion	298-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Phorate	298-02-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Disulfoton	298-04-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Sulfotep	3689-24-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Famfur	52-85-7	LA-523-456	U	<5		ug/L	1	5	9	10/16/12
N-Nitrosodiphenylamin/Di phenyl Methaprylene	DPA+NNDPA	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Total Petroleum Hydrocarbons (Water Prep)										10/04/12
Extractable Diesel and Petroleum										
Diesel	TPHDIESEL	LA-523-493	U	<70		ug/L	1	70	100	10/05/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

**Sample #** 121223013  
**SAF#** W13-010  
**Sample ID** B2M129

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Kerosene	TPHKEROSEN LA-523-493		U	<70		ug/L	1	70	100	10/05/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for 8082 (W) SPE</b>										10/09/12
<b>PCBs by EPA SW-846 Method 8082</b>										
Aroclor-1016	12674-11-2	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
Aroclor-1221	11104-28-2	LA-523-427	U	<0.2		ug/L	1	0.2	0.4	10/17/12
Aroclor-1232	11141-16-5	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
Aroclor-1242	53469-21-9	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
Aroclor-1248	12672-29-6	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
Aroclor-1254	11097-69-1	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
Aroclor-1260	11096-82-5	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/17/12
<b>Preparation for 8270 (W) CLE</b>										10/10/12
<b>SW-846 8270D Semivolatiles</b>										
4-Nitrophenol	100-02-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Phenol	108-95-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pyrene	129-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Acenaphthene	83-32-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pentachlorophenol	87-86-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Chlorophenol	95-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4-Nitroaniline	100-01-6	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/16/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<1		ug/L	1	1	2	10/16/12
4-Chloroaniline	106-47-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Bis-(2-Chloroethyl)ether	111-44-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Anthracene	120-12-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Dimethylphthalate	131-11-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Dibenzofuran	132-64-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzo(g,h,i)perylene	191-24-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Fluoranthene	206-44-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Acenaphthylene	208-96-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Chrysene	218-01-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzo(a)pyrene	50-32-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Dibenzo(a,h)anthracene	53-70-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzo(a)anthracene	56-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/16/12
Isophorone	78-59-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Diethyl phthalate	84-66-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Phenanthrene	85-01-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Fluorene	86-73-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Carbazole	86-74-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Nitroaniline	88-74-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Nitrophenol	88-75-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Naphthalene	91-20-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Methylnaphthalene	91-57-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Methylphenol	95-48-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Nitrobenzene	98-95-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
3-Nitroaniline	99-09-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
3 & 4 Methylphenol, Total	65794-96-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Hexachloroethane	67-72-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Benzyl alcohol	100-51-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Tributyl phosphate	126-73-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Naphthylamine	91-59-8	LA-523-456	U	<1		ug/L	1	1	2	10/16/12
Pyridine	110-86-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosopiperidine	100-75-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosomethylamin e	10595-95-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
p-Phenylenediamine	106-50-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Picoline	109-06-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
3,3-Dimethylbenzidine	119-93-7	LA-523-456	U	<4		ug/L	1	4	6	10/16/12
Isosafrole	120-58-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Phentermine	122-09-8	LA-523-456	U	<5		ug/L	1	5	9	10/16/12
1,4-Dioxane	123-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,4-Naphthoquinone	130-15-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
1-Naphthylamine	134-32-7	LA-523-456	U	<1		ug/L	1	1	2	10/16/12
Aramite	140-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Kepone	143-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Hexachloropropene	1888-71-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Diallate	2303-16-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pronamide	23950-58-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Isodrin	465-73-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Chlorobenzilate	510-15-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2-Acetylaminofluorene	53-96-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosodiethylamine	55-18-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
3-Methylcholanthrene	56-49-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4-Nitroquinoline-1-oxide	56-57-5	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/16/12
7,12-Dimethylbenz(a)anthracene	57-97-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
2,3,4,6-Tetrachlorophenol	58-90-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosomorpholine	59-89-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pentachlorobenzene	608-93-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Phenacetin	62-44-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Ethyl methanesulfonate	62-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Aniline	62-53-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosodimethylamine	62-75-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Methyl methanesulfonate	66-27-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pentachloroethane	76-01-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Pentachloronitrobenzene	82-68-8	LA-523-456	U	<1		ug/L	1	1	2	10/16/12
2,6-Dichlorophenol	87-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Dinoseb(..dinitromethyl phenol)	88-85-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
4-Aminobiphenyl	92-67-1	LA-523-456	U	<1		ug/L	1	1	2	10/16/12
n-Nitrosodibutylamine	924-16-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
n-Nitrosopyrrolidine	930-55-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Safrole	94-59-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
o-Toluidine	95-53-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,2,4,5-Tetrachlorobenzene	95-94-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Acetophenone	98-86-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,3,5-Trinitrobenzene	99-35-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methyl-5-nitroaniline	99-55-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
1,3-Dinitrobenzene	99-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
O,O,O-Triethylthiophosphate	126-68-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Parathion	56-38-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Dimethylaminoazobenzene	60-11-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Dimethoate	60-51-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Thionazin	297-97-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Methyl parathion	298-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Phorate	298-02-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Disulfoton	298-04-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Sulfotep	3689-24-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Famfur	52-85-7	LA-523-456	U	<5		ug/L	1	5	9	10/16/12
N-Nitrosodiphenylamin/Di phenyl Methaprylene	DPA+NNDPA	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/16/12
Total Petroleum Hydrocarbons (Water Prep)										10/04/12
Extractable Diesel and Petroleum										
Diesel	TPHDIESEL	LA-523-493	U	<70		ug/L	1	70	100	10/05/12

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T - MS/MSD recovery outside control limits(GC/MS only).

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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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

**Sample #** 121223014  
**SAF#** W13-010  
**Sample ID** B2M171

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Kerosene	TPHKEROSEN LA-523-493		U	<70		ug/L	1	70	100	10/05/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Volatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Gasoline Range Prep (W)</b>										10/16/12
<b>Gasoline Range (W)</b>										
Gasoline	TPHGASOLIN	LA-523-443	U	<50		ug/L	1	50	200	10/16/12
<b>Preparation for 8260B (W)</b>										10/11/12
<b>SW-846 8260B Volatiles</b>										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,1-Dichloroethane	75-34-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Styrene	100-42-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Dibromochloromethane	124-48-1	LA-523-455	U	<1		ug/L	1	1	5	10/16/12

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T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits

RQ = Result Qualifier

D - Analyte was reported at a secondary dilution factor.

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TP Err = Total Propagated Error

E - The calibration exceeds the calibration range (GC/MS).

X,Y or Z - See comment detail and/or narrative.

DF = Dilution Factor

J - Analyte < PQL (or EQL) >= MDL.

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N - Presumed evidence based on MS library search(GC/MS only)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Volatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Total 1,2-Dichloroethene	540-59-0	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
2-Hexanone	591-78-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Bromomethane	74-83-9	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Chloromethane	74-87-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Chloroethane	75-00-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Bromoform	75-25-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Bromodichloromethane	75-27-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,2-Dichloropropane	78-87-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12

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 < 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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Volatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	10/16/12
Tetrahydrofuran	109-99-9	LA-523-455	U	<2		ug/L	1	2	10	10/16/12
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Acetonitrile	75-05-8	LA-523-455	U	<2		ug/L	1	2	10	10/16/12
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Propionitrile	107-12-0	LA-523-455	U	<2		ug/L	1	2	10	10/16/12
1,4-Dioxane	123-91-1	LA-523-455	U	<10		ug/L	1	10	50	10/16/12
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	10/16/12
Iodomethane	74-88-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,1,1,2-Tetrachloroethane	630-20-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,2,3-Trichloropropane	96-18-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,2-Dibromo-3-chloropropane	96-12-8	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,2-Dibromoethane	106-93-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Acrolein	107-02-8	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Acrylonitrile	107-13-1	LA-523-455	U	<1		ug/L	1	1	5	10/16/12

MDL = Minimum Detection Limit

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B - Analyte was detected in both the BLANK and SAMPLE

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J - Analyte < PQL (or EQL) >= MDL.

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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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Volatiles

**Group #** WSCF121223

<b>Sample #</b>	121223013	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M129	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Allyl chloride	107-05-1	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methylene bromide	74-95-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Dichlorodifluoromethane	75-71-8	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Ethyl methacrylate	97-63-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methacrylonitrile	126-98-7	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methyl methacrylate	80-62-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Trans-1,4-dichloro-2-butene	110-57-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Vinyl acetate	108-05-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Chloroprene	126-99-8	LA-523-455	U	<1		ug/L	1	1	5	10/16/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

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PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Volatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Gasoline Range Prep (W)</b>										10/16/12
<b>Gasoline Range (W)</b>										
Gasoline	TPHGASOLIN	LA-523-443	U	<50		ug/L	1	50	200	10/16/12
<b>Preparation for 8260B (W)</b>										10/11/12
<b>SW-846 8260B Volatiles</b>										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,1-Dichloroethane	75-34-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Styrene	100-42-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Dibromochloromethane	124-48-1	LA-523-455	U	<1		ug/L	1	1	5	10/16/12

MDL = Minimum Detection Limit

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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

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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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Volatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Total 1,2-Dichloroethene	540-59-0	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
2-Hexanone	591-78-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Bromomethane	74-83-9	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Chloromethane	74-87-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Chloroethane	75-00-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Bromoform	75-25-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Bromodichloromethane	75-27-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,2-Dichloropropane	78-87-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Volatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	10/16/12
Tetrahydrofuran	109-99-9	LA-523-455	U	<2		ug/L	1	2	10	10/16/12
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Acetonitrile	75-05-8	LA-523-455	U	<2		ug/L	1	2	10	10/16/12
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Propionitrile	107-12-0	LA-523-455	U	<2		ug/L	1	2	10	10/16/12
1,4-Dioxane	123-91-1	LA-523-455	U	<10		ug/L	1	10	50	10/16/12
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	10/16/12
Iodomethane	74-88-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,1,1,2-Tetrachloroethane	630-20-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,2,3-Trichloropropane	96-18-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,2-Dibromo-3-chloropropane	96-12-8	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
1,2-Dibromoethane	106-93-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Acrolein	107-02-8	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Acrylonitrile	107-13-1	LA-523-455	U	<1		ug/L	1	1	5	10/16/12

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REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Volatiles

**Group #** WSCF121223

<b>Sample #</b>	121223014	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/03/12
<b>Sample ID</b>	B2M171	<b>Received</b>	10/03/12

<b>Test Performed</b>	<b>CAS #</b>	<b>Method</b>	<b>RQ</b>	<b>Result</b>	<b>TP Err</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Analyzed</b>
Allyl chloride	107-05-1	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methylene bromide	74-95-3	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Dichlorodifluoromethane	75-71-8	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Ethyl methacrylate	97-63-2	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methacrylonitrile	126-98-7	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Methyl methacrylate	80-62-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Trans-1,4-dichloro-2-butene	110-57-6	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Vinyl acetate	108-05-4	LA-523-455	U	<1		ug/L	1	1	5	10/16/12
Chloroprene	126-99-8	LA-523-455	U	<1		ug/L	1	1	5	10/16/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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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)

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REVISED121223 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121223

Sample # 121223001  
SAF# W13-010  
Sample ID B2M215

Matrix WATER  
Sampled 10/03/12  
Received 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										10/04/12
<b>Total Organic Carbon</b>										
Total Organic Carbon	TOC	LA-344-406	B	0.113		mg/L	1	0.10	0.30	10/04/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte &lt; the RDL but &gt;= 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.

REVISED121223 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121223

Sample # 121223002  
SAF# W13-010  
Sample ID B2M216

Matrix WATER  
Sampled 10/03/12  
Received 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										10/04/12
<b>Total Organic Carbon</b>										
Total Organic Carbon	TOC	LA-344-406	B	0.124		mg/L	1	0.10	0.30	10/04/12

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)

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REVISED121223 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121223

Sample # 121223003  
SAF# W13-010  
Sample ID B2M217

Matrix WATER  
Sampled 10/03/12  
Received 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										10/04/12
<b>Total Organic Carbon</b>										
Total Organic Carbon	TOC	LA-344-406	B	0.112		mg/L	1	0.10	0.30	10/04/12

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.

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X,Y or Z - See comment detail and/or narrative.

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REVISED121223 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121223

Sample # 121223004  
SAF# W13-010  
Sample ID B2M236

Matrix WATER  
Sampled 10/03/12  
Received 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										10/04/12
<b>Total Organic Carbon</b>										
Total Organic Carbon	TOC	LA-344-406	B	0.241		mg/L	1	0.10	0.30	10/04/12

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)

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REVISED121223 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121223

Sample # 121223005  
SAF# W13-010  
Sample ID B2M237

Matrix WATER  
Sampled 10/03/12  
Received 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										10/04/12
<b>Total Organic Carbon</b>										
Total Organic Carbon	TOC	LA-344-406	B	0.228		mg/L	1	0.10	0.30	10/04/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte &lt; the RDL but &gt;= 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.

REVISED121223 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121223

Sample # 121223006  
SAF# W13-010  
Sample ID B2M238

Matrix WATER  
Sampled 10/03/12  
Received 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										10/04/12
<b>Total Organic Carbon</b>										
Total Organic Carbon	TOC	LA-344-406	B	0.228		mg/L	1	0.10	0.30	10/04/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte &lt; the RDL but &gt;= 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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Wet Chemistry

**Group #** WSCF121223

**Sample #** 121223013  
**SAF#** W13-010  
**Sample ID** B2M129

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for Cyanide (W)</b>										10/10/12
<b>Cyanide (W) by Midi/Spectrophotometer</b>										10/08/12
Cyanide	57-12-5	LA-695-402	B	4.48		ug/L	1	4.0	20	10/10/12
<b>Total Alkalinity as mg/L CaCO<sub>3</sub> (Water)</b>										10/04/12
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY	LA-531-411		120		mg/L	1	1	10	10/08/12
<b>Total Organic Carbon</b>										10/04/12
Total Organic Carbon	TOC	LA-344-406	B	0.140		mg/L	1	0.10	0.30	10/04/12

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.

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Wet Chemistry

**Group #** WSCF121223

**Sample #** 121223014  
**SAF#** W13-010  
**Sample ID** B2M171

**Matrix** WATER  
**Sampled** 10/03/12  
**Received** 10/03/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for Cyanide (W)</b>										10/10/12
<b>Cyanide (W) by Midi/Spectrophotometer</b>										10/08/12
Cyanide	57-12-5	LA-695-402		26.4		ug/L	1	4.0	20	10/10/12
<b>Total Alkalinity as mg/L CaCO<sub>3</sub> (Water)</b>										10/04/12
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY	LA-531-411		110		mg/L	1	1	10	10/08/12
<b>Total Organic Carbon</b>										10/04/12
Total Organic Carbon	TOC	LA-344-406	B	0.248		mg/L	1	0.10	0.30	10/04/12

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.

REVISED121223 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121223

Analytical Batch 208205 (QC Batch: 208198) Test ICP-6010 - All possible metals  
 Associated Samples 121223007, 121223008, 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										<b>QC Sample #82193</b>
Iron	7439-89-6		<19	ug/L				U		10/05/12
Magnesium	7439-95-4		<4.0	ug/L				U		10/05/12
Manganese	7439-96-5		<4.0	ug/L				U		10/05/12
Nickel	7440-02-0		<4.0	ug/L				U		10/05/12
Potassium	7440-09-7		<76	ug/L				U		10/05/12
Silver	7440-22-4		<4.0	ug/L				U		10/05/12
Sodium	7440-23-5		<10	ug/L				U		10/05/12
Antimony	7440-36-0		<36	ug/L				U		10/05/12
Barium	7440-39-3		<4.0	ug/L				U		10/05/12
Cadmium	7440-43-9		<4.0	ug/L				U		10/05/12
Chromium	7440-47-3		<5.0	ug/L				U		10/05/12
Cobalt	7440-48-4		<4.0	ug/L				U		10/05/12
Copper	7440-50-8		<4.0	ug/L				U		10/05/12
Vanadium	7440-62-2		<5.0	ug/L				U		10/05/12
Zinc	7440-66-6		<5.0	ug/L				U		10/05/12
Calcium	7440-70-2		<49	ug/L				U		10/05/12
Strontium	7440-24-6		<9.0	ug/L				U		10/05/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Titanium	7440-32-6	<4.0		ug/L					U	10/05/12
Beryllium	7440-41-7	<4.0		ug/L					U	10/05/12
<b>LCS</b>										
<b>QC Sample #82195</b>										
Iron	7439-89-6	1010		ug/L	100.6	80 - 120				10/05/12
Magnesium	7439-95-4	10300		ug/L	103	80 - 120				10/05/12
Manganese	7439-96-5	1030		ug/L	102.7	80 - 120				10/05/12
Nickel	7440-02-0	997		ug/L	99.7	80 - 120				10/05/12
Potassium	7440-09-7	10900		ug/L	108.6	80 - 120				10/05/12
Silver	7440-22-4	1020		ug/L	102.2	80 - 120				10/05/12
Sodium	7440-23-5	10500		ug/L	105	80 - 120				10/05/12
Antimony	7440-36-0	1040		ug/L	103.9	80 - 120				10/05/12
Barium	7440-39-3	1040		ug/L	104.5	80 - 120				10/05/12
Cadmium	7440-43-9	1010		ug/L	100.9	80 - 120				10/05/12
Chromium	7440-47-3	1010		ug/L	101.2	80 - 120				10/05/12
Cobalt	7440-48-4	991		ug/L	99.1	80 - 120				10/05/12
Copper	7440-50-8	1030		ug/L	102.8	80 - 120				10/05/12
Vanadium	7440-62-2	1010		ug/L	100.6	80 - 120				10/05/12
Zinc	7440-66-6	1030		ug/L	103.3	80 - 120				10/05/12
Calcium	7440-70-2	20700		ug/L	103.7	80 - 120				10/05/12
Strontium	7440-24-6	988		ug/L	98.8	80 - 120				10/05/12
Titanium	7440-32-6	1030		ug/L	103.4	80 - 120				10/05/12
Beryllium	7440-41-7	1010		ug/L	101.4	80 - 120				10/05/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

DECEMBER 18, 2012

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Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>MS</b>										
<b>QC Sample #82196</b>										
<b>Original 121223007</b>										
Iron	7439-89-6	31.3	1010	ug/L	101.2	75 - 125				10/05/12
Magnesium	7439-95-4	13800	10400	ug/L	104.5	75 - 125				10/05/12
Manganese	7439-96-5	<4.0	1030	ug/L	103.4	75 - 125				10/05/12
Nickel	7440-02-0	6.30	988	ug/L	98.8	75 - 125				10/05/12
Potassium	7440-09-7	6930	11000	ug/L	110	75 - 125				10/05/12
Silver	7440-22-4	<4.0	1020	ug/L	102	75 - 125				10/05/12
Sodium	7440-23-5	22100	9960	ug/L	99.6	75 - 125				10/05/12
Antimony	7440-36-0	<36	1030	ug/L	103.4	75 - 125				10/05/12
Barium	7440-39-3	78.3	1030	ug/L	103.4	75 - 125				10/05/12
Cadmium	7440-43-9	<4.0	1010	ug/L	101.2	75 - 125				10/05/12
Chromium	7440-47-3	<5.0	1020	ug/L	102.4	75 - 125				10/05/12
Cobalt	7440-48-4	<4.0	984	ug/L	98.4	75 - 125				10/05/12
Copper	7440-50-8	<4.0	1020	ug/L	101.5	75 - 125				10/05/12
Vanadium	7440-62-2	15.1	1010	ug/L	101.5	75 - 125				10/05/12
Zinc	7440-66-6	<5.0	1040	ug/L	103.7	75 - 125				10/05/12
Calcium	7440-70-2	43000	21800	ug/L	108.8	75 - 125				10/05/12
Strontium	7440-24-6	219	1000	ug/L	100.3	75 - 125				10/05/12
Titanium	7440-32-6	<4.0	1030	ug/L	103.1	75 - 125				10/05/12
Beryllium	7440-41-7	<4.0	1030	ug/L	102.6	75 - 125				10/05/12
<b>MSD</b>										
<b>QC Sample #82197</b>										
<b>Original 121223007</b>										
<b>Paired 82196</b>										
Iron	7439-89-6	31.3	1000	ug/L	100.5	75 - 125	0.70	20		10/05/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

Attention Scot Fitzgerald  
 Department Inorganic

Group #

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Magnesium	7439-95-4	13800	10300	ug/L	103.3	75 - 125	0.50	20		10/05/12
Manganese	7439-96-5	<4.0	1030	ug/L	102.9	75 - 125	0.50	20		10/05/12
Nickel	7440-02-0	6.30	984	ug/L	98.4	75 - 125	0.40	20		10/05/12
Potassium	7440-09-7	6930	10900	ug/L	108.5	75 - 125	0.80	20		10/05/12
Silver	7440-22-4	<4.0	1020	ug/L	101.7	75 - 125	0.30	20		10/05/12
Sodium	7440-23-5	22100	9930	ug/L	99.3	75 - 125	0.10	20		10/05/12
Antimony	7440-36-0	<36	1050	ug/L	104.6	75 - 125	1.20	20		10/05/12
Barium	7440-39-3	78.3	1030	ug/L	103.5	75 - 125	0.10	20		10/05/12
Cadmium	7440-43-9	<4.0	1010	ug/L	101.3	75 - 125	0.10	20		10/05/12
Chromium	7440-47-3	<5.0	1020	ug/L	102.1	75 - 125	0.30	20		10/05/12
Cobalt	7440-48-4	<4.0	981	ug/L	98.1	75 - 125	0.30	20		10/05/12
Copper	7440-50-8	<4.0	1010	ug/L	101.4	75 - 125	0.10	20		10/05/12
Vanadium	7440-62-2	15.1	1010	ug/L	101	75 - 125	0.50	20		10/05/12
Zinc	7440-66-6	<5.0	1040	ug/L	103.8	75 - 125	0.10	20		10/05/12
Calcium	7440-70-2	43000	21200	ug/L	105.8	75 - 125	0.90	20		10/05/12
Strontium	7440-24-6	219	999	ug/L	99.9	75 - 125	0.30	20		10/05/12
Titanium	7440-32-6	<4.0	1030	ug/L	102.9	75 - 125	0.20	20		10/05/12
Beryllium	7440-41-7	<4.0	1020	ug/L	102.5	75 - 125	0.10	20		10/05/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

**Analytical Batch** 208258 (QC Batch: 208245)      **Test** Extractable Diesel and Petroleum  
**Associated Samples** 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>		<b>QC Sample #82350</b>								
Diesel	TPHDIESEL	<80		ug/L				U		10/05/12
Kerosene	TPHKEROSE	<80		ug/L				U		10/05/12
<b>LCS</b>		<b>QC Sample #82351</b>								
Diesel	TPHDIESEL	2800		ug/L	111.6	65 - 128				10/05/12
<b>MS</b>		<b>QC Sample #82352</b>								
		Original 121223013								
Diesel	TPHDIESEL	<70	2400	ug/L	102.2	73 - 123				10/05/12
<b>MSD</b>		<b>QC Sample #82353</b>								
		Original 121223013								
Diesel	TPHDIESEL	<70	2500	ug/L	105.7	73 - 123	3.40	20		10/05/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

Attention Scot Fitzgerald  
 Department Wet Chemistry

Group # WSCF121223

Analytical Batch 208264 (QC Batch: 208264) Test Total Organic Carbon  
 Associated Samples 121223001, 121223002, 121223003, 121223004, 121223005, 121223006, 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										
<b>QC Sample #82404</b>										
Total Organic Carbon	TOC		<0.045	mg/L					U	10/04/12
LCS			<b>QC Sample #82405</b>							
Total Organic Carbon	TOC		2.20	mg/L	109.8	80 - 120				10/04/12
MS			<b>QC Sample #82436</b>							
			Original 121218006							
Total Organic Carbon	TOC		2.11	mg/L	105.6	75 - 125				10/04/12
MSD			<b>QC Sample #82437</b>							
			Original 121218006					Paired 82436		
Total Organic Carbon	TOC		2.10	mg/L	105.2	75 - 125	0.30	20		10/04/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121223

Analytical Batch 208291 (QC Batch: 208256) Test ICP-2008 MS All possible metal  
 Associated Samples 121223007, 121223008, 121223009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										
<b>QC Sample #82381</b>										
Aluminum	7429-90-5	<5.0	ug/L					U		10/09/12
Manganese	7439-96-5	<0.10	ug/L					U		10/09/12
Nickel	7440-02-0	<0.10	ug/L					U		10/09/12
Silver	7440-22-4	<0.050	ug/L					U		10/09/12
Antimony	7440-36-0	<0.30	ug/L					U		10/09/12
Barium	7440-39-3	<0.20	ug/L					U		10/09/12
Beryllium	7440-41-7	<0.10	ug/L					U		10/09/12
Cadmium	7440-43-9	<0.050	ug/L					U		10/09/12
Chromium	7440-47-3	<0.10	ug/L					U		10/09/12
Cobalt	7440-48-4	<0.050	ug/L					U		10/09/12
Copper	7440-50-8	<0.10	ug/L					U		10/09/12
Vanadium	7440-62-2	0.780	ug/L					B		10/09/12
Zinc	7440-66-6	<1.0	ug/L					U		10/09/12
Lead	7439-92-1	<0.050	ug/L					U		10/09/12
Mercury	7439-97-6	<0.050	ug/L					U		10/09/12
Molybdenum	7439-98-7	<0.050	ug/L					U		10/09/12
Strontium	7440-24-6	<0.10	ug/L					U		10/09/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0	<0.050		ug/L					U	10/09/12
Tin	7440-31-5	<0.050		ug/L					U	10/09/12
Arsenic	7440-38-2	<0.20		ug/L					U	10/09/12
Selenium	7782-49-2	<1.0		ug/L					U	10/09/12
<b>LCS</b>		<b>QC Sample #82382</b>								
Aluminum	7429-90-5	442		ug/L	110.5	85 - 115				10/09/12
Manganese	7439-96-5	42.5		ug/L	106.3	85 - 115				10/09/12
Nickel	7440-02-0	43.0		ug/L	107.6	85 - 115				10/09/12
Silver	7440-22-4	41.7		ug/L	104.2	85 - 115				10/09/12
Antimony	7440-36-0	40.2		ug/L	100.6	85 - 115				10/09/12
Barium	7440-39-3	42.8		ug/L	107	85 - 115				10/09/12
Beryllium	7440-41-7	45.6		ug/L	114	85 - 115				10/09/12
Cadmium	7440-43-9	41.2		ug/L	103	85 - 115				10/09/12
Chromium	7440-47-3	43.2		ug/L	108.1	85 - 115				10/09/12
Cobalt	7440-48-4	42.5		ug/L	106.2	85 - 115				10/09/12
Copper	7440-50-8	43.1		ug/L	107.8	85 - 115				10/09/12
Vanadium	7440-62-2	43.6		ug/L	108.9	85 - 115				10/09/12
Zinc	7440-66-6	39.6		ug/L	98.9	85 - 115				10/09/12
Lead	7439-92-1	43.9		ug/L	109.8	85 - 115				10/09/12
Mercury	7439-97-6	1.75		ug/L	87.3	85 - 115				10/09/12
Molybdenum	7439-98-7	41.9		ug/L	104.7	85 - 115				10/09/12
Strontium	7440-24-6	419		ug/L	104.8	85 - 115				10/09/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0	43.9	ug/L	109.8	85 - 115					10/09/12
Tin	7440-31-5	41.7	ug/L	104.3	85 - 115					10/09/12
Arsenic	7440-38-2	39.8	ug/L	99.6	85 - 115					10/09/12
Selenium	7782-49-2	36.9	ug/L	92.2	85 - 115					10/09/12
<b>MS</b>		<b>QC Sample #82383</b>								
		<b>Original 121215007</b>								
Aluminum	7429-90-5	439	ug/L	109.7	70 - 130					10/09/12
Manganese	7439-96-5	40.8	ug/L	102	70 - 130					10/09/12
Nickel	7440-02-0	39.3	ug/L	98.1	70 - 130					10/09/12
Silver	7440-22-4	39.5	ug/L	98.7	70 - 130					10/09/12
Antimony	7440-36-0	41.5	ug/L	103.7	70 - 130					10/09/12
Barium	7440-39-3	44.9	ug/L	112.2	70 - 130					10/09/12
Beryllium	7440-41-7	43.5	ug/L	108.8	70 - 130					10/09/12
Cadmium	7440-43-9	41.2	ug/L	103	70 - 130					10/09/12
Chromium	7440-47-3	42.6	ug/L	106.5	70 - 130					10/09/12
Cobalt	7440-48-4	40.3	ug/L	100.8	70 - 130					10/09/12
Copper	7440-50-8	37.5	ug/L	93.8	70 - 130					10/09/12
Vanadium	7440-62-2	43.8	ug/L	109.5	70 - 130					10/09/12
Zinc	7440-66-6	35.2	ug/L	87.9	70 - 130					10/09/12
Lead	7439-92-1	46.6	ug/L	116.4	70 - 130					10/09/12
Mercury	7439-97-6	1.95	ug/L	97.3	70 - 130					10/09/12
Molybdenum	7439-98-7	45.2	ug/L	113	70 - 130					10/09/12
Strontium	7440-24-6	448	ug/L	112.1	70 - 130					10/09/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

Attention Scot Fitzgerald  
 Department Inorganic

Group #

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0	47.2	ug/L	118	70 - 130					10/09/12
Tin	7440-31-5	42.7	ug/L	106.7	70 - 130					10/09/12
Arsenic	7440-38-2	41.8	ug/L	104.5	70 - 130					10/09/12
Selenium	7782-49-2	38.1	ug/L	95.3	70 - 130					10/09/12
<b>MSD</b>										
					<b>QC Sample #82384</b>					
					<b>Original 121215007</b>					
								<b>Paired 82383</b>		
Aluminum	7429-90-5	418	ug/L	104.6	70 - 130		4.80	20		10/09/12
Manganese	7439-96-5	39.1	ug/L	97.7	70 - 130		4.30	20		10/09/12
Nickel	7440-02-0	38.0	ug/L	95.1	70 - 130		3.00	20		10/09/12
Silver	7440-22-4	37.9	ug/L	94.8	70 - 130		4.00	20		10/09/12
Antimony	7440-36-0	40.2	ug/L	100.4	70 - 130		3.30	20		10/09/12
Barium	7440-39-3	38.2	ug/L	95.5	70 - 130		3.90	20		10/09/12
Beryllium	7440-41-7	40.1	ug/L	100.2	70 - 130		8.30	20		10/09/12
Cadmium	7440-43-9	39.6	ug/L	98.9	70 - 130		4.10	20		10/09/12
Chromium	7440-47-3	40.8	ug/L	102.1	70 - 130		3.80	20		10/09/12
Cobalt	7440-48-4	38.6	ug/L	96.4	70 - 130		4.40	20		10/09/12
Copper	7440-50-8	36.2	ug/L	90.5	70 - 130		3.60	20		10/09/12
Vanadium	7440-62-2	41.9	ug/L	104.9	70 - 130		3.60	20		10/09/12
Zinc	7440-66-6	34.6	ug/L	86.5	70 - 130		1.60	20		10/09/12
Lead	7439-92-1	44.3	ug/L	110.6	70 - 130		5.10	20		10/09/12
Mercury	7439-97-6	1.86	ug/L	93	70 - 130		4.50	20		10/09/12
Molybdenum	7439-98-7	42.9	ug/L	107.1	70 - 130		5.00	20		10/09/12
Strontium	7440-24-6	414	ug/L	103.4	70 - 130		3.80	20		10/09/12

\* - QC result out of range

n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0	45.2	ug/L	113	70 - 130	4.40	20			10/09/12
Tin	7440-31-5	40.9	ug/L	102.4	70 - 130	4.20	20			10/09/12
Arsenic	7440-38-2	40.0	ug/L	100	70 - 130	4.10	20			10/09/12
Selenium	7782-49-2	36.3	ug/L	90.7	70 - 130	4.60	20			10/09/12

\* - QC result out of range

n/a - Not Applicable

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Group # WSCF121223

Analytical Batch 208292 (QC Batch: 208257) Test ICP-2008 MS All possible metal  
 Associated Samples 121223010, 121223012, 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										
<b>QC Sample #82385</b>										
Aluminum	7429-90-5		16.0	ug/L				B		10/09/12
Manganese	7439-96-5		<0.10	ug/L				U		10/09/12
Nickel	7440-02-0		<0.10	ug/L				U		10/09/12
Silver	7440-22-4		<0.050	ug/L				U		10/09/12
Antimony	7440-36-0		<0.30	ug/L				U		10/09/12
Barium	7440-39-3		<0.20	ug/L				U		10/09/12
Beryllium	7440-41-7		<0.10	ug/L				U		10/09/12
Cadmium	7440-43-9		<0.050	ug/L				U		10/09/12
Chromium	7440-47-3		<0.10	ug/L				U		10/09/12
Cobalt	7440-48-4		<0.050	ug/L				U		10/09/12
Copper	7440-50-8		0.155	ug/L				B		10/09/12
Vanadium	7440-62-2		0.315	ug/L				B		10/09/12
Zinc	7440-66-6		<1.0	ug/L				U		10/09/12
Lead	7439-92-1		<0.050	ug/L				U		10/09/12
Mercury	7439-97-6		<0.050	ug/L				U		10/09/12
Molybdenum	7439-98-7		<0.050	ug/L				U		10/09/12
Strontium	7440-24-6		0.242	ug/L				B		10/09/12

\* - QC result out of range

n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0		<0.050	ug/L					U	10/09/12
Tin	7440-31-5		<0.050	ug/L					U	10/09/12
Arsenic	7440-38-2		<0.20	ug/L					U	10/09/12
Selenium	7782-49-2		<1.0	ug/L					U	10/09/12
<b>LCS</b>			<b>QC Sample #82386</b>							
Aluminum	7429-90-5		448	ug/L	112	85 - 115				10/09/12
Manganese	7439-96-5		42.3	ug/L	105.7	85 - 115				10/09/12
Nickel	7440-02-0		42.4	ug/L	105.9	85 - 115				10/09/12
Silver	7440-22-4		41.8	ug/L	104.6	85 - 115				10/09/12
Antimony	7440-36-0		41.1	ug/L	102.6	85 - 115				10/09/12
Barium	7440-39-3		43.4	ug/L	108.4	85 - 115				10/09/12
Beryllium	7440-41-7		44.0	ug/L	110	85 - 115				10/09/12
Cadmium	7440-43-9		41.7	ug/L	104.4	85 - 115				10/09/12
Chromium	7440-47-3		43.1	ug/L	107.8	85 - 115				10/09/12
Cobalt	7440-48-4		42.4	ug/L	106.1	85 - 115				10/09/12
Copper	7440-50-8		42.7	ug/L	106.8	85 - 115				10/09/12
Vanadium	7440-62-2		43.3	ug/L	108.3	85 - 115				10/09/12
Zinc	7440-66-6		39.6	ug/L	99	85 - 115				10/09/12
Lead	7439-92-1		44.5	ug/L	111.3	85 - 115				10/09/12
Mercury	7439-97-6		1.80	ug/L	89.8	85 - 115				10/09/12
Molybdenum	7439-98-7		42.2	ug/L	105.4	85 - 115				10/09/12
Strontium	7440-24-6		424	ug/L	106	85 - 115				10/09/12

\* - QC result out of range

n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0		44.2	ug/L	110.4	85 - 115				10/09/12
Tin	7440-31-5		42.1	ug/L	105.2	85 - 115				10/09/12
Arsenic	7440-38-2		40.5	ug/L	101.2	85 - 115				10/09/12
Selenium	7782-49-2		37.7	ug/L	94.2	85 - 115				10/09/12
<b>MS</b>			<b>QC Sample #82387</b> <b>Original 121223010</b>							
Aluminum	7429-90-5		453	ug/L	113.1	70 - 130				10/09/12
Manganese	7439-96-5		42.1	ug/L	105.3	70 - 130				10/09/12
Nickel	7440-02-0		40.8	ug/L	102.1	70 - 130				10/09/12
Silver	7440-22-4		39.8	ug/L	99.6	70 - 130				10/09/12
Antimony	7440-36-0		42.7	ug/L	106.7	70 - 130				10/09/12
Barium	7440-39-3		42.8	ug/L	107.1	70 - 130				10/09/12
Beryllium	7440-41-7		44.8	ug/L	112.1	70 - 130				10/09/12
Cadmium	7440-43-9		41.8	ug/L	104.6	70 - 130				10/09/12
Chromium	7440-47-3		43.4	ug/L	108.4	70 - 130				10/09/12
Cobalt	7440-48-4		41.7	ug/L	104.2	70 - 130				10/09/12
Copper	7440-50-8		39.8	ug/L	99.4	70 - 130				10/09/12
Vanadium	7440-62-2		44.4	ug/L	111	70 - 130				10/09/12
Zinc	7440-66-6		38.0	ug/L	95	70 - 130				10/09/12
Lead	7439-92-1		46.4	ug/L	115.9	70 - 130				10/09/12
Mercury	7439-97-6	<0.050	1.91	ug/L	95.4	70 - 130				10/09/12
Molybdenum	7439-98-7		44.7	ug/L	111.7	70 - 130				10/09/12
Strontium	7440-24-6		427	ug/L	106.7	70 - 130				10/09/12

\* - QC result out of range

n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0	46.8	ug/L	116.9	70 - 130					10/09/12
Tin	7440-31-5	43.4	ug/L	108.5	70 - 130					10/09/12
Arsenic	7440-38-2	41.6	ug/L	103.9	70 - 130					10/09/12
Selenium	7782-49-2	38.2	ug/L	95.5	70 - 130					10/09/12
<b>MSD</b>		<b>QC Sample #82388</b>								
		<b>Original 121223010</b>								
									<b>Paired 82387</b>	
Aluminum	7429-90-5	453	ug/L	113.2	70 - 130		0.00	20		10/09/12
Manganese	7439-96-5	42.3	ug/L	105.7	70 - 130		0.40	20		10/09/12
Nickel	7440-02-0	40.9	ug/L	102.3	70 - 130		0.20	20		10/09/12
Silver	7440-22-4	40.0	ug/L	100	70 - 130		0.40	20		10/09/12
Antimony	7440-36-0	42.4	ug/L	106.1	70 - 130		0.60	20		10/09/12
Barium	7440-39-3	42.5	ug/L	106.4	70 - 130		0.20	20		10/09/12
Beryllium	7440-41-7	46.4	ug/L	116.1	70 - 130		3.50	20		10/09/12
Cadmium	7440-43-9	41.4	ug/L	103.6	70 - 130		0.90	20		10/09/12
Chromium	7440-47-3	43.3	ug/L	108.3	70 - 130		0.10	20		10/09/12
Cobalt	7440-48-4	41.5	ug/L	103.7	70 - 130		0.50	20		10/09/12
Copper	7440-50-8	39.8	ug/L	99.4	70 - 130		0.00	20		10/09/12
Vanadium	7440-62-2	44.7	ug/L	111.7	70 - 130		0.40	20		10/09/12
Zinc	7440-66-6	38.6	ug/L	96.6	70 - 130		1.70	20		10/09/12
Lead	7439-92-1	46.1	ug/L	115.3	70 - 130		0.60	20		10/09/12
Mercury	7439-97-6	<0.050	1.89	ug/L	94.6	70 - 130	0.80	20		10/09/12
Molybdenum	7439-98-7		44.6	ug/L	111.6	70 - 130	0.10	20		10/09/12
Strontium	7440-24-6		434	ug/L	108.5	70 - 130	1.10	20		10/09/12

\* - QC result out of range

n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0	46.5	ug/L	116.2	70 - 130	0.60	20			10/09/12
Tin	7440-31-5	43.2	ug/L	108	70 - 130	0.50	20			10/09/12
Arsenic	7440-38-2	41.8	ug/L	104.5	70 - 130	0.60	20			10/09/12
Selenium	7782-49-2	38.3	ug/L	95.7	70 - 130	0.20	20			10/09/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group # WSCF121223

Analytical Batch 208457 (QC Batch: 208456) Test SW-846 8260B Volatiles  
 Associated Samples 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										<b>QC Sample #82689</b>
1,1-Dichloroethene	75-35-4		<1	ug/L				U		10/16/12
Trichloroethene	79-01-6		<1	ug/L				U		10/16/12
Benzene	71-43-2		<1	ug/L				U		10/16/12
Toluene	108-88-3		<1	ug/L				U		10/16/12
Chlorobenzene	108-90-7		<1	ug/L				U		10/16/12
1,1-Dichloroethane	75-34-3		<1	ug/L				U		10/16/12
Ethylbenzene	100-41-4		<1	ug/L				U		10/16/12
Styrene	100-42-5		<1	ug/L				U		10/16/12
cis-1,3-Dichloropropene	10061-01-5		<1	ug/L				U		10/16/12
trans-1,3-Dichloropropene	10061-02-6		<1	ug/L				U		10/16/12
1,2-Dichloroethane	107-06-2		<1	ug/L				U		10/16/12
Methyl isobutyl ketone	108-10-1		<1	ug/L				U		10/16/12
Dibromochloromethane	124-48-1		<1	ug/L				U		10/16/12
Tetrachloroethene	127-18-4		<1	ug/L				U		10/16/12
Total Xylenes	1330-20-7		<1	ug/L				U		10/16/12

\* - QC result out of range

n/a - Not Applicable

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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	10/16/12
Carbon tetrachloride	56-23-5	<1		ug/L				U	10/16/12
2-Hexanone	591-78-6	<1		ug/L				U	10/16/12
Acetone	67-64-1	<1		ug/L				U	10/16/12
Chloroform	67-66-3	<1		ug/L				U	10/16/12
1,1,1-Trichloroethane	71-55-6	<1		ug/L				U	10/16/12
Bromomethane	74-83-9	<1		ug/L				U	10/16/12
Chloromethane	74-87-3	<1		ug/L				U	10/16/12
Chloroethane	75-00-3	<1		ug/L				U	10/16/12
Vinyl chloride	75-01-4	<1		ug/L				U	10/16/12
Methylene chloride	75-09-2	<1		ug/L				U	10/16/12
Carbon disulfide	75-15-0	<1		ug/L				U	10/16/12
Bromoform	75-25-2	<1		ug/L				U	10/16/12
Bromodichloromethane	75-27-4	<1		ug/L				U	10/16/12
1,2-Dichloropropane	78-87-5	<1		ug/L				U	10/16/12
Methyl ethyl ketone	78-93-3	<1		ug/L				U	10/16/12
1,1,2-Trichloroethane	79-00-5	<1		ug/L				U	10/16/12
1,1,2,2-Tetrachloroethane	79-34-5	<1		ug/L				U	10/16/12
1-Butanol	71-36-3	<100		ug/L				U	10/16/12
Tetrahydrofuran	109-99-9	<2		ug/L				U	10/16/12
Trichlorofluoromethane	75-69-4	<1		ug/L				U	10/16/12

\* - QC result out of range

n/a - Not Applicable

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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	10/16/12
Acetonitrile	75-05-8		<2	ug/L				U	10/16/12
cis-1,2-Dichloroethene	156-59-2		<1	ug/L				U	10/16/12
Propionitrile	107-12-0		<2	ug/L				U	10/16/12
1,4-Dioxane	123-91-1		<10	ug/L				U	10/16/12
Isobutyl alcohol	78-83-1		<200	ug/L				U	10/16/12
Iodomethane	74-88-4		<1	ug/L				U	10/16/12
1,1,1,2-Tetrachloroethane	630-20-6		<1	ug/L				U	10/16/12
1,2,3-Trichloropropane	96-18-4		<1	ug/L				U	10/16/12
1,2-Dibromo-3-chloropropane	96-12-8		<1	ug/L				U	10/16/12
1,2-Dibromoethane	106-93-4		<1	ug/L				U	10/16/12
Acrolein	107-02-8		<1	ug/L				U	10/16/12
Acrylonitrile	107-13-1		<1	ug/L				U	10/16/12
Allyl chloride	107-05-1		<1	ug/L				U	10/16/12
Methylene bromide	74-95-3		<1	ug/L				U	10/16/12
Dichlorodifluoromethane	75-71-8		<1	ug/L				U	10/16/12
Ethyl methacrylate	97-63-2		<1	ug/L				U	10/16/12
Methacrylonitrile	126-98-7		<1	ug/L				U	10/16/12
Methyl methacrylate	80-62-6		<1	ug/L				U	10/16/12
Trans-1,4-dichloro-2-butene	110-57-6		<1	ug/L				U	10/16/12

\* - QC result out of range

n/a - Not Applicable

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Group #

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Vinyl acetate	108-05-4	<1		ug/L					U	10/16/12
Chloroprene	126-99-8	<1		ug/L					U	10/16/12
<b>LCS</b>										
<b>QC Sample #82690</b>										
1,1-Dichloroethene	75-35-4	25		ug/L	99.9	75 - 125				10/16/12
Trichloroethene	79-01-6	24		ug/L	97.2	75 - 125				10/16/12
Benzene	71-43-2	26		ug/L	103.8	75 - 125				10/16/12
Toluene	108-88-3	25		ug/L	99.4	75 - 125				10/16/12
Chlorobenzene	108-90-7	25		ug/L	101.5	75 - 125				10/16/12
1,1-Dichloroethane	75-34-3	25		ug/L	100.4	75 - 125				10/16/12
Ethylbenzene	100-41-4	26		ug/L	102.4	75 - 125				10/16/12
Styrene	100-42-5	27		ug/L	109.9	75 - 125				10/16/12
trans-1,3-Dichloropropene	10061-02-6	27		ug/L	106.9	75 - 125				10/16/12
1,2-Dichloroethane	107-06-2	28		ug/L	111	75 - 125				10/16/12
1,1,1-Trichloroethane	71-55-6	26		ug/L	103.1	75 - 125				10/16/12
Dibromochloromethane	124-48-1	28		ug/L	111.1	75 - 125				10/16/12
Carbon disulfide	75-15-0	25		ug/L	99.2	75 - 125				10/16/12
Bromoform	75-25-2	31		ug/L	125	75 - 125				10/16/12
Bromodichloromethane	75-27-4	27		ug/L	107.9	75 - 125				10/16/12
1,2-Dichloropropane	78-87-5	27		ug/L	106.4	75 - 125				10/16/12
1,1,2-Trichloroethane	79-00-5	28		ug/L	110.6	75 - 125				10/16/12

\* - QC result out of range

n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,1,2,2-Tetrachloroethane	79-34-5		29	ug/L	116.2	75 - 125				10/16/12
trans-1,2-Dichloroethene	156-60-5		25	ug/L	100.8	75 - 125				10/16/12
cis-1,2-Dichloroethene	156-59-2		25	ug/L	98.2	75 - 125				10/16/12
<b>MS</b>										
<b>QC Sample #82691</b>										
<b>Original 121223013</b>										
1,1-Dichloroethene	75-35-4	<1	25	ug/L	100.2	75 - 125				10/16/12
Trichloroethene	79-01-6	<1	25	ug/L	98.9	75 - 125				10/16/12
Benzene	71-43-2	<1	26	ug/L	105.3	75 - 125				10/16/12
Toluene	108-88-3	<1	25	ug/L	101.8	75 - 125				10/16/12
Chlorobenzene	108-90-7	<1	26	ug/L	104.4	75 - 125				10/16/12
1,1-Dichloroethane	75-34-3	<1	25	ug/L	101	75 - 125				10/16/12
Ethylbenzene	100-41-4	<1	26	ug/L	104.5	75 - 125				10/16/12
Styrene	100-42-5	<1	28	ug/L	110.6	75 - 125				10/16/12
trans-1,3-Dichloropropene	10061-02-6	<1	26	ug/L	104.6	75 - 125				10/16/12
1,2-Dichloroethane	107-06-2	<1	27	ug/L	106.5	75 - 125				10/16/12
1,1,1-Trichloroethane	71-55-6	<1	26	ug/L	104.9	75 - 125				10/16/12
Dibromochloromethane	124-48-1	<1	28	ug/L	110	75 - 125				10/16/12
Carbon disulfide	75-15-0	<1	25	ug/L	98.6	75 - 125				10/16/12
Bromoform	75-25-2	<1	30	ug/L	121.3	75 - 125				10/16/12
Bromodichloromethane	75-27-4	<1	27	ug/L	107.4	75 - 125				10/16/12
1,2-Dichloropropane	78-87-5	<1	27	ug/L	106.6	75 - 125				10/16/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group #

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,1,2-Trichloroethane	79-00-5	<1	27	ug/L	109.8	75 - 125				10/16/12
1,1,2,2-Tetrachloroethane	79-34-5	<1	28	ug/L	111.6	75 - 125				10/16/12
trans-1,2-Dichloroethene	156-60-5	<1	26	ug/L	104.4	75 - 125				10/16/12
cis-1,2-Dichloroethene	156-59-2	<1	25	ug/L	98.5	75 - 125				10/16/12
<b>MSD</b>					<b>QC Sample #82692</b>					
					<b>Original 121223013</b>			<b>Paired 82691</b>		
1,1-Dichloroethene	75-35-4	<1	25	ug/L	101.7	75 - 125	1.40	20		10/16/12
Trichloroethene	79-01-6	<1	24	ug/L	97	75 - 125	2.00	20		10/16/12
Benzene	71-43-2	<1	26	ug/L	102.2	75 - 125	3.00	20		10/16/12
Toluene	108-88-3	<1	25	ug/L	99.2	75 - 125	2.50	20		10/16/12
Chlorobenzene	108-90-7	<1	25	ug/L	100.5	75 - 125	3.80	20		10/16/12
1,1-Dichloroethane	75-34-3	<1	25	ug/L	100.5	75 - 125	0.60	20		10/16/12
Ethylbenzene	100-41-4	<1	26	ug/L	102.4	75 - 125	2.00	20		10/16/12
Styrene	100-42-5	<1	27	ug/L	107.1	75 - 125	3.20	20		10/16/12
trans-1,3-Dichloropropene	10061-02-6	<1	25	ug/L	100.4	75 - 125	4.10	20		10/16/12
1,2-Dichloroethane	107-06-2	<1	25	ug/L	101.8	75 - 125	4.40	20		10/16/12
1,1,1-Trichloroethane	71-55-6	<1	26	ug/L	103	75 - 125	1.80	20		10/16/12
Dibromochloromethane	124-48-1	<1	26	ug/L	105.3	75 - 125	4.40	20		10/16/12
Carbon disulfide	75-15-0	<1	25	ug/L	98.6	75 - 125	0.00	20		10/16/12
Bromoform	75-25-2	<1	28	ug/L	113.4	75 - 125	6.80	20		10/16/12
Bromodichloromethane	75-27-4	<1	26	ug/L	104.5	75 - 125	2.80	20		10/16/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

**Quality Control Report****DECEMBER 18, 2012****REVISION 2****Attention** Scot Fitzgerald  
**Department** Organic, Volatiles**Group #**

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,2-Dichloropropane	78-87-5	<1	26	ug/L	103.3	75 - 125	3.10	20		10/16/12
1,1,2-Trichloroethane	79-00-5	<1	26	ug/L	104.2	75 - 125	5.20	20		10/16/12
1,1,2,2-Tetrachloroethane	79-34-5	<1	26	ug/L	103.4	75 - 125	7.60	20		10/16/12
trans-1,2-Dichloroethene	156-60-5	<1	24	ug/L	97.2	75 - 125	7.10	20		10/16/12
cis-1,2-Dichloroethene	156-59-2	<1	25	ug/L	98.6	75 - 125	0.10	20		10/16/12

\* - QC result out of range

n/a - Not Applicable

**REVISED121223 -**

**Attention** Scot Fitzgerald  
**Department** Wet Chemistry

**Group #** WSCF121223

**Analytical Batch** 208469 (QC Batch: 208469)      **Test** Total Alkalinity as mg/L CaCO<sub>3</sub> (Water)  
**Associated Samples** 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>LCS</b>	<b>QC Sample #82711</b>									
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY		100	mg/L	99.6	80 - 120				10/08/12
<b>DUP</b>	<b>QC Sample #82712</b> Original 121208020									
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY		77	mg/L			1.30	20		10/08/12
<b>LCS</b>	<b>QC Sample #82713</b>									
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY		98	mg/L	98.4	80 - 120				10/08/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

**Attention** Scot Fitzgerald  
**Department** Wet Chemistry

**Group #** WSCF121223

**Analytical Batch** 208482 (QC Batch: 208476)      **Test** Cyanide (W) by Midi/Spectrophotometer  
**Associated Samples** 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										<b>QC Sample #82749</b>
Cyanide LCS										<4.0 ug/L
										<b>QC Sample #82752</b>
Cyanide MS	57-12-5		52.4	ug/L	104.8	85 - 115				10/10/12
										<b>QC Sample #82753</b>
										Original 121203010
Cyanide MSD	57-12-5		40.4	ug/L	100.9	75 - 125				10/10/12
										<b>QC Sample #82754</b>
										Original 121203010
Cyanide	57-12-5		40.8	ug/L	102	75 - 125	1.10	20		Paired 82753
										10/10/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121223

Analytical Batch 208508 (QC Batch: 208507) Test Chemical Oxygen Demand  
 Associated Samples 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										<b>QC Sample #82881</b>
Chemical Oxygen Demand	COD		<10	mg/L					U	10/11/12
<b>LCS</b>										<b>QC Sample #82882</b>
Chemical Oxygen Demand	COD		99.2	mg/L	99.2	80 - 120				10/11/12
<b>MS</b>										<b>QC Sample #82885</b>
Original 121223013										
Chemical Oxygen Demand	COD	<10	252	mg/L	100.8	75 - 125				10/11/12
<b>MSD</b>										<b>QC Sample #82886</b>
Original 121223013										Paired 82885
Chemical Oxygen Demand	COD	<10	247	mg/L	99	75 - 125	1.90	20		10/11/12

\* - QC result out of range

n/a - Not Applicable

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Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group # WSCF121223

Analytical Batch 208757 (QC Batch: 208756) Test Gasoline Range (W)  
 Associated Samples 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										QC Sample #82983
Gasoline LCS										<50 ug/L
										QC Sample #82984
Gasoline MS	TPHGASOLI		2300	ug/L	93.6	80 - 120				10/16/12
										QC Sample #82985
										Original 121223013
Gasoline MSD	TPHGASOLI	<50	1900	ug/L	78	75 - 125				10/16/12
										QC Sample #82986
										Original 121223013
Gasoline DUP	TPHGASOLI	<50	2100	ug/L	85.1	75 - 125	8.70	20		Paired 82985
										10/16/12
Gasoline	TPHGASOLI	<50	<50	ug/L			0.00	20	U	10/16/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group # WSCF121223

Analytical Batch 208850 (QC Batch: 208488) Test SW-846 8270D Semivolatiles  
 Associated Samples 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										QC Sample #82826
4-Nitrophenol	100-02-7		<1	ug/L				U		10/16/12
Phenol	108-95-2		<1	ug/L				U		10/16/12
1,2,4-Trichlorobenzene	120-82-1		<1	ug/L				U		10/16/12
2,4-Dinitrotoluene	121-14-2		<1	ug/L				U		10/16/12
1,4-Dichlorobenzene	106-46-7		<1	ug/L				U		10/16/12
Pyrene	129-00-0		<1	ug/L				U		10/16/12
4-Chloro-3-methylphenol	59-50-7		<1	ug/L				U		10/16/12
n-Nitroso-di-n-propylamine	621-64-7		<1	ug/L				U		10/16/12
Acenaphthene	83-32-9		<1	ug/L				U		10/16/12
Pentachlorophenol	87-86-5		<1	ug/L				U		10/16/12
2-Chlorophenol	95-57-8		<1	ug/L				U		10/16/12
4-Nitroaniline	100-01-6		<1	ug/L				U		10/16/12
4-Bromophenyl-phenylether	101-55-3		<1	ug/L				U		10/16/12
2,4-Dimethylphenol	105-67-9		<2	ug/L				U		10/16/12
4-Chloroaniline	106-47-8		<1	ug/L				U		10/16/12

\* - QC result out of range

n/a - Not Applicable

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121223

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	10/16/12
Bis-(2-Chloroethyl)ether	111-44-4		<1	ug/L				U	10/16/12
Bis-(2-Chloroethoxy)methane	111-91-1		<1	ug/L				U	10/16/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<1	ug/L				U	10/16/12
Di-n-octylphthalate	117-84-0		<1	ug/L				U	10/16/12
Hexachlorobenzene	118-74-1		<1	ug/L				U	10/16/12
Anthracene	120-12-7		<1	ug/L				U	10/16/12
2,4-Dichlorophenol	120-83-2		<1	ug/L				U	10/16/12
Dimethylphthalate	131-11-3		<1	ug/L				U	10/16/12
Dibenzofuran	132-64-9		<1	ug/L				U	10/16/12
Benzo(g,h,i)perylene	191-24-2		<1	ug/L				U	10/16/12
Indeno(1,2,3-cd)pyrene	193-39-5		<1	ug/L				U	10/16/12
Benzo(b)fluoranthene	205-99-2		<1	ug/L				U	10/16/12
Fluoranthene	206-44-0		<1	ug/L				U	10/16/12
Benzo(k)fluoranthene	207-08-9		<1	ug/L				U	10/16/12
Acenaphthylene	208-96-8		<1	ug/L				U	10/16/12
Chrysene	218-01-9		<1	ug/L				U	10/16/12
Benzo(a)pyrene	50-32-8		<1	ug/L				U	10/16/12
2,4-Dinitrophenol	51-28-5		<1	ug/L				U	10/16/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121223

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	10/16/12
4,6-Dinitro-2-methylphenol	534-52-1		<1	ug/L				U	10/16/12
1,3-Dichlorobenzene	541-73-1		<1	ug/L				U	10/16/12
Benzo(a)anthracene	56-55-3		<1	ug/L				U	10/16/12
2,6-Dinitrotoluene	606-20-2		<1	ug/L				U	10/16/12
4-Chlorophenyl-phenylether	7005-72-3		<1	ug/L				U	10/16/12
Hexachlorocyclopentadiene	77-47-4		<1	ug/L				U	10/16/12
Isophorone	78-59-1		<1	ug/L				U	10/16/12
Diethyl phthalate	84-66-2		<1	ug/L				U	10/16/12
Di-n-butylphthalate	84-74-2		<1	ug/L				U	10/16/12
Phenanthrene	85-01-8		<1	ug/L				U	10/16/12
Butylbenzylphthalate	85-68-7		<1	ug/L				U	10/16/12
Fluorene	86-73-7		<1	ug/L				U	10/16/12
Carbazole	86-74-8		<1	ug/L				U	10/16/12
Hexachlorobutadiene	87-68-3		<1	ug/L				U	10/16/12
2-Nitroaniline	88-74-4		<1	ug/L				U	10/16/12
2-Nitrophenol	88-75-5		<1	ug/L				U	10/16/12
Naphthalene	91-20-3		<1	ug/L				U	10/16/12
2-Methylnaphthalene	91-57-6		<1	ug/L				U	10/16/12
2-Chloronaphthalene	91-58-7		<1	ug/L				U	10/16/12
3,3-Dichlorobenzidine	91-94-1		<1	ug/L				U	10/16/12

\* - QC result out of range

n/a - Not Applicable

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group # WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
2-Methylphenol	95-48-7		<1	ug/L				U	10/16/12
1,2-Dichlorobenzene	95-50-1		<1	ug/L				U	10/16/12
2,4,5-Trichlorophenol	95-95-4		<1	ug/L				U	10/16/12
Nitrobenzene	98-95-3		<1	ug/L				U	10/16/12
3-Nitroaniline	99-09-2		<1	ug/L				U	10/16/12
3 & 4 Methylphenol, Total	65794-96-9		<1	ug/L				U	10/16/12
Hexachloroethane	67-72-1		<1	ug/L				U	10/16/12
2,4,6-Trichlorophenol	88-06-2		<1	ug/L				U	10/16/12
Benzyl alcohol	100-51-6		<1	ug/L				U	10/16/12
Tributyl phosphate	126-73-8		<1	ug/L				U	10/16/12
2-Naphthylamine	91-59-8		<2	ug/L				U	10/16/12
Pyridine	110-86-1		<1	ug/L				U	10/16/12
n-Nitrosopiperidine	100-75-4		<1	ug/L				U	10/16/12
n-Nitrosomethylethylamine	10595-95-6		<1	ug/L				U	10/16/12
p-Phenylenediamine	106-50-3		<1	ug/L				U	10/16/12
2-Picoline	109-06-8		<1	ug/L				U	10/16/12
3,3-Dimethylbenzidine	119-93-7		<4	ug/L				U	10/16/12
Isosafrole	120-58-1		<1	ug/L				U	10/16/12
Phentermine	122-09-8		<5	ug/L				U	10/16/12
1,4-Dioxane	123-91-1		<1	ug/L				U	10/16/12
1,4-Naphthoquinone	130-15-4		<1	ug/L				U	10/16/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
1-Naphthylamine	134-32-7		<2	ug/L				U	10/16/12
Aramite	140-57-8		<1	ug/L				U	10/16/12
Kepone	143-50-0		<1	ug/L				U	10/16/12
Hexachloropropene	1888-71-7		<1	ug/L				U	10/16/12
Diallate	2303-16-4		<1	ug/L				U	10/16/12
Pronamide	23950-58-5		<1	ug/L				U	10/16/12
Isodrin	465-73-6		<1	ug/L				U	10/16/12
Chlorobenzilate	510-15-6		<1	ug/L				U	10/16/12
2-Acetylaminofluorene	53-96-3		<1	ug/L				U	10/16/12
n-Nitrosodiethylamine	55-18-5		<1	ug/L				U	10/16/12
3-Methylcholanthrene	56-49-5		<1	ug/L				U	10/16/12
4-Nitroquinoline-1-oxide	56-57-5		<1	ug/L				U	10/16/12
7,12-Dimethylbenz(a)anthracene	57-97-6		<1	ug/L				U	10/16/12
2,3,4,6-Tetrachlorophenol	58-90-2		<1	ug/L				U	10/16/12
n-Nitrosomorpholine	59-89-2		<1	ug/L				U	10/16/12
Pentachlorobenzene	608-93-5		<1	ug/L				U	10/16/12
Phenacetin	62-44-2		<1	ug/L				U	10/16/12
Ethyl methanesulfonate	62-50-0		<1	ug/L				U	10/16/12
Aniline	62-53-3		<1	ug/L				U	10/16/12
n-Nitrosodimethylamine	62-75-9		<1	ug/L				U	10/16/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
Methyl methanesulfonate	66-27-3		<1	ug/L				U	10/16/12
Pentachloroethane	76-01-7		<1	ug/L				U	10/16/12
Pentachloronitrobenzene	82-68-8		<2	ug/L				U	10/16/12
2,6-Dichlorophenol	87-65-0		<1	ug/L				U	10/16/12
Dinoseb(..dinitromethylphenol)	88-85-7		<1	ug/L				U	10/16/12
4-Aminobiphenyl	92-67-1		<2	ug/L				U	10/16/12
n-Nitrosodibutylamine	924-16-3		<1	ug/L				U	10/16/12
n-Nitrosopyridine	930-55-2		<1	ug/L				U	10/16/12
Safrole	94-59-7		<1	ug/L				U	10/16/12
o-Toluidine	95-53-4		<1	ug/L				U	10/16/12
1,2,4,5-Tetrachlorobenzene	95-94-3		<1	ug/L				U	10/16/12
Acetophenone	98-86-2		<1	ug/L				U	10/16/12
1,3,5-Trinitrobenzene	99-35-4		<1	ug/L				U	10/16/12
2-Methyl-5-nitroaniline	99-55-8		<1	ug/L				U	10/16/12
1,3-Dinitrobenzene	99-65-0		<1	ug/L				U	10/16/12
O,O,O-Triethylthiophosphate	126-68-1		<1	ug/L				U	10/16/12
Parathion	56-38-2		<1	ug/L				U	10/16/12
Dimethylaminoazobenzene	60-11-7		<1	ug/L				U	10/16/12
Dimethoate	60-51-5		<1	ug/L				U	10/16/12
Thionazin	297-97-2		<1	ug/L				U	10/16/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group # WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Methyl parathion	298-00-0	<1		ug/L					U	10/16/12
Phorate	298-02-2	<1		ug/L					U	10/16/12
Disulfoton	298-04-4	<1		ug/L					U	10/16/12
Sulfotep	3689-24-5	<1		ug/L					U	10/16/12
Famfur	52-85-7	<5		ug/L					U	10/16/12
N-Nitrosodiphenylamin/ Diphenyl	DPA+NNDPA	<1		ug/L					U	10/16/12
Methapyrilene	91-80-5	<1		ug/L					U	10/16/12
<b>LCS</b>					<b>QC Sample #82827</b>					
4-Nitrophenol	100-02-7	14		ug/L	45.3	5 - 88				10/16/12
1,2,4-Trichlorobenzene	120-82-1	22		ug/L	73.4	50 - 105				10/16/12
Phenol	108-95-2	15		ug/L	48.7	18 - 89				10/16/12
1,4-Dichlorobenzene	106-46-7	15		ug/L	76.4	47 - 115				10/16/12
2,4-Dinitrotoluene	121-14-2	24		ug/L	81.3	59 - 110				10/16/12
Pyrene	129-00-0	26		ug/L	87.6	64 - 116				10/16/12
4-Chloro-3-methylphenol	59-50-7	25		ug/L	84.4	62 - 109				10/16/12
n-Nitroso-di-n-propylamine	621-64-7	24		ug/L	81.2	61 - 110				10/16/12
Acenaphthene	83-32-9	24		ug/L	78.6	59 - 113				10/16/12
Pentachlorophenol	87-86-5	22		ug/L	72.2	17 - 125				10/16/12
2-Chlorophenol	95-57-8	24		ug/L	78.4	55 - 109				10/16/12
1,4-Dioxane	123-91-1	20		ug/L	66.4	42 - 99				10/16/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

## Quality Control Report

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REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
n-Nitrosodimethylamine	62-75-9	21	ug/L	71.3	40 - 103					10/16/12
Benzyl alcohol	100-51-6	25	ug/L	82.3	58 - 108					10/16/12
2-Methylphenol	95-48-7	24	ug/L	79.4	59 - 107					10/16/12
Hexachloroethane	67-72-1	20	ug/L	66	43 - 105					10/16/12
2-Nitrophenol	88-75-5	23	ug/L	77.6	48 - 113					10/16/12
2,4-Dimethylphenol	105-67-9	25	ug/L	84.6	58 - 113					10/16/12
2,4-Dichlorophenol	120-83-2	23	ug/L	78.2	52 - 110					10/16/12
Anthracene	120-12-7	26	ug/L	85.8	67 - 113					10/16/12
Naphthalene	91-20-3	23	ug/L	75.3	55 - 110					10/16/12
2-Nitroaniline	88-74-4	26	ug/L	87.1	57 - 114					10/16/12
Dibenzofuran	132-64-9	25	ug/L	82.4	61 - 113					10/16/12
Fluorene	86-73-7	25	ug/L	83.1	64 - 115					10/16/12
Tributyl phosphate	126-73-8	26	ug/L	87	65 - 108					10/16/12
Hexachlorobenzene	118-74-1	25	ug/L	84.2	60 - 117					10/16/12
Dimethoate	60-51-5	13	ug/L	86.9	64 - 108					10/16/12
Carbazole	86-74-8	27	ug/L	91.5	35 - 129					10/16/12
Di-n-butylphthalate	84-74-2	27	ug/L	88.3	70 - 116					10/16/12
3,3-Dichlorobenzidine	91-94-1	18	ug/L	58.5	16 - 117					10/16/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	28	ug/L	93	64 - 133					10/16/12
Di-n-octylphthalate	117-84-0	25	ug/L	83	57 - 134					10/16/12
Benzo(a)pyrene	50-32-8	26	ug/L	88.1	63 - 115					10/16/12
2-Picoline	109-06-8	24	ug/L	80	59 - 102					10/16/12

\* - QC result out of range

n/a - Not Applicable

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis(1-Chloro-2-propyl)ether	108-60-1	23		ug/L	76	58 - 111				10/16/12
4-Chloroaniline	106-47-8	26		ug/L	85.7	43 - 125				10/16/12
<b>MS</b>										
<b>QC Sample #82828</b>										
<b>Original 121239001</b>										
4-Nitrophenol	100-02-7	7.7		ug/L	27.3	15 - 57				10/16/12
1,2,4-Trichlorobenzene	120-82-1	19		ug/L	66.3	51 - 104				10/16/12
Phenol	108-95-2	9.9		ug/L	34.9	24 - 65				10/16/12
1,4-Dichlorobenzene	106-46-7	13		ug/L	70	52 - 114				10/16/12
2,4-Dinitrotoluene	121-14-2	21		ug/L	73.1	57 - 112				10/16/12
Pyrene	129-00-0	23		ug/L	79.9	58 - 119				10/16/12
4-Chloro-3-methylphenol	59-50-7	21		ug/L	75.2	56 - 115				10/16/12
n-Nitroso-di-n-propylamine	621-64-7	21		ug/L	72.5	60 - 112				10/16/12
Acenaphthene	83-32-9	20		ug/L	69.9	60 - 113				10/16/12
Pentachlorophenol	87-86-5	13		ug/L	45	32 - 127				10/16/12
2-Chlorophenol	95-57-8	20		ug/L	69.3	52 - 113				10/16/12
1,4-Dioxane	123-91-1	16		ug/L	56.8	39 - 93				10/16/12
n-Nitrosodimethylamine	62-75-9	17		ug/L	61	41 - 92				10/16/12
Benzyl alcohol	100-51-6	21		ug/L	73.4	56 - 107				10/16/12
2-Methylphenol	95-48-7	19		ug/L	67.1	46 - 114				10/16/12
Hexachloroethane	67-72-1	17		ug/L	58.9	48 - 102				10/16/12
2-Nitrophenol	88-75-5	19		ug/L	67.3	51 - 114				10/16/12

\* - QC result out of range

n/a - Not Applicable

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2,4-Dimethylphenol	105-67-9	21	ug/L	74.5	46 - 124					10/16/12
2,4-Dichlorophenol	120-83-2	19	ug/L	68.8	50 - 114					10/16/12
Anthracene	120-12-7	22	ug/L	77	64 - 116					10/16/12
Naphthalene	91-20-3	19	ug/L	67	57 - 110					10/16/12
2-Nitroaniline	88-74-4	22	ug/L	76.1	60 - 114					10/16/12
Dibenzofuran	132-64-9	21	ug/L	73.9	61 - 114					10/16/12
Fluorene	86-73-7	21	ug/L	73.9	63 - 116					10/16/12
Tributyl phosphate	126-73-8	23	ug/L	79.7	59 - 113					10/16/12
Hexachlorobenzene	118-74-1	22	ug/L	76.3	58 - 119					10/16/12
Dimethoate	60-51-5	11	ug/L	76.3	53 - 119					10/16/12
Carbazole	86-74-8	22	ug/L	79.3	41 - 122					10/16/12
Di-n-butylphthalate	84-74-2	23	ug/L	80.2	67 - 118					10/16/12
3,3-Dichlorobenzidine	91-94-1	18	ug/L	62.9	16 - 121					10/16/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	24	ug/L	85.1	64 - 134					10/16/12
Di-n-octylphthalate	117-84-0	22	ug/L	77.6	40 - 143					10/16/12
Benzo(a)pyrene	50-32-8	22	ug/L	79.1	61 - 117					10/16/12
2-Picoline	109-06-8	20	ug/L	70.9	50 - 104					10/16/12
Bis(1-Chloro-2-propyl)ether	108-60-1	19	ug/L	67.5	58 - 112					10/16/12
4-Chloroaniline	106-47-8	25	ug/L	87	43 - 118					10/16/12
<b>MSD</b>		<b>QC Sample #82829</b>								
		<b>Original 121239001</b>								
								<b>Paired 82828</b>		
4-Nitrophenol	100-02-7	11	ug/L	40.6	15 - 57	39.00	20	*	X	10/16/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,2,4-Trichlorobenzene	120-82-1	20	ug/L	69.3	51 - 104	4.50	20			10/16/12
Phenol	108-95-2	11	ug/L	38.4	24 - 65	9.50	20			10/16/12
1,4-Dichlorobenzene	106-46-7	13	ug/L	71.3	52 - 114	1.90	20			10/16/12
2,4-Dinitrotoluene	121-14-2	22	ug/L	79.4	57 - 112	8.30	20			10/16/12
Pyrene	129-00-0	22	ug/L	76.3	58 - 119	4.60	20			10/16/12
4-Chloro-3-methylphenol	59-50-7	23	ug/L	80.6	56 - 115	6.90	20			10/16/12
n-Nitroso-di-n-propylamine	621-64-7	22	ug/L	76.8	60 - 112	5.80	20			10/16/12
Acenaphthene	83-32-9	21	ug/L	74.1	60 - 113	5.80	20			10/16/12
Pentachlorophenol	87-86-5	19	ug/L	67.7	32 - 127	40.30	20	*	X	10/16/12
2-Chlorophenol	95-57-8	21	ug/L	73.4	52 - 113	5.70	20			10/16/12
1,4-Dioxane	123-91-1	18	ug/L	63.2	39 - 93	10.80	20			10/16/12
n-Nitrosodimethylamine	62-75-9	19	ug/L	68.3	41 - 92	11.20	20			10/16/12
Benzyl alcohol	100-51-6	23	ug/L	80.5	56 - 107	9.30	20			10/16/12
2-Methylphenol	95-48-7	21	ug/L	72.9	46 - 114	8.20	20			10/16/12
Hexachloroethane	67-72-1	18	ug/L	61.9	48 - 102	5.00	20			10/16/12
2-Nitrophenol	88-75-5	20	ug/L	72.3	51 - 114	7.20	20			10/16/12
2,4-Dimethylphenol	105-67-9	22	ug/L	79.4	46 - 124	6.30	20			10/16/12
2,4-Dichlorophenol	120-83-2	21	ug/L	73.1	50 - 114	6.10	20			10/16/12
Anthracene	120-12-7	23	ug/L	80	64 - 116	3.80	20			10/16/12
Naphthalene	91-20-3	20	ug/L	70.9	57 - 110	5.60	20			10/16/12
2-Nitroaniline	88-74-4	23	ug/L	82.3	60 - 114	7.80	20			10/16/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Dibenzofuran	132-64-9	22	ug/L	77.8	61 - 114	5.20	20			10/16/12
Fluorene	86-73-7	22	ug/L	79.3	63 - 116	7.00	20			10/16/12
Tributyl phosphate	126-73-8	23	ug/L	81.6	59 - 113	2.40	20			10/16/12
Hexachlorobenzene	118-74-1	22	ug/L	78.4	58 - 119	2.70	20			10/16/12
Dimethoate	60-51-5	12	ug/L	83.5	53 - 119	9.00	20			10/16/12
Carbazole	86-74-8	25	ug/L	87.9	41 - 122	10.30	20			10/16/12
Di-n-butylphthalate	84-74-2	24	ug/L	83.3	67 - 118	3.90	20			10/16/12
3,3-Dichlorobenzidine	91-94-1	19	ug/L	66.7	16 - 121	6.00	20			10/16/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	23	ug/L	81.6	64 - 134	4.20	20			10/16/12
Di-n-octylphthalate	117-84-0	21	ug/L	75	40 - 143	3.50	20			10/16/12
Benzo(a)pyrene	50-32-8	23	ug/L	82.9	61 - 117	4.70	20			10/16/12
2-Picoline	109-06-8	23	ug/L	82	50 - 104	14.50	20			10/16/12
Bis(1-Chloro-2-propyl)ether	108-60-1	20	ug/L	70.3	58 - 112	4.00	20			10/16/12
4-Chloroaniline	106-47-8	26	ug/L	92.7	43 - 118	6.30	20			10/16/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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REVISION 2

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

**Analytical Batch** 208887 (QC Batch: 208650)      **Test** PCBs by EPA SW-846 Method 8082  
**Associated Samples** 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										
<b>QC Sample #82953</b>										
Aroclor-1016	12674-11-2	<0.1		ug/L				U		10/17/12
Aroclor-1221	11104-28-2	<0.2		ug/L				U		10/17/12
Aroclor-1232	11141-16-5	<0.1		ug/L				U		10/17/12
Aroclor-1242	53469-21-9	<0.1		ug/L				U		10/17/12
Aroclor-1248	12672-29-6	<0.1		ug/L				U		10/17/12
Aroclor-1254	11097-69-1	<0.1		ug/L				U		10/17/12
Aroclor-1260	11096-82-5	<0.1		ug/L				U		10/17/12
<b>LCS</b>										
<b>QC Sample #82954</b>										
Aroclor-1254	11097-69-1	1.7		ug/L	87.2	70 - 130				10/17/12
<b>MS</b>										
<b>QC Sample #82955</b>										
Original 121223013										
Aroclor-1254	11097-69-1	<0.09	1.8	ug/L	93.6	60 - 130				10/17/12
<b>MSD</b>										
<b>QC Sample #82956</b>										
Original 121223013										
<b>Paired 82955</b>										
Aroclor-1254	11097-69-1	<0.09	1.8	ug/L	95.1	60 - 130	1.60	20		10/17/12

\* - QC result out of range

n/a - Not Applicable

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Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121223

Analytical Batch 208911 (QC Batch: 208900) Test ICP-2008 MS All possible metal  
 Associated Samples 121223011

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										QC Sample #83185
Mercury LCS										<0.050 ug/L
										QC Sample #83186
Mercury MS	7439-97-6		1.69	ug/L	84.4	85 - 115			o	10/19/12
										QC Sample #83187
										Original 121223011
Mercury MSD	7439-97-6	<0.050	1.90	ug/L	94.8	70 - 130			o	10/19/12
										QC Sample #83188
										Original 121223011
Mercury	7439-97-6	<0.050	1.89	ug/L	94.4	70 - 130	0.40	20	Paired 83187	10/19/12
										n/a - Not Applicable

\* - QC result out of range

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121223

Analytical Batch 209139 (QC Batch: 209136) Test Total Organic Halides  
 Associated Samples 121223005, 121223006, 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										
<b>QC Sample #83612</b>										
Total Organic Halides	59473-04-0	<5.0		ug/L					U	10/08/12
<b>LCS</b>										
<b>QC Sample #83613</b>										
Total Organic Halides	59473-04-0	377		mg/L	94.3	80 - 120				10/08/12
<b>MS</b>										
<b>QC Sample #83619</b>										
Original 121223005										
Total Organic Halides	59473-04-0	<5.0	41.8	ug/L	104.4	75 - 125				10/08/12
<b>MSD</b>										
<b>QC Sample #83620</b>										
Original 121223005										
Total Organic Halides	59473-04-0	<5.0	39.6	ug/L	99	75 - 125	5.30	20		10/08/12
<b>Paired 83619</b>										

\* - QC result out of range

n/a - Not Applicable

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Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121223

Analytical Batch 209144 (QC Batch: 209143) Test Total Organic Halides  
 Associated Samples 121223001, 121223002, 121223003, 121223004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed	
<b>BLANK</b>										QC Sample #83634	
Total Organic Halides	59473-04-0	<5.0 ug/L									
<b>LCS</b>										QC Sample #83635	
Total Organic Halides	59473-04-0	405 mg/L									
<b>MS</b>										QC Sample #83636	
Original 121223001											
Total Organic Halides	59473-04-0	<5.0	41.3	ug/L	103.2	75 - 125					
<b>MSD</b>										QC Sample #83637	
Original 121223001										Paired 83636	
Total Organic Halides	59473-04-0	<5.0	43.3	ug/L	108.2	75 - 125	4.80	20			
										10/08/12	

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

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**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

**Analytical Batch** 208258 (QC Batch: 208245)      **Test** Extractable Diesel and Petroleum  
**Associated Samples** 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>SAMPLE</b>		<b>Sample #121223013</b>								
o-Terphenyl	84-15-1				101.4	70 - 130				10/05/12
<b>SAMPLE</b>		<b>Sample #121223014</b>								
o-Terphenyl	84-15-1				102.9	70 - 130				10/05/12
<b>BLANK</b>		<b>QC Sample #82350</b>								
o-Terphenyl	84-15-1				94.7	70 - 130				10/05/12
<b>LCS</b>		<b>QC Sample #82351</b>								
o-Terphenyl	84-15-1				102.3	70 - 130				10/05/12
<b>MS</b>		<b>QC Sample #82352</b>								
o-Terphenyl	84-15-1				Original 121223013					
<b>MSD</b>		<b>QC Sample #82353</b>								
o-Terphenyl	84-15-1				Original 121223013		Paired 82352			10/05/12
o-Terphenyl	84-15-1				96.6	70 - 130	n/a			10/05/12

\* - QC result out of range

n/a - Not Applicable

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## Quality Control Report

DECEMBER 18, 2012

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Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group # WSCF121223

Analytical Batch 208457 (QC Batch: 208456) Test SW-846 8260B Volatiles  
 Associated Samples 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>SAMPLE</b>		<b>Sample #121223013</b>								
1,2-Dichloroethane-d4	17060-07-0				101.6	75 - 125				10/16/12
Toluene-d8	2037-26-5				98.8	75 - 125				10/16/12
4-Bromofluorobenzene	460-00-4				100.6	75 - 125				10/16/12
<b>SAMPLE</b>		<b>Sample #121223014</b>								
1,2-Dichloroethane-d4	17060-07-0				103.5	75 - 125				10/16/12
Toluene-d8	2037-26-5				98.8	75 - 125				10/16/12
4-Bromofluorobenzene	460-00-4				100.5	75 - 125				10/16/12
<b>BLANK</b>		<b>QC Sample #82689</b>								
1,2-Dichloroethane-d4	17060-07-0				101.4	75 - 125				10/16/12
Toluene-d8	2037-26-5				98.7	75 - 125				10/16/12
4-Bromofluorobenzene	460-00-4				98.6	75 - 125				10/16/12
<b>LCS</b>		<b>QC Sample #82690</b>								
1,2-Dichloroethane-d4	17060-07-0				107.9	75 - 125				10/16/12

\* - QC result out of range

n/a - Not Applicable

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**Quality Control Report****DECEMBER 18, 2012****REVISION 2****Attention** Scot Fitzgerald  
**Department** Organic, Volatiles**Group #** WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Toluene-d8	2037-26-5				96.4	75 - 125				10/16/12
4-Bromofluorobenzene	460-00-4				95	75 - 125				10/16/12
<b>MS</b>										
<b>QC Sample #82691</b>										
<b>Original 121223013</b>										
4-Bromofluorobenzene	460-00-4				95.3	75 - 125				10/16/12
1,2-Dichloroethane-d4	17060-07-0				104.4	75 - 125				10/16/12
Toluene-d8	2037-26-5				97	75 - 125				10/16/12
<b>MSD</b>										
<b>QC Sample #82692</b>										
<b>Original 121223013</b>										
<b>Paired 82691</b>										
1,2-Dichloroethane-d4	17060-07-0				103.9	75 - 125	n/a			10/16/12
Toluene-d8	2037-26-5				97.5	75 - 125	n/a			10/16/12
4-Bromofluorobenzene	460-00-4				96.2	75 - 125	n/a			10/16/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group # WSCF121223

Analytical Batch 208757 (QC Batch: 208756) Test Gasoline Range (W)  
 Associated Samples 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE		<b>Sample #121223013</b>								
4-Bromofluorobenzene	460-00-4				99.4	50 - 150				10/16/12
SAMPLE		<b>Sample #121223014</b>								
4-Bromofluorobenzene	460-00-4				96.6	50 - 150				10/16/12
BLANK		<b>QC Sample #82983</b>								
4-Bromofluorobenzene	460-00-4				99.1	50 - 150				10/16/12
LCS		<b>QC Sample #82984</b>								
4-Bromofluorobenzene	460-00-4				97.1	50 - 150				10/16/12
MS		<b>QC Sample #82985</b> Original 121223013								
4-Bromofluorobenzene	460-00-4				96.7	50 - 150				10/16/12
MSD		<b>QC Sample #82986</b> Original 121223013								
								Paired 82985		

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

**Quality Control Report****DECEMBER 18, 2012****REVISION 2****Attention** Scot Fitzgerald  
**Department** Organic, Volatiles**Group #**

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
4-Bromofluorobenzene	460-00-4				98.5	50 - 150	n/a			10/16/12
DUP			QC Sample #82987							
			Original	121223013						

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

**Analytical Batch** 208850 (QC Batch: 208488)      **Test** SW-846 8270D Semivolatiles  
**Associated Samples** 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>SAMPLE</b>										<b>Sample #121223013</b>
2-Fluorophenol	367-12-4				55.1	44 - 135				10/16/12
Phenol-d5	4165-62-2				35.7	41 - 136		X		10/16/12
Nitrobenzene-d5	4165-60-0				75.6	53 - 129				10/16/12
2-Methylnaphthalene-d10	7297-45-2				76.6	50 - 140				10/16/12
2-Fluorobiphenyl	321-60-8				80.1	36 - 141				10/16/12
2,4,6-Tribromophenol	118-79-6				68.8	17 - 142				10/16/12
Fluoranthene-d10	93951-69-0				81.5	50 - 140				10/16/12
Terphenyl-d14	98904-43-9				85.6	61 - 142				10/16/12
<b>SAMPLE</b>										<b>Sample #121223014</b>
2-Fluorophenol	367-12-4				54.5	44 - 135				10/16/12
Phenol-d5	4165-62-2				36.5	41 - 136		X		10/16/12
Nitrobenzene-d5	4165-60-0				71.8	53 - 129				10/16/12
2-Methylnaphthalene-d10	7297-45-2				75.6	50 - 140				10/16/12
2-Fluorobiphenyl	321-60-8				76	36 - 141				10/16/12
2,4,6-Tribromophenol	118-79-6				72.8	17 - 142				10/16/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				90.9	50 - 140				10/16/12
Terphenyl-d14	98904-43-9				74	61 - 142				10/16/12
<b>BLANK</b>					<b>QC Sample #82826</b>					
2-Fluorophenol	367-12-4				56.1	44 - 135				10/16/12
Phenol-d5	4165-62-2				40.6	41 - 136		X		10/16/12
Nitrobenzene-d5	4165-60-0				73.6	53 - 129				10/16/12
2-Methylnaphthalene-d10	7297-45-2				74.2	50 - 140				10/16/12
2-Fluorobiphenyl	321-60-8				73.9	36 - 141				10/16/12
2,4,6-Tribromophenol	118-79-6				64.9	17 - 142				10/16/12
Fluoranthene-d10	93951-69-0				83.9	50 - 140				10/16/12
Terphenyl-d14	98904-43-9				76.9	61 - 142				10/16/12
<b>LCS</b>					<b>QC Sample #82827</b>					
2-Fluorophenol	367-12-4				64.3	44 - 135				10/16/12
Phenol-d5	4165-62-2				46.6	41 - 136				10/16/12
Nitrobenzene-d5	4165-60-0				81.8	53 - 129				10/16/12
2-Methylnaphthalene-d10	7297-45-2				81.7	50 - 140				10/16/12
2-Fluorobiphenyl	321-60-8				81.2	36 - 141				10/16/12
2,4,6-Tribromophenol	118-79-6				79.5	17 - 142				10/16/12
Fluoranthene-d10	93951-69-0				88.1	50 - 140				10/16/12
Terphenyl-d14	98904-43-9				90.7	61 - 142				10/16/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group # WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>MS</b>										
<b>QC Sample #82828</b>										
Original 121239001										
2-Fluorophenol	367-12-4				50.8	44 - 135				10/16/12
Phenol-d5	4165-62-2				33.2	41 - 136		X		10/16/12
Nitrobenzene-d5	4165-60-0				70.9	53 - 129				10/16/12
2-Methylnaphthalene-d10	7297-45-2				72.3	50 - 140				10/16/12
2-Fluorobiphenyl	321-60-8				72.6	36 - 141				10/16/12
2,4,6-Tribromophenol	118-79-6				70.6	17 - 142				10/16/12
Fluoranthene-d10	93951-69-0				77.1	50 - 140				10/16/12
Terphenyl-d14	98904-43-9				84.6	61 - 142				10/16/12
<b>MSD</b>										
<b>QC Sample #82829</b>										
Original 121239001										
Paired 82828										
2-Fluorophenol	367-12-4				54.6	44 - 135	n/a			10/16/12
Phenol-d5	4165-62-2				37.3	41 - 136	n/a	X		10/16/12
Nitrobenzene-d5	4165-60-0				75.6	53 - 129	n/a			10/16/12
2-Methylnaphthalene-d10	7297-45-2				76.7	50 - 140	n/a			10/16/12
2-Fluorobiphenyl	321-60-8				75.4	36 - 141	n/a			10/16/12
2,4,6-Tribromophenol	118-79-6				76	17 - 142	n/a			10/16/12
Fluoranthene-d10	93951-69-0				85.5	50 - 140	n/a			10/16/12
Terphenyl-d14	98904-43-9				81.1	61 - 142	n/a			10/16/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

**Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles

**Group #** WSCF121223

**Analytical Batch** 208887 (QC Batch: 208650)      **Test** PCBs by EPA SW-846 Method 8082  
**Associated Samples** 121223013, 121223014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>SAMPLE</b>		<b>Sample #121223013</b>								
Tetrachloro-m-xylene	877-09-8				80.9	60 - 140				10/17/12
Decachlorobiphenyl	2051-24-3				95.4	60 - 140				10/17/12
<b>SAMPLE</b>		<b>Sample #121223014</b>								
Tetrachloro-m-xylene	877-09-8				79.5	60 - 140				10/17/12
Decachlorobiphenyl	2051-24-3				100.5	60 - 140				10/17/12
<b>BLANK</b>		<b>QC Sample #82953</b>								
Tetrachloro-m-xylene	877-09-8				78.2	60 - 140				10/17/12
Decachlorobiphenyl	2051-24-3				91.9	60 - 140				10/17/12
<b>LCS</b>		<b>QC Sample #82954</b>								
Tetrachloro-m-xylene	877-09-8				75.5	60 - 140				10/17/12
Decachlorobiphenyl	2051-24-3				94	60 - 140				10/17/12
<b>MS</b>		<b>QC Sample #82955</b>								
		<b>Original 121223013</b>								
Tetrachloro-m-xylene	877-09-8				81.9	60 - 140				10/17/12
Decachlorobiphenyl	2051-24-3				95.8	60 - 140				10/17/12

\* - QC result out of range

n/a - Not Applicable

REVISED121223 -

**Quality Control Report****DECEMBER 18, 2012****REVISION 2****Attention** Scot Fitzgerald  
**Department** Organic, Semivolatiles**Group #** WSCF121223

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>MSD</b>										
QC Sample #82956										
		Original	121223013					Paired	82955	
Tetrachloro-m-xylene	877-09-8				81.2	60 - 140	n/a			10/17/12
Decachlorobiphenyl	2051-24-3				96.8	60 - 140	n/a			10/17/12

\* - QC result out of range

n/a - Not Applicable

**REVISED121223 -**

Attention: Scot Fitzgerald

Group #

WSCF121223

121223013	B2M129
Department	Organic, Semivolatiles
Analyte	Phenol-d5 - SW-846 8270D Semivolatiles [1] Surrogate recovery outside of established laboratory control limits.
121223014	B2M171
Department	Organic, Semivolatiles
Analyte	Phenol-d5 - SW-846 8270D Semivolatiles [1] Surrogate recovery outside of established laboratory control limits.

REVISED121223 -

Attention: Scot Fitzgerald

Group #

WSCF121223

**Quality Control Comments****Department** Organic, Semivolatiles

82826	BLANK for HBN 208488 [ORGP/202
<b>Analyte</b>	Phenol-d5 - SW-846 8270D Semivolatiles
[1]	Surrogate recovery outside of established laboratory control limits.
82828	B2M0Y3(121239001MS)
<b>Analyte</b>	Phenol-d5 - SW-846 8270D Semivolatiles
[1]	Surrogate recovery outside of established laboratory control limits.
82829	B2M0Y3(121239001MSD)
<b>Analyte</b>	4-Nitrophenol - SW-846 8270D Semivolatiles
[1]	Matrix Spike RPD outside established laboratory limits No flags assigned.
<b>Analyte</b>	Pentachlorophenol - SW-846 8270D Semivolatiles
[1]	Matrix Spike RPD outside established laboratory limits No flags assigned.
<b>Analyte</b>	Phenol-d5 - SW-846 8270D Semivolatiles
[1]	Surrogate recovery outside of established laboratory control limits.

REVISED121223 -

ATTACHMENT4

**SAMPLE RECEIPT**

Consisting of 7 pages  
Including cover page

REVISED121223 -

**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 #: 121223

Profile #: W13-010-183

Proj. Mgr.:

Phone:

The following samples were received from you on 10/3/2012 10:35:00 AM. 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
<b>Tests scheduled</b>				
121223001	B2M215	WATER	10/3/2012 09:37	10/3/2012 10:35
		TOC-W; TOX-W		
121223002	B2M216	WATER	10/3/2012 09:37	10/3/2012 10:35
		TOC-W; TOX-W		
121223003	B2M217	WATER	10/3/2012 09:37	10/3/2012 10:35
		TOC-W; TOX-W		
121223004	B2M236	WATER	10/3/2012 09:31	10/3/2012 10:35
		TOC-W; TOX-W		
121223005	B2M237	WATER	10/3/2012 09:31	10/3/2012 10:35
		TOC-W; TOX-W		
121223006	B2M238	WATER	10/3/2012 09:31	10/3/2012 10:35
		TOC-W; TOX-W		
121223007	B2M131	WATER	10/3/2012 09:37	10/3/2012 10:35
		2008-W; 6010-W		
121223008	B2M173	WATER	10/3/2012 09:31	10/3/2012 10:35
		2008-W; 6010-W		
121223009	B2M8H3	WATER	10/3/2012 09:37	10/3/2012 10:35
		2008-W		
121223010	B2M8H4	WATER	10/3/2012 09:37	10/3/2012 10:35
		2008-W		
121223011	B2M8K4	WATER	10/3/2012 09:31	10/3/2012 10:35

REVISED121223 -

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

2008-W

121223012	B2M8K5	WATER	10/3/2012 09:31	10/3/2012 10:35
2008-W				
121223013	B2M129	WATER	10/3/2012 09:37	10/3/2012 10:35
2008-W; 6010-W; 8260V-W; 8270SV-W; ALK-W; CN-W; COD-W; PCB-W; TOC-W; TOX-W; TPHDWA-W; TPHGWA-W				
121223014	B2M171	WATER	10/3/2012 09:31	10/3/2012 10:35
2008-W; 6010-W; 8260V-W; 8270SV-W; ALK-W; CN-W; COD-W; PCB-W; TOC-W; TOX-W; TPHDWA-W; TPHGWA-W				

**Test Acronym Description**

Test Acronym	Description
2008-W	ICP-MS (W)
6010-W	ICP-AES (W)
8260V-W	Volatiles by 8260B (W)
8270SV-W	Semivolatiles by 8270D (W)
ALK-W	Total Alkalinity (W)
CN-W	Cyanide (Spectroscopy) (W)
COD-W	Chemical Oxygen Demand (W)
PCB-W	PCB (8082) (W)
TOC-W	Total Organic Carbon (W)
TOX-W	Total Organic Halides (W)
TPHDWA-W	TPHD-WA (W)
TPHGWA-W	TPHG-WA (Water)

REVISED121223 -

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST											
C.O.C. # <b>W13-010-183</b>											
Page 1 of 2											
Collector	F.M. Hall	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650						
SAF No.	W 13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20						
Project Title	RCRA, OCTOBER 2012	Logbook No.	HNF-N-506 51 / 9	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	SPECIAL INSTRUCTIONS	Hold Time						
Total Activity Exception: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>											
FY12 and FY13 samples cannot be in the same SAG Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.											
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not regulated per DOE Order 5400.5 (1990) (1993)											
1 2 1 2 2 3											
Sample No.	Filter	#	Date	Time	No/Type Container	Sample Analysis	Hold Time	Preservative			
B2M215	I	N	W 10.3.12	C937	1x1-L aG*	9020_TOX_TOX (1)	28 Days	H <sub>2</sub> SO <sub>4</sub> to pH <2/Cool~4C			
B2M215	J	N	W		1x250-mL aG	9060_TOC_TOC (1)	28 Days	HCl or H <sub>2</sub> SO <sub>4</sub> to pH >2/Cool~4C			
B2M217	3	N	W		1x1-L aG*	9020_TOX_TOX (1)	28 Days	H <sub>2</sub> SO <sub>4</sub> to pH <2/Cool~4C			
B2M217	J	N	W		1x250-mL aG	9060_TOC_TOC (1)	28 Days	HCl or H <sub>2</sub> SO <sub>4</sub> to pH >2/Cool~4C			
B2M131	7	Y	W		1x500-mL G/P	200.8_METALS_ICPMS: List-1 (26)	6 Months	HNO <sub>3</sub> to pH <2			
B2M131	J	Y	W		1x500-mL G/P	6010_METALS_ICP: List-3 (18)	6 Months	HNO <sub>3</sub> to pH <2			
B2M216	Q	N	W		1x1-L aG*	9020_TOX_TOX (1)	28 Days	H <sub>2</sub> SO <sub>4</sub> to pH <2/Cool~4C			
B2M216	J	N	W		1x250-mL aG	9060_TOC_TOC (1)	28 Days	HCl or H <sub>2</sub> SO <sub>4</sub> to pH >2/Cool~4C			
B2M129	i3	N	W		1x500-mL G/P	>200.8_METALS_ICPMS: List-1 (26)	6 Months	HNO <sub>3</sub> to pH <2			
B2M129		N	W		1x250-mL G/P	>2320ALKALINITY: Alkalinity (1)	14 Days	Cool~4C			
B2M129		N	W		1x500-mL G/P	>410.4_COD: COD (1)	28 Days	H <sub>2</sub> SO <sub>4</sub> to pH <2/Cool~4C			
B2M129		N	W		1x250-mL P	>4500E_0N: Cyanide (1)	14 Days	NaOH to pH >=12			
B2M129		N	W		1x500-mL G/P	6010_METALS_ICP: List-3 (18)	6 Months	HNO <sub>3</sub> to pH <2			
B2M129		N	W		4x1-L aG	>8082_PCB_GC: List-1 (7)	None	Cool~4C			
Reinquished By	Print	Sign	Date/Time	Print	Sign	Date/Time	Matrix *				
F.M. Hall		OCT 03 2012	C. Waters		✓	OCT 03 2012	S = Soil				
Reinquished By		Date/Time	Received By			Date/Time	DS = Drum Solids				
							SL = Sediment				
Reinquished By		Date/Time	Received By			Date/Time	DL = Drum Liquids				
							SO = Solid				
Reinquished By		Date/Time	Received By			Date/Time	T = Tissue				
							SL = Sludge				
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, jet line procedure, used in process)	Disposed By	Date/Time			Date/Time	WI = Wipe				
PRINTED ON	PRINTED ON 9/18/2012						L = Liquid				
							V = Vegetation				
							X = Other				

Date/Time: A-6004-842 (REV 2)  
 PRINTED ON 9/18/2012

## Chain of Custody

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST									
C.O.C. # W13-010-183									
Page 2 of 2									
Collector	F. M. Hall	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650				
SAF No.	W13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20				
Project Title	RCRA, OCTOBER 2012	Logbook No.	HNF-N-506 51/1	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	<b>PRIORITY</b>	SPECIAL INSTRUCTIONS	Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radionuclides Material A; concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1993)									
FY12 and FY13 samples cannot be in the same SRG. See Waste Generator Knowledge Information Form applies. The UACN for all analytical work at WSCF is 401b-7.									
Sample No.	Filter *	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative		
B2M129	V	N	W	10-3-12 0737	1x1-L aGs* ~9020_TOX; TOX (1) 1x250-mL GIP	28 Days	H2SO4 to pH <2/Cool~4C		
B2M429	N	N	W		9030_SULFIDE_Sulfite (1)	2 Days	ZnAc2/MgOH in pH >9/Cool~4C		
B2M129	N	W	W		1x250-mL aG ~9060_TOC; TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool~4C		
B2M129	N	W	W		3x1-L aG NPH-Diesel/kerosene Range - WTPH-D	14/40 Days	HCl to pH <2/Cool~4C		
B2M129	N	W	W		4x40 mL aGs* NPH-Gasoline Range - WTPH-G	14 Days	HCl to pH <2/Cool~4C		
B2M129	N	W	W		3x40-mL aGs* 8260_VOA_GCMS_IX: COMMON: 8260_VOA_GCMS_IX: COMMON (Add-on)	14 Days	HCl or H2SO4 to pH <2/Cool~4C		
B2M729	V	N	W		4x1-L aG 8270_SVCA_GCMS_IX: COMMON	7/40 Days	Cool~4C		
B2M8H3	9	N	W		1x500-mL G 200.8_HG - ICPMS	28 Days	HNO3 to pH <2		
B2M8H4	10	Y	W		1x500-mL G 200.8_HG - ICPMS	28 Days	HNO3 to pH <2		

Relinquished By	Print	Sign	Date/Time	Received By	Date/Time	Sign	Date/Time	Matrix *	
F. M. Hall			OCT 03 2012				OCT 03 2012	S = Soil SE = Sediment SL = Sludge W = Water O = Oil A = Air	
Relinquished By			Date/Time	Received By	Date/Time	Sign	Date Time	Drum Solids Drum Liquids Tissue Wipes Liquid Vegetation Other	
Relinquished By			Date/Time	Received By	Date/Time	Sign	Date Time		
Relinquished By			Date/Time	Received By	Date/Time	Sign	Date Time		
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)					Disposed By		Date/Time	A-6004-842 (REV 2)
PRINTED ON 9/18/2012									

REVISED121223 -

## Chain of Custody

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST										C.O.C. #	W13-010-197
										Page 1 of 2	
Collector	D.J. Woehne CHPRC	Contact/Requester	Karen Waters-Husted		Telephone No.	376-4650					
SAF No.	W13-010	Sampling Origin	Hanford Site		Purchase Order/Charge Code	300071ES20					
Project Title	RCRA, OCTOBER 2012	Logbook No.	HNF-N-506 4B / 6Q		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	<b>PRIORITY</b>	SPECIAL INSTRUCTIONS	Offsite Property No.	Hold Time	Total Activity Exemption:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
POSSIBLE SAMPLE HAZARDS/REMARKS										FY12 and FY13 samples cannot be in the same SDFG. Site Waste 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			
B2M171	14	N	W 10/3/12	0931	1x500-mL G/F	200.8 METALS ICPMS: List-1 (26)	6 Months	HNO3 to pH <2			
B2M171	N	W			1x250-mL G/F	2320_ALKALINITY: Alkalinity (1)	14 Days	Cool ~4C			
B2M171	N	W			1x500-mL G/F	410-4_COD: COD (1)	28 Days	H2SO4 to pH <2/Cool ~4C			
B2M171	N	W			1x250-mL P	4500E_CN: Cyanide (1)	14 Days	NaOH to pH >=12			
B2M171	N	W			1x500 mL G/F	6010_METALS_ICP: List-3 (18)	6 Months	HNO3 to pH <2			
B2M171	N	W			4x1-L_aG	8082_PCB_GC: List-1 (7)	None	Cool ~4C			
B2M171	N	W			1x1-L_aGs*	9020_TOX_TOX (1)	28 Days	H2SO4 to pH <2/Cool ~4C			
B2M474	N	W			1x250-mL G/F	9030_SULFIDE_Sulfide (1)	7 Days	ZnAc/NaOH to pH >8/600mL 4C			
B2M171	N	W			1x250-mL aG	9060_TOC_TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool ~4C			
B2M171	N	W			3x1-L_aG	TPH-Diesel/Kerosene Range - WTPH-D	14/40 Days	HCl to pH <2/Cool ~4C			
B2M171	N	W			4x40-mL aGs*	TPH-Gasoline Range - WTPH-G	14 Days	HCl or H2SO4 to pH <2/Cool ~4C			
B2M171	N	W			3x40-mL aGs*	8260_VOA_GCMS IX: COMMON;	14 Days	HCl or H2SO4 to pH <2/Cool ~4C			
B2M171	N	W			4x1-L_aG	8260_VOA_GCMS IX: COMMON (Add-on)	7/40 Days	Cool ~4C			
B2M238	6	N	W		1x1-L_aGs*	8270_SVOA_GCMS IX: COMMON	28 Days	H2SO4 to pH <2/Cool ~4C			
Relinquished By	D.J. Woehne CHPRC	Print	Date/Time	Sign	Print	Date/Time	Sign	Date/Time	Matrix *		
Retained By		C. Johnson	OCT 03 2012	1355	Received By	OCT 03 2012	1355	OCT 03 2012	S	Soil	DS
Retained By			Date/Time		Received By	Date/Time		Date/Time	St	Sediment	Drum Solids
Retained By			Date/Time		Received By	Date/Time		Date/Time	SO	Solid	Drum Liquids
Retained By			Date/Time		Received By	Date/Time		Date/Time	SL	Sludge	Tissue
Retained By			Date/Time		Received By	Date/Time		Date/Time	W	Wipe	
Retained By			Date/Time		Received By	Date/Time		Date/Time	L	Liquid	
Retained By			Date/Time		Received By	Date/Time		Date/Time	V	Vegetation	
Retained By			Date/Time		Received By	Date/Time		Date/Time	O	Oil	
Retained By			Date/Time		Received By	Date/Time		Date/Time	A	Air	Other

FINAL SAMPLE Disposal Method (e.g. Return to customer, per lab procedure, used in process)

Disposed By

Date/Time

DISPOSITION PRINTED ON 9/18/2011

Date/Time

A-6004-842 (REV 2)

## Chain of Custody

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST												
CH2M Hill Plateau Remediation Company				C.O.C.# <b>W13-010-197</b>								
Collector	D.J. Woehrle GHRPC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650			Page 2 of 2				
SAF No.	W13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20							
Project Title	RCRA, OCTOBER 2012	Logbook No.	HNF-N-506 <u>4Q/2012</u>	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:	<b>PRIORITY</b>	Offsite Property No.	N/A							
POSSIBLE SAMPLE HAZARDS/REMARKS				SPECIAL INSTRUCTIONS	Hold Time	Total Activity Exemption Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
				FY12 and FY13 samples cannot be in the same SDGI Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401645.								
Sample No.	Filter *	Date	Date	Time	No/Type Container	Sample Analysis		Holding Time	Preservative			
B2M238	✓	N	W	10/3/12	<u>0931</u>	1x250-mL aG	9060_TOC_TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool ~4C			
B2M236	4	N	W			1x1-L aGs*	9020_TOX_TOX (1)	28 Days	H2SO4 to pH <2/Cool ~4C			
B2M236	✓	N	W			1x250-mL aG	9060_TOC_TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool ~4C			
B2M237	5	N	W			1x1-L aGs*	9020_TOX_TOX (1)	28 Days	H2SO4 to pH <2/Cool ~4C			
B2M237	✓	N	W			1x250-mL aG	9060_TOC_TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool ~4C			
B2M8K4	11	N	W			1x500-mL G	200.8_HG_ICPMS	28 Days	HNO3 to pH <2			
B2M8K5	12	Y	W			1x500-mL G	200.8_HG_ICPMS	28 Days	HNO3 to pH <2			
B2M173	8	Y	W			1x500-mL G/P	200.8_METALS_ICPMS_Lis1-1 (26)	6 Months	HNO3 to pH <2			
B2M173	✓	Y	W			1x500-mL G/P	6070_METALS_ICP_Lis1-3 (18)	6 Months	HNO3 to pH <2			

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

Reinstituted By			Print	Date/Time	Received By	Date/Time	Sign	Date/Time	Sign	Matrix *	
<b>D.J. Woehrle</b> GHRPC			<u>D.J. Woehrle</u>	Oct 03 2012 0931	C. Bhuvan	OCT 03 2012	<u>U35</u>	Oct 03 2012	<u>U35</u>	S = Soil	DS = Drum Solids
Relinquished By				Date/Time	Received By	Date/Time				SE = Sediment	DI = Drum Liquids
										SO = Solid	T = Tissue
Relinquished By				Date/Time	Received By	Date/Time				SL = Sludge	WT = Wine
										W = Water	L = Liquid
Relinquished By				Date/Time	Received By	Date/Time				O = Oil	V = Vegetation
										A = Air	X = Other

**FINAL SAMPLE DISPOSITION** Disposal Method (e.g. Return to customer, per lab procedure, used in process) **PRINTED ON** 9/18/2012 Date/Time A-6004-842 (REV 2)