

DECEMBER 18, 2012

REVISION 2

**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,

REVISED121274 - 699085 [Report ID: 121274]

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 WSCF121274

- \* 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

REVISED121274 -

**ATTACHMENT 1**

**COVER SHEET**

Consisting of 2 pages  
Including cover page

**REVISED121274 -**

**WSCF SAF Number Cross Reference**

Group # WSCF121274  
 Data Deliverable Date 11/12/12

<b>SAF #</b>	<b>Sample ID</b>	<b>Sample #</b>	<b>Matrix</b>	<b>Sampled</b>	<b>Received</b>
W13-010	B2M154	121274001	WATER	10/10/12	10/10/12
W13-010	B2M160	121274002	WATER	10/10/12	10/10/12
W13-010	B2M159	121274003	WATER	10/10/12	10/10/12
W13-010	B2M153	121274004	WATER	10/10/12	10/10/12
W13-010	B2M161	121274005	WATER	10/10/12	10/10/12
W13-010	B2M155	121274006	WATER	10/10/12	10/10/12
W13-010	B2M230	121274007	WATER	10/10/12	10/10/12
W13-010	B2M231	121274008	WATER	10/10/12	10/10/12
W13-010	B2M232	121274009	WATER	10/10/12	10/10/12
W13-010	B2M227	121274010	WATER	10/10/12	10/10/12
W13-010	B2M228	121274011	WATER	10/10/12	10/10/12
W13-010	B2M229	121274012	WATER	10/10/12	10/10/12
W13-010	B2M8J8	121274013	WATER	10/10/12	10/10/12
W13-010	B2M8J9	121274014	WATER	10/10/12	10/10/12
W13-010	B2M8J6	121274015	WATER	10/10/12	10/10/12
W13-010	B2M8J5	121274016	WATER	10/10/12	10/10/12

REVISED121274 -

**ATTACHMENT 2**

**NARRATIVE**

Consisting of 9 pages  
Including cover page

**REVISED121274 -**

Attachment 2  
**Narrative Rev2**  
WSCF121274

**Revision 2: This case narrative replaces the prior in its entirety. 1,4-Dioxane was added per SDR13-064 to samples B2M153 and B2M159.**

**Revision 1: This case narrative replaces the prior in its entirety. P&D correction is adding Kerosene to samples B2M153 and B2M159.**

### **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.

REVISED121274 -

Attachment 2  
**Narrative Rev2**  
WSCF121274

- 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

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

- All applicable QC controls are within the established limits.

**Chemical Oxygen Demand** – Hold time requirement for this analysis was met. A 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):

- Calcium – Exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.
- All other applicable QC controls are within the established limits.

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

- Batch QC 208900
- Sample Issue Resolution Form SDR13-018 regarding Mercury LCS failure is attached to this report.
- Vanadium, Nickel, Copper and Zinc were detected in the Blank and evaluated.

REVISED121274 -

Attachment 2  
**Narrative Rev2**  
WSCF121274

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

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

- All applicable QC controls are within the established limits.

**Total 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):

- The MS, MSD and samples B2M159 (121274003) and B2M153 (121274004) 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):

- Due to the co-elution of analytes for TPHD-WA (DRO) and kerosene analysis, samples are spiked and evaluated for TPHD only.
- All applicable QC controls are within the established limits.

Attachment 2  
**Narrative Rev2**  
WSCF121274

**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.

**REVISED121274 -**

Attachment 2  
Narrative Rev2  
WSCF121274

## SAMPLE ISSUE RESOLUTION

SIR NUM SDR13-018  
REV NUM 0  
DATE INITIATED 10/22/2012

### SAMPLE EVENT INFORMATION

SAF NUM(S) I13-001, W13-010  
OPERABLE UNIT(S) 100-KR-4  
PROJECT(S) CERC13, RCRA13  
SAMPLE EVENT TITLE(S) CERC13, RCRA13  
LABORATORY Waste Sampling & Characterization

### SAMPLING INFORMATION

NUMBER OF SAMPLES 5  
SAMPLE NUMBERS B2M2W1, B2M2W4, B2M8J2, B2M8J3, B2M8J8  
SAMPLE MATRIX WATER  
COLLECTION DATE 10/4/2012 - 10/10/2012  
SDG NUM WSCF121242, WSCF121270, WSCF121274

### ISSUE BACKGROUND

CLASS Laboratory Issue  
TYPE Quality Control Failure  
DESCRIPTION The 200.8 Mercury LCS was slightly low at 84.4% with control limits of 85-115%. The MS (94.8%) and MSD (94.4%) were with the control limits of 70-130%. The blank was non-detect.

### DISPOSITION

DESCRIPTION Proposed Disposition: Report the data as-is and note the LCS failure in the case narrative.  
JUSTIFICATION Accepted Disposition: Accept proposed resolution.

Submitted by: Marisol Avila/WSCF Date: 10/22/12  
Accepted by: Karen Waters-Husted/CHPRC Date: 10/22/12  
Scot Fitzgerald/CHPRC Date: 10/22/12

Attachment 2  
**Narrative Rev2**  
WSCF121274

## 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

Attachment 2  
**Narrative Rev2**  
WSCF121274

**Problem and Discrepancy Report**

**WSCF**

**SDG WSCF121274**

11/06/2012

---

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

- a) TPHKEROSENE for sample number B2M153 and B2M159 was not reported in the electronic or hardcopy data packages.

**Resolution:** *Provide appropriate correction*

**Lab Response:** **results have been added**

---

**REVISED121274 -**

Attachment 2  
**Narrative Rev2**  
WSCF121274

**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 122 pages  
Including cover page

REVISED121274 -

**WSCF ANALYTICAL RESULTS REPORT**

For

CH2M Hill Plateau Remediation

PO Box 1600  
Richland, WA 99352

Attention: Scot Fitzgerald

**Contract #** MOA-FH-CHPRC-2008  
**Group #** WSCF121274  
**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.*

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7005. Information designation of this report is the responsibility of the customer.

REVISED121274 -

## Batch QC List

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121274

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208451	208510	5	BLANK	82667	BLANK		ICP-6010 - All possible metals
208451	208510	7	LCS	82669	LCS		ICP-6010 - All possible metals
208451	208510	8	SAMPLE	121274003	B2M159		ICP-6010 - All possible metals
208451	208510	9	MS	82670	B2M159(121274003MS)	121274003	ICP-6010 - All possible metals
208451	208510	10	MSD	82671	B2M159(121274003MSD)	121274003	ICP-6010 - All possible metals
208451	208510	11	SAMPLE	121274004	B2M153		ICP-6010 - All possible metals
208451	208510	12	SAMPLE	121274005	B2M161		ICP-6010 - All possible metals
208451	208510	13	SAMPLE	121274006	B2M155		ICP-6010 - All possible metals
208471	208471	2	BLANK	82715	BLANK		Anions by Ion Chromatography (Water)
208471	208471	3	LCS	82716	LCS		Anions by Ion Chromatography (Water)
208471	208471	4	DUP	82717	B2M6C0(121277001DUP)	121277001	Anions by Ion Chromatography (Water)
208471	208471	5	MS	82718	B2M6C0(121277001MS)	121277001	Anions by Ion Chromatography (Water)
208471	208471	6	MSD	82719	B2M6C0(121277001MSD)	121277001	Anions by Ion Chromatography (Water)
208471	208471	8	SAMPLE	121274001	B2M154		Anions by Ion Chromatography (Water)
208471	208471	9	SAMPLE	121274002	B2M160		Anions by Ion Chromatography (Water)
208471	208471	10	SAMPLE	121274002	B2M160		Anions by Ion Chromatography (Water)
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	20	SAMPLE	121274003	B2M159		Chemical Oxygen Demand
208507	208508	21	SAMPLE	121274004	B2M153		Chemical Oxygen Demand
208900	208911	4	BLANK	83185	BLANK		ICP-2008 MS All possible metal

REVISED121274 -

## Batch QC List

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121274

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208900	208911	5	LCS	83186	LCS		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
208900	208911	22	SAMPLE	121274003	B2M159		ICP-2008 MS All possible metal
208900	208911	23	SAMPLE	121274004	B2M153		ICP-2008 MS All possible metal
208900	208911	24	SAMPLE	121274005	B2M161		ICP-2008 MS All possible metal
208900	208911	25	SAMPLE	121274006	B2M155		ICP-2008 MS All possible metal
208900	208911	26	SAMPLE	121274013	B2M8J8		ICP-2008 MS All possible metal
208901	208912	4	BLANK	83189	BLANK		ICP-2008 MS All possible metal
208901	208912	5	LCS	83190	LCS		ICP-2008 MS All possible metal
208901	208912	6	SAMPLE	121274014	B2M8J9		ICP-2008 MS All possible metal
208901	208912	7	MS	83191	B2M8J9(121274014MS)	121274014	ICP-2008 MS All possible metal
208901	208912	8	MSD	83192	B2M8J9(121274014MSD)	121274014	ICP-2008 MS All possible metal
208901	208912	9	SAMPLE	121274015	B2M8J6		ICP-2008 MS All possible metal
208901	208912	10	SAMPLE	121274016	B2M8J5		ICP-2008 MS All possible metal
209182	209183	1	BLANK	83781	BLANK		Total Organic Halides
209182	209183	2	LCS	83782	LCS		Total Organic Halides
209182	209183	10	MS	83786	B2M159(121274003MS)	121274003	Total Organic Halides
209182	209183	11	MSD	83787	B2M159(121274003MSD)	121274003	Total Organic Halides
209182	209183	12	SAMPLE	121274003	B2M159		Total Organic Halides
209182	209183	13	SAMPLE	121274004	B2M153		Total Organic Halides
209182	209183	14	SAMPLE	121274007	B2M230		Total Organic Halides
209182	209183	15	SAMPLE	121274008	B2M231		Total Organic Halides

REVISED121274 -

DECEMBER 18, 2012

REVISION 2

Batch QC List

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121274

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
209182	209183	16	SAMPLE	121274009	B2M232		Total Organic Halides
209182	209183	17	SAMPLE	121274010	B2M227		Total Organic Halides
209182	209183	18	SAMPLE	121274011	B2M228		Total Organic Halides
209182	209183	19	SAMPLE	121274012	B2M229		Total Organic Halides

REVISED121274 -

## Batch QC List

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group # WSCF121274

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208467	208487	1	BLANK	82704	BLANK		Extractable Diesel and Petroleum
208467	208487	2	LCS	82705	LCS		Extractable Diesel and Petroleum
208467	208487	3	MS	82706	B2M2T9(121270001MS) 121270001		Extractable Diesel and Petroleum
208467	208487	4	MSD	82707	B2M2T9(121270001MSD) 121270001		Extractable Diesel and Petroleum
208467	208487	7	SAMPLE	121274004	B2M153		Extractable Diesel and Petroleum
208467	208487	9	SAMPLE	121274003	B2M159		Extractable Diesel and Petroleum
208855	208917	1	BLANK	83040	BLANK		SW-846 8270D Semivolatiles
208855	208917	2	LCS	83041	LCS		SW-846 8270D Semivolatiles
208855	208917	3	MS	83042	B2M159(121274003MS) 121274003		SW-846 8270D Semivolatiles
208855	208917	4	MSD	83043	B2M159(121274003MSD) 121274003		SW-846 8270D Semivolatiles
208855	208917	9	SAMPLE	121274004	B2M153		SW-846 8270D Semivolatiles
208855	208917	11	SAMPLE	121274003	B2M159		SW-846 8270D Semivolatiles
209018	209113	1	BLANK	83416	BLANK		PCBs by EPA SW-846 Method 8082
209018	209113	2	LCS	83417	LCS		PCBs by EPA SW-846 Method 8082
209018	209113	3	MS	83418	B2M159(121274003MS) 121274003		PCBs by EPA SW-846 Method 8082
209018	209113	4	MSD	83419	B2M159(121274003MSD) 121274003		PCBs by EPA SW-846 Method 8082
209018	209113	10	SAMPLE	121274003	B2M159		PCBs by EPA SW-846 Method 8082
209018	209113	11	SAMPLE	121274004	B2M153		PCBs by EPA SW-846 Method 8082

REVISED121274 -

DECEMBER 18, 2012

REVISION 2

Batch QC List

Attention Scot Fitzgerald  
Department Organic, Volatiles

Group # WSCF121274

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208758	208759	1	BLANK	82988	BLANK		Gasoline Range (W)
208758	208759	2	LCS	82989	LCS		Gasoline Range (W)
208758	208759	3	MS	82990	B2M2T9(121270001MS) 121270001		Gasoline Range (W)
208758	208759	4	MSD	82991	B2M2T9(121270001MSD) 121270001		Gasoline Range (W)
208758	208759	5	DUP	82992	B2M2T9(121270001DUP) 121270001		Gasoline Range (W)
208758	208759	8	SAMPLE	121274003	B2M159		Gasoline Range (W)
208758	208759	9	SAMPLE	121274004	B2M153		Gasoline Range (W)
208874	208875	1	BLANK	83108	BLANK		SW-846 8260B Volatiles
208874	208875	2	LCS	83109	LCS		SW-846 8260B Volatiles
208874	208875	3	MS	83110	B2M2V5(121270002MS) 121270002		SW-846 8260B Volatiles
208874	208875	4	MSD	83111	B2M2V5(121270002MSD) 121270002		SW-846 8260B Volatiles
208874	208875	8	SAMPLE	121274004	B2M153		SW-846 8260B Volatiles
208874	208875	9	SAMPLE	121274003	B2M159		SW-846 8260B Volatiles

REVISED121274 -

## Batch QC List

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121274

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208550	208550	2	BLANK	82945	BLANK		Total Organic Carbon
208550	208550	3	LCS	82946	LCS		Total Organic Carbon
208550	208550	4	MS	82947	B2MD49(121290001MS)	121290001	Total Organic Carbon
208550	208550	5	MSD	82948	B2MD49(121290001MSD)	121290001	Total Organic Carbon
208550	208550	14	SAMPLE	121274003	B2M159		Total Organic Carbon
208550	208550	15	SAMPLE	121274004	B2M153		Total Organic Carbon
208550	208550	17	MS	82950	B2M230(121274007MS)	121274007	Total Organic Carbon
208550	208550	18	MSD	82951	B2M230(121274007MSD)	121274007	Total Organic Carbon
208550	208550	19	SAMPLE	121274007	B2M230		Total Organic Carbon
208550	208550	20	SAMPLE	121274008	B2M231		Total Organic Carbon
208550	208550	21	SAMPLE	121274009	B2M232		Total Organic Carbon
208550	208550	22	SAMPLE	121274010	B2M227		Total Organic Carbon
208550	208550	23	SAMPLE	121274011	B2M228		Total Organic Carbon
208550	208550	24	SAMPLE	121274012	B2M229		Total Organic Carbon
208754	208754	1	LCS	82975	LCS		Total Alkalinity as mg/L CaCO3 (Water)
208754	208754	9	DUP	82976	B2M0Y9(121239002DUP)	121239002	Total Alkalinity as mg/L CaCO3 (Water)
208754	208754	13	LCS	82977	LCS		Total Alkalinity as mg/L CaCO3 (Water)
208754	208754	16	SAMPLE	121274003	B2M159		Total Alkalinity as mg/L CaCO3 (Water)
208754	208754	17	SAMPLE	121274004	B2M153		Total Alkalinity as mg/L CaCO3 (Water)
208754	208754	24	LCS	82978	LCS		Total Alkalinity as mg/L CaCO3 (Water)
208883	208899	1	BLANK	83149	BLANK		Cyanide (W) by Midi/Spectrophotometer
208883	208899	4	LCS	83152	LCS		Cyanide (W) by Midi/Spectrophotometer
208883	208899	5	MS	83153	B2M147(121242007MS)	121242007	Cyanide (W) by Midi/Spectrophotometer

REVISED121274 -

DECEMBER 18, 2012

REVISION 2

Batch QC List

Attention Scot Fitzgerald  
Department Wet Chemistry

Group #

WSCF121274

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208883	208899	6	MSD	83154	B2M147(121242007MSD) 121242007	Cyanide (W) by Midi/Spectrophotometer	
208883	208899	9	SAMPLE	121274003	B2M159	Cyanide (W) by Midi/Spectrophotometer	
208883	208899	10	SAMPLE	121274004	B2M153	Cyanide (W) by Midi/Spectrophotometer	

REVISED121274 -

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

**Group #** WSCF121274

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.

<b>LA-505-411</b>	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
<b>LA-505-412</b>	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.
<b>LA-523-444</b>	Total Organic Halides Based on SW-846 Method 9020B		
	EPA SW-846	9020B	Total Organic Halides (TOX)
	HEIS	9020_TOX	Total Organic Halides (TOX)
<b>LA-523-470</b>	Chemical Oxygen Demand		
	EPA-600/4-79-020	410.4	Chemical Oxygen Demand
	HEIS	410.4_COD	Chemical Oxygen Demand
<b>LA-533-410</b>	Anion Analysis by Ion Chromatography		
	EPA-600/R-94-111	300.0	Determination of Inorganic Anions by Ion Chromatography
	HEIS	300.0_ANIONS_IC	Determination of Inorganic Anions by Ion Chromatography

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>

REVISED121274 -

Attention Scot Fitzgerald  
Department Organic, Semivolatiles

Group # WSCF121274

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>

REVISED121274 -

Attention Scot Fitzgerald  
Department Organic, Volatiles

Group # WSCF121274

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>

REVISED121274 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121274

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

LA-531-411	Alkalinity		
	SM	2320	Alkalinity
	HEIS	2320_ALKALINITY	Alkalinity
LA-344-406	Total Organic Carbon (TOC) Based on SW-846		
	EPA SW-846	9060	Total Organic Carbon
	HEIS	9060_TOC	Total Organic Carbon
LA-695-402	Determination of Cyanide by Mididistillation and		
	EPA	SW-846 Method 9014/9010	Determination of Cyanide by Midi-Distillation and Spectrophotometric Analysis
	SM	4500 CNE	Cyanide, Total
	HEIS	4500E_CN	Cyanide, Total

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

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274001  
**SAF#** W13-010  
**Sample ID** B2M154

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
10/10/12										
<b>Anions by Ion Chromatography (Water)</b>										
Fluoride	16984-48-8	LA-533-410	D	0.235		ug/mL	2	0.046	0.14	10/10/12
Chloride	16887-00-6	LA-533-410	D	16.4		ug/mL	2	0.12	0.81	10/10/12
Nitrite-N	NO2-N	LA-533-410	BD	0.0475		ug/mL	2	0.038	0.20	10/10/12
Nitrate-N	NO3-N	LA-533-410	D	26.8		ug/mL	2	0.038	0.20	10/10/12
Sulfate	14808-79-8	LA-533-410	D	93.8		ug/mL	2	0.22	2.1	10/10/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

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

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

D - Analyte was reported at a secondary dilution factor.

E - Analyte is an estimate, see comment section.

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274002  
**SAF#** W13-010  
**Sample ID** B2M160

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
10/10/12										
<b>Anions by Ion Chromatography (Water)</b>										
Fluoride	16984-48-8	LA-533-410	D	0.185		ug/mL	2	0.046	0.14	10/10/12
Chloride	16887-00-6	LA-533-410	D	20.6		ug/mL	2	0.12	0.81	10/10/12
Nitrite-N	NO2-N	LA-533-410	BD	0.0492		ug/mL	2	0.038	0.20	10/10/12
Nitrate-N	NO3-N	LA-533-410	D	42.7		ug/mL	10	0.19	0.99	10/10/12
Sulfate	14808-79-8	LA-533-410	D	111		ug/mL	2	0.22	2.1	10/10/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

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

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

D - Analyte was reported at a secondary dilution factor.

E - Analyte is an estimate, see comment section.

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>ICPAES Prep (W)</b>										10/15/12
<b>ICP-6010 - All possible metals</b>										
Iron	7439-89-6	LA-505-411	B	67.6		ug/L	1	19	95	10/17/12
Magnesium	7439-95-4	LA-505-411		26900		ug/L	1	4.0	20	10/17/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Potassium	7440-09-7	LA-505-411		9680		ug/L	1	76	380	10/17/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Sodium	7440-23-5	LA-505-411		36100		ug/L	1	10	50	10/17/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	10/17/12
Barium	7440-39-3	LA-505-411		65.6		ug/L	1	4.0	20	10/17/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Chromium	7440-47-3	LA-505-411	B	9.50		ug/L	1	5.0	25	10/17/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Vanadium	7440-62-2	LA-505-411	B	11.8		ug/L	1	5.0	25	10/17/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/17/12
Calcium	7440-70-2	LA-505-411		88000		ug/L	1	49	240	10/17/12
Strontium	7440-24-6	LA-505-411		425		ug/L	1	9.0	45	10/17/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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	10/17/12
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
<b>ICPMS Prep (W)</b>										
<b>ICP-2008 MS All possible metal</b>										
Aluminum	7429-90-5	LA-505-412	BD	11.2		ug/L	2	10	100	10/19/12
Manganese	7439-96-5	LA-505-412	BD	0.838		ug/L	2	0.20	2.0	10/19/12
Nickel	7440-02-0	LA-505-412	DC	3.10		ug/L	2	0.20	2.0	10/19/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	10/19/12
Barium	7440-39-3	LA-505-412	D	65.7		ug/L	2	0.40	4.0	10/19/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/19/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Chromium	7440-47-3	LA-505-412	D	8.96		ug/L	2	0.20	2.0	10/19/12
Cobalt	7440-48-4	LA-505-412	BD	0.212		ug/L	2	0.10	0.50	10/19/12
Copper	7440-50-8	LA-505-412	BDC	0.564		ug/L	2	0.20	2.0	10/19/12
Vanadium	7440-62-2	LA-505-412	DC	15.7		ug/L	2	0.40	4.0	10/19/12
Zinc	7440-66-6	LA-505-412	BDC	2.10		ug/L	2	2.0	20	10/19/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Molybdenum	7439-98-7	LA-505-412	D	4.14		ug/L	2	0.10	1.0	10/19/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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	456		ug/L	2	0.20	2.0	10/19/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Arsenic	7440-38-2	LA-505-412	D	4.81		ug/L	2	0.40	4.0	10/19/12
Selenium	7782-49-2	LA-505-412	BD	6.44		ug/L	2	2.0	20	10/19/12
<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>10/16/12</b>
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/16/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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>										10/15/12
<b>ICP-6010 - All possible metals</b>										
Iron	7439-89-6	LA-505-411	B	47.9		ug/L	1	19	95	10/17/12
Magnesium	7439-95-4	LA-505-411		20500		ug/L	1	4.0	20	10/17/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Potassium	7440-09-7	LA-505-411		8290		ug/L	1	76	380	10/17/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Sodium	7440-23-5	LA-505-411		29500		ug/L	1	10	50	10/17/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	10/17/12
Barium	7440-39-3	LA-505-411		62.4		ug/L	1	4.0	20	10/17/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Chromium	7440-47-3	LA-505-411	B	6.00		ug/L	1	5.0	25	10/17/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Vanadium	7440-62-2	LA-505-411	B	13.8		ug/L	1	5.0	25	10/17/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/17/12
Calcium	7440-70-2	LA-505-411		66100		ug/L	1	49	240	10/17/12
Strontium	7440-24-6	LA-505-411		319		ug/L	1	9.0	45	10/17/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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	10/17/12
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
<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	10/19/12
Manganese	7439-96-5	LA-505-412	BD	0.618		ug/L	2	0.20	2.0	10/19/12
Nickel	7440-02-0	LA-505-412	DC	2.68		ug/L	2	0.20	2.0	10/19/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	10/19/12
Barium	7440-39-3	LA-505-412	D	65.8		ug/L	2	0.40	4.0	10/19/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/19/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Chromium	7440-47-3	LA-505-412	D	6.05		ug/L	2	0.20	2.0	10/19/12
Cobalt	7440-48-4	LA-505-412	BD	0.136		ug/L	2	0.10	0.50	10/19/12
Copper	7440-50-8	LA-505-412	BDC	0.320		ug/L	2	0.20	2.0	10/19/12
Vanadium	7440-62-2	LA-505-412	DC	16.9		ug/L	2	0.40	4.0	10/19/12
Zinc	7440-66-6	LA-505-412	UD	<2.0		ug/L	2	2.0	20	10/19/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Molybdenum	7439-98-7	LA-505-412	D	5.47		ug/L	2	0.10	1.0	10/19/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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	363		ug/L	2	0.20	2.0	10/19/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Arsenic	7440-38-2	LA-505-412	D	4.97		ug/L	2	0.40	4.0	10/19/12
Selenium	7782-49-2	LA-505-412	BD	5.87		ug/L	2	2.0	20	10/19/12
<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>10/16/12</b>
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/16/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274005	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M161	<b>Received</b>	10/10/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>ICPAES Prep (W)</b>										10/15/12
<b>ICP-6010 - All possible metals</b>										
Iron	7439-89-6	LA-505-411	B	54.5		ug/L	1	19	95	10/17/12
Magnesium	7439-95-4	LA-505-411		26900		ug/L	1	4.0	20	10/17/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Potassium	7440-09-7	LA-505-411		9710		ug/L	1	76	380	10/17/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Sodium	7440-23-5	LA-505-411		36200		ug/L	1	10	50	10/17/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	10/17/12
Barium	7440-39-3	LA-505-411		65.5		ug/L	1	4.0	20	10/17/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Chromium	7440-47-3	LA-505-411	B	6.10		ug/L	1	5.0	25	10/17/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Vanadium	7440-62-2	LA-505-411	B	13.1		ug/L	1	5.0	25	10/17/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/17/12
Calcium	7440-70-2	LA-505-411		88000		ug/L	1	49	240	10/17/12
Strontium	7440-24-6	LA-505-411		423		ug/L	1	9.0	45	10/17/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274005	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M161	<b>Received</b>	10/10/12

<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	10/17/12
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
<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	10/19/12
Manganese	7439-96-5	LA-505-412	BD	0.620		ug/L	2	0.20	2.0	10/19/12
Nickel	7440-02-0	LA-505-412	DC	2.07		ug/L	2	0.20	2.0	10/19/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	10/19/12
Barium	7440-39-3	LA-505-412	D	67.1		ug/L	2	0.40	4.0	10/19/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/19/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Chromium	7440-47-3	LA-505-412	D	6.16		ug/L	2	0.20	2.0	10/19/12
Cobalt	7440-48-4	LA-505-412	BD	0.206		ug/L	2	0.10	0.50	10/19/12
Copper	7440-50-8	LA-505-412	BDC	0.262		ug/L	2	0.20	2.0	10/19/12
Vanadium	7440-62-2	LA-505-412	DC	14.7		ug/L	2	0.40	4.0	10/19/12
Zinc	7440-66-6	LA-505-412	UD	<2.0		ug/L	2	2.0	20	10/19/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Molybdenum	7439-98-7	LA-505-412	D	4.24		ug/L	2	0.10	1.0	10/19/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274005	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M161	<b>Received</b>	10/10/12

<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	465		ug/L	2	0.20	2.0	10/19/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Arsenic	7440-38-2	LA-505-412	D	4.53		ug/L	2	0.40	4.0	10/19/12
Selenium	7782-49-2	LA-505-412	BD	6.38		ug/L	2	2.0	20	10/19/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274006	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M155	<b>Received</b>	10/10/12

<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>										10/15/12
<b>ICP-6010 - All possible metals</b>										
Iron	7439-89-6	LA-505-411	B	32.1		ug/L	1	19	95	10/17/12
Magnesium	7439-95-4	LA-505-411		20900		ug/L	1	4.0	20	10/17/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Potassium	7440-09-7	LA-505-411		8410		ug/L	1	76	380	10/17/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Sodium	7440-23-5	LA-505-411		29800		ug/L	1	10	50	10/17/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	10/17/12
Barium	7440-39-3	LA-505-411		63.6		ug/L	1	4.0	20	10/17/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Chromium	7440-47-3	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/17/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
Vanadium	7440-62-2	LA-505-411	B	16.5		ug/L	1	5.0	25	10/17/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/17/12
Calcium	7440-70-2	LA-505-411		68200		ug/L	1	49	240	10/17/12
Strontium	7440-24-6	LA-505-411		329		ug/L	1	9.0	45	10/17/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274006	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M155	<b>Received</b>	10/10/12

<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	10/17/12
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/17/12
<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	10/19/12
Manganese	7439-96-5	LA-505-412	BD	0.480		ug/L	2	0.20	2.0	10/19/12
Nickel	7440-02-0	LA-505-412	DC	2.18		ug/L	2	0.20	2.0	10/19/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	10/19/12
Barium	7440-39-3	LA-505-412	D	70.3		ug/L	2	0.40	4.0	10/19/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/19/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Chromium	7440-47-3	LA-505-412	D	3.96		ug/L	2	0.20	2.0	10/19/12
Cobalt	7440-48-4	LA-505-412	BD	0.172		ug/L	2	0.10	0.50	10/19/12
Copper	7440-50-8	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/19/12
Vanadium	7440-62-2	LA-505-412	D	18.2		ug/L	2	0.40	4.0	10/19/12
Zinc	7440-66-6	LA-505-412	UD	<2.0		ug/L	2	2.0	20	10/19/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Molybdenum	7439-98-7	LA-505-412	D	5.78		ug/L	2	0.10	1.0	10/19/12

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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274006  
**SAF#** W13-010  
**Sample ID** B2M155

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium	7440-24-6	LA-505-412	D	389		ug/L	2	0.20	2.0	10/19/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/19/12
Arsenic	7440-38-2	LA-505-412	D	5.22		ug/L	2	0.40	4.0	10/19/12
Selenium	7782-49-2	LA-505-412	BD	6.47		ug/L	2	2.0	20	10/19/12

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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274007  
**SAF#** W13-010  
**Sample ID** B2M230

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/16/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	B	7.55		ug/L	1	5.0	15	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 < 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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274008  
**SAF#** W13-010  
**Sample ID** B2M231

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/16/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/16/12

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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274009  
**SAF#** W13-010  
**Sample ID** B2M232

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/16/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/16/12

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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274010  
**SAF#** W13-010  
**Sample ID** B2M227

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/16/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	B	6.95		ug/L	1	5.0	15	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 < 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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274011  
**SAF#** W13-010  
**Sample ID** B2M228

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for TOX (W)</b>										10/16/12
<b>Total Organic Halides</b>										
Total Organic Halides	59473-04-0	LA-523-444	B	5.18		ug/L	1	5.0	15	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 < 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.

REVISED121274 -

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121274

Sample # 121274012  
SAF# W13-010  
Sample ID B2M229

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										10/16/12
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	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 &lt; the PQL(or EQL)but &gt;= 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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274013  
**SAF#** W13-010  
**Sample ID** B2M8J8

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

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	UDo	<0.10		ug/L	2	0.10	0.40	10/19/12

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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274014  
**SAF#** W13-010  
**Sample ID** B2M8J9

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

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	U	<0.050		ug/L	1	0.050	0.20	10/23/12

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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274015  
**SAF#** W13-010  
**Sample ID** B2M8J6

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

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	UD	<0.10		ug/L	2	0.10	0.40	10/23/12

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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274016  
**SAF#** W13-010  
**Sample ID** B2M8J5

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

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	UD	<0.10		ug/L	2	0.10	0.40	10/23/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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>Preparation for 8082 (W) SPE</b>										10/17/12
<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	10/24/12
Aroclor-1221	11104-28-2	LA-523-427	U	<0.2		ug/L	1	0.2	0.4	10/24/12
Aroclor-1232	11141-16-5	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1242	53469-21-9	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1248	12672-29-6	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1254	11097-69-1	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1260	11096-82-5	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
<b>Preparation for 8270 (W) CLE</b>										10/15/12
<b>SW-846 8270D Semivolatiles</b>										
4-Nitrophenol	100-02-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Phenol	108-95-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pyrene	129-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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	10/18/12
Acenaphthene	83-32-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<1		ug/L	1	1	2	10/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Bis-(2-Chloroethyl)ether	111-44-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Anthracene	120-12-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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	10/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzo(g,h,i)perylene	191-24-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Fluoranthene	206-44-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Acenaphthylene	208-96-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Chrysene	218-01-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzo(a)pyrene	50-32-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Dibenzo(a,h)anthracene	53-70-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzo(a)anthracene	56-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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	10/18/12
Isophorone	78-59-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Phenanthrene	85-01-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Fluorene	86-73-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Carbazole	86-74-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Naphthalene	91-20-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Methylnaphthalene	91-57-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Methylphenol	95-48-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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	10/18/12
3 & 4 Methylphenol, Total	65794-96-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzyl alcohol	100-51-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Tributyl phosphate	126-73-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Naphthylamine	91-59-8	LA-523-456	U	<1		ug/L	1	1	2	10/18/12
Pyridine	110-86-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosopiperidine	100-75-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosomethylethylamine	10595-95-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
p-Phenylenediamine	106-50-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Picoline	109-06-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
3,3-Dimethylbenzidine	119-93-7	LA-523-456	U	<4		ug/L	1	4	6	10/18/12
Isosafrole	120-58-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Phentermine	122-09-8	LA-523-456	U	<5		ug/L	1	5	9	10/18/12
1,4-Dioxane	123-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,4-Naphthoquinone	130-15-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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	10/18/12
Aramite	140-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Kepone	143-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Hexachloropropene	1888-71-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Diallate	2303-16-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pronamide	23950-58-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Isodrin	465-73-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Chlorobenzilate	510-15-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Acetylaminofluorene	53-96-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosodiethylamine	55-18-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
3-Methylcholanthrene	56-49-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4-Nitroquinoline-1-oxide	56-57-5	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/18/12
7,12-Dimethylbenz(a)anthracene	57-97-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,3,4,6-Tetrachlorophenol	58-90-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosomorpholine	59-89-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pentachlorobenzene	608-93-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Phenacetin	62-44-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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	10/18/12
Aniline	62-53-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosodimethylamine	62-75-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Methyl methanesulfonate	66-27-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pentachloroethane	76-01-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pentachloronitrobenzene	82-68-8	LA-523-456	U	<1		ug/L	1	1	2	10/18/12
2,6-Dichlorophenol	87-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Dinoseb(..dinitromethyl phenol)	88-85-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4-Aminobiphenyl	92-67-1	LA-523-456	U	<1		ug/L	1	1	2	10/18/12
n-Nitrosodibutylamine	924-16-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosopyrrolidine	930-55-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Safrole	94-59-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
o-Toluidine	95-53-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,2,4,5-Tetrachlorobenzene	95-94-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Acetophenone	98-86-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,3,5-Trinitrobenzene	99-35-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

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	10/18/12
1,3-Dinitrobenzene	99-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
O,O,O-O-Triethylthiophosphate	126-68-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Parathion	56-38-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Dimethylaminoazobenzene	60-11-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Dimethoate	60-51-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Thionazin	297-97-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Methyl parathion	298-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Phorate	298-02-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Disulfoton	298-04-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Sulfotep	3689-24-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Famfur	52-85-7	LA-523-456	U	<5		ug/L	1	5	9	10/18/12
N-Nitrosodiphenylamin/Di phenyl Methaprylene	DPA+NNDPA	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Total Petroleum Hydrocarbons (Water Prep)										10/11/12
Extractable Diesel and Petroleum										
Diesel	TPHDIESEL	LA-523-493	U	<70		ug/L	1	70	100	10/11/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274003  
**SAF#** W13-010  
**Sample ID** B2M159

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

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	10/11/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for 8082 (W) SPE</b>										10/17/12
<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	10/24/12
Aroclor-1221	11104-28-2	LA-523-427	U	<0.2		ug/L	1	0.2	0.4	10/24/12
Aroclor-1232	11141-16-5	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1242	53469-21-9	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1248	12672-29-6	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1254	11097-69-1	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1260	11096-82-5	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
<b>Preparation for 8270 (W) CLE</b>										10/15/12
<b>SW-846 8270D Semivolatiles</b>										
4-Nitrophenol	100-02-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Phenol	108-95-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pyrene	129-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

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	10/18/12
Acenaphthene	83-32-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<1		ug/L	1	1	2	10/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Bis-(2-Chloroethyl)ether	111-44-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Anthracene	120-12-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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	10/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzo(g,h,i)perylene	191-24-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Fluoranthene	206-44-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Acenaphthylene	208-96-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Chrysene	218-01-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzo(a)pyrene	50-32-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Dibenzo(a,h)anthracene	53-70-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzo(a)anthracene	56-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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	10/18/12
Isophorone	78-59-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Phenanthrene	85-01-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Fluorene	86-73-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Carbazole	86-74-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Naphthalene	91-20-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Methylnaphthalene	91-57-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Methylphenol	95-48-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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	10/18/12
3 & 4 Methylphenol, Total	65794-96-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Benzyl alcohol	100-51-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Tributyl phosphate	126-73-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Naphthylamine	91-59-8	LA-523-456	U	<1		ug/L	1	1	2	10/18/12
Pyridine	110-86-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosopiperidine	100-75-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosomethylethylamine	10595-95-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
p-Phenylenediamine	106-50-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Picoline	109-06-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
3,3-Dimethylbenzidine	119-93-7	LA-523-456	U	<4		ug/L	1	4	6	10/18/12
Isosafrole	120-58-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Phentermine	122-09-8	LA-523-456	U	<5		ug/L	1	5	9	10/18/12
1,4-Dioxane	123-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,4-Naphthoquinone	130-15-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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	10/18/12
Aramite	140-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Kepone	143-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Hexachloropropene	1888-71-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Diallate	2303-16-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pronamide	23950-58-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Isodrin	465-73-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Chlorobenzilate	510-15-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2-Acetylaminofluorene	53-96-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosodiethylamine	55-18-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
3-Methylcholanthrene	56-49-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4-Nitroquinoline-1-oxide	56-57-5	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/18/12
7,12-Dimethylbenz(a)anthracene	57-97-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
2,3,4,6-Tetrachlorophenol	58-90-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosomorpholine	59-89-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pentachlorobenzene	608-93-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Phenacetin	62-44-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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	10/18/12
Aniline	62-53-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosodimethylamine	62-75-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Methyl methanesulfonate	66-27-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pentachloroethane	76-01-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Pentachloronitrobenzene	82-68-8	LA-523-456	U	<1		ug/L	1	1	2	10/18/12
2,6-Dichlorophenol	87-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Dinoseb(..dinitromethyl phenol)	88-85-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
4-Aminobiphenyl	92-67-1	LA-523-456	U	<1		ug/L	1	1	2	10/18/12
n-Nitrosodibutylamine	924-16-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
n-Nitrosopyrrolidine	930-55-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Safrole	94-59-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
o-Toluidine	95-53-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,2,4,5-Tetrachlorobenzene	95-94-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
Acetophenone	98-86-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
1,3,5-Trinitrobenzene	99-35-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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>	
2-Methyl-5-nitroaniline	99-55-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
1,3-Dinitrobenzene	99-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
O,O,O-Triethylthiophosphate	126-68-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
Parathion	56-38-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
Dimethylaminoazobenzene	60-11-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
Dimethoate	60-51-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
Thionazin	297-97-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
Methyl parathion	298-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
Phorate	298-02-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
Disulfoton	298-04-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
Sulfotep	3689-24-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12	
Famfur	52-85-7	LA-523-456	U	<5		ug/L	1	5	9	10/18/12	
N-Nitrosodiphenylamin/Di phenyl Methaprylene	91-80-5	DPA+NNDPA	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/18/12
<b>Total Petroleum Hydrocarbons (Water Prep)</b>										<b>10/11/12</b>	
<b>Extractable Diesel and Petroleum</b>											
Diesel	TPHDIESEL	LA-523-493	U	<70		ug/L	1	70	100	10/11/12	

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274004  
**SAF#** W13-010  
**Sample ID** B2M153

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

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	10/11/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE

D - Analyte was reported at a secondary dilution factor.

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

J - Analyte < lowest calibration but >= MDL.

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

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

U - Analyzed for but not detected above limiting criteria.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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>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>										10/18/12
<b>SW-846 8260B Volatiles</b>										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,1-Dichloroethane	75-34-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Styrene	100-42-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Dibromochloromethane	124-48-1	LA-523-455	U	<1		ug/L	1	1	5	10/18/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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	10/18/12
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Total 1,2-Dichloroethene	540-59-0	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
2-Hexanone	591-78-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Bromomethane	74-83-9	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Chloromethane	74-87-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Chloroethane	75-00-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Bromoform	75-25-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Bromodichloromethane	75-27-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,2-Dichloropropane	78-87-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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	10/18/12
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	10/18/12
Tetrahydrofuran	109-99-9	LA-523-455	U	<2		ug/L	1	2	10	10/18/12
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Acetonitrile	75-05-8	LA-523-455	U	<2		ug/L	1	2	10	10/18/12
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Propionitrile	107-12-0	LA-523-455	U	<2		ug/L	1	2	10	10/18/12
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	10/18/12
Iodomethane	74-88-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,1,1,2-Tetrachloroethane	630-20-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,2,3-Trichloropropane	96-18-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,2-Dibromo-3-chloropropane	96-12-8	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,2-Dibromoethane	106-93-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Acrolein	107-02-8	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Acrylonitrile	107-13-1	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Allyl chloride	107-05-1	LA-523-455	U	<1		ug/L	1	1	5	10/18/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274003	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M159	<b>Received</b>	10/10/12

<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>
Methylene bromide	74-95-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Dichlorodifluoromethane	75-71-8	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Ethyl methacrylate	97-63-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Methacrylonitrile	126-98-7	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Methyl methacrylate	80-62-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Trans-1,4-dichloro-2-butene	110-57-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Vinyl acetate	108-05-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Chloroprene	126-99-8	LA-523-455	U	<1		ug/L	1	1	5	10/18/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

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>										10/18/12
<b>SW-846 8260B Volatiles</b>										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,1-Dichloroethane	75-34-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Styrene	100-42-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Dibromochloromethane	124-48-1	LA-523-455	U	<1		ug/L	1	1	5	10/18/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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	10/18/12
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Total 1,2-Dichloroethene	540-59-0	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
2-Hexanone	591-78-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Bromomethane	74-83-9	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Chloromethane	74-87-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Chloroethane	75-00-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Bromoform	75-25-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Bromodichloromethane	75-27-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,2-Dichloropropane	78-87-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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	10/18/12
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	10/18/12
Tetrahydrofuran	109-99-9	LA-523-455	U	<2		ug/L	1	2	10	10/18/12
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Acetonitrile	75-05-8	LA-523-455	U	<2		ug/L	1	2	10	10/18/12
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Propionitrile	107-12-0	LA-523-455	U	<2		ug/L	1	2	10	10/18/12
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	10/18/12
Iodomethane	74-88-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,1,1,2-Tetrachloroethane	630-20-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,2,3-Trichloropropane	96-18-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,2-Dibromo-3-chloropropane	96-12-8	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
1,2-Dibromoethane	106-93-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Acrolein	107-02-8	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Acrylonitrile	107-13-1	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Allyl chloride	107-05-1	LA-523-455	U	<1		ug/L	1	1	5	10/18/12

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.

REVISED121274 -

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

**Group #** WSCF121274

<b>Sample #</b>	121274004	<b>Matrix</b>	WATER
<b>SAF#</b>	W13-010	<b>Sampled</b>	10/10/12
<b>Sample ID</b>	B2M153	<b>Received</b>	10/10/12

<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>
Methylene bromide	74-95-3	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Dichlorodifluoromethane	75-71-8	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Ethyl methacrylate	97-63-2	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Methacrylonitrile	126-98-7	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Methyl methacrylate	80-62-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Trans-1,4-dichloro-2-butene	110-57-6	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Vinyl acetate	108-05-4	LA-523-455	U	<1		ug/L	1	1	5	10/18/12
Chloroprene	126-99-8	LA-523-455	U	<1		ug/L	1	1	5	10/18/12

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.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274003  
**SAF#** W13-010  
**Sample ID** B2M159

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for Cyanide (W)</b>										10/17/12
<b>Cyanide (W) by Midi/Spectrophotometer</b>										10/15/12
Cyanide	57-12-5	LA-695-402		91.4		ug/L	1	4.0	20	10/17/12
<b>Total Alkalinity as mg/L CaCO<sub>3</sub> (Water)</b>										10/15/12
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY	LA-531-411		100		mg/L	1	1	10	10/15/12
<b>Total Organic Carbon</b>										10/15/12
Total Organic Carbon	TOC	LA-344-406	B	0.277		mg/L	1	0.10	0.30	10/15/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.

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

D - Analyte was reported at a secondary dilution factor.

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

U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

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

**Group #** WSCF121274

**Sample #** 121274004  
**SAF#** W13-010  
**Sample ID** B2M153

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>Preparation for Cyanide (W)</b>										10/17/12
<b>Cyanide (W) by Midi/Spectrophotometer</b>										10/15/12
Cyanide	57-12-5	LA-695-402		39.7		ug/L	1	4.0	20	10/17/12
<b>Total Alkalinity as mg/L CaCO<sub>3</sub> (Water)</b>										10/15/12
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY	LA-531-411		110		mg/L	1	1	10	10/15/12
<b>Total Organic Carbon</b>										10/15/12
Total Organic Carbon	TOC	LA-344-406	B	0.193		mg/L	1	0.10	0.30	10/15/12

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.

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

D - Analyte was reported at a secondary dilution factor.

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

U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.

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

PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

REVISED121274 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121274

Sample # 121274007  
SAF# W13-010  
Sample ID B2M230

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Organic Carbon	TOC	LA-344-406	B	0.232		mg/L	1	0.10	0.30	10/15/12
<b>Total Organic Carbon</b>										
Total Organic Carbon	TOC	LA-344-406	B	0.232		mg/L	1	0.10	0.30	10/15/12

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.

REVISED121274 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121274

Sample # 121274008  
SAF# W13-010  
Sample ID B2M231

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Organic Carbon	TOC	LA-344-406	B	0.260		mg/L	1	0.10	0.30	10/15/12
<b>Total Organic Carbon</b>										
Total Organic Carbon	TOC	LA-344-406	B	0.260		mg/L	1	0.10	0.30	10/15/12

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.

REVISED121274 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121274

Sample # 121274009  
SAF# W13-010  
Sample ID B2M232

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Organic Carbon	TOC	LA-344-406	B	0.210		mg/L	1	0.10	0.30	10/15/12
<b>Total Organic Carbon</b>										
Total Organic Carbon	TOC	LA-344-406	B	0.210		mg/L	1	0.10	0.30	10/15/12

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.

REVISED121274 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121274

Sample # 121274010  
SAF# W13-010  
Sample ID B2M227

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Organic Carbon	TOC	LA-344-406	B	0.190		mg/L	1	0.10	0.30	10/15/12

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.

REVISED121274 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121274

Sample # 121274011  
SAF# W13-010  
Sample ID B2M228

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Organic Carbon	TOC	LA-344-406	B	0.192		mg/L	1	0.10	0.30	10/15/12

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.

REVISED121274 -

Attention Scot Fitzgerald  
Department Wet Chemistry

Group # WSCF121274

Sample # 121274012  
SAF# W13-010  
Sample ID B2M229

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

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Organic Carbon	TOC	LA-344-406	B	0.201		mg/L	1	0.10	0.30	10/15/12
<b>Total Organic Carbon</b>										
Total Organic Carbon	TOC	LA-344-406	B	0.201		mg/L	1	0.10	0.30	10/15/12

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.

REVISED121274 -

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121274

Analytical Batch 208471 (QC Batch: 208471) Test Anions by Ion Chromatography (Water)  
 Associated Samples 121274001, 121274002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										
<b>QC Sample #82715</b>										
Fluoride	16984-48-8	<0.023	ug/mL					U		10/10/12
Chloride	16887-00-6	<0.058	ug/mL					U		10/10/12
Nitrite-N	NO2-N	<0.019	ug/mL					U		10/10/12
Nitrate-N	NO3-N	<0.019	ug/mL					U		10/10/12
Sulfate	14808-79-8	<0.11	ug/mL					U		10/10/12
<b>LCS</b>										
<b>QC Sample #82716</b>										
Fluoride	16984-48-8	0.952	ug/mL	96.1	90 - 110					10/10/12
Chloride	16887-00-6	1.84	ug/mL	92.9	90 - 110					10/10/12
Nitrite-N	NO2-N	1.00	ug/mL	102.2	90 - 110					10/10/12
Nitrate-N	NO3-N	0.875	ug/mL	98.9	90 - 110					10/10/12
Sulfate	14808-79-8	3.94	ug/mL	100.5	90 - 110					10/10/12
<b>DUP</b>										
<b>QC Sample #82717</b>										
<b>Original 121277001</b>										
Fluoride	16984-48-8	<0.046	ug/mL			0.00	20	UD		10/10/12
Chloride	16887-00-6	1.60	ug/mL			1.60	20	D		10/10/12
Nitrite-N	NO2-N	<0.038	ug/mL			20.10	20	*	UXD	10/10/12
Nitrate-N	NO3-N	0.128	ug/mL			8.70	20		BD	10/10/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Sulfate	14808-79-8	21.4	ug/mL				0.60	20	D	10/10/12
<b>MS</b>										
<b>QC Sample #82718</b>										
<b>Original 121277001</b>										
Fluoride	16984-48-8	0.961	ug/mL	96.1	80 - 120				D	10/10/12
Chloride	16887-00-6	1.88	ug/mL	93.8	80 - 120				D	10/10/12
Nitrite-N	NO2-N	1.01	ug/mL	102.4	80 - 120				D	10/10/12
Nitrate-N	NO3-N	0.865	ug/mL	96.7	80 - 120				D	10/10/12
Sulfate	14808-79-8	3.90	ug/mL	98.4	80 - 120				D	10/10/12
<b>MSD</b>										
<b>QC Sample #82719</b>										
<b>Original 121277001</b>										
<b>Paired 82718</b>										
Fluoride	16984-48-8	0.960	ug/mL	96	80 - 120	0.10	20		D	10/10/12
Chloride	16887-00-6	1.84	ug/mL	91.8	80 - 120	1.20	20		D	10/10/12
Nitrite-N	NO2-N	0.993	ug/mL	100.5	80 - 120	1.80	20		D	10/10/12
Nitrate-N	NO3-N	0.886	ug/mL	99.1	80 - 120	2.10	20		D	10/10/12
Sulfate	14808-79-8	4.03	ug/mL	101.8	80 - 120	0.50	20		D	10/10/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

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

**Group #** WSCF121274

**Analytical Batch** 208487 (QC Batch: 208467)      **Test** Extractable Diesel and Petroleum  
**Associated Samples** 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed				
<b>BLANK</b>					<b>QC Sample #82704</b>									
Diesel	TPHDIESEL	<80		ug/L				U		10/11/12				
Kerosene	TPHKEROSE	<80		ug/L				U		10/11/12				
<b>LCS</b>														
					<b>QC Sample #82705</b>									
Diesel	TPHDIESEL	2500		ug/L	101	65 - 128				10/11/12				
<b>MS</b>					<b>QC Sample #82706</b>									
					<b>Original 121270001</b>									
Diesel	TPHDIESEL	2500		ug/L	105.6	73 - 123				10/11/12				
<b>MSD</b>					<b>QC Sample #82707</b>									
					<b>Original 121270001</b>									
Diesel	TPHDIESEL	2600		ug/L	112.1	73 - 123	5.90	20		10/11/12				

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121274

Analytical Batch 208508 (QC Batch: 208507) Test Chemical Oxygen Demand  
 Associated Samples 121274003, 121274004

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		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		247	mg/L	99	75 - 125	1.90	20		10/11/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121274

Analytical Batch 208510 (QC Batch: 208451) Test ICP-6010 - All possible metals  
 Associated Samples 121274003, 121274004, 121274005, 121274006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed	
<b>BLANK</b>											
			<b>QC Sample #82667</b>								
Iron	7439-89-6	<19		ug/L				U		10/17/12	
Magnesium	7439-95-4	<4.0		ug/L				U		10/17/12	
Manganese	7439-96-5	<4.0		ug/L				U		10/17/12	
Nickel	7440-02-0	<4.0		ug/L				U		10/17/12	
Potassium	7440-09-7	<76		ug/L				U		10/17/12	
Silver	7440-22-4	<4.0		ug/L				U		10/17/12	
Sodium	7440-23-5	<10		ug/L				U		10/17/12	
Antimony	7440-36-0	<36		ug/L				U		10/17/12	
Barium	7440-39-3	<4.0		ug/L				U		10/17/12	
Cadmium	7440-43-9	<4.0		ug/L				U		10/17/12	
Chromium	7440-47-3	<5.0		ug/L				U		10/17/12	
Cobalt	7440-48-4	<4.0		ug/L				U		10/17/12	
Copper	7440-50-8	<4.0		ug/L				U		10/17/12	
Vanadium	7440-62-2	<5.0		ug/L				U		10/17/12	
Zinc	7440-66-6	<5.0		ug/L				U		10/17/12	
Calcium	7440-70-2	<49		ug/L				U		10/17/12	
Strontium	7440-24-6	<9.0		ug/L				U		10/17/12	

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Titanium	7440-32-6	<4.0		ug/L					U	10/17/12
Beryllium	7440-41-7	<4.0		ug/L					U	10/17/12
<b>LCS</b>										
<b>QC Sample #82669</b>										
Iron	7439-89-6	1020		ug/L	102.4	80 - 120				10/17/12
Magnesium	7439-95-4	10400		ug/L	103.7	80 - 120				10/17/12
Manganese	7439-96-5	1050		ug/L	104.6	80 - 120				10/17/12
Nickel	7440-02-0	1030		ug/L	102.8	80 - 120				10/17/12
Potassium	7440-09-7	10800		ug/L	107.9	80 - 120				10/17/12
Silver	7440-22-4	1000		ug/L	100.1	80 - 120				10/17/12
Sodium	7440-23-5	10400		ug/L	104	80 - 120				10/17/12
Antimony	7440-36-0	1070		ug/L	107	80 - 120				10/17/12
Barium	7440-39-3	1040		ug/L	104.4	80 - 120				10/17/12
Cadmium	7440-43-9	1030		ug/L	103.2	80 - 120				10/17/12
Chromium	7440-47-3	1040		ug/L	103.6	80 - 120				10/17/12
Cobalt	7440-48-4	1010		ug/L	101.3	80 - 120				10/17/12
Copper	7440-50-8	1030		ug/L	103	80 - 120				10/17/12
Vanadium	7440-62-2	1020		ug/L	102.4	80 - 120				10/17/12
Zinc	7440-66-6	1050		ug/L	105.1	80 - 120				10/17/12
Calcium	7440-70-2	21000		ug/L	105.1	80 - 120				10/17/12
Strontium	7440-24-6	1010		ug/L	101	80 - 120				10/17/12
Titanium	7440-32-6	1060		ug/L	105.8	80 - 120				10/17/12
Beryllium	7440-41-7	1030		ug/L	103.1	80 - 120				10/17/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>MS</b>										
<b>QC Sample #82670</b>										
<b>Original 121274003</b>										
Iron	7439-89-6	67.6	1000	ug/L	100.2	75 - 125				10/17/12
Magnesium	7439-95-4	26900	9950	ug/L	99.5	75 - 125				10/17/12
Manganese	7439-96-5	<4.0	1020	ug/L	102.1	75 - 125				10/17/12
Nickel	7440-02-0	<4.0	982	ug/L	98.2	75 - 125				10/17/12
Potassium	7440-09-7	9680	10600	ug/L	106.3	75 - 125				10/17/12
Silver	7440-22-4	<4.0	985	ug/L	98.5	75 - 125				10/17/12
Sodium	7440-23-5	36100	9770	ug/L	97.7	75 - 125				10/17/12
Antimony	7440-36-0	<36	1050	ug/L	105.2	75 - 125				10/17/12
Barium	7440-39-3	65.6	1020	ug/L	102.2	75 - 125				10/17/12
Cadmium	7440-43-9	<4.0	1020	ug/L	102	75 - 125				10/17/12
Chromium	7440-47-3	9.50	1010	ug/L	100.8	75 - 125				10/17/12
Cobalt	7440-48-4	<4.0	968	ug/L	96.8	75 - 125				10/17/12
Copper	7440-50-8	<4.0	1010	ug/L	101.2	75 - 125				10/17/12
Vanadium	7440-62-2	11.8	1010	ug/L	100.8	75 - 125				10/17/12
Zinc	7440-66-6	<5.0	1030	ug/L	103.3	75 - 125				10/17/12
Calcium	7440-70-2	88000	20400	ug/L	101.9	75 - 125		X		10/17/12
Strontium	7440-24-6	425	990	ug/L	99	75 - 125				10/17/12
Titanium	7440-32-6	<4.0	1020	ug/L	101.7	75 - 125				10/17/12
Beryllium	7440-41-7	<4.0	1020	ug/L	102.5	75 - 125				10/17/12
<b>MSD</b>										
<b>QC Sample #82671</b>										
<b>Original 121274003</b>										
<b>Paired 82670</b>										
Iron	7439-89-6	67.6	972	ug/L	97.2	75 - 125	2.80	20		10/17/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
Department Inorganic

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Magnesium	7439-95-4	26900	8450	ug/L	84.5	75 - 125	4.20	20		10/17/12
Manganese	7439-96-5	<4.0	988	ug/L	98.8	75 - 125	3.30	20		10/17/12
Nickel	7440-02-0	<4.0	945	ug/L	94.5	75 - 125	3.80	20		10/17/12
Potassium	7440-09-7	9680	9870	ug/L	98.7	75 - 125	3.80	20		10/17/12
Silver	7440-22-4	<4.0	961	ug/L	96.1	75 - 125	2.50	20		10/17/12
Sodium	7440-23-5	36100	7900	ug/L	79	75 - 125	4.20	20		10/17/12
Antimony	7440-36-0	<36	1020	ug/L	102.3	75 - 125	2.80	20		10/17/12
Barium	7440-39-3	65.6	985	ug/L	98.5	75 - 125	3.50	20		10/17/12
Cadmium	7440-43-9	<4.0	986	ug/L	98.6	75 - 125	3.40	20		10/17/12
Chromium	7440-47-3	9.50	975	ug/L	97.5	75 - 125	3.20	20		10/17/12
Cobalt	7440-48-4	<4.0	935	ug/L	93.5	75 - 125	3.50	20		10/17/12
Copper	7440-50-8	<4.0	972	ug/L	97.2	75 - 125	4.00	20		10/17/12
Vanadium	7440-62-2	11.8	972	ug/L	97.2	75 - 125	3.60	20		10/17/12
Zinc	7440-66-6	<5.0	999	ug/L	99.9	75 - 125	3.30	20		10/17/12
Calcium	7440-70-2	88000	16300	ug/L	81.4	75 - 125	3.90	20	X	10/17/12
Strontium	7440-24-6	425	943	ug/L	94.3	75 - 125	3.40	20		10/17/12
Titanium	7440-32-6	<4.0	979	ug/L	97.9	75 - 125	3.80	20		10/17/12
Beryllium	7440-41-7	<4.0	987	ug/L	98.7	75 - 125	3.80	20		10/17/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

Attention Scot Fitzgerald  
 Department Wet Chemistry

Group # WSCF121274

Analytical Batch 208550 (QC Batch: 208550) Test Total Organic Carbon  
 Associated Samples 121274003, 121274004, 121274007, 121274008, 121274009, 121274010, 121274011, 121274012

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										QC Sample #82945
Total Organic Carbon	TOC		<0.045	mg/L					U	10/15/12
LCS										QC Sample #82946
Total Organic Carbon	TOC		2.18	mg/L	109	80 - 120				10/15/12
MS						QC Sample #82947				Original 121290001
Total Organic Carbon	TOC		1.89	mg/L	94.5	75 - 125				10/15/12
MSD						QC Sample #82948				Original 121290001
Total Organic Carbon	TOC		1.89	mg/L	94.5	75 - 125	0.00	20		10/15/12
MS						QC Sample #82950				Original 121274007
Total Organic Carbon	TOC	0.232	2.12	mg/L	106.2	75 - 125				10/15/12
MSD						QC Sample #82951				Original 121274007
Total Organic Carbon	TOC	0.232	2.08	mg/L	104.2	75 - 125	1.70	20		10/15/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

Attention Scot Fitzgerald  
 Department Wet Chemistry

Group # WSCF121274

Analytical Batch 208754 (QC Batch: 208754) Test Total Alkalinity as mg/L CaCO<sub>3</sub> (Water)  
 Associated Samples 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed	
<b>LCS</b>										<b>QC Sample #82975</b>	
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY	97	mg/L	97	80 - 120					10/15/12	
<b>DUP</b>										<b>QC Sample #82976</b>	
		<b>Original 121239002</b>									
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY	120	mg/L				0.00	20		10/15/12	
<b>LCS</b>										<b>QC Sample #82977</b>	
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY	97	mg/L	97.5	80 - 120					10/15/12	
<b>LCS</b>										<b>QC Sample #82978</b>	
Total Alkalinity as CaCO <sub>3</sub>	ALKALINITY	97	mg/L	97.2	80 - 120					10/15/12	

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group # WSCF121274

Analytical Batch 208759 (QC Batch: 208758) Test Gasoline Range (W)  
 Associated Samples 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>		<b>QC Sample #82988</b>								
Gasoline	TPHGASOLI	<50	ug/L						U	10/16/12
<b>LCS</b>		<b>QC Sample #82989</b>								
Gasoline	TPHGASOLI	2500	ug/L	101.2	80 - 120					10/16/12
<b>MS</b>		<b>QC Sample #82990</b>								
Gasoline	TPHGASOLI	2000	ug/L	80.2	75 - 125					10/16/12
<b>MSD</b>		<b>QC Sample #82991</b>								
Gasoline	TPHGASOLI	2000	ug/L	81.1	75 - 125	1.10	20			10/16/12
<b>DUP</b>		<b>Original 121270001</b>								
Gasoline	TPHGASOLI	<50	ug/L			Paired 82990				10/16/12
<b>Gasoline</b>	<b>TPHGASOLI</b>	<b>QC Sample #82992</b>								
		<b>Original 121270001</b>								

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group # WSCF121274

Analytical Batch 208875 (QC Batch: 208874) Test SW-846 8260B Volatiles  
 Associated Samples 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										<b>QC Sample #83108</b>
1,1-Dichloroethene	75-35-4		<1	ug/L				U		10/18/12
Trichloroethene	79-01-6		<1	ug/L				U		10/18/12
Benzene	71-43-2		<1	ug/L				U		10/18/12
Toluene	108-88-3		<1	ug/L				U		10/18/12
Chlorobenzene	108-90-7		<1	ug/L				U		10/18/12
1,1-Dichloroethane	75-34-3		<1	ug/L				U		10/18/12
Ethylbenzene	100-41-4		<1	ug/L				U		10/18/12
Styrene	100-42-5		<1	ug/L				U		10/18/12
cis-1,3-Dichloropropene	10061-01-5		<1	ug/L				U		10/18/12
trans-1,3-Dichloropropene	10061-02-6		<1	ug/L				U		10/18/12
1,2-Dichloroethane	107-06-2		<1	ug/L				U		10/18/12
Methyl isobutyl ketone	108-10-1		<1	ug/L				U		10/18/12
Dibromochloromethane	124-48-1		<1	ug/L				U		10/18/12
Tetrachloroethene	127-18-4		<1	ug/L				U		10/18/12
Total Xylenes	1330-20-7		<1	ug/L				U		10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group # WSCF121274

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	10/18/12
Carbon tetrachloride	56-23-5	<1		ug/L				U	10/18/12
2-Hexanone	591-78-6	<1		ug/L				U	10/18/12
Acetone	67-64-1	<1		ug/L				U	10/18/12
Chloroform	67-66-3	<1		ug/L				U	10/18/12
1,1,1-Trichloroethane	71-55-6	<1		ug/L				U	10/18/12
Bromomethane	74-83-9	<1		ug/L				U	10/18/12
Chloromethane	74-87-3	<1		ug/L				U	10/18/12
Chloroethane	75-00-3	<1		ug/L				U	10/18/12
Vinyl chloride	75-01-4	<1		ug/L				U	10/18/12
Methylene chloride	75-09-2	<1		ug/L				U	10/18/12
Carbon disulfide	75-15-0	<1		ug/L				U	10/18/12
Bromoform	75-25-2	<1		ug/L				U	10/18/12
Bromodichloromethane	75-27-4	<1		ug/L				U	10/18/12
1,2-Dichloropropane	78-87-5	<1		ug/L				U	10/18/12
Methyl ethyl ketone	78-93-3	<1		ug/L				U	10/18/12
1,1,2-Trichloroethane	79-00-5	<1		ug/L				U	10/18/12
1,1,2,2-Tetrachloroethane	79-34-5	<1		ug/L				U	10/18/12
1-Butanol	71-36-3	<100		ug/L				U	10/18/12
Tetrahydrofuran	109-99-9	<2		ug/L				U	10/18/12
Trichlorofluoromethane	75-69-4	<1		ug/L				U	10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group #

WSCF121274

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	10/18/12
Acetonitrile	75-05-8		<2	ug/L				U	10/18/12
cis-1,2-Dichloroethene	156-59-2		<1	ug/L				U	10/18/12
Propionitrile	107-12-0		<2	ug/L				U	10/18/12
Isobutyl alcohol	78-83-1		<200	ug/L				U	10/18/12
Iodomethane	74-88-4		<1	ug/L				U	10/18/12
1,1,1,2-Tetrachloroethane	630-20-6		<1	ug/L				U	10/18/12
1,2,3-Trichloropropane	96-18-4		<1	ug/L				U	10/18/12
1,2-Dibromo-3-chloropropane	96-12-8		<1	ug/L				U	10/18/12
1,2-Dibromoethane	106-93-4		<1	ug/L				U	10/18/12
Acrolein	107-02-8		<1	ug/L				U	10/18/12
Acrylonitrile	107-13-1		<1	ug/L				U	10/18/12
Allyl chloride	107-05-1		<1	ug/L				U	10/18/12
Methylene bromide	74-95-3		<1	ug/L				U	10/18/12
Dichlorodifluoromethane	75-71-8		<1	ug/L				U	10/18/12
Ethyl methacrylate	97-63-2		<1	ug/L				U	10/18/12
Methacrylonitrile	126-98-7		<1	ug/L				U	10/18/12
Methyl methacrylate	80-62-6		<1	ug/L				U	10/18/12
Trans-1,4-dichloro-2-butene	110-57-6		<1	ug/L				U	10/18/12
Vinyl acetate	108-05-4		<1	ug/L				U	10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloroprene	126-99-8	<1		ug/L					U	10/18/12
<b>LCS</b>										
			<b>QC Sample #83109</b>							
1,1-Dichloroethene	75-35-4	26		ug/L	104.2	75 - 125				10/18/12
Trichloroethene	79-01-6	26		ug/L	104.3	75 - 125				10/18/12
Benzene	71-43-2	27		ug/L	109	75 - 125				10/18/12
Toluene	108-88-3	26		ug/L	105.6	75 - 125				10/18/12
Chlorobenzene	108-90-7	26		ug/L	105.5	75 - 125				10/18/12
1,1-Dichloroethane	75-34-3	26		ug/L	104.8	75 - 125				10/18/12
Ethylbenzene	100-41-4	27		ug/L	109.4	75 - 125				10/18/12
Styrene	100-42-5	28		ug/L	113.5	75 - 125				10/18/12
trans-1,3-Dichloropropene	10061-02-6	27		ug/L	107.1	75 - 125				10/18/12
1,2-Dichloroethane	107-06-2	26		ug/L	104.5	75 - 125				10/18/12
1,1,1-Trichloroethane	71-55-6	28		ug/L	111.8	75 - 125				10/18/12
Dibromochloromethane	124-48-1	27		ug/L	107.1	75 - 125				10/18/12
Carbon disulfide	75-15-0	26		ug/L	102.4	75 - 125				10/18/12
Bromoform	75-25-2	29		ug/L	115.2	75 - 125				10/18/12
Bromodichloromethane	75-27-4	28		ug/L	110.5	75 - 125				10/18/12
1,2-Dichloropropane	78-87-5	27		ug/L	108.2	75 - 125				10/18/12
1,1,2-Trichloroethane	79-00-5	27		ug/L	108.7	75 - 125				10/18/12
1,1,2,2-Tetrachloroethane	79-34-5	26		ug/L	105.8	75 - 125				10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
trans-1,2-Dichloroethene	156-60-5	27		ug/L	106.2	75 - 125				10/18/12
cis-1,2-Dichloroethene	156-59-2	26		ug/L	103	75 - 125				10/18/12
<b>MS</b>					<b>QC Sample #83110</b>					
					<b>Original 121270002</b>					
1,1-Dichloroethene	75-35-4	25		ug/L	99.8	75 - 125				10/18/12
Trichloroethene	79-01-6	27		ug/L	106.9	75 - 125				10/18/12
Benzene	71-43-2	27		ug/L	108.9	75 - 125				10/18/12
Toluene	108-88-3	26		ug/L	105.7	75 - 125				10/18/12
Chlorobenzene	108-90-7	27		ug/L	106.2	75 - 125				10/18/12
1,1-Dichloroethane	75-34-3	26		ug/L	105.5	75 - 125				10/18/12
Ethylbenzene	100-41-4	27		ug/L	109.9	75 - 125				10/18/12
Styrene	100-42-5	28		ug/L	113.2	75 - 125				10/18/12
trans-1,3-Dichloropropene	10061-02-6	27		ug/L	108.2	75 - 125				10/18/12
1,2-Dichloroethane	107-06-2	26		ug/L	105.3	75 - 125				10/18/12
1,1,1-Trichloroethane	71-55-6	28		ug/L	112.1	75 - 125				10/18/12
Dibromochloromethane	124-48-1	27		ug/L	107.2	75 - 125				10/18/12
Carbon disulfide	75-15-0	25		ug/L	100.2	75 - 125				10/18/12
Bromoform	75-25-2	28		ug/L	113	75 - 125				10/18/12
Bromodichloromethane	75-27-4	28		ug/L	110.9	75 - 125				10/18/12
1,2-Dichloropropane	78-87-5	27		ug/L	107.9	75 - 125				10/18/12
1,1,2-Trichloroethane	79-00-5	27		ug/L	106.7	75 - 125				10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,1,2,2-Tetrachloroethane	79-34-5	26		ug/L	103.9	75 - 125				10/18/12
trans-1,2-Dichloroethene	156-60-5	26		ug/L	103.8	75 - 125				10/18/12
cis-1,2-Dichloroethene	156-59-2	26		ug/L	103.8	75 - 125				10/18/12
<b>MSD</b>										
<b>QC Sample #83111</b>										
Original    121270002										
Paired    83110										
1,1-Dichloroethene	75-35-4	27		ug/L	107	75 - 125	7.00	20		10/18/12
Trichloroethene	79-01-6	27		ug/L	107.9	75 - 125	0.80	20		10/18/12
Benzene	71-43-2	27		ug/L	109.3	75 - 125	0.40	20		10/18/12
Toluene	108-88-3	27		ug/L	106.5	75 - 125	0.80	20		10/18/12
Chlorobenzene	108-90-7	27		ug/L	106.8	75 - 125	0.60	20		10/18/12
1,1-Dichloroethane	75-34-3	27		ug/L	106.2	75 - 125	0.70	20		10/18/12
Ethylbenzene	100-41-4	28		ug/L	110.2	75 - 125	0.20	20		10/18/12
Styrene	100-42-5	29		ug/L	114.5	75 - 125	1.10	20		10/18/12
trans-1,3-Dichloropropene	10061-02-6	28		ug/L	111.9	75 - 125	3.30	20		10/18/12
1,2-Dichloroethane	107-06-2	27		ug/L	109.7	75 - 125	4.10	20		10/18/12
1,1,1-Trichloroethane	71-55-6	28		ug/L	111.4	75 - 125	0.60	20		10/18/12
Dibromochloromethane	124-48-1	28		ug/L	111.4	75 - 125	3.90	20		10/18/12
Carbon disulfide	75-15-0	26		ug/L	103.4	75 - 125	3.10	20		10/18/12
Bromoform	75-25-2	31		ug/L	122.3	75 - 125	7.90	20		10/18/12
Bromodichloromethane	75-27-4	28		ug/L	113.2	75 - 125	2.10	20		10/18/12
1,2-Dichloropropane	78-87-5	27		ug/L	108.8	75 - 125	0.80	20		10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

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

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,1,2-Trichloroethane	79-00-5	28	ug/L	113	75 - 125	5.70	20			10/18/12
1,1,2,2-Tetrachloroethane	79-34-5	28	ug/L	111.5	75 - 125	7.00	20			10/18/12
trans-1,2-Dichloroethene	156-60-5	26	ug/L	104.9	75 - 125	1.10	20			10/18/12
cis-1,2-Dichloroethene	156-59-2	26	ug/L	104.9	75 - 125	1.00	20			10/18/12

\* - QC result out of range

n/a - Not Applicable

**REVISED121274 -**

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

**Group #** WSCF121274

**Analytical Batch** 208899 (QC Batch: 208883)      **Test** Cyanide (W) by Midi/Spectrophotometer  
**Associated Samples** 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										<b>QC Sample #83149</b>
Cyanide LCS										<4.0 ug/L
										<b>QC Sample #83152</b>
Cyanide MS	57-12-5		50.3	ug/L	100.6	85 - 115				10/17/12
										<b>QC Sample #83153</b>
										Original 121242007
Cyanide MSD	57-12-5		42.6	ug/L	106.4	75 - 125				10/17/12
										<b>QC Sample #83154</b>
										Original 121242007
Cyanide	57-12-5		43.3	ug/L	108.2	75 - 125	1.70	20		Paired 83153
										10/17/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121274

Analytical Batch 208911 (QC Batch: 208900) Test ICP-2008 MS All possible metal  
 Associated Samples 121274003, 121274004, 121274005, 121274006, 121274013

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										
<b>QC Sample #83185</b>										
Aluminum	7429-90-5	<5.0	ug/L					U		10/19/12
Manganese	7439-96-5	<0.10	ug/L					U		10/19/12
Nickel	7440-02-0	0.579	ug/L					B		10/19/12
Silver	7440-22-4	<0.050	ug/L					U		10/19/12
Antimony	7440-36-0	<0.30	ug/L					U		10/19/12
Barium	7440-39-3	<0.20	ug/L					U		10/19/12
Beryllium	7440-41-7	<0.10	ug/L					U		10/19/12
Cadmium	7440-43-9	<0.050	ug/L					U		10/19/12
Chromium	7440-47-3	<0.10	ug/L					U		10/19/12
Cobalt	7440-48-4	<0.050	ug/L					U		10/19/12
Copper	7440-50-8	2.21	ug/L							10/19/12
Vanadium	7440-62-2	0.443	ug/L					B		10/19/12
Zinc	7440-66-6	2.52	ug/L					B		10/19/12
Lead	7439-92-1	<0.050	ug/L					U		10/19/12
Mercury	7439-97-6	<0.050	ug/L					Uo		10/19/12
Molybdenum	7439-98-7	<0.050	ug/L					U		10/19/12
Strontium	7440-24-6	<0.10	ug/L					U		10/19/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0	<0.050		ug/L					U	10/19/12
Tin	7440-31-5	<0.050		ug/L					U	10/19/12
Arsenic	7440-38-2	<0.20		ug/L					U	10/19/12
Selenium	7782-49-2	<1.0		ug/L					U	10/19/12
<b>LCS</b>			<b>QC Sample #83186</b>							
Aluminum	7429-90-5	412		ug/L	103.1	85 - 115				10/19/12
Manganese	7439-96-5	41.5		ug/L	103.8	85 - 115				10/19/12
Nickel	7440-02-0	41.4		ug/L	103.4	85 - 115				10/19/12
Silver	7440-22-4	41.0		ug/L	102.5	85 - 115				10/19/12
Antimony	7440-36-0	39.3		ug/L	98.2	85 - 115				10/19/12
Barium	7440-39-3	41.8		ug/L	104.4	85 - 115				10/19/12
Beryllium	7440-41-7	39.6		ug/L	99	85 - 115				10/19/12
Cadmium	7440-43-9	38.5		ug/L	96.4	85 - 115				10/19/12
Chromium	7440-47-3	41.3		ug/L	103.4	85 - 115				10/19/12
Cobalt	7440-48-4	41.7		ug/L	104.2	85 - 115				10/19/12
Copper	7440-50-8	41.1		ug/L	102.8	85 - 115				10/19/12
Vanadium	7440-62-2	41.9		ug/L	104.8	85 - 115				10/19/12
Zinc	7440-66-6	36.3		ug/L	90.8	85 - 115				10/19/12
Lead	7439-92-1	43.6		ug/L	109.1	85 - 115				10/19/12
Mercury	7439-97-6	1.69		ug/L	84.4	85 - 115		o		10/19/12
Molybdenum	7439-98-7	40.9		ug/L	102.2	85 - 115				10/19/12
Strontium	7440-24-6	415		ug/L	103.7	85 - 115				10/19/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

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

### **Group #**

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0		42.9	ug/L	107.3	85 - 115				10/19/12
Tin	7440-31-5		40.4	ug/L	101.1	85 - 115				10/19/12
Arsenic	7440-38-2		38.6	ug/L	96.5	85 - 115				10/19/12
Selenium	7782-49-2		34.9	ug/L	87.2	85 - 115				10/19/12
<b>MS</b>			<b>QC Sample #83187</b>							
			<b>Original 121223011</b>							
Aluminum	7429-90-5		409	ug/L	102.2	70 - 130				10/19/12
Manganese	7439-96-5		40.1	ug/L	100.3	70 - 130				10/19/12
Nickel	7440-02-0		38.2	ug/L	95.4	70 - 130				10/19/12
Silver	7440-22-4		38.3	ug/L	95.8	70 - 130				10/19/12
Antimony	7440-36-0		40.6	ug/L	101.5	70 - 130				10/19/12
Barium	7440-39-3		41.9	ug/L	104.7	70 - 130				10/19/12
Beryllium	7440-41-7		39.4	ug/L	98.4	70 - 130				10/19/12
Cadmium	7440-43-9		38.1	ug/L	95.3	70 - 130				10/19/12
Chromium	7440-47-3		40.5	ug/L	101.3	70 - 130				10/19/12
Cobalt	7440-48-4		39.9	ug/L	99.7	70 - 130				10/19/12
Copper	7440-50-8		36.2	ug/L	90.6	70 - 130				10/19/12
Vanadium	7440-62-2		42.2	ug/L	105.5	70 - 130				10/19/12
Zinc	7440-66-6		32.9	ug/L	82.2	70 - 130				10/19/12
Lead	7439-92-1		46.0	ug/L	115	70 - 130				10/19/12
Mercury	7439-97-6		1.90	ug/L	94.8	70 - 130		o		10/19/12
Molybdenum	7439-98-7		43.4	ug/L	108.5	70 - 130				10/19/12
Strontium	7440-24-6		432	ug/L	108	70 - 130				10/19/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

Attention Scot Fitzgerald  
 Department Inorganic

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0	45.8	ug/L	114.4	70 - 130					10/19/12
Tin	7440-31-5	41.7	ug/L	104.2	70 - 130					10/19/12
Arsenic	7440-38-2	40.5	ug/L	101.2	70 - 130					10/19/12
Selenium	7782-49-2	36.2	ug/L	90.6	70 - 130					10/19/12
<b>MSD</b>		<b>QC Sample #83188</b>								
		<b>Original 121223011</b>						<b>Paired</b>	<b>83187</b>	
Aluminum	7429-90-5	406	ug/L	101.4	70 - 130		0.70	20		10/19/12
Manganese	7439-96-5	40.0	ug/L	100.1	70 - 130		0.20	20		10/19/12
Nickel	7440-02-0	37.9	ug/L	94.8	70 - 130		0.60	20		10/19/12
Silver	7440-22-4	38.5	ug/L	96.2	70 - 130		0.40	20		10/19/12
Antimony	7440-36-0	41.0	ug/L	102.6	70 - 130		1.00	20		10/19/12
Barium	7440-39-3	44.3	ug/L	110.7	70 - 130		2.40	20		10/19/12
Beryllium	7440-41-7	38.6	ug/L	96.4	70 - 130		2.10	20		10/19/12
Cadmium	7440-43-9	38.6	ug/L	96.6	70 - 130		1.30	20		10/19/12
Chromium	7440-47-3	40.5	ug/L	101.2	70 - 130		0.10	20		10/19/12
Cobalt	7440-48-4	39.5	ug/L	98.7	70 - 130		1.00	20		10/19/12
Copper	7440-50-8	36.0	ug/L	90.1	70 - 130		0.50	20		10/19/12
Vanadium	7440-62-2	42.0	ug/L	105	70 - 130		0.30	20		10/19/12
Zinc	7440-66-6	32.6	ug/L	81.6	70 - 130		0.80	20		10/19/12
Lead	7439-92-1	46.6	ug/L	116.6	70 - 130		1.40	20		10/19/12
Mercury	7439-97-6	1.89	ug/L	94.4	70 - 130		0.40	20	o	10/19/12
Molybdenum	7439-98-7	44.0	ug/L	109.9	70 - 130		1.10	20		10/19/12
Strontium	7440-24-6	450	ug/L	112.5	70 - 130		2.30	20		10/19/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

Attention Scot Fitzgerald  
Department Inorganic

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0	46.6	ug/L	116.5	70 - 130	1.80	20			10/19/12
Tin	7440-31-5	41.9	ug/L	104.8	70 - 130	0.60	20			10/19/12
Arsenic	7440-38-2	40.8	ug/L	101.9	70 - 130	0.70	20			10/19/12
Selenium	7782-49-2	35.9	ug/L	89.7	70 - 130	0.80	20			10/19/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121274

Analytical Batch 208912 (QC Batch: 208901) Test ICP-2008 MS All possible metal  
 Associated Samples 121274014, 121274015, 121274016

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										
<b>QC Sample #83189</b>										
Mercury	7439-97-6	<0.050	ug/L						U	10/23/12
<b>LCS</b>										
<b>QC Sample #83190</b>										
Mercury	7439-97-6	1.77	ug/L	88.4	85 - 115					10/23/12
<b>MS</b>										
<b>QC Sample #83191</b>										
Original 121274014										
Mercury	7439-97-6	<0.050	1.98	ug/L	99	70 - 130				10/23/12
<b>MSD</b>										
<b>QC Sample #83192</b>										
Original 121274014										
Mercury	7439-97-6	<0.050	1.86	ug/L	92.9	70 - 130	6.40	20		10/23/12
<b>Paired 83191</b>										

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group # WSCF121274

Analytical Batch 208917 (QC Batch: 208855) Test SW-846 8270D Semivolatiles  
 Associated Samples 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										<b>QC Sample #83040</b>
4-Nitrophenol	100-02-7	<1		ug/L				U		10/18/12
Phenol	108-95-2	<1		ug/L				U		10/18/12
1,2,4-Trichlorobenzene	120-82-1	<1		ug/L				U		10/18/12
2,4-Dinitrotoluene	121-14-2	<1		ug/L				U		10/18/12
1,4-Dichlorobenzene	106-46-7	<1		ug/L				U		10/18/12
Pyrene	129-00-0	<1		ug/L				U		10/18/12
4-Chloro-3-methylphenol	59-50-7	<1		ug/L				U		10/18/12
n-Nitroso-di-n-propylamine	621-64-7	<1		ug/L				U		10/18/12
Acenaphthene	83-32-9	<1		ug/L				U		10/18/12
Pentachlorophenol	87-86-5	<1		ug/L				U		10/18/12
2-Chlorophenol	95-57-8	<1		ug/L				U		10/18/12
4-Nitroaniline	100-01-6	<1		ug/L				U		10/18/12
4-Bromophenyl-phenylether	101-55-3	<1		ug/L				U		10/18/12
2,4-Dimethylphenol	105-67-9	<2		ug/L				U		10/18/12
4-Chloroaniline	106-47-8	<1		ug/L				U		10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

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	10/18/12
Bis-(2-Chloroethyl)ether	111-44-4		<1	ug/L				U	10/18/12
Bis-(2-Chloroethoxy)methane	111-91-1		<1	ug/L				U	10/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<1	ug/L				U	10/18/12
Di-n-octylphthalate	117-84-0		<1	ug/L				U	10/18/12
Hexachlorobenzene	118-74-1		<1	ug/L				U	10/18/12
Anthracene	120-12-7		<1	ug/L				U	10/18/12
2,4-Dichlorophenol	120-83-2		<1	ug/L				U	10/18/12
Dimethylphthalate	131-11-3		<1	ug/L				U	10/18/12
Dibenzofuran	132-64-9		<1	ug/L				U	10/18/12
Benzo(g,h,i)perylene	191-24-2		<1	ug/L				U	10/18/12
Indeno(1,2,3-cd)pyrene	193-39-5		<1	ug/L				U	10/18/12
Benzo(b)fluoranthene	205-99-2		<1	ug/L				U	10/18/12
Fluoranthene	206-44-0		<1	ug/L				U	10/18/12
Benzo(k)fluoranthene	207-08-9		<1	ug/L				U	10/18/12
Acenaphthylene	208-96-8		<1	ug/L				U	10/18/12
Chrysene	218-01-9		<1	ug/L				U	10/18/12
Benzo(a)pyrene	50-32-8		<1	ug/L				U	10/18/12
2,4-Dinitrophenol	51-28-5		<1	ug/L				U	10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

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	10/18/12
4,6-Dinitro-2-methylphenol	534-52-1		<1	ug/L				U	10/18/12
1,3-Dichlorobenzene	541-73-1		<1	ug/L				U	10/18/12
Benzo(a)anthracene	56-55-3		<1	ug/L				U	10/18/12
2,6-Dinitrotoluene	606-20-2		<1	ug/L				U	10/18/12
4-Chlorophenyl-phenylether	7005-72-3		<1	ug/L				U	10/18/12
Hexachlorocyclopentadiene	77-47-4		<1	ug/L				U	10/18/12
Isophorone	78-59-1		<1	ug/L				U	10/18/12
Diethyl phthalate	84-66-2		<1	ug/L				U	10/18/12
Di-n-butylphthalate	84-74-2		<1	ug/L				U	10/18/12
Phenanthrene	85-01-8		<1	ug/L				U	10/18/12
Butylbenzylphthalate	85-68-7		<1	ug/L				U	10/18/12
Fluorene	86-73-7		<1	ug/L				U	10/18/12
Carbazole	86-74-8		<1	ug/L				U	10/18/12
Hexachlorobutadiene	87-68-3		<1	ug/L				U	10/18/12
2-Nitroaniline	88-74-4		<1	ug/L				U	10/18/12
2-Nitrophenol	88-75-5		<1	ug/L				U	10/18/12
Naphthalene	91-20-3		<1	ug/L				U	10/18/12
2-Methylnaphthalene	91-57-6		<1	ug/L				U	10/18/12
2-Chloronaphthalene	91-58-7		<1	ug/L				U	10/18/12
3,3-Dichlorobenzidine	91-94-1		<1	ug/L				U	10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
2-Methylphenol	95-48-7		<1	ug/L				U	10/18/12
1,2-Dichlorobenzene	95-50-1		<1	ug/L				U	10/18/12
2,4,5-Trichlorophenol	95-95-4		<1	ug/L				U	10/18/12
Nitrobenzene	98-95-3		<1	ug/L				U	10/18/12
3-Nitroaniline	99-09-2		<1	ug/L				U	10/18/12
3 & 4 Methylphenol, Total	65794-96-9		<1	ug/L				U	10/18/12
Hexachloroethane	67-72-1		<1	ug/L				U	10/18/12
2,4,6-Trichlorophenol	88-06-2		<1	ug/L				U	10/18/12
Benzyl alcohol	100-51-6		<1	ug/L				U	10/18/12
Tributyl phosphate	126-73-8		<1	ug/L				U	10/18/12
2-Naphthylamine	91-59-8		<2	ug/L				U	10/18/12
Pyridine	110-86-1		<1	ug/L				U	10/18/12
n-Nitrosopiperidine	100-75-4		<1	ug/L				U	10/18/12
n-Nitrosomethylethylamine	10595-95-6		<1	ug/L				U	10/18/12
p-Phenylenediamine	106-50-3		<1	ug/L				U	10/18/12
2-Picoline	109-06-8		<1	ug/L				U	10/18/12
3,3-Dimethylbenzidine	119-93-7		<4	ug/L				U	10/18/12
Isosafrole	120-58-1		<1	ug/L				U	10/18/12
Phentermine	122-09-8		<5	ug/L				U	10/18/12
1,4-Dioxane	123-91-1		<1	ug/L				U	10/18/12
1,4-Naphthoquinone	130-15-4		<1	ug/L				U	10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

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

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
Methyl methanesulfonate	66-27-3		<1	ug/L				U	10/18/12
Pentachloroethane	76-01-7		<1	ug/L				U	10/18/12
Pentachloronitrobenzene	82-68-8		<2	ug/L				U	10/18/12
2,6-Dichlorophenol	87-65-0		<1	ug/L				U	10/18/12
Dinoseb(..dinitromethylphenol)	88-85-7		<1	ug/L				U	10/18/12
4-Aminobiphenyl	92-67-1		<2	ug/L				U	10/18/12
n-Nitrosodibutylamine	924-16-3		<1	ug/L				U	10/18/12
n-Nitrosopyridine	930-55-2		<1	ug/L				U	10/18/12
Safrole	94-59-7		<1	ug/L				U	10/18/12
o-Toluidine	95-53-4		<1	ug/L				U	10/18/12
1,2,4,5-Tetrachlorobenzene	95-94-3		<1	ug/L				U	10/18/12
Acetophenone	98-86-2		<1	ug/L				U	10/18/12
1,3,5-Trinitrobenzene	99-35-4		<1	ug/L				U	10/18/12
2-Methyl-5-nitroaniline	99-55-8		<1	ug/L				U	10/18/12
1,3-Dinitrobenzene	99-65-0		<1	ug/L				U	10/18/12
O,O,O-Triethylthiophosphate	126-68-1		<1	ug/L				U	10/18/12
Parathion	56-38-2		<1	ug/L				U	10/18/12
Dimethylaminoazobenzene	60-11-7		<1	ug/L				U	10/18/12
Dimethoate	60-51-5		<1	ug/L				U	10/18/12
Thionazin	297-97-2		<1	ug/L				U	10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group # WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Methyl parathion	298-00-0	<1		ug/L					U	10/18/12
Phorate	298-02-2	<1		ug/L					U	10/18/12
Disulfoton	298-04-4	<1		ug/L					U	10/18/12
Sulfotep	3689-24-5	<1		ug/L					U	10/18/12
Famfur	52-85-7	<5		ug/L					U	10/18/12
N-Nitrosodiphenylamin/ Diphenyl	DPA+NNDPA	<1		ug/L					U	10/18/12
Methapyrilene	91-80-5	<1		ug/L					U	10/18/12
<b>LCS</b>					<b>QC Sample #83041</b>					
4-Nitrophenol	100-02-7	14		ug/L	45.7	5 - 88				10/18/12
1,2,4-Trichlorobenzene	120-82-1	20		ug/L	67.8	50 - 105				10/18/12
Phenol	108-95-2	14		ug/L	46.2	18 - 89				10/18/12
1,4-Dichlorobenzene	106-46-7	14		ug/L	70.7	47 - 115				10/18/12
2,4-Dinitrotoluene	121-14-2	23		ug/L	78.3	59 - 110				10/18/12
Pyrene	129-00-0	23		ug/L	76.1	64 - 116				10/18/12
4-Chloro-3-methylphenol	59-50-7	24		ug/L	79.9	62 - 109				10/18/12
n-Nitroso-di-n-propylamine	621-64-7	23		ug/L	76.5	61 - 110				10/18/12
Acenaphthene	83-32-9	22		ug/L	73.4	59 - 113				10/18/12
Pentachlorophenol	87-86-5	20		ug/L	67.3	17 - 125				10/18/12
2-Chlorophenol	95-57-8	22		ug/L	72.7	55 - 109				10/18/12
1,4-Dioxane	123-91-1	20		ug/L	66.4	42 - 99				10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
n-Nitrosodimethylamine	62-75-9	21		ug/L	70.4	40 - 103				10/18/12
Benzyl alcohol	100-51-6		24	ug/L	79.4	58 - 108				10/18/12
2-Methylphenol	95-48-7		22	ug/L	74.2	59 - 107				10/18/12
Hexachloroethane	67-72-1		19	ug/L	61.8	43 - 105				10/18/12
2-Nitrophenol	88-75-5		21	ug/L	71.6	48 - 113				10/18/12
2,4-Dimethylphenol	105-67-9		23	ug/L	77.9	58 - 113				10/18/12
2,4-Dichlorophenol	120-83-2		21	ug/L	70.8	52 - 110				10/18/12
Anthracene	120-12-7		24	ug/L	80.4	67 - 113				10/18/12
Naphthalene	91-20-3		21	ug/L	69.2	55 - 110				10/18/12
2-Nitroaniline	88-74-4		24	ug/L	81.4	57 - 114				10/18/12
Dibenzofuran	132-64-9		23	ug/L	76.8	61 - 113				10/18/12
Fluorene	86-73-7		23	ug/L	77.6	64 - 115				10/18/12
Tributyl phosphate	126-73-8		24	ug/L	81.2	65 - 108				10/18/12
Hexachlorobenzene	118-74-1		24	ug/L	78.5	60 - 117				10/18/12
Dimethoate	60-51-5		13	ug/L	86.4	64 - 108				10/18/12
Carbazole	86-74-8		27	ug/L	88.4	35 - 129				10/18/12
Di-n-butylphthalate	84-74-2		25	ug/L	84.2	70 - 116				10/18/12
3,3-Dichlorobenzidine	91-94-1		19	ug/L	63.1	16 - 117				10/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		25	ug/L	83.5	64 - 133				10/18/12
Di-n-octylphthalate	117-84-0		22	ug/L	74.8	57 - 134				10/18/12
Benzo(a)pyrene	50-32-8		25	ug/L	83.2	63 - 115				10/18/12
2-Picoline	109-06-8		22	ug/L	73.5	59 - 102				10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis(1-Chloro-2-propyl)ether	108-60-1		21	ug/L	70.6	58 - 111				10/18/12
4-Chloroaniline	106-47-8		27	ug/L	90	43 - 125				10/18/12
<b>MS</b>										
<b>QC Sample #83042</b>										
<b>Original 121274003</b>										
4-Nitrophenol	100-02-7	<0.9	11	ug/L	38.2	15 - 57				10/18/12
1,2,4-Trichlorobenzene	120-82-1	<0.9	21	ug/L	72.9	51 - 104				10/18/12
Phenol	108-95-2	<0.9	11	ug/L	40.5	24 - 65				10/18/12
1,4-Dichlorobenzene	106-46-7	<0.9	14	ug/L	75.7	52 - 114				10/18/12
2,4-Dinitrotoluene	121-14-2	<0.9	23	ug/L	80.3	57 - 112				10/18/12
Pyrene	129-00-0	<0.9	25	ug/L	86.7	58 - 119				10/18/12
4-Chloro-3-methylphenol	59-50-7	<0.9	23	ug/L	82.4	56 - 115				10/18/12
n-Nitroso-di-n-propylamine	621-64-7	<0.9	22	ug/L	77.7	60 - 112				10/18/12
Acenaphthene	83-32-9	<0.9	22	ug/L	76.7	60 - 113				10/18/12
Pentachlorophenol	87-86-5	<0.9	19	ug/L	67.3	32 - 127				10/18/12
2-Chlorophenol	95-57-8	<0.9	21	ug/L	75.1	52 - 113				10/18/12
1,4-Dioxane	123-91-1	<0.9	18	ug/L	62.5	39 - 93				10/18/12
n-Nitrosodimethylamine	62-75-9	<0.9	19	ug/L	65.7	41 - 92				10/18/12
Benzyl alcohol	100-51-6	<0.9	22	ug/L	78.8	56 - 107				10/18/12
2-Methylphenol	95-48-7	<0.9	21	ug/L	73.9	46 - 114				10/18/12
Hexachloroethane	67-72-1	<0.9	19	ug/L	65.6	48 - 102				10/18/12
2-Nitrophenol	88-75-5	<0.9	21	ug/L	74.7	51 - 114				10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2,4-Dimethylphenol	105-67-9	<1	23	ug/L	80.1	46 - 124				10/18/12
2,4-Dichlorophenol	120-83-2	<0.9	21	ug/L	74.3	50 - 114				10/18/12
Anthracene	120-12-7	<0.9	24	ug/L	84.1	64 - 116				10/18/12
Naphthalene	91-20-3	<0.9	21	ug/L	73.9	57 - 110				10/18/12
2-Nitroaniline	88-74-4	<0.9	24	ug/L	86.2	60 - 114				10/18/12
Dibenzofuran	132-64-9	<0.9	23	ug/L	80.7	61 - 114				10/18/12
Fluorene	86-73-7	<0.9	23	ug/L	81.9	63 - 116				10/18/12
Tributyl phosphate	126-73-8	<0.9	24	ug/L	84.2	59 - 113				10/18/12
Hexachlorobenzene	118-74-1	<0.9	23	ug/L	82.5	58 - 119				10/18/12
Dimethoate	60-51-5	<0.9	12	ug/L	85.1	53 - 119				10/18/12
Carbazole	86-74-8	<0.9	25	ug/L	88.8	41 - 122				10/18/12
Di-n-butylphthalate	84-74-2	<0.9	25	ug/L	87.6	67 - 118				10/18/12
3,3-Dichlorobenzidine	91-94-1	<0.9	21	ug/L	73.9	16 - 121				10/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	<0.9	26	ug/L	92.2	64 - 134				10/18/12
Di-n-octylphthalate	117-84-0	<0.9	23	ug/L	82.9	40 - 143				10/18/12
Benzo(a)pyrene	50-32-8	<0.9	25	ug/L	87.8	61 - 117				10/18/12
2-Picoline	109-06-8	<0.9	21	ug/L	75.2	50 - 104				10/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<0.9	21	ug/L	72.9	58 - 112				10/18/12
4-Chloroaniline	106-47-8	<0.9	26	ug/L	93.5	43 - 118				10/18/12
<b>MSD</b>										
					<b>QC Sample #83043</b>					
					<b>Original 121274003</b>					
								<b>Paired 83042</b>		
4-Nitrophenol	100-02-7	<0.9	10	ug/L	36.5	15 - 57	4.70	20		10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,2,4-Trichlorobenzene	120-82-1	<0.9	21	ug/L	74	51 - 104	1.40	20		10/18/12
Phenol	108-95-2	<0.9	11	ug/L	38.3	24 - 65	5.50	20		10/18/12
1,4-Dichlorobenzene	106-46-7	<0.9	14	ug/L	74.8	52 - 114	1.30	20		10/18/12
2,4-Dinitrotoluene	121-14-2	<0.9	23	ug/L	79.9	57 - 112	0.50	20		10/18/12
Pyrene	129-00-0	<0.9	23	ug/L	82.9	58 - 119	4.40	20		10/18/12
4-Chloro-3-methylphenol	59-50-7	<0.9	23	ug/L	81.6	56 - 115	0.90	20		10/18/12
n-Nitroso-di-n-propylamine	621-64-7	<0.9	22	ug/L	78.1	60 - 112	0.60	20		10/18/12
Acenaphthene	83-32-9	<0.9	22	ug/L	79.1	60 - 113	3.20	20		10/18/12
Pentachlorophenol	87-86-5	<0.9	19	ug/L	67.9	32 - 127	0.80	20		10/18/12
2-Chlorophenol	95-57-8	<0.9	21	ug/L	74.8	52 - 113	0.40	20		10/18/12
1,4-Dioxane	123-91-1	<0.9	17	ug/L	61	39 - 93	2.40	20		10/18/12
n-Nitrosodimethylamine	62-75-9	<0.9	18	ug/L	64.4	41 - 92	1.90	20		10/18/12
Benzyl alcohol	100-51-6	<0.9	22	ug/L	78.2	56 - 107	0.80	20		10/18/12
2-Methylphenol	95-48-7	<0.9	21	ug/L	73.1	46 - 114	1.10	20		10/18/12
Hexachloroethane	67-72-1	<0.9	18	ug/L	64.4	48 - 102	1.80	20		10/18/12
2-Nitrophenol	88-75-5	<0.9	22	ug/L	77.9	51 - 114	4.20	20		10/18/12
2,4-Dimethylphenol	105-67-9	<1	23	ug/L	81.6	46 - 124	1.80	20		10/18/12
2,4-Dichlorophenol	120-83-2	<0.9	22	ug/L	76.3	50 - 114	2.60	20		10/18/12
Anthracene	120-12-7	<0.9	24	ug/L	84.7	64 - 116	0.60	20		10/18/12
Naphthalene	91-20-3	<0.9	21	ug/L	74.5	57 - 110	0.80	20		10/18/12
2-Nitroaniline	88-74-4	<0.9	24	ug/L	85.1	60 - 114	1.20	20		10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Dibenzofuran	132-64-9	<0.9	23	ug/L	81.5	61 - 114	1.00	20		10/18/12
Fluorene	86-73-7	<0.9	23	ug/L	82.1	63 - 116	0.20	20		10/18/12
Tributyl phosphate	126-73-8	<0.9	24	ug/L	84.3	59 - 113	0.10	20		10/18/12
Hexachlorobenzene	118-74-1	<0.9	23	ug/L	82	58 - 119	0.70	20		10/18/12
Dimethoate	60-51-5	<0.9	12	ug/L	85.5	53 - 119	0.50	20		10/18/12
Carbazole	86-74-8	<0.9	26	ug/L	93.2	41 - 122	4.90	20		10/18/12
Di-n-butylphthalate	84-74-2	<0.9	25	ug/L	87.5	67 - 118	0.10	20		10/18/12
3,3-Dichlorobenzidine	91-94-1	<0.9	22	ug/L	79.1	16 - 121	6.70	20		10/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	<0.9	25	ug/L	89.8	64 - 134	2.60	20		10/18/12
Di-n-octylphthalate	117-84-0	<0.9	23	ug/L	82.3	40 - 143	0.70	20		10/18/12
Benzo(a)pyrene	50-32-8	<0.9	23	ug/L	82.1	61 - 117	6.80	20		10/18/12
2-Picoline	109-06-8	<0.9	23	ug/L	81.5	50 - 104	8.00	20		10/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<0.9	21	ug/L	73.8	58 - 112	1.10	20		10/18/12
4-Chloroaniline	106-47-8	<0.9	26	ug/L	91.7	43 - 118	2.00	20		10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

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

**Group #** WSCF121274

**Analytical Batch** 209113 (QC Batch: 209018)      **Test** PCBs by EPA SW-846 Method 8082  
**Associated Samples** 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										
<b>QC Sample #83416</b>										
Aroclor-1016	12674-11-2	<0.1		ug/L				U		10/24/12
Aroclor-1221	11104-28-2	<0.2		ug/L				U		10/24/12
Aroclor-1232	11141-16-5	<0.1		ug/L				U		10/24/12
Aroclor-1242	53469-21-9	<0.1		ug/L				U		10/24/12
Aroclor-1248	12672-29-6	<0.1		ug/L				U		10/24/12
Aroclor-1254	11097-69-1	<0.1		ug/L				U		10/24/12
Aroclor-1260	11096-82-5	<0.1		ug/L				U		10/24/12
<b>LCS</b>										
<b>QC Sample #83417</b>										
Aroclor-1254	11097-69-1	1.9		ug/L	95.8	70 - 130				10/24/12
<b>MS</b>										
<b>QC Sample #83418</b>										
Original 121274003										
Aroclor-1254	11097-69-1	<0.09	1.8	ug/L	96.6	60 - 130				10/24/12
<b>MSD</b>										
<b>QC Sample #83419</b>										
Original 121274003										
<b>Paired 83418</b>										
Aroclor-1254	11097-69-1	<0.09	1.8	ug/L	96.3	60 - 130	0.30	20		10/24/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF121274

Analytical Batch 209183 (QC Batch: 209182) Test Total Organic Halides  
 Associated Samples 121274003, 121274004, 121274007, 121274008, 121274009, 121274010, 121274011, 121274012

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										QC Sample #83781
Total Organic Halides 59473-04-0 <5.0 ug/L										U 10/16/12
<b>LCS</b>										QC Sample #83782
Total Organic Halides 59473-04-0 382 mg/L	MS				95.4	80 - 120				10/16/12
Total Organic Halides 59473-04-0 <5.0 40.7 ug/L 101.7 75 - 125										MSD QC Sample #83787 Paired 83786 10/16/12
Total Organic Halides 59473-04-0 <5.0 40.9 ug/L 102.3 75 - 125							0.50	20		10/16/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

**Attention** Scot Fitzgerald  
**Department** Organic. Semivolatiles

**Group #** WSCF121274

**Analytical Batch** 208487 (QC Batch: 208467)      **Test** Extractable Diesel and Petroleum

**Associated Samples** 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed	
<b>SAMPLE</b>		<b>Sample #121274003</b>									
o-Terphenyl	84-15-1				97.7	70 - 130				10/11/12	
<b>SAMPLE</b>		<b>Sample #121274004</b>									
o-Terphenyl	84-15-1				98.9	70 - 130				10/11/12	
<b>BLANK</b>		<b>QC Sample #82704</b>									
o-Terphenyl	84-15-1				107.8	70 - 130				10/11/12	
<b>LCS</b>		<b>QC Sample #82705</b>									
o-Terphenyl	84-15-1				93.8	70 - 130				10/11/12	
<b>MS</b>		<b>QC Sample #82706</b> <b>Original 121270001</b>									
o-Terphenyl	84-15-1				97.3	70 - 130				10/11/12	
<b>MSD</b>		<b>QC Sample #82707</b> <b>Original 121270001</b>									
o-Terphenyl	84-15-1				103.3	70 - 130	n/a		<b>Paired 82706</b>		

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group # WSCF121274

Analytical Batch 208759 (QC Batch: 208758) Test Gasoline Range (W)  
 Associated Samples 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE		<b>Sample #121274003</b>								
4-Bromofluorobenzene	460-00-4				92.3	50 - 150				10/16/12
SAMPLE		<b>Sample #121274004</b>								
4-Bromofluorobenzene	460-00-4				89.6	50 - 150				10/16/12
BLANK		<b>QC Sample #82988</b>								
4-Bromofluorobenzene	460-00-4				92	50 - 150				10/16/12
LCS		<b>QC Sample #82989</b>								
4-Bromofluorobenzene	460-00-4				93	50 - 150				10/16/12
MS		<b>QC Sample #82990</b> Original 121270001								
4-Bromofluorobenzene	460-00-4				92.2	50 - 150				10/16/12
MSD		<b>QC Sample #82991</b> Original 121270001								
								Paired 82990		

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

**Quality Control Report****DECEMBER 18, 2012****REVISION 2****Attention** Scot Fitzgerald  
**Department** Organic, Volatiles**Group #** WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
4-Bromofluorobenzene	460-00-4				95.7	50 - 150	n/a			10/16/12
DUP			QC Sample #82992							
			Original	121270001						
4-Bromofluorobenzene	460-00-4				97.3	50 - 150	n/a			10/16/12

\* - QC result out of range

n/a - Not Applicable

**REVISED121274 -**

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

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

**Group #** WSCF121274

**Analytical Batch** 208875 (QC Batch: 208874)      **Test** SW-846 8260B Volatiles  
**Associated Samples** 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>SAMPLE</b>		<b>Sample #121274003</b>								
1,2-Dichloroethane-d4	17060-07-0				100	75 - 125				10/18/12
Toluene-d8	2037-26-5				98.1	75 - 125				10/18/12
4-Bromofluorobenzene	460-00-4				101.5	75 - 125				10/18/12
<b>SAMPLE</b>		<b>Sample #121274004</b>								
1,2-Dichloroethane-d4	17060-07-0				101.6	75 - 125				10/18/12
Toluene-d8	2037-26-5				97.9	75 - 125				10/18/12
4-Bromofluorobenzene	460-00-4				99.9	75 - 125				10/18/12
<b>BLANK</b>		<b>QC Sample #83108</b>								
1,2-Dichloroethane-d4	17060-07-0				101.5	75 - 125				10/18/12
Toluene-d8	2037-26-5				97.8	75 - 125				10/18/12
4-Bromofluorobenzene	460-00-4				98.6	75 - 125				10/18/12
<b>LCS</b>		<b>QC Sample #83109</b>								
1,2-Dichloroethane-d4	17060-07-0				100.6	75 - 125				10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Volatiles

Group # WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Toluene-d8	2037-26-5				96.8	75 - 125				10/18/12
4-Bromofluorobenzene	460-00-4				97.4	75 - 125				10/18/12
<b>MS</b>										
<b>QC Sample #83110</b>										
<b>Original 121270002</b>										
1,2-Dichloroethane-d4	17060-07-0				101.1	75 - 125				10/18/12
Toluene-d8	2037-26-5				97.6	75 - 125				10/18/12
4-Bromofluorobenzene	460-00-4				97.7	75 - 125				10/18/12
<b>MSD</b>										
<b>QC Sample #83111</b>										
<b>Original 121270002</b>										
<b>Paired 83110</b>										
1,2-Dichloroethane-d4	17060-07-0				103.2	75 - 125	n/a			10/18/12
Toluene-d8	2037-26-5				96.4	75 - 125	n/a			10/18/12
4-Bromofluorobenzene	460-00-4				97.8	75 - 125	n/a			10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

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

**Group #** WSCF121274

**Analytical Batch** 208917 (QC Batch: 208855)      **Test** SW-846 8270D Semivolatiles  
**Associated Samples** 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>SAMPLE</b>										<b>Sample #121274003</b>
2-Fluorophenol	367-12-4				48.6	44 - 135				10/18/12
Phenol-d5	4165-62-2				32	41 - 136		X		10/18/12
Nitrobenzene-d5	4165-60-0				68.8	53 - 129				10/18/12
2-Methylnaphthalene-d10	7297-45-2				68.7	50 - 140				10/18/12
2-Fluorobiphenyl	321-60-8				71	36 - 141				10/18/12
2,4,6-Tribromophenol	118-79-6				55.8	17 - 142				10/18/12
Fluoranthene-d10	93951-69-0				75.8	50 - 140				10/18/12
Terphenyl-d14	98904-43-9				88.6	61 - 142				10/18/12
<b>SAMPLE</b>										<b>Sample #121274004</b>
2-Fluorophenol	367-12-4				50.7	44 - 135				10/18/12
Phenol-d5	4165-62-2				34	41 - 136		X		10/18/12
Nitrobenzene-d5	4165-60-0				79.7	53 - 129				10/18/12
2-Methylnaphthalene-d10	7297-45-2				78	50 - 140				10/18/12
2-Fluorobiphenyl	321-60-8				80.7	36 - 141				10/18/12
2,4,6-Tribromophenol	118-79-6				62.7	17 - 142				10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group #

WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				82.5	50 - 140				10/18/12
Terphenyl-d14	98904-43-9				81.4	61 - 142				10/18/12
<b>BLANK</b>					<b>QC Sample #83040</b>					
2-Fluorophenol	367-12-4				65	44 - 135				10/18/12
Phenol-d5	4165-62-2				49	41 - 136				10/18/12
Nitrobenzene-d5	4165-60-0				78.1	53 - 129				10/18/12
2-Methylnaphthalene-d10	7297-45-2				76.7	50 - 140				10/18/12
2-Fluorobiphenyl	321-60-8				76.7	36 - 141				10/18/12
2,4,6-Tribromophenol	118-79-6				63.4	17 - 142				10/18/12
Fluoranthene-d10	93951-69-0				88.5	50 - 140				10/18/12
Terphenyl-d14	98904-43-9				88	61 - 142				10/18/12
<b>LCS</b>					<b>QC Sample #83041</b>					
2-Fluorophenol	367-12-4				61.5	44 - 135				10/18/12
Phenol-d5	4165-62-2				44.7	41 - 136				10/18/12
Nitrobenzene-d5	4165-60-0				76.4	53 - 129				10/18/12
2-Methylnaphthalene-d10	7297-45-2				76	50 - 140				10/18/12
2-Fluorobiphenyl	321-60-8				76.3	36 - 141				10/18/12
2,4,6-Tribromophenol	118-79-6				75.7	17 - 142				10/18/12
Fluoranthene-d10	93951-69-0				87.1	50 - 140				10/18/12
Terphenyl-d14	98904-43-9				82	61 - 142				10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

Attention Scot Fitzgerald  
 Department Organic, Semivolatiles

Group # WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>MS</b>										
<b>QC Sample #83042</b>										
<b>Original 121274003</b>										
2-Fluorophenol	367-12-4				56.5	44 - 135				10/18/12
Phenol-d5	4165-62-2				39.1	41 - 136		X		10/18/12
Nitrobenzene-d5	4165-60-0				78.9	53 - 129				10/18/12
2-Methylnaphthalene-d10	7297-45-2				79.3	50 - 140				10/18/12
2-Fluorobiphenyl	321-60-8				79.9	36 - 141				10/18/12
2,4,6-Tribromophenol	118-79-6				79.2	17 - 142				10/18/12
Fluoranthene-d10	93951-69-0				85.6	50 - 140				10/18/12
Terphenyl-d14	98904-43-9				91.3	61 - 142				10/18/12
<b>MSD</b>										
<b>QC Sample #83043</b>										
<b>Original 121274003</b>										
<b>Paired 83042</b>										
2-Fluorophenol	367-12-4				52.7	44 - 135	n/a			10/18/12
Phenol-d5	4165-62-2				37.6	41 - 136	n/a	X		10/18/12
Nitrobenzene-d5	4165-60-0				79.5	53 - 129	n/a			10/18/12
2-Methylnaphthalene-d10	7297-45-2				81.2	50 - 140	n/a			10/18/12
2-Fluorobiphenyl	321-60-8				80.3	36 - 141	n/a			10/18/12
2,4,6-Tribromophenol	118-79-6				79.8	17 - 142	n/a			10/18/12
Fluoranthene-d10	93951-69-0				89	50 - 140	n/a			10/18/12
Terphenyl-d14	98904-43-9				86	61 - 142	n/a			10/18/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

## Quality Control Report

DECEMBER 18, 2012

REVISION 2

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

**Group #** WSCF121274

**Analytical Batch** 209113 (QC Batch: 209018)      **Test** PCBs by EPA SW-846 Method 8082  
**Associated Samples** 121274003, 121274004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>SAMPLE</b>		<b>Sample #121274003</b>								
Tetrachloro-m-xylene	877-09-8				74.2	60 - 140				10/24/12
Decachlorobiphenyl	2051-24-3				101.5	60 - 140				10/24/12
<b>SAMPLE</b>		<b>Sample #121274004</b>								
Tetrachloro-m-xylene	877-09-8				78.7	60 - 140				10/24/12
Decachlorobiphenyl	2051-24-3				101.5	60 - 140				10/24/12
<b>BLANK</b>		<b>QC Sample #83416</b>								
Tetrachloro-m-xylene	877-09-8				81.6	60 - 140				10/24/12
Decachlorobiphenyl	2051-24-3				100.4	60 - 140				10/24/12
<b>LCS</b>		<b>QC Sample #83417</b>								
Tetrachloro-m-xylene	877-09-8				82.3	60 - 140				10/24/12
Decachlorobiphenyl	2051-24-3				87.1	60 - 140				10/24/12
<b>MS</b>		<b>QC Sample #83418</b>								
<b>Original 121274003</b>										
Tetrachloro-m-xylene	877-09-8				77.6	60 - 140				10/24/12
Decachlorobiphenyl	2051-24-3				94.9	60 - 140				10/24/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

# Quality Control Report

DECEMBER 18, 2012

REVISION 2

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

**Group #** WSCF121274

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
<b>MSD</b>			<b>QC Sample #83419</b>						
			Original	121274003			Paired	83418	
Tetrachloro-m-xylene	877-09-8				79.4	60 - 140	n/a		10/24/12
Decachlorobiphenyl	2051-24-3				94.2	60 - 140	n/a		10/24/12

\* - QC result out of range

n/a - Not Applicable

REVISED121274 -

Page 132 of 143

3004 1 1084 3

Report ID: 131374

Report ID: 121274  
Group # WSCE121274

Attention: Scot Fitzgerald

Group #

WSCF121274

121274003	B2M159
-----------	--------

Department	Organic, Semivolatiles
------------	------------------------

Analyte	Phenol-d5 - SW-846 8270D Semivolatiles [1] Surrogate recovery outside of established laboratory control limits.
---------	--

121274004	B2M153
-----------	--------

Department	Organic, Semivolatiles
------------	------------------------

Analyte	Phenol-d5 - SW-846 8270D Semivolatiles [1] Surrogate recovery outside of established laboratory control limits.
---------	--

## Quality Control Comments

Department	Inorganic
------------	-----------

82670 B2M159(121274003MS)

Analyte	Calcium - ICP-6010 - All possible metals [1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.
---------	---

82671 B2M159(121274003MSD)

Analyte	Calcium - ICP-6010 - All possible metals [1] X5: Sample concentration exceed spiking level by a factor of 4. Spike recoveries are not valid.
---------	---

82717 B2M6C0(121277001DUP)

Analyte	Nitrite-N - Anions by Ion Chromatography (Water) [1] Duplicate is flagged for RPD out-of-limits. RPD does not apply to samples concentrations below the calibration range. RPD is calculated on measured values and not applicable for a result below the RDL.
---------	--

REVISED121274 -

Attention: Scot Fitzgerald

Group #

WSCF121274

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

83042 B2M159(121274003MS)

**Analyte** Phenol-d5 - SW-846 8270D Semivolatiles

[1] Surrogate recovery outside of established laboratory control limits.

83043 B2M159(121274003MSD)

**Analyte** Phenol-d5 - SW-846 8270D Semivolatiles

[1] Surrogate recovery outside of established laboratory control limits.

ATTACHMENT4

**SAMPLE RECEIPT**

Consisting of 9 pages  
Including cover page

REVISED121274 -

**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 #: 121274

Profile #: W13-010-192

Proj. Mgr.:

Phone:

The following samples were received from you on 10/10/2012 10:50:00 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>				
121274001	B2M154	WATER	10/10/2012 08:31	10/10/2012 10:50
		IC-W		
121274002	B2M160	WATER	10/10/2012 09:39	10/10/2012 10:50
		IC-W		
121274003	B2M159	WATER	10/10/2012 09:39	10/10/2012 10:50
		2008-W; 6010-W; 8260V-W; 8270SV-W; ALK-W; CN-W; COD-W; PCB-W; TOC-W; TOX-W; TPHDWA-W; TPHGWA-W		
121274004	B2M153	WATER	10/10/2012 08:31	10/10/2012 10:50
		2008-W; 6010-W; 8260V-W; 8270SV-W; ALK-W; CN-W; COD-W; PCB-W; TOC-W; TOX-W; TPHDWA-W; TPHGWA-W		
121274005	B2M161	WATER	10/10/2012 09:39	10/10/2012 10:50
		2008-W; 6010-W		
121274006	B2M155	WATER	10/10/2012 08:31	10/10/2012 10:50
		2008-W; 6010-W		
121274007	B2M230	WATER	10/10/2012 09:39	10/10/2012 10:50
		TOC-W; TOX-W		
121274008	B2M231	WATER	10/10/2012 09:39	10/10/2012 10:50
		TOC-W; TOX-W		
121274009	B2M232	WATER	10/10/2012 09:39	10/10/2012 10:50
		TOC-W; TOX-W		
121274010	B2M227	WATER	10/10/2012 08:31	10/10/2012 10:50
		TOC-W; TOX-W		

REVISED121274 -

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

121274011	B2M228	WATER	10/10/2012 08:31	10/10/2012 10:50
		TOC-W; TOX-W		
121274012	B2M229	WATER	10/10/2012 08:31	10/10/2012 10:50
		TOC-W; TOX-W		
121274013	B2M8J8	WATER	10/10/2012 09:39	10/10/2012 10:50
		2008-W		
121274014	B2M8J9	WATER	10/10/2012 09:39	10/10/2012 10:50
		2008-W		
121274015	B2M8J6	WATER	10/10/2012 08:31	10/10/2012 10:50
		2008-W		
121274016	B2M8J5	WATER	10/10/2012 08:31	10/10/2012 10:50
		2008-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)
IC-W	Anions by IC (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)

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST											
C.O.C. # <b>W13-010-192</b>											
Page 1 of 1											
Collector	FM Hall CHPRC	Contact/Requester	Karen Waters-Husted		Telephone No.	376-4650					
SACF No.	W13-010	Sampling Origin	Hanford Site		Purchase Order/Charge Code	300071ES20					
Project Title	RCRA, OCTOBER 2012	Logbook No.	LINE-N-5064B /70		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>	Offsite Property No.	N/A					
SPECIAL INSTRUCTIONS											
Hold Time											
FY12 and FY13 samples cannot be in the same SMG. Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 40167.											
POSSIBLE SAMPLE HAZARDS/REMARKS											
*** Cummins Redoxine Material (corrosives) that are not regulated for transportation per 49 CFR but are not regulated per DOE Order 5400.5 (1990, 1993)											
'21274											
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative			
BZM154	1	N	W	10/10/12 0831	1x500-mL P	3000 ANIONS JC: List-1 (5)	48 Hours	Cool-4C			
RQH											
Requisitioned By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *			
FM Hall CHPRC		OCT 10 2012	10:45	RASHMI HEMALATHA		10/10/2012	10:45	S	Soil	DS	Drum Solids
Requisitioned By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	SE	Sediment	DL	Drum Liquids
		10/10/12	10:55	T. H. PAUDEL		10/10/2012	10:55	SO	Solid	T	Tissue
Requisitioned By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	SL	Sludge	WI	Liquid
		10/10/12	10:55	Karen Waters-Husted		10/10/2012	10:55	W	Water	L	Wipe
Requisitioned By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	O	Oil	V	Vegetation
								A	Air	X	Other
FINAL SAMPLE DISPOSITION	Disposed By								Date/Time		

A 6004-842 (REV 2)

PRINTED ON 9/18/2012

REVISED121274 -

## Chain of Custody

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST												
C.O.C. # W13-010-194											Page 1 of 1	
Collector	FM Hall 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 42/70			Ice Chest No.	N/A					
Shipped To (lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE			Bill of Lading/Arr. Bill No.	N/A					
Protocol	RCRA	Priority:	31 Days	PRIORITY	SPECIAL INSTRUCTIONS	Offsite Property No.	N/A					
FY12 and FY13 samples cannot be in the same SPKG. Site Waste Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 40154-7.												
POSSIBLE SAMPLE HAZARDS/REMARKS  *** Certain Radioactive Material at concentrations that are not regulated for transportation per 29 CFR but are not releasable per DOE Order 5400.5 (1990-1993)												
Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis	Holding Time			Preservative		
B2M60	2	N	W	10/10/12	09391	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	48 Hours			Cool~4C	

  

Relinquished By	Print	Sign	Date/Time	Received By	Date/Time	Matrix
FM Hall CHPRC Waste Sampling		OCT 10 2012 1045		ASHBURN	OCT 10 2012 1045	S = Soil
		Date/Time 10/10/12 10:45	Received By	ASHBURN	Date/Time 10/10/12 10:45	SE = Sediment
			Received By	ASHBURN	Date/Time 10/10/12 10:45	SO = Solid
			Received By	ASHBURN	Date/Time 10/10/12 10:45	SL = Sludge
			Received By	ASHBURN	Date/Time 10/10/12 10:45	WI = Wine
			Received By	ASHBURN	Date/Time 10/10/12 10:45	W = Water
			Received By	ASHBURN	Date/Time 10/10/12 10:45	O = Oil
			Received By	ASHBURN	Date/Time 10/10/12 10:45	A = Air
			Received By	ASHBURN	Date/Time 10/10/12 10:45	X = Other

  

FINAL SAMPLE	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time
PRINTED ON 9/19/2012			
A 6004-842 (REV 2)			

REVISED121274 -

## **Chain of Custody**

REVISED121274 -

## Chain of Custody

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST										C.O.C. #	W13-010-193	
Collector	FM Hall CHPRC	Sampling Origin	Karen Waters-Husted Hanford Site	Contact Requester		Telephone No.	376-4650	Page 2 of 2				
SAF No.	W13-010	Logbook No.	HNF-N-506 <u>48</u> / <u>70</u>	Purchase Order/Charge Code	300071ES20	Ice Chest No.	N/A					
Project Title	RCRA, OCTOBER 2012	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A	Offsite Property No.	N/A					
Shipped To (Lab)	Waste Sampling & Characterization	Priority:	31 Days	SPECIAL INSTRUCTIONS	Hold Time	Total Activity Exemption	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Protocol	RCRA	PRIORITY										
POSSIBLE HAZARDS/REMARKS												
*** Contain Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5410.5 (1990) (1993)												
Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis		Holding Time	Preservative			
B2M159	N	W	10/10/12	09:39	1x250-mL aG	9060_TOC_TOC (1)		28 Days	HCl or H <sub>2</sub> SO <sub>4</sub> to pH <2/Cool-4C			
B2M159	N	W			3x1-L aG	TPH-Diesel/Kerosene Range - WTPH-D		14/40 Days	HCl to pH <2/Cool-4C			
B2M159	N	W			4x40-mL aGs*	TPH-Gasoline Range - WTPH-G		14 Days	HCl to pH <2/Cool-4C			
B2M159	V	W			3x40-mL aGs*	8260_VOA_GCMS_IX: COMMON; 8260_VOA_GCMS_IX: COMMON (Add-on)		14 Days	HCl or H <sub>2</sub> SO <sub>4</sub> to pH <2/Cool-4C			
B2M159	V	W			4x1-L aG	8270_SVOA_GCMS_IX: COMMON		7(4) Days	Cool-4C			
B2M232	V	W			1x1-L aGs*	9020_TOX_TOX (1)		28 Days	H <sub>2</sub> SO <sub>4</sub> to pH <2/Cool-4C			
B2M232	V	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			
B2M8J8	13	N	W		1x500 mL G	200.8_HG_ICPMS		28 Days	HN03 to pH <2			
B2M8J9	14	V	W		1x500-mL G	200.8_HG_ICPMS		28 Days	HN03 to pH <2			

Relinquished By	Print	Sign	Date/Time	Received By	Date/Time	Matrix *
FM Hall CHPRC		OCT 10 2012 /045	10/10/2012 09:45		10/10/2012 10:50	S - Soil
Relinquished By			Date/Time	Received By	Date/Time	SE - Sediment
Relinquished By			Date/Time	Received By	Date/Time	SO - Solid
Relinquished By			Date/Time	Received By	Date/Time	SL - Sludge
Relinquished By			Date/Time	Received By	Date/Time	W - Water
Relinquished By			Date/Time	Received By	Date/Time	O - Oil
Relinquished By			Date/Time	Received By	Date/Time	A - Air
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)					Date/Time
PRINTED ON 9/19/2012						Date/Time

REVISED121274 -

## Chain of Custody

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST									
C.O.C. #		W13-010-191							
		Page 1 of 2							
Collector	FM Hall CHPRC	Contact Requester	Karen Waters-Illustred	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 <u>46_7Q</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:	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 Radioactive Material at concentrations that are not regulated for transportation per 49 CFR; but are not releasable per DOE Order 5400.5 (1996/1993)									
Sample No.	Filter *	Date	Time	No/Type Container	Sample Analysis		Holding Time	Preservative	
B2M153	15	Y	W 10/01/12	0831	1x500-mL G	200.8 HG-ICPMs	28 Days	HNO3 to pH <2	
B2M153	4	N	W		1x500-mL G/P	200.8 METALS_ICPMs; List-1 (26)	6 Months	HNO3 to pH <2	
B2M153	1	N	W		1x250-mL G/P	2320_ALKALINITY: Alkalinity (1)	14 Days	Cool ~4C	
B2M153	1	N	W		1x500-mL G/P	410.4_COD: COD (1)	28 Days	H2SO4 to pH <2/Cool ~4C	
B2M153	1	N	W		1x250-mL P	4600E_CN: Cyanide (1)	14 Days	NaOH to pH >=12	
B2M153	1	N	W		1x500-mL G/P	6010_METALS_ICP: List-3 (18)	6 Months	HNO3 to pH <2	
B2M153	1	N	W		4x1-L aG	8082 PCB GC: List-1 (7)	None	Cool ~4C	
B2M153	1	N	W	19/01/12	1x1-L aGs*	5020_TOX_TOX (1)	28 Days	H2SO4 to pH <2/Cool ~4C	
B2M153	1	N	W	10/01/12	0831	9999_SHHH-BE-Saltate-(1)	7 Days	ZnAc + NaOH + pH >=12/Cool ~4C	
B2M153	1	N	W	10/01/12	0831	9960_TOC_TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool ~4C	
B2M153	1	N	W	10/01/12	0831	TPH-Diesel/Kerosene Range - WTPH-D	14/40 Days	HCl to pH <2/Cool ~4C	
B2M153	1	N	W	10/01/12	0831	TPH-Gasoline Range - WTPH-G	14 Days	HCl to pH <2/Cool ~4C	
B2M153	1	N	W	10/01/12	0831	8260_VOA_GCMS_IX: COMMON; 8260_VOA_GCMS_IX: COMMON (Add-on)	14 Days	HCl or H2SO4 to pH <2/Cool ~4C	
B2M153	1	N	W	10/01/12	0831	8270_SVOA_GCMS_IX: COMMON	7/40 Days	Cool ~4C	
Requisitioned By	Print Name	Sign	Date/Time	Received By	Date/Time	Matrix *	Matrix *		
FM Hall CHPRC	<u>FM Hall</u>	<u>CHPRC</u>	OCT 10 2012	<u>Karen Waters-Illustred</u>	<u>10/10/12 10:45</u>	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air		
Requisitioned By	Date/Time	Date/Time	Date/Time	Received By	Date/Time				
<u>TA FNAZ</u>	<u>10/05/12</u>	<u>10/05/12</u>	<u>10/05/12</u>	<u>Jeanne Ziegler</u>	<u>10/05/12</u>				
Requisitioned By	Date/Time	Date/Time	Date/Time	Received By	Date/Time				
Requisitioned By	Date/Time	Date/Time	Date/Time	Received By	Date/Time				
Final Sample Disposition	Disposal Method (e.g., Return to customer, per lab procedure, used in process)								Disposed By
PRINTED ON 9/18/2012									
Date/Time: A-6004-842 (REV 2)									

REVISED121274 -

## Chain of Custody

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST									
C.O.C. # W13-010-191									
Page 2 of 2									
Collector	FM Hall CHERC W13-010	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650				
SAF No.		Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20				
Project Title	RCRA, OCTOBER 2012	Logbook No.	HNU-N-506 48/70	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				
SPECIAL INSTRUCTIONS									
FY12 and FY13 samples cannot be in the same SDG Site Wide Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.									
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)									
Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis			Holding Time
B2M227	/O	N	W	10/01/12 0831	1x1-L aGs*	9020_TOX_TOX (1)			28 Days
B2M227	\	N	W		1x250-mL aG	9060_TOC:TOC (1)			28 Days
B2M155	6	Y	W		1x500-mL G/P	200.8_METALS_ICPMS_List-1 (28)			6 Months
B2M155	\	Y	W		1x500-mL G/P	6010_METALS_ICP>List-3 (18)			6 Months
B2M228	11	N	W		1x1-L aGs*	9020_TOX_TOX (1)			28 Days
B2M228	\	N	W		1x250-mL aG	9060_TOC:TOC (1)			28 Days
B2M229	12	N	W		1x1-L aGs*	9020_TOX_TOX (1)			28 Days
B2M229	\	N	W		1x250-mL aG	9060_TOC:TOC (1)			28 Days
B2M8J5	16	Y	W		1x500-mL G	200.8_HG_ICPMS			28 Days
Preservative									
HNO3 to pH <2/Cool-4C									
HCl or H2SO4 to pH <2/Cool-4C									
HNO3 to pH <2									
HNO3 to pH <2/Cool-4C									
HCl or H2SO4 to pH <2/Cool-4C									
H2SO4 to pH <2/Cool-4C									
HCl or H2SO4 to pH <2/Cool-4C									
H2SO4 to pH <2/Cool-4C									
HCl or H2SO4 to pH <2/Cool-4C									
HNO3 to pH <2									
HNO3 to pH <2/Cool-4C									
HCl or H2SO4 to pH <2/Cool-4C									
H2SO4 to pH <2/Cool-4C									
HCl or H2SO4 to pH <2/Cool-4C									
H2SO4 to pH <2/Cool-4C									
HCl or H2SO4 to pH <2/Cool-4C									
HNO3 to pH <2									
Received By	Print	Sign	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Matrix *
FM Hall CHERC		OCT 10 2012	10/10/2012	10/10/2012	10/10/2012	10/10/2012	10/10/2012	10/10/2012	S = Soil SE = Sediment SC = Solid SL = Shale W = Water O = Oil A = Air
Received By									D = Drum Solids Dl = Drum Liquids T = Tissue WI = Wine L = Liquid V = Vegetation X = Other
Received By									
Received By									
Final Sample Disposition	Disposed By Date/Time								
PRINTED ON 9/18/2012									
A 6004-842 (REV 2)									

REVISED121274 -