



Chris Bittner
Utah Division of Water Quality
PO Box 144870
SLC, UT 84114
TEL: (801) 536-4300

RE: MP 44.9

Dear Chris Bittner:

Lab Set ID: 1303802

463 West 3600 South
Salt Lake City, UT 84115

American West Analytical Laboratories received 16 sample(s) on 3/31/2013 for the analyses presented in the following report.

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web: www.awal-labs.com

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, and Missouri.

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Thank You,

Approved by: _____
Laboratory Director or designee



TPH (DRO) Case Narrative

Client: Utah Division of Water Quality
Contact: Chris Bittner
Project: MP 44.9
Lab Set ID: 1303802

463 West 3600 South
Salt Lake City, UT 84115

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 3/31/2013
Date of Collection: 3/31/2013
Sample Condition: Intact
C-O-C Discrepancies: See COC
Method: SW-846 8015D /3510C
Analysis: Total Petroleum Hydrocarbon (DRO - C10-28)

General Set Comments: Multiple samples exhibited TPH-DRO above the reporting limit.

Holding Time Requirements: The preparations and analyses of the samples were performed within respective holding times.

Analysis Requirements: The samples were prepared and/or analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blank (MB): No target analytes were detected above reporting limits, evaluated to MDL, indicating the procedure was free from contamination.

Laboratory Control Samples (LCS): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, indicating no apparent matrix interferences.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



Semivolatile Case Narrative

Client: Utah Division of Water Quality
Contact: Chris Bittner
Project: MP 44.9
Lab Set ID: 1303802

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Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 3/31/2013
Date of Collection: 3/31/2013
Sample Condition: Intact
C-O-C Discrepancies: See COC
Method: SW-846 8270D/3510C
Analysis: Semivolatile Organics

General Set Comments: Multiple analytes were observed above reporting limit. The samples were analyzed for TICs.

Holding Time Requirements: The preparations and analyses of the samples were performed within respective holding times.

Preparation Requirements: The samples were prepared and analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blanks: No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD): All LCS percent recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exception: On sample 1303802-001BMSD, the RPD for 1,4-Dichlorobenzene was outside of its control limit due to suspected sample non-homogeneity or matrix interference.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



Volatile Case Narrative

Client: Utah Division of Water Quality
Contact: Chris Bittner
Project: MP 44.9
Lab Set ID: 1303802

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Salt Lake City, UT 84115

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 3/31/2013
Date of Collection: 3/31/2013
Sample Condition: Intact
C-O-C Discrepancies: See COC
Method: SW-846 8260C/5030C
Analysis: Volatile Organic Compounds

General Set Comments: Multiple target analytes were observed above reporting limits.

Holding Time and Preservation Requirements: All samples were received in appropriate containers. All samples were received unpreserved with a pH >2. Analysis was performed within 7 day holding time. The analysis and preparation of all samples were performed within the method holding times following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blanks (MBs): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Sample (LCSs): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, indicating no apparent matrix interferences.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-001C
Client Sample ID: East of I-15 / 4920392
Collection Date: 3/31/2013 735h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/1/2013 2344h **Extracted:** 4/1/2013 1026h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.222	0.4000	55.6	10-190	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-002C
Client Sample ID: S. Marina / 4920495
Collection Date: 3/31/2013 745h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/2/2013 003h **Extracted:** 4/1/2013 1026h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.215	0.4000	53.7	10-190	

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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-003C
Client Sample ID: 50' from 0397 / 4920508
Collection Date: 3/31/2013 830h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/2/2013 023h **Extracted:** 4/1/2013 1026h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.205	0.4000	51.3	10-190	

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-004C
Client Sample ID: North Boom / 4920397
Collection Date: 3/31/2013 840h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/2/2013 042h **Extracted:** 4/1/2013 1026h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.194	0.4000	48.5	10-190	

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QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-006C
Client Sample ID: W. Boom 4 / 4920498
Collection Date: 3/31/2013 855h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/2/2013 121h **Extracted:** 4/1/2013 1026h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.192	0.4000	48.1	10-190	

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-007C
Client Sample ID: 50' from WB 4 / 4920502
Collection Date: 3/31/2013 900h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/2/2013 317h **Extracted:** 4/1/2013 1026h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.225	0.4000	56.2	10-190	

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-008C
Client Sample ID: W. Boom 3 / 4920497
Collection Date: 3/31/2013 910h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/2/2013 415h **Extracted:** 4/1/2013 1245h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	0.664			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.254	0.4000	63.4	10-190	

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-009C
Client Sample ID: W. Boom 2 / 4920496
Collection Date: 3/31/2013 915h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/2/2013 434h **Extracted:** 4/1/2013 1245h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.266	0.4000	66.4	10-190	

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-010C
Client Sample ID: 50' From 0396 / 4920505
Collection Date: 3/31/2013 920h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/2/2013 453h **Extracted:** 4/1/2013 1245h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.215	0.4000	53.8	10-190	

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-011C
Client Sample ID: W. Boom 1 / 4920396
Collection Date: 3/31/2013 930h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/2/2013 513h **Extracted:** 4/1/2013 1245h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	0.930			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.195	0.4000	48.7	10-190	

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Laboratory Director

Jose Rocha
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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-014C
Client Sample ID: Between Weirs Dup / 4920394
Collection Date: 3/31/2013 955h
Received Date: 3/31/2013 1114h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/2/2013 611h **Extracted:** 4/1/2013 1245h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	4.20			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.214	0.4000	53.4	10-190	

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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-001B
Client Sample ID: East of I-15 / 4920392
Collection Date: 3/31/2013 735h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 126h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	0.290	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	0.300	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-002B

Client Sample ID: S. Marina / 4920495

Collection Date: 3/31/2013 745h

Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 248h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-003B
Client Sample ID: 50' from 0397 / 4920508
Collection Date: 3/31/2013 830h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 316h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-004B
Client Sample ID: North Boom / 4920397
Collection Date: 3/31/2013 840h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 343h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-005B
Client Sample ID: W. Boom 5 / 4920499
Collection Date: 3/31/2013 850h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 411h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-006B
Client Sample ID: W. Boom 4 / 4920498
Collection Date: 3/31/2013 855h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 438h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-007B
Client Sample ID: 50' from WB 4 / 4920502
Collection Date: 3/31/2013 900h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 506h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-008B
Client Sample ID: W. Boom 3 / 4920497
Collection Date: 3/31/2013 910h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 533h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.320	
2-Methylnaphthalene	91-57-6	0.100	0.410	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-009B
Client Sample ID: W. Boom 2 / 4920496
Collection Date: 3/31/2013 915h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 600h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-010B
Client Sample ID: 50' From 0396 / 4920505
Collection Date: 3/31/2013 920h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 627h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-011B
Client Sample ID: W. Boom 1 / 4920396
Collection Date: 3/31/2013 930h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 907h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.480	
2-Methylnaphthalene	91-57-6	0.100	0.650	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-012B
Client Sample ID: East of Boom / 4920395
Collection Date: 3/31/2013 945h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 934h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	2.05	
2-Methylnaphthalene	91-57-6	0.100	2.80	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	0.780	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-013B
Client Sample ID: Between Weirs / 4920394
Collection Date: 3/31/2013 955h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 1001h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	1.25	
2-Methylnaphthalene	91-57-6	0.100	1.78	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	0.350	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-014B
Client Sample ID: Between Weirs Dup / 4920394
Collection Date: 3/31/2013 955h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/4/2013 1027h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	1.84	
2-Methylnaphthalene	91-57-6	0.100	2.68	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	0.500	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	0.590	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303802-001B
Client Sample ID: East of I-15 / 4920392
Collection Date: 3/31/2013 735h
Received Date: 3/31/2013 1114h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 1352h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	@
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 4/2/2013 1352h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-001B
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/2/2013 1352h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-001B
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/2/2013 1352h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: Dichloroacetic acid, heptad...	1000282-98-2		7.69	JN



Lab Sample ID: 1303802-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 4/2/2013 1352h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	59.1	80.00	73.9	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	25.7	40.00	64.2	10-124	
Surr: 2-Fluorophenol	367-12-4	24.0	80.00	30.0	10-106	
Surr: Nitrobenzene-d5	4165-60-0	21.0	40.00	52.6	10-180	
Surr: Phenol-d6	13127-88-3	17.9	80.00	22.3	10-122	
Surr: Terphenyl-d14	1718-51-0	31.9	40.00	79.8	10-221	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

@ - High RPD due to suspected sample non-homogeneity or matrix interference.

This sample was analyzed for TICs.

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-002B

Client Sample ID: S. Marina / 4920495

Collection Date: 3/31/2013 745h

Received Date: 3/31/2013 1114h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 1512h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/2/2013 1512h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/2/2013 1512h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/2/2013 1512h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: Cyclopentadecane	000295-48-7		7.75	JN
TIC: N,3-Diphenyl-1,2-carbazoled...	022315-13-5		21.8	JN



Lab Sample ID: 1303802-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/2/2013 1512h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	60.9	80.00	76.2	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	21.2	40.00	53.0	10-124	
Surr: 2-Fluorophenol	367-12-4	27.6	80.00	34.4	10-106	
Surr: Nitrobenzene-d5	4165-60-0	20.1	40.00	50.4	10-180	
Surr: Phenol-d6	13127-88-3	18.5	80.00	23.1	10-122	
Surr: Terphenyl-d14	1718-51-0	33.9	40.00	84.8	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
This sample was analyzed for TICs.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-003B
Client Sample ID: 50' from 0397 / 4920508
Collection Date: 3/31/2013 830h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 1539h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-003B
Client Sample ID: 50' from 0397 / 4920508

Analyzed: 4/2/2013 1539h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-003B
Client Sample ID: 50' from 0397 / 4920508

Analyzed: 4/2/2013 1539h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-003B
Client Sample ID: 50' from 0397 / 4920508

Analyzed: 4/2/2013 1539h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: 1-Octadecanol	000112-92-5		5.21	JN



Lab Sample ID: 1303802-003B
Client Sample ID: 50' from 0397 / 4920508

Analyzed: 4/2/2013 1539h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	57.9	80.00	72.4	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	19.6	40.00	48.9	10-124	
Surr: 2-Fluorophenol	367-12-4	18.7	80.00	23.4	10-106	
Surr: Nitrobenzene-d5	4165-60-0	14.8	40.00	37.1	10-180	
Surr: Phenol-d6	13127-88-3	15.5	80.00	19.4	10-122	
Surr: Terphenyl-d14	1718-51-0	28.8	40.00	72.0	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
This sample was analyzed for TICs.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-004B

Client Sample ID: North Boom / 4920397

Collection Date: 3/31/2013 840h

Received Date: 3/31/2013 1114h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 1633h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-004B

Client Sample ID: North Boom / 4920397

Analyzed: 4/2/2013 1633h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-004B

Client Sample ID: North Boom / 4920397

Analyzed: 4/2/2013 1633h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-004B

Client Sample ID: North Boom / 4920397

Analyzed: 4/2/2013 1633h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: Heptafluorobutanoic acid, h...	1000282-97-3		8.15	JN



Lab Sample ID: 1303802-004B

Client Sample ID: North Boom / 4920397

Analyzed: 4/2/2013 1633h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	59.6	80.00	74.5	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	21.3	40.00	53.2	10-124	
Surr: 2-Fluorophenol	367-12-4	27.6	80.00	34.5	10-106	
Surr: Nitrobenzene-d5	4165-60-0	19.3	40.00	48.2	10-180	
Surr: Phenol-d6	13127-88-3	19.9	80.00	24.8	10-122	
Surr: Terphenyl-d14	1718-51-0	34.2	40.00	85.5	10-221	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

This sample was analyzed for TICs.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-005B
Client Sample ID: W. Boom 5 / 4920499
Collection Date: 3/31/2013 850h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 1700h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



Lab Sample ID: 1303802-005B
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 4/2/2013 1700h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-005B
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 4/2/2013 1700h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-005B
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 4/2/2013 1700h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: 5-Eicosene, (E)-	074685-30-6		7.68	JN
TIC: 9-Octadecenamamide, (Z)-	000301-02-0		14.6	JN



Lab Sample ID: 1303802-005B
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 4/2/2013 1700h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	63.1	80.00	78.8	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	21.2	40.00	52.9	10-124	
Surr: 2-Fluorophenol	367-12-4	30.9	80.00	38.7	10-106	
Surr: Nitrobenzene-d5	4165-60-0	19.0	40.00	47.4	10-180	
Surr: Phenol-d6	13127-88-3	23.1	80.00	28.8	10-122	
Surr: Terphenyl-d14	1718-51-0	31.4	40.00	78.5	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
This sample was analyzed for TICs.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-006B

Client Sample ID: W. Boom 4 / 4920498

Collection Date: 3/31/2013 855h

Received Date: 3/31/2013 1114h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 1727h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-006B
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 4/2/2013 1727h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-006B
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 4/2/2013 1727h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-006B
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 4/2/2013 1727h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: 1-Docosene	001599-67-3		5.96	JN



Lab Sample ID: 1303802-006B
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 4/2/2013 1727h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	65.0	80.00	81.2	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	18.1	40.00	45.2	10-124	
Surr: 2-Fluorophenol	367-12-4	32.1	80.00	40.1	10-106	
Surr: Nitrobenzene-d5	4165-60-0	16.2	40.00	40.6	10-180	
Surr: Phenol-d6	13127-88-3	22.8	80.00	28.4	10-122	
Surr: Terphenyl-d14	1718-51-0	27.7	40.00	69.4	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
This sample was analyzed for TICs.

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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-007B
Client Sample ID: 50' from WB 4 / 4920502
Collection Date: 3/31/2013 900h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 1754h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-007B
Client Sample ID: 50' from WB 4 / 4920502

Analyzed: 4/2/2013 1754h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-007B
Client Sample ID: 50' from WB 4 / 4920502

Analyzed: 4/2/2013 1754h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-007B
Client Sample ID: 50' from WB 4 / 4920502

Analyzed: 4/2/2013 1754h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: Cyclopentadecane	000295-48-7		6.31	JN



Lab Sample ID: 1303802-007B

Client Sample ID: 50' from WB 4 / 4920502

Analyzed: 4/2/2013 1754h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	60.1	80.00	75.1	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	22.4	40.00	55.9	10-124	
Surr: 2-Fluorophenol	367-12-4	31.4	80.00	39.3	10-106	
Surr: Nitrobenzene-d5	4165-60-0	20.0	40.00	50.0	10-180	
Surr: Phenol-d6	13127-88-3	22.0	80.00	27.5	10-122	
Surr: Terphenyl-d14	1718-51-0	30.4	40.00	76.1	10-221	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

This sample was analyzed for TICs.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-008B

Client Sample ID: W. Boom 3 / 4920497

Collection Date: 3/31/2013 910h

Received Date: 3/31/2013 1114h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 1821h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-008B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/2/2013 1821h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-008B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/2/2013 1821h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-008B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/2/2013 1821h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: 1(2H)-Naphthalenone, 3,4-di...	006939-35-1		5.77	JN
TIC: 1,2,3-Trimethylindene	004773-83-5		4.61	JN
TIC: 1,3,5-Cycloheptatriene, 3,4...	1000156-99-7		5.34	JN



Lab Sample ID: 1303802-008B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/2/2013 1821h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 2-Ethyl-1-H-indene	017059-50-6		4.67	JN
TIC: Cyclohexadecane	000295-65-8		6.70	JN
TIC: Cyclopentane, 1,2,3,4,5-pen...	1000152-79-7		4.02	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	64.5	80.00	80.6	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	23.8	40.00	59.5	10-124	
Surr: 2-Fluorophenol	367-12-4	33.0	80.00	41.2	10-106	
Surr: Nitrobenzene-d5	4165-60-0	20.4	40.00	51.0	10-180	
Surr: Phenol-d6	13127-88-3	24.5	80.00	30.6	10-122	
Surr: Terphenyl-d14	1718-51-0	28.5	40.00	71.4	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
This sample was analyzed for TICs.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-009B

Client Sample ID: W. Boom 2 / 4920496

Collection Date: 3/31/2013 915h

Received Date: 3/31/2013 1114h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 1848h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-009B
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 4/2/2013 1848h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-009B
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 4/2/2013 1848h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-009B
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 4/2/2013 1848h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: 5-Eicosene, (E)-	074685-30-6		5.94	JN



Lab Sample ID: 1303802-009B
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 4/2/2013 1848h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	56.7	80.00	70.8	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	22.5	40.00	56.2	10-124	
Surr: 2-Fluorophenol	367-12-4	29.5	80.00	36.9	10-106	
Surr: Nitrobenzene-d5	4165-60-0	19.1	40.00	47.7	10-180	
Surr: Phenol-d6	13127-88-3	21.0	80.00	26.2	10-122	
Surr: Terphenyl-d14	1718-51-0	29.8	40.00	74.6	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
This sample was analyzed for TICs.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-010B
Client Sample ID: 50' From 0396 / 4920505
Collection Date: 3/31/2013 920h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 2224h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-010B
Client Sample ID: 50' From 0396 / 4920505

Analyzed: 4/2/2013 2224h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-010B
Client Sample ID: 50' From 0396 / 4920505

Analyzed: 4/2/2013 2224h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-010B
Client Sample ID: 50' From 0396 / 4920505

Analyzed: 4/2/2013 2224h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1303802-010B
Client Sample ID: 50' From 0396 / 4920505

Analyzed: 4/2/2013 2224h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	55.1	80.00	68.9	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	17.6	40.00	44.0	10-124	
Surr: 2-Fluorophenol	367-12-4	23.1	80.00	28.8	10-106	
Surr: Nitrobenzene-d5	4165-60-0	14.0	40.00	35.0	10-180	
Surr: Phenol-d6	13127-88-3	17.1	80.00	21.4	10-122	
Surr: Terphenyl-d14	1718-51-0	29.1	40.00	72.8	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

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QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-011B

Client Sample ID: W. Boom 1 / 4920396

Collection Date: 3/31/2013 930h

Received Date: 3/31/2013 1114h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 2250h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-011B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/2/2013 2250h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-011B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/2/2013 2250h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-011B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/2/2013 2250h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: 1(2H)-Naphthalenone, 3,4-di...	006939-35-1		4.35	JN
TIC: 1(2H)-Naphthalenone, 3,4-dihydro...	051015-28-2		8.97	JN
TIC: 1(2H)-Naphthalenone, 5-ethyl-3,4...	051015-31-7		4.16	JN



Lab Sample ID: 1303802-011B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/2/2013 2250h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 1,3,5-Cycloheptatriene, 3,4-diet...	1000156-99-7		9.71	JN
TIC: 2-Phenylbutenolide	001955-39-1		4.51	JN
TIC: 3-Quinolinol, 2-methyl-	000613-19-4		4.42	JN
TIC: 5,8-Dimethyl-1,2,3,4-tetra...	032820-12-5		5.49	JN
TIC: 5H-Benzocyclohepten-5-ol, 6...	035550-94-8		4.05	JN
TIC: 7-Ethyl-3,4-dihydro-1(2H)-n...	022531-06-2		5.26	JN
TIC: Indole-3-carboxamide oxime	095649-37-9		6.39	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	53.7	80.00	67.1	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	15.2	40.00	37.9	10-124	
Surr: 2-Fluorophenol	367-12-4	21.1	80.00	26.4	10-106	
Surr: Nitrobenzene-d5	4165-60-0	14.4	40.00	36.1	10-180	
Surr: Phenol-d6	13127-88-3	14.3	80.00	17.8	10-122	
Surr: Terphenyl-d14	1718-51-0	26.4	40.00	66.0	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
 This sample was analyzed for TICs.

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 Laboratory Director

Jose Rocha
 QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-012B
Client Sample ID: East of Boom / 4920395
Collection Date: 3/31/2013 945h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/2/2013 2317h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-012B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/2/2013 2317h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-012B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/2/2013 2317h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-012B
Client Sample ID: East of Boom / 4920395

Analyzed: 4/2/2013 2317h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	56.4	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: 1(2H)-Naphthalenone, 3,4-d...	010468-61-8		17.8	JN
TIC: 1(2H)-Naphthalenone, 3,4-di...	006939-35-1		22.2	JN
TIC: 1(2H)-Naphthalenone, 3,4-dihydro...	005037-63-8		18.9	JN



Lab Sample ID: 1303802-012B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/2/2013 2317h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 2-Ethyl-1-H-indene	017059-50-6		20.2	JN
TIC: 5,8-Dimethyl-1,2,3,4-tetra...	032820-12-5		15.0	JN
TIC: Docosane	000629-97-0		32.4	JN
TIC: Eicosane	000112-95-8		60.9	JN
TIC: Ethanone, 1-[4-(1,1-dimethy...	000943-27-1		15.5	JN
TIC: Heptadecane	000629-78-7		109	JN
TIC: Nonadecane	000629-92-5		76.4	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	49.2	80.00	61.5	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	12.5	40.00	31.3	10-124	
Surr: 2-Fluorophenol	367-12-4	21.5	80.00	26.8	10-106	
Surr: Nitrobenzene-d5	4165-60-0	13.2	40.00	33.1	10-180	
Surr: Phenol-d6	13127-88-3	15.1	80.00	18.9	10-122	
Surr: Terphenyl-d14	1718-51-0	28.5	40.00	71.2	10-221	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

This sample was analyzed for TICs.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-013B
Client Sample ID: Between Weirs / 4920394
Collection Date: 3/31/2013 955h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/3/2013 739h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-013B
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/3/2013 739h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-013B
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/3/2013 739h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-013B
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/3/2013 739h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: 1(2H)-Naphthalenone, 3,4-di...	051015-28-2		20.3	JN
TIC: 1(2H)-Naphthalenone, 5-ethy...	051015-31-7		11.2	JN
TIC: 1,2,3-Trimethylindene	004773-83-5		12.7	JN



Lab Sample ID: 1303802-013B
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/3/2013 739h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 5-Eicosene, (E)-	074685-30-6		11.0	JN
TIC: 7-Ethyl-3,4-dihydro-1(2H)-n...	022531-06-2		14.4	JN
TIC: Benzene, 1-(1,1-dimethyleth...	006630-01-9		11.5	JN
TIC: Benzoic acid, 2-ethylhexyl ...	005444-75-7		14.4	JN
TIC: Heptadecane	000629-78-7		13.2	JN
TIC: Naphthalene, 1,2,3,4-tetra...	000475-03-6		26.9	JN
TIC: Nonadecane	000629-92-5		10.7	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	49.1	80.00	61.4	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	10.6	40.00	26.5	10-124	
Surr: 2-Fluorophenol	367-12-4	9.37	80.00	11.7	10-106	
Surr: Nitrobenzene-d5	4165-60-0	7.41	40.00	18.5	10-180	
Surr: Phenol-d6	13127-88-3	8.50	80.00	10.6	10-122	
Surr: Terphenyl-d14	1718-51-0	30.0	40.00	75.0	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
This sample was analyzed for TICs.

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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-014B
Client Sample ID: Between Weirs Dup / 4920394
Collection Date: 3/31/2013 955h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/3/2013 806h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1303802-014B

Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/3/2013 806h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1303802-014B

Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/3/2013 806h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1303802-014B

Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/3/2013 806h

Extracted: 4/1/2013 1630h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: 1(2H)-Naphthalenone, 3,4-di...	032281-65-5		12.5	JN
TIC: Benzene, 1,4-bis(1-methylet...	001605-18-1		12.3	JN
TIC: 1(2H)-Naphthalenone, 3,4-dihydr	006939-35-1		22.4	JN



Lab Sample ID: 1303802-014B
Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/3/2013 806h **Extracted:** 4/1/2013 1630h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 1(2H)-Naphthalenone, 3,4-dihydro...	010468-61-8		14.8	JN
TIC: 1H-Inden-1-one, 2,3-dihydro...	035322-84-0		13.0	JN
TIC: 4-Aminomethyl-2-methyl-2H-p...	042476-81-3		16.1	JN
TIC: 5,8-Dimethyl-1,2,3,4-tetra...	032820-12-5		12.8	JN
TIC: Benzeneethanal, 4-[1,1-dime...	109347-45-7		12.4	JN
TIC: Naphthalene, 1,2,3,4-tetra...	000483-77-2		13.5	JN
TIC: Tridecane	000629-50-5		16.7	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	56.0	80.00	70.0	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	12.7	40.00	31.8	10-124	
Surr: 2-Fluorophenol	367-12-4	19.0	80.00	23.8	10-106	
Surr: Nitrobenzene-d5	4165-60-0	11.6	40.00	29.1	10-180	
Surr: Phenol-d6	13127-88-3	13.5	80.00	16.9	10-122	
Surr: Terphenyl-d14	1718-51-0	29.6	40.00	74.0	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
This sample was analyzed for TICs.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-001A

Client Sample ID: East of I-15 / 4920392

Collection Date: 3/31/2013 735h

Received Date: 3/31/2013 1114h

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 1632h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/1/2013 1632h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/1/2013 1632h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/1/2013 1632h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.3	50.00	111	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.2	50.00	100	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.3	50.00	101	80-124	
Surr: Toluene-d8	2037-26-5	48.6	50.00	97.3	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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 Laboratory Director

Jose Rocha
 QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-002A
Client Sample ID: S. Marina / 4920495
Collection Date: 3/31/2013 745h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 1826h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-002A
Client Sample ID: S. Marina / 4920495

Analyzed: 4/1/2013 1826h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
 Laboratory Director

 Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-002A
Client Sample ID: S. Marina / 4920495

Analyzed: 4/1/2013 1826h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-002A
Client Sample ID: S. Marina / 4920495

Analyzed: 4/1/2013 1826h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.7	50.00	113	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.8	50.00	102	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.5	50.00	103	80-124	
Surr: Toluene-d8	2037-26-5	48.3	50.00	96.5	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-003A

Client Sample ID: 50' from 0397 / 4920508

Collection Date: 3/31/2013 830h

Received Date: 3/31/2013 1114h

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 1845h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-003A
Client Sample ID: 50' from 0397 / 4920508

Analyzed: 4/1/2013 1845h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-003A
Client Sample ID: 50' from 0397 / 4920508

Analyzed: 4/1/2013 1845h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-003A
Client Sample ID: 50' from 0397 / 4920508

Analyzed: 4/1/2013 1845h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual	
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.7	50.00	113	72-151
Surr: 4-Bromofluorobenzene	460-00-4	50.5	50.00	101	80-128
Surr: Dibromofluoromethane	1868-53-7	49.7	50.00	99.4	80-124
Surr: Toluene-d8	2037-26-5	48.0	50.00	96.0	77-129

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-004A

Client Sample ID: North Boom / 4920397

Collection Date: 3/31/2013 840h

Received Date: 3/31/2013 1114h

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 1904h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-004A

Client Sample ID: North Boom / 4920397

Analyzed: 4/1/2013 1904h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-004A

Client Sample ID: North Boom / 4920397

Analyzed: 4/1/2013 1904h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-004A

Client Sample ID: North Boom / 4920397

Analyzed: 4/1/2013 1904h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.5	50.00	115	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.3	50.00	101	80-128	
Surr: Dibromofluoromethane	1868-53-7	49.9	50.00	99.8	80-124	
Surr: Toluene-d8	2037-26-5	48.5	50.00	97.0	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-005A
Client Sample ID: W. Boom 5 / 4920499
Collection Date: 3/31/2013 850h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 1923h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-005A
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 4/1/2013 1923h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-005A
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 4/1/2013 1923h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-005A
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 4/1/2013 1923h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.7	50.00	115	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	51.4	50.00	103	80-128	
Surr: Dibromofluoromethane	1868-53-7	49.0	50.00	98.0	80-124	
Surr: Toluene-d8	2037-26-5	48.9	50.00	97.8	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-006A
Client Sample ID: W. Boom 4 / 4920498
Collection Date: 3/31/2013 855h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 1942h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-006A
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 4/1/2013 1942h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-006A
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 4/1/2013 1942h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-006A
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 4/1/2013 1942h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.5	50.00	113	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.0	50.00	98.1	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.2	50.00	100	80-124	
Surr: Toluene-d8	2037-26-5	46.8	50.00	93.5	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-007A
Client Sample ID: 50' from WB 4 / 4920502
Collection Date: 3/31/2013 900h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 2001h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-007A
Client Sample ID: 50' from WB 4 / 4920502

Analyzed: 4/1/2013 2001h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-007A
Client Sample ID: 50' from WB 4 / 4920502

Analyzed: 4/1/2013 2001h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-007A
Client Sample ID: 50' from WB 4 / 4920502

Analyzed: 4/1/2013 2001h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.3	50.00	115	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	48.7	50.00	97.5	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.4	50.00	96.8	80-124	
Surr: Toluene-d8	2037-26-5	47.8	50.00	95.5	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1303802-008A

Client Sample ID: W. Boom 3 / 4920497

Collection Date: 3/31/2013 910h

Received Date: 3/31/2013 1114h

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 2020h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross

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Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-008A
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/1/2013 2020h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-008A
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/1/2013 2020h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-008A
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/1/2013 2020h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.7	50.00	115	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.3	50.00	98.5	80-128	
Surr: Dibromofluoromethane	1868-53-7	49.3	50.00	98.6	80-124	
Surr: Toluene-d8	2037-26-5	48.0	50.00	95.9	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-009A
Client Sample ID: W. Boom 2 / 4920496
Collection Date: 3/31/2013 915h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 2039h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-009A
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 4/1/2013 2039h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
 Laboratory Director

 Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-009A
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 4/1/2013 2039h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-009A
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 4/1/2013 2039h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.4	50.00	115	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.4	50.00	98.8	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.4	50.00	101	80-124	
Surr: Toluene-d8	2037-26-5	48.0	50.00	96.1	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-010A
Client Sample ID: 50' From 0396 / 4920505
Collection Date: 3/31/2013 920h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 2058h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-010A
Client Sample ID: 50' From 0396 / 4920505

Analyzed: 4/1/2013 2058h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-010A
Client Sample ID: 50' From 0396 / 4920505

Analyzed: 4/1/2013 2058h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-010A
Client Sample ID: 50' From 0396 / 4920505

Analyzed: 4/1/2013 2058h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	58.0	50.00	116	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.4	50.00	101	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.7	50.00	97.4	80-124	
Surr: Toluene-d8	2037-26-5	48.4	50.00	96.8	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-011A
Client Sample ID: W. Boom 1 / 4920396
Collection Date: 3/31/2013 930h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 2116h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-011A
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/1/2013 2116h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-011A
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/1/2013 2116h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-011A
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/1/2013 2116h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.9	50.00	116	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.0	50.00	98.1	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.5	50.00	97.1	80-124	
Surr: Toluene-d8	2037-26-5	48.0	50.00	96.0	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-012A
Client Sample ID: East of Boom / 4920395
Collection Date: 3/31/2013 945h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 1710h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	5.17	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	4.21	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-012A
Client Sample ID: East of Boom / 4920395

Analyzed: 4/1/2013 1710h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-012A
Client Sample ID: East of Boom / 4920395

Analyzed: 4/1/2013 1710h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	3.90	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	2.24	
o-Xylene	95-47-6	2.00	3.07	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	2.35	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	6.97	



Lab Sample ID: 1303802-012A
Client Sample ID: East of Boom / 4920395

Analyzed: 4/1/2013 1710h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.0	50.00	114	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.3	50.00	101	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.7	50.00	101	80-124	
Surr: Toluene-d8	2037-26-5	48.4	50.00	96.8	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-013A
Client Sample ID: Between Weirs / 4920394
Collection Date: 3/31/2013 955h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 341h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	2.51	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	3.10	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-013A
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/1/2013 341h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-013A
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/1/2013 341h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	2.09	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-013A
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/1/2013 341h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.9	50.00	114	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.4	50.00	98.8	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.2	50.00	96.5	80-124	
Surr: Toluene-d8	2037-26-5	47.9	50.00	95.8	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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 QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-014A
Client Sample ID: Between Weirs Dup / 4920394
Collection Date: 3/31/2013 955h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 400h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	2.50	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	3.09	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-014A
Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/1/2013 400h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
 Laboratory Director

 Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-014A
Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/1/2013 400h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	2.01	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-014A
Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/1/2013 400h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	53.4	50.00	107	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	47.9	50.00	95.7	80-128	
Surr: Dibromofluoromethane	1868-53-7	46.9	50.00	93.8	80-124	
Surr: Toluene-d8	2037-26-5	47.8	50.00	95.6	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-015A
Client Sample ID: Field Blank
Collection Date: 3/31/2013 810h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/2/2013 1134h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-015A

Client Sample ID: Field Blank

Analyzed: 4/2/2013 1134h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-015A

Client Sample ID: Field Blank

Analyzed: 4/2/2013 1134h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	2.54	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-015A

Client Sample ID: Field Blank

Analyzed: 4/2/2013 1134h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	58.7	50.00	117	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	51.5	50.00	103	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.0	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	48.5	50.00	97.0	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303802-016A
Client Sample ID: Trip Blank
Collection Date: 3/31/2013 800h
Received Date: 3/31/2013 1114h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/1/2013 322h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1303802-016A

Client Sample ID: Trip Blank

Analyzed: 4/1/2013 322h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1303802-016A

Client Sample ID: Trip Blank

Analyzed: 4/1/2013 322h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1303802-016A

Client Sample ID: Trip Blank

Analyzed: 4/1/2013 322h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	54.1	50.00	108	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	48.8	50.00	97.6	80-128	
Surr: Dibromofluoromethane	1868-53-7	46.6	50.00	93.3	80-124	
Surr: Toluene-d8	2037-26-5	46.6	50.00	93.2	77-129	

The pH of the sample was >2. Analysis was performed within the 7 day holding time.

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-24496	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.72	2.000	0	85.8	48-118				4/1/2013 1716h
LCS-24496	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.225	0.4000		56.3	18-95				4/1/2013 1716h
LCS-24499	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.58	2.000	0	78.9	48-118				4/2/2013 257h
LCS-24499	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.225	0.4000		56.3	18-95				4/2/2013 257h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24496	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	< 0.500				-				4/1/2013 1657h
MB-24496	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.183	0.4000		45.8	18-95				4/1/2013 1657h
MB-24499	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	< 0.500				-				4/2/2013 238h
MB-24499	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.146	0.4000		36.5	18-95				4/2/2013 238h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303801-002CMS	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.88	2.051	0	91.5	60-161				4/1/2013 1814h
1303801-002CMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.239	0.4103		58.2	10-190				4/1/2013 1814h
1303802-007CMS	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.94	2.000	0.2256	85.5	60-161				4/2/2013 336h
1303802-007CMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.254	0.4000		63.5	10-190				4/2/2013 336h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303801-002CMSD	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.80	2.051	0	87.9	60-161	4.02	25		4/1/2013 1834h
1303801-002CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.225	0.4103		54.9	10-190				4/1/2013 1834h
1303802-007CMSD	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.84	2.000	0.2256	80.9	60-161	4.92	25		4/2/2013 355h
1303802-007CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.231	0.4000		57.7	10-190				4/2/2013 355h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-24515	1,2,4-Trichlorobenzene	µg/L	SW8270D	33.0	80.00	0	41.2	10-104				4/2/2013 953h
LCS-24515	1,4-Dichlorobenzene	µg/L	SW8270D	20.6	80.00	0	25.8	10-118				4/2/2013 953h
LCS-24515	2,4,6-Trichlorophenol	µg/L	SW8270D	59.6	80.00	0	74.5	17-119				4/2/2013 953h
LCS-24515	2,4-Dimethylphenol	µg/L	SW8270D	50.6	80.00	0	63.2	10-131				4/2/2013 953h
LCS-24515	2,4-Dinitrotoluene	µg/L	SW8270D	75.3	80.00	0	94.2	42-219				4/2/2013 953h
LCS-24515	2-Chloronaphthalene	µg/L	SW8270D	54.3	80.00	0	67.8	23-126				4/2/2013 953h
LCS-24515	2-Chlorophenol	µg/L	SW8270D	40.1	80.00	0	50.1	15-128				4/2/2013 953h
LCS-24515	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	65.0	80.00	0	81.2	30-198				4/2/2013 953h
LCS-24515	4-Chloro-3-methylphenol	µg/L	SW8270D	57.8	80.00	0	72.3	29-148				4/2/2013 953h
LCS-24515	4-Nitrophenol	µg/L	SW8270D	22.5	80.00	0	28.1	10-157				4/2/2013 953h
LCS-24515	Acenaphthene	µg/L	SW8270D	56.6	80.00	0	70.8	20-116				4/2/2013 953h
LCS-24515	Benzo(a)pyrene	µg/L	SW8270D	116	80.00	0	145	10-221				4/2/2013 953h
LCS-24515	N-Nitrosodi-n-propylamine	µg/L	SW8270D	41.4	80.00	0	51.8	20-148				4/2/2013 953h
LCS-24515	Pentachlorophenol	µg/L	SW8270D	62.8	80.00	0	78.5	21-153				4/2/2013 953h
LCS-24515	Phenol	µg/L	SW8270D	22.0	80.00	0	27.5	10-131				4/2/2013 953h
LCS-24515	Pyrene	µg/L	SW8270D	69.9	80.00	0	87.3	37-150				4/2/2013 953h
LCS-24515	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	73.6	80.00		92.0	10-165				4/2/2013 953h
LCS-24515	Surr: 2-Fluorobiphenyl	%REC	SW8270D	24.5	40.00		61.3	10-118				4/2/2013 953h
LCS-24515	Surr: 2-Fluorophenol	%REC	SW8270D	25.8	80.00		32.3	10-121				4/2/2013 953h
LCS-24515	Surr: Nitrobenzene-d5	%REC	SW8270D	19.0	40.00		47.4	10-127				4/2/2013 953h
LCS-24515	Surr: Phenol-d6	%REC	SW8270D	22.4	80.00		28.0	10-124				4/2/2013 953h
LCS-24515	Surr: Terphenyl-d14	%REC	SW8270D	35.8	40.00		89.6	51-221				4/2/2013 953h
LCS-24515	Acenaphthene	µg/L	SW8270D	56.2	80.00	0	70.3	23-159				4/3/2013 2307h
LCS-24515	Benzo(a)pyrene	µg/L	SW8270D	77.4	80.00	0	96.8	26-223				4/3/2013 2307h
LCS-24515	Pentachlorophenol	µg/L	SW8270D	115	80.00	0	143	10-249				4/3/2013 2307h
LCS-24515	Pyrene	µg/L	SW8270D	70.8	80.00	0	88.5	28-204				4/3/2013 2307h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24515	1,1'-Biphenyl	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1,2,4,5-Tetrachlorobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1,2,4-Trichlorobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1,2-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1,3,5-Trinitrobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1,3-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1,3-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1,4-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1,4-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1,4-Naphthoquinone	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1,4-Phenylenediamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	1-Naphthylamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2,3,4,6-Tetrachlorophenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2,4,5-Trichlorophenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2,4,6-Trichlorophenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2,4-Dichlorophenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2,4-Dimethylphenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2,4-Dinitrophenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2,4-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2,6-Dichlorophenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2,6-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2-Acetylaminofluorene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2-Chlorophenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h

Report Date: 4/4/2013 Page 172 of 287



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24515	2-Methylphenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2-Naphthylamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2-Nitrophenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	2-Picoline	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	3&4-Methylphenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	3,3'-Dichlorobenzidine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	3,3'-Dimethylbenzidine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	3-Methylcholanthrene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	3-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	4-Aminobiphenyl	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	4-Bromophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	4-Chloro-3-methylphenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	4-Chloroaniline	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	4-Chlorophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	4-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	4-Nitrophenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	5-Nitro-o-toluidine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	7,12-Dimethylbenz(a)anthracene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	a,a-Dimethylphenethylamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Acenaphthene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Acenaphthylene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Acetophenone	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	alpha-Terpineol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Aniline	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Anthracene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24515	Aramite	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Atrazine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Azobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Benz(a)anthracene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Benzaldehyde	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Benzidine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Benzo(a)pyrene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Benzo(b)fluoranthene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Benzo(g,h,i)perylene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Benzo(k)fluoranthene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Benzoic acid	µg/L	SW8270D	< 20.0				-				4/2/2013 926h
MB-24515	Benzyl alcohol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Bis(2-chloroethoxy)methane	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Bis(2-chloroethyl) ether	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Bis(2-chloroisopropyl) ether	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Bis(2-ethylhexyl) phthalate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	bis(2-ethylhexyl)adipate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Butyl benzyl phthalate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Caprolactam	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Carbazole	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Chlorobenzilate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Chrysene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Diallate (cis or trans)	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Dibenz(a,h)anthracene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Dibenzofuran	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Diethyl phthalate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Dimethoate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24515	Dimethyl phthalate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Dimethylaminoazobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Di-n-butyl phthalate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Di-n-octyl phthalate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Dinoseb	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Diphenylamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Disulfoton	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Ethyl methanesulfonate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Famphur	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Fluoranthene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Fluorene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Hexachlorobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Hexachlorobutadiene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Hexachlorocyclopentadiene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Hexachloroethane	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Hexachlorophene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Hexachloropropene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Indene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Isodrin	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Isophorone	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Isosafrole	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Kepone	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Methapyrilene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Methyl methanesulfonate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Naphthalene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	n-Decane	µg/L	SW8270D	< 10.0				-				4/2/2013 926h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24515	Nitrobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Nitroquinoline-1-oxide	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	N-Nitrosodiethylamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	N-Nitrosodimethylamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	N-Nitrosodi-n-butylamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	N-Nitrosodiphenylamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	N-Nitrosodi-n-propylamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	N-Nitrosomethylethylamine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	N-Nitrosomorpholine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	N-Nitrosopiperidine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	N-Nitrosopyrrolidine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	n-Octadecane	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	O,O,O-Triethyl phosphorothioate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	o-Toluidine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Parathion	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Methyl parathion	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Pentachlorobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Pentachloronitrobenzene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Pentachlorophenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Phenacetin	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Phenanthrene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Phenol	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Phorate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Pronamide	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Pyrene	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Pyridine	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Quinoline	µg/L	SW8270D	< 10.0				-				4/2/2013 926h

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24515	Safrole	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Tetraethyl dithiopyrophosphate	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Thionazin	µg/L	SW8270D	< 10.0				-				4/2/2013 926h
MB-24515	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	55.6	80.00		69.6	10-165				4/2/2013 926h
MB-24515	Surr: 2-Fluorobiphenyl	%REC	SW8270D	20.5	40.00		51.2	10-118				4/2/2013 926h
MB-24515	Surr: 2-Fluorophenol	%REC	SW8270D	22.1	80.00		27.6	10-121				4/2/2013 926h
MB-24515	Surr: Nitrobenzene-d5	%REC	SW8270D	14.9	40.00		37.3	10-127				4/2/2013 926h
MB-24515	Surr: Phenol-d6	%REC	SW8270D	16.2	80.00		20.2	10-124				4/2/2013 926h
MB-24515	Surr: Terphenyl-d14	%REC	SW8270D	32.9	40.00		82.2	51-221				4/2/2013 926h
MB-24515	1-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	2-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Acenaphthene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Acenaphthylene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Anthracene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Benz(a)anthracene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Benzo(a)pyrene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Benzo(b)fluoranthene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Benzo(g,h,i)perylene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Benzo(k)fluoranthene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Chrysene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Dibenz(a,h)anthracene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Fluoranthene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Fluorene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Hexachlorobenzene	µg/L	SW8270D	< 1.00				-				4/3/2013 2240h
MB-24515	Indene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Naphthalene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24515	Pentachlorophenol	µg/L	SW8270D	< 1.00				-				4/3/2013 2240h
MB-24515	Phenanthrene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h
MB-24515	Pyrene	µg/L	SW8270D	< 0.100				-				4/3/2013 2240h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303802-001BMS	1,2,4-Trichlorobenzene	µg/L	SW8270D	41.2	80.00	0	51.5	20-107				4/2/2013 1418h
1303802-001BMS	1,4-Dichlorobenzene	µg/L	SW8270D	29.9	80.00	0	37.4	11-90				4/2/2013 1418h
1303802-001BMS	2,4,6-Trichlorophenol	µg/L	SW8270D	62.6	80.00	0	78.2	10-223				4/2/2013 1418h
1303802-001BMS	2,4-Dimethylphenol	µg/L	SW8270D	42.7	80.00	0	53.4	10-176				4/2/2013 1418h
1303802-001BMS	2,4-Dinitrotoluene	µg/L	SW8270D	64.1	80.00	0	80.2	21-191				4/2/2013 1418h
1303802-001BMS	2-Chloronaphthalene	µg/L	SW8270D	57.2	80.00	0	71.6	12-132				4/2/2013 1418h
1303802-001BMS	2-Chlorophenol	µg/L	SW8270D	47.1	80.00	0	58.9	20-107				4/2/2013 1418h
1303802-001BMS	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	61.8	80.00	0	77.3	20-250				4/2/2013 1418h
1303802-001BMS	4-Chloro-3-methylphenol	µg/L	SW8270D	60.9	80.00	0	76.2	10-136				4/2/2013 1418h
1303802-001BMS	4-Nitrophenol	µg/L	SW8270D	23.7	80.00	0	29.6	10-135				4/2/2013 1418h
1303802-001BMS	Acenaphthene	µg/L	SW8270D	59.6	80.00	0	74.4	21-113				4/2/2013 1418h
1303802-001BMS	Benzo(a)pyrene	µg/L	SW8270D	119	80.00	0	149	15-169				4/2/2013 1418h
1303802-001BMS	N-Nitrosodi-n-propylamine	µg/L	SW8270D	48.7	80.00	0	60.9	10-133				4/2/2013 1418h
1303802-001BMS	Pentachlorophenol	µg/L	SW8270D	25.9	80.00	0	32.4	10-131				4/2/2013 1418h
1303802-001BMS	Phenol	µg/L	SW8270D	25.1	80.00	0	31.4	10-71				4/2/2013 1418h
1303802-001BMS	Pyrene	µg/L	SW8270D	67.9	80.00	0	84.9	23-150				4/2/2013 1418h
1303802-001BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	64.4	80.00		80.6	14-159				4/2/2013 1418h
1303802-001BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	27.7	40.00		69.3	10-124				4/2/2013 1418h
1303802-001BMS	Surr: 2-Fluorophenol	%REC	SW8270D	30.3	80.00		37.8	10-106				4/2/2013 1418h
1303802-001BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	24.0	40.00		60.1	10-180				4/2/2013 1418h
1303802-001BMS	Surr: Phenol-d6	%REC	SW8270D	23.9	80.00		29.9	10-122				4/2/2013 1418h
1303802-001BMS	Surr: Terphenyl-d14	%REC	SW8270D	35.6	40.00		89.0	10-221				4/2/2013 1418h
1303802-001BMS	Acenaphthene	µg/L	SW8270D	55.0	80.00	0	68.8	21-113				4/4/2013 153h
1303802-001BMS	Benzo(a)pyrene	µg/L	SW8270D	77.0	80.00	0.2900	95.9	15-169				4/4/2013 153h
1303802-001BMS	Pentachlorophenol	µg/L	SW8270D	82.4	80.00	0	103	10-131				4/4/2013 153h
1303802-001BMS	Pyrene	µg/L	SW8270D	69.0	80.00	0	86.2	23-150				4/4/2013 153h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303802-001BMSD	1,2,4-Trichlorobenzene	µg/L	SW8270D	33.0	80.00	0	41.3	20-107	21.9	25		4/2/2013 1445h
1303802-001BMSD	1,4-Dichlorobenzene	µg/L	SW8270D	22.6	80.00	0	28.3	11-90	27.7	25	@	4/2/2013 1445h
1303802-001BMSD	2,4,6-Trichlorophenol	µg/L	SW8270D	64.1	80.00	0	80.1	10-223	2.42	25		4/2/2013 1445h
1303802-001BMSD	2,4-Dimethylphenol	µg/L	SW8270D	39.4	80.00	0	49.2	10-176	7.99	25		4/2/2013 1445h
1303802-001BMSD	2,4-Dinitrotoluene	µg/L	SW8270D	70.1	80.00	0	87.7	21-191	8.95	25		4/2/2013 1445h
1303802-001BMSD	2-Chloronaphthalene	µg/L	SW8270D	51.5	80.00	0	64.4	12-132	10.5	25		4/2/2013 1445h
1303802-001BMSD	2-Chlorophenol	µg/L	SW8270D	42.3	80.00	0	52.9	20-107	10.7	25		4/2/2013 1445h
1303802-001BMSD	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	75.2	80.00	0	93.9	20-250	19.5	25		4/2/2013 1445h
1303802-001BMSD	4-Chloro-3-methylphenol	µg/L	SW8270D	60.5	80.00	0	75.6	10-136	0.708	25		4/2/2013 1445h
1303802-001BMSD	4-Nitrophenol	µg/L	SW8270D	23.5	80.00	0	29.4	10-135	0.72	25		4/2/2013 1445h
1303802-001BMSD	Acenaphthene	µg/L	SW8270D	56.5	80.00	0	70.7	21-113	5.2	25		4/2/2013 1445h
1303802-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	124	80.00	0	155	15-169	4.32	25		4/2/2013 1445h
1303802-001BMSD	N-Nitrosodi-n-propylamine	µg/L	SW8270D	44.4	80.00	0	55.5	10-133	9.32	25		4/2/2013 1445h
1303802-001BMSD	Pentachlorophenol	µg/L	SW8270D	29.5	80.00	0	36.9	10-131	12.9	25		4/2/2013 1445h
1303802-001BMSD	Phenol	µg/L	SW8270D	20.2	80.00	0	25.2	10-71	21.6	25		4/2/2013 1445h
1303802-001BMSD	Pyrene	µg/L	SW8270D	73.7	80.00	0	92.1	23-150	8.11	25		4/2/2013 1445h
1303802-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	64.0	80.00		80.0	14-159				4/2/2013 1445h
1303802-001BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	23.7	40.00		59.2	10-124				4/2/2013 1445h
1303802-001BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	25.1	80.00		31.3	10-106				4/2/2013 1445h
1303802-001BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	20.0	40.00		50.1	10-180				4/2/2013 1445h
1303802-001BMSD	Surr: Phenol-d6	%REC	SW8270D	19.8	80.00		24.7	10-122				4/2/2013 1445h
1303802-001BMSD	Surr: Terphenyl-d14	%REC	SW8270D	36.3	40.00		90.9	10-221				4/2/2013 1445h
1303802-001BMSD	Acenaphthene	µg/L	SW8270D	55.4	80.00	0	69.2	21-113	0.725	25		4/4/2013 221h
1303802-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	86.0	80.00	0.2900	107	15-169	11	25		4/4/2013 221h
1303802-001BMSD	Pentachlorophenol	µg/L	SW8270D	88.4	80.00	0	110	10-131	7.03	25		4/4/2013 221h
1303802-001BMSD	Pyrene	µg/L	SW8270D	77.0	80.00	0	96.2	23-150	11	25		4/4/2013 221h

@ - High RPD due to suspected sample non-homogeneity or matrix interference.



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 033113A	1,1,1-Trichloroethane	µg/L	SW8260C	21.9	20.00	0	109	59-156				3/31/2013 1928h
LCS VOC 033113A	1,1-Dichloroethene	µg/L	SW8260C	17.3	20.00	0	86.4	46-171				3/31/2013 1928h
LCS VOC 033113A	1,2-Dichlorobenzene	µg/L	SW8260C	21.6	20.00	0	108	67-135				3/31/2013 1928h
LCS VOC 033113A	1,2-Dichloroethane	µg/L	SW8260C	20.4	20.00	0	102	60-137				3/31/2013 1928h
LCS VOC 033113A	1,2-Dichloropropane	µg/L	SW8260C	20.5	20.00	0	102	59-135				3/31/2013 1928h
LCS VOC 033113A	Benzene	µg/L	SW8260C	20.3	20.00	0	102	62-127				3/31/2013 1928h
LCS VOC 033113A	Chlorobenzene	µg/L	SW8260C	21.5	20.00	0	107	63-140				3/31/2013 1928h
LCS VOC 033113A	Chloroform	µg/L	SW8260C	21.2	20.00	0	106	67-132				3/31/2013 1928h
LCS VOC 033113A	Ethylbenzene	µg/L	SW8260C	21.8	20.00	0	109	55-133				3/31/2013 1928h
LCS VOC 033113A	Isopropylbenzene	µg/L	SW8260C	22.8	20.00	0	114	60-147				3/31/2013 1928h
LCS VOC 033113A	Methyl tert-butyl ether	µg/L	SW8260C	19.8	20.00	0	98.8	37-189				3/31/2013 1928h
LCS VOC 033113A	Methylene chloride	µg/L	SW8260C	18.7	20.00	0	93.4	32-185				3/31/2013 1928h
LCS VOC 033113A	Naphthalene	µg/L	SW8260C	20.7	20.00	0	104	28-136				3/31/2013 1928h
LCS VOC 033113A	Tetrahydrofuran	µg/L	SW8260C	15.9	20.00	0	79.6	43-146				3/31/2013 1928h
LCS VOC 033113A	Toluene	µg/L	SW8260C	21.2	20.00	0	106	64-129				3/31/2013 1928h
LCS VOC 033113A	Trichloroethene	µg/L	SW8260C	21.5	20.00	0	107	54-152				3/31/2013 1928h
LCS VOC 033113A	Xylenes, Total	µg/L	SW8260C	66.5	60.00	0	111	52-134				3/31/2013 1928h
LCS VOC 033113A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	51.1	50.00		102	76-138				3/31/2013 1928h
LCS VOC 033113A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.0	50.00		99.9	77-121				3/31/2013 1928h
LCS VOC 033113A	Surr: Dibromofluoromethane	%REC	SW8260C	50.4	50.00		101	67-128				3/31/2013 1928h
LCS VOC 033113A	Surr: Toluene-d8	%REC	SW8260C	48.9	50.00		97.8	81-135				3/31/2013 1928h
LCS VOC 040113A	1,1,1-Trichloroethane	µg/L	SW8260C	20.9	20.00	0	105	59-156				4/1/2013 1535h
LCS VOC 040113A	1,1-Dichloroethene	µg/L	SW8260C	15.8	20.00	0	79.2	46-171				4/1/2013 1535h
LCS VOC 040113A	1,2-Dichlorobenzene	µg/L	SW8260C	21.9	20.00	0	109	67-135				4/1/2013 1535h
LCS VOC 040113A	1,2-Dichloroethane	µg/L	SW8260C	19.9	20.00	0	99.7	60-137				4/1/2013 1535h
LCS VOC 040113A	1,2-Dichloropropane	µg/L	SW8260C	21.0	20.00	0	105	59-135				4/1/2013 1535h
LCS VOC 040113A	Benzene	µg/L	SW8260C	20.2	20.00	0	101	62-127				4/1/2013 1535h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 040113A	Chlorobenzene	µg/L	SW8260C	21.4	20.00	0	107	63-140				4/1/2013 1535h
LCS VOC 040113A	Chloroform	µg/L	SW8260C	21.0	20.00	0	105	67-132				4/1/2013 1535h
LCS VOC 040113A	Ethylbenzene	µg/L	SW8260C	21.8	20.00	0	109	55-133				4/1/2013 1535h
LCS VOC 040113A	Isopropylbenzene	µg/L	SW8260C	22.6	20.00	0	113	60-147				4/1/2013 1535h
LCS VOC 040113A	Methyl tert-butyl ether	µg/L	SW8260C	16.6	20.00	0	83.2	37-189				4/1/2013 1535h
LCS VOC 040113A	Methylene chloride	µg/L	SW8260C	17.7	20.00	0	88.6	32-185				4/1/2013 1535h
LCS VOC 040113A	Naphthalene	µg/L	SW8260C	20.3	20.00	0	102	28-136				4/1/2013 1535h
LCS VOC 040113A	Tetrahydrofuran	µg/L	SW8260C	14.3	20.00	0	71.5	43-146				4/1/2013 1535h
LCS VOC 040113A	Toluene	µg/L	SW8260C	21.0	20.00	0	105	64-129				4/1/2013 1535h
LCS VOC 040113A	Trichloroethene	µg/L	SW8260C	21.3	20.00	0	106	54-152				4/1/2013 1535h
LCS VOC 040113A	Xylenes, Total	µg/L	SW8260C	65.8	60.00	0	110	52-134				4/1/2013 1535h
LCS VOC 040113A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	49.7	50.00		99.4	76-138				4/1/2013 1535h
LCS VOC 040113A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	49.5	50.00		99.0	77-121				4/1/2013 1535h
LCS VOC 040113A	Surr: Dibromofluoromethane	%REC	SW8260C	49.2	50.00		98.3	67-128				4/1/2013 1535h
LCS VOC 040113A	Surr: Toluene-d8	%REC	SW8260C	48.4	50.00		96.8	81-135				4/1/2013 1535h
LCS VOC 040213A	1,1,1-Trichloroethane	µg/L	SW8260C	26.2	20.00	0	131	59-156				4/2/2013 727h
LCS VOC 040213A	1,1-Dichloroethene	µg/L	SW8260C	26.7	20.00	0	133	46-171				4/2/2013 727h
LCS VOC 040213A	1,2-Dichlorobenzene	µg/L	SW8260C	22.4	20.00	0	112	67-135				4/2/2013 727h
LCS VOC 040213A	1,2-Dichloroethane	µg/L	SW8260C	25.0	20.00	0	125	60-137				4/2/2013 727h
LCS VOC 040213A	1,2-Dichloropropane	µg/L	SW8260C	22.2	20.00	0	111	59-135				4/2/2013 727h
LCS VOC 040213A	Benzene	µg/L	SW8260C	22.9	20.00	0	114	62-127				4/2/2013 727h
LCS VOC 040213A	Chlorobenzene	µg/L	SW8260C	21.9	20.00	0	110	63-140				4/2/2013 727h
LCS VOC 040213A	Chloroform	µg/L	SW8260C	24.3	20.00	0	121	67-132				4/2/2013 727h
LCS VOC 040213A	Ethylbenzene	µg/L	SW8260C	22.3	20.00	0	112	55-133				4/2/2013 727h
LCS VOC 040213A	Isopropylbenzene	µg/L	SW8260C	23.1	20.00	0	116	60-147				4/2/2013 727h
LCS VOC 040213A	Methyl tert-butyl ether	µg/L	SW8260C	17.0	20.00	0	85.0	37-189				4/2/2013 727h
LCS VOC 040213A	Methylene chloride	µg/L	SW8260C	25.1	20.00	0	125	32-185				4/2/2013 727h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 040213A	Naphthalene	µg/L	SW8260C	20.7	20.00	0	104	28-136				4/2/2013 727h
LCS VOC 040213A	Tetrahydrofuran	µg/L	SW8260C	13.4	20.00	0	66.8	43-146				4/2/2013 727h
LCS VOC 040213A	Toluene	µg/L	SW8260C	22.0	20.00	0	110	64-129				4/2/2013 727h
LCS VOC 040213A	Trichloroethene	µg/L	SW8260C	23.3	20.00	0	116	54-152				4/2/2013 727h
LCS VOC 040213A	Xylenes, Total	µg/L	SW8260C	68.6	60.00	0	114	52-134				4/2/2013 727h
LCS VOC 040213A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	55.4	50.00		111	76-138				4/2/2013 727h
LCS VOC 040213A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.9	50.00		97.8	77-121				4/2/2013 727h
LCS VOC 040213A	Surr: Dibromofluoromethane	%REC	SW8260C	51.9	50.00		104	67-128				4/2/2013 727h
LCS VOC 040213A	Surr: Toluene-d8	%REC	SW8260C	46.8	50.00		93.6	81-135				4/2/2013 727h



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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 033113A	1,1,1,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1,1-Trichloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1,1,2,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1,2-Trichloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1-Dichloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2,3-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2,3-Trichloropropane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2,3-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2,4-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2,4-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2-Dibromo-3-chloropropane	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	1,2-Dibromoethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2-Dichloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,3,5-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,3-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,3-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,4-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,4-Dioxane	µg/L	SW8260C	< 50.0				-				3/31/2013 2006h
MB VOC 033113A	2,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	2-Butanone	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	2-Chloroethyl vinyl ether	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 033113A	2-Chlorotoluene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	2-Hexanone	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	2-Nitropropane	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	4-Chlorotoluene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	4-Isopropyltoluene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	4-Methyl-2-pentanone	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Acetone	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Acetonitrile	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Acrolein	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Acrylonitrile	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Allyl chloride	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Benzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Benzyl chloride	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Bis(2-chloroisopropyl) ether	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Bromobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Bromochloromethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Bromodichloromethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Bromoform	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Bromomethane	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Butyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Carbon disulfide	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Carbon tetrachloride	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Chlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Chloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Chloroform	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Chloromethane	µg/L	SW8260C	< 3.00				-				3/31/2013 2006h
MB VOC 033113A	Chloroprene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h

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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1303802

Project: MP 44.9

Contact: Chris Bittner

Dept: MSVOA

QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 033113A	cis-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	cis-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Cyclohexane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Cyclohexanone	µg/L	SW8260C	< 50.0				-				3/31/2013 2006h
MB VOC 033113A	Dibromochloromethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Dibromomethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Dichlorodifluoromethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Ethyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Ethyl ether	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Ethyl methacrylate	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Ethylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Hexachlorobutadiene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Iodomethane	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Isobutyl alcohol	µg/L	SW8260C	< 100				-				3/31/2013 2006h
MB VOC 033113A	Isopropyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Isopropyl alcohol	µg/L	SW8260C	< 40.0				-				3/31/2013 2006h
MB VOC 033113A	Isopropylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	m,p-Xylene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Methacrylonitrile	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Methyl Acetate	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Methyl methacrylate	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Methyl tert-butyl ether	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Methylcyclohexane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Methylene chloride	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	n-Amyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Naphthalene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	n-Butyl alcohol	µg/L	SW8260C	< 100				-				3/31/2013 2006h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 033113A	n-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	n-Hexane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	n-Octane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	n-Propylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	o-Xylene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Pentachloroethane	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Propionitrile	µg/L	SW8260C	< 25.0				-				3/31/2013 2006h
MB VOC 033113A	Propyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	sec-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Styrene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	tert-Butyl alcohol	µg/L	SW8260C	< 20.0				-				3/31/2013 2006h
MB VOC 033113A	tert-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Tetrachloroethene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Tetrahydrofuran	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Toluene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	trans-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	trans-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	trans-1,4-Dichloro-2-butene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Trichloroethene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Trichlorofluoromethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Vinyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Vinyl chloride	µg/L	SW8260C	< 1.00				-				3/31/2013 2006h
MB VOC 033113A	Xylenes, Total	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	52.5	50.00		105	76-138				3/31/2013 2006h
MB VOC 033113A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.8	50.00		102	77-121				3/31/2013 2006h
MB VOC 033113A	Surr: Dibromofluoromethane	%REC	SW8260C	47.9	50.00		95.7	67-128				3/31/2013 2006h
MB VOC 033113A	Surr: Toluene-d8	%REC	SW8260C	48.9	50.00		97.7	81-135				3/31/2013 2006h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 040113A	1,1,1,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1,1-Trichloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1,1,2,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1,2-Trichloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1-Dichloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2,3-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2,3-Trichloropropane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2,3-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2,4-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2,4-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2-Dibromo-3-chloropropane	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	1,2-Dibromoethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2-Dichloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,3,5-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,3-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,3-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,4-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,4-Dioxane	µg/L	SW8260C	< 50.0				-				4/1/2013 1613h
MB VOC 040113A	2,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	2-Butanone	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	2-Chloroethyl vinyl ether	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 040113A	2-Chlorotoluene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	2-Hexanone	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	2-Nitropropane	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	4-Chlorotoluene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	4-Isopropyltoluene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	4-Methyl-2-pentanone	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Acetone	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Acetonitrile	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Acrolein	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Acrylonitrile	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Allyl chloride	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Benzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Benzyl chloride	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Bis(2-chloroisopropyl) ether	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Bromobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Bromochloromethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Bromodichloromethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Bromoform	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Bromomethane	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Butyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Carbon disulfide	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Carbon tetrachloride	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Chlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Chloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Chloroform	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Chloromethane	µg/L	SW8260C	< 3.00				-				4/1/2013 1613h
MB VOC 040113A	Chloroprene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h

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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 040113A	cis-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	cis-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Cyclohexane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Cyclohexanone	µg/L	SW8260C	< 50.0				-				4/1/2013 1613h
MB VOC 040113A	Dibromochloromethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Dibromomethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Dichlorodifluoromethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Ethyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Ethyl ether	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Ethyl methacrylate	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Ethylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Hexachlorobutadiene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Iodomethane	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Isobutyl alcohol	µg/L	SW8260C	< 100				-				4/1/2013 1613h
MB VOC 040113A	Isopropyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Isopropyl alcohol	µg/L	SW8260C	< 40.0				-				4/1/2013 1613h
MB VOC 040113A	Isopropylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	m,p-Xylene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Methacrylonitrile	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Methyl Acetate	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Methyl methacrylate	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Methyl tert-butyl ether	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Methylcyclohexane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Methylene chloride	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	n-Amyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Naphthalene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	n-Butyl alcohol	µg/L	SW8260C	< 100				-				4/1/2013 1613h

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 040113A	n-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	n-Hexane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	n-Octane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	n-Propylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	o-Xylene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Pentachloroethane	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Propionitrile	µg/L	SW8260C	< 25.0				-				4/1/2013 1613h
MB VOC 040113A	Propyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	sec-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Styrene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	tert-Butyl alcohol	µg/L	SW8260C	< 20.0				-				4/1/2013 1613h
MB VOC 040113A	tert-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Tetrachloroethene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Tetrahydrofuran	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Toluene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	trans-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	trans-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	trans-1,4-Dichloro-2-butene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Trichloroethene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Trichlorofluoromethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Vinyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Vinyl chloride	µg/L	SW8260C	< 1.00				-				4/1/2013 1613h
MB VOC 040113A	Xylenes, Total	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	53.5	50.00		107	76-138				4/1/2013 1613h
MB VOC 040113A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.4	50.00		101	77-121				4/1/2013 1613h
MB VOC 040113A	Surr: Dibromofluoromethane	%REC	SW8260C	50.2	50.00		100	67-128				4/1/2013 1613h
MB VOC 040113A	Surr: Toluene-d8	%REC	SW8260C	49.0	50.00		98.0	81-135				4/1/2013 1613h

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 040213A	1,1,1,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,1,1-Trichloroethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,1,1,2,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,1,2-Trichloroethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,1-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,1-Dichloroethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,1-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,2,3-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,2,3-Trichloropropane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,2,3-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,2,4-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,2,4-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,2-Dibromo-3-chloropropane	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	1,2-Dibromoethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,2-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,2-Dichloroethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,3,5-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,3-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,3-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,4-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	1,4-Dioxane	µg/L	SW8260C	< 50.0				-				4/2/2013 805h
MB VOC 040213A	2,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	2-Butanone	µg/L	SW8260C	< 10.0				-				4/2/2013 805h
MB VOC 040213A	2-Chloroethyl vinyl ether	µg/L	SW8260C	< 5.00				-				4/2/2013 805h



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 040213A	2-Chlorotoluene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	2-Hexanone	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	2-Nitropropane	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	4-Chlorotoluene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	4-Isopropyltoluene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	4-Methyl-2-pentanone	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Acetone	µg/L	SW8260C	< 10.0				-				4/2/2013 805h
MB VOC 040213A	Acetonitrile	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Acrolein	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Acrylonitrile	µg/L	SW8260C	< 10.0				-				4/2/2013 805h
MB VOC 040213A	Allyl chloride	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Benzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Benzyl chloride	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Bis(2-chloroisopropyl) ether	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Bromobenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Bromochloromethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Bromodichloromethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Bromoform	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Bromomethane	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Butyl acetate	µg/L	SW8260C	< 10.0				-				4/2/2013 805h
MB VOC 040213A	Carbon disulfide	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Carbon tetrachloride	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Chlorobenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Chloroethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Chloroform	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Chloromethane	µg/L	SW8260C	< 3.00				-				4/2/2013 805h
MB VOC 040213A	Chloroprene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 040213A	cis-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	cis-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Cyclohexane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Cyclohexanone	µg/L	SW8260C	< 50.0				-				4/2/2013 805h
MB VOC 040213A	Dibromochloromethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Dibromomethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Dichlorodifluoromethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Ethyl acetate	µg/L	SW8260C	< 10.0				-				4/2/2013 805h
MB VOC 040213A	Ethyl ether	µg/L	SW8260C	< 10.0				-				4/2/2013 805h
MB VOC 040213A	Ethyl methacrylate	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Ethylbenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Hexachlorobutadiene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Iodomethane	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Isobutyl alcohol	µg/L	SW8260C	< 100				-				4/2/2013 805h
MB VOC 040213A	Isopropyl acetate	µg/L	SW8260C	< 10.0				-				4/2/2013 805h
MB VOC 040213A	Isopropyl alcohol	µg/L	SW8260C	< 40.0				-				4/2/2013 805h
MB VOC 040213A	Isopropylbenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	m,p-Xylene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Methacrylonitrile	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Methyl Acetate	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Methyl methacrylate	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Methyl tert-butyl ether	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Methylcyclohexane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Methylene chloride	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	n-Amyl acetate	µg/L	SW8260C	< 10.0				-				4/2/2013 805h
MB VOC 040213A	Naphthalene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	n-Butyl alcohol	µg/L	SW8260C	< 100				-				4/2/2013 805h

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 040213A	n-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	n-Hexane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	n-Octane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	n-Propylbenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	o-Xylene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Pentachloroethane	µg/L	SW8260C	< 5.00				-				4/2/2013 805h
MB VOC 040213A	Propionitrile	µg/L	SW8260C	< 25.0				-				4/2/2013 805h
MB VOC 040213A	Propyl acetate	µg/L	SW8260C	< 10.0				-				4/2/2013 805h
MB VOC 040213A	sec-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Styrene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	tert-Butyl alcohol	µg/L	SW8260C	< 20.0				-				4/2/2013 805h
MB VOC 040213A	tert-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Tetrachloroethene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Tetrahydrofuran	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Toluene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	trans-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	trans-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	trans-1,4-Dichloro-2-butene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Trichloroethene	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Trichlorofluoromethane	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Vinyl acetate	µg/L	SW8260C	< 10.0				-				4/2/2013 805h
MB VOC 040213A	Vinyl chloride	µg/L	SW8260C	< 1.00				-				4/2/2013 805h
MB VOC 040213A	Xylenes, Total	µg/L	SW8260C	< 2.00				-				4/2/2013 805h
MB VOC 040213A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	58.2	50.00		116	76-138				4/2/2013 805h
MB VOC 040213A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	51.4	50.00		103	77-121				4/2/2013 805h
MB VOC 040213A	Surr: Dibromofluoromethane	%REC	SW8260C	50.0	50.00		99.9	67-128				4/2/2013 805h
MB VOC 040213A	Surr: Toluene-d8	%REC	SW8260C	47.8	50.00		95.7	81-135				4/2/2013 805h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303801-001AMS	1,1,1-Trichloroethane	µg/L	SW8260C	21.9	20.00	0	109	67-147				3/31/2013 2103h
1303801-001AMS	1,1-Dichloroethene	µg/L	SW8260C	16.7	20.00	0	83.3	51-152				3/31/2013 2103h
1303801-001AMS	1,2-Dichlorobenzene	µg/L	SW8260C	19.9	20.00	0	99.4	70-130				3/31/2013 2103h
1303801-001AMS	1,2-Dichloroethane	µg/L	SW8260C	20.4	20.00	0	102	39-162				3/31/2013 2103h
1303801-001AMS	1,2-Dichloropropane	µg/L	SW8260C	19.5	20.00	0	97.6	59-135				3/31/2013 2103h
1303801-001AMS	Benzene	µg/L	SW8260C	19.4	20.00	0	96.9	66-145				3/31/2013 2103h
1303801-001AMS	Chlorobenzene	µg/L	SW8260C	19.3	20.00	0	96.7	63-140				3/31/2013 2103h
1303801-001AMS	Chloroform	µg/L	SW8260C	20.1	20.00	0	100	50-146				3/31/2013 2103h
1303801-001AMS	Ethylbenzene	µg/L	SW8260C	20.1	20.00	0	101	69-133				3/31/2013 2103h
1303801-001AMS	Isopropylbenzene	µg/L	SW8260C	20.9	20.00	0	105	60-147				3/31/2013 2103h
1303801-001AMS	Methyl tert-butyl ether	µg/L	SW8260C	18.5	20.00	0	92.5	37-189				3/31/2013 2103h
1303801-001AMS	Methylene chloride	µg/L	SW8260C	18.2	20.00	0	90.9	30-192				3/31/2013 2103h
1303801-001AMS	Naphthalene	µg/L	SW8260C	19.0	20.00	0	95.2	41-131				3/31/2013 2103h
1303801-001AMS	Tetrahydrofuran	µg/L	SW8260C	16.1	20.00	0	80.6	43-146				3/31/2013 2103h
1303801-001AMS	Toluene	µg/L	SW8260C	19.3	20.00	0	96.6	18-192				3/31/2013 2103h
1303801-001AMS	Trichloroethene	µg/L	SW8260C	20.1	20.00	0	100	61-153				3/31/2013 2103h
1303801-001AMS	Xylenes, Total	µg/L	SW8260C	60.7	60.00	0	101	42-167				3/31/2013 2103h
1303801-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	54.5	50.00		109	72-151				3/31/2013 2103h
1303801-001AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.2	50.00		100	80-128				3/31/2013 2103h
1303801-001AMS	Surr: Dibromofluoromethane	%REC	SW8260C	49.7	50.00		99.5	80-124				3/31/2013 2103h
1303801-001AMS	Surr: Toluene-d8	%REC	SW8260C	48.3	50.00		96.5	77-129				3/31/2013 2103h
1303802-012AMS	1,1,1-Trichloroethane	µg/L	SW8260C	104	100.0	0	104	67-147				4/1/2013 1729h
1303802-012AMS	1,1-Dichloroethene	µg/L	SW8260C	78.0	100.0	0	78.0	51-152				4/1/2013 1729h
1303802-012AMS	1,2-Dichlorobenzene	µg/L	SW8260C	104	100.0	0	104	70-130				4/1/2013 1729h
1303802-012AMS	1,2-Dichloroethane	µg/L	SW8260C	104	100.0	0	104	39-162				4/1/2013 1729h
1303802-012AMS	1,2-Dichloropropane	µg/L	SW8260C	98.5	100.0	0	98.5	59-135				4/1/2013 1729h
1303802-012AMS	Benzene	µg/L	SW8260C	95.6	100.0	0	95.6	66-145				4/1/2013 1729h

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303802-012AMS	Chlorobenzene	µg/L	SW8260C	99.5	100.0	0	99.5	63-140				4/1/2013 1729h
1303802-012AMS	Chloroform	µg/L	SW8260C	104	100.0	0	104	50-146				4/1/2013 1729h
1303802-012AMS	Ethylbenzene	µg/L	SW8260C	102	100.0	0	102	69-133				4/1/2013 1729h
1303802-012AMS	Isopropylbenzene	µg/L	SW8260C	106	100.0	0	106	60-147				4/1/2013 1729h
1303802-012AMS	Methyl tert-butyl ether	µg/L	SW8260C	88.1	100.0	0	88.1	37-189				4/1/2013 1729h
1303802-012AMS	Methylene chloride	µg/L	SW8260C	91.8	100.0	0	91.8	30-192				4/1/2013 1729h
1303802-012AMS	Naphthalene	µg/L	SW8260C	106	100.0	2.240	103	41-131				4/1/2013 1729h
1303802-012AMS	Tetrahydrofuran	µg/L	SW8260C	74.4	100.0	2.350	72.1	43-146				4/1/2013 1729h
1303802-012AMS	Toluene	µg/L	SW8260C	98.8	100.0	0	98.8	18-192				4/1/2013 1729h
1303802-012AMS	Trichloroethene	µg/L	SW8260C	101	100.0	0	101	61-153				4/1/2013 1729h
1303802-012AMS	Xylenes, Total	µg/L	SW8260C	314	300.0	6.970	102	42-167				4/1/2013 1729h
1303802-012AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	273	250.0		109	72-151				4/1/2013 1729h
1303802-012AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	246	250.0		98.3	80-128				4/1/2013 1729h
1303802-012AMS	Surr: Dibromofluoromethane	%REC	SW8260C	258	250.0		103	80-124				4/1/2013 1729h
1303802-012AMS	Surr: Toluene-d8	%REC	SW8260C	240	250.0		96.1	77-129				4/1/2013 1729h
1304020-001AMS	1,1,1-Trichloroethane	µg/L	SW8260C	22.8	20.00	0	114	67-147				4/2/2013 1037h
1304020-001AMS	1,1-Dichloroethene	µg/L	SW8260C	23.3	20.00	0	117	51-152				4/2/2013 1037h
1304020-001AMS	1,2-Dichlorobenzene	µg/L	SW8260C	18.2	20.00	0	91.0	70-130				4/2/2013 1037h
1304020-001AMS	1,2-Dichloroethane	µg/L	SW8260C	20.8	20.00	0	104	39-162				4/2/2013 1037h
1304020-001AMS	1,2-Dichloropropane	µg/L	SW8260C	18.1	20.00	0	90.4	59-135				4/2/2013 1037h
1304020-001AMS	Benzene	µg/L	SW8260C	19.4	20.00	0	96.8	66-145				4/2/2013 1037h
1304020-001AMS	Chlorobenzene	µg/L	SW8260C	17.9	20.00	0	89.7	63-140				4/2/2013 1037h
1304020-001AMS	Chloroform	µg/L	SW8260C	20.2	20.00	0	101	50-146				4/2/2013 1037h
1304020-001AMS	Ethylbenzene	µg/L	SW8260C	18.4	20.00	0	92.2	69-133				4/2/2013 1037h
1304020-001AMS	Isopropylbenzene	µg/L	SW8260C	19.1	20.00	0	95.3	60-147				4/2/2013 1037h
1304020-001AMS	Methyl tert-butyl ether	µg/L	SW8260C	15.8	20.00	0	78.8	37-189				4/2/2013 1037h
1304020-001AMS	Methylene chloride	µg/L	SW8260C	21.2	20.00	0	106	30-192				4/2/2013 1037h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304020-001AMS	Naphthalene	µg/L	SW8260C	16.2	20.00	0	80.8	41-131				4/2/2013 1037h
1304020-001AMS	Tetrahydrofuran	µg/L	SW8260C	12.9	20.00	0	64.6	43-146				4/2/2013 1037h
1304020-001AMS	Toluene	µg/L	SW8260C	18.2	20.00	0	90.9	18-192				4/2/2013 1037h
1304020-001AMS	Trichloroethene	µg/L	SW8260C	19.7	20.00	0	98.4	61-153				4/2/2013 1037h
1304020-001AMS	Xylenes, Total	µg/L	SW8260C	55.2	60.00	0	92.0	42-167				4/2/2013 1037h
1304020-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	58.0	50.00		116	72-151				4/2/2013 1037h
1304020-001AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.8	50.00		97.5	80-128				4/2/2013 1037h
1304020-001AMS	Surr: Dibromofluoromethane	%REC	SW8260C	50.3	50.00		101	80-124				4/2/2013 1037h
1304020-001AMS	Surr: Toluene-d8	%REC	SW8260C	46.6	50.00		93.1	77-129				4/2/2013 1037h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303801-001AMSD	1,1,1-Trichloroethane	µg/L	SW8260C	22.0	20.00	0	110	67-147	0.547	25		3/31/2013 2122h
1303801-001AMSD	1,1-Dichloroethene	µg/L	SW8260C	16.9	20.00	0	84.5	51-152	1.43	25		3/31/2013 2122h
1303801-001AMSD	1,2-Dichlorobenzene	µg/L	SW8260C	20.0	20.00	0	99.9	70-130	0.451	25		3/31/2013 2122h
1303801-001AMSD	1,2-Dichloroethane	µg/L	SW8260C	20.5	20.00	0	103	39-162	0.586	25		3/31/2013 2122h
1303801-001AMSD	1,2-Dichloropropane	µg/L	SW8260C	19.9	20.00	0	99.6	59-135	1.98	25		3/31/2013 2122h
1303801-001AMSD	Benzene	µg/L	SW8260C	19.6	20.00	0	98.0	66-145	1.13	25		3/31/2013 2122h
1303801-001AMSD	Chlorobenzene	µg/L	SW8260C	20.0	20.00	0	99.8	63-140	3.11	25		3/31/2013 2122h
1303801-001AMSD	Chloroform	µg/L	SW8260C	20.3	20.00	0	102	50-146	1.24	25		3/31/2013 2122h
1303801-001AMSD	Ethylbenzene	µg/L	SW8260C	20.5	20.00	0	102	69-133	1.78	25		3/31/2013 2122h
1303801-001AMSD	Isopropylbenzene	µg/L	SW8260C	21.5	20.00	0	107	60-147	2.64	25		3/31/2013 2122h
1303801-001AMSD	Methyl tert-butyl ether	µg/L	SW8260C	17.4	20.00	0	87.2	37-189	5.84	25		3/31/2013 2122h
1303801-001AMSD	Methylene chloride	µg/L	SW8260C	18.3	20.00	0	91.7	30-192	0.931	25		3/31/2013 2122h
1303801-001AMSD	Naphthalene	µg/L	SW8260C	19.3	20.00	0	96.6	41-131	1.36	25		3/31/2013 2122h
1303801-001AMSD	Tetrahydrofuran	µg/L	SW8260C	15.3	20.00	0	76.3	43-146	5.48	25		3/31/2013 2122h
1303801-001AMSD	Toluene	µg/L	SW8260C	19.9	20.00	0	99.7	18-192	3.16	25		3/31/2013 2122h
1303801-001AMSD	Trichloroethene	µg/L	SW8260C	20.1	20.00	0	101	61-153	0.0995	25		3/31/2013 2122h
1303801-001AMSD	Xylenes, Total	µg/L	SW8260C	62.0	60.00	0	103	42-167	2.09	25		3/31/2013 2122h
1303801-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	54.1	50.00		108	72-151				3/31/2013 2122h
1303801-001AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.9	50.00		97.7	80-128				3/31/2013 2122h
1303801-001AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	50.5	50.00		101	80-124				3/31/2013 2122h
1303801-001AMSD	Surr: Toluene-d8	%REC	SW8260C	48.0	50.00		95.9	77-129				3/31/2013 2122h
1303802-012AMSD	1,1,1-Trichloroethane	µg/L	SW8260C	108	100.0	0	108	67-147	3.67	25		4/1/2013 1748h
1303802-012AMSD	1,1-Dichloroethene	µg/L	SW8260C	81.6	100.0	0	81.6	51-152	4.51	25		4/1/2013 1748h
1303802-012AMSD	1,2-Dichlorobenzene	µg/L	SW8260C	105	100.0	0	105	70-130	1.15	25		4/1/2013 1748h
1303802-012AMSD	1,2-Dichloroethane	µg/L	SW8260C	105	100.0	0	105	39-162	0.668	25		4/1/2013 1748h
1303802-012AMSD	1,2-Dichloropropane	µg/L	SW8260C	101	100.0	0	101	59-135	2.36	25		4/1/2013 1748h
1303802-012AMSD	Benzene	µg/L	SW8260C	97.6	100.0	0	97.6	66-145	2.12	25		4/1/2013 1748h

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303802-012AMSD	Chlorobenzene	µg/L	SW8260C	102	100.0	0	102	63-140	2.19	25		4/1/2013 1748h
1303802-012AMSD	Chloroform	µg/L	SW8260C	107	100.0	0	107	50-146	2.9	25		4/1/2013 1748h
1303802-012AMSD	Ethylbenzene	µg/L	SW8260C	105	100.0	0	105	69-133	3.29	25		4/1/2013 1748h
1303802-012AMSD	Isopropylbenzene	µg/L	SW8260C	110	100.0	0	110	60-147	3.75	25		4/1/2013 1748h
1303802-012AMSD	Methyl tert-butyl ether	µg/L	SW8260C	87.9	100.0	0	87.9	37-189	0.227	25		4/1/2013 1748h
1303802-012AMSD	Methylene chloride	µg/L	SW8260C	92.5	100.0	0	92.5	30-192	0.814	25		4/1/2013 1748h
1303802-012AMSD	Naphthalene	µg/L	SW8260C	105	100.0	2.240	103	41-131	0.0948	25		4/1/2013 1748h
1303802-012AMSD	Tetrahydrofuran	µg/L	SW8260C	79.2	100.0	2.350	76.9	43-146	6.25	25		4/1/2013 1748h
1303802-012AMSD	Toluene	µg/L	SW8260C	101	100.0	0	101	18-192	2.6	25		4/1/2013 1748h
1303802-012AMSD	Trichloroethene	µg/L	SW8260C	104	100.0	0	104	61-153	3.47	25		4/1/2013 1748h
1303802-012AMSD	Xylenes, Total	µg/L	SW8260C	321	300.0	6.970	105	42-167	2.24	25		4/1/2013 1748h
1303802-012AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	271	250.0		108	72-151				4/1/2013 1748h
1303802-012AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	244	250.0		97.5	80-128				4/1/2013 1748h
1303802-012AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	256	250.0		102	80-124				4/1/2013 1748h
1303802-012AMSD	Surr: Toluene-d8	%REC	SW8260C	239	250.0		95.6	77-129				4/1/2013 1748h
1304020-001AMSD	1,1,1-Trichloroethane	µg/L	SW8260C	27.9	20.00	0	139	67-147	19.9	25		4/2/2013 1056h
1304020-001AMSD	1,1-Dichloroethene	µg/L	SW8260C	28.4	20.00	0	142	51-152	19.6	25		4/2/2013 1056h
1304020-001AMSD	1,2-Dichlorobenzene	µg/L	SW8260C	21.9	20.00	0	109	70-130	18.4	25		4/2/2013 1056h
1304020-001AMSD	1,2-Dichloroethane	µg/L	SW8260C	25.1	20.00	0	126	39-162	18.9	25		4/2/2013 1056h
1304020-001AMSD	1,2-Dichloropropane	µg/L	SW8260C	21.8	20.00	0	109	59-135	18.7	25		4/2/2013 1056h
1304020-001AMSD	Benzene	µg/L	SW8260C	23.7	20.00	0	118	66-145	20	25		4/2/2013 1056h
1304020-001AMSD	Chlorobenzene	µg/L	SW8260C	21.8	20.00	0	109	63-140	19.6	25		4/2/2013 1056h
1304020-001AMSD	Chloroform	µg/L	SW8260C	24.4	20.00	0	122	50-146	19.2	25		4/2/2013 1056h
1304020-001AMSD	Ethylbenzene	µg/L	SW8260C	22.7	20.00	0	114	69-133	20.9	25		4/2/2013 1056h
1304020-001AMSD	Isopropylbenzene	µg/L	SW8260C	23.5	20.00	0	118	60-147	20.9	25		4/2/2013 1056h
1304020-001AMSD	Methyl tert-butyl ether	µg/L	SW8260C	16.6	20.00	0	83.0	37-189	5.07	25		4/2/2013 1056h
1304020-001AMSD	Methylene chloride	µg/L	SW8260C	25.8	20.00	0	129	30-192	19.6	25		4/2/2013 1056h

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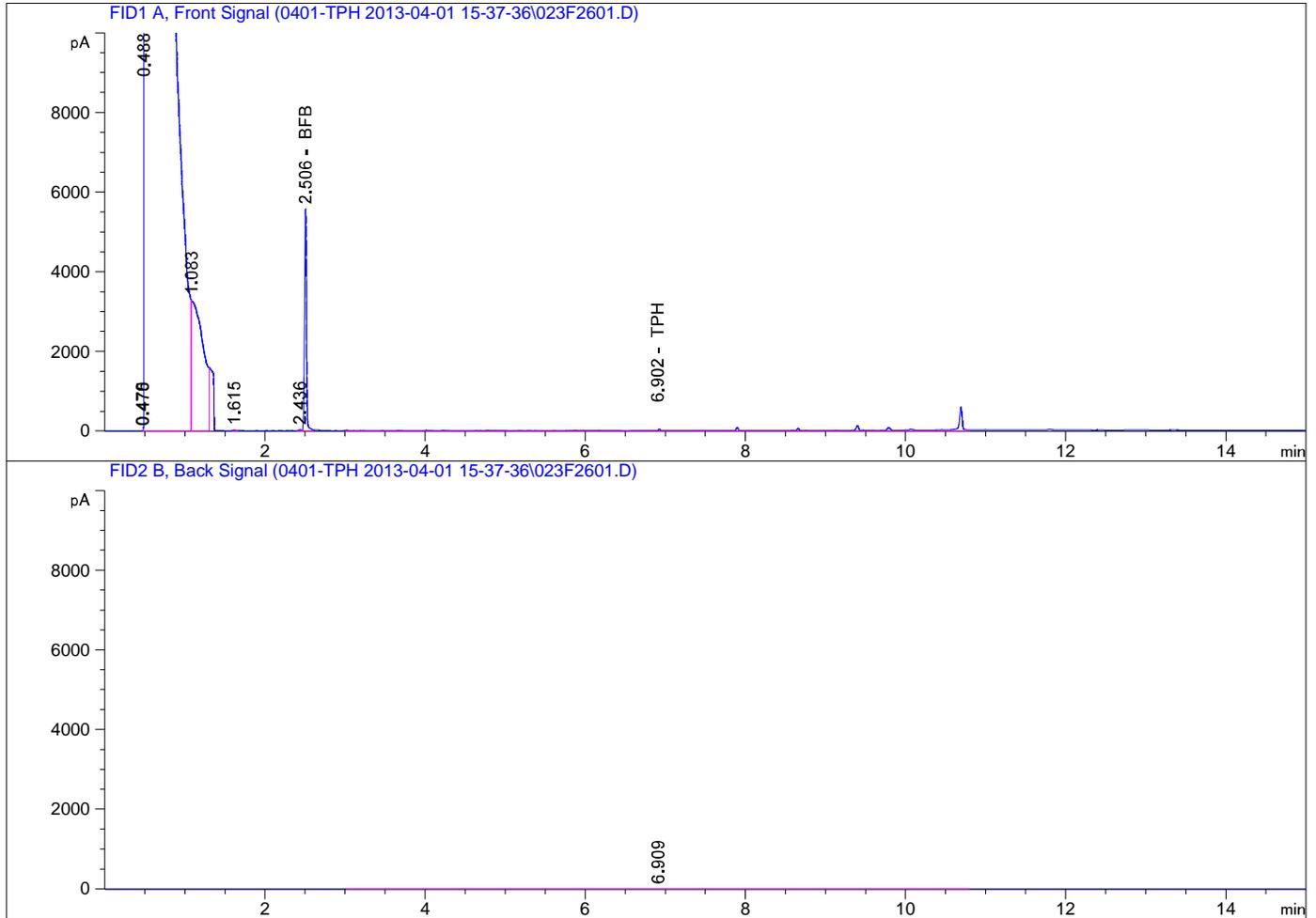
QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303802
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304020-001AMSD	Naphthalene	µg/L	SW8260C	20.2	20.00	0	101	41-131	22.5	25		4/2/2013 1056h
1304020-001AMSD	Tetrahydrofuran	µg/L	SW8260C	13.5	20.00	0	67.4	43-146	4.39	25		4/2/2013 1056h
1304020-001AMSD	Toluene	µg/L	SW8260C	22.3	20.00	0	111	18-192	20.2	25		4/2/2013 1056h
1304020-001AMSD	Trichloroethene	µg/L	SW8260C	24.3	20.00	0	122	61-153	21.1	25		4/2/2013 1056h
1304020-001AMSD	Xylenes, Total	µg/L	SW8260C	68.2	60.00	0	114	42-167	21.1	25		4/2/2013 1056h
1304020-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	57.7	50.00		115	72-151				4/2/2013 1056h
1304020-001AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.1	50.00		96.3	80-128				4/2/2013 1056h
1304020-001AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	50.2	50.00		100	80-124				4/2/2013 1056h
1304020-001AMSD	Surr: Toluene-d8	%REC	SW8260C	46.6	50.00		93.1	77-129				4/2/2013 1056h

=====
Acq. Operator : Seq. Line : 26
Acq. Instrument : GC C Location : Vial 23
Injection Date : 4/1/2013 11:44:22 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
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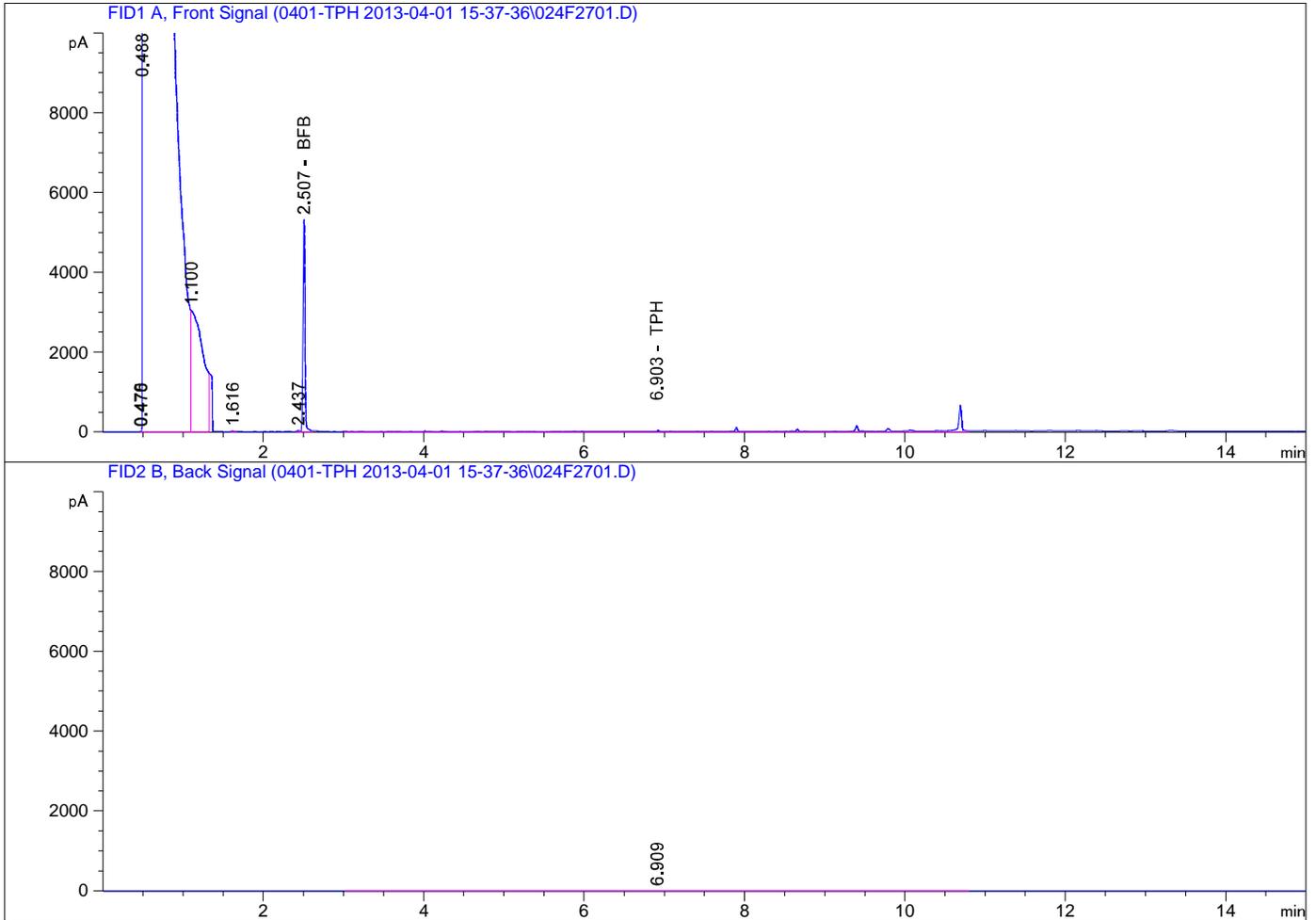
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

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Acq. Operator	:		Seq. Line	:	27
Acq. Instrument	:	GC C	Location	:	Vial 24
Injection Date	:	4/2/2013 12:03:41 AM	Inj	:	1
			Inj Volume	:	5 µl
Acq. Method	:	C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M			
Last changed	:	3/14/2013 1:57:38 PM			
Analysis Method	:	C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)			
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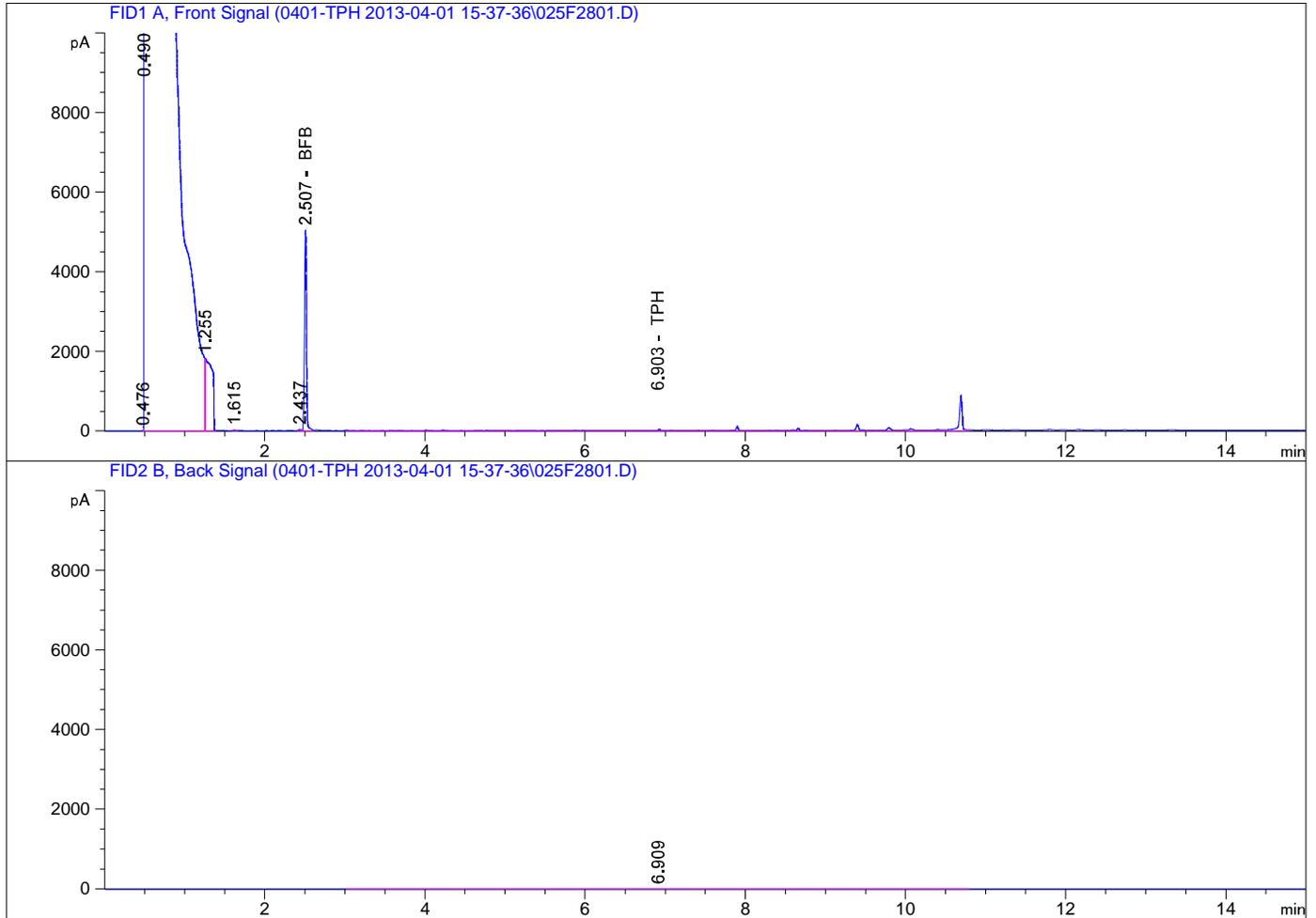
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External Standard Report

Sorted By : Signal
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Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

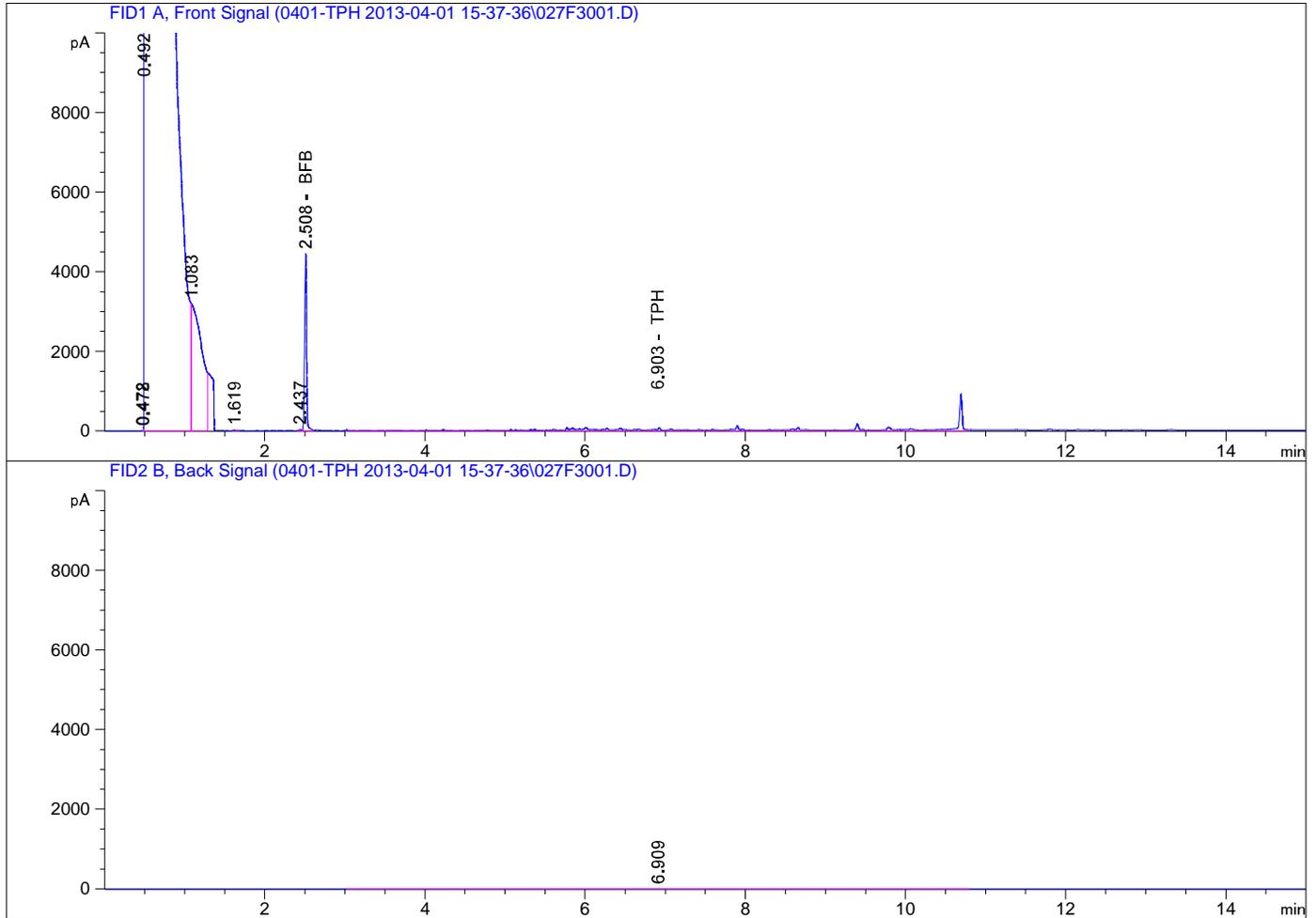
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Acq. Operator : Seq. Line : 28
Acq. Instrument : GC C Location : Vial 25
Injection Date : 4/2/2013 12:23:04 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

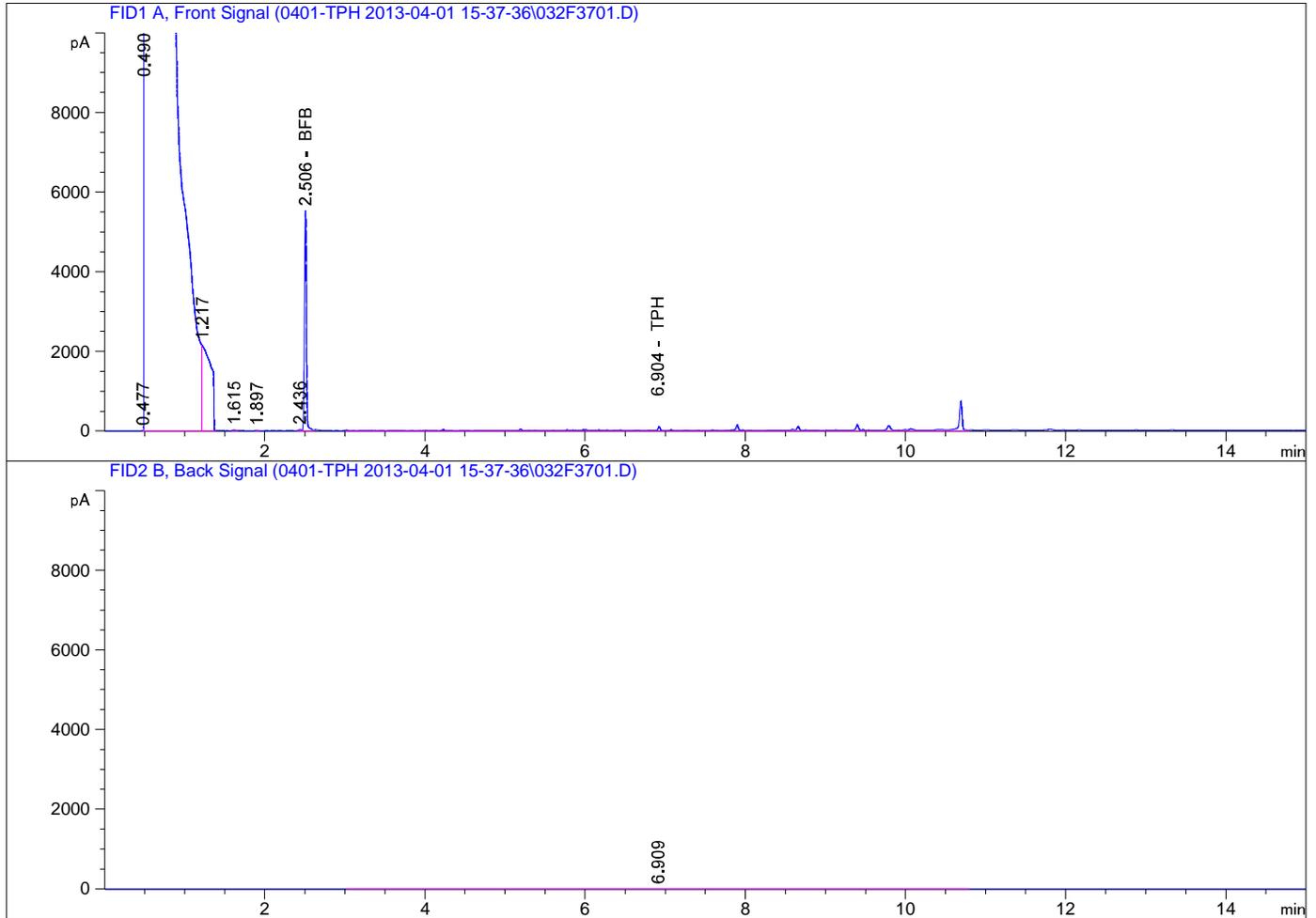
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Acq. Instrument : GC C Location : Vial 27
Injection Date : 4/2/2013 1:01:44 AM Inj : 1
Inj Volume : 5 µl
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Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

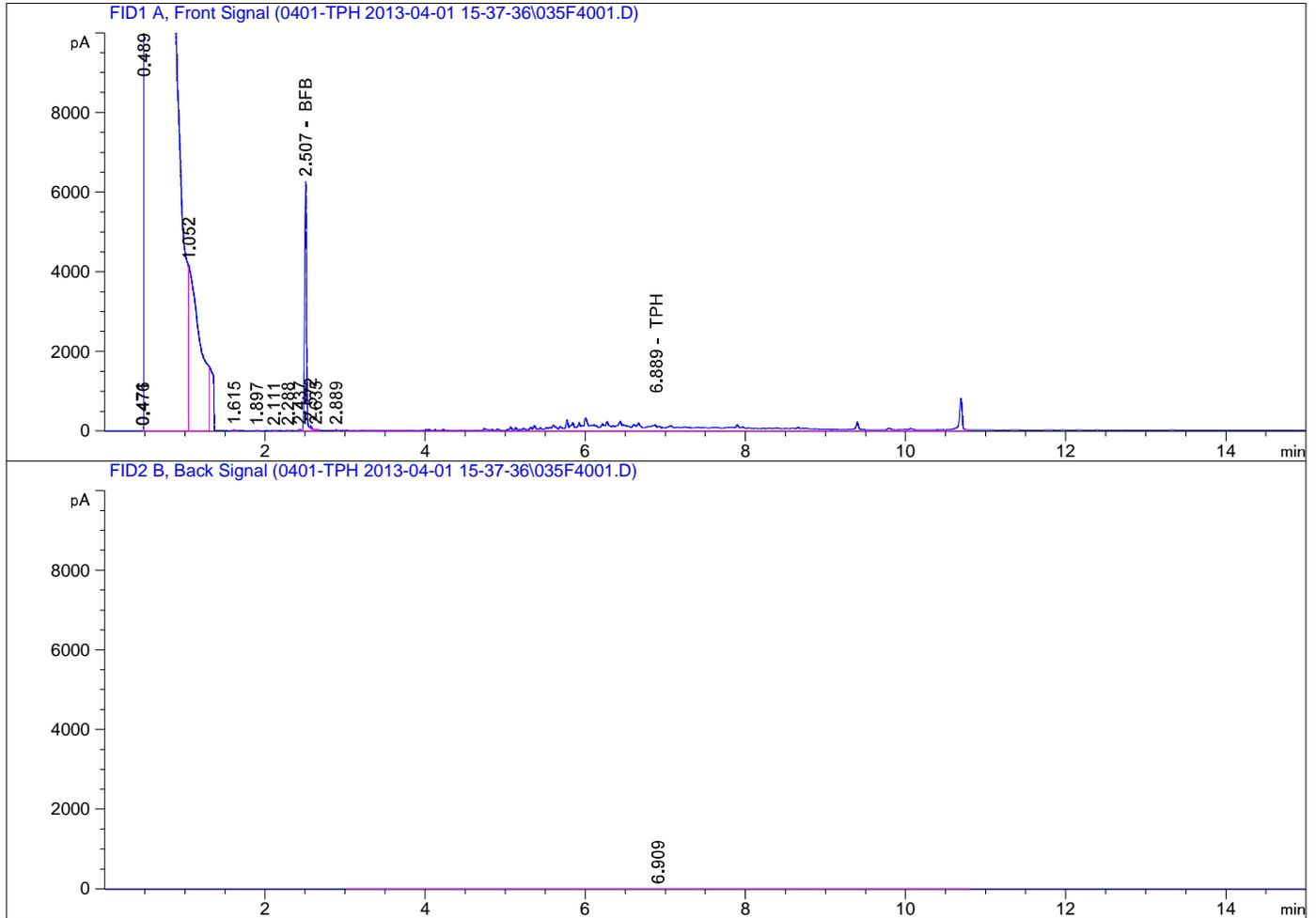
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Acq. Operator : Seq. Line : 37
Acq. Instrument : GC C Location : Vial 32
Injection Date : 4/2/2013 3:17:19 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

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Acq. Instrument : GC C Location : Vial 35
Injection Date : 4/2/2013 4:15:21 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
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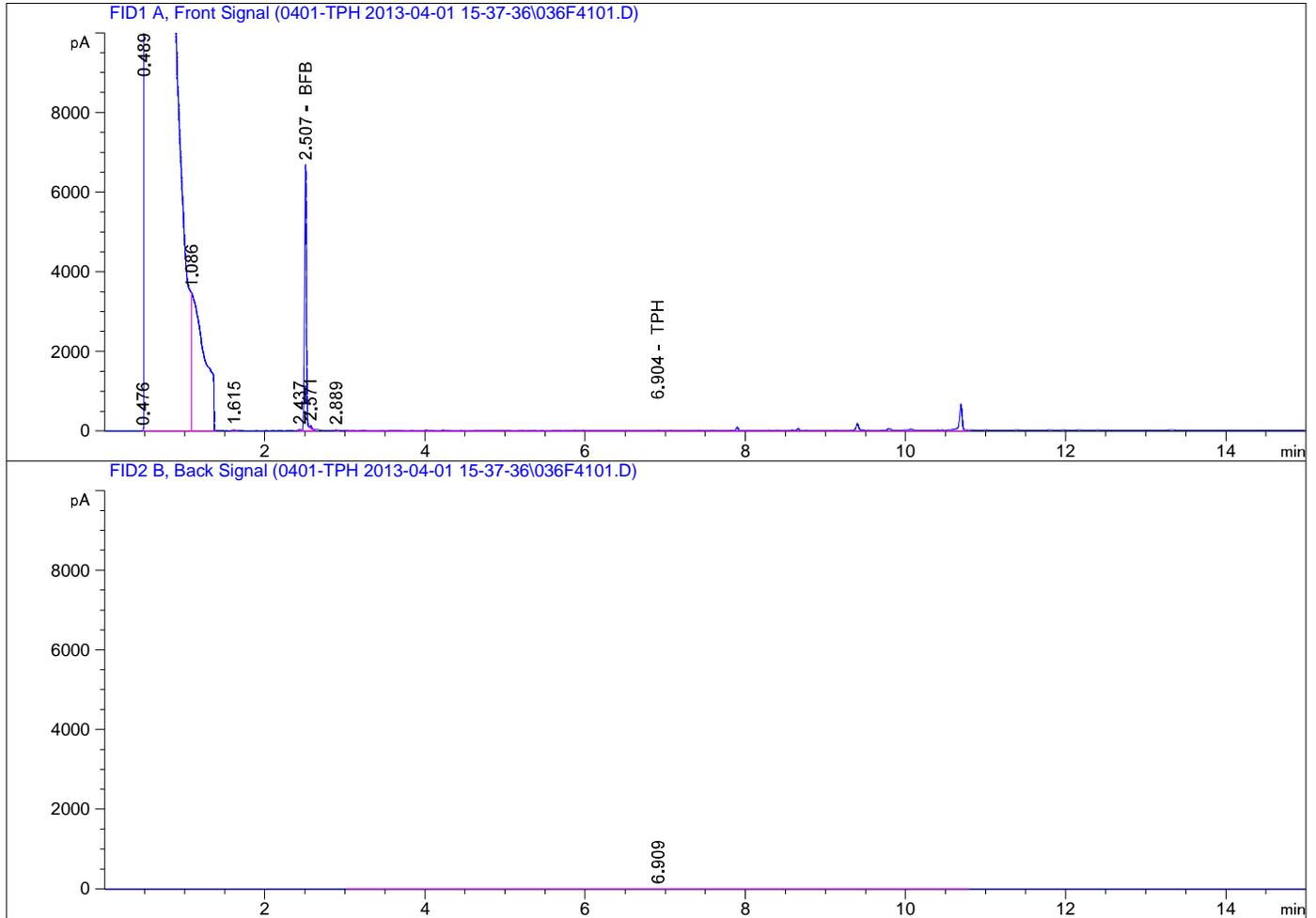
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External Standard Report
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Sorted By : Signal
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Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

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Acq. Operator	:		Seq. Line	:	41
Acq. Instrument	:	GC C	Location	:	Vial 36
Injection Date	:	4/2/2013 4:34:38 AM	Inj	:	1
			Inj Volume	:	5 µl
Acq. Method	:	C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M			
Last changed	:	3/14/2013 1:57:38 PM			
Analysis Method	:	C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)			
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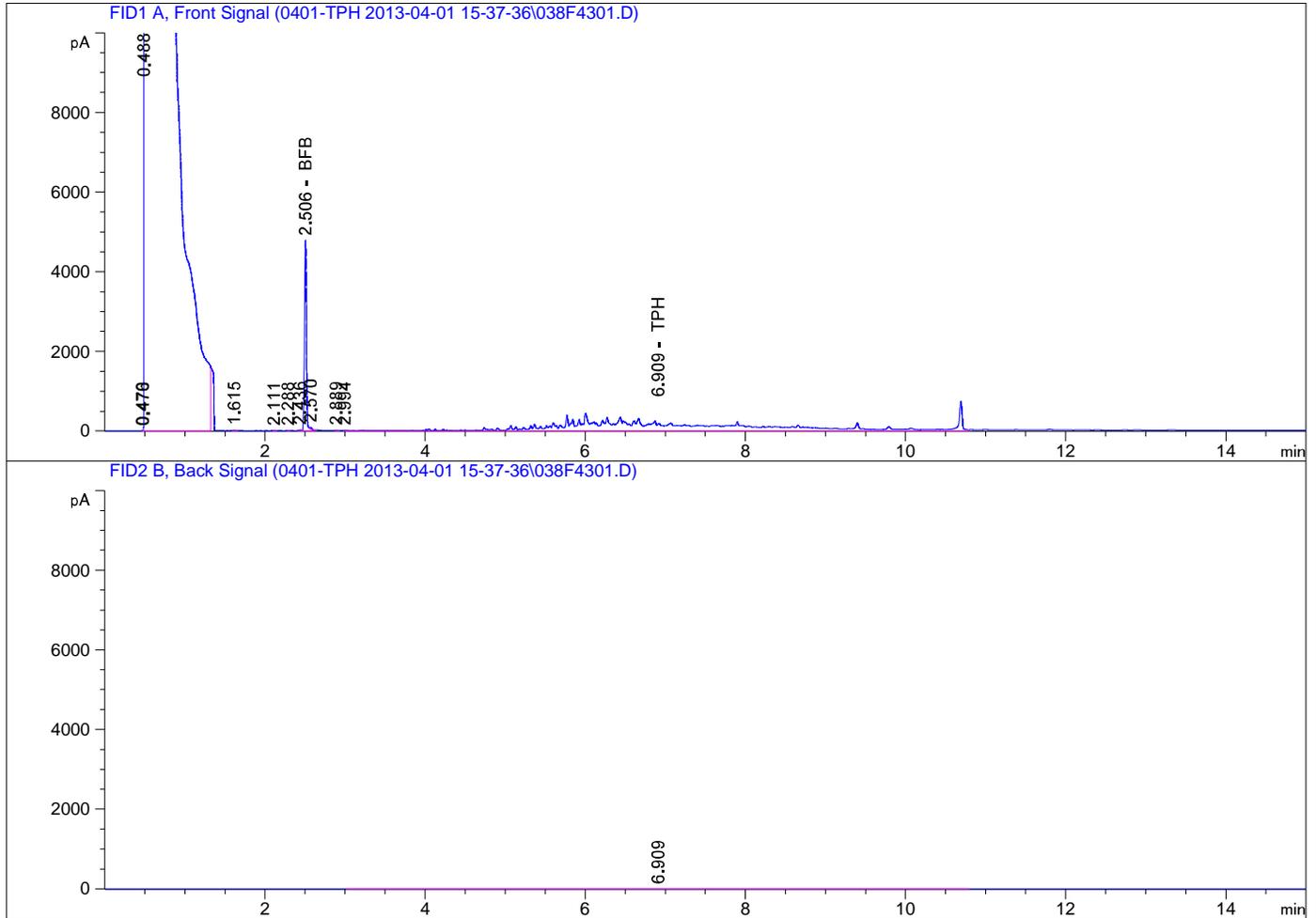
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External Standard Report

Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

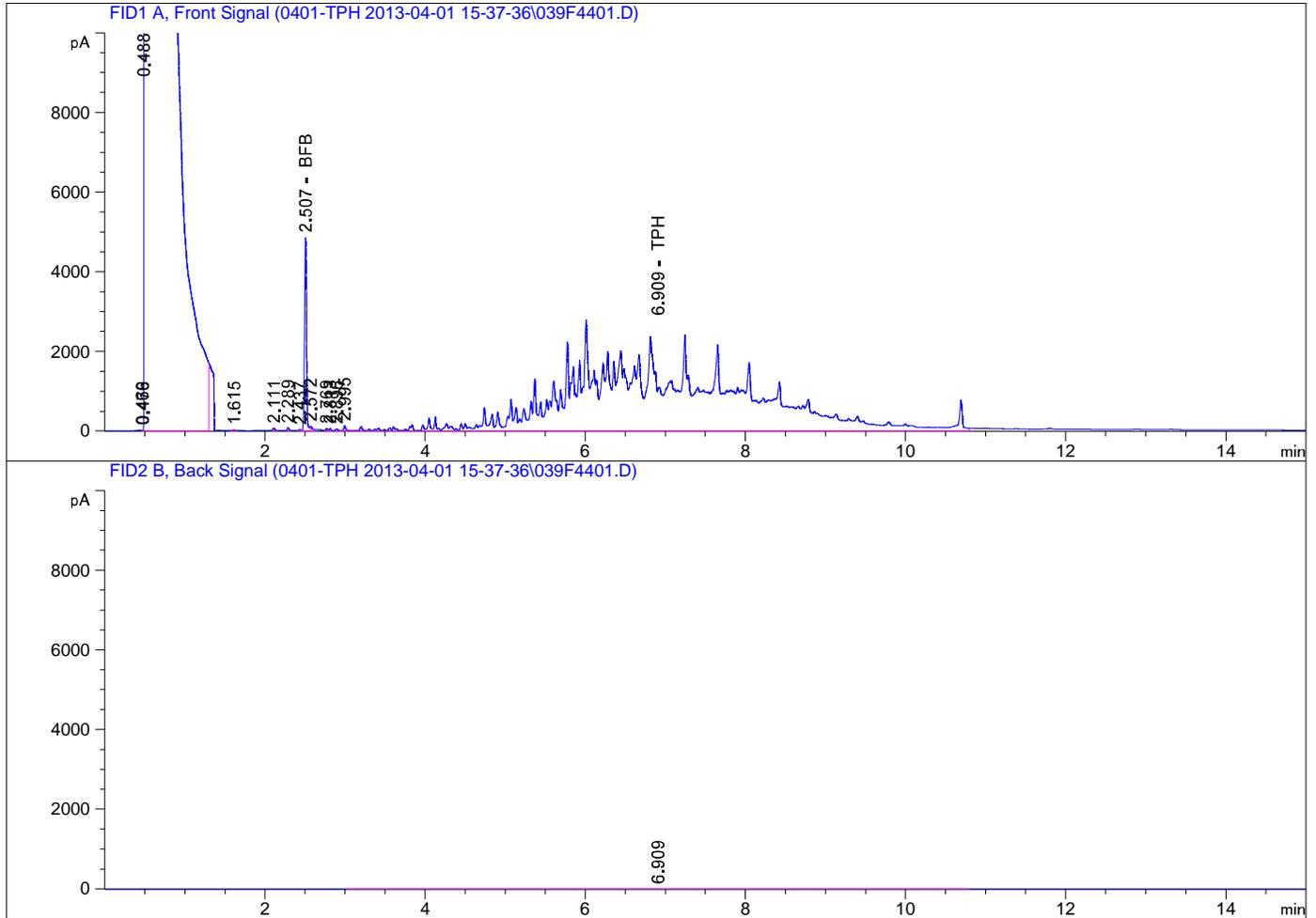
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Acq. Operator : Seq. Line : 43
Acq. Instrument : GC C Location : Vial 38
Injection Date : 4/2/2013 5:13:13 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
=====



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External Standard Report
=====

Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

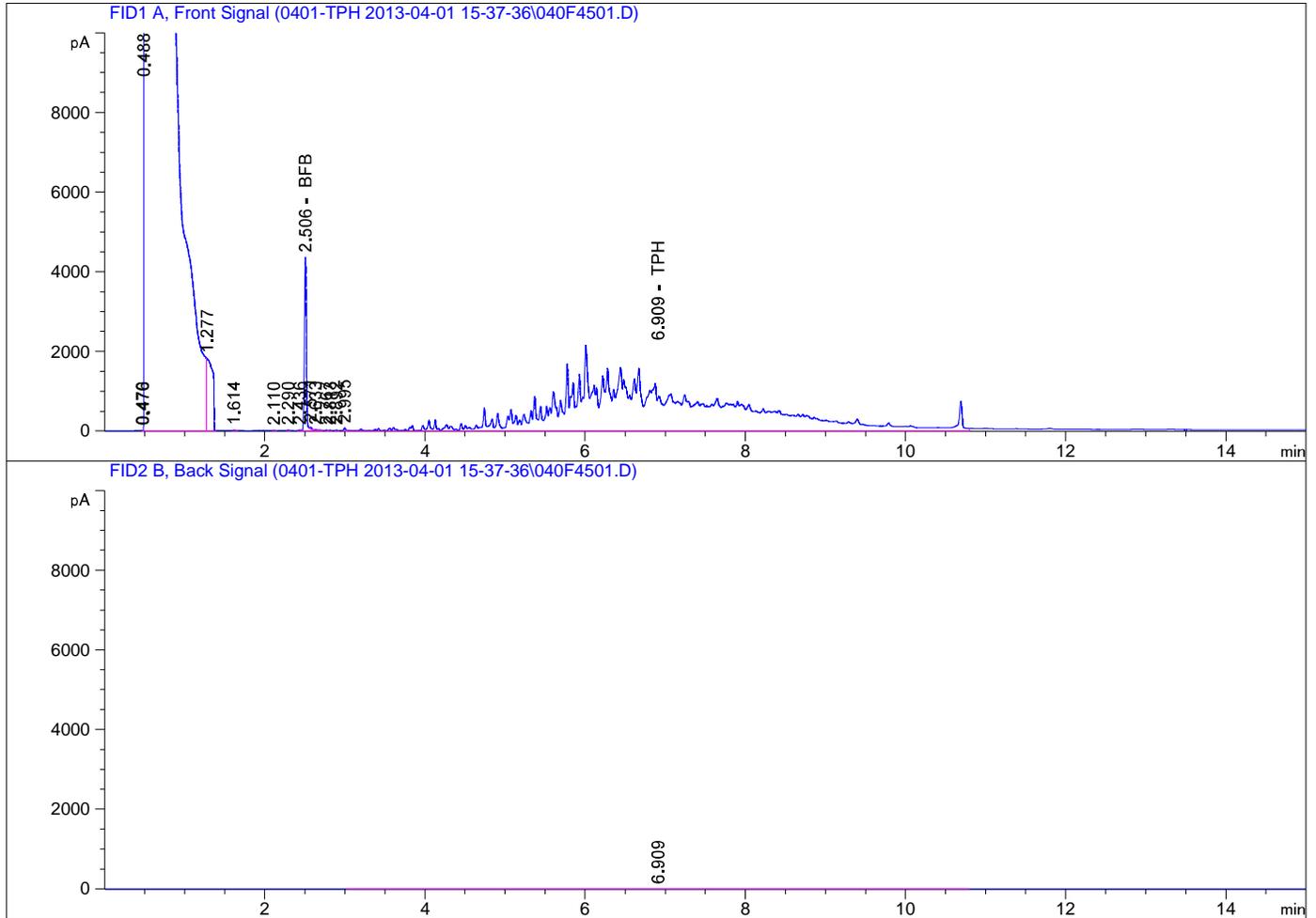
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Acq. Operator : Seq. Line : 44
Acq. Instrument : GC C Location : Vial 39
Injection Date : 4/2/2013 5:32:41 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

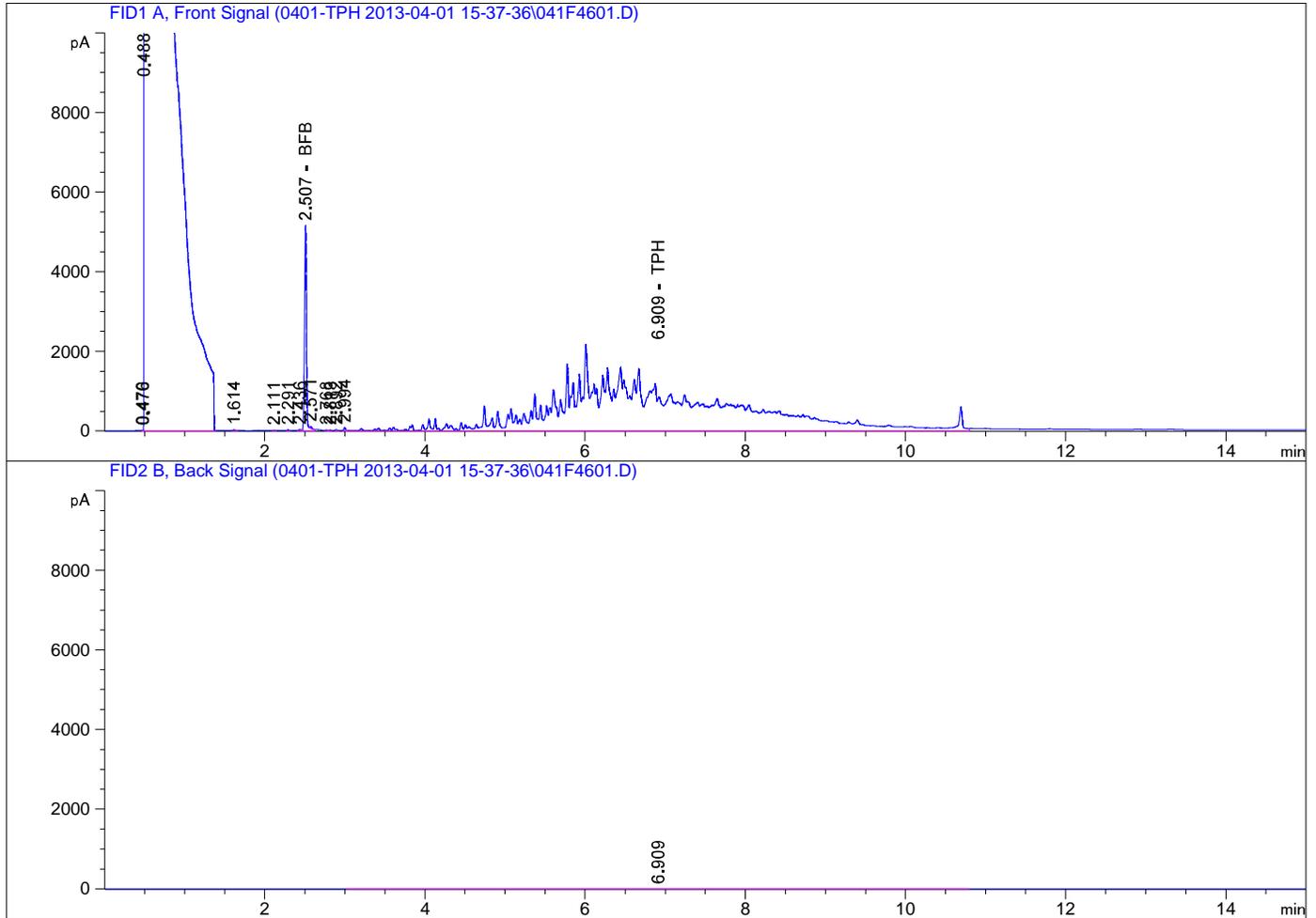
=====
Acq. Operator : Seq. Line : 45
Acq. Instrument : GC C Location : Vial 40
Injection Date : 4/2/2013 5:51:58 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

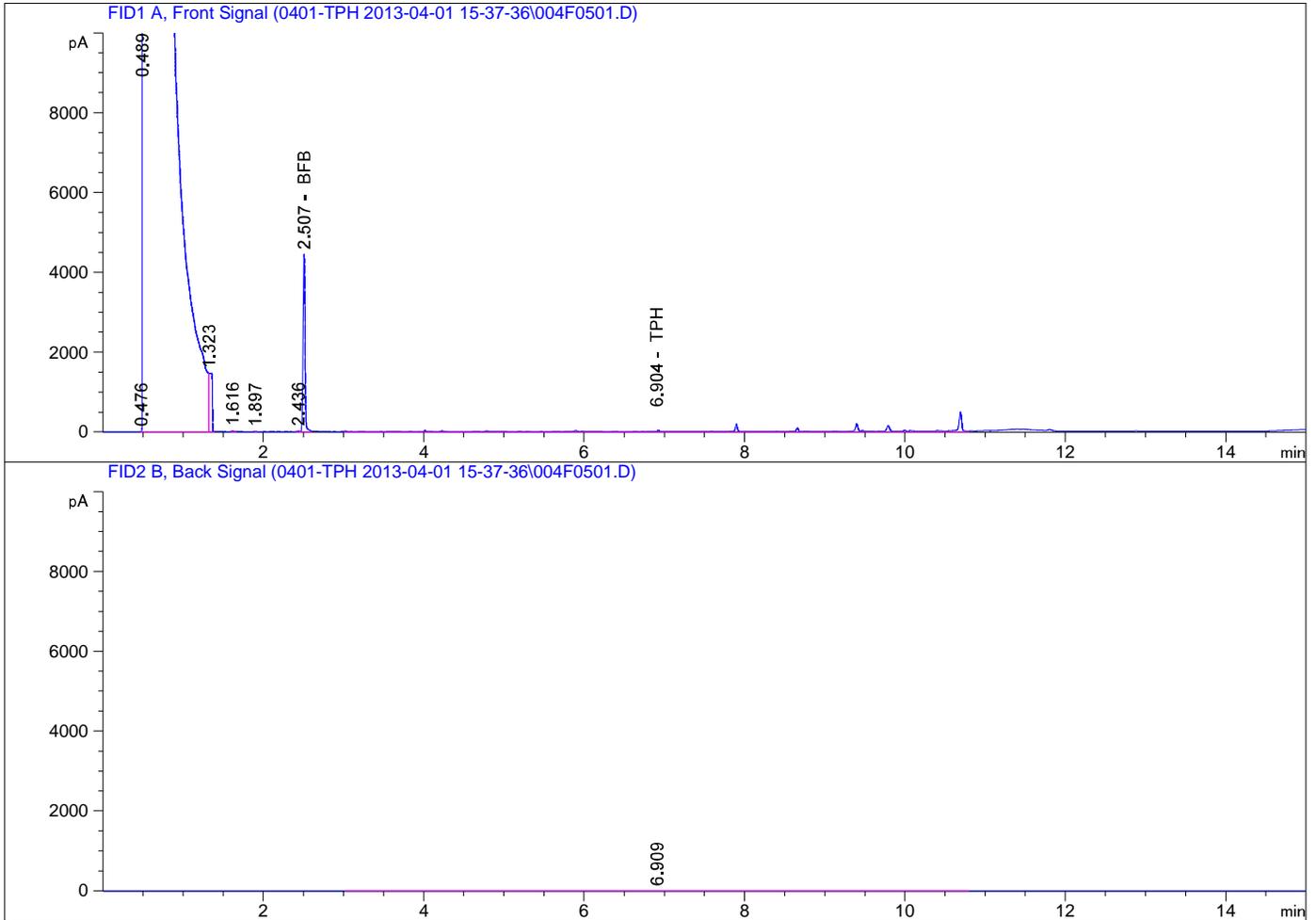
=====
Acq. Operator : Seq. Line : 46
Acq. Instrument : GC C Location : Vial 41
Injection Date : 4/2/2013 6:11:15 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

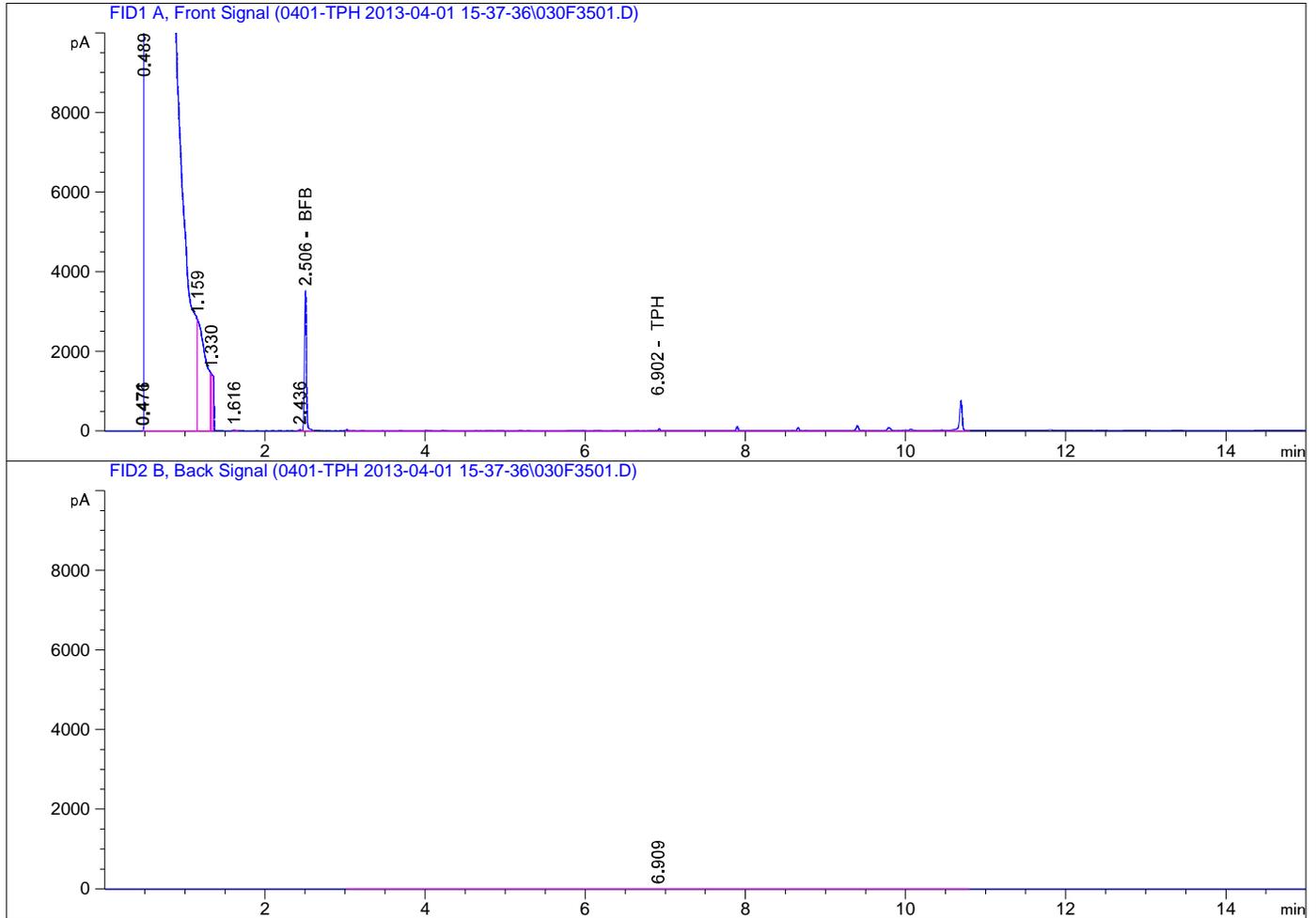
=====
Acq. Operator : Seq. Line : 5
Acq. Instrument : GC C Location : Vial 4
Injection Date : 4/1/2013 4:57:22 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

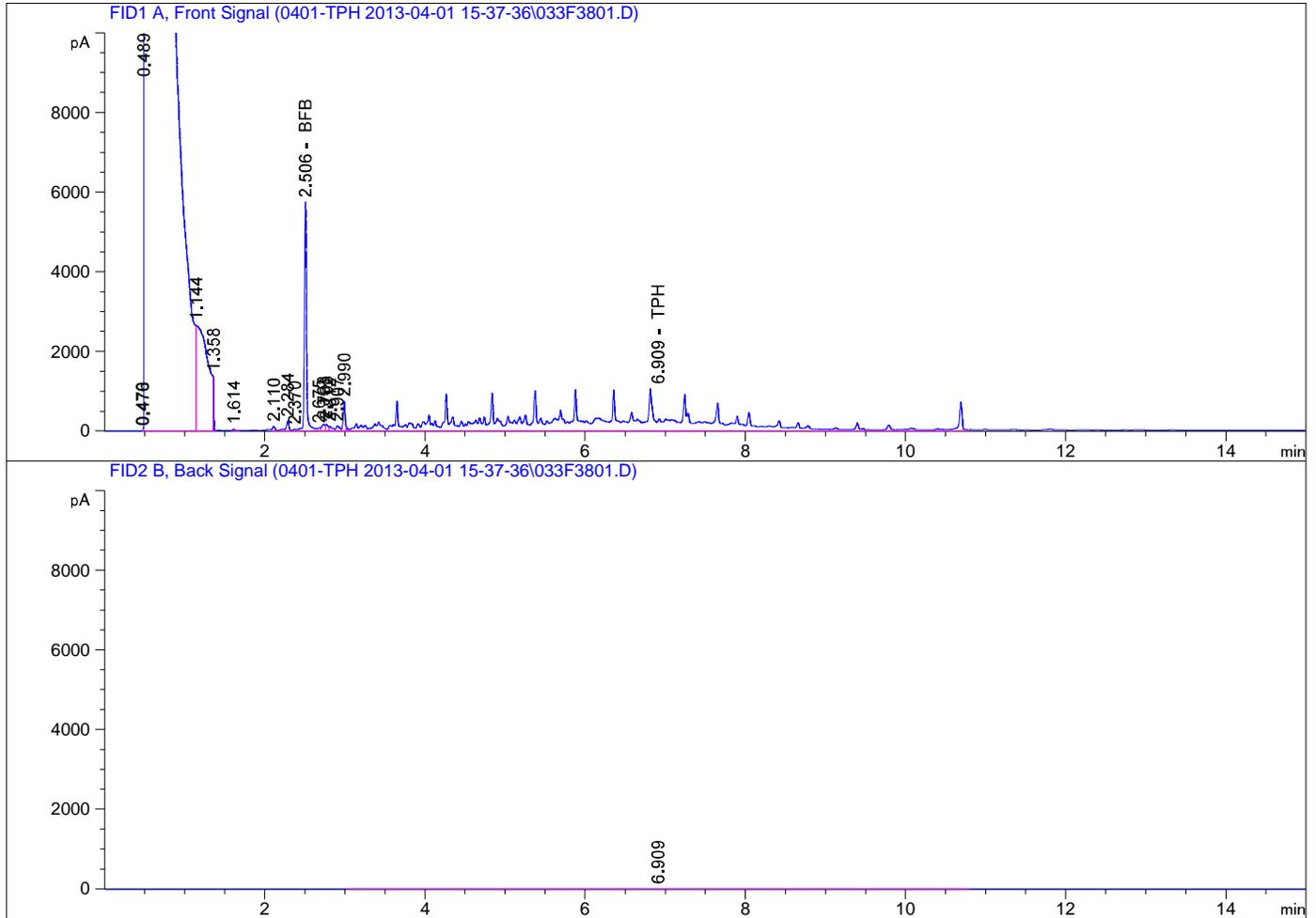
=====
Acq. Operator : Seq. Line : 35
Acq. Instrument : GC C Location : Vial 30
Injection Date : 4/2/2013 2:38:28 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

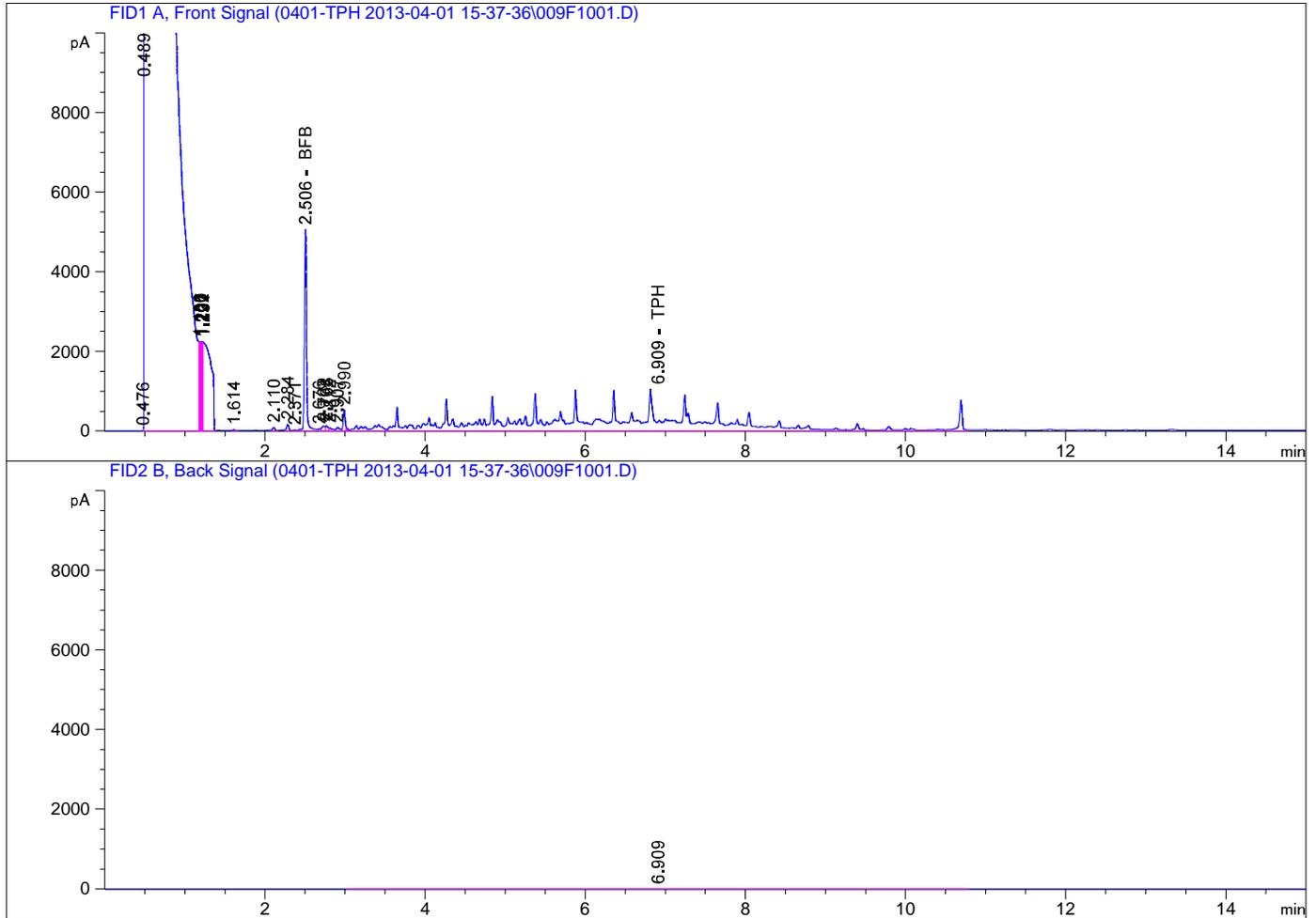
=====
Acq. Operator : Seq. Line : 38
Acq. Instrument : GC C Location : Vial 33
Injection Date : 4/2/2013 3:36:38 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

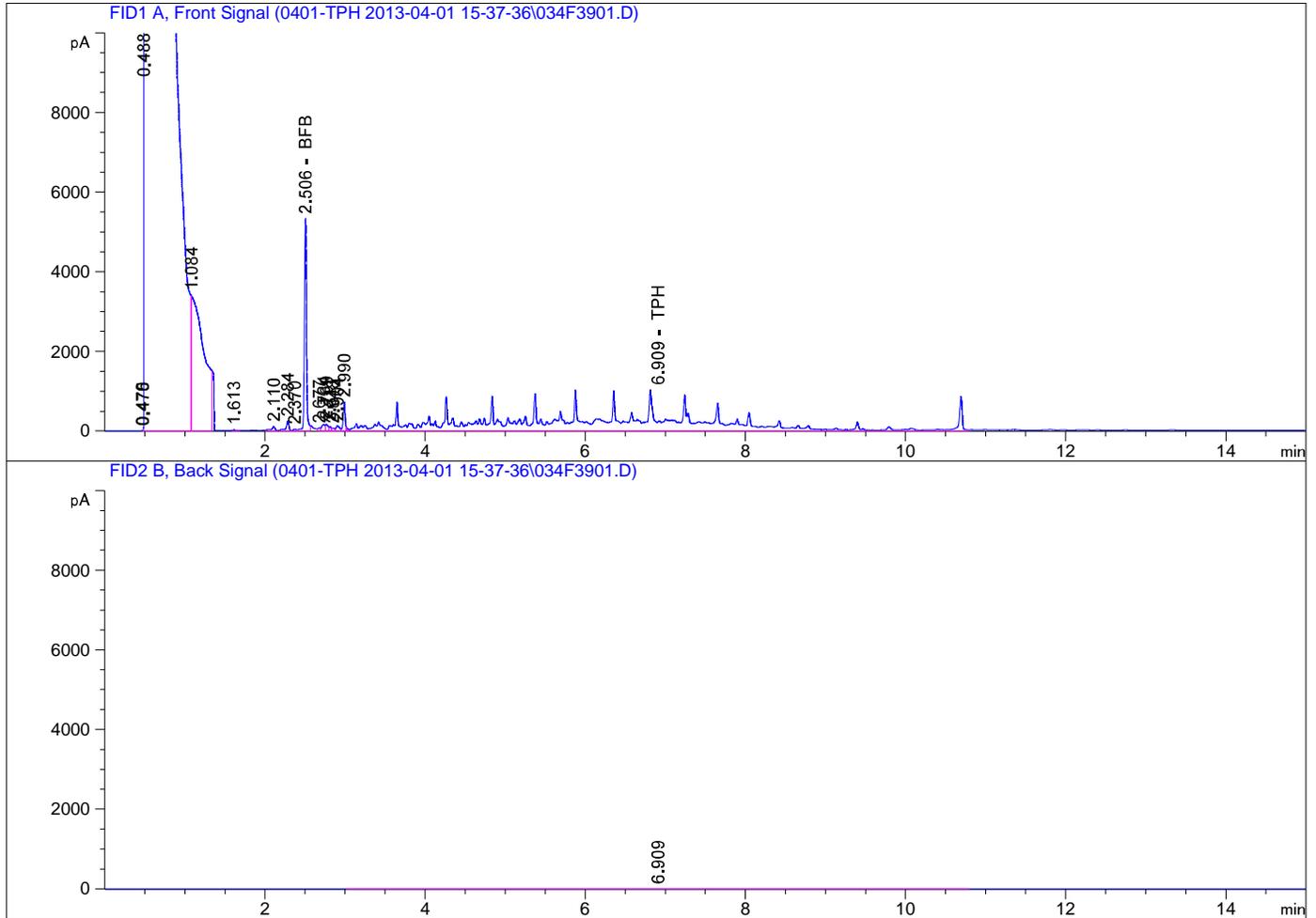
=====
Acq. Operator : Seq. Line : 10
Acq. Instrument : GC C Location : Vial 9
Injection Date : 4/1/2013 6:34:22 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

=====
Acq. Operator : Seq. Line : 39
Acq. Instrument : GC C Location : Vial 34
Injection Date : 4/2/2013 3:55:56 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/2/2013 11:21:32 AM
(modified after loading)
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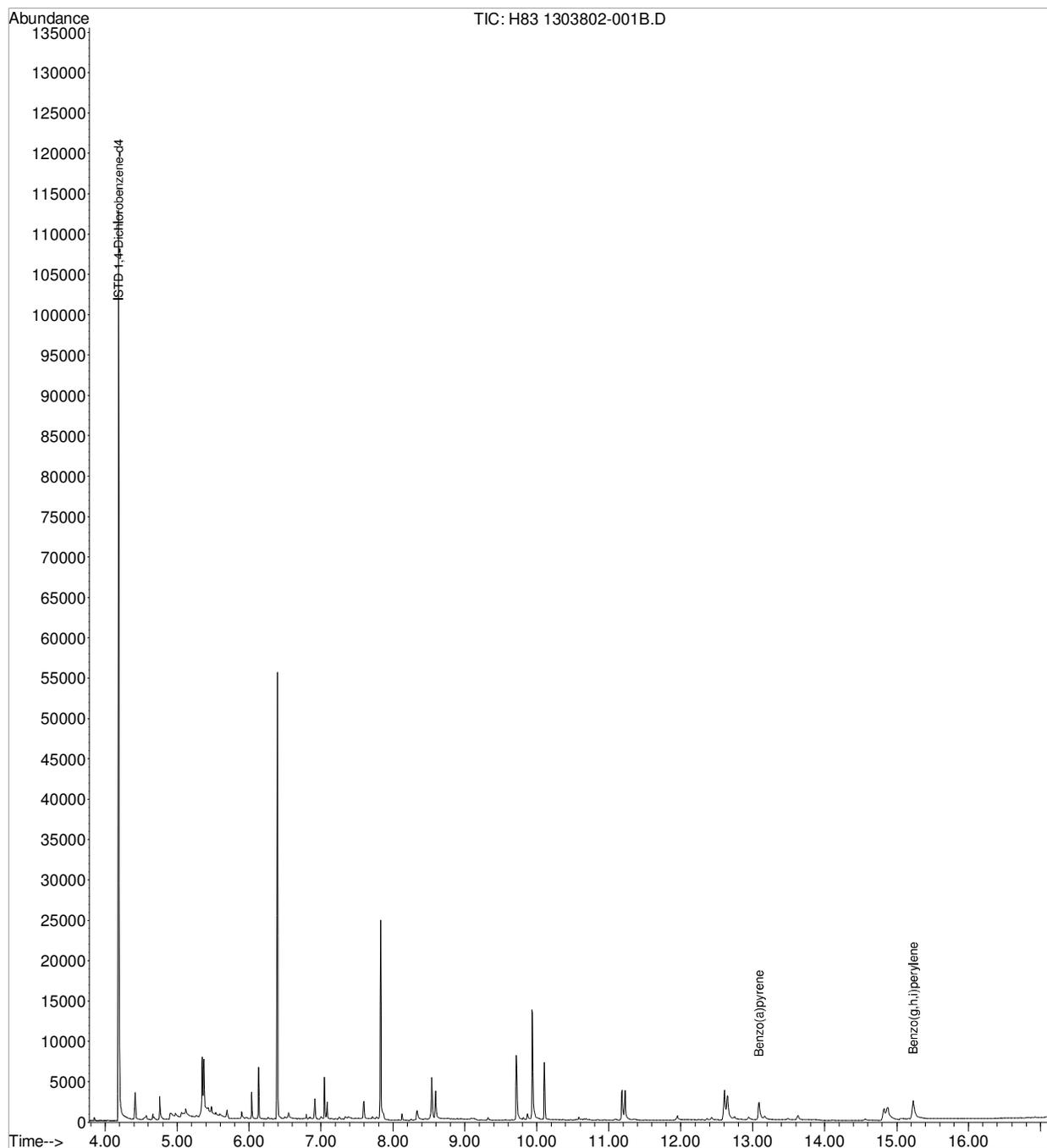
=====
External Standard Report
=====

Sorted By : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H83 1303802-001B.D
Acq On : 4 Apr 2013 1:26 am
Operator : ALICIA HABERLE
Sample : 1303802-001B
Misc : SAMP
ALS Vial : 11 Sample Multiplier: 1

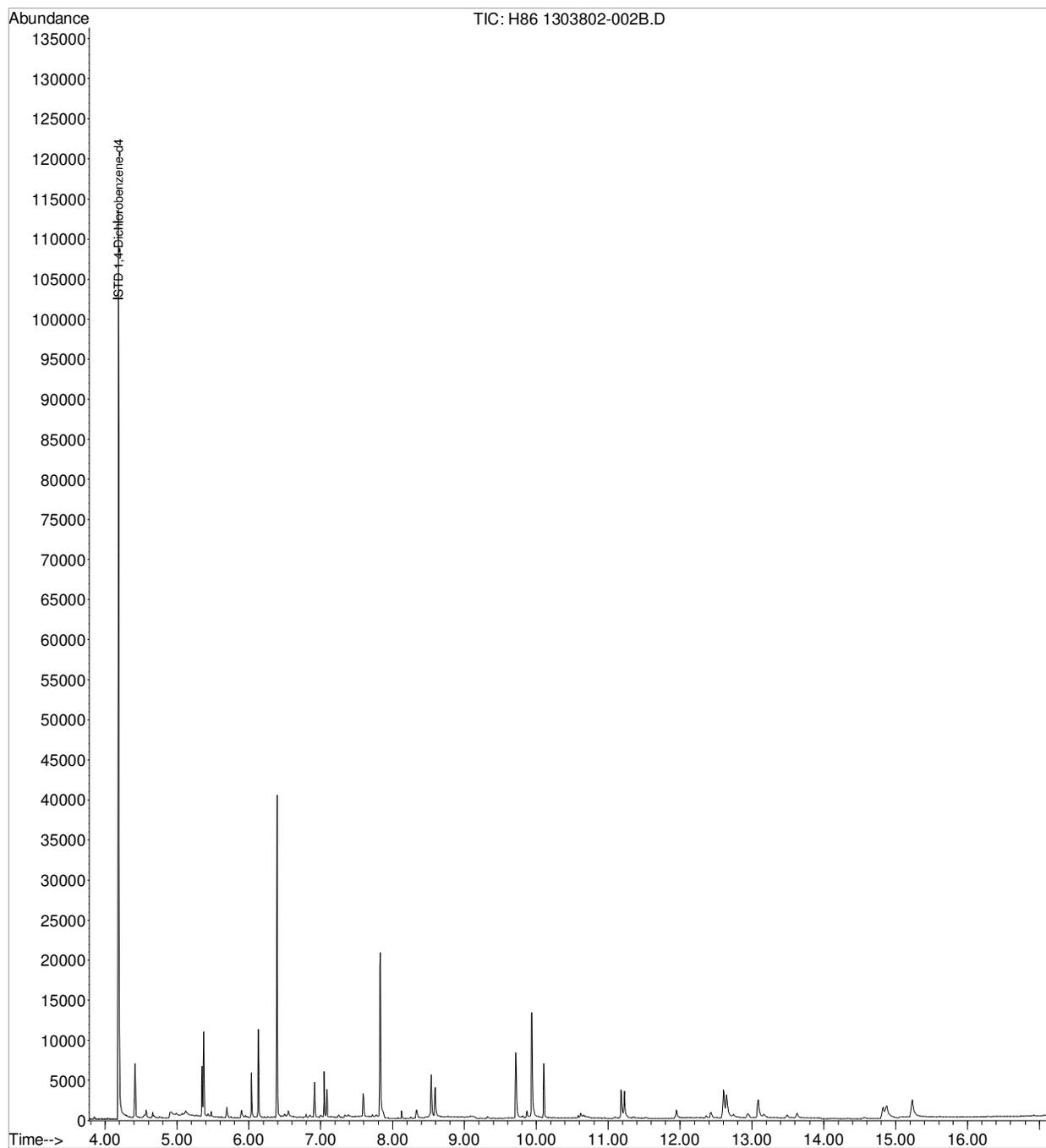
Quant Time: Apr 04 11:07:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H86 1303802-002B.D
Acq On : 4 Apr 2013 2:48 am
Operator : ALICIA HABERLE
Sample : 1303802-002B
Misc : SAMP
ALS Vial : 14 Sample Multiplier: 1

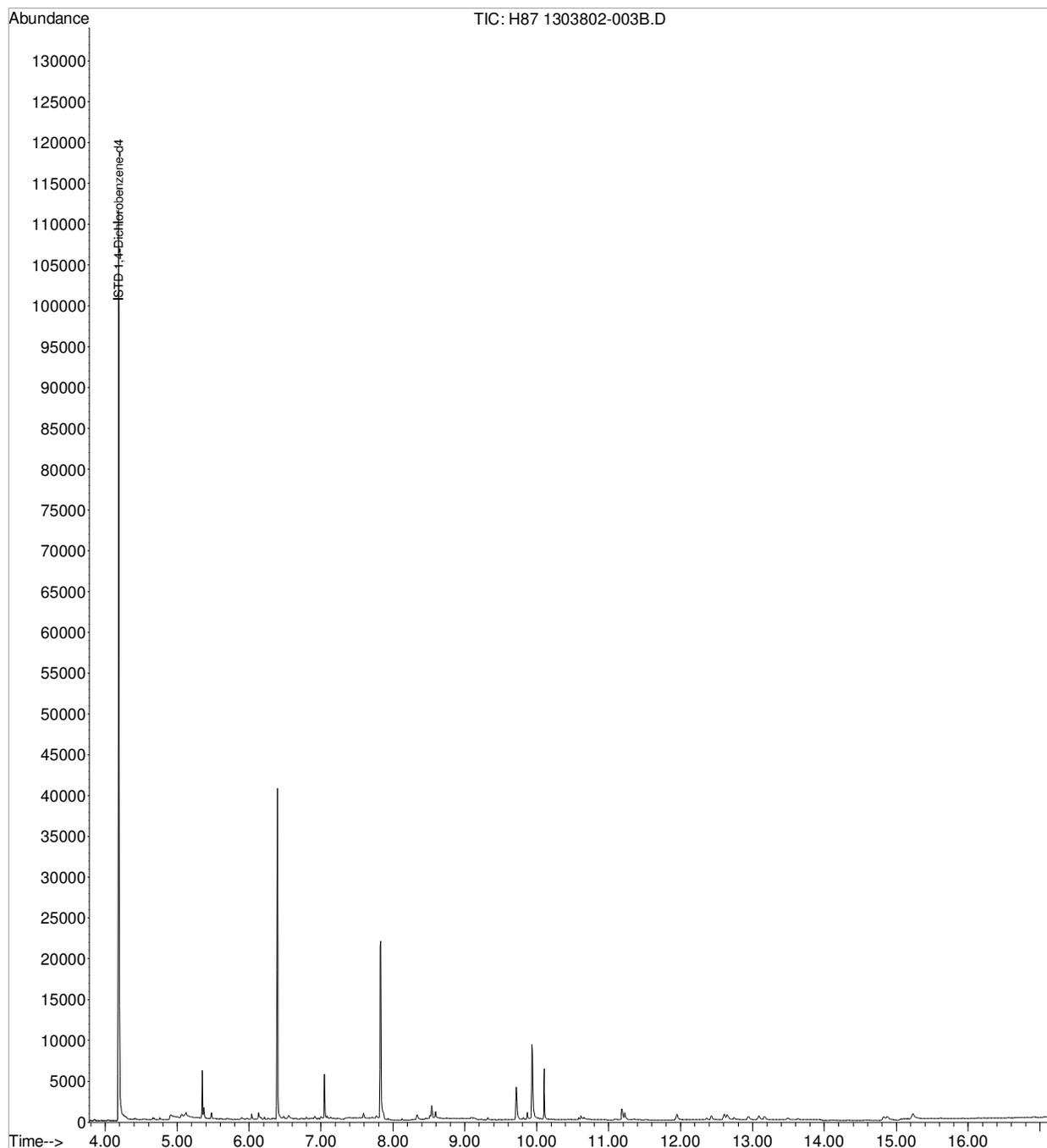
Quant Time: Apr 04 11:09:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H87 1303802-003B.D
Acq On : 4 Apr 2013 3:16 am
Operator : ALICIA HABERLE
Sample : 1303802-003B
Misc : SAMP
ALS Vial : 15 Sample Multiplier: 1

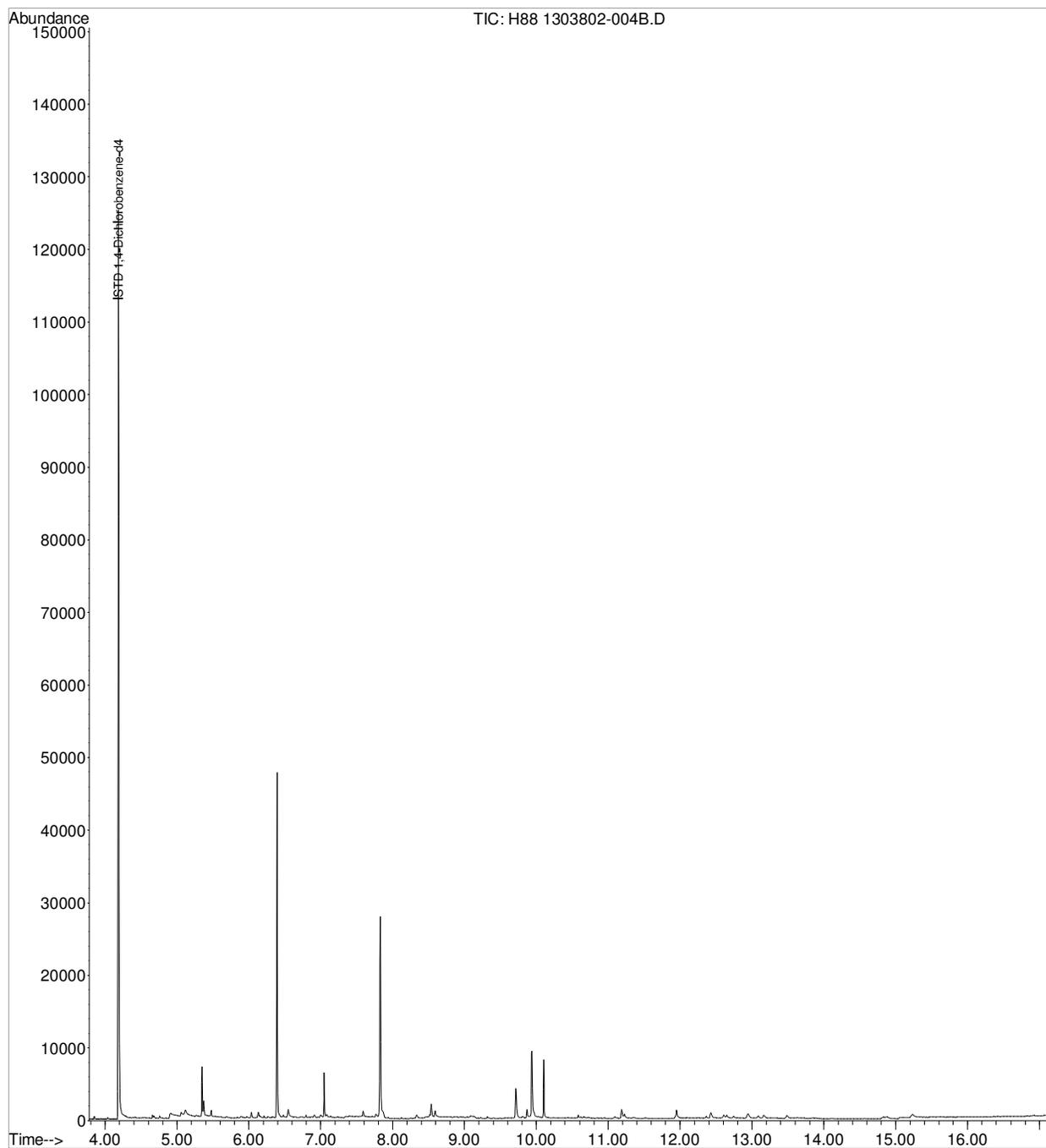
Quant Time: Apr 04 11:09:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H88 1303802-004B.D
Acq On : 4 Apr 2013 3:43 am
Operator : ALICIA HABERLE
Sample : 1303802-004B
Misc : SAMP
ALS Vial : 16 Sample Multiplier: 1

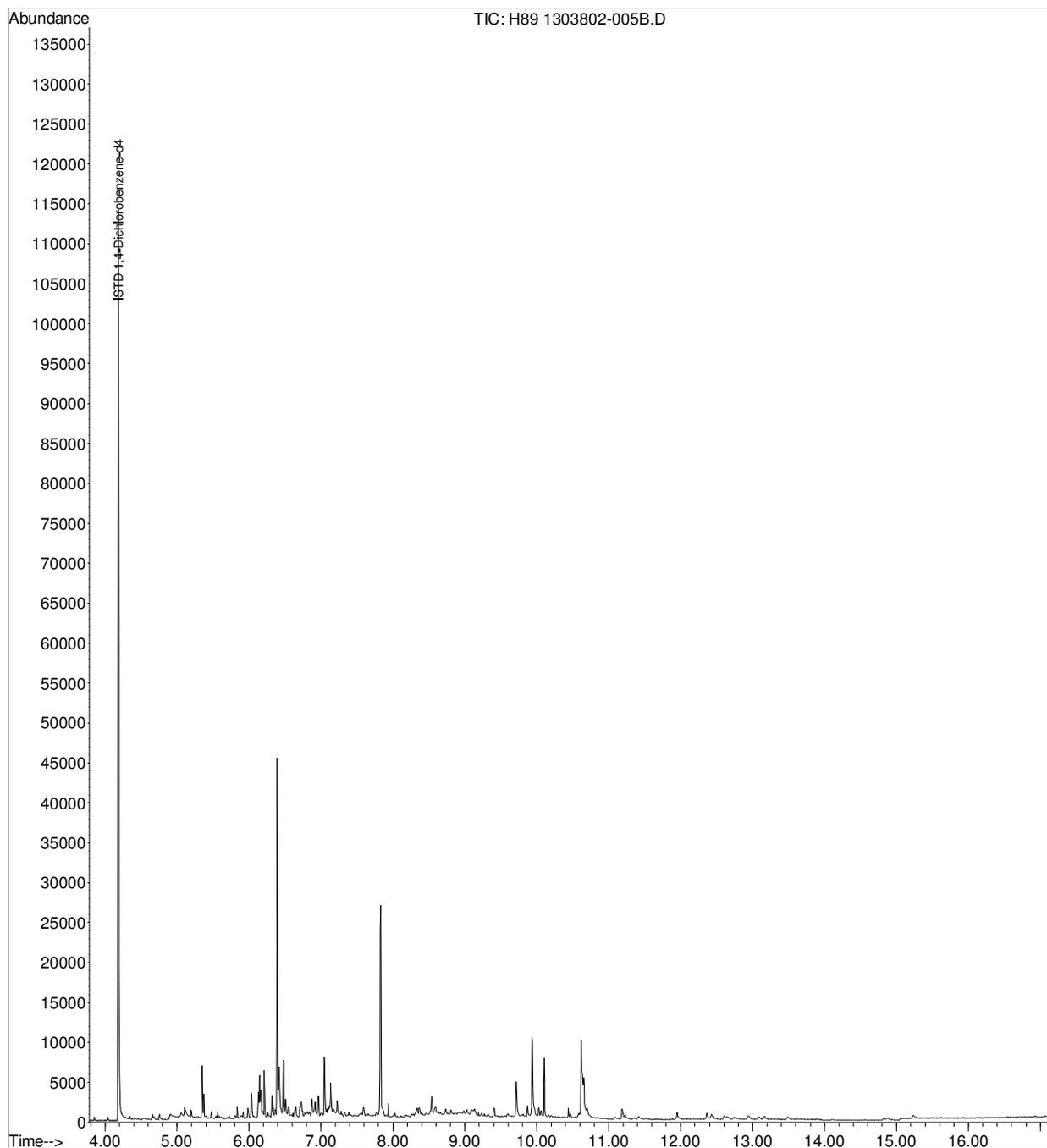
Quant Time: Apr 04 11:10:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H89 1303802-005B.D
Acq On : 4 Apr 2013 4:11 am
Operator : ALICIA HABERLE
Sample : 1303802-005B
Misc : SAMP
ALS Vial : 17 Sample Multiplier: 1

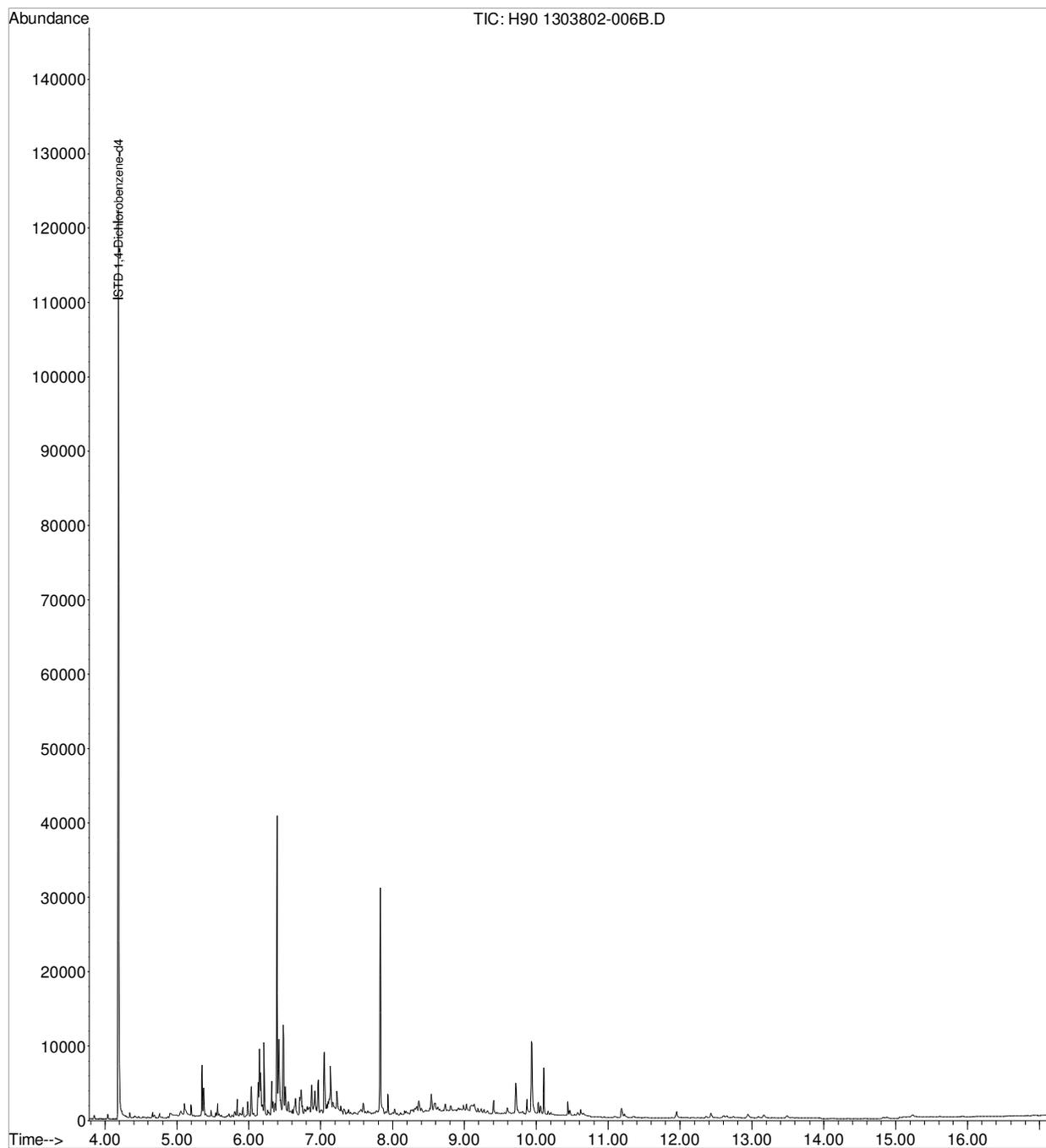
Quant Time: Apr 04 11:11:00 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H90 1303802-006B.D
Acq On : 4 Apr 2013 4:38 am
Operator : ALICIA HABERLE
Sample : 1303802-006B
Misc : SAMP
ALS Vial : 18 Sample Multiplier: 1

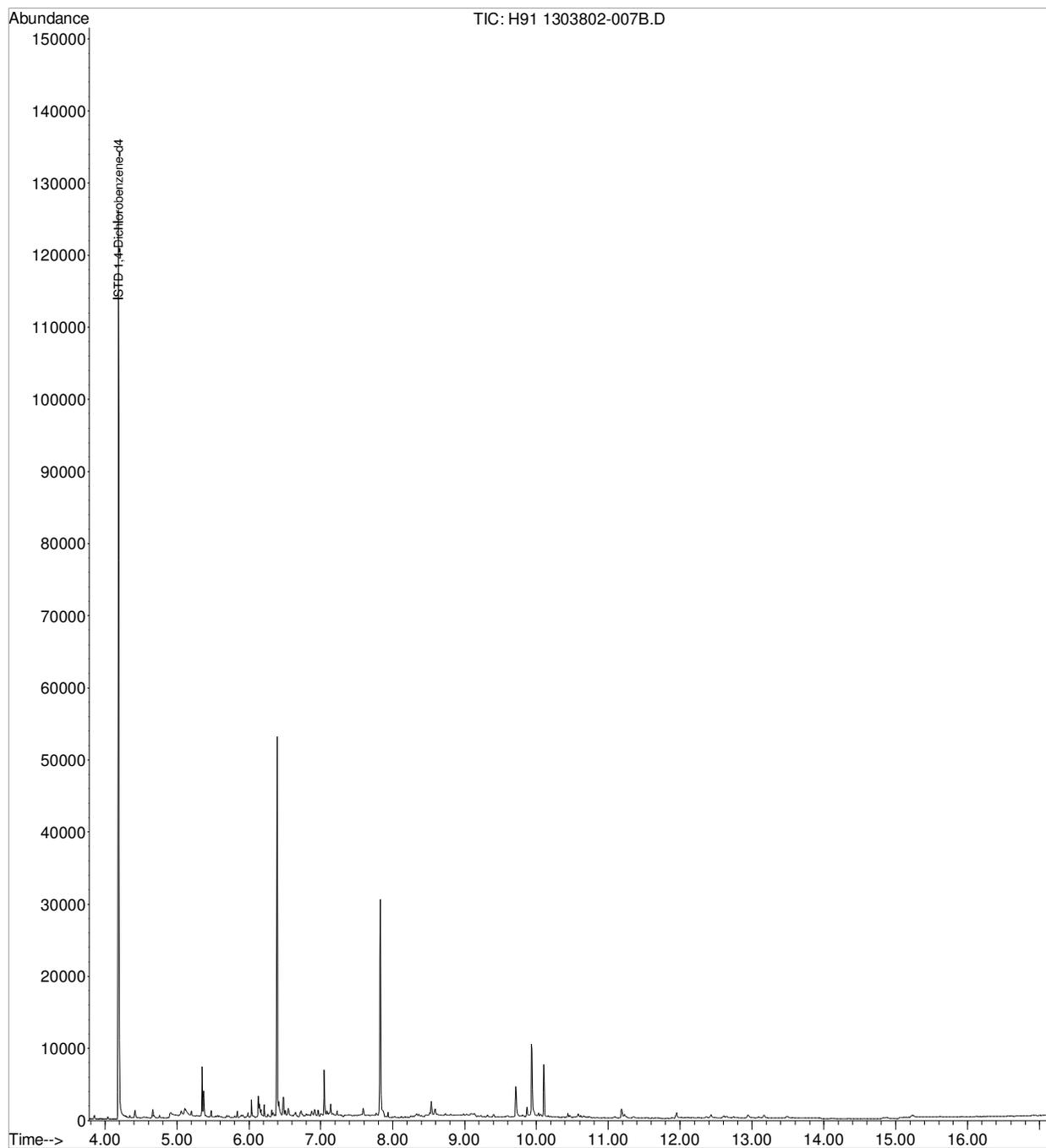
Quant Time: Apr 04 11:11:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H91 1303802-007B.D
Acq On : 4 Apr 2013 5:06 am
Operator : ALICIA HABERLE
Sample : 1303802-007B
Misc : SAMP
ALS Vial : 19 Sample Multiplier: 1

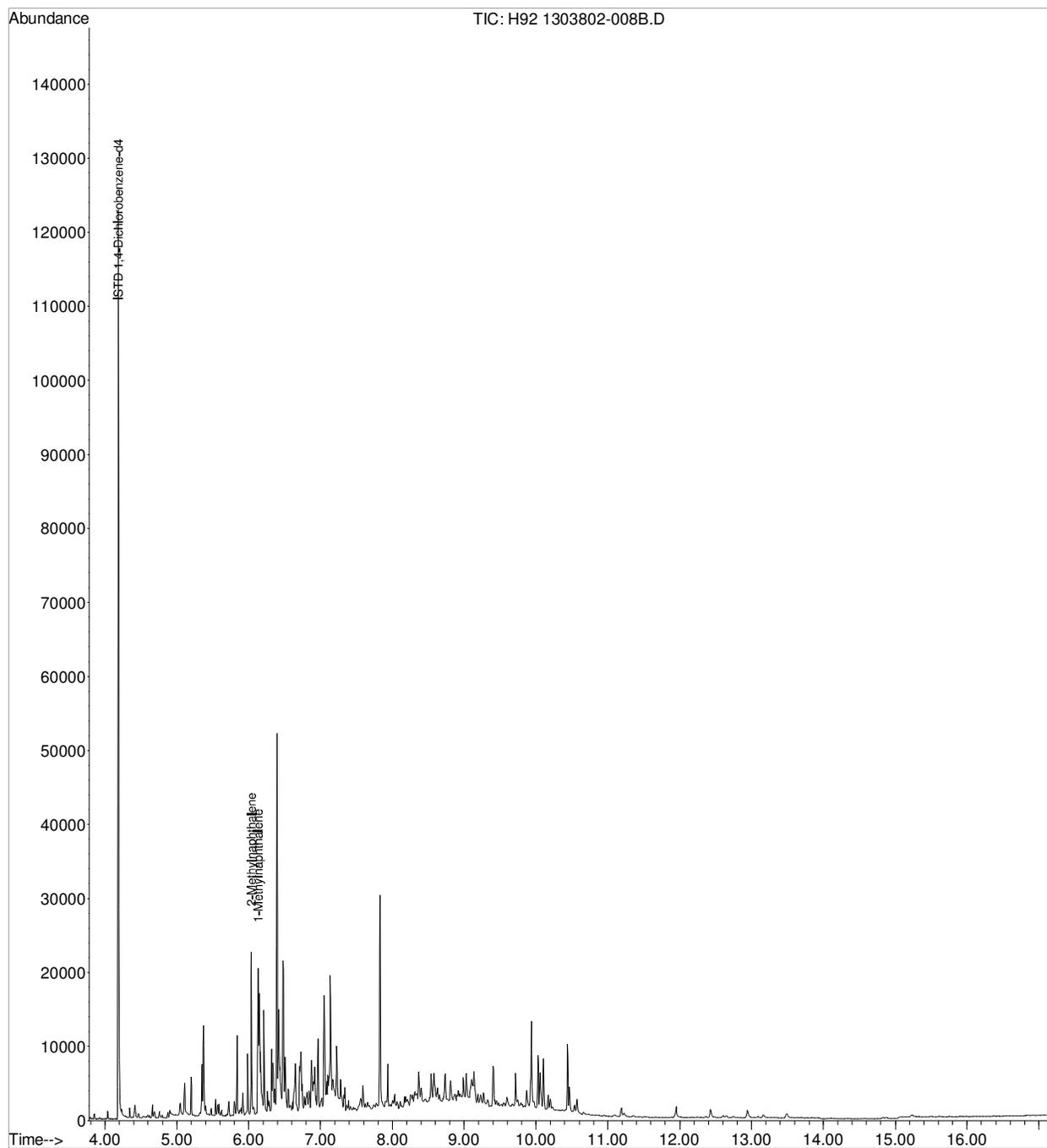
Quant Time: Apr 04 11:12:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H92 1303802-008B.D
Acq On : 4 Apr 2013 5:33 am
Operator : ALICIA HABERLE
Sample : 1303802-008B
Misc : SAMP
ALS Vial : 20 Sample Multiplier: 1

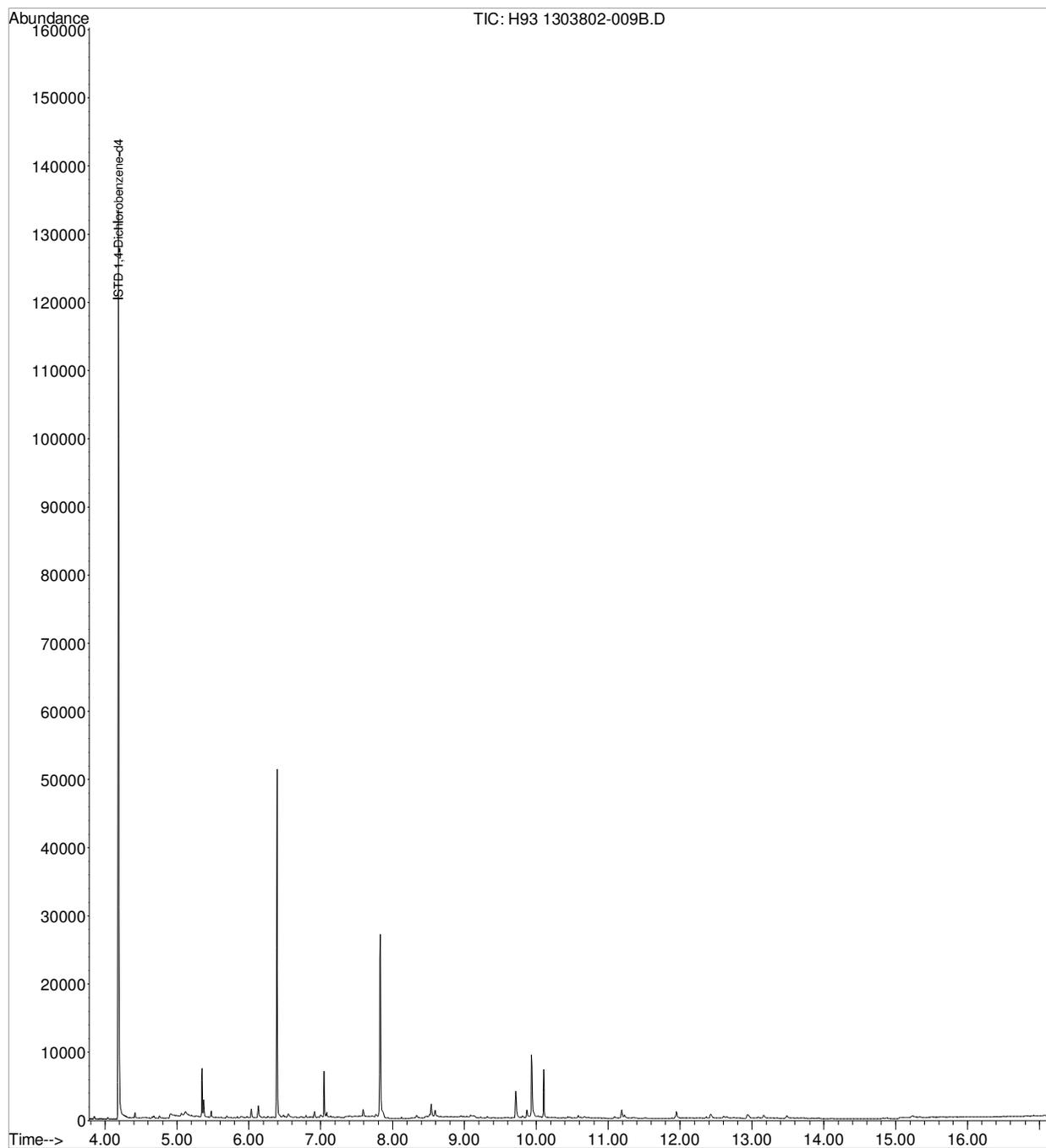
Quant Time: Apr 04 11:12:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H93 1303802-009B.D
Acq On : 4 Apr 2013 6:00 am
Operator : ALICIA HABERLE
Sample : 1303802-009B
Misc : SAMP
ALS Vial : 21 Sample Multiplier: 1

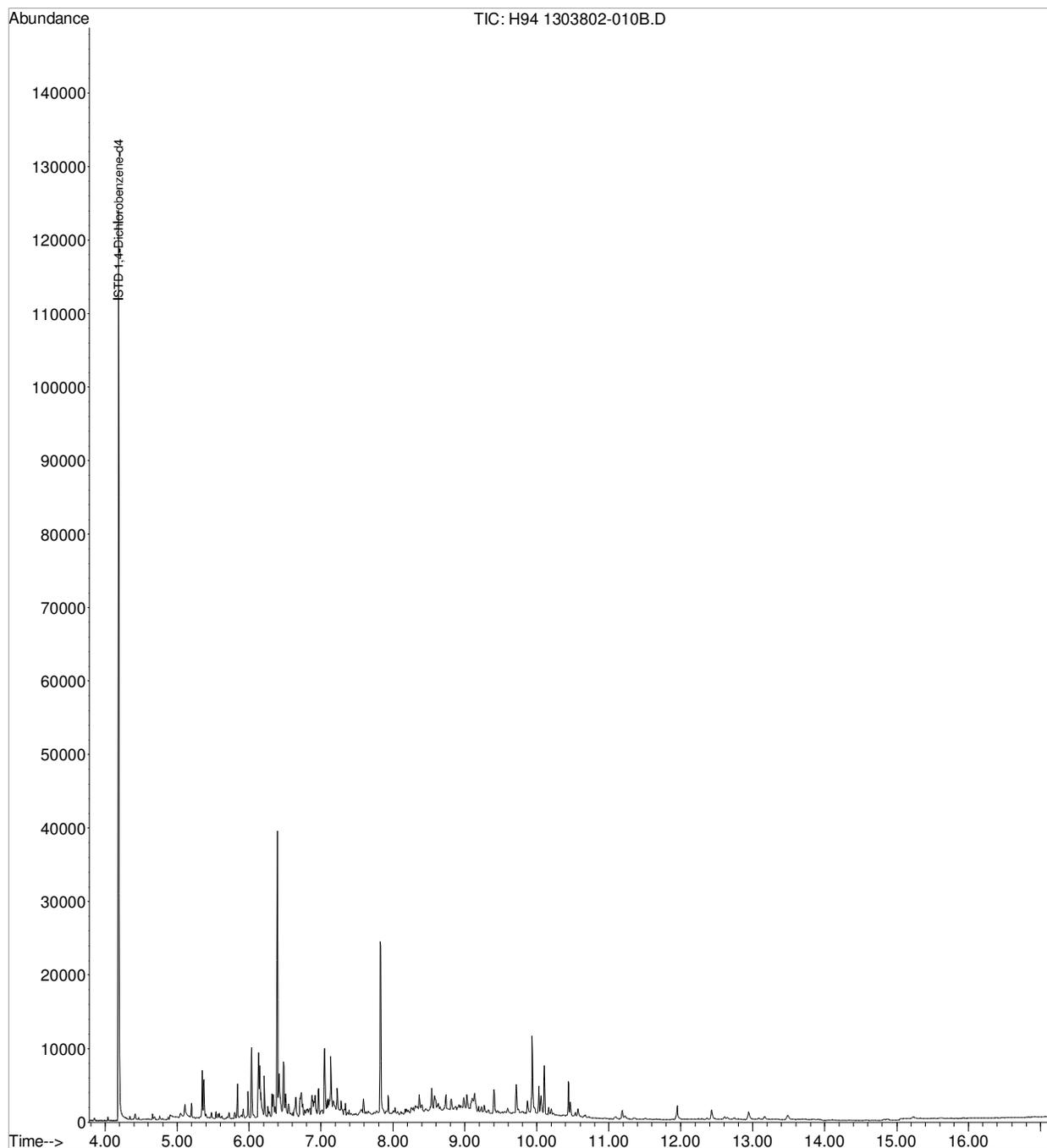
Quant Time: Apr 04 11:13:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H94 1303802-010B.D
Acq On : 4 Apr 2013 6:27 am
Operator : ALICIA HABERLE
Sample : 1303802-010B
Misc : SAMP
ALS Vial : 22 Sample Multiplier: 1

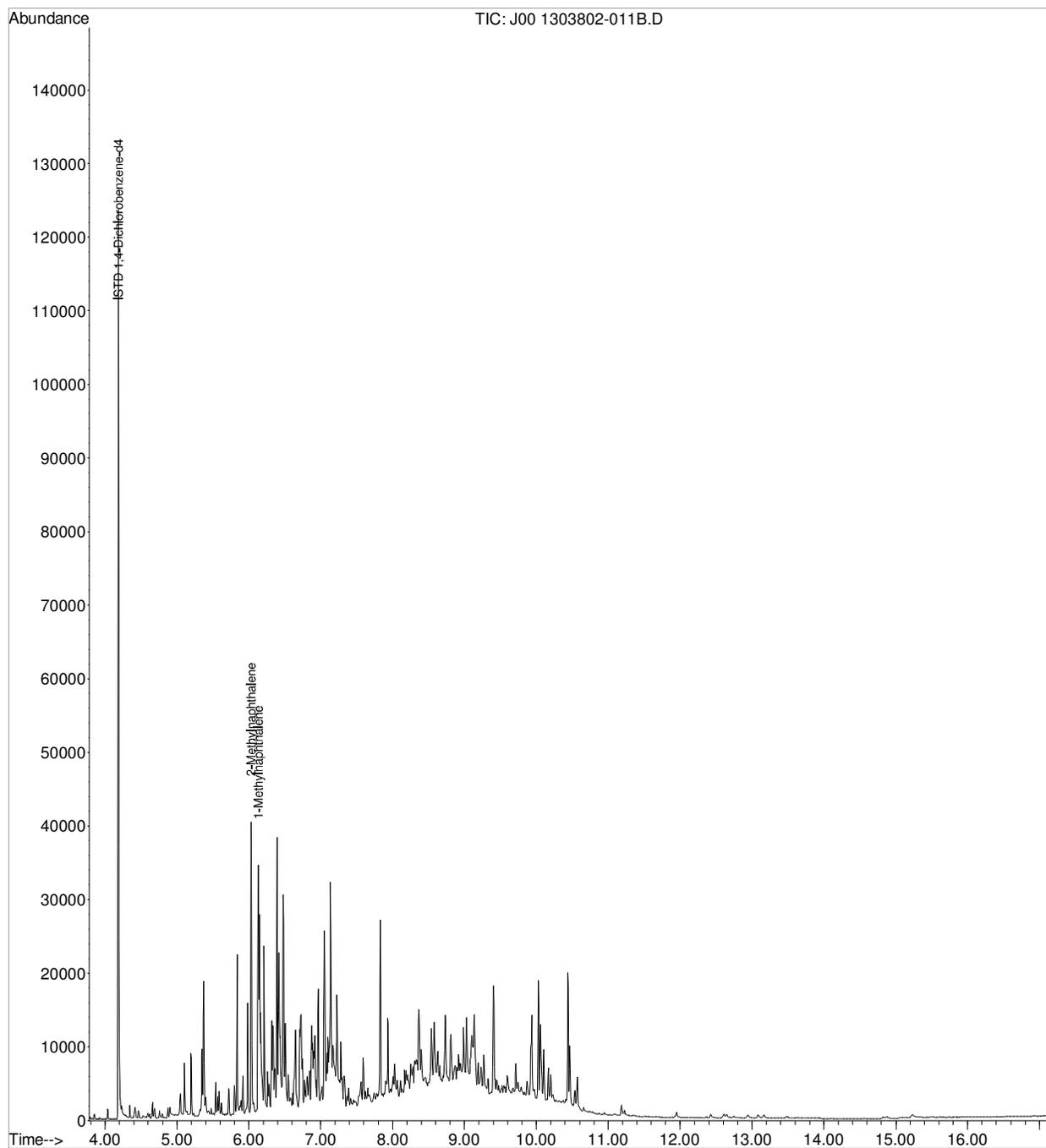
Quant Time: Apr 04 11:13:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\04APR13-A\
Data File : J00 1303802-011B.D
Acq On : 4 Apr 2013 9:07 am
Operator : ALICIA HABERLE
Sample : 1303802-011B
Misc : SAMP
ALS Vial : 5 Sample Multiplier: 1

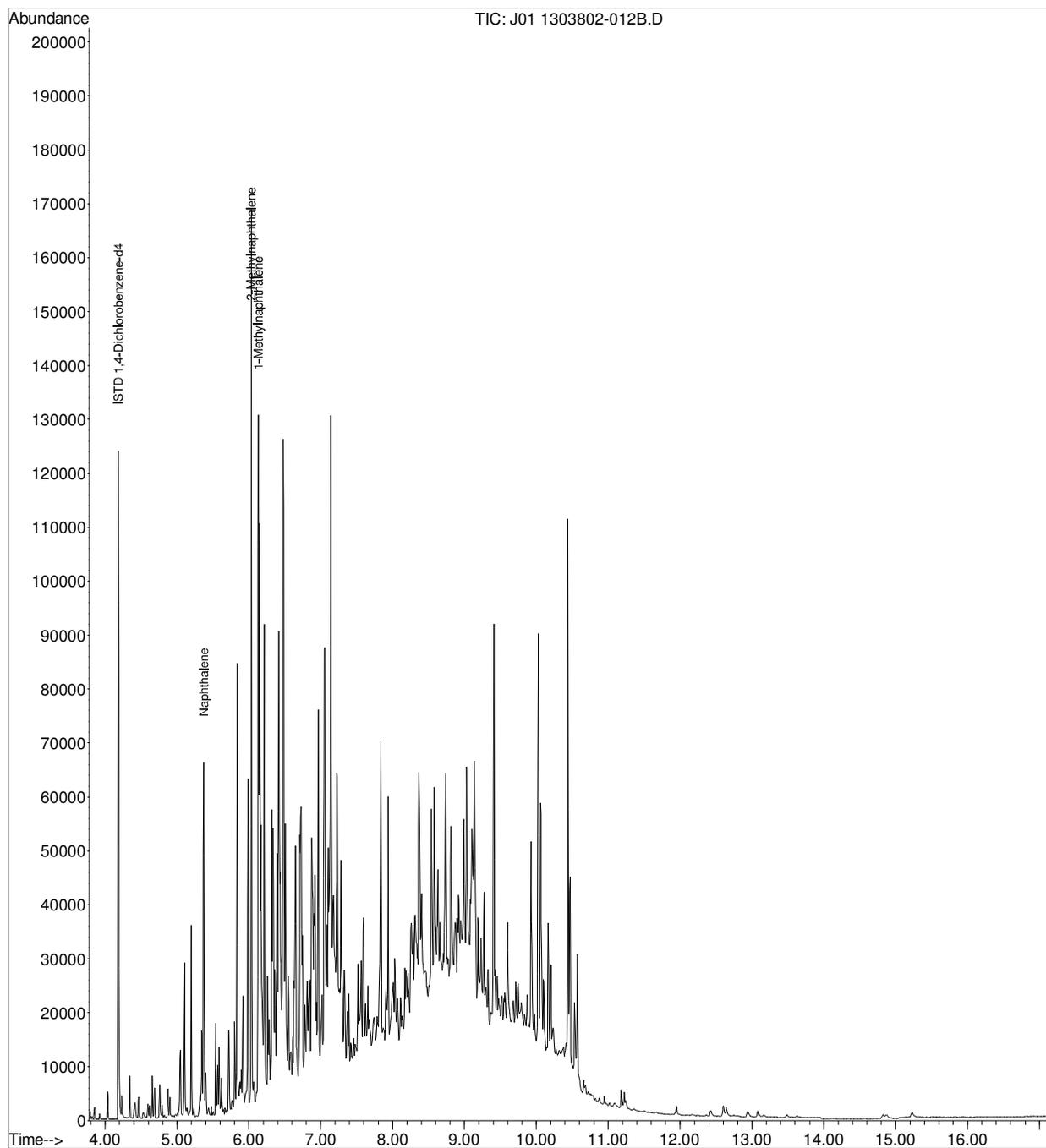
Quant Time: Apr 04 15:37:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\04APR13-A\
Data File : J01 1303802-012B.D
Acq On : 4 Apr 2013 9:34 am
Operator : ALICIA HABERLE
Sample : 1303802-012B
Misc : SAMP
ALS Vial : 6 Sample Multiplier: 1

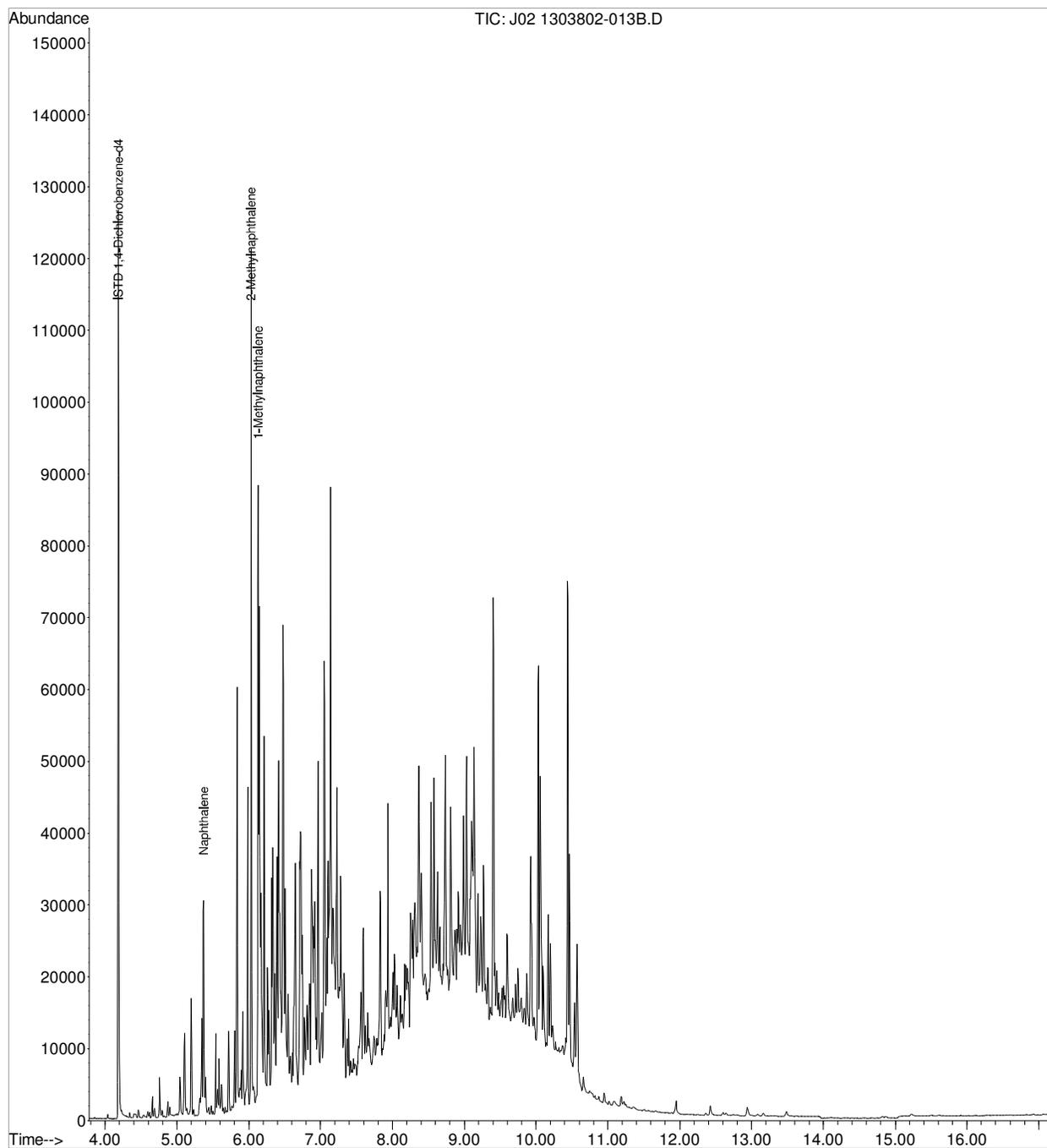
Quant Time: Apr 04 15:38:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\04APR13-A\
Data File : J02 1303802-013B.D
Acq On : 4 Apr 2013 10:01 am
Operator : ALICIA HABERLE
Sample : 1303802-013B
Misc : SAMP
ALS Vial : 7 Sample Multiplier: 1

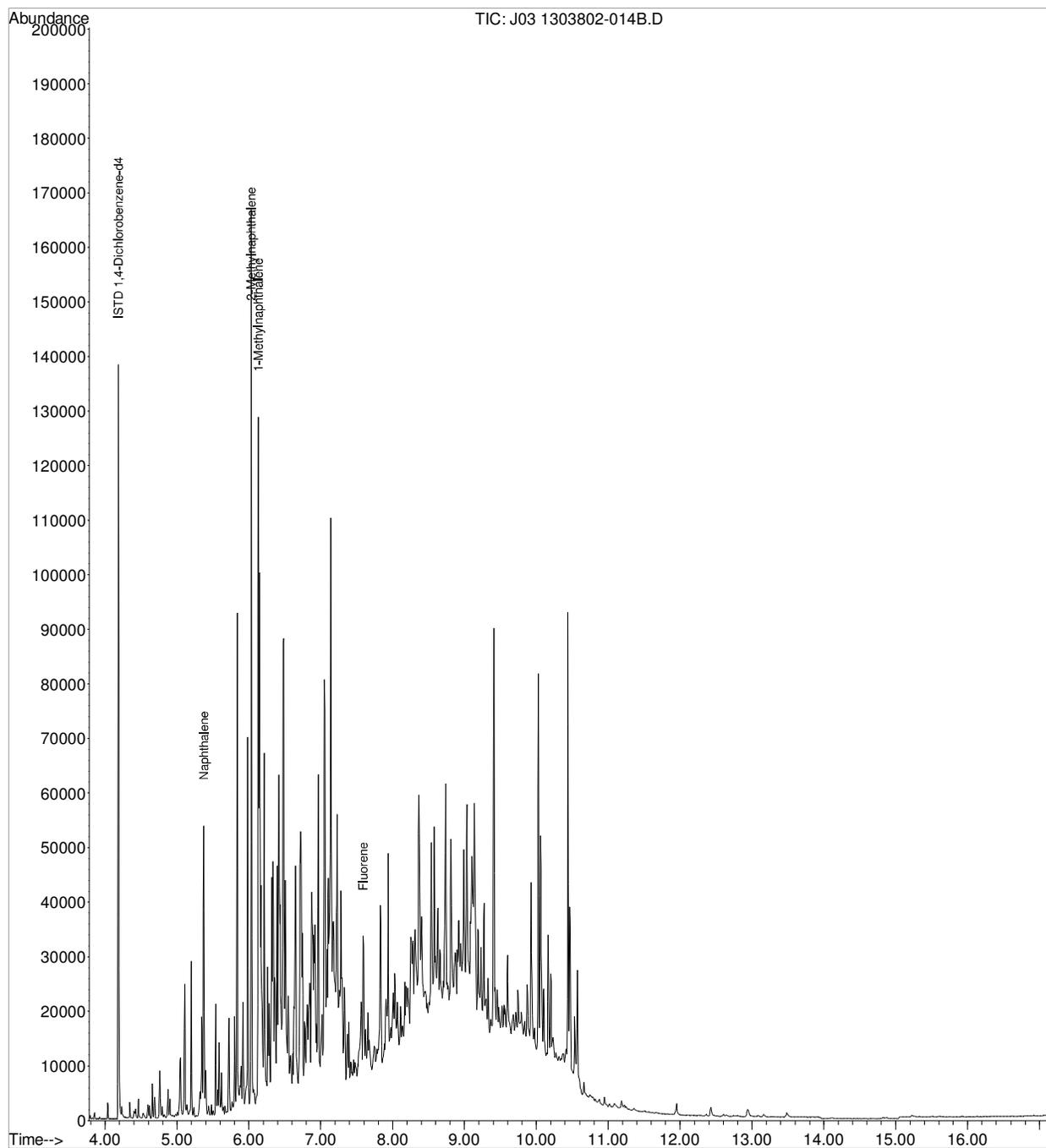
Quant Time: Apr 04 15:39:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\04APR13-A\
Data File : J03 1303802-014B.D
Acq On : 4 Apr 2013 10:27 am
Operator : ALICIA HABERLE
Sample : 1303802-014B
Misc : SAMP
ALS Vial : 8 Sample Multiplier: 1

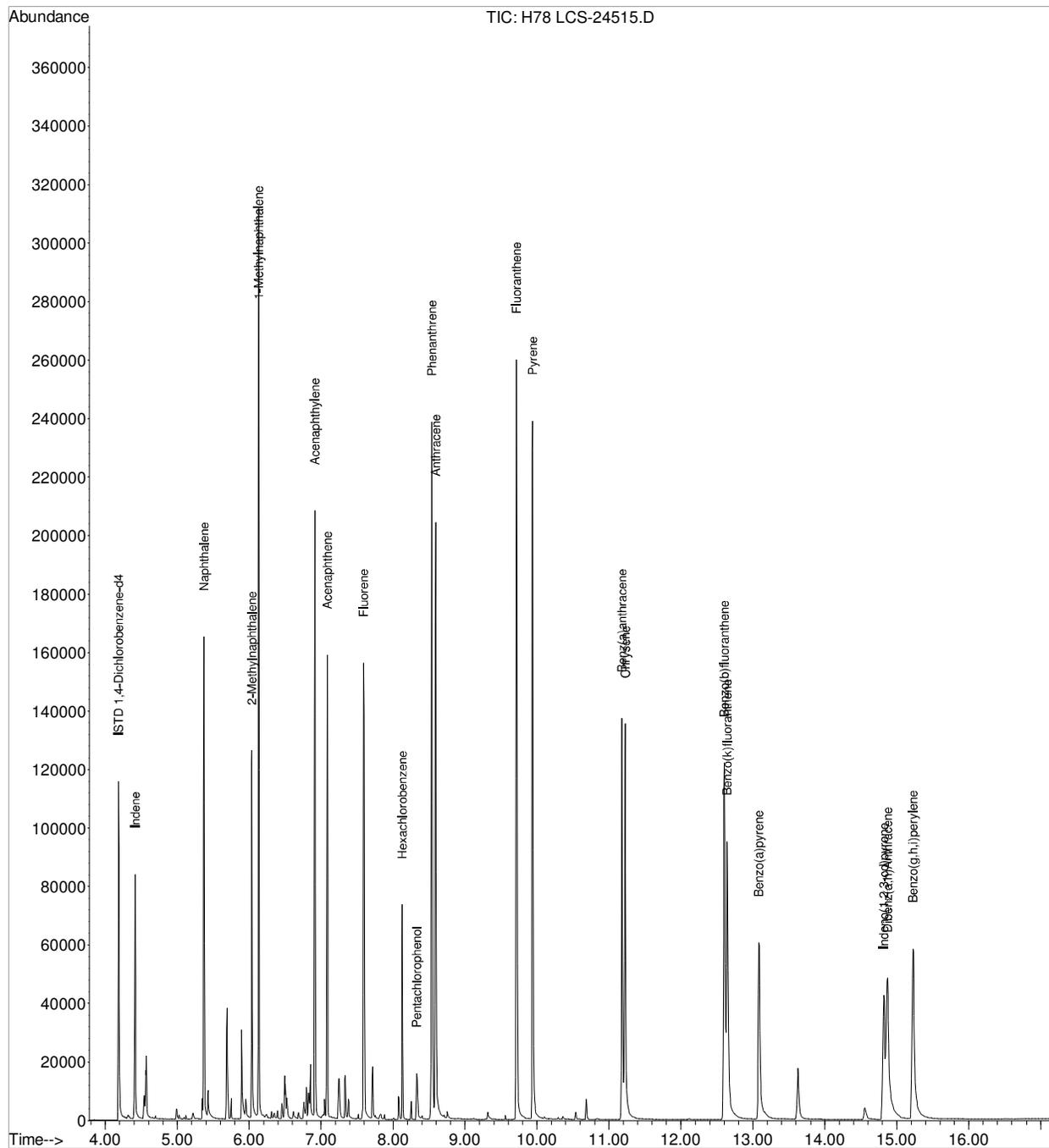
Quant Time: Apr 04 15:40:07 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
 Data File : H78 LCS-24515.D
 Acq On : 3 Apr 2013 11:07 pm
 Operator : ALICIA HABERLE
 Sample : LCS-24515
 Misc : LCS 20X
 ALS Vial : 6 Sample Multiplier: 1

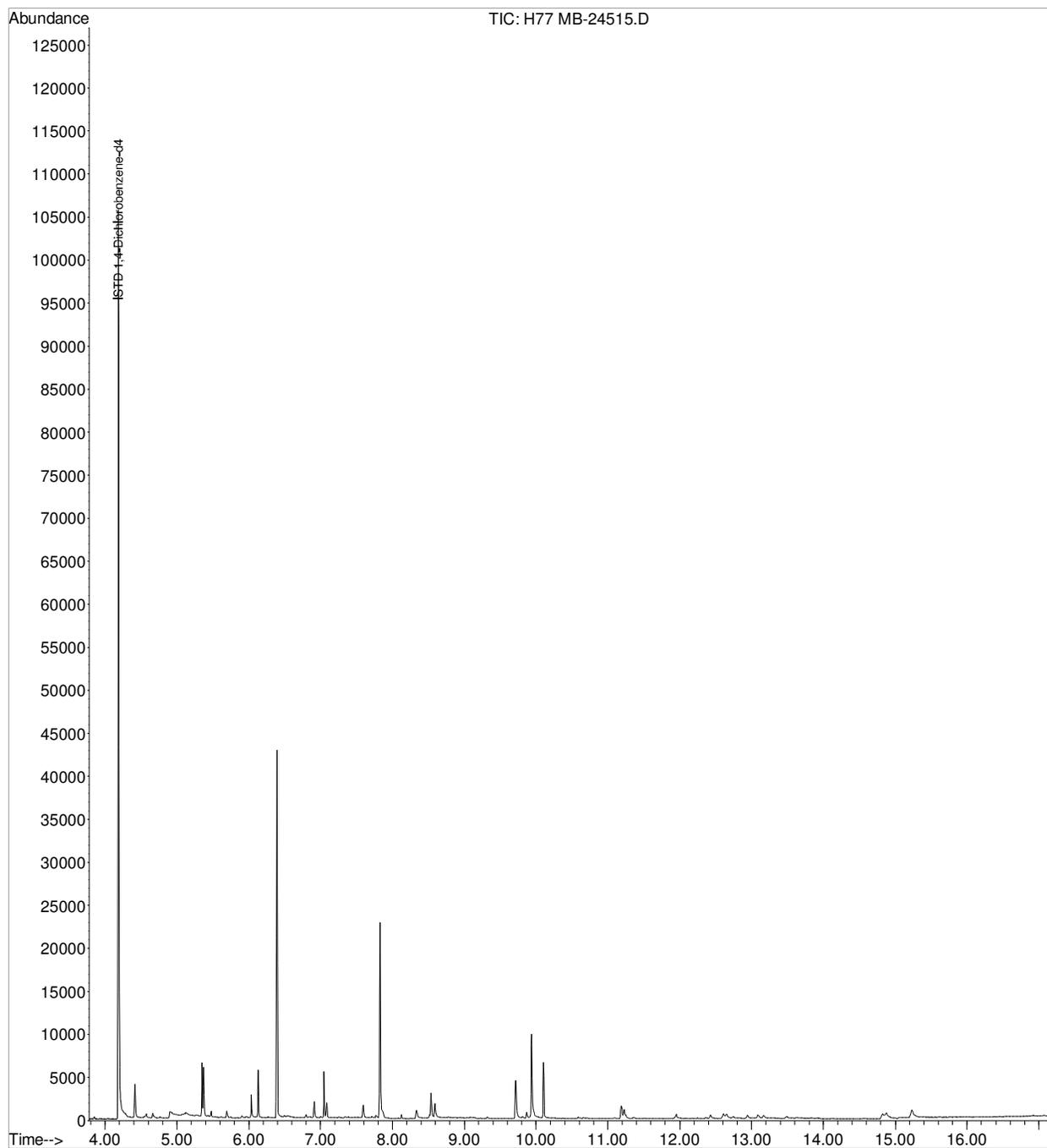
Quant Time: Apr 04 10:54:39 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Thu Apr 04 10:54:05 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
Data File : H77 MB-24515.D
Acq On : 3 Apr 2013 10:40 pm
Operator : ALICIA HABERLE
Sample : MB-24515
Misc : MBLK
ALS Vial : 5 Sample Multiplier: 1

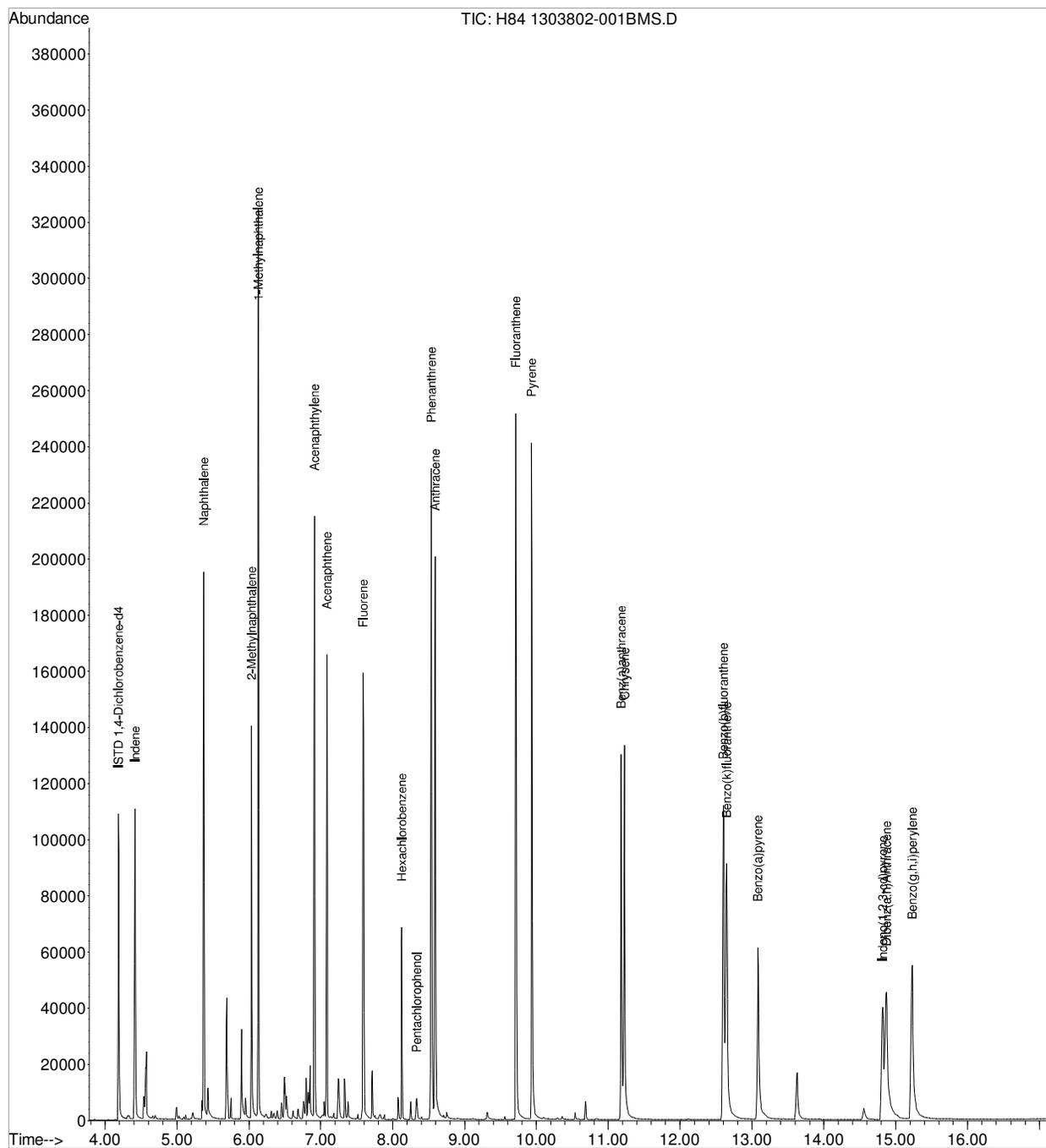
Quant Time: Apr 04 11:03:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Apr 04 10:54:05 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
 Data File : H84 1303802-001BMS.D
 Acq On : 4 Apr 2013 1:53 am
 Operator : ALICIA HABERLE
 Sample : 1303802-001BMS
 Misc : MS 20X
 ALS Vial : 12 Sample Multiplier: 1

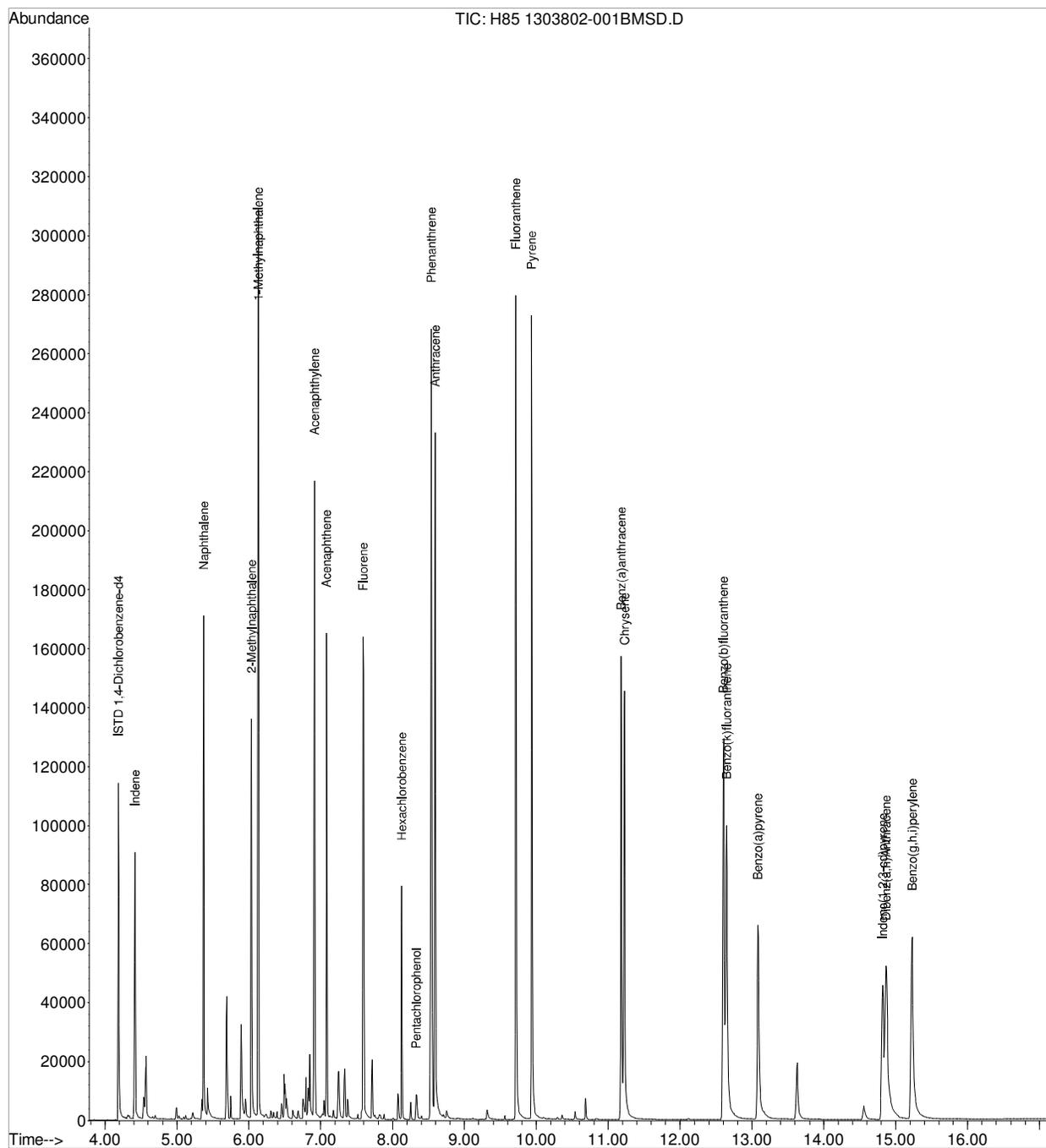
Quant Time: Apr 04 10:54:49 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Thu Apr 04 10:54:05 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\03APR13-A\
 Data File : H85 1303802-001BMSD.D
 Acq On : 4 Apr 2013 2:21 am
 Operator : ALICIA HABERLE
 Sample : 1303802-001BMSD
 Misc : MSD 20X
 ALS Vial : 13 Sample Multiplier: 1

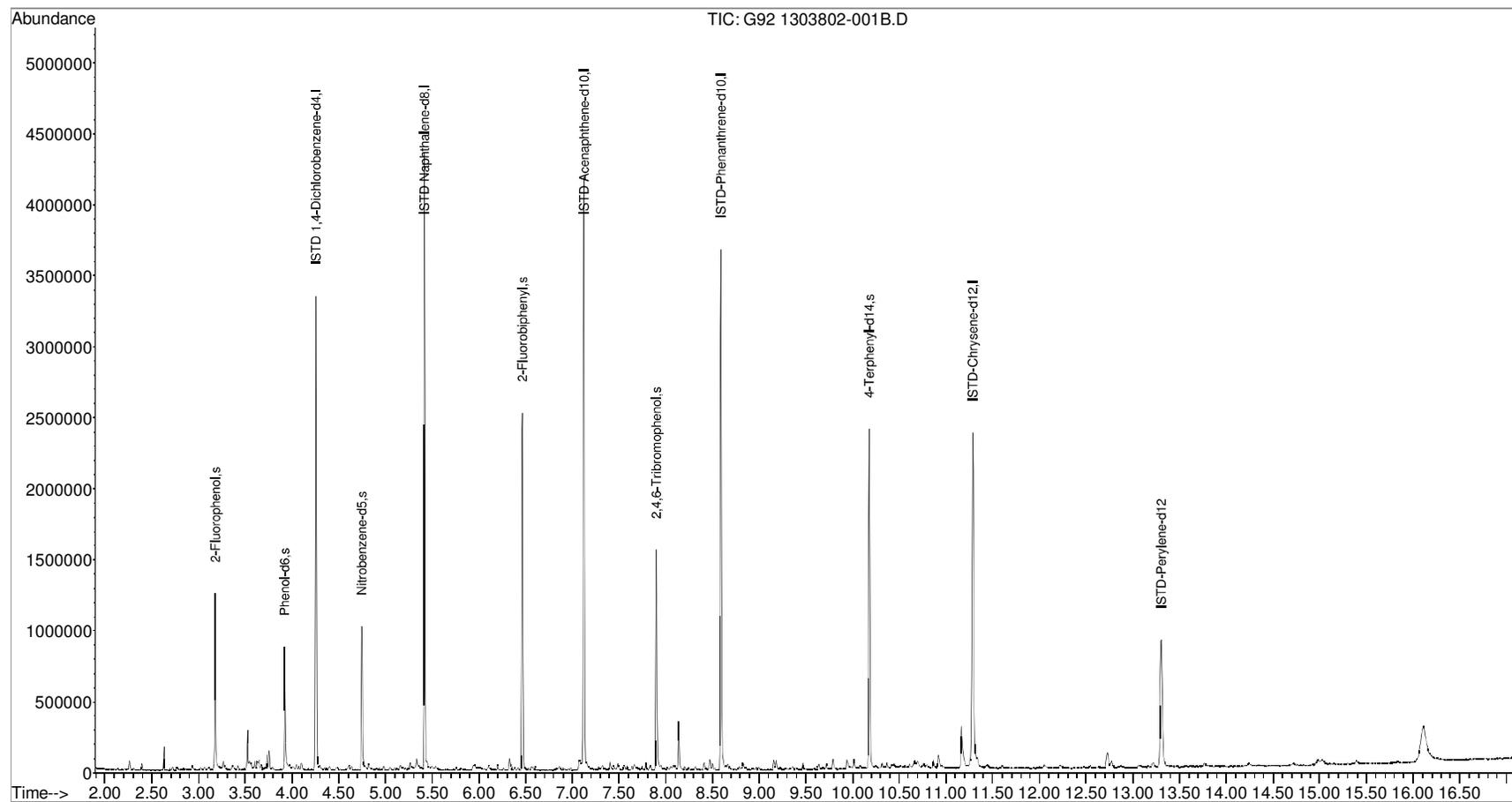
Quant Time: Apr 04 10:54:50 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Thu Apr 04 10:54:05 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
Data File : G92 1303802-001B.D
Acq On : 2 Apr 2013 1:52 pm
Operator : ALICIA HABERLE
Sample : 1303802-001B
Misc : SAMP
ALS Vial : 15 Sample Multiplier: 1

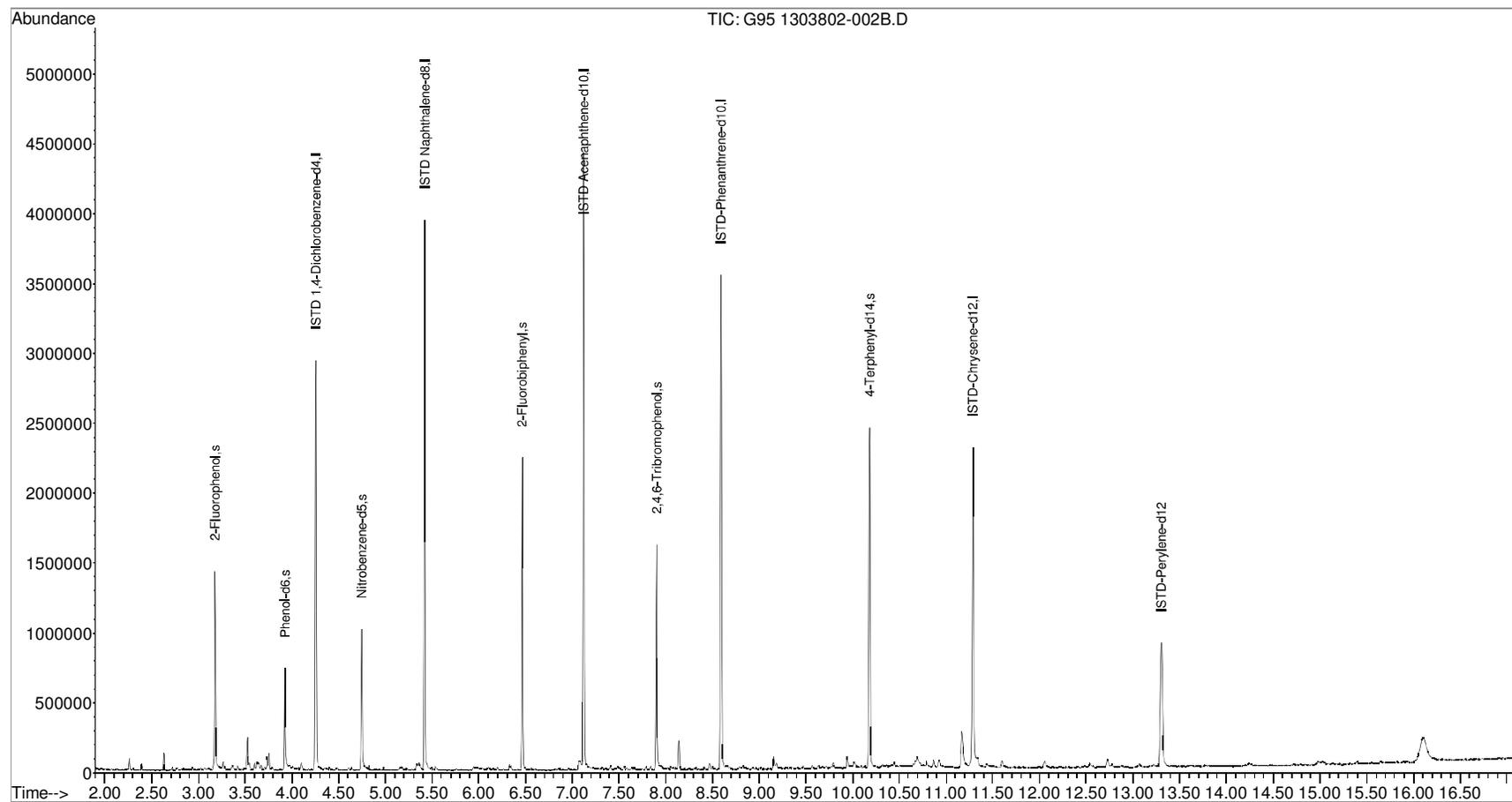
Quant Time: Apr 02 20:17:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 02 08:35:20 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
Data File : G95 1303802-002B.D
Acq On : 2 Apr 2013 3:12 pm
Operator : ALICIA HABERLE
Sample : 1303802-002B
Misc : SAMP
ALS Vial : 18 Sample Multiplier: 1

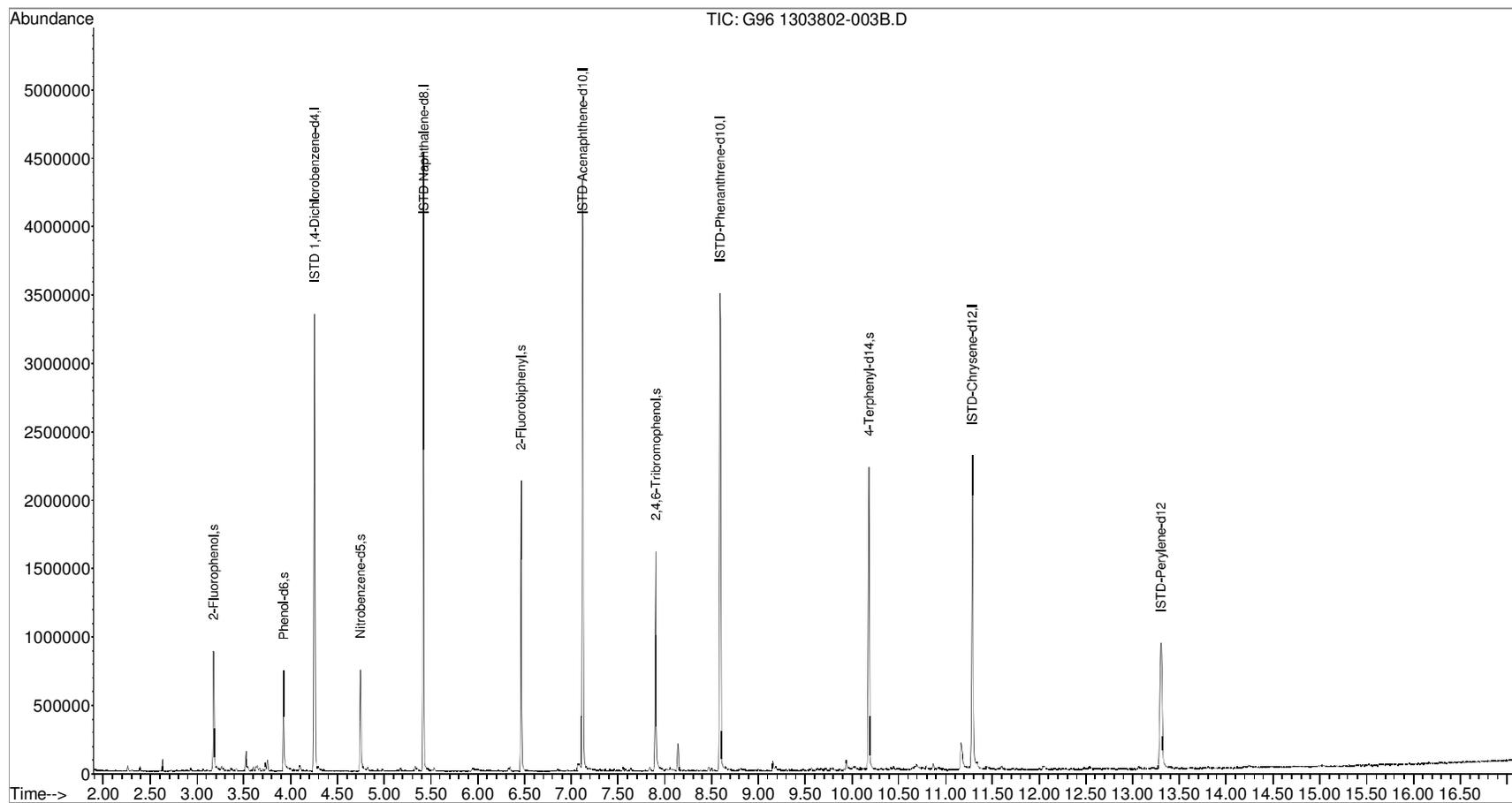
Quant Time: Apr 02 20:19:57 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 02 08:35:20 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
Data File : G96 1303802-003B.D
Acq On : 2 Apr 2013 3:39 pm
Operator : ALICIA HABERLE
Sample : 1303802-003B
Misc : SAMP
ALS Vial : 19 Sample Multiplier: 1

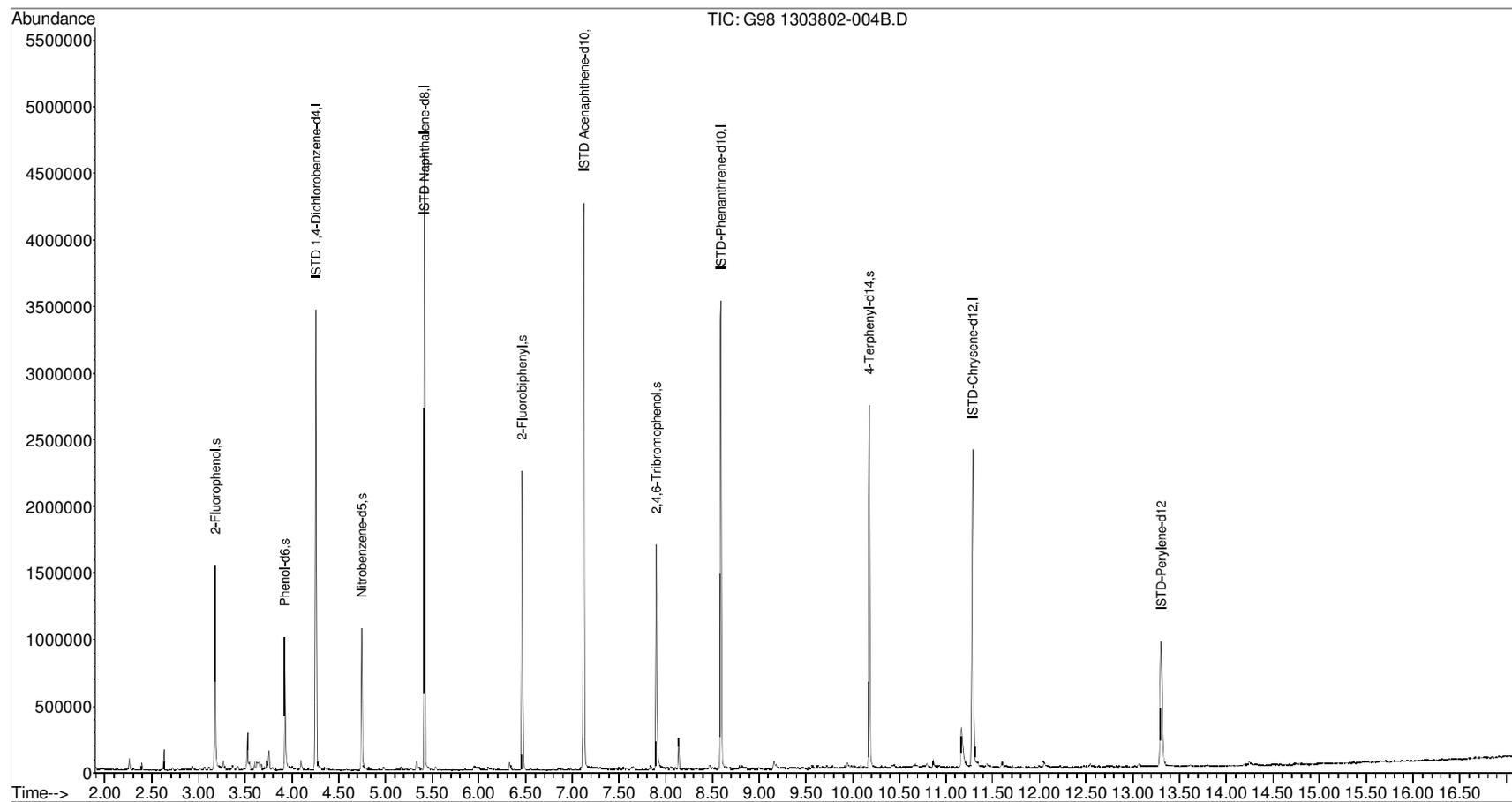
Quant Time: Apr 02 20:20:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 02 08:35:20 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
 Data File : G98 1303802-004B.D
 Acq On : 2 Apr 2013 4:33 pm
 Operator : ALICIA HABERLE
 Sample : 1303802-004B
 Misc : SAMP
 ALS Vial : 20 Sample Multiplier: 1

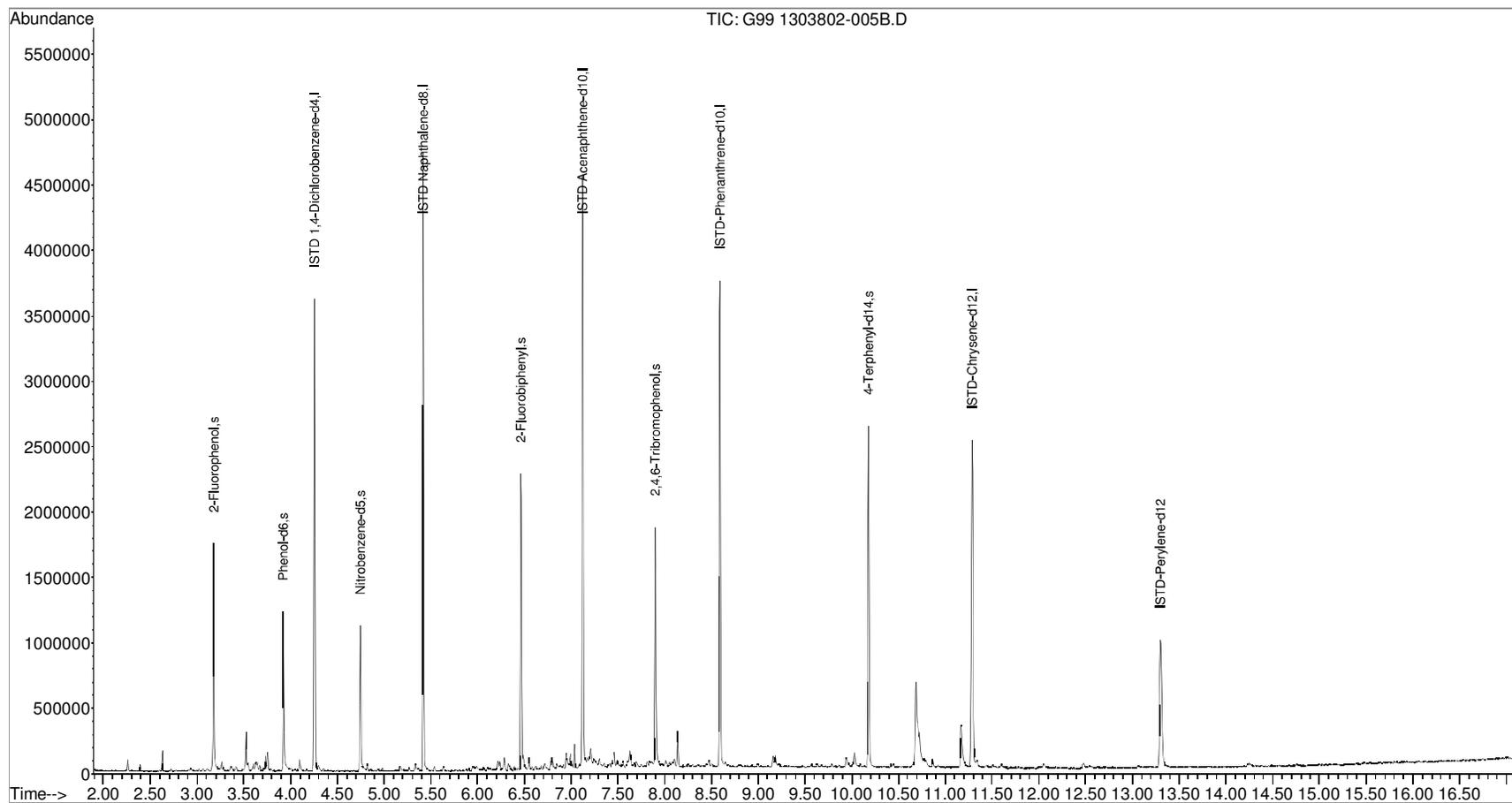
Quant Time: Apr 02 20:22:46 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 02 08:35:20 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
 Data File : G99 1303802-005B.D
 Acq On : 2 Apr 2013 5:00 pm
 Operator : ALICIA HABERLE
 Sample : 1303802-005B
 Misc : SAMP
 ALS Vial : 21 Sample Multiplier: 1

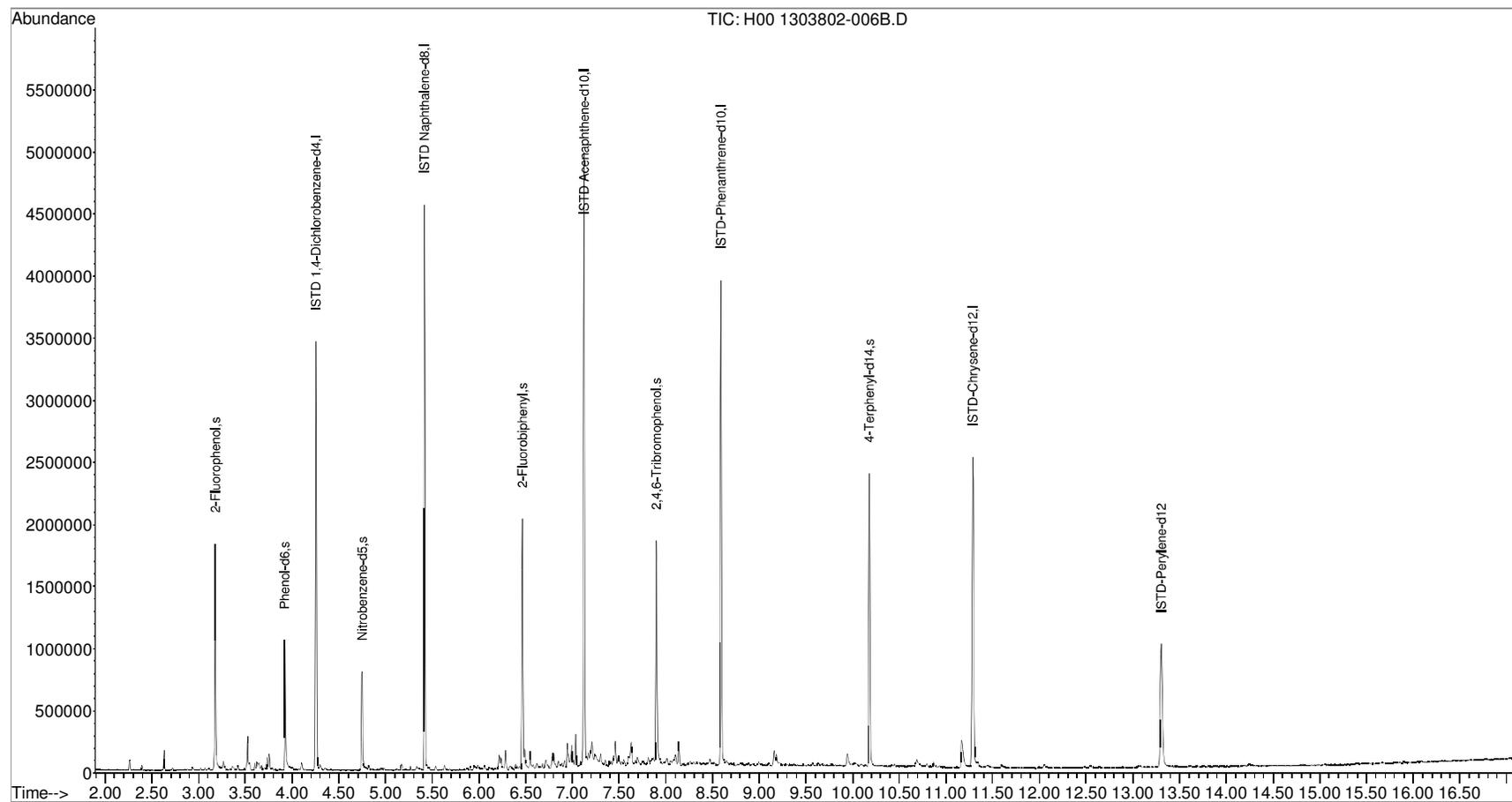
Quant Time: Apr 02 20:23:25 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 02 08:35:20 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
Data File : H00 1303802-006B.D
Acq On : 2 Apr 2013 5:27 pm
Operator : ALICIA HABERLE
Sample : 1303802-006B
Misc : SAMP
ALS Vial : 22 Sample Multiplier: 1

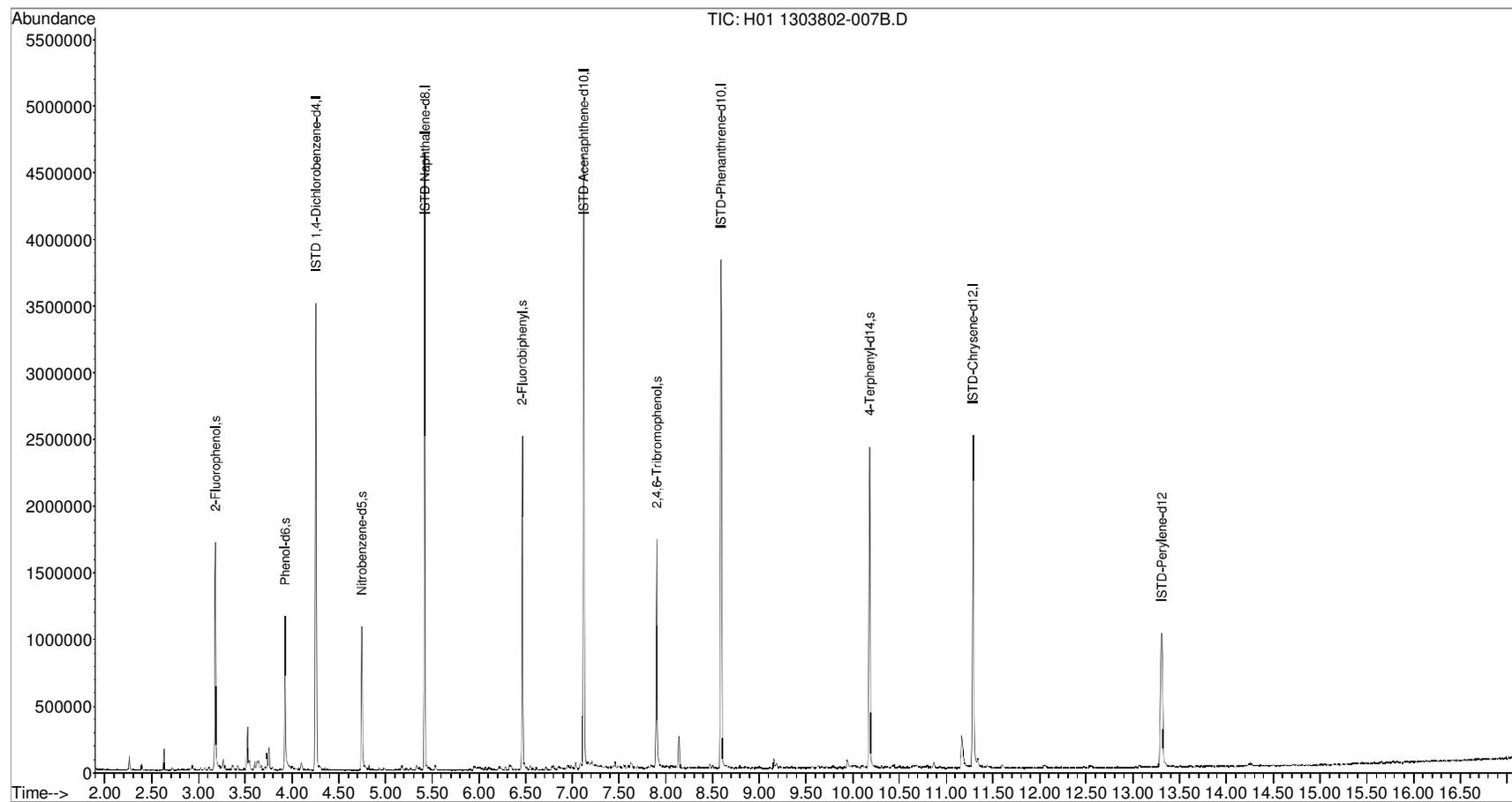
Quant Time: Apr 02 20:24:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 02 08:35:20 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
 Data File : H01 1303802-007B.D
 Acq On : 2 Apr 2013 5:54 pm
 Operator : ALICIA HABERLE
 Sample : 1303802-007B
 Misc : SAMP
 ALS Vial : 23 Sample Multiplier: 1

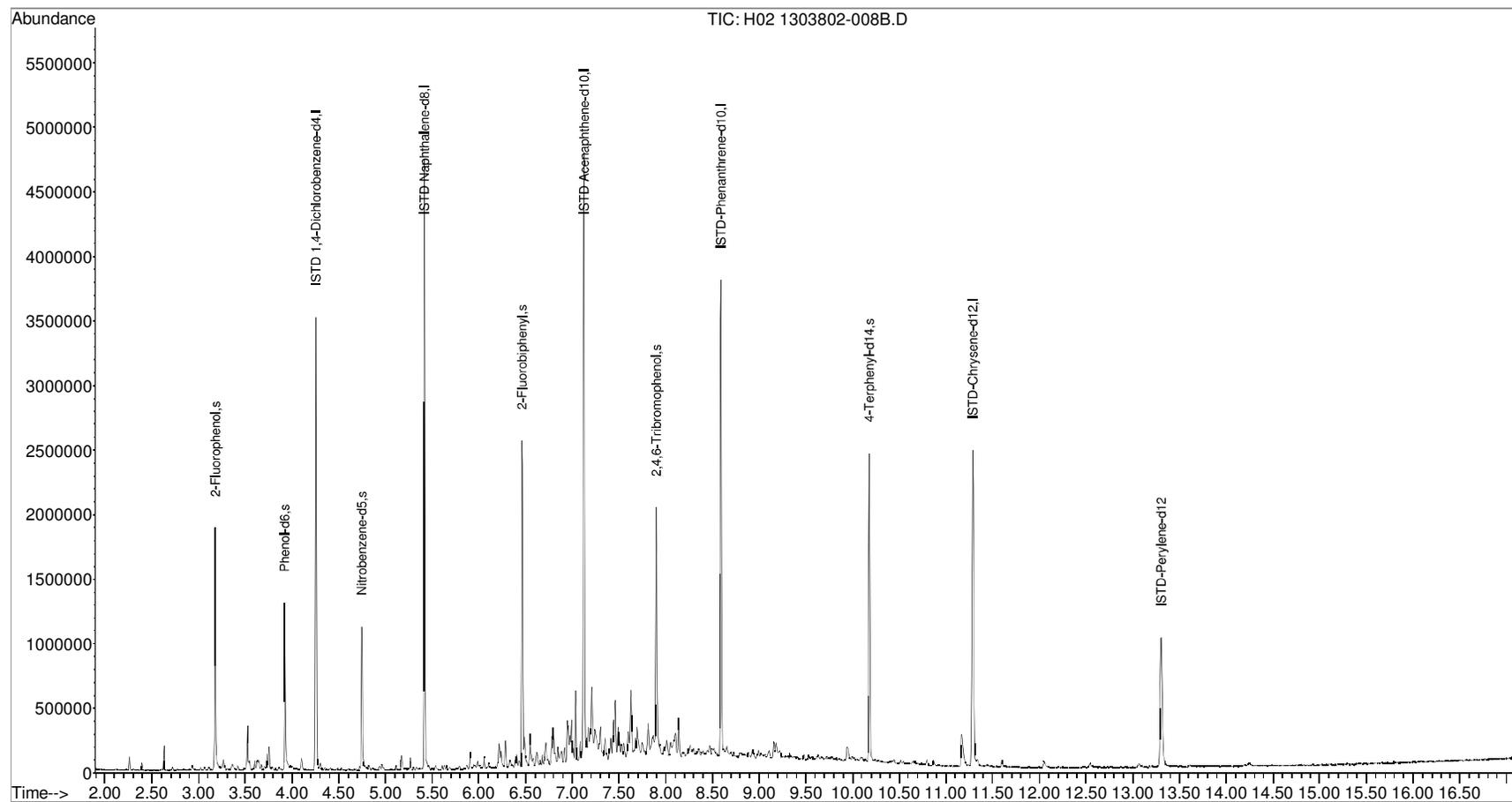
Quant Time: Apr 02 20:24:58 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 02 08:35:20 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
Data File : H02 1303802-008B.D
Acq On : 2 Apr 2013 6:21 pm
Operator : ALICIA HABERLE
Sample : 1303802-008B
Misc : SAMP
ALS Vial : 24 Sample Multiplier: 1

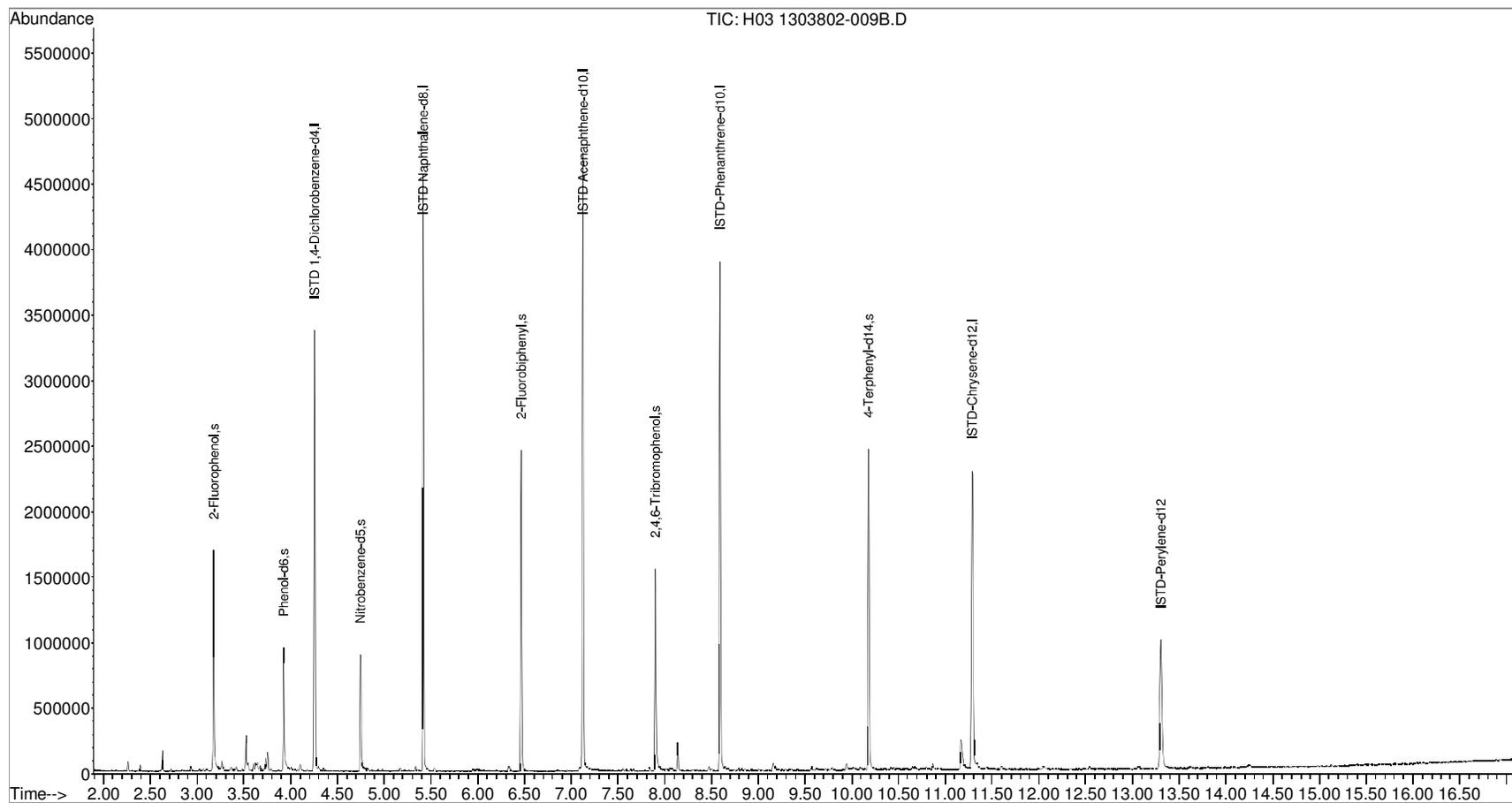
Quant Time: Apr 02 20:25:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 02 08:35:20 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
Data File : H03 1303802-009B.D
Acq On : 2 Apr 2013 6:48 pm
Operator : ALICIA HABERLE
Sample : 1303802-009B
Misc : SAMP
ALS Vial : 25 Sample Multiplier: 1

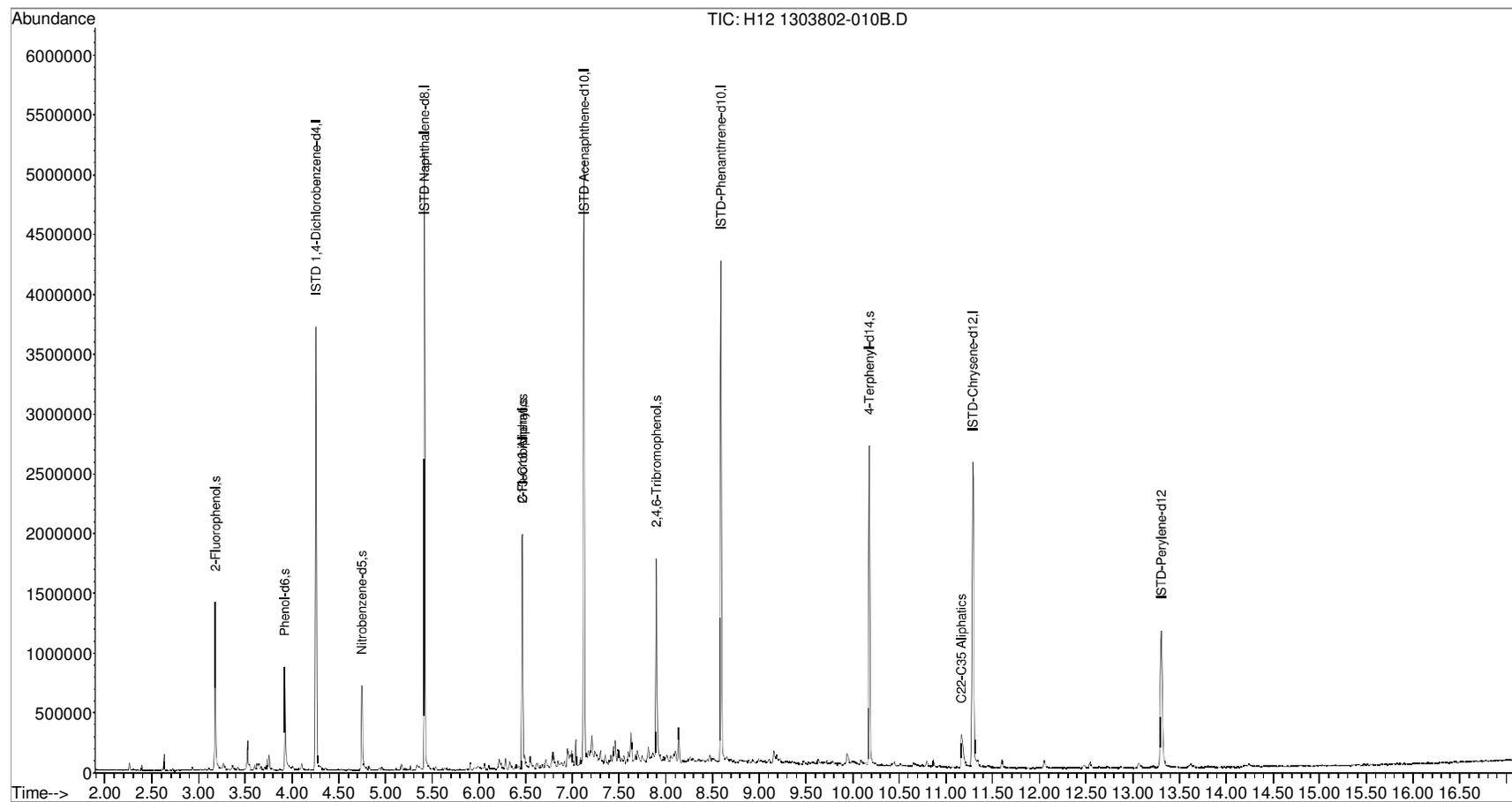
Quant Time: Apr 02 20:26:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 02 08:35:20 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
 Data File : H12 1303802-010B.D
 Acq On : 2 Apr 2013 10:24 pm
 Operator : ALICIA HABERLE
 Sample : 1303802-010B
 Misc : SAMP
 ALS Vial : 5 Sample Multiplier: 1

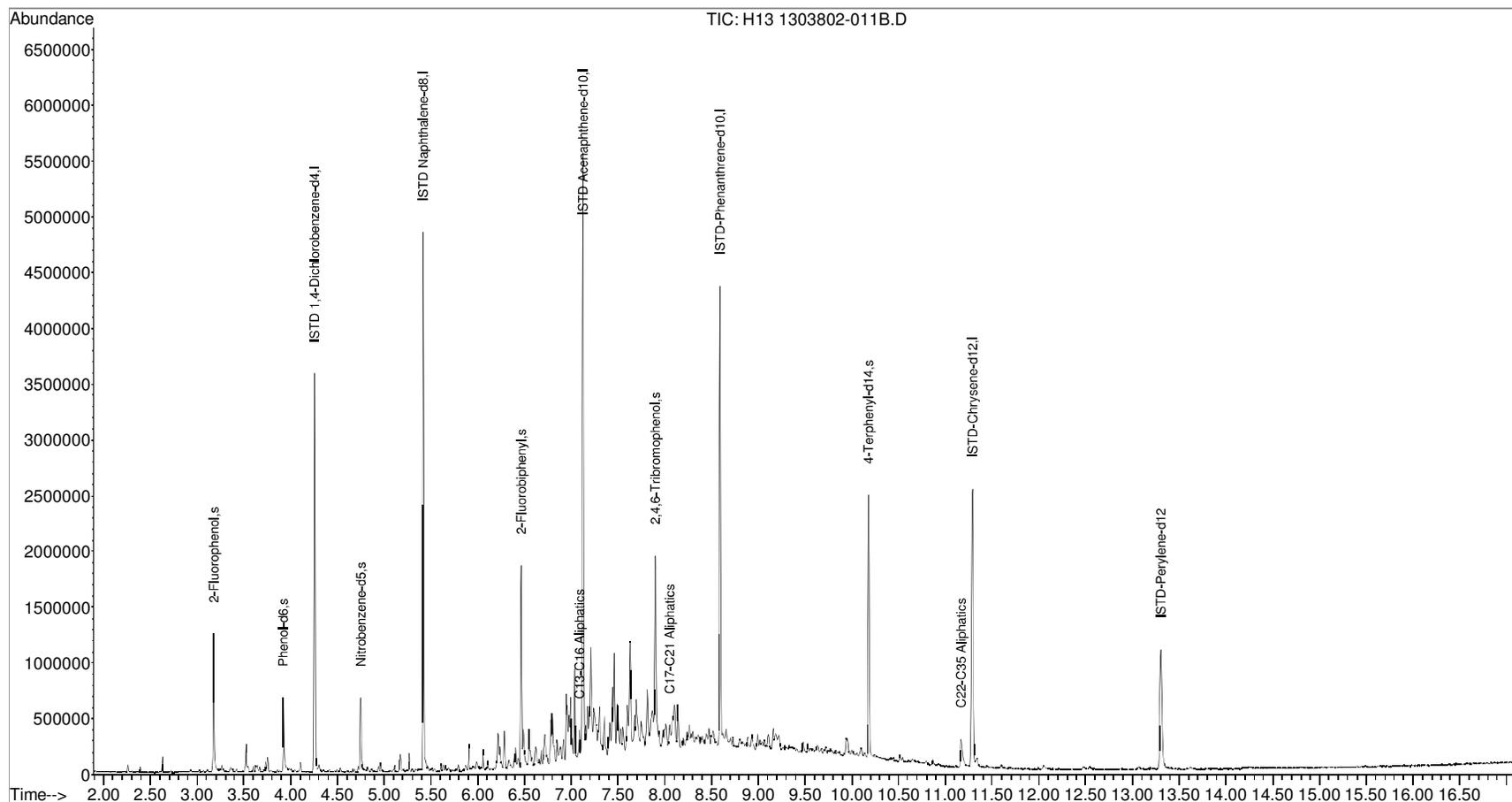
Quant Time: Apr 03 08:13:58 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 02 08:35:20 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
 Data File : H13 1303802-011B.D
 Acq On : 2 Apr 2013 10:50 pm
 Operator : ALICIA HABERLE
 Sample : 1303802-011B
 Misc : SAMP
 ALS Vial : 6 Sample Multiplier: 1

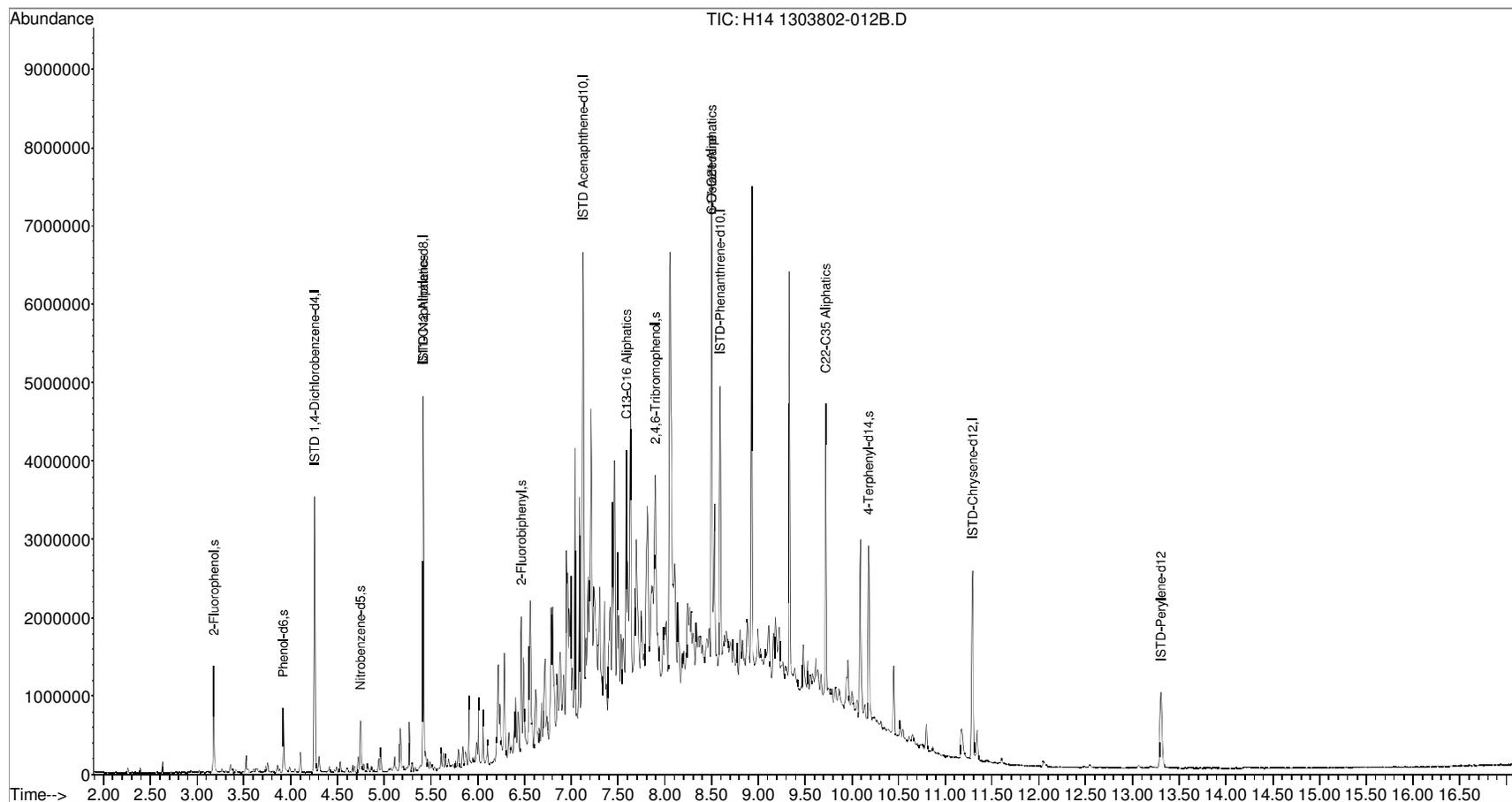
Quant Time: Apr 03 08:14:45 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 02 08:35:20 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
Data File : H14 1303802-012B.D
Acq On : 2 Apr 2013 11:17 pm
Operator : ALICIA HABERLE
Sample : 1303802-012B
Misc : SAMP
ALS Vial : 7 Sample Multiplier: 1

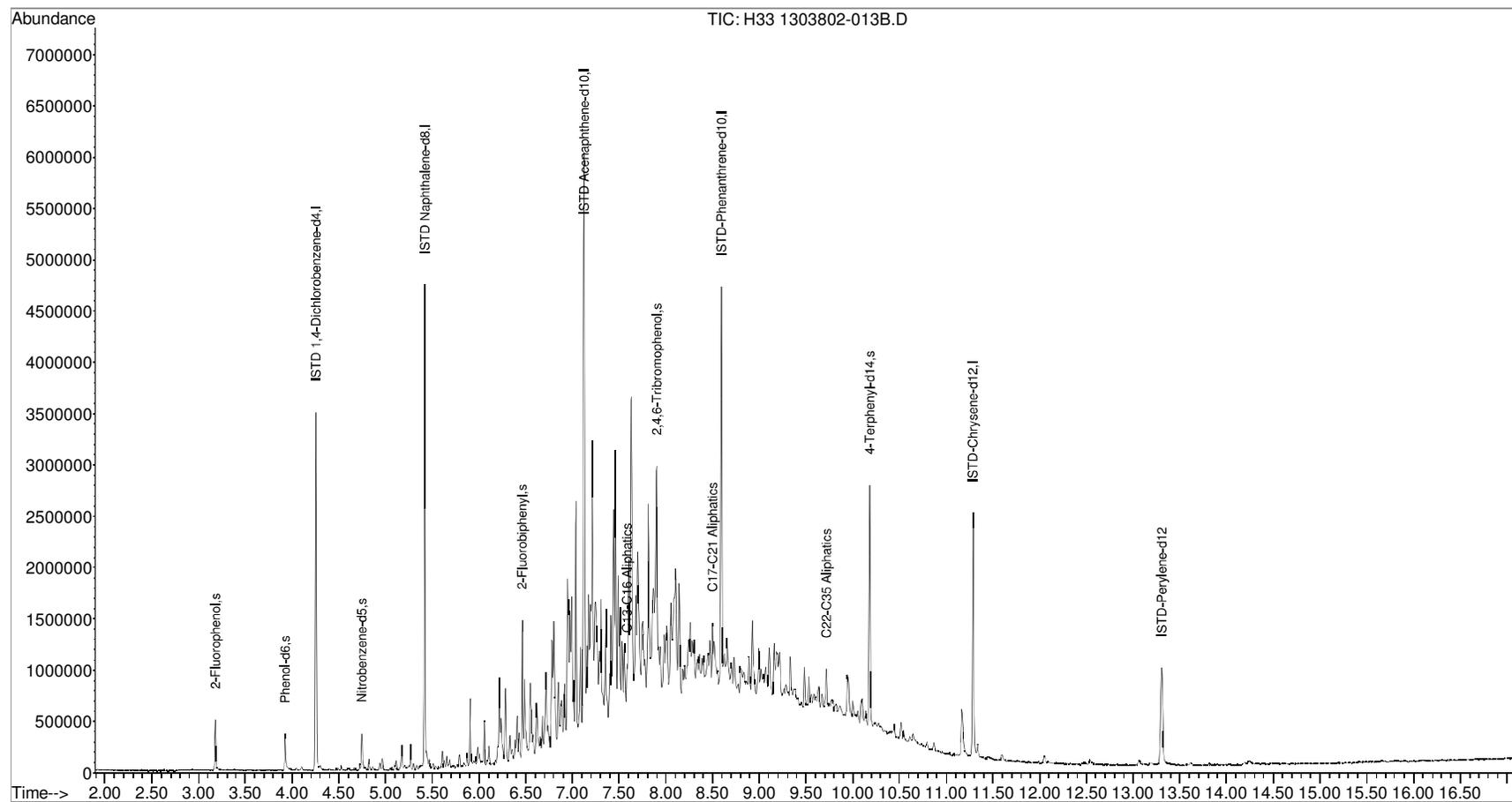
Quant Time: Apr 03 08:15:49 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 02 08:35:20 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
 Data File : H33 1303802-013B.D
 Acq On : 3 Apr 2013 7:39 am
 Operator : ALICIA HABERLE
 Sample : 1303802-013B
 Misc : SAMP
 ALS Vial : 26 Sample Multiplier: 1

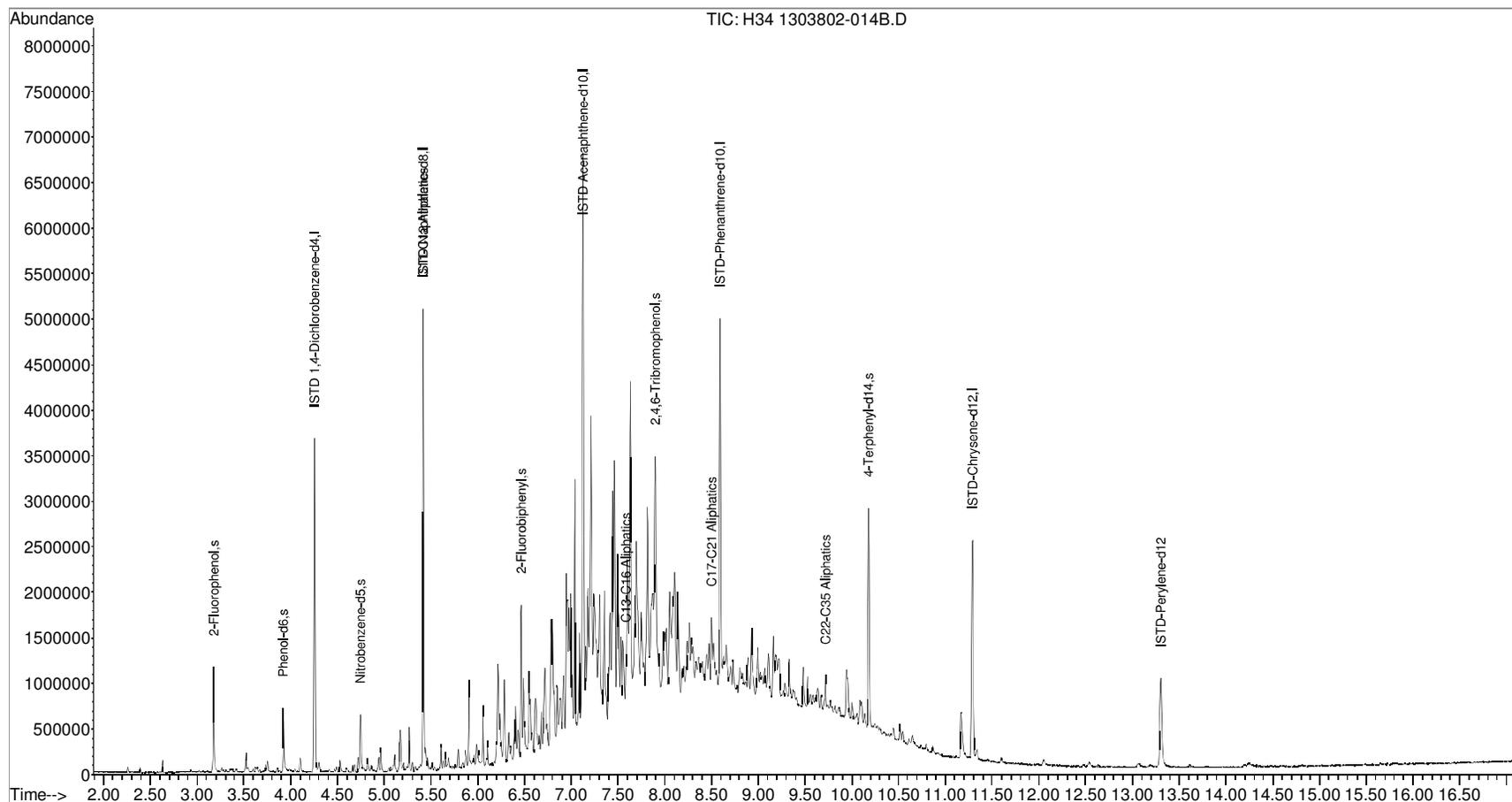
Quant Time: Apr 03 08:27:27 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 02 08:35:20 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
 Data File : H34 1303802-014B.D
 Acq On : 3 Apr 2013 8:06 am
 Operator : ALICIA HABERLE
 Sample : 1303802-014B
 Misc : SAMP
 ALS Vial : 27 Sample Multiplier: 1

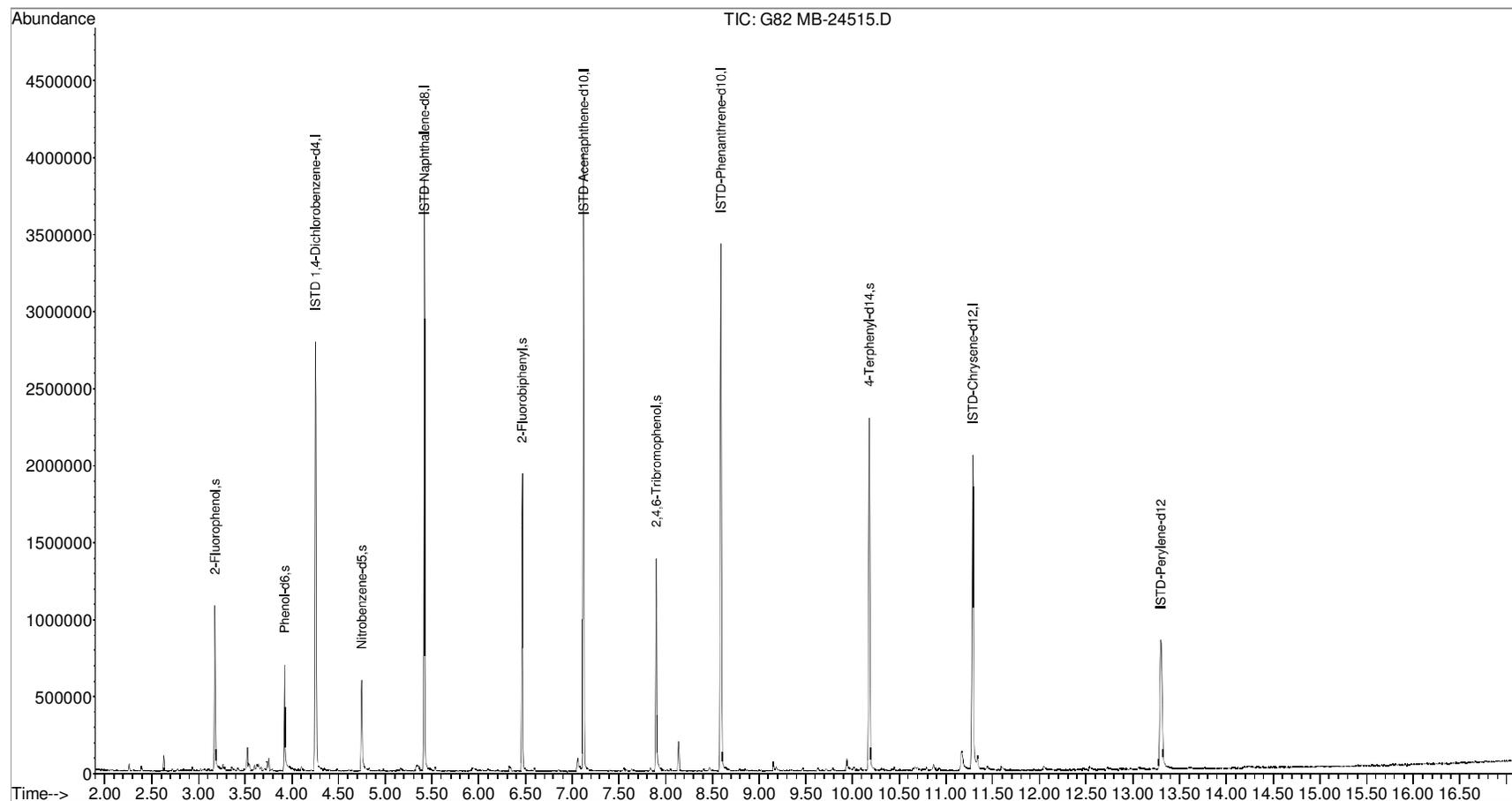
Quant Time: Apr 03 08:28:35 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 02 08:35:20 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
Data File : G82 MB-24515.D
Acq On : 2 Apr 2013 9:26 am
Operator : ALICIA HABERLE
Sample : MB-24515
Misc : MBLK
ALS Vial : 5 Sample Multiplier: 1

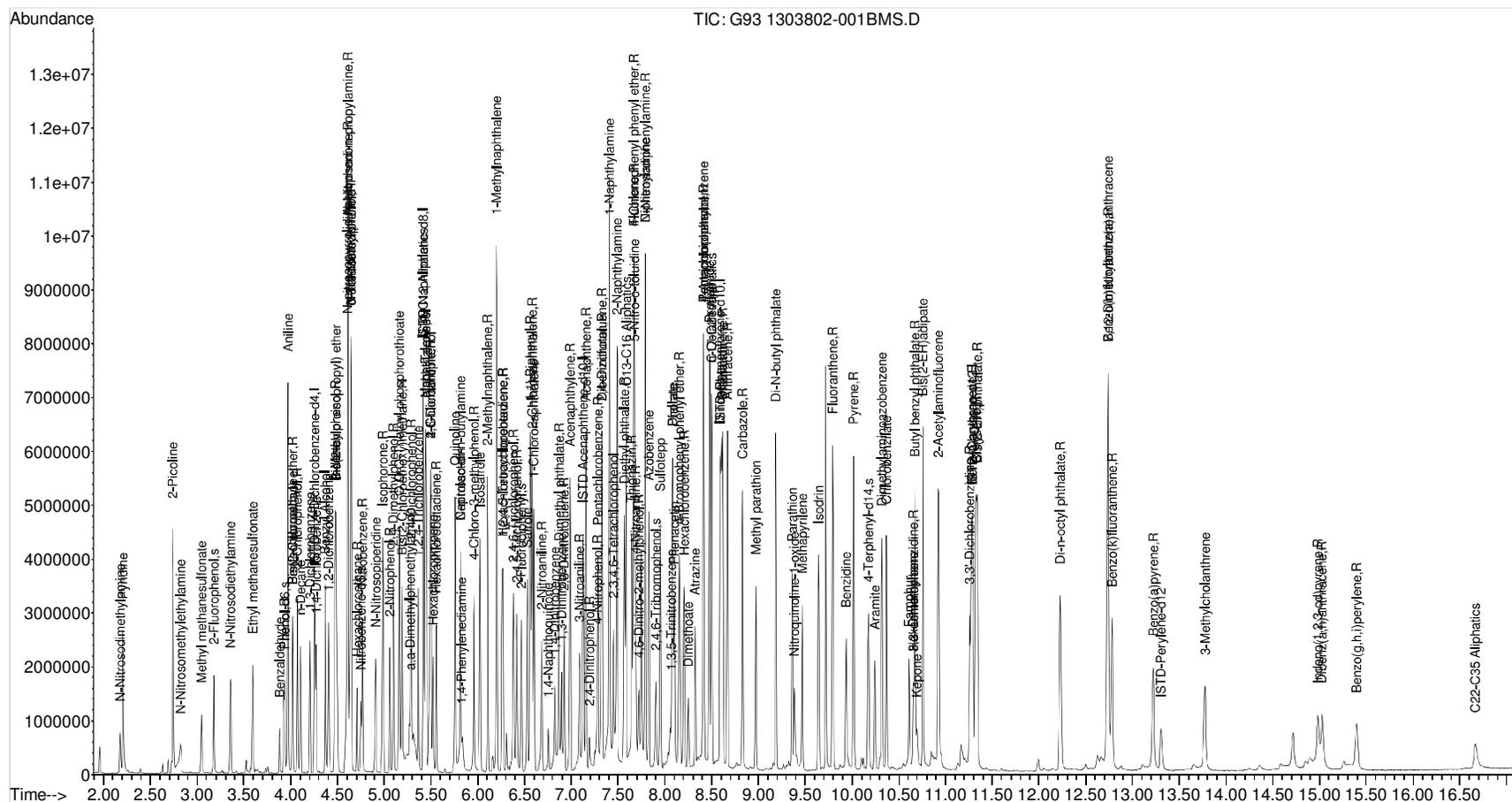
Quant Time: Apr 02 09:59:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 02 08:35:20 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\02APR13-A\
 Data File : G93 1303802-001BMS.D
 Acq On : 2 Apr 2013 2:18 pm
 Operator : ALICIA HABERLE
 Sample : 1303802-001BMS
 Misc : MS
 ALS Vial : 16 Sample Multiplier: 1

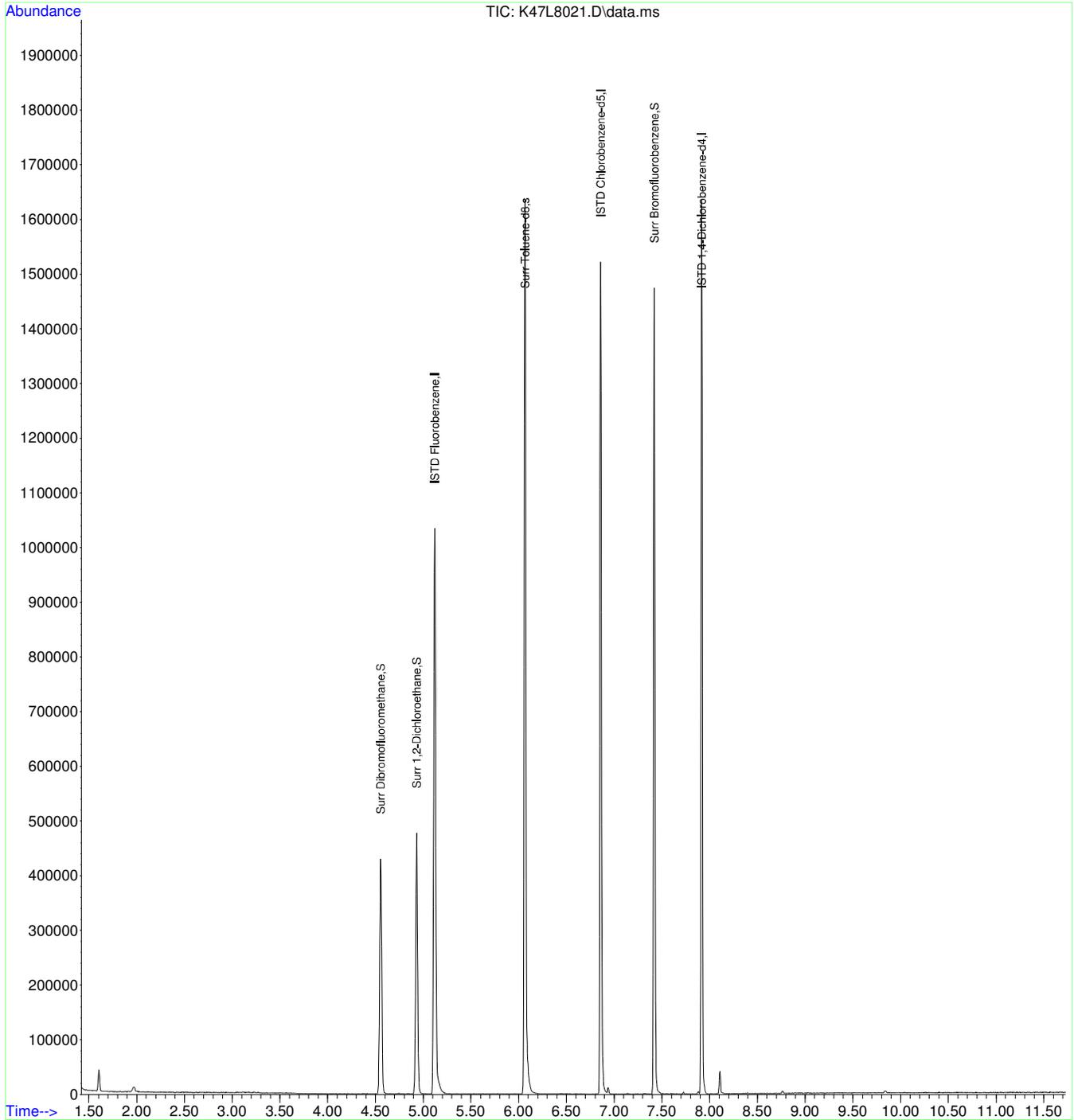
Quant Time: Apr 02 20:18:21 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 02 08:35:20 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K47L8021.D
Acq On : 1 Apr 2013 4:32 pm
Operator : AAP
Sample : 1303802-001A
Misc : SAMP 5.0ML 3OF3 SB
ALS Vial : 6 Sample Multiplier: 1

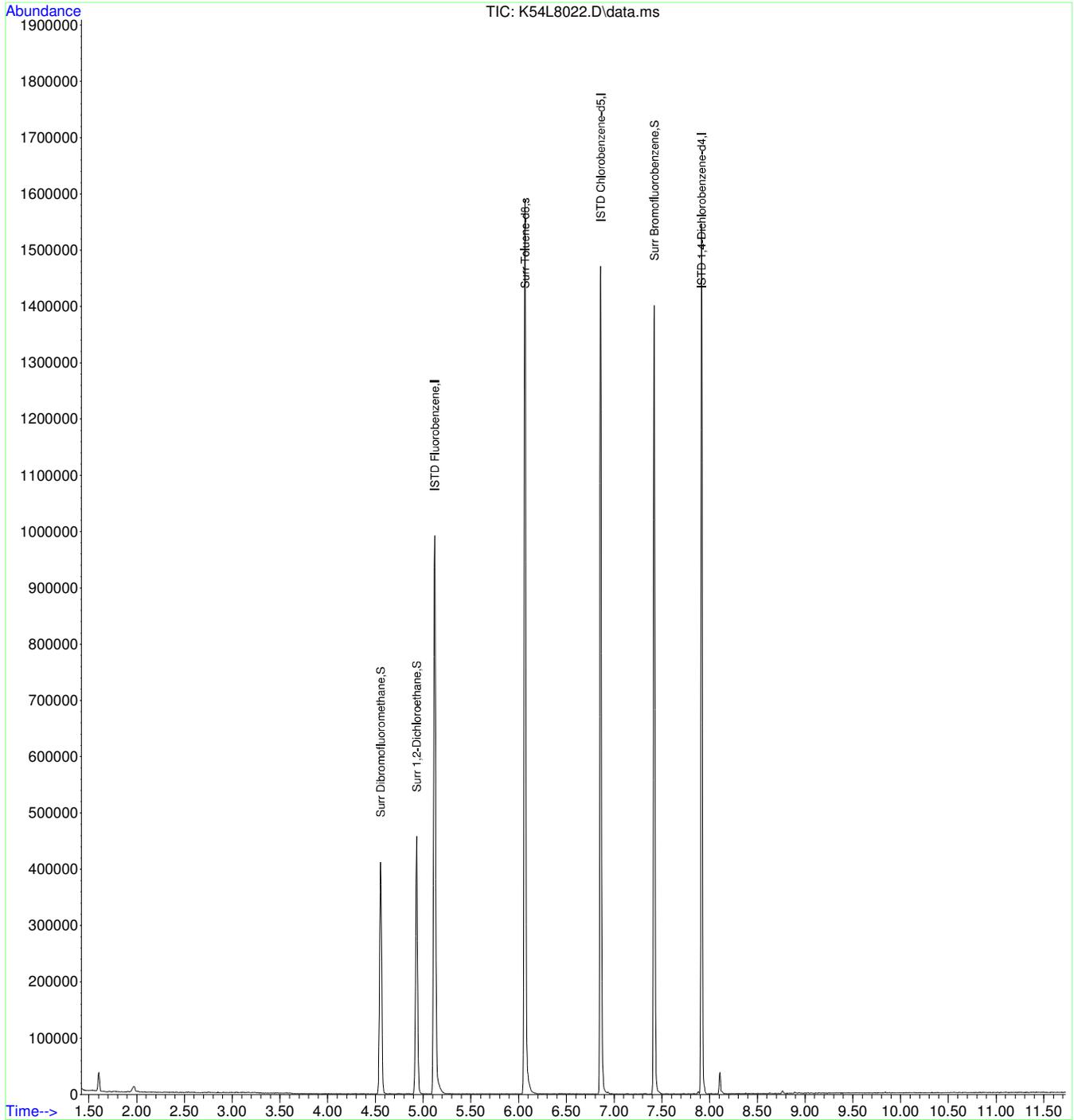
Quant Time: Apr 02 08:36:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K54L8022.D
Acq On : 1 Apr 2013 6:26 pm
Operator : AAP
Sample : 1303802-002A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 12 Sample Multiplier: 1

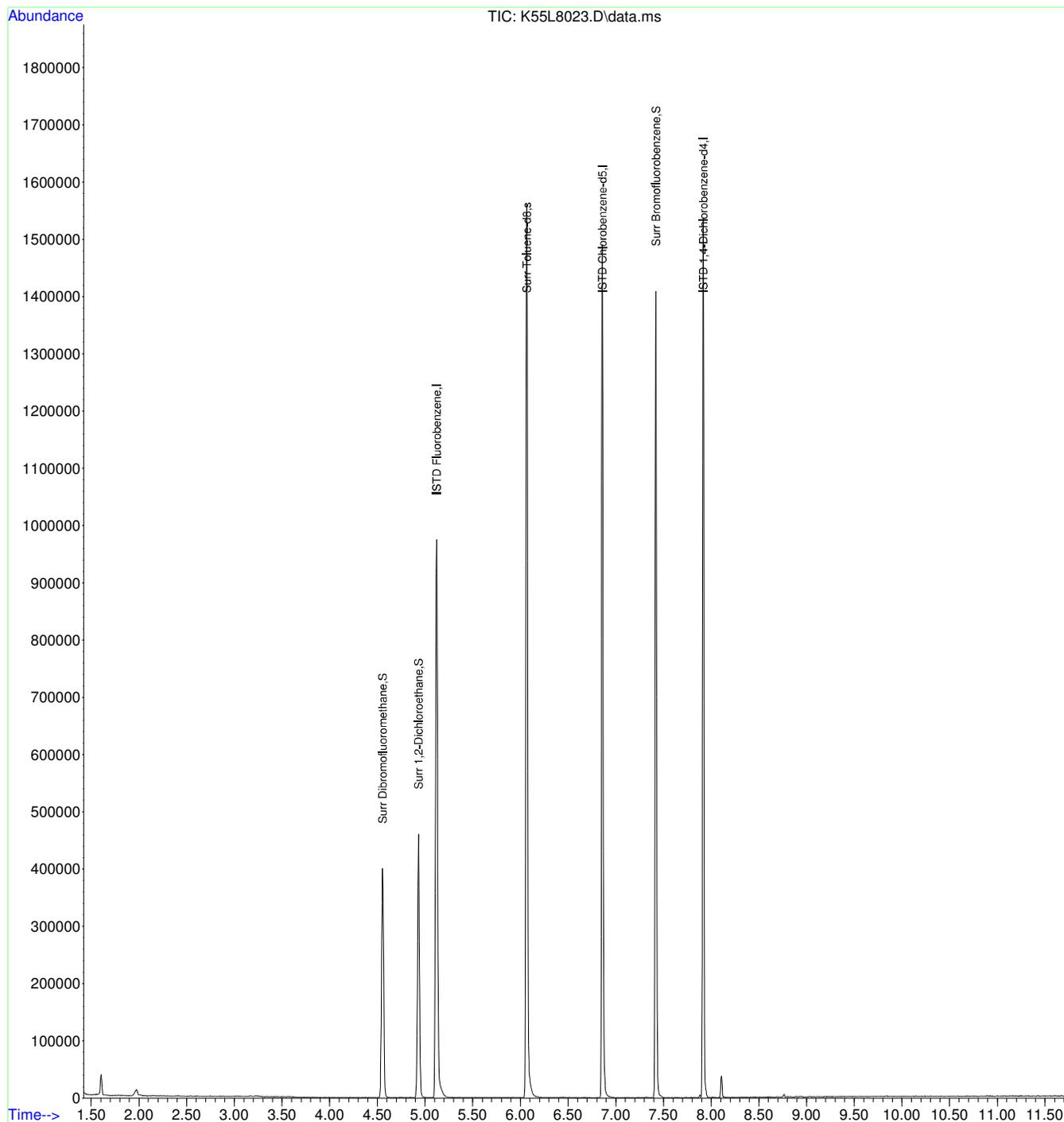
Quant Time: Apr 02 08:38:00 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K55L8023.D
Acq On : 1 Apr 2013 6:45 pm
Operator : AAP
Sample : 1303802-003A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 13 Sample Multiplier: 1

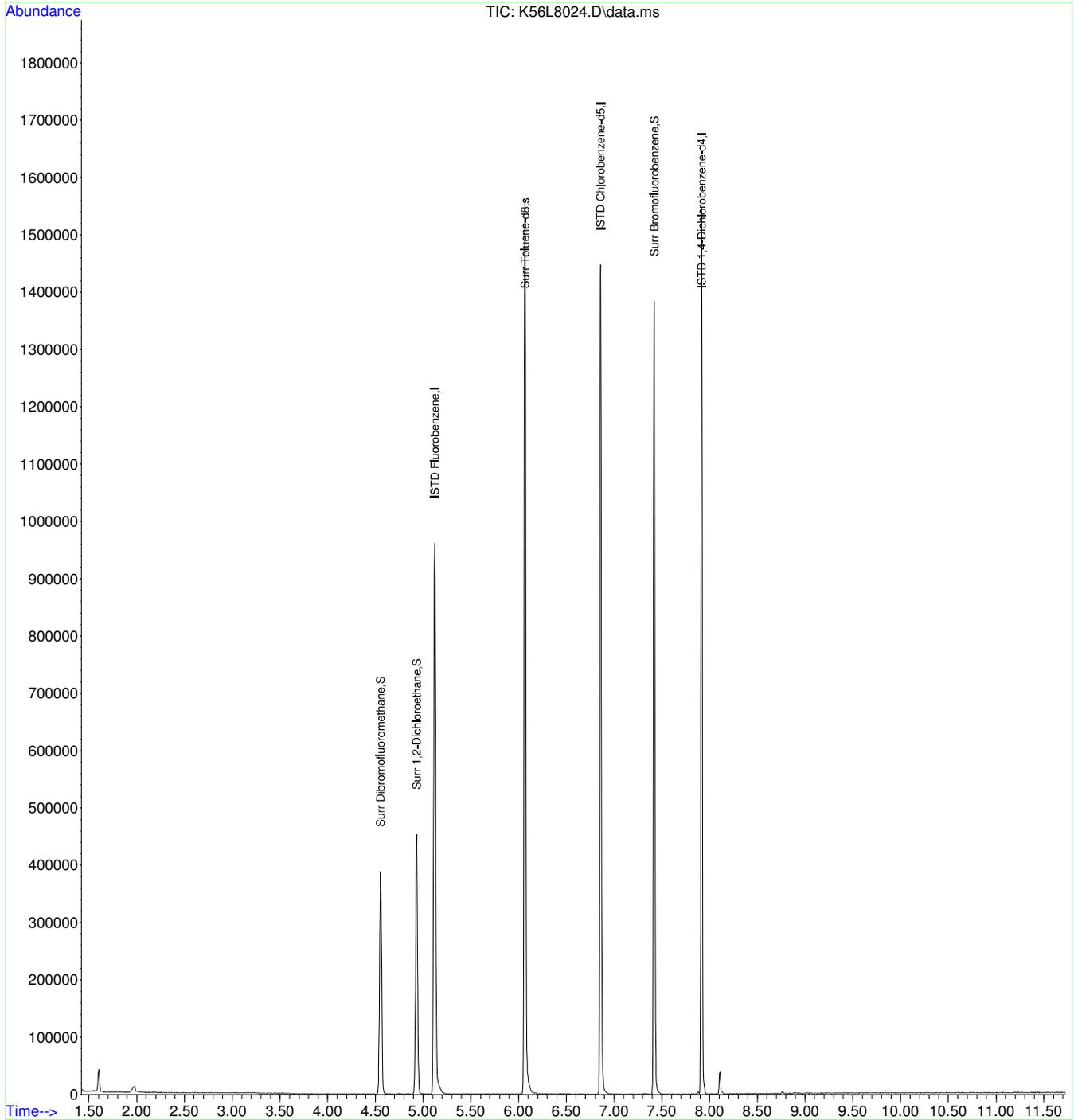
Quant Time: Apr 02 08:38:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K56L8024.D
Acq On : 1 Apr 2013 7:04 pm
Operator : AAP
Sample : 1303802-004A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 14 Sample Multiplier: 1

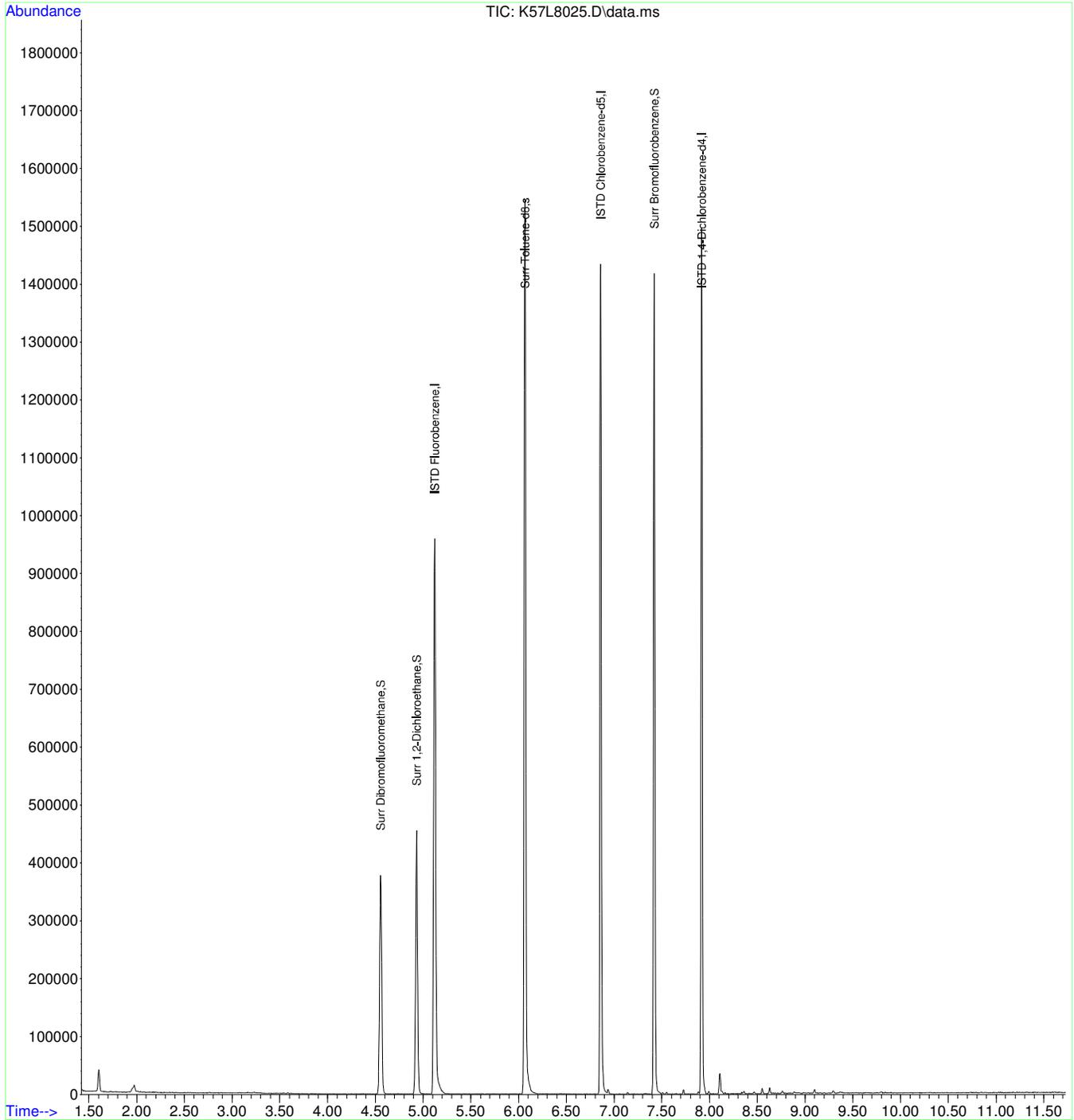
Quant Time: Apr 02 08:38:49 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K57L8025.D
Acq On : 1 Apr 2013 7:23 pm
Operator : AAP
Sample : 1303802-005A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 15 Sample Multiplier: 1

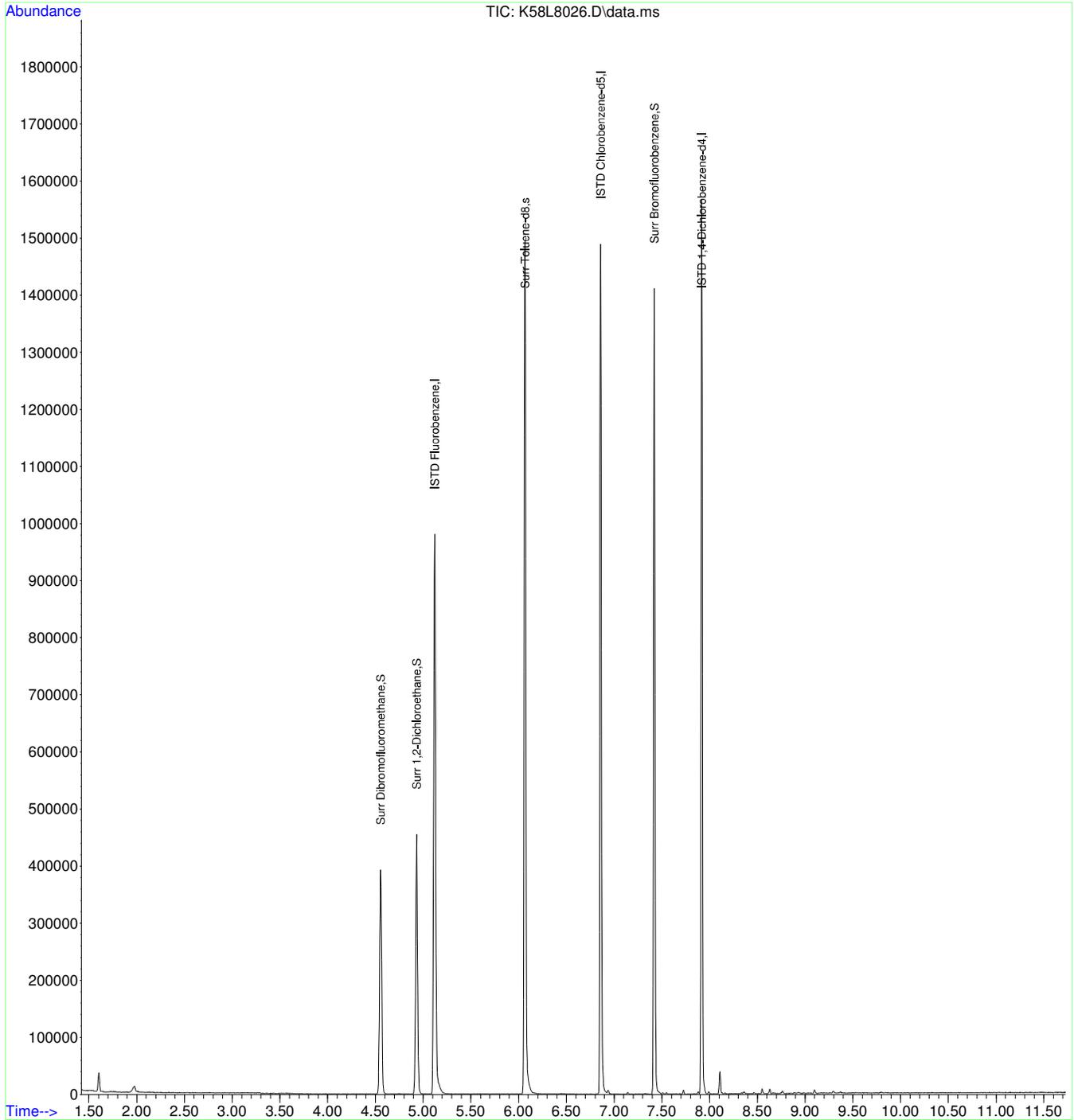
Quant Time: Apr 02 08:39:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K58L8026.D
Acq On : 1 Apr 2013 7:42 pm
Operator : AAP
Sample : 1303802-006A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 16 Sample Multiplier: 1

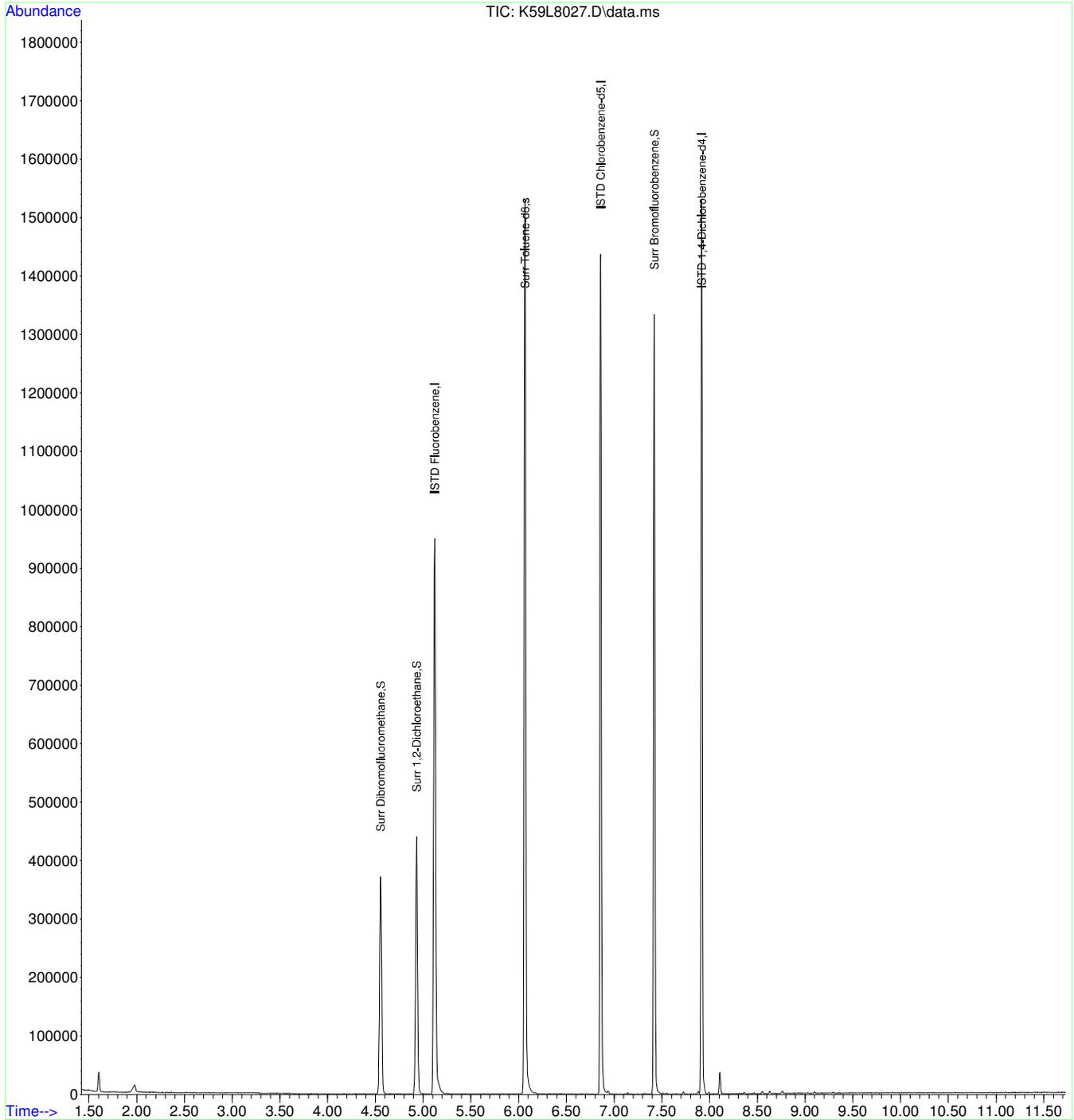
Quant Time: Apr 02 08:39:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K59L8027.D
Acq On : 1 Apr 2013 8:01 pm
Operator : AAP
Sample : 1303802-007A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 17 Sample Multiplier: 1

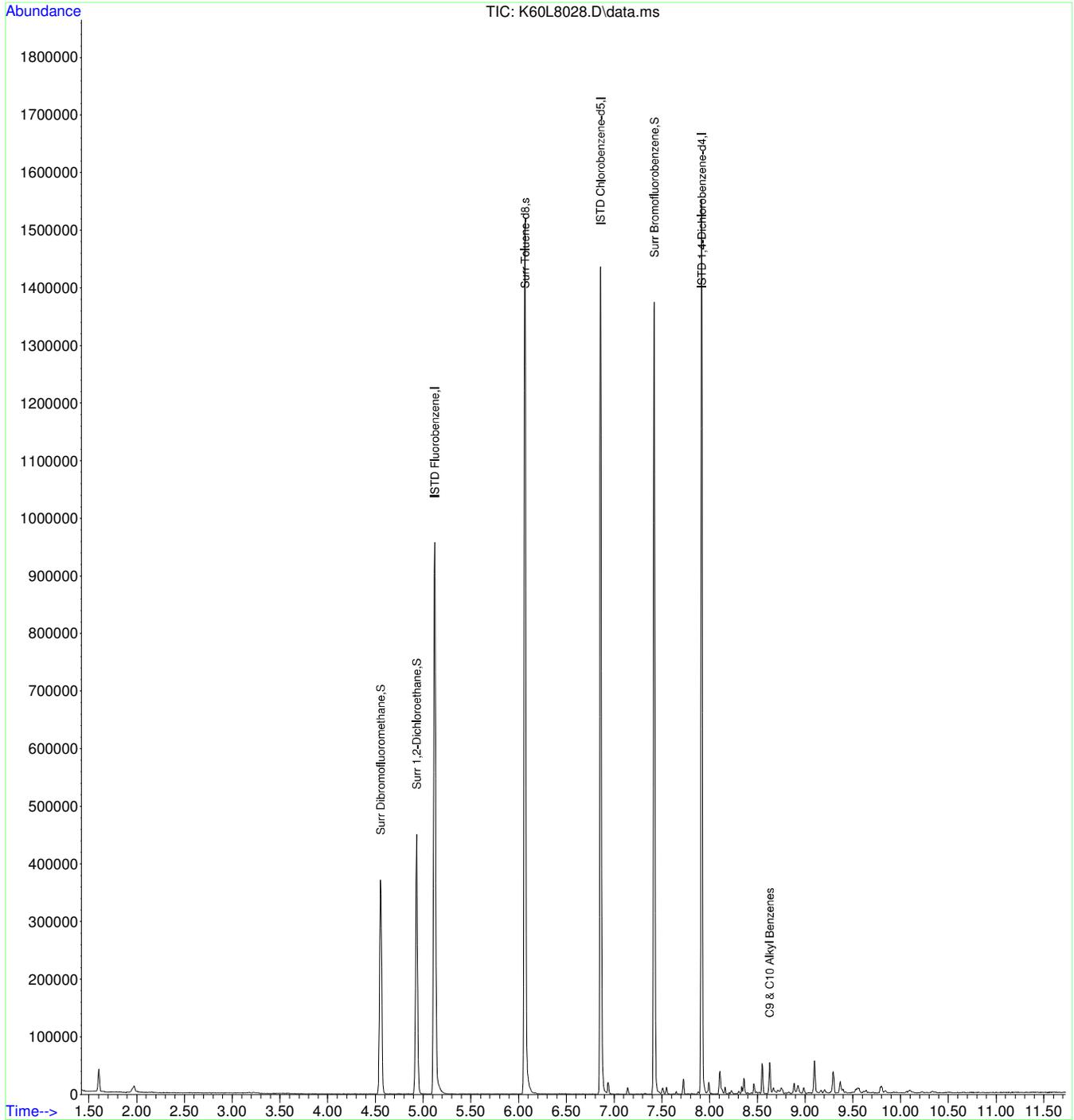
Quant Time: Apr 02 08:39:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K60L8028.D
Acq On : 1 Apr 2013 8:20 pm
Operator : AAP
Sample : 1303802-008A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 18 Sample Multiplier: 1

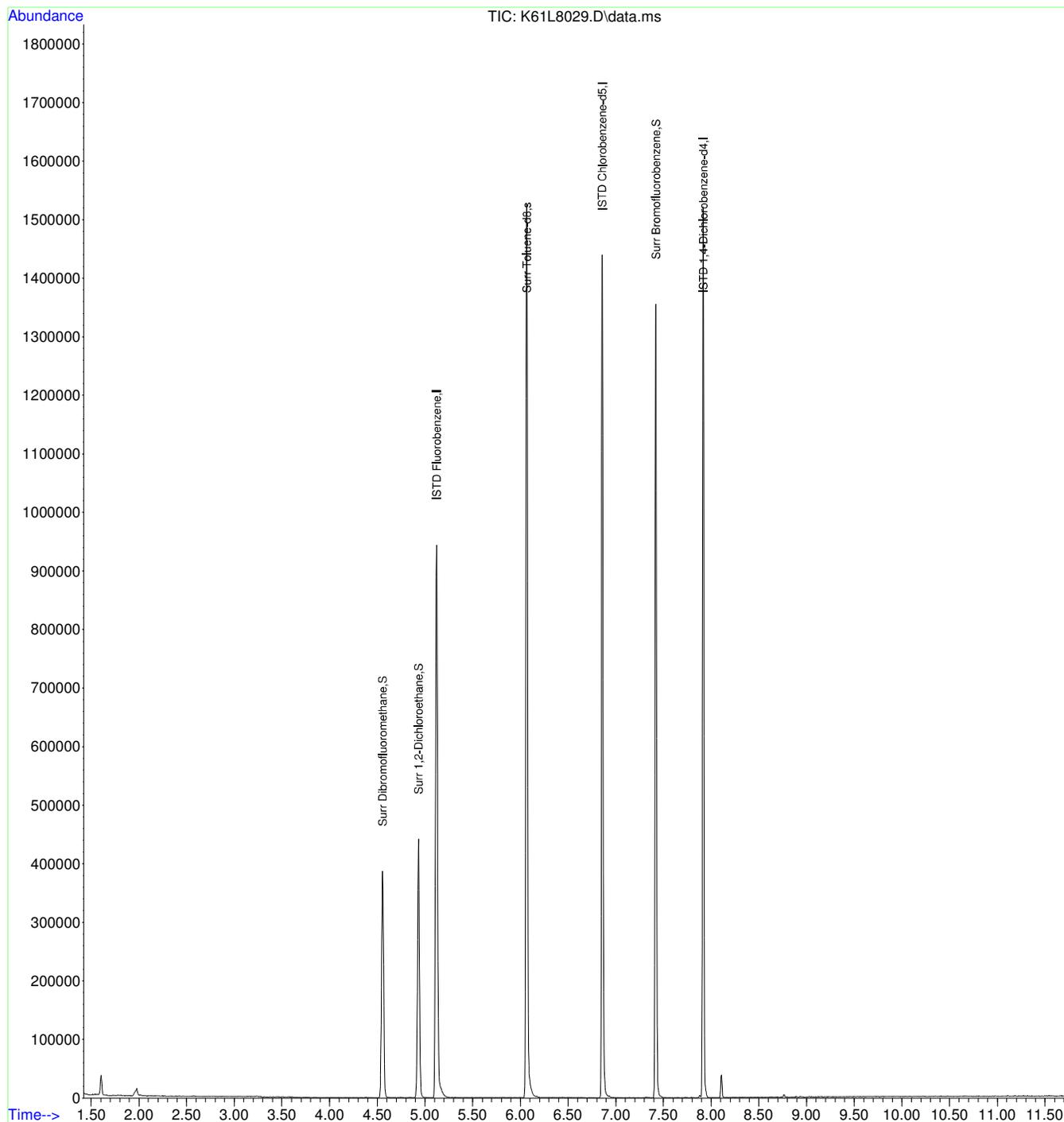
Quant Time: Apr 02 08:39:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K61L8029.D
Acq On : 1 Apr 2013 8:39 pm
Operator : AAP
Sample : 1303802-009A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 19 Sample Multiplier: 1

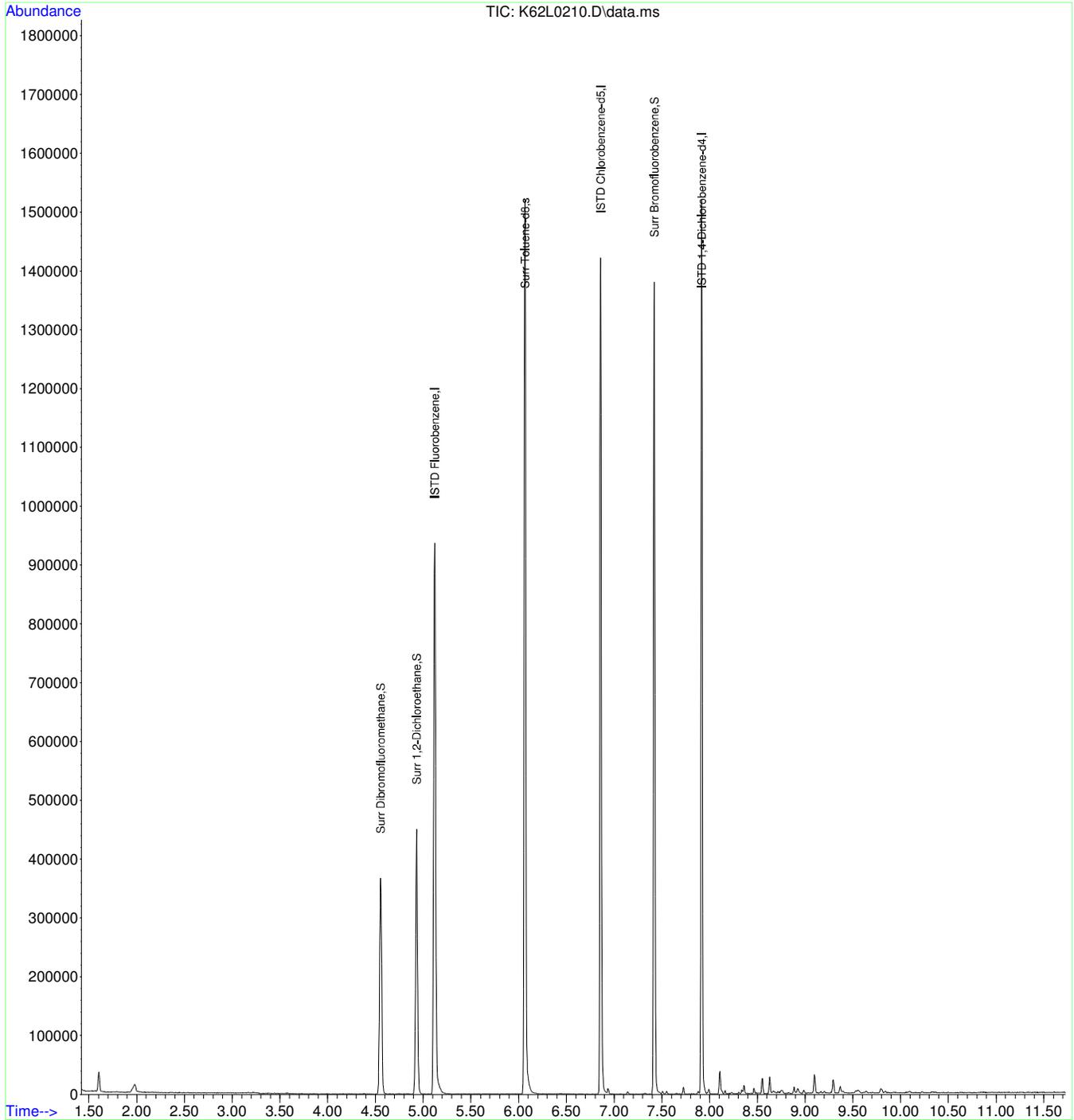
Quant Time: Apr 02 08:39:58 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K62L0210.D
Acq On : 1 Apr 2013 8:58 pm
Operator : AAP
Sample : 1303802-010A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 20 Sample Multiplier: 1

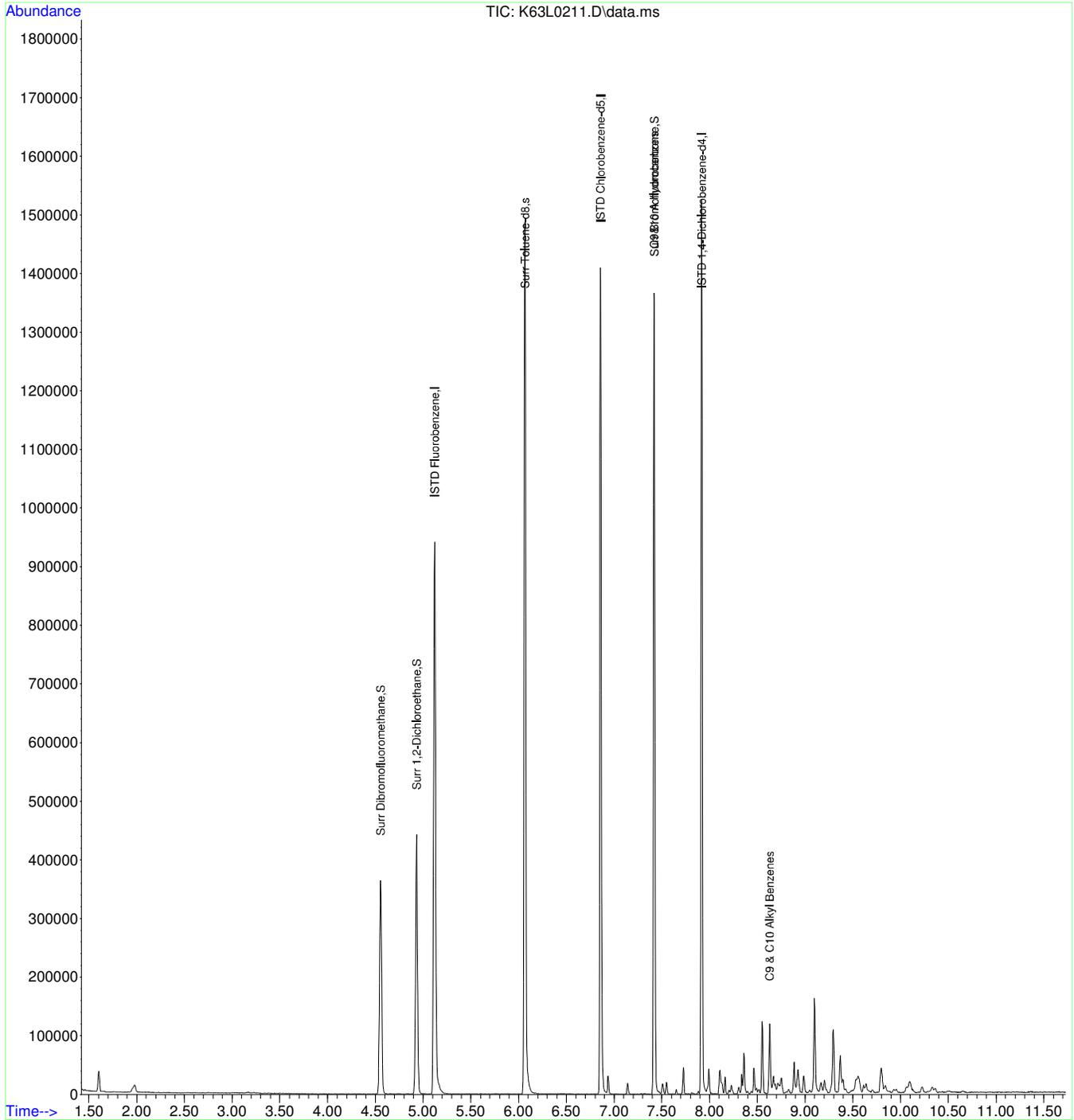
Quant Time: Apr 02 08:40:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K63L0211.D
Acq On : 1 Apr 2013 9:16 pm
Operator : AAP
Sample : 1303802-011A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 21 Sample Multiplier: 1

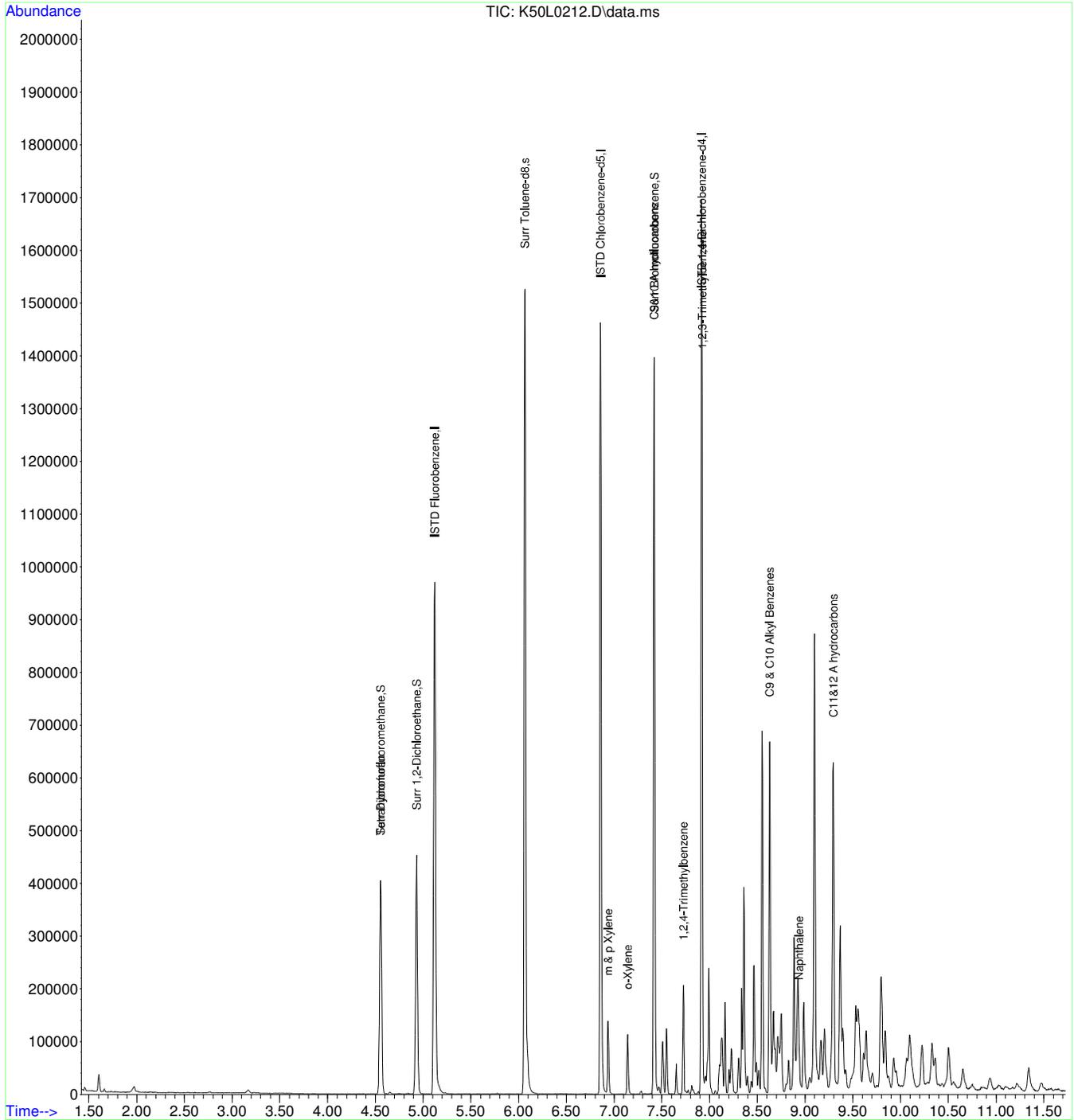
Quant Time: Apr 02 08:41:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K50L0212.D
Acq On : 1 Apr 2013 5:10 pm
Operator : AAP
Sample : 1303802-012A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 8 Sample Multiplier: 1

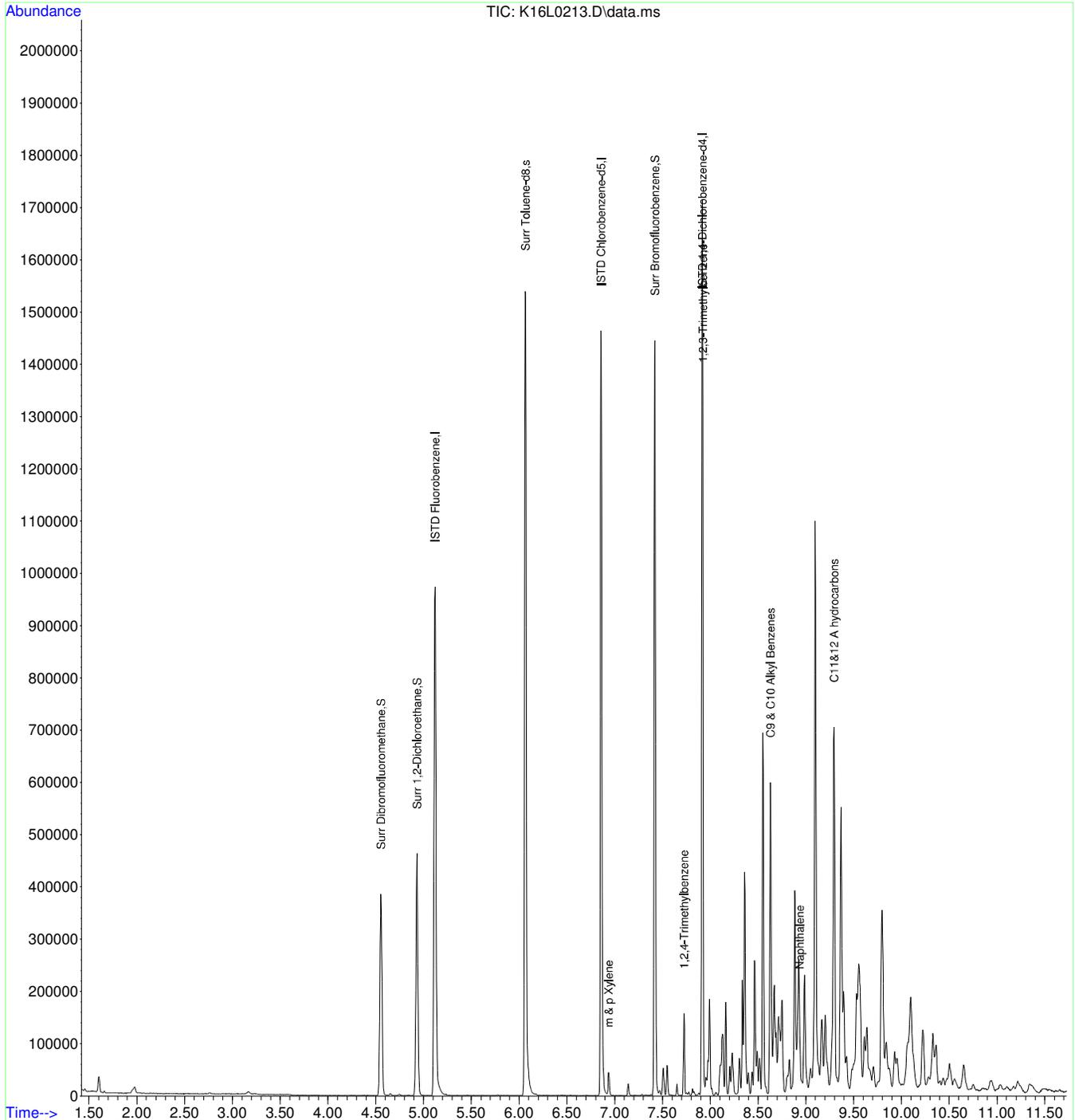
Quant Time: Apr 02 08:37:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\
Data File : K16L0213.D
Acq On : 1 Apr 2013 3:41 am
Operator : AAP
Sample : 1303802-013A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 28 Sample Multiplier: 1

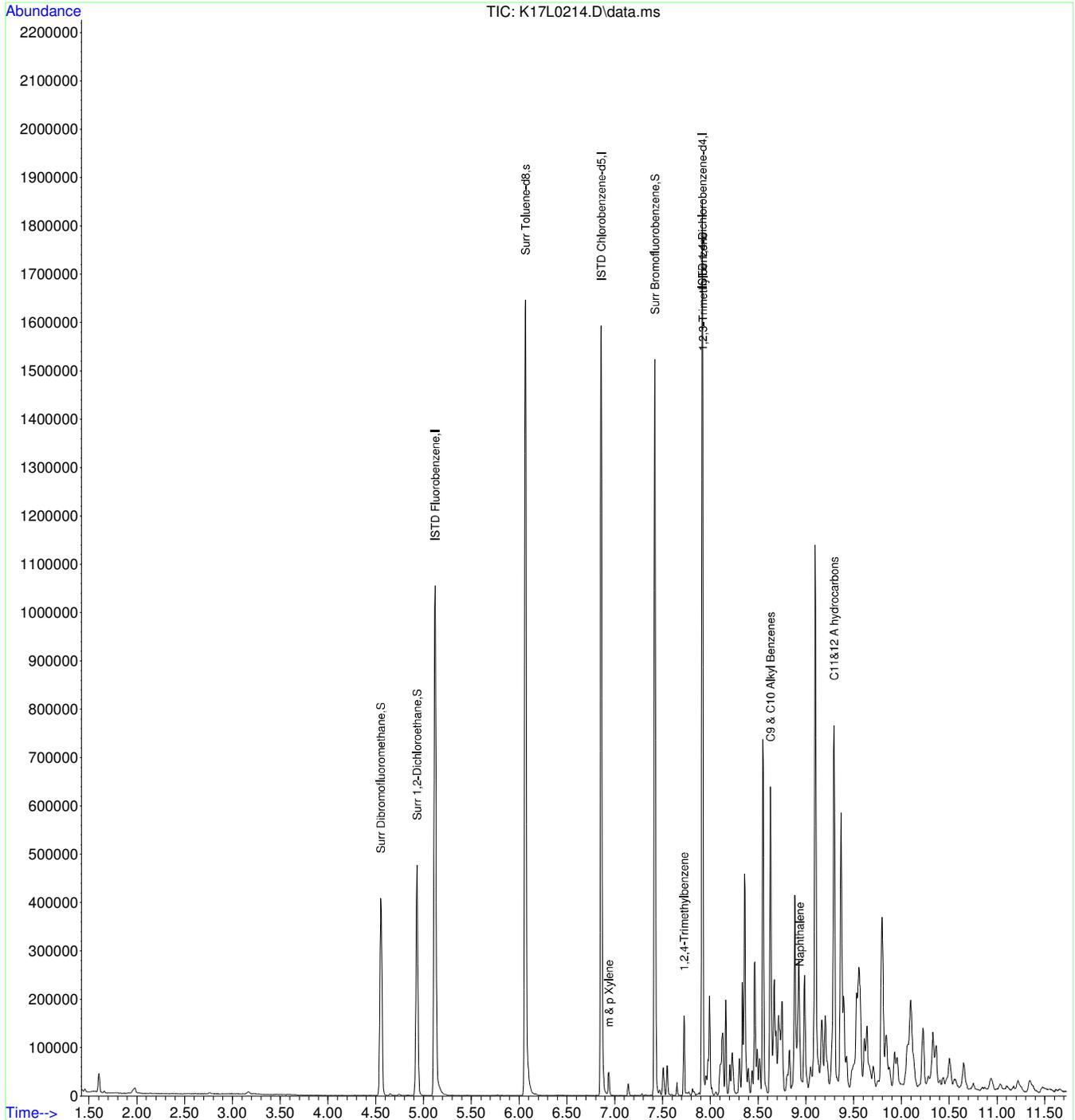
Quant Time: Apr 01 11:46:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\
Data File : K17L0214.D
Acq On : 1 Apr 2013 4:00 am
Operator : AAP
Sample : 1303802-014A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 29 Sample Multiplier: 1

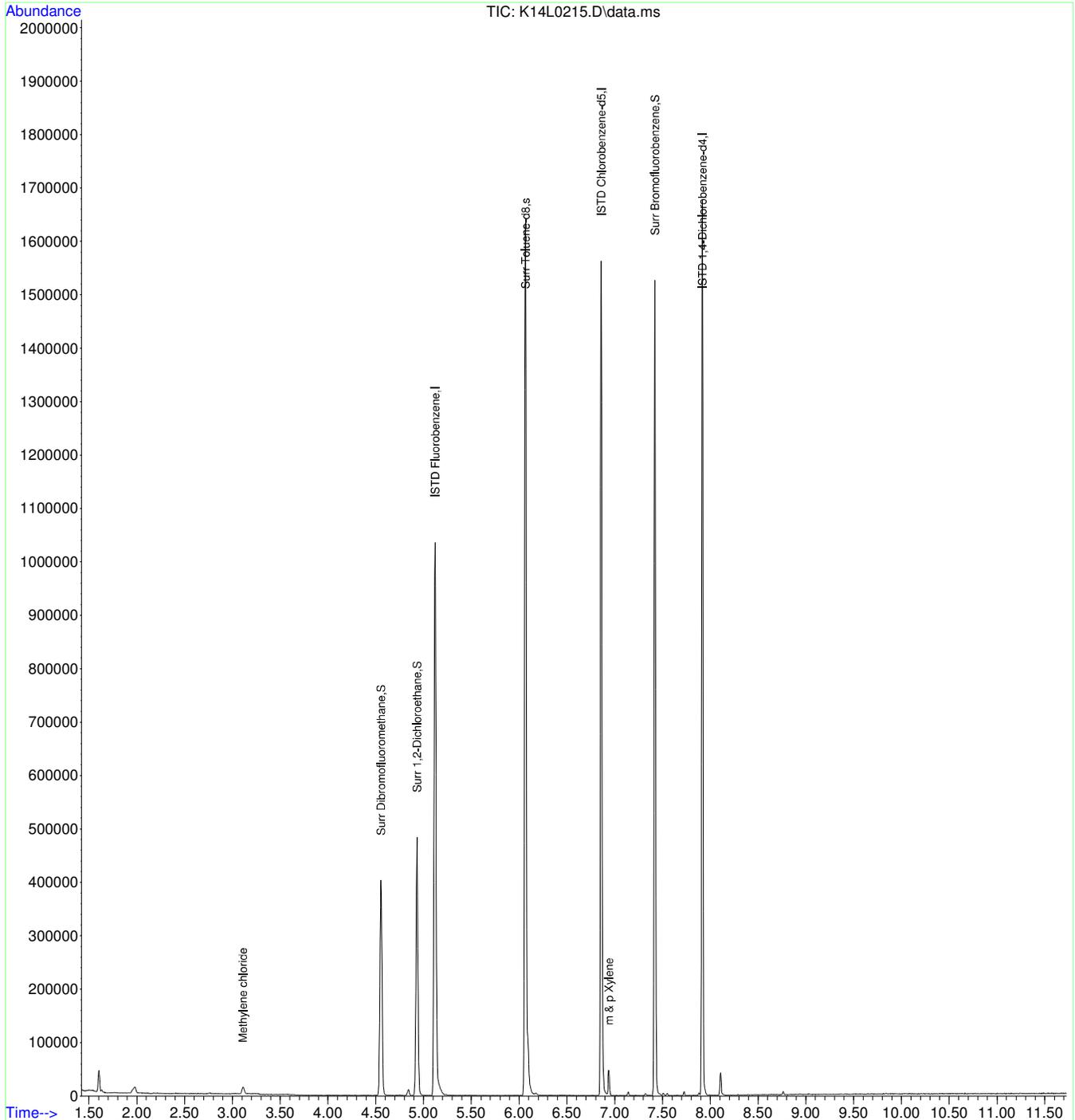
Quant Time: Apr 01 11:47:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\
Data File : K14L0215.D
Acq On : 1 Apr 2013 3:03 am
Operator : AAP
Sample : 1303802-015A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 26 Sample Multiplier: 1

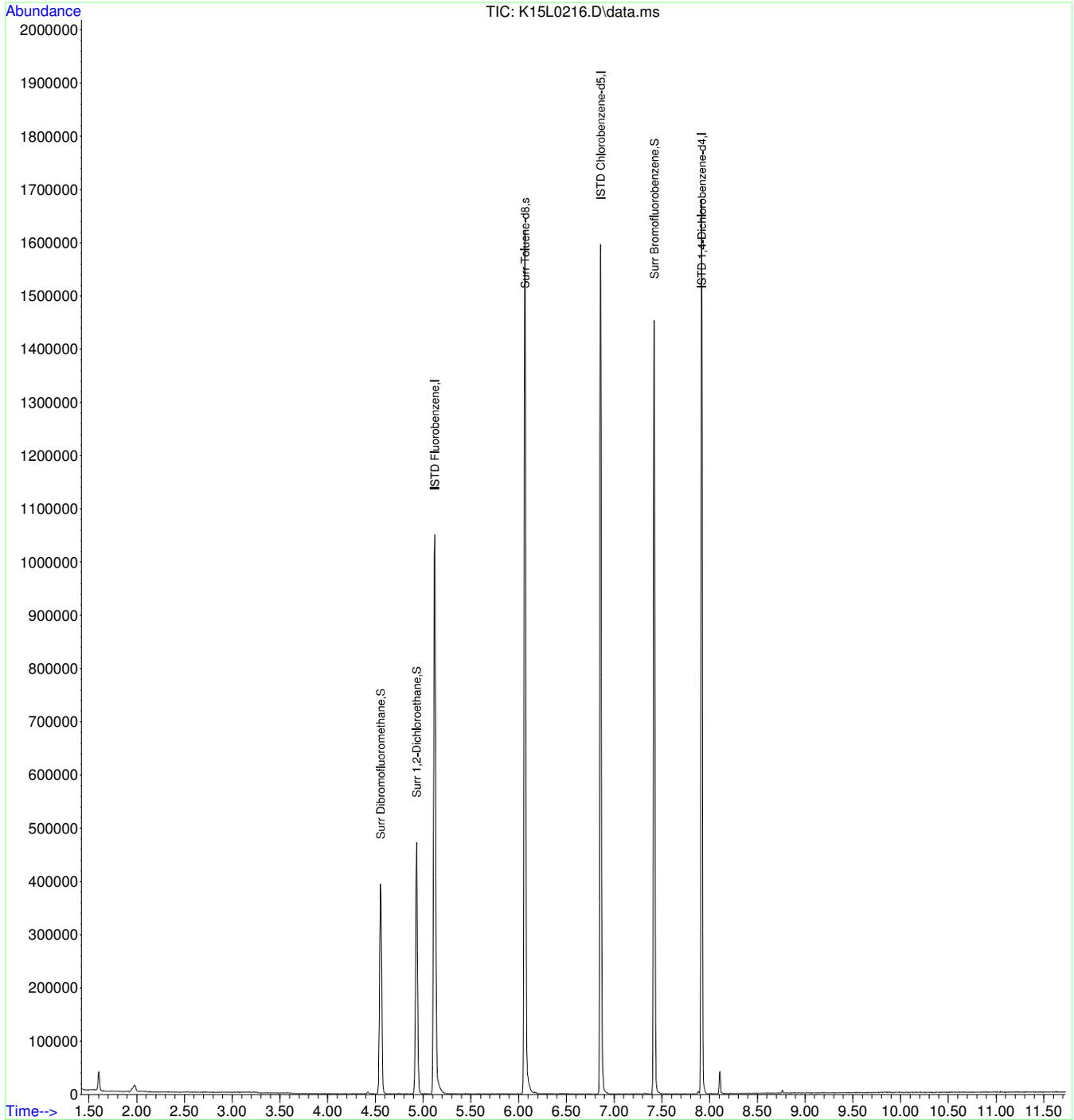
Quant Time: Apr 01 11:45:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

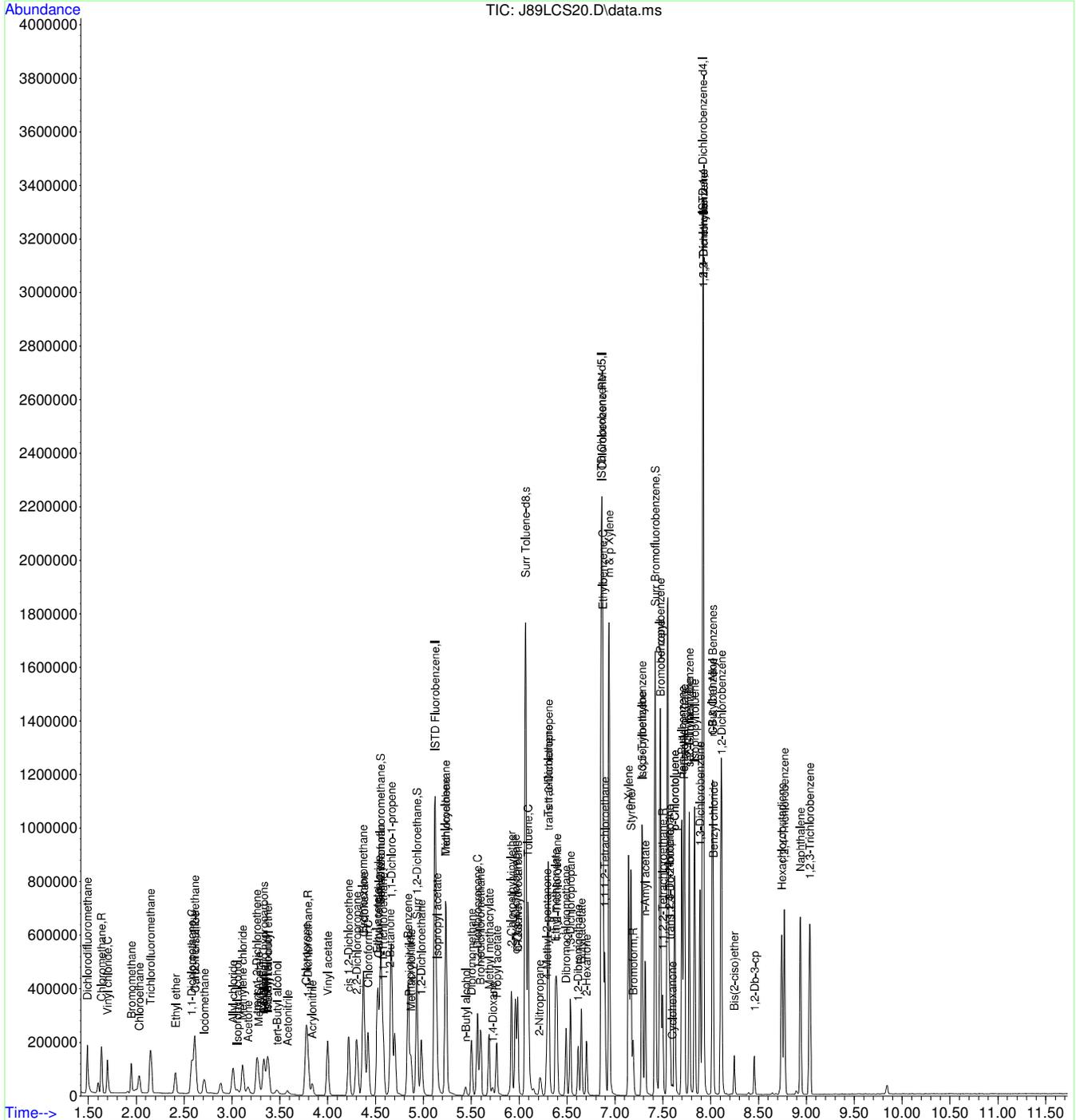
Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\
Data File : K15L0216.D
Acq On : 1 Apr 2013 3:22 am
Operator : AAP
Sample : 1303802-016A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Apr 01 11:45:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\
Data File : J89LCS20.D
Acq On : 31 Mar 2013 7:28 pm
Operator : AAP
Sample : LCS VOC 033113A
Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT SB
ALS Vial : 3 Sample Multiplier: 1

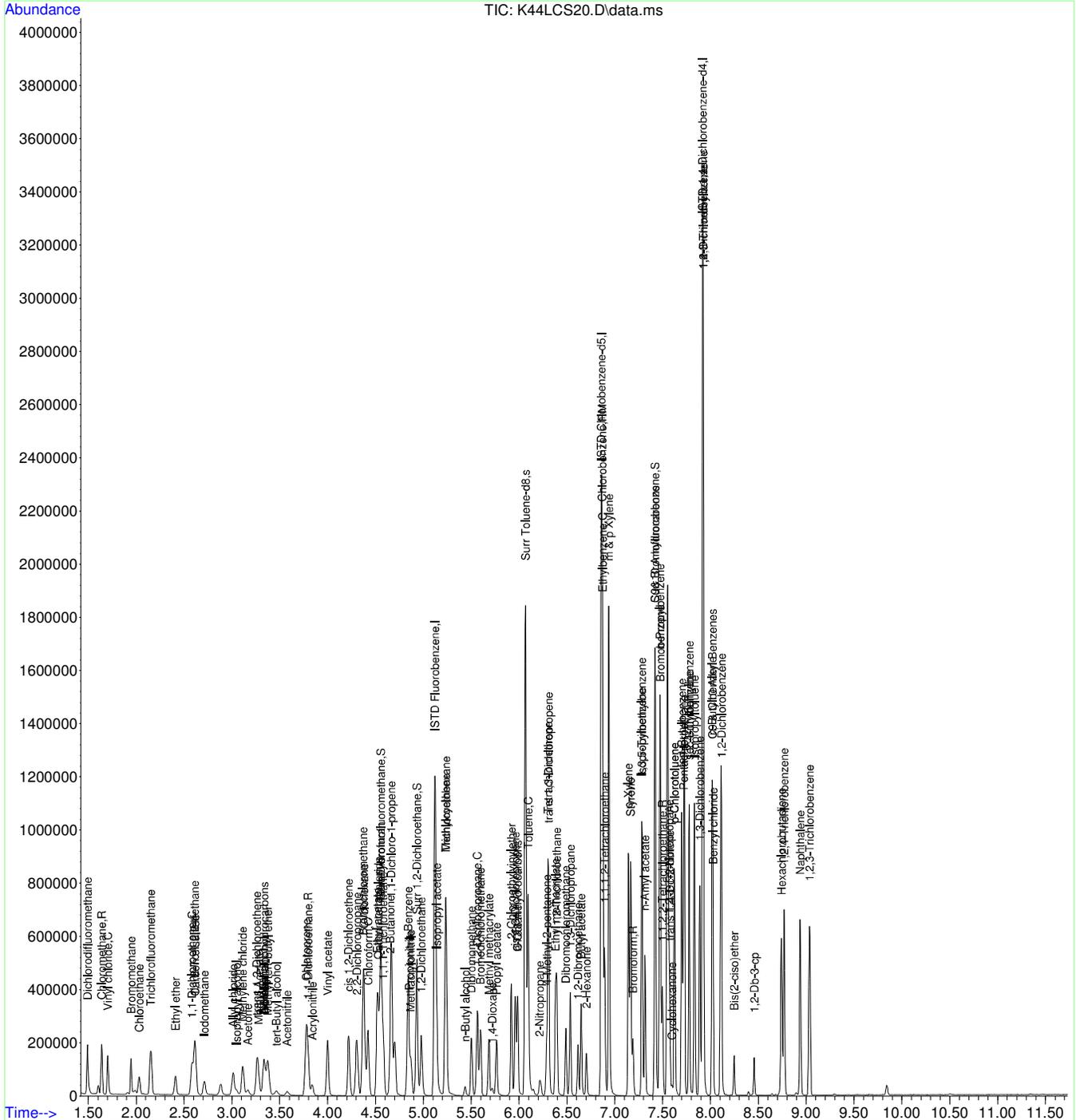
Quant Time: Mar 31 19:40:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
 Data File : K44LCS20.D
 Acq On : 1 Apr 2013 3:35 pm
 Operator : AAP
 Sample : LCS VOC 040113A
 Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT SB
 ALS Vial : 3 Sample Multiplier: 1

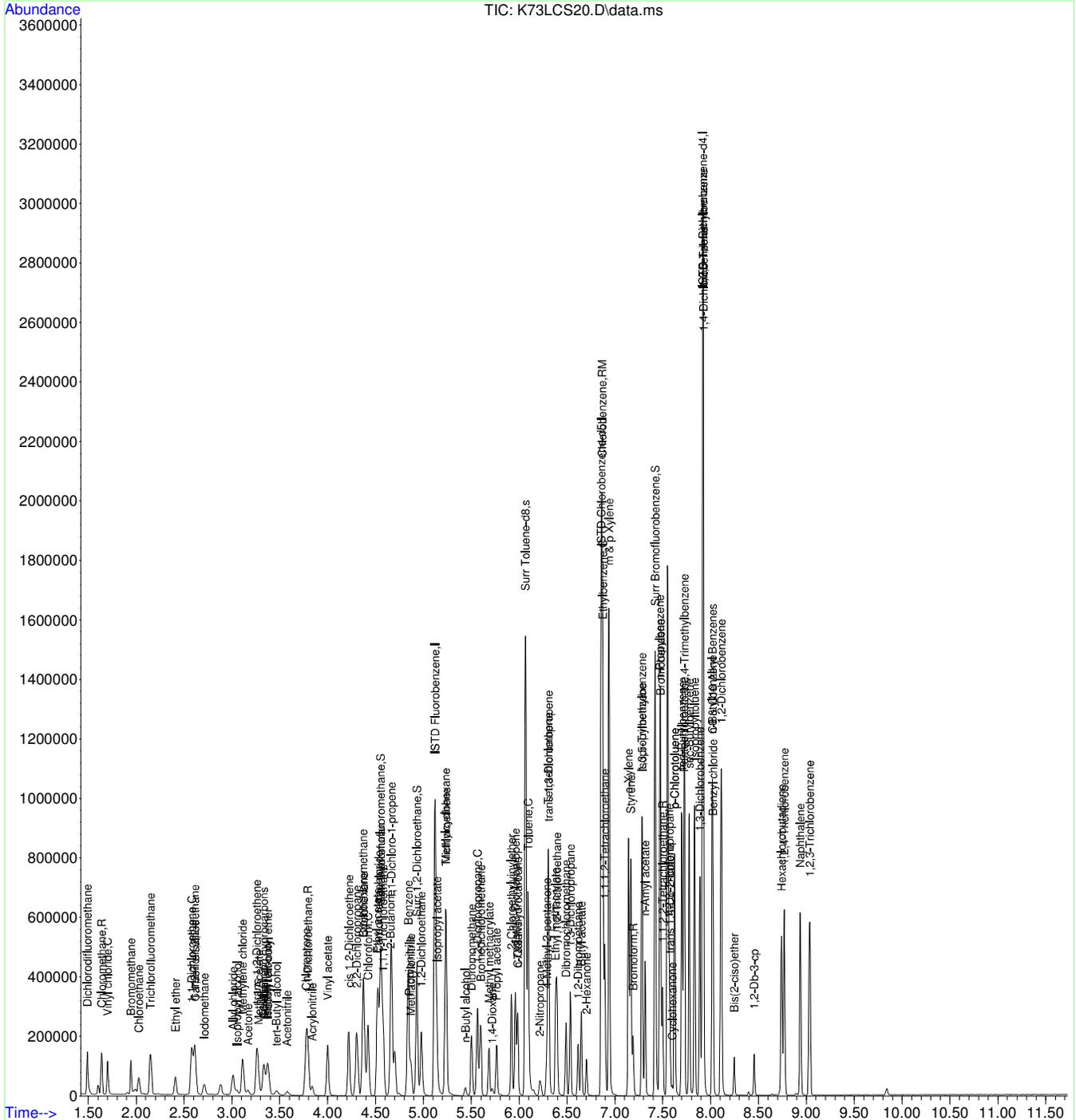
Quant Time: Apr 01 15:47:27 2013
 Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
 Quant Title : VOA Calibration
 QLast Update : Sat Mar 30 17:43:44 2013
 Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\02APR13\
Data File : K73LCS20.D
Acq On : 2 Apr 2013 7:27 am
Operator : AAP
Sample : LCS VOC 040213A
Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT JO
ALS Vial : 3 Sample Multiplier: 1

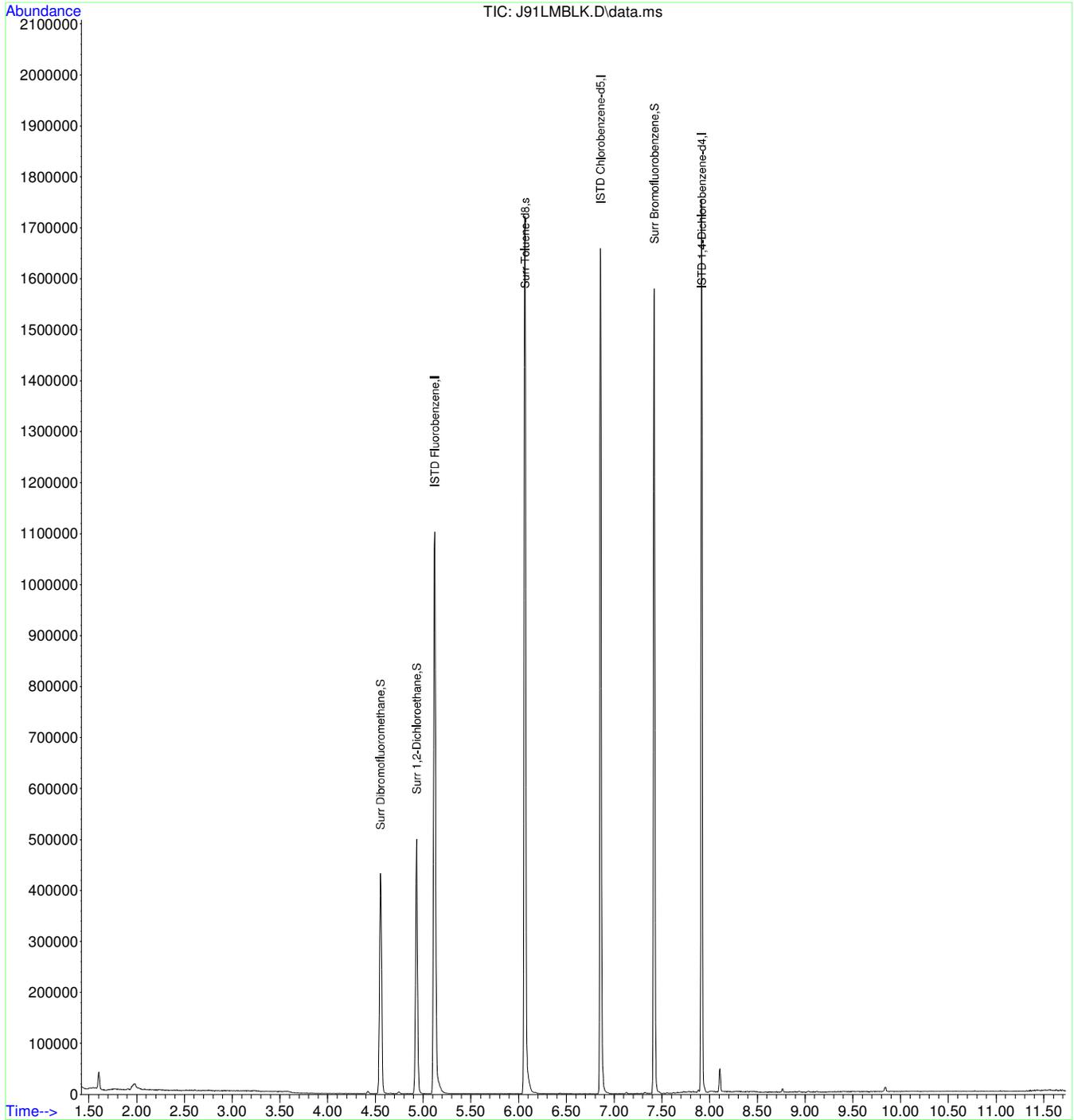
Quant Time: Apr 02 07:39:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\
Data File : J91LMBLK.D
Acq On : 31 Mar 2013 8:06 pm
Operator : AAP
Sample : MB VOC 033113A
Misc : MBLK 5.0ML SB
ALS Vial : 5 Sample Multiplier: 1

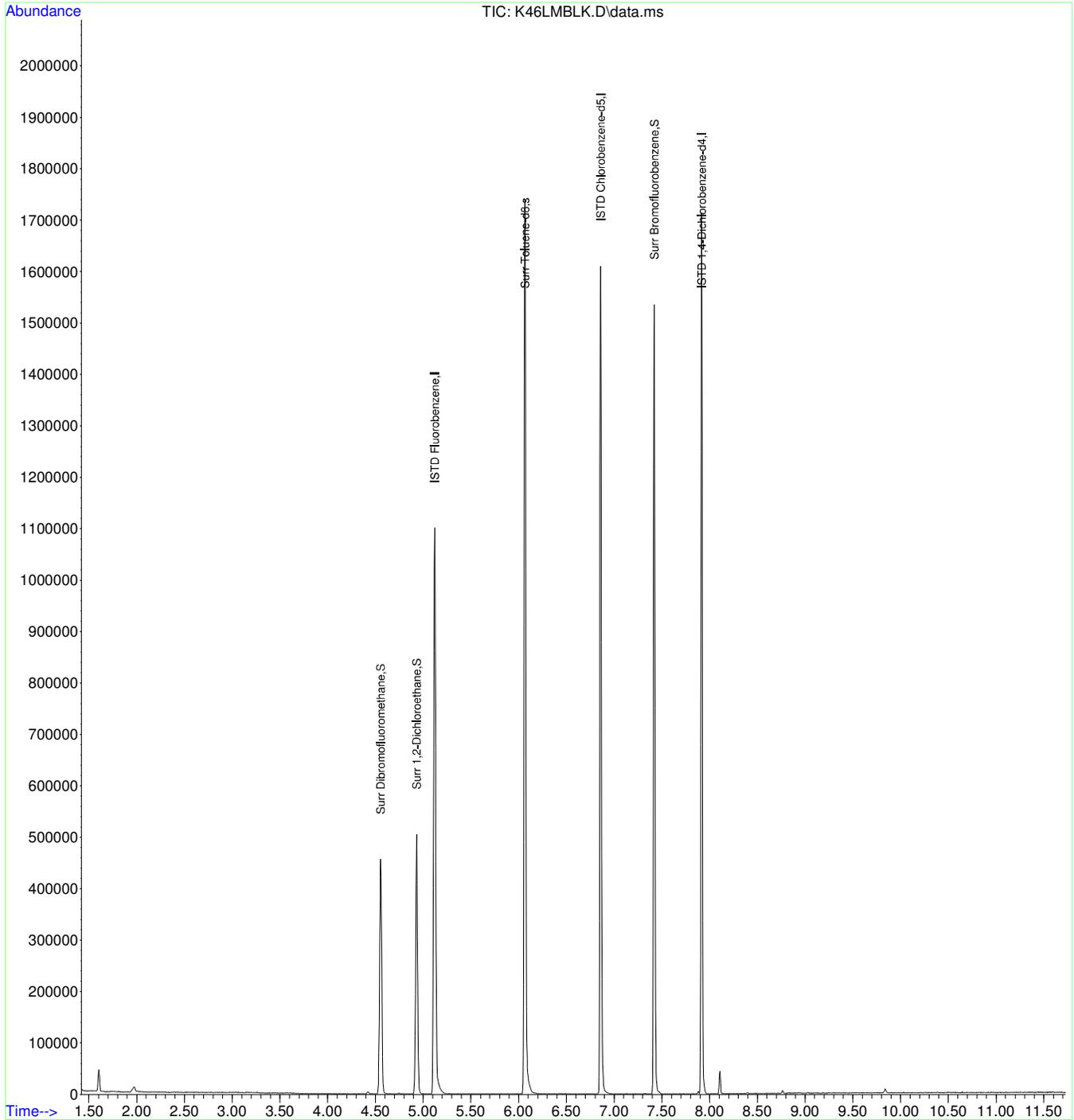
Quant Time: Apr 01 11:24:21 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K46LMBLK.D
Acq On : 1 Apr 2013 4:13 pm
Operator : AAP
Sample : MB VOC 040113A
Misc : MBLK 5.0ML SB
ALS Vial : 5 Sample Multiplier: 1

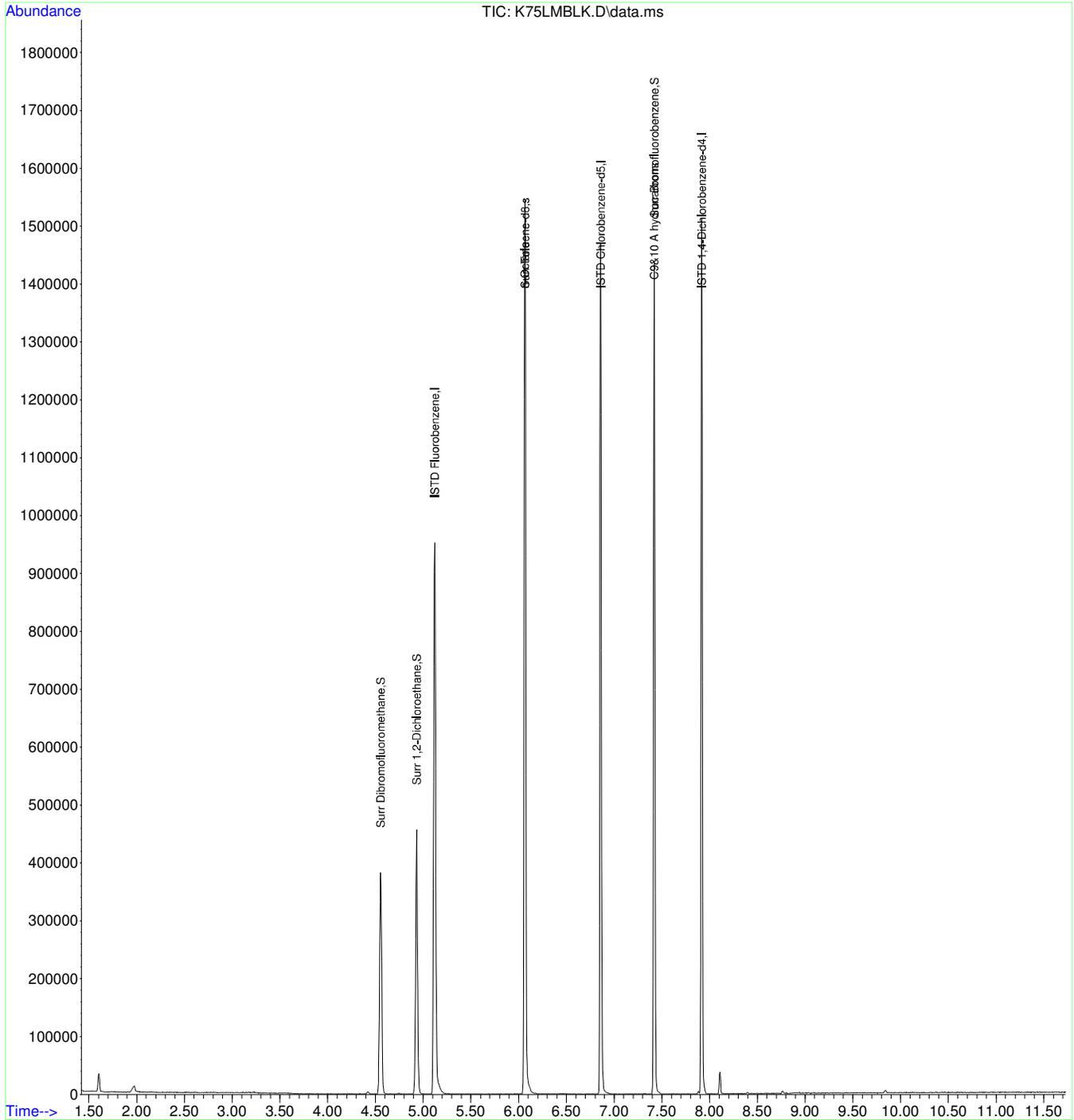
Quant Time: Apr 02 08:35:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

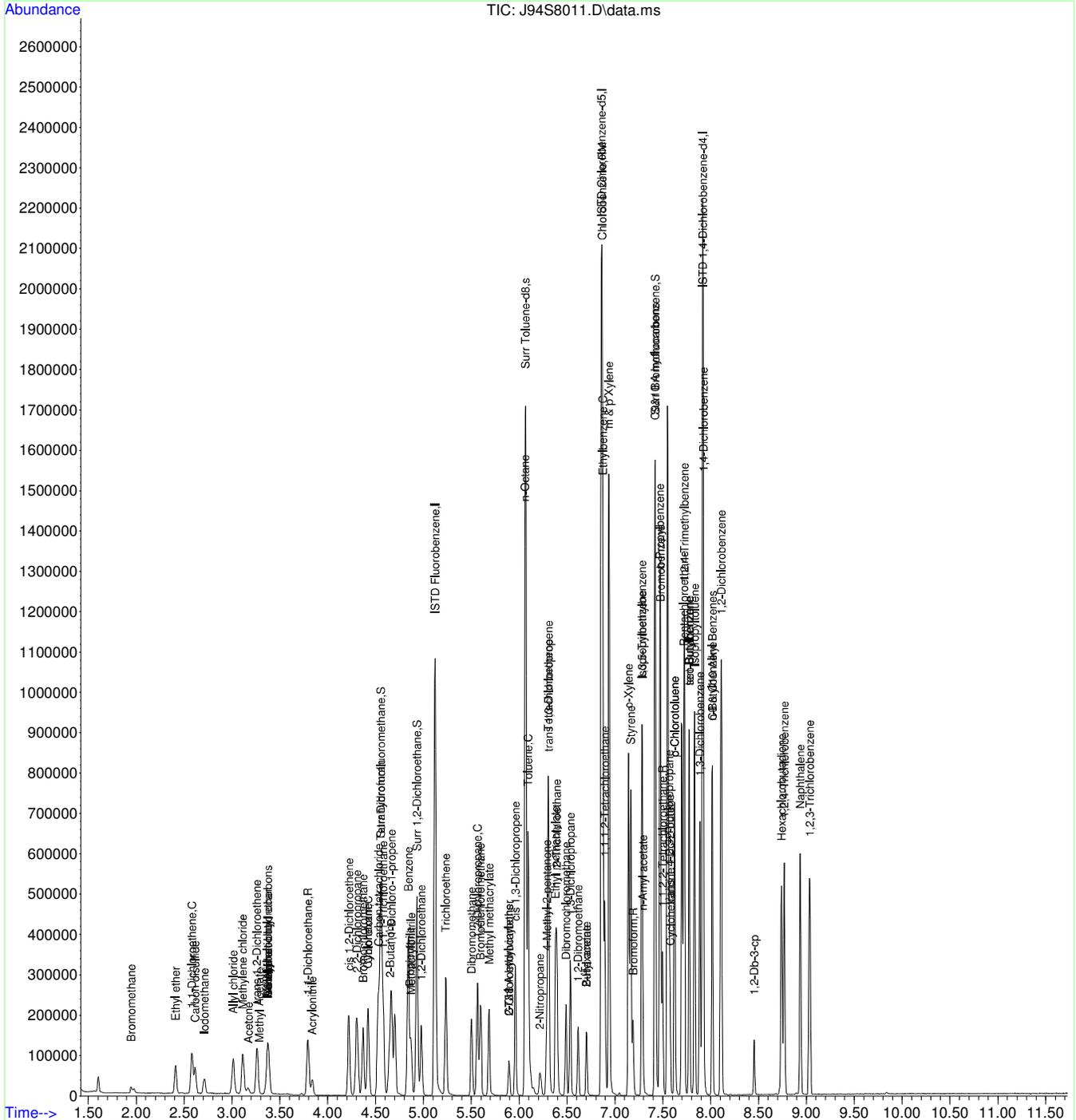
Data Path : C:\msdchem\1\data\APR13-D\02APR13\
Data File : K75LMBLK.D
Acq On : 2 Apr 2013 8:05 am
Operator : AAP
Sample : MB VOC 040213A
Misc : MBLK 5.0ML JO
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 02 08:17:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\
Data File : J94S8011.D
Acq On : 31 Mar 2013 9:03 pm
Operator : AAP
Sample : 1303801-001AMS
Misc : MS 5.0ML 2OF3 SB
ALS Vial : 8 Sample Multiplier: 1

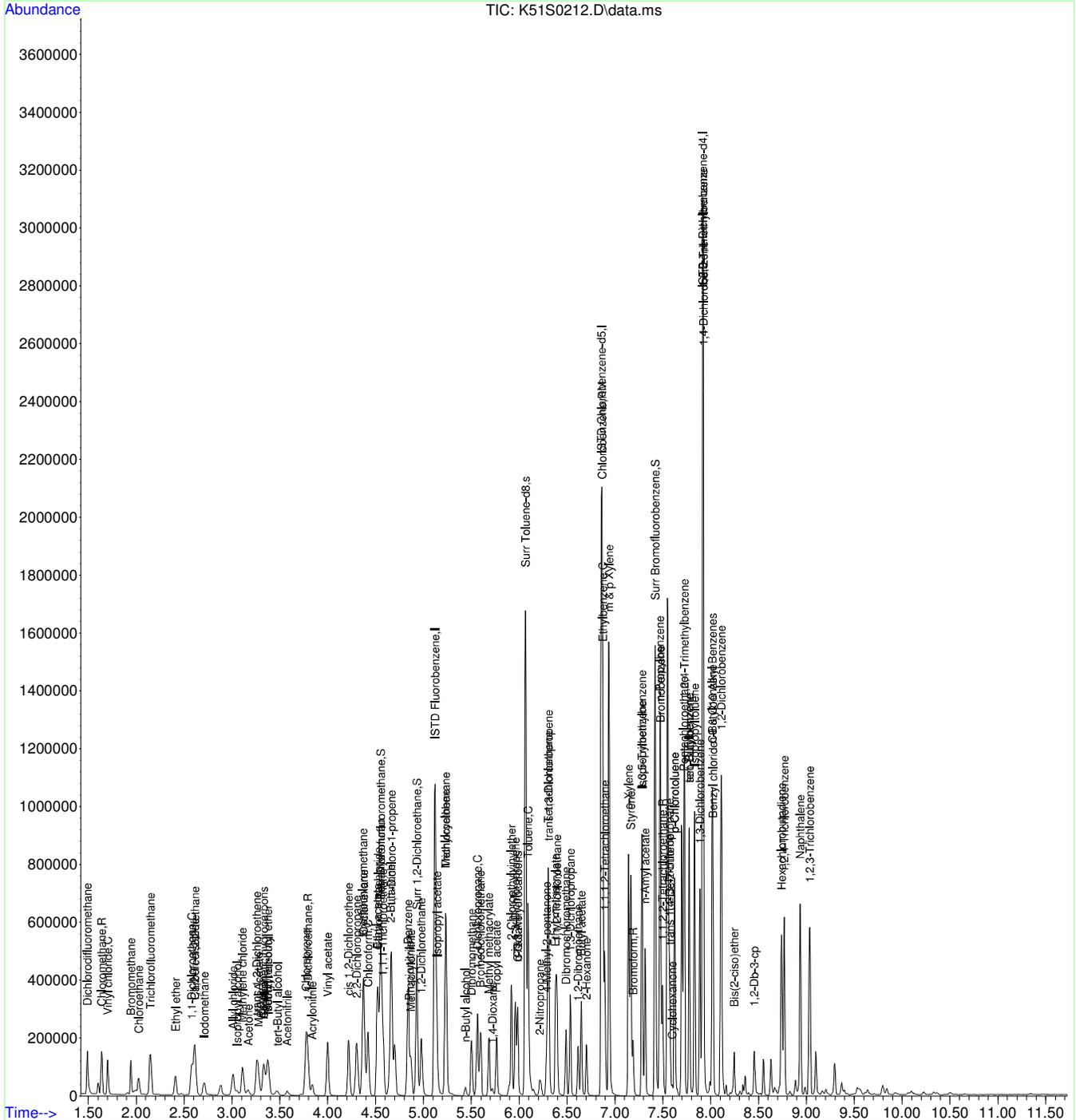
Quant Time: Mar 31 21:15:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K51S0212.D
Acq On : 1 Apr 2013 5:29 pm
Operator : AAP
Sample : 1303802-012AMS
Misc : MS 10ML/50ML 3OF3 SB
ALS Vial : 9 Sample Multiplier: 5

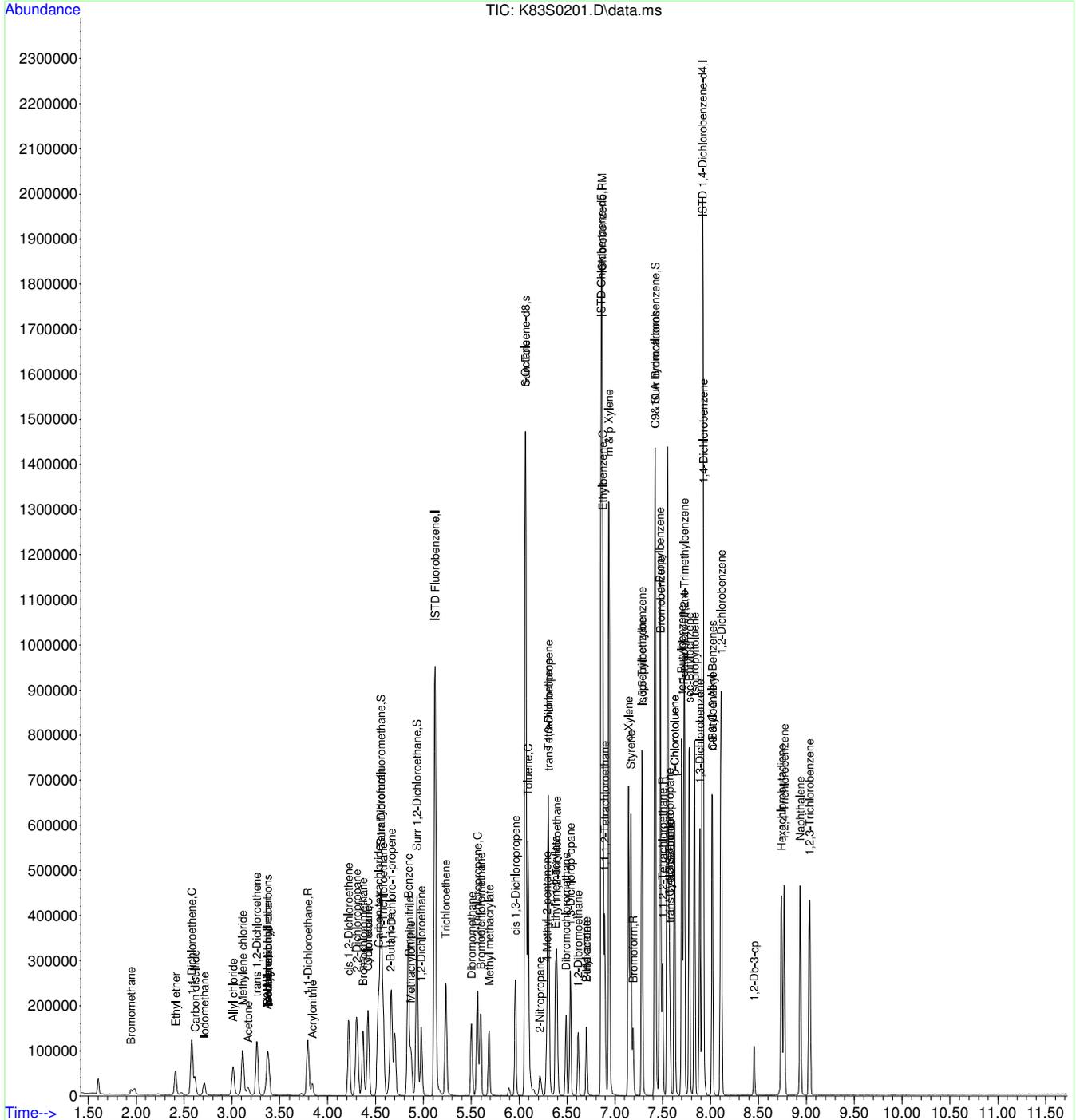
Quant Time: Apr 01 17:41:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\02APR13\
 Data File : K83S0201.D
 Acq On : 2 Apr 2013 10:37 am
 Operator : AAP
 Sample : 1304020-001AMS
 Misc : MS 5.0ML 10F3 SB
 ALS Vial : 13 Sample Multiplier: 1

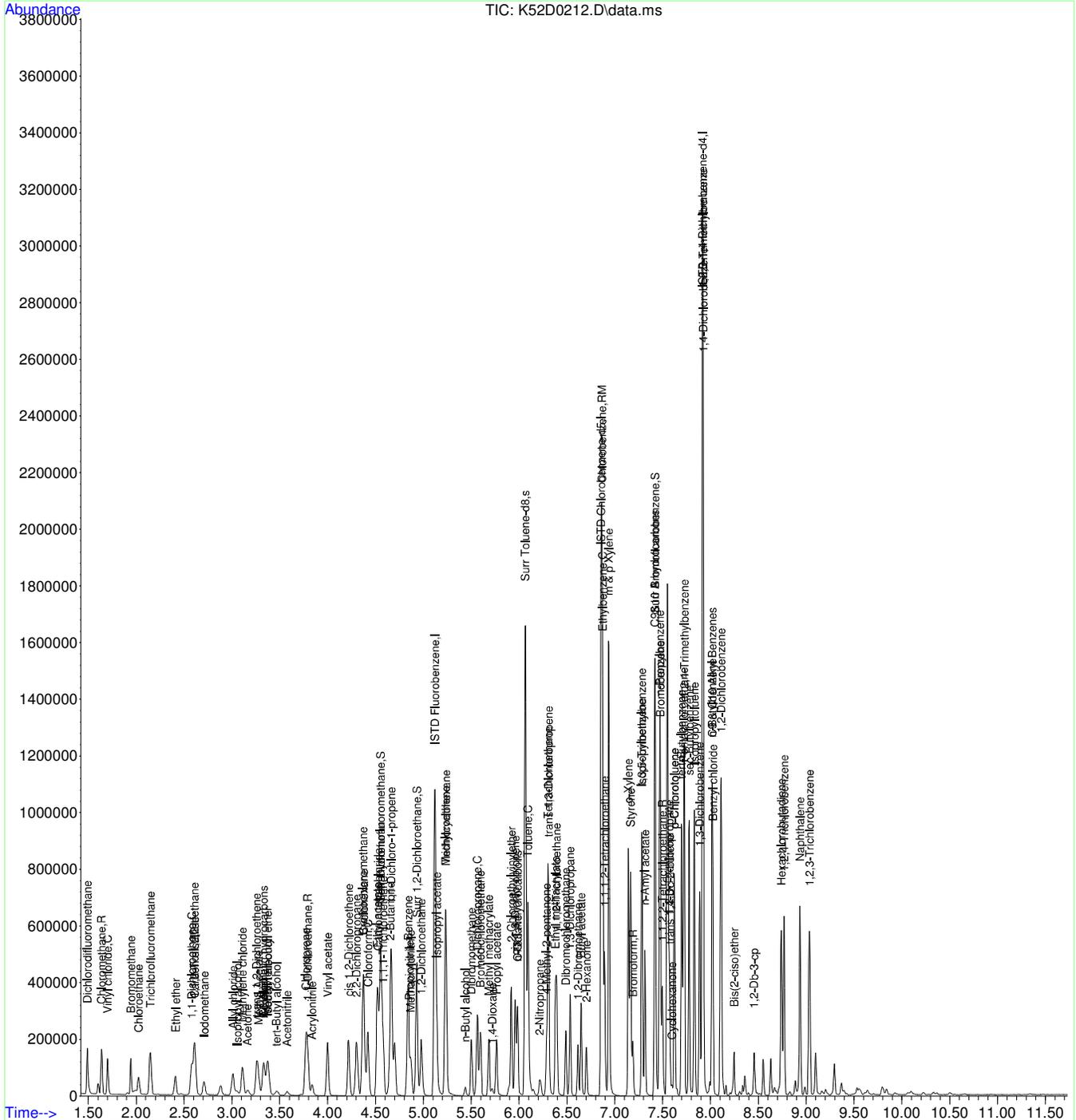
Quant Time: Apr 02 10:48:58 2013
 Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
 Quant Title : VOA Calibration
 QLast Update : Sat Mar 30 17:43:44 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\
Data File : K52D0212.D
Acq On : 1 Apr 2013 5:48 pm
Operator : AAP
Sample : 1303802-012AMSD
Misc : MSD 10ML/50ML 30F3 SB
ALS Vial : 10 Sample Multiplier: 5

Quant Time: Apr 01 18:00:09 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_17.M
Quant Title : VOA Calibration
QLast Update : Sat Mar 30 17:43:44 2013
Response via : Initial Calibration



WORK ORDER Summary

Work Order: **1303802** Page 1 of 4

Client: Utah Division of Water Quality

Due Date: 4/2/2013

Client ID: UTD200

Contact: Chris Bittner

Project: MP 44.9

QC Level: III

WO Type: Standard

Comments: Next Day Rush; QC 3. Include TICs on SVOC only. Send partial reports as results become available, bill accordingly.;



Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage		
1303802-001A	East of I-15 / 4920392	3/31/2013 0735h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3	
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>					
1303802-001B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2	
				8270-W		<input checked="" type="checkbox"/>	walkin - semi		
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>					
				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi		
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>					
1303802-001C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)		
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>					
1303802-002A				S. Marina / 4920495	3/31/2013 0745h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>
	<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303802-002B	3510-SVOA-PR		<input type="checkbox"/>				walkin - semi	2	
	8270-W		<input checked="" type="checkbox"/>				walkin - semi		
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>					
				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi		
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>					
1303802-002C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)		
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>					
1303802-003A				50' from 0397 / 4920508	3/31/2013 0830h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>
	<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303802-003B	3510-SVOA-PR		<input type="checkbox"/>				walkin - semi	2	
	8270-W		<input checked="" type="checkbox"/>				walkin - semi		
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>					
				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi		
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>					
1303802-003C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)		
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>					
1303802-004A				North Boom / 4920397	3/31/2013 0840h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>
	<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303802-004B	3510-SVOA-PR		<input type="checkbox"/>				walkin - semi	2	

WORK ORDER Summary

Work Order: **1303802** Page 2 of 4

Client: Utah Division of Water Quality

Due Date: 4/2/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1303802-004B	North Boom / 4920397	3/31/2013 0840h	3/31/2013 1114h	8270-W	Aqueous	<input checked="" type="checkbox"/>	walkin - semi	2		
<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi			
1303802-004C				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>						
				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)			
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)			
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>						
1303802-005A	W. Boom 5 / 4920499	3/31/2013 0850h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi			
1303802-005B				8270-W		<input checked="" type="checkbox"/>	walkin - semi	2		
<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi			
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)			
1303802-005C				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)			
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>										
				8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
1303802-006A	W. Boom 4 / 4920498	3/31/2013 0855h	3/31/2013 1114h	<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi			
1303802-006B				8270-W		<input checked="" type="checkbox"/>	walkin - semi	2		
<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi			
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)			
1303802-006C				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)			
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>										
				8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
1303802-007A	50' from WB 4 / 4920502	3/31/2013 0900h	3/31/2013 1114h	<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi			
1303802-007B				8270-W		<input checked="" type="checkbox"/>	walkin - semi	2		
<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi			
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)			
1303802-007C				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)			
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>										
				8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
1303802-008A	W. Boom 3 / 4920497	3/31/2013 0910h	3/31/2013 1114h	<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi			
1303802-008B				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>						
				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi			
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)			
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)			
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>										

WORK ORDER Summary

Work Order: **1303802** Page 3 of 4

Client: Utah Division of Water Quality

Due Date: 4/2/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1303802-008B	W. Boom 3 / 4920497	3/31/2013 0910h	3/31/2013 1114h	8270-W	Aqueous	<input checked="" type="checkbox"/>	walkin - semi	2		
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>						
1303802-008C				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi			
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>						
				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)			
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)			
				<i>Test Group: 8015-W-TPH(1L); # of Analytes: 1 / # of Surr: 1</i>						
1303802-009A	W. Boom 2 / 4920496	3/31/2013 0915h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
1303802-009B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2		
				8270-W		<input checked="" type="checkbox"/>	walkin - semi			
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>						
				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi			
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>						
1303802-009C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)			
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)			
				<i>Test Group: 8015-W-TPH(1L); # of Analytes: 1 / # of Surr: 1</i>						
1303802-010A	50' From 0396 / 4920505	3/31/2013 0920h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
1303802-010B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2		
				8270-W		<input checked="" type="checkbox"/>	walkin - semi			
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>						
				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi			
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>						
1303802-010C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)			
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)			
				<i>Test Group: 8015-W-TPH(1L); # of Analytes: 1 / # of Surr: 1</i>						
1303802-011A	W. Boom 1 / 4920396	3/31/2013 0930h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
1303802-011B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2		
				8270-W		<input checked="" type="checkbox"/>	walkin - semi			
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>						
				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi			
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>						
1303802-011C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)			
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)			
				<i>Test Group: 8015-W-TPH(1L); # of Analytes: 1 / # of Surr: 1</i>						
1303802-012A	East of Boom / 4920395	3/31/2013 0945h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
1303802-012B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2		

WORK ORDER Summary

Work Order: **1303802** Page 4 of 4

Client: Utah Division of Water Quality

Due Date: 4/2/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1303802-012B	East of Boom / 4920395	3/31/2013 0945h	3/31/2013 1114h	8270-W	Aqueous	<input checked="" type="checkbox"/>	walkin - semi	2
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>				
1303802-012C				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi	
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				
				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)	
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>								
1303802-013A	Between Weirs / 4920394	3/31/2013 0955h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303802-013B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2
				8270-W		<input checked="" type="checkbox"/>	walkin - semi	
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>				
1303802-013C				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi	
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				
				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)	
1303802-014A	Between Weirs Dup / 4920394	3/31/2013 0955h	3/31/2013 1114h	8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>				
				8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303802-014B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2
				8270-W		<input checked="" type="checkbox"/>	walkin - semi	
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>				
1303802-014C				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi	
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				
				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)	
1303802-015A	Field Blank	3/31/2013 0810h	3/31/2013 1114h	8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>				
				8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303802-016A	Trip Blank	3/31/2013 0800h	3/31/2013 1114h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								

American West Analytical Laboratories

Chain of Custody

Lab Sample Set # 1303802

Client: **Utah DEQ**
 Address: **195 North 1950 West**
Salt Lake City, UT 84114

Contact: **Chris Bittner**
 Phone: **801-536-3600**
 Fax:
 Email: cbittner@utah.gov

Page 1 of 1

Project Name: **MP 44.9**
 PO#:

QC Level: **3**
 Turn Around Time
1

Sample ID:	Date Sampled	Time	# of Containers	Sample Matrix	8260 VOAs	8270D PNA SIM TIC	8015D DRO	Comments
1 East of I-15 4920392	3/31/13	0733	7	W	x	x	x	
2 S. Marina 4920495	3/31/13	0745	7	W	x	x	x	
3 50' from 0397 4920508	"	0820	7	W	x	x	x	* AMBER BOTTLES READ: 50' FROM NORTH BOOM
4 North Boom 4920397	"	0840	7	W	x	x	x	
5 W. Boom 5 4920499	"	0858	7	W	x	x	x	
6 W. Boom 4 4920498	"	0855	7	W	x	x	x	
7 50' from WB4 4920502	3/31	0900	7	W	x	x	x	* VOA VIALS READ 4920498
8 W. Boom 3 4920497	3/31	0910	7	W	x	x	x	
9 W. Boom 2 4920496	"	0915	7	W	x	x	x	
10 50' from 0396 4920505	"	0920	7	W	x	x	x	* AMBER BOTTLES READ: 50' FROM WEST BOOM 1
11 W. Boom 1 4920396	"	0930	7	W	x	x	x	
12 East of Boom 4920395	"	0945	7	W	x	x	x	
13 B/t Weirs 4920394	"	0955	7	W	x	x	x	
14 B/t Weirs Dup 4920394	"	0955	7	W	x	x	x	
15 Field Blank	3/31/13	0910	3	W	x			
16 Trip Blank	"	0900	3	W	x			

Samples Were:

1. Shipped (hand delivered)

2. Ambient (Chilled)

3. Temperature 5.6

4. Received Broken/Leaking (Improperly Sealed)

5. Properly Preserved

6. Received Within

Shipping Times

COE Tape Was:

1. Present on Outer Package

2. Unbroken on Outer Package

3. Present on Sample

4. Unbroken on Sample

Discrepancies Between Labels and COC Record?

Special Instructions: * WHERE SAMPLE NAMES ON CHAIN DID NOT MATCH BOTTLES, SAMPLES WERE IDENTIFIED BY COLLECTION TIME - RW 3/31/13

Relinquished by: <u>Signature</u>	Date: <u>3/31/13</u>	Received by: <u>Signature</u>	Date: <u>3/31/13</u>
Print Name: <u>JAMES HARRIS</u>	Time: <u>1114</u>	Print Name: <u>Kyle F. Gross</u>	Time: <u>1114h</u>
Relinquished by: <u>Signature</u>	Date:	Received by: <u>Signature</u>	Date:
Print Name:	Time:	Print Name:	Time: