



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: 1304578

463 West 3600 South
Salt Lake City, UT 84115

American West Analytical Laboratories received 8 sample(s) on 4/22/2013 for the analyses presented in the following report.

Phone: (801) 263-8686
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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: 1304578

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: 4/22/2013
Date of Collection: 4/22/2013
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: 1304578

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Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 4/22/2013
Date of Collection: 4/22/2013
Sample Condition: Intact
C-O-C Discrepancies: See COC
Method: SW-846 8270D/3510C
Analysis: Semivolatile Organics

General Set Comments: No analytes were observed above their reporting limits. 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 (LCS): 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 1304551-002B, the RPD for Pentachlorophenol was outside of its control limit due to suspected sample non-homogeneity or matrix interference.

Corrective Action: None required.



Volatile Case Narrative

Client: Utah Division of Water Quality
Contact: Chris Bittner
Project: MP 44.9
Lab Set ID: 1304578

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 4/22/2013
Date of Collection: 4/22/2013
Sample Condition: Intact
C-O-C Discrepancies: See COC
Method: SW-846 8260C/5030C
Analysis: Volatile Organic Compounds

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

Holding Time and Preservation Requirements: All samples were received in appropriate containers and properly preserved. 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, with the following exceptions: On sample 1304578-001A, several RPDs were outside of their control limits due to suspected sample non-homogeneity or matrix interference.

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: 1304578-001C
Client Sample ID: East of I-15 / 4920392
Collection Date: 4/22/2013 0900h
Received Date: 4/22/2013 1145h

Analytical Results

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

Analyzed: 4/23/2013 0910h **Extracted:** 4/22/2013 1300h
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	0.513	< 0.513	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.211	0.4103	51.5	10-190	

web: www.awal-labs.com

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: 1304578-006C
Client Sample ID: Duplicate
Collection Date: 4/22/2013 1035h
Received Date: 4/22/2013 1145h

Analytical Results

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

Analyzed: 4/23/2013 1046h **Extracted:** 4/22/2013 1300h
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	0.764			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.148	0.4000	37.0	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: 1304578-008C
Client Sample ID: North Weir
Collection Date: 4/22/2013 1010h
Received Date: 4/22/2013 1145h

Analytical Results

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

Analyzed: 4/23/2013 1125h **Extracted:** 4/22/2013 1300h
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	0.841	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.157	0.4000	39.3	10-190	

web: www.awal-labs.com

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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: 1304578-001B

Client Sample ID: East of I-15 / 4920392

Collection Date: 4/22/2013 0900h

Received Date: 4/22/2013 1145h

Analytical Results

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

Analyzed: 4/23/2013 1259h

Extracted: 4/22/2013 1300h

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	0.103	< 0.103	
2-Methylnaphthalene	91-57-6	0.103	< 0.103	
Acenaphthene	83-32-9	0.103	< 0.103	
Acenaphthylene	208-96-8	0.103	< 0.103	
Anthracene	120-12-7	0.103	< 0.103	
Benz(a)anthracene	56-55-3	0.103	< 0.103	
Benzo(a)pyrene	50-32-8	0.103	< 0.103	
Benzo(b)fluoranthene	205-99-2	0.103	< 0.103	
Benzo(g,h,i)perylene	191-24-2	0.103	< 0.103	
Benzo(k)fluoranthene	207-08-9	0.103	< 0.103	
Chrysene	218-01-9	0.103	< 0.103	
Dibenz(a,h)anthracene	53-70-3	0.103	< 0.103	
Fluoranthene	206-44-0	0.103	< 0.103	
Fluorene	86-73-7	0.103	< 0.103	
Indene	95-13-6	0.103	< 0.103	
Indeno(1,2,3-cd)pyrene	193-39-5	0.103	< 0.103	
Naphthalene	91-20-3	0.103	< 0.103	
Phenanthrene	85-01-8	0.103	< 0.103	
Pyrene	129-00-0	0.103	< 0.103	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304578-002B
Client Sample ID: S. Marina / 4920495
Collection Date: 4/22/2013 0930h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/23/2013 1325h **Extracted:** 4/22/2013 1300h
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: 1304578-005B
Client Sample ID: East of Boom #3 / 4920402
Collection Date: 4/22/2013 1020h
Received Date: 4/22/2013 1145h

Analytical Results

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

Analyzed: 4/23/2013 1352h **Extracted:** 4/22/2013 1300h
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: 1304578-006B
Client Sample ID: Duplicate
Collection Date: 4/22/2013 1035h
Received Date: 4/22/2013 1145h

Analytical Results

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

Analyzed: 4/23/2013 1418h **Extracted:** 4/22/2013 1300h
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: 1304578-007B
Client Sample ID: East of Boom / 4920395
Collection Date: 4/22/2013 1030h
Received Date: 4/22/2013 1145h

Analytical Results

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

Analyzed: 4/23/2013 1444h **Extracted:** 4/22/2013 1300h
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
Project: MP 44.9
Lab Sample ID: 1304578-008B
Client Sample ID: North Weir
Collection Date: 4/22/2013 1010h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/23/2013 1510h **Extracted:** 4/22/2013 1300h
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: 1304578-001B
Client Sample ID: East of I-15 / 4920392
Collection Date: 4/22/2013 0900h
Received Date: 4/22/2013 1145h

Analytical Results

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

Analyzed: 4/23/2013 2319h **Extracted:** 4/22/2013 1300h
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	10.3	< 10.3	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.3	< 10.3	
1,2,4-Trichlorobenzene	120-82-1	10.3	< 10.3	
1,2-Dichlorobenzene	95-50-1	10.3	< 10.3	
1,3,5-Trinitrobenzene	99-35-4	10.3	< 10.3	
1,3-Dichlorobenzene	541-73-1	10.3	< 10.3	
1,3-Dinitrobenzene	99-65-0	10.3	< 10.3	
1,4-Dichlorobenzene	106-46-7	10.3	< 10.3	
1,4-Dinitrobenzene	100-25-4	10.3	< 10.3	
1,4-Naphthoquinone	130-15-4	10.3	< 10.3	
1,4-Phenylenediamine	106-50-3	10.3	< 10.3	
1-Chloronaphthalene	90-13-1	10.3	< 10.3	
1-Methylnaphthalene	90-12-0	10.3	< 10.3	
1-Naphthylamine	134-32-7	10.3	< 10.3	
2,3,4,6-Tetrachlorophenol	58-90-2	10.3	< 10.3	
2,4,5-Trichlorophenol	95-95-4	10.3	< 10.3	
2,4,6-Trichlorophenol	88-06-2	10.3	< 10.3	
2,4-Dichlorophenol	120-83-2	10.3	< 10.3	
2,4-Dimethylphenol	105-67-9	10.3	< 10.3	
2,4-Dinitrophenol	51-28-5	10.3	< 10.3	
2,4-Dinitrotoluene	121-14-2	10.3	< 10.3	
2,6-Dichlorophenol	87-65-0	10.3	< 10.3	
2,6-Dinitrotoluene	606-20-2	10.3	< 10.3	
2-Acetylaminofluorene	53-96-3	10.3	< 10.3	
2-Chloronaphthalene	91-58-7	10.3	< 10.3	
2-Chlorophenol	95-57-8	10.3	< 10.3	
2-Methylnaphthalene	91-57-6	10.3	< 10.3	
2-Methylphenol	95-48-7	10.3	< 10.3	
2-Naphthylamine	91-59-8	10.3	< 10.3	
2-Nitroaniline	88-74-4	10.3	< 10.3	



Lab Sample ID: 1304578-001B
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/23/2013 2319h **Extracted:** 4/22/2013 1300h
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	10.3	< 10.3	
2-Picoline	109-06-8	10.3	< 10.3	
3&4-Methylphenol		10.3	< 10.3	
3,3'-Dichlorobenzidine	91-94-1	10.3	< 10.3	
3,3'-Dimethylbenzidine	119-93-7	10.3	< 10.3	
3-Methylcholanthrene	56-49-5	10.3	< 10.3	
3-Nitroaniline	99-09-2	10.3	< 10.3	
4,6-Dinitro-2-methylphenol	534-52-1	10.3	< 10.3	
4-Aminobiphenyl	92-67-1	10.3	< 10.3	
4-Bromophenyl phenyl ether	101-55-3	10.3	< 10.3	
4-Chloro-3-methylphenol	59-50-7	10.3	< 10.3	
4-Chloroaniline	106-47-8	10.3	< 10.3	
4-Chlorophenyl phenyl ether	7005-72-3	10.3	< 10.3	
4-Nitroaniline	100-01-6	10.3	< 10.3	
4-Nitrophenol	100-02-7	10.3	< 10.3	
5-Nitro-o-toluidine	99-55-8	10.3	< 10.3	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.3	< 10.3	
a,a-Dimethylphenethylamine	122-09-8	10.3	< 10.3	
Acenaphthene	83-32-9	10.3	< 10.3	
Acenaphthylene	208-96-8	10.3	< 10.3	
Acetophenone	98-86-2	10.3	< 10.3	
alpha-Terpineol	98-55-5	10.3	< 10.3	
Aniline	62-53-3	10.3	< 10.3	
Anthracene	120-12-7	10.3	< 10.3	
Aramite	140-57-8	10.3	< 10.3	
Atrazine	1912-24-9	10.3	< 10.3	
Azobenzene	103-33-3	10.3	< 10.3	
Benz(a)anthracene	56-55-3	10.3	< 10.3	
Benzaldehyde	100-52-7	10.3	< 10.3	
Benzidine	92-87-5	10.3	< 10.3	
Benzo(a)pyrene	50-32-8	10.3	< 10.3	
Benzo(b)fluoranthene	205-99-2	10.3	< 10.3	
Benzo(g,h,i)perylene	191-24-2	10.3	< 10.3	
Benzo(k)fluoranthene	207-08-9	10.3	< 10.3	
Benzoic acid	65-85-0	20.5	< 20.5	
Benzyl alcohol	100-51-6	10.3	< 10.3	
Bis(2-chloroethoxy)methane	111-91-1	10.3	< 10.3	



Lab Sample ID: 1304578-001B
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/23/2013 2319h **Extracted:** 4/22/2013 1300h
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	10.3	< 10.3	
Bis(2-chloroisopropyl) ether	108-60-1	10.3	< 10.3	
Bis(2-ethylhexyl) phthalate	117-81-7	10.3	< 10.3	
bis(2-ethylhexyl)adipate	103-23-1	10.3	< 10.3	
Butyl benzyl phthalate	85-68-7	10.3	< 10.3	
Caprolactam	105-60-2	10.3	< 10.3	
Carbazole	86-74-8	10.3	< 10.3	
Chlorobenzilate	510-15-6	10.3	< 10.3	
Chrysene	218-01-9	10.3	< 10.3	
Di-n-butyl phthalate	84-74-2	10.3	< 10.3	
Di-n-octyl phthalate	117-84-0	10.3	< 10.3	
Diallate (cis or trans)	2303-16-4	10.3	< 10.3	
Dibenz(a,h)anthracene	53-70-3	10.3	< 10.3	
Dibenzofuran	132-64-9	10.3	< 10.3	
Diethyl phthalate	84-66-2	10.3	< 10.3	
Dimethoate	60-51-5	10.3	< 10.3	
Dimethyl phthalate	131-11-3	10.3	< 10.3	
Dimethylaminoazobenzene	60-11-7	10.3	< 10.3	
Dinoseb	88-85-7	10.3	< 10.3	
Diphenylamine	122-39-4	10.3	< 10.3	
Disulfoton	298-04-4	10.3	< 10.3	
Ethyl methanesulfonate	62-50-0	10.3	< 10.3	
Famphur	52-85-7	10.3	< 10.3	
Fluoranthene	206-44-0	10.3	< 10.3	
Fluorene	86-73-7	10.3	< 10.3	
Hexachlorobenzene	118-74-1	10.3	< 10.3	
Hexachlorobutadiene	87-68-3	10.3	< 10.3	
Hexachlorocyclopentadiene	77-47-4	10.3	< 10.3	
Hexachloroethane	67-72-1	10.3	< 10.3	
Hexachlorophene	70-30-4	10.3	< 10.3	
Hexachloropropene	1888-71-7	10.3	< 10.3	
Indene	95-13-6	10.3	< 10.3	
Indeno(1,2,3-cd)pyrene	193-39-5	10.3	< 10.3	
Isodrin	465-73-6	10.3	< 10.3	
Isophorone	78-59-1	10.3	< 10.3	
Isosafrole	120-58-1	10.3	< 10.3	
Kepone	143-50-0	10.3	< 10.3	



Lab Sample ID: 1304578-001B
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/23/2013 2319h **Extracted:** 4/22/2013 1300h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.3	< 10.3	
Methyl methanesulfonate	66-27-3	10.3	< 10.3	
n-Decane	124-18-5	10.3	< 10.3	
N-Nitrosodi-n-butylamine	924-16-3	10.3	< 10.3	
N-Nitrosodiethylamine	55-18-5	10.3	< 10.3	
N-Nitrosodimethylamine	62-75-9	10.3	< 10.3	
N-Nitrosodiphenylamine	86-30-6	10.3	< 10.3	
N-Nitrosodi-n-propylamine	621-64-7	10.3	< 10.3	
N-Nitrosomethylethylamine	10595-95-6	10.3	< 10.3	
N-Nitrosomorpholine	59-89-2	10.3	< 10.3	
N-Nitrosopiperidine	100-75-4	10.3	< 10.3	
N-Nitrosopyrrolidine	930-55-2	10.3	< 10.3	
n-Octadecane	593-45-3	10.3	< 10.3	
Naphthalene	91-20-3	10.3	< 10.3	
Nitrobenzene	98-95-3	10.3	< 10.3	
Nitroquinoline-1-oxide	56-57-5	10.3	< 10.3	
O,O,O-Triethyl phosphorothioate	126-68-1	10.3	< 10.3	
o-Toluidine	95-53-4	10.3	< 10.3	
Parathion	56-38-2	10.3	< 10.3	
Methyl parathion	298-00-0	10.3	< 10.3	
Pentachlorobenzene	608-93-5	10.3	< 10.3	
Pentachloronitrobenzene	82-68-8	10.3	< 10.3	
Pentachlorophenol	87-86-5	10.3	< 10.3	
Phenacetin	62-44-2	10.3	< 10.3	
Phenanthrene	85-01-8	10.3	< 10.3	
Phenol	108-95-2	10.3	< 10.3	
Phorate	298-02-2	10.3	< 10.3	
Pronamide	23950-58-5	10.3	< 10.3	
Pyrene	129-00-0	10.3	< 10.3	
Pyridine	110-86-1	10.3	< 10.3	
Quinoline	91-22-5	10.3	< 10.3	
Safrole	94-59-7	10.3	< 10.3	
Tetraethyl dithiopyrophosphate	3689-24-5	10.3	< 10.3	
Thionazin	297-97-2	10.3	< 10.3	



Lab Sample ID: 1304578-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 4/23/2013 2319h

Extracted: 4/22/2013 1300h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	62.2	82.05	75.8	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	19.5	41.03	47.5	10-124	
Surr: 2-Fluorophenol	367-12-4	18.7	82.05	22.8	10-106	
Surr: Nitrobenzene-d5	4165-60-0	17.7	41.03	43.1	10-180	
Surr: Phenol-d6	13127-88-3	14.5	82.05	17.7	10-122	
Surr: Terphenyl-d14	1718-51-0	43.3	41.03	106	10-221	

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

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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: 1304578-002B
Client Sample ID: S. Marina / 4920495
Collection Date: 4/22/2013 0930h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/23/2013 2343h **Extracted:** 4/22/2013 1300h
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: 1304578-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/23/2013 2343h **Extracted:** 4/22/2013 1300h
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: 1304578-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/23/2013 2343h **Extracted:** 4/22/2013 1300h
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: 1304578-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/23/2013 2343h **Extracted:** 4/22/2013 1300h
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: 1304578-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/23/2013 2343h **Extracted:** 4/22/2013 1300h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	83.8	80.00	105	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	18.8	40.00	47.0	10-124	
Surr: 2-Fluorophenol	367-12-4	27.1	80.00	33.9	10-106	
Surr: Nitrobenzene-d5	4165-60-0	16.3	40.00	40.8	10-180	
Surr: Phenol-d6	13127-88-3	21.4	80.00	26.7	10-122	
Surr: Terphenyl-d14	1718-51-0	40.1	40.00	100	10-221	

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

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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: 1304578-005B
Client Sample ID: East of Boom #3 / 4920402
Collection Date: 4/22/2013 1020h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/24/2013 0007h **Extracted:** 4/22/2013 1300h
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: 1304578-005B
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/24/2013 0007h **Extracted:** 4/22/2013 1300h
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: 1304578-005B
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/24/2013 0007h **Extracted:** 4/22/2013 1300h
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: 1304578-005B
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/24/2013 0007h **Extracted:** 4/22/2013 1300h
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	



Lab Sample ID: 1304578-005B
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/24/2013 0007h **Extracted:** 4/22/2013 1300h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	81.2	80.00	102	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	21.8	40.00	54.5	10-124	
Surr: 2-Fluorophenol	367-12-4	31.0	80.00	38.8	10-106	
Surr: Nitrobenzene-d5	4165-60-0	20.4	40.00	51.1	10-180	
Surr: Phenol-d6	13127-88-3	24.2	80.00	30.3	10-122	
Surr: Terphenyl-d14	1718-51-0	38.7	40.00	96.7	10-221	

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

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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: 1304578-006B
Client Sample ID: Duplicate
Collection Date: 4/22/2013 1035h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/24/2013 0030h

Extracted: 4/22/2013 1300h

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: 1304578-006B

Client Sample ID: Duplicate

Analyzed: 4/24/2013 0030h

Extracted: 4/22/2013 1300h

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: 1304578-006B

Client Sample ID: Duplicate

Analyzed: 4/24/2013 0030h

Extracted: 4/22/2013 1300h

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: 1304578-006B

Client Sample ID: Duplicate

Analyzed: 4/24/2013 0030h

Extracted: 4/22/2013 1300h

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: 1(2H)-Naphthalenone, 3,4-dihydro...	014944-23-1		6.86	JN
TIC: 1(2H)-Naphthalenone, 5-ethyl-3,4...	051015-31-7		4.96	JN
TIC: 2H-1-Benzopyran-2-one, 6-methyl-	000092-48-8		5.72	JN



Lab Sample ID: 1304578-006B

Client Sample ID: Duplicate

Analyzed: 4/24/2013 0030h

Extracted: 4/22/2013 1300h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 4-isopropyl-1,6-dimethyl-1,2,3,4...	1000378-99-6		6.75	JN
TIC: 5,8-Dimethyl-1,2,3,4-tetrahydro...	032820-12-5		5.70	JN
TIC: 7-Ethyl-3,4-dihydro-1(2H)-naphth...	022531-06-2		4.54	JN
TIC: Benzene, 1-(1,1-dimethylethyl)-3...	006630-01-9		7.49	JN
TIC: Benzene, 2-(2-butenyl)-1,3,5-tri...	063435-25-6		6.68	JN
TIC: n-Hexadecanoic acid	000057-10-3		4.45	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	67.6	80.00	84.5	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	17.6	40.00	43.9	10-124	
Surr: 2-Fluorophenol	367-12-4	24.9	80.00	31.1	10-106	
Surr: Nitrobenzene-d5	4165-60-0	18.2	40.00	45.5	10-180	
Surr: Phenol-d6	13127-88-3	20.2	80.00	25.3	10-122	
Surr: Terphenyl-d14	1718-51-0	37.0	40.00	92.5	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: 1304578-007B
Client Sample ID: East of Boom / 4920395
Collection Date: 4/22/2013 1030h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/24/2013 0055h **Extracted:** 4/22/2013 1300h
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: 1304578-007B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/24/2013 0055h

Extracted: 4/22/2013 1300h

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: 1304578-007B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/24/2013 0055h

Extracted: 4/22/2013 1300h

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: 1304578-007B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/24/2013 0055h

Extracted: 4/22/2013 1300h

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	



Lab Sample ID: 1304578-007B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/24/2013 0055h

Extracted: 4/22/2013 1300h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	87.5	80.00	109	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	23.3	40.00	58.2	10-124	
Surr: 2-Fluorophenol	367-12-4	32.7	80.00	40.8	10-106	
Surr: Nitrobenzene-d5	4165-60-0	22.1	40.00	55.3	10-180	
Surr: Phenol-d6	13127-88-3	25.6	80.00	32.0	10-122	
Surr: Terphenyl-d14	1718-51-0	38.6	40.00	96.5	10-221	

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

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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: 1304578-008B
Client Sample ID: North Weir
Collection Date: 4/22/2013 1010h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/24/2013 0120h

Extracted: 4/22/2013 1300h

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: 1304578-008B

Client Sample ID: North Weir

Analyzed: 4/24/2013 0120h

Extracted: 4/22/2013 1300h

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: 1304578-008B

Client Sample ID: North Weir

Analyzed: 4/24/2013 0120h

Extracted: 4/22/2013 1300h

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: 1304578-008B

Client Sample ID: North Weir

Analyzed: 4/24/2013 0120h

Extracted: 4/22/2013 1300h

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-dihydr	032281-65-5		5.95	JN
TIC: 1(2H)-Naphthalenone, 3,4-dihydro...	014944-23-1		7.20	JN
TIC: 1(2H)-Naphthalenone, 5-ethyl-3,4...	051015-31-7		5.44	JN



Lab Sample ID: 1304578-008B

Client Sample ID: North Weir

Analyzed: 4/24/2013 0120h **Extracted:** 4/22/2013 1300h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 2-Methyl-1(2H)-phthalazinone	006091-81-2		6.28	JN
TIC: 5,8-Dimethyl-1,2,3,4-tetrahydro-...	032820-12-5		5.17	JN
TIC: Benzene, 1-(1,1-dimethylethyl)-3...	006630-01-9		7.15	JN
TIC: Benzene, 1,3-diisocyanato-2-methyl-	000091-08-7		5.94	JN
TIC: Naphthalene, 1,2,3,4-tetrahydro-...	021693-55-0		7.94	JN
TIC: Naphthalene, 1,2-dihydro-2,5,8-t...	030316-23-5		13.6	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	78.3	80.00	97.9	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	17.7	40.00	44.2	10-124	
Surr: 2-Fluorophenol	367-12-4	27.1	80.00	33.9	10-106	
Surr: Nitrobenzene-d5	4165-60-0	18.7	40.00	46.7	10-180	
Surr: Phenol-d6	13127-88-3	23.1	80.00	28.8	10-122	
Surr: Terphenyl-d14	1718-51-0	41.2	40.00	103	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: 1304578-001A
Client Sample ID: East of I-15 / 4920392
Collection Date: 4/22/2013 0900h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/22/2013 1658h

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: 1304578-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/22/2013 1658h

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: 1304578-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/22/2013 1658h

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: 1304578-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/22/2013 1658h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.8	50.00	112	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	54.7	50.00	109	80-128	
Surr: Dibromofluoromethane	1868-53-7	52.7	50.00	105	80-124	
Surr: Toluene-d8	2037-26-5	49.6	50.00	99.3	77-129	

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

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QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304578-002A
Client Sample ID: S. Marina / 4920495
Collection Date: 4/22/2013 0930h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/22/2013 1814h

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: 1304578-002A
Client Sample ID: S. Marina / 4920495

Analyzed: 4/22/2013 1814h

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: 1304578-002A
Client Sample ID: S. Marina / 4920495

Analyzed: 4/22/2013 1814h

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: 1304578-002A

Client Sample ID: S. Marina / 4920495

Analyzed: 4/22/2013 1814h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	54.8	50.00	110	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	55.9	50.00	112	80-128	
Surr: Dibromofluoromethane	1868-53-7	52.0	50.00	104	80-124	
Surr: Toluene-d8	2037-26-5	50.0	50.00	100	77-129	

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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: 1304578-003A
Client Sample ID: Field Blank
Collection Date: 4/22/2013 1045h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/23/2013 1110h

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: 1304578-003A

Client Sample ID: Field Blank

Analyzed: 4/23/2013 1110h

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: 1304578-003A

Client Sample ID: Field Blank

Analyzed: 4/23/2013 1110h

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	2.24	
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: 1304578-003A

Client Sample ID: Field Blank

Analyzed: 4/23/2013 1110h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	58.5	50.00	117	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	55.6	50.00	111	80-128	
Surr: Dibromofluoromethane	1868-53-7	54.5	50.00	109	80-124	
Surr: Toluene-d8	2037-26-5	50.3	50.00	101	77-129	

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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: 1304578-004A
Client Sample ID: Trip Blank
Collection Date: 4/22/2013
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/22/2013 1639h

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: 1304578-004A

Client Sample ID: Trip Blank

Analyzed: 4/22/2013 1639h

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: 1304578-004A

Client Sample ID: Trip Blank

Analyzed: 4/22/2013 1639h

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: 1304578-004A

Client Sample ID: Trip Blank

Analyzed: 4/22/2013 1639h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.1	50.00	112	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	54.6	50.00	109	80-128	
Surr: Dibromofluoromethane	1868-53-7	52.7	50.00	105	80-124	
Surr: Toluene-d8	2037-26-5	49.8	50.00	99.5	77-129	

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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: 1304578-005A
Client Sample ID: East of Boom #3 / 4920402
Collection Date: 4/22/2013 1020h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/22/2013 1833h

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: 1304578-005A
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/22/2013 1833h

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: 1304578-005A
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/22/2013 1833h

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: 1304578-005A
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/22/2013 1833h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.1	50.00	112	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	54.9	50.00	110	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.1	50.00	106	80-124	
Surr: Toluene-d8	2037-26-5	49.9	50.00	99.8	77-129	

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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: 1304578-006A
Client Sample ID: Duplicate
Collection Date: 4/22/2013 1035h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/22/2013 1852h

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	4.71	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	2.55	
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	2.11	
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: 1304578-006A

Client Sample ID: Duplicate

Analyzed: 4/22/2013 1852h

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: 1304578-006A

Client Sample ID: Duplicate

Analyzed: 4/22/2013 1852h

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: 1304578-006A

Client Sample ID: Duplicate

Analyzed: 4/22/2013 1852h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.8	50.00	116	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	52.7	50.00	105	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.9	50.00	108	80-124	
Surr: Toluene-d8	2037-26-5	49.9	50.00	99.7	77-129	

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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: 1304578-007A
Client Sample ID: East of Boom / 4920395
Collection Date: 4/22/2013 1030h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/22/2013 1911h

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: 1304578-007A
Client Sample ID: East of Boom / 4920395

Analyzed: 4/22/2013 1911h

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: 1304578-007A
Client Sample ID: East of Boom / 4920395

Analyzed: 4/22/2013 1911h

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: 1304578-007A

Client Sample ID: East of Boom / 4920395

Analyzed: 4/22/2013 1911h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.4	50.00	111	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	55.7	50.00	111	80-128	
Surr: Dibromofluoromethane	1868-53-7	52.6	50.00	105	80-124	
Surr: Toluene-d8	2037-26-5	49.6	50.00	99.2	77-129	

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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: 1304578-008A
Client Sample ID: North Weir
Collection Date: 4/22/2013 1010h
Received Date: 4/22/2013 1145h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/22/2013 1930h

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	4.12	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	2.28	
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: 1304578-008A

Client Sample ID: North Weir

Analyzed: 4/22/2013 1930h

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: 1304578-008A

Client Sample ID: North Weir

Analyzed: 4/22/2013 1930h

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: 1304578-008A

Client Sample ID: North Weir

Analyzed: 4/22/2013 1930h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.8	50.00	114	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	51.9	50.00	104	80-128	
Surr: Dibromofluoromethane	1868-53-7	52.8	50.00	106	80-124	
Surr: Toluene-d8	2037-26-5	49.2	50.00	98.5	77-129	

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-24957	Date Analyzed:	04/22/2013	2348h										
Test Code: 8015-W-TPH(1L)	Date Prepared:	04/22/2013	1300h										
Diesel Range Organics (DRO) (C10-C28)	1.31	mg/L	SW8015D	0.119	0.500	2.000	0	65.6	48 - 118				
Surr: 4-Bromofluorobenzene	0.171	mg/L	SW8015D			0.4000		42.7	18 - 95				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-24957	Date Analyzed:	04/22/2013 2329h											
Test Code: 8015-W-TPH(1L)	Date Prepared:	04/22/2013 1300h											
Diesel Range Organics (DRO) (C10-C28)	< 0.500	mg/L	SW8015D	0.119	0.500								
Surr: 4-Bromofluorobenzene	0.162	mg/L	SW8015D			0.4000		40.6	18 - 95				



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Jose Rocha
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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1304578-001CMS	Date Analyzed:	04/23/2013 0929h											
Test Code: 8015-W-TPH(1L)	Date Prepared:	04/22/2013 1300h											
Diesel Range Organics (DRO) (C10-C28)	1.40	mg/L	SW8015D	0.122	0.513	2.051	0	68.1	60 - 161				
Surr: 4-Bromofluorobenzene	0.167	mg/L	SW8015D			0.4103		40.7	10 - 190				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1304578-001CMSD	Date Analyzed:	04/23/2013 0948h											
Test Code: 8015-W-TPH(1L)	Date Prepared:	04/22/2013 1300h											
Diesel Range Organics (DRO) (C10-C28)	1.37	mg/L	SW8015D	0.122	0.513	2.051	0	66.7	60 - 161	1.4	2.12	25	
Surr: 4-Bromofluorobenzene	0.149	mg/L	SW8015D			0.4103		36.3	10 - 190				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-24943	Date Analyzed:	04/23/2013 1919h											
Test Code:	8270-W	Date Prepared:	04/22/2013 0836h										
1,2,4-Trichlorobenzene	32.3	µg/L	SW8270D	3.48	10.0	80.00	0	40.4	10 - 104				
1,4-Dichlorobenzene	18.5	µg/L	SW8270D	2.31	10.0	80.00	0	23.1	10 - 118				
2,4,6-Trichlorophenol	69.2	µg/L	SW8270D	0.569	10.0	80.00	0	86.5	17 - 119				
2,4-Dimethylphenol	59.8	µg/L	SW8270D	1.06	10.0	80.00	0	74.8	10 - 131				
2,4-Dinitrotoluene	88.6	µg/L	SW8270D	0.895	10.0	80.00	0	111	42 - 219				
2-Chloronaphthalene	46.4	µg/L	SW8270D	2.13	10.0	80.00	0	58.0	23 - 126				
2-Chlorophenol	43.7	µg/L	SW8270D	0.952	10.0	80.00	0	54.7	15 - 128				
4,6-Dinitro-2-methylphenol	91.3	µg/L	SW8270D	0.569	10.0	80.00	0	114	30 - 198				
4-Chloro-3-methylphenol	82.6	µg/L	SW8270D	0.876	10.0	80.00	0	103	29 - 148				
4-Nitrophenol	43.6	µg/L	SW8270D	1.81	10.0	80.00	0	54.5	10 - 157				
Acenaphthene	52.1	µg/L	SW8270D	2.20	10.0	80.00	0	65.2	20 - 116				
Benzo(a)pyrene	101	µg/L	SW8270D	0.838	10.0	80.00	0	126	10 - 221				
N-Nitrosodi-n-propylamine	41.6	µg/L	SW8270D	1.28	10.0	80.00	0	52.0	20 - 148				
Pentachlorophenol	102	µg/L	SW8270D	0.876	10.0	80.00	0	128	21 - 153				
Phenol	24.5	µg/L	SW8270D	0.519	10.0	80.00	0	30.6	10 - 131				
Pyrene	77.0	µg/L	SW8270D	1.12	10.0	80.00	0	96.3	37 - 150				
Surr: 2,4,6-Tribromophenol	109	µg/L	SW8270D			80.00		136	10 - 165				
Surr: 2-Fluorobiphenyl	20.2	µg/L	SW8270D			40.00		50.6	10 - 118				
Surr: 2-Fluorophenol	26.2	µg/L	SW8270D			80.00		32.8	10 - 121				
Surr: Nitrobenzene-d5	16.8	µg/L	SW8270D			40.00		41.9	10 - 127				
Surr: Phenol-d6	25.0	µg/L	SW8270D			80.00		31.2	10 - 124				
Surr: Terphenyl-d14	42.6	µg/L	SW8270D			40.00		106	51 - 221				
Lab Sample ID: LCS-24943	Date Analyzed:	04/23/2013 0837h											
Test Code:	8270-W-SIM	Date Prepared:	04/22/2013 0836h										
Acenaphthene	45.0	µg/L	SW8270D	2.00	2.00	80.00	0	56.2	23 - 159				
Benzo(a)pyrene	59.2	µg/L	SW8270D	2.00	2.00	80.00	0	74.0	26 - 223				
Pentachlorophenol	107	µg/L	SW8270D	20.0	20.0	80.00	0	133	10 - 249				
Pyrene	61.4	µg/L	SW8270D	2.00	2.00	80.00	0	76.8	28 - 204				



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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: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-24943	Date Analyzed:	04/23/2013 1855h											
Test Code: 8270-W	Date Prepared:	04/22/2013 0836h											
1,1'-Biphenyl	< 10.0	µg/L	SW8270D	2.14	10.0								
1,2,4,5-Tetrachlorobenzene	< 10.0	µg/L	SW8270D	1.18	10.0								
1,2,4-Trichlorobenzene	< 10.0	µg/L	SW8270D	3.48	10.0								
1,2-Dichlorobenzene	< 10.0	µg/L	SW8270D	2.69	10.0								
1,3,5-Trinitrobenzene	< 10.0	µg/L	SW8270D	0.521	10.0								
1,3-Dichlorobenzene	< 10.0	µg/L	SW8270D	2.32	10.0								
1,3-Dinitrobenzene	< 10.0	µg/L	SW8270D	0.829	10.0								
1,4-Dichlorobenzene	< 10.0	µg/L	SW8270D	2.31	10.0								
1,4-Dinitrobenzene	< 10.0	µg/L	SW8270D	0.722	10.0								
1,4-Naphthoquinone	< 10.0	µg/L	SW8270D	2.07	10.0								
1,4-Phenylenediamine	< 10.0	µg/L	SW8270D	2.32	10.0								
1-Chloronaphthalene	< 10.0	µg/L	SW8270D	1.87	10.0								
1-Methylnaphthalene	< 10.0	µg/L	SW8270D	2.04	10.0								
1-Naphthylamine	< 10.0	µg/L	SW8270D	1.45	10.0								
2,3,4,6-Tetrachlorophenol	< 10.0	µg/L	SW8270D	1.01	10.0								
2,4,5-Trichlorophenol	< 10.0	µg/L	SW8270D	0.978	10.0								
2,4,6-Trichlorophenol	< 10.0	µg/L	SW8270D	0.569	10.0								
2,4-Dichlorophenol	< 10.0	µg/L	SW8270D	0.696	10.0								
2,4-Dimethylphenol	< 10.0	µg/L	SW8270D	1.06	10.0								
2,4-Dinitrophenol	< 10.0	µg/L	SW8270D	0.609	10.0								
2,4-Dinitrotoluene	< 10.0	µg/L	SW8270D	0.895	10.0								
2,6-Dichlorophenol	< 10.0	µg/L	SW8270D	0.882	10.0								
2,6-Dinitrotoluene	< 10.0	µg/L	SW8270D	0.996	10.0								
2-Acetylaminofluorene	< 10.0	µg/L	SW8270D	0.975	10.0								
2-Chloronaphthalene	< 10.0	µg/L	SW8270D	2.13	10.0								
2-Chlorophenol	< 10.0	µg/L	SW8270D	0.952	10.0								
2-Methylnaphthalene	< 10.0	µg/L	SW8270D	1.78	10.0								
2-Methylphenol	< 10.0	µg/L	SW8270D	0.771	10.0								
2-Naphthylamine	< 10.0	µg/L	SW8270D	1.76	10.0								
2-Nitroaniline	< 10.0	µg/L	SW8270D	0.770	10.0								

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-24943	Date Analyzed:	04/23/2013 1855h											
Test Code: 8270-W	Date Prepared:	04/22/2013 0836h											
2-Nitrophenol	< 10.0	µg/L	SW8270D	0.723	10.0								
2-Picoline	< 10.0	µg/L	SW8270D	3.07	10.0								
3&4-Methylphenol	< 10.0	µg/L	SW8270D	1.65	10.0								
3,3'-Dichlorobenzidine	< 10.0	µg/L	SW8270D	1.07	10.0								
3,3'-Dimethylbenzidine	< 10.0	µg/L	SW8270D	1.73	10.0								
3-Methylcholanthrene	< 10.0	µg/L	SW8270D	0.741	10.0								
3-Nitroaniline	< 10.0	µg/L	SW8270D	1.09	10.0								
4,6-Dinitro-2-methylphenol	< 10.0	µg/L	SW8270D	0.569	10.0								
4-Aminobiphenyl	< 10.0	µg/L	SW8270D	1.41	10.0								
4-Bromophenyl phenyl ether	< 10.0	µg/L	SW8270D	1.27	10.0								
4-Chloro-3-methylphenol	< 10.0	µg/L	SW8270D	0.876	10.0								
4-Chloroaniline	< 10.0	µg/L	SW8270D	1.48	10.0								
4-Chlorophenyl phenyl ether	< 10.0	µg/L	SW8270D	0.559	10.0								
4-Nitroaniline	< 10.0	µg/L	SW8270D	1.14	10.0								
4-Nitrophenol	< 10.0	µg/L	SW8270D	1.81	10.0								
5-Nitro-o-toluidine	< 10.0	µg/L	SW8270D	1.20	10.0								
7,12-Dimethylbenz(a)anthracene	< 10.0	µg/L	SW8270D	0.934	10.0								
a,a-Dimethylphenethylamine	< 10.0	µg/L	SW8270D	2.82	10.0								
Acenaphthene	< 10.0	µg/L	SW8270D	2.20	10.0								
Acenaphthylene	< 10.0	µg/L	SW8270D	2.07	10.0								
Acetophenone	< 10.0	µg/L	SW8270D	1.20	10.0								
alpha-Terpineol	< 10.0	µg/L	SW8270D	1.14	10.0								
Aniline	< 10.0	µg/L	SW8270D	1.29	10.0								
Anthracene	< 10.0	µg/L	SW8270D	1.12	10.0								
Aramite	< 10.0	µg/L	SW8270D	1.18	10.0								
Atrazine	< 10.0	µg/L	SW8270D	4.67	10.0								
Azobenzene	< 10.0	µg/L	SW8270D	0.649	10.0								
Benz(a)anthracene	< 10.0	µg/L	SW8270D	0.865	10.0								
Benzaldehyde	< 10.0	µg/L	SW8270D	3.85	10.0								
Benzidine	< 10.0	µg/L	SW8270D	2.10	10.0								

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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1304578

Project: MP 44.9

Contact: Chris Bittner

Dept: MSSV

QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-24943	Date Analyzed:	04/23/2013 1855h											
Test Code: 8270-W	Date Prepared:	04/22/2013 0836h											
Benzo(a)pyrene	< 10.0	µg/L	SW8270D	0.838	10.0								
Benzo(b)fluoranthene	< 10.0	µg/L	SW8270D	2.83	10.0								
Benzo(g,h,i)perylene	< 10.0	µg/L	SW8270D	0.923	10.0								
Benzo(k)fluoranthene	< 10.0	µg/L	SW8270D	1.11	10.0								
Benzoic acid	< 20.0	µg/L	SW8270D	1.15	20.0								
Benzyl alcohol	< 10.0	µg/L	SW8270D	1.13	10.0								
Bis(2-chloroethoxy)methane	< 10.0	µg/L	SW8270D	1.28	10.0								
Bis(2-chloroethyl) ether	< 10.0	µg/L	SW8270D	1.02	10.0								
Bis(2-chloroisopropyl) ether	< 10.0	µg/L	SW8270D	0.807	10.0								
Bis(2-ethylhexyl) phthalate	< 10.0	µg/L	SW8270D	1.21	10.0								
bis(2-ethylhexyl)adipate	< 10.0	µg/L	SW8270D	3.10	10.0								
Butyl benzyl phthalate	< 10.0	µg/L	SW8270D	0.916	10.0								
Caprolactam	< 10.0	µg/L	SW8270D	0.675	10.0								
Carbazole	< 10.0	µg/L	SW8270D	1.12	10.0								
Chlorobenzilate	< 10.0	µg/L	SW8270D	0.966	10.0								
Chrysene	< 10.0	µg/L	SW8270D	1.34	10.0								
Di-n-butyl phthalate	< 10.0	µg/L	SW8270D	1.32	10.0								
Di-n-octyl phthalate	< 10.0	µg/L	SW8270D	0.637	10.0								
Diallate (cis or trans)	< 10.0	µg/L	SW8270D	1.10	10.0								
Dibenz(a,h)anthracene	< 10.0	µg/L	SW8270D	0.988	10.0								
Dibenzofuran	< 10.0	µg/L	SW8270D	2.19	10.0								
Diethyl phthalate	< 10.0	µg/L	SW8270D	1.03	10.0								
Dimethoate	< 10.0	µg/L	SW8270D	5.03	10.0								
Dimethyl phthalate	< 10.0	µg/L	SW8270D	0.619	10.0								
Dimethylaminoazobenzene	< 10.0	µg/L	SW8270D	0.754	10.0								
Dinoseb	< 10.0	µg/L	SW8270D	0.718	10.0								
Diphenylamine	< 10.0	µg/L	SW8270D	1.34	10.0								
Disulfoton	< 10.0	µg/L	SW8270D	0.993	10.0								
Ethyl methanesulfonate	< 10.0	µg/L	SW8270D	1.39	10.0								
Famphur	< 10.0	µg/L	SW8270D	3.07	10.0								

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-24943	Date Analyzed:	04/23/2013 1855h											
Test Code: 8270-W	Date Prepared:	04/22/2013 0836h											
Fluoranthene	< 10.0	µg/L	SW8270D	1.06	10.0								
Fluorene	< 10.0	µg/L	SW8270D	1.80	10.0								
Hexachlorobenzene	< 10.0	µg/L	SW8270D	0.828	10.0								
Hexachlorobutadiene	< 10.0	µg/L	SW8270D	3.27	10.0								
Hexachlorocyclopentadiene	< 10.0	µg/L	SW8270D	4.37	10.0								
Hexachloroethane	< 10.0	µg/L	SW8270D	2.14	10.0								
Hexachlorophene	< 10.0	µg/L	SW8270D	2.32	10.0								
Hexachloropropene	< 10.0	µg/L	SW8270D	2.86	10.0								
Indene	< 10.0	µg/L	SW8270D	1.10	10.0								
Indeno(1,2,3-cd)pyrene	< 10.0	µg/L	SW8270D	3.31	10.0								
Isodrin	< 10.0	µg/L	SW8270D	1.00	10.0								
Isophorone	< 10.0	µg/L	SW8270D	1.22	10.0								
Isosafrole	< 10.0	µg/L	SW8270D	1.77	10.0								
Kepon	< 10.0	µg/L	SW8270D	1.09	10.0								
Methapyrilene	< 10.0	µg/L	SW8270D	2.21	10.0								
Methyl methanesulfonate	< 10.0	µg/L	SW8270D	1.09	10.0								
n-Decane	< 10.0	µg/L	SW8270D	2.05	10.0								
N-Nitrosodi-n-butylamine	< 10.0	µg/L	SW8270D	1.29	10.0								
N-Nitrosodiethylamine	< 10.0	µg/L	SW8270D	1.02	10.0								
N-Nitrosodimethylamine	< 10.0	µg/L	SW8270D	0.695	10.0								
N-Nitrosodiphenylamine	< 10.0	µg/L	SW8270D	1.11	10.0								
N-Nitrosodi-n-propylamine	< 10.0	µg/L	SW8270D	1.28	10.0								
N-Nitrosomethylethylamine	< 10.0	µg/L	SW8270D	1.23	10.0								
N-Nitrosomorpholine	< 10.0	µg/L	SW8270D	1.17	10.0								
N-Nitrosopiperidine	< 10.0	µg/L	SW8270D	1.20	10.0								
N-Nitrosopyrrolidine	< 10.0	µg/L	SW8270D	1.06	10.0								
n-Octadecane	< 10.0	µg/L	SW8270D	0.702	10.0								
Naphthalene	< 10.0	µg/L	SW8270D	1.66	10.0								
Nitrobenzene	< 10.0	µg/L	SW8270D	1.01	10.0								
Nitroquinoline-1-oxide	< 10.0	µg/L	SW8270D	3.04	10.0								



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-24943	Date Analyzed:	04/23/2013 1855h											
Test Code:	8270-W	Date Prepared:	04/22/2013 0836h										
O,O,O-Triethyl phosphorothioate	< 10.0	µg/L	SW8270D	0.648	10.0								
o-Toluidine	< 10.0	µg/L	SW8270D	2.80	10.0								
Parathion	< 10.0	µg/L	SW8270D	0.582	10.0								
Methyl parathion	< 10.0	µg/L	SW8270D	0.795	10.0								
Pentachlorobenzene	< 10.0	µg/L	SW8270D	1.36	10.0								
Pentachloronitrobenzene	< 10.0	µg/L	SW8270D	1.06	10.0								
Pentachlorophenol	< 10.0	µg/L	SW8270D	0.876	10.0								
Phenacetin	< 10.0	µg/L	SW8270D	1.18	10.0								
Phenanthrene	< 10.0	µg/L	SW8270D	0.795	10.0								
Phenol	< 10.0	µg/L	SW8270D	0.519	10.0								
Phorate	< 10.0	µg/L	SW8270D	0.920	10.0								
Pronamide	< 10.0	µg/L	SW8270D	1.12	10.0								
Pyrene	< 10.0	µg/L	SW8270D	1.12	10.0								
Pyridine	< 10.0	µg/L	SW8270D	4.45	10.0								
Quinoline	< 10.0	µg/L	SW8270D	1.30	10.0								
Safrole	< 10.0	µg/L	SW8270D	0.524	10.0								
Tetraethyl dithiopyrophosphate	< 10.0	µg/L	SW8270D	1.05	10.0								
Thionazin	< 10.0	µg/L	SW8270D	0.945	10.0								
Surr: 2,4,6-Tribromophenol	80.8	µg/L	SW8270D			80.00		101	10 - 165				
Surr: 2-Fluorobiphenyl	14.0	µg/L	SW8270D			40.00		35.0	10 - 118				
Surr: 2-Fluorophenol	22.3	µg/L	SW8270D			80.00		27.8	10 - 121				
Surr: Nitrobenzene-d5	12.4	µg/L	SW8270D			40.00		31.1	10 - 127				
Surr: Phenol-d6	17.7	µg/L	SW8270D			80.00		22.1	10 - 124				
Surr: Terphenyl-d14	47.6	µg/L	SW8270D			40.00		119	51 - 221				

Lab Sample ID: MB-24943	Date Analyzed:	04/23/2013 0811h											
Test Code:	8270-W-SIM	Date Prepared:	04/22/2013 0836h										
1-Methylnaphthalene	< 0.100	µg/L	SW8270D	0.100	0.100								
2-Methylnaphthalene	< 0.100	µg/L	SW8270D	0.100	0.100								
Acenaphthene	< 0.100	µg/L	SW8270D	0.100	0.100								

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
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Project: MP 44.9

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Dept: MSSV
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-24943	Date Analyzed:	04/23/2013 0811h											
Test Code: 8270-W-SIM	Date Prepared:	04/22/2013 0836h											
Acenaphthylene	< 0.100	µg/L	SW8270D	0.100	0.100								
Anthracene	< 0.100	µg/L	SW8270D	0.100	0.100								
Benz(a)anthracene	< 0.100	µg/L	SW8270D	0.100	0.100								
Benzo(a)pyrene	< 0.100	µg/L	SW8270D	0.100	0.100								
Benzo(b)fluoranthene	< 0.100	µg/L	SW8270D	0.100	0.100								
Benzo(g,h,i)perylene	< 0.100	µg/L	SW8270D	0.100	0.100								
Benzo(k)fluoranthene	< 0.100	µg/L	SW8270D	0.100	0.100								
Chrysene	< 0.100	µg/L	SW8270D	0.100	0.100								
Dibenz(a,h)anthracene	< 0.100	µg/L	SW8270D	0.100	0.100								
Fluoranthene	< 0.100	µg/L	SW8270D	0.100	0.100								
Fluorene	< 0.100	µg/L	SW8270D	0.100	0.100								
Hexachlorobenzene	< 1.00	µg/L	SW8270D	1.00	1.00								
Indene	< 0.100	µg/L	SW8270D	0.100	0.100								
Indeno(1,2,3-cd)pyrene	< 0.100	µg/L	SW8270D	0.100	0.100								
Naphthalene	< 0.100	µg/L	SW8270D	0.100	0.100								
Pentachlorophenol	< 1.00	µg/L	SW8270D	1.00	1.00								
Phenanthrene	< 0.100	µg/L	SW8270D	0.100	0.100								
Pyrene	< 0.100	µg/L	SW8270D	0.100	0.100								



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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: 1304578

Project: MP 44.9

Contact: Chris Bittner

Dept: MSSV

QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1304551-002BMS	Date Analyzed:	04/23/2013 2031h											
Test Code: 8270-W	Date Prepared:	04/22/2013 0836h											
1,2,4-Trichlorobenzene	36.0	µg/L	SW8270D	3.48	10.0	80.00	0	45.0	20 - 107				
1,4-Dichlorobenzene	21.5	µg/L	SW8270D	2.31	10.0	80.00	0	26.9	11 - 90				
2,4,6-Trichlorophenol	72.0	µg/L	SW8270D	0.569	10.0	80.00	0	90.0	10 - 223				
2,4-Dimethylphenol	63.5	µg/L	SW8270D	1.06	10.0	80.00	0	79.4	10 - 176				
2,4-Dinitrotoluene	86.1	µg/L	SW8270D	0.895	10.0	80.00	0	108	21 - 191				
2-Chloronaphthalene	51.3	µg/L	SW8270D	2.13	10.0	80.00	0	64.1	12 - 132				
2-Chlorophenol	51.0	µg/L	SW8270D	0.952	10.0	80.00	0	63.7	20 - 107				
4,6-Dinitro-2-methylphenol	90.6	µg/L	SW8270D	0.569	10.0	80.00	0	113	20 - 250				
4-Chloro-3-methylphenol	83.1	µg/L	SW8270D	0.876	10.0	80.00	0	104	10 - 136				
4-Nitrophenol	44.1	µg/L	SW8270D	1.81	10.0	80.00	0	55.1	10 - 135				
Acenaphthene	56.8	µg/L	SW8270D	2.20	10.0	80.00	0	71.0	21 - 113				
Benzo(a)pyrene	95.8	µg/L	SW8270D	0.838	10.0	80.00	0	120	15 - 169				
N-Nitrosodi-n-propylamine	42.6	µg/L	SW8270D	1.28	10.0	80.00	0	53.2	10 - 133				
Pentachlorophenol	34.0	µg/L	SW8270D	0.876	10.0	80.00	0	42.5	10 - 131				
Phenol	28.6	µg/L	SW8270D	0.519	10.0	80.00	0	35.8	10 - 71				
Pyrene	73.4	µg/L	SW8270D	1.12	10.0	80.00	0	91.7	23 - 150				
Surr: 2,4,6-Tribromophenol	91.8	µg/L	SW8270D			80.00		115	14 - 159				
Surr: 2-Fluorobiphenyl	22.5	µg/L	SW8270D			40.00		56.2	10 - 124				
Surr: 2-Fluorophenol	32.6	µg/L	SW8270D			80.00		40.7	10 - 106				
Surr: Nitrobenzene-d5	17.0	µg/L	SW8270D			40.00		42.5	10 - 180				
Surr: Phenol-d6	28.2	µg/L	SW8270D			80.00		35.2	10 - 122				
Surr: Terphenyl-d14	38.1	µg/L	SW8270D			40.00		95.3	10 - 221				
Lab Sample ID: 1304551-002BMS	Date Analyzed:	04/23/2013 0956h											
Test Code: 8270-W-SIM	Date Prepared:	04/22/2013 0836h											
Acenaphthene	46.2	µg/L	SW8270D	2.00	2.00	80.00	0	57.8	21 - 113				
Benzo(a)pyrene	55.2	µg/L	SW8270D	2.00	2.00	80.00	0	69.0	15 - 169				
Pentachlorophenol	69.6	µg/L	SW8270D	20.0	20.0	80.00	0	87.0	10 - 249				
Pyrene	56.4	µg/L	SW8270D	2.00	2.00	80.00	0	70.5	23 - 150				



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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: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1304551-002BMSD	Date Analyzed:	04/23/2013 2055h											
Test Code:	8270-W	Date Prepared:	04/22/2013 0836h										
1,2,4-Trichlorobenzene	36.0	µg/L	SW8270D	3.48	10.0	80.00	0	45.0	20 - 107	36	0.0834	25	
1,4-Dichlorobenzene	21.3	µg/L	SW8270D	2.31	10.0	80.00	0	26.6	11 - 90	21.5	1.12	25	
2,4,6-Trichlorophenol	75.4	µg/L	SW8270D	0.569	10.0	80.00	0	94.2	10 - 223	72	4.56	25	
2,4-Dimethylphenol	66.0	µg/L	SW8270D	1.06	10.0	80.00	0	82.5	10 - 176	63.5	3.81	25	
2,4-Dinitrotoluene	85.4	µg/L	SW8270D	0.895	10.0	80.00	0	107	21 - 191	86.1	0.804	25	
2-Chloronaphthalene	45.4	µg/L	SW8270D	2.13	10.0	80.00	0	56.7	12 - 132	51.3	12.3	25	
2-Chlorophenol	51.8	µg/L	SW8270D	0.952	10.0	80.00	0	64.7	20 - 107	51	1.58	25	
4,6-Dinitro-2-methylphenol	89.5	µg/L	SW8270D	0.569	10.0	80.00	0	112	20 - 250	90.6	1.27	25	
4-Chloro-3-methylphenol	87.5	µg/L	SW8270D	0.876	10.0	80.00	0	109	10 - 136	83.1	5.08	25	
4-Nitrophenol	45.3	µg/L	SW8270D	1.81	10.0	80.00	0	56.6	10 - 135	44.1	2.71	25	
Acenaphthene	56.2	µg/L	SW8270D	2.20	10.0	80.00	0	70.3	21 - 113	56.8	1.06	25	
Benzo(a)pyrene	95.6	µg/L	SW8270D	0.838	10.0	80.00	0	119	15 - 169	95.8	0.209	25	
N-Nitrosodi-n-propylamine	42.3	µg/L	SW8270D	1.28	10.0	80.00	0	52.9	10 - 133	42.6	0.730	25	
Pentachlorophenol	46.5	µg/L	SW8270D	0.876	10.0	80.00	0	58.1	10 - 131	34	30.9	25	@
Phenol	28.7	µg/L	SW8270D	0.519	10.0	80.00	0	35.9	10 - 71	28.6	0.418	25	
Pyrene	73.3	µg/L	SW8270D	1.12	10.0	80.00	0	91.7	23 - 150	73.4	0.0545	25	
Surr: 2,4,6-Tribromophenol	100	µg/L	SW8270D			80.00		125	14 - 159				
Surr: 2-Fluorobiphenyl	22.0	µg/L	SW8270D			40.00		55.0	10 - 124				
Surr: 2-Fluorophenol	33.4	µg/L	SW8270D			80.00		41.8	10 - 106				
Surr: Nitrobenzene-d5	18.2	µg/L	SW8270D			40.00		45.5	10 - 180				
Surr: Phenol-d6	28.9	µg/L	SW8270D			80.00		36.1	10 - 122				
Surr: Terphenyl-d14	39.2	µg/L	SW8270D			40.00		98.1	10 - 221				
Lab Sample ID: 1304551-002BMSD	Date Analyzed:	04/23/2013 1022h											
Test Code:	8270-W-SIM	Date Prepared:	04/22/2013 0836h										
Acenaphthene	48.8	µg/L	SW8270D	2.00	2.00	80.00	0	61.0	21 - 113	46.2	5.47	25	
Benzo(a)pyrene	59.6	µg/L	SW8270D	2.00	2.00	80.00	0	74.5	15 - 169	55.2	7.67	25	
Pentachlorophenol	79.0	µg/L	SW8270D	20.0	20.0	80.00	0	98.8	10 - 249	69.6	12.7	25	
Pyrene	64.0	µg/L	SW8270D	2.00	2.00	80.00	0	80.0	23 - 150	56.4	12.6	25	

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

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All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



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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: 1304578

Project: MP 44.9

Contact: Chris Bittner

Dept: MSVOA

QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS VOC 042213A													
Date Analyzed:		04/22/2013 1048h											
Test Code: 8260-W													
1,1,1-Trichloroethane	25.3	µg/L	SW8260C	0.269	2.00	20.00	0	126	59 - 156				
1,1-Dichloroethene	25.8	µg/L	SW8260C	0.124	2.00	20.00	0	129	46 - 171				
1,2-Dichlorobenzene	21.1	µg/L	SW8260C	0.161	2.00	20.00	0	106	67 - 135				
1,2-Dichloroethane	22.9	µg/L	SW8260C	0.127	2.00	20.00	0	115	60 - 137				
1,2-Dichloropropane	20.4	µg/L	SW8260C	0.276	2.00	20.00	0	102	59 - 135				
Benzene	21.5	µg/L	SW8260C	0.149	2.00	20.00	0	108	62 - 127				
Chlorobenzene	20.8	µg/L	SW8260C	0.352	2.00	20.00	0	104	63 - 140				
Chloroform	22.4	µg/L	SW8260C	0.277	2.00	20.00	0	112	67 - 132				
Ethylbenzene	21.4	µg/L	SW8260C	0.299	2.00	20.00	0	107	55 - 133				
Isopropylbenzene	22.2	µg/L	SW8260C	0.357	2.00	20.00	0	111	60 - 162				
Methyl tert-butyl ether	22.5	µg/L	SW8260C	0.389	2.00	20.00	0	112	37 - 189				
Methylene chloride	24.1	µg/L	SW8260C	0.155	2.00	20.00	0	121	32 - 185				
Naphthalene	15.6	µg/L	SW8260C	0.547	2.00	20.00	0	77.8	28 - 136				
Tetrahydrofuran	15.3	µg/L	SW8260C	0.874	2.00	20.00	0	76.3	43 - 146				
Toluene	21.3	µg/L	SW8260C	0.429	2.00	20.00	0	107	64 - 129				
Trichloroethene	22.0	µg/L	SW8260C	0.181	2.00	20.00	0	110	54 - 152				
Xylenes, Total	63.7	µg/L	SW8260C	0.870	2.00	60.00	0	106	52 - 134				
Surr: 1,2-Dichloroethane-d4	55.5	µg/L	SW8260C			50.00		111	76 - 138				
Surr: 4-Bromofluorobenzene	50.8	µg/L	SW8260C			50.00		102	77 - 121				
Surr: Dibromofluoromethane	53.2	µg/L	SW8260C			50.00		106	67 - 128				
Surr: Toluene-d8	48.8	µg/L	SW8260C			50.00		97.5	81 - 135				
Lab Sample ID: LCS VOC 042313A													
Date Analyzed:		04/23/2013 0952h											
Test Code: 8260-W													
1,1,1-Trichloroethane	23.3	µg/L	SW8260C	0.269	2.00	20.00	0	117	59 - 156				
1,1-Dichloroethene	24.2	µg/L	SW8260C	0.124	2.00	20.00	0	121	46 - 171				
1,2-Dichlorobenzene	20.3	µg/L	SW8260C	0.161	2.00	20.00	0	102	67 - 135				
1,2-Dichloroethane	22.3	µg/L	SW8260C	0.127	2.00	20.00	0	112	60 - 137				
1,2-Dichloropropane	19.1	µg/L	SW8260C	0.276	2.00	20.00	0	95.4	59 - 135				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS VOC 042313A		Date Analyzed: 04/23/2013 0952h											
Test Code: 8260-W													
Benzene	19.8	µg/L	SW8260C	0.149	2.00	20.00	0	99.2	62 - 127				
Chlorobenzene	19.2	µg/L	SW8260C	0.352	2.00	20.00	0	96.1	63 - 140				
Chloroform	21.4	µg/L	SW8260C	0.277	2.00	20.00	0	107	67 - 132				
Ethylbenzene	19.5	µg/L	SW8260C	0.299	2.00	20.00	0	97.5	55 - 133				
Isopropylbenzene	20.3	µg/L	SW8260C	0.357	2.00	20.00	0	102	60 - 162				
Methyl tert-butyl ether	22.1	µg/L	SW8260C	0.389	2.00	20.00	0	110	37 - 189				
Methylene chloride	22.9	µg/L	SW8260C	0.155	2.00	20.00	0	114	32 - 185				
Naphthalene	14.4	µg/L	SW8260C	0.547	2.00	20.00	0	71.8	28 - 136				
Tetrahydrofuran	15.9	µg/L	SW8260C	0.874	2.00	20.00	0	79.4	43 - 146				
Toluene	19.3	µg/L	SW8260C	0.429	2.00	20.00	0	96.5	64 - 129				
Trichloroethene	21.2	µg/L	SW8260C	0.181	2.00	20.00	0	106	54 - 152				
Xylenes, Total	58.3	µg/L	SW8260C	0.870	2.00	60.00	0	97.2	52 - 134				
Surr: 1,2-Dichloroethane-d4	57.0	µg/L	SW8260C			50.00		114	76 - 138				
Surr: 4-Bromofluorobenzene	51.4	µg/L	SW8260C			50.00		103	77 - 121				
Surr: Dibromofluoromethane	54.4	µg/L	SW8260C			50.00		109	67 - 128				
Surr: Toluene-d8	48.4	µg/L	SW8260C			50.00		96.8	81 - 135				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC 042213A	Date Analyzed: 04/22/2013 1126h												
Test Code: 8260-W													
1,1,1,2-Tetrachloroethane	< 2.00	µg/L	SW8260C	0.198	2.00								
1,1,1-Trichloroethane	< 2.00	µg/L	SW8260C	0.269	2.00								
1,1,2,2-Tetrachloroethane	< 2.00	µg/L	SW8260C	0.235	2.00								
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.00	µg/L	SW8260C	0.249	2.00								
1,1,2-Trichloroethane	< 2.00	µg/L	SW8260C	0.177	2.00								
1,1-Dichloropropene	< 2.00	µg/L	SW8260C	0.216	2.00								
1,1-Dichloroethane	< 2.00	µg/L	SW8260C	0.142	2.00								
1,1-Dichloroethene	< 2.00	µg/L	SW8260C	0.124	2.00								
1,2,3-Trichlorobenzene	< 2.00	µg/L	SW8260C	0.211	2.00								
1,2,3-Trichloropropane	< 2.00	µg/L	SW8260C	0.226	2.00								
1,2,3-Trimethylbenzene	< 2.00	µg/L	SW8260C	0.0799	2.00								
1,2,4-Trichlorobenzene	< 2.00	µg/L	SW8260C	0.169	2.00								
1,2,4-Trimethylbenzene	< 2.00	µg/L	SW8260C	0.256	2.00								
1,2-Dibromo-3-chloropropane	< 5.00	µg/L	SW8260C	0.392	5.00								
1,2-Dibromoethane	< 2.00	µg/L	SW8260C	0.258	2.00								
1,2-Dichlorobenzene	< 2.00	µg/L	SW8260C	0.161	2.00								
1,2-Dichloroethane	< 2.00	µg/L	SW8260C	0.127	2.00								
1,2-Dichloropropane	< 2.00	µg/L	SW8260C	0.276	2.00								
1,3,5-Trimethylbenzene	< 2.00	µg/L	SW8260C	0.220	2.00								
1,3-Dichlorobenzene	< 2.00	µg/L	SW8260C	0.190	2.00								
1,3-Dichloropropane	< 2.00	µg/L	SW8260C	0.222	2.00								
1,4-Dichlorobenzene	< 2.00	µg/L	SW8260C	0.257	2.00								
1,4-Dioxane	< 50.0	µg/L	SW8260C	11.9	50.0								
2,2-Dichloropropane	< 2.00	µg/L	SW8260C	0.235	2.00								
2-Butanone	< 10.0	µg/L	SW8260C	1.45	10.0								
2-Chloroethyl vinyl ether	< 5.00	µg/L	SW8260C	4.69	5.00								
2-Chlorotoluene	< 2.00	µg/L	SW8260C	0.220	2.00								
2-Hexanone	< 5.00	µg/L	SW8260C	0.327	5.00								
2-Nitropropane	< 5.00	µg/L	SW8260C	0.501	5.00								



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC 042213A	Date Analyzed:		04/22/2013 1126h										
Test Code: 8260-W													
4-Chlorotoluene	< 2.00	µg/L	SW8260C	0.267	2.00								
4-Isopropyltoluene	< 2.00	µg/L	SW8260C	0.379	2.00								
4-Methyl-2-pentanone	< 5.00	µg/L	SW8260C	0.593	5.00								
Acetone	< 10.0	µg/L	SW8260C	3.35	10.0								
Acetonitrile	< 5.00	µg/L	SW8260C	2.80	5.00								
Acrolein	< 5.00	µg/L	SW8260C	1.29	5.00								
Acrylonitrile	< 10.0	µg/L	SW8260C	0.323	10.0								
Allyl chloride	< 5.00	µg/L	SW8260C	0.265	5.00								
Benzene	< 2.00	µg/L	SW8260C	0.149	2.00								
Benzyl chloride	< 5.00	µg/L	SW8260C	0.271	5.00								
Bis(2-chloroisopropyl) ether	< 5.00	µg/L	SW8260C	0.590	5.00								
Bromobenzene	< 2.00	µg/L	SW8260C	0.225	2.00								
Bromochloromethane	< 2.00	µg/L	SW8260C	0.149	2.00								
Bromodichloromethane	< 2.00	µg/L	SW8260C	0.324	2.00								
Bromoform	< 2.00	µg/L	SW8260C	0.206	2.00								
Bromomethane	< 5.00	µg/L	SW8260C	0.160	5.00								
Butyl acetate	< 10.0	µg/L	SW8260C	1.76	10.0								
Carbon disulfide	< 2.00	µg/L	SW8260C	0.257	2.00								
Carbon tetrachloride	< 2.00	µg/L	SW8260C	0.137	2.00								
Chlorobenzene	< 2.00	µg/L	SW8260C	0.352	2.00								
Chloroethane	< 2.00	µg/L	SW8260C	0.251	2.00								
Chloroform	< 2.00	µg/L	SW8260C	0.277	2.00								
Chloromethane	< 3.00	µg/L	SW8260C	0.127	3.00								
Chloroprene	< 2.00	µg/L	SW8260C	0.135	2.00								
cis-1,2-Dichloroethene	< 2.00	µg/L	SW8260C	0.138	2.00								
cis-1,3-Dichloropropene	< 2.00	µg/L	SW8260C	0.227	2.00								
Cyclohexane	< 2.00	µg/L	SW8260C	0.144	2.00								
Cyclohexanone	< 50.0	µg/L	SW8260C	2.90	50.0								
Dibromochloromethane	< 2.00	µg/L	SW8260C	0.276	2.00								



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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: 1304578

Project: MP 44.9

Contact: Chris Bittner

Dept: MSVOA

QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC 042213A	Date Analyzed:		04/22/2013 1126h										
Test Code: 8260-W													
Dibromomethane	< 2.00	µg/L	SW8260C	0.230	2.00								
Dichlorodifluoromethane	< 2.00	µg/L	SW8260C	0.100	2.00								
Ethyl acetate	< 10.0	µg/L	SW8260C	0.583	10.0								
Ethyl ether	< 10.0	µg/L	SW8260C	0.273	10.0								
Ethyl methacrylate	< 2.00	µg/L	SW8260C	0.176	2.00								
Ethylbenzene	< 2.00	µg/L	SW8260C	0.299	2.00								
Hexachlorobutadiene	< 2.00	µg/L	SW8260C	0.244	2.00								
Iodomethane	< 5.00	µg/L	SW8260C	0.516	5.00								
Isobutyl alcohol	< 100	µg/L	SW8260C	8.93	100								
Isopropyl acetate	< 10.0	µg/L	SW8260C	0.360	10.0								
Isopropyl alcohol	< 40.0	µg/L	SW8260C	9.35	40.0								
Isopropylbenzene	< 2.00	µg/L	SW8260C	0.357	2.00								
m,p-Xylene	< 2.00	µg/L	SW8260C	0.621	2.00								
Methacrylonitrile	< 5.00	µg/L	SW8260C	1.56	5.00								
Methyl Acetate	< 5.00	µg/L	SW8260C	0.535	5.00								
Methyl methacrylate	< 5.00	µg/L	SW8260C	0.241	5.00								
Methyl tert-butyl ether	< 2.00	µg/L	SW8260C	0.389	2.00								
Methylcyclohexane	< 2.00	µg/L	SW8260C	0.0914	2.00								
Methylene chloride	< 2.00	µg/L	SW8260C	0.155	2.00								
n-Amyl acetate	< 10.0	µg/L	SW8260C	0.545	10.0								
n-Butyl alcohol	< 100	µg/L	SW8260C	6.71	100								
n-Butylbenzene	< 2.00	µg/L	SW8260C	0.309	2.00								
n-Hexane	< 2.00	µg/L	SW8260C	0.456	2.00								
n-Octane	< 2.00	µg/L	SW8260C	1.14	2.00								
n-Propylbenzene	< 2.00	µg/L	SW8260C	0.640	2.00								
Naphthalene	< 2.00	µg/L	SW8260C	0.547	2.00								
o-Xylene	< 2.00	µg/L	SW8260C	0.271	2.00								
Pentachloroethane	< 5.00	µg/L	SW8260C	0.172	5.00								
Propionitrile	< 25.0	µg/L	SW8260C	1.29	25.0								



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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: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC 042213A		Date Analyzed: 04/22/2013 1126h											
Test Code: 8260-W													
Propyl acetate	< 10.0	µg/L	SW8260C	1.19	10.0								
sec-Butylbenzene	< 2.00	µg/L	SW8260C	0.484	2.00								
Styrene	< 2.00	µg/L	SW8260C	0.209	2.00								
tert-Butyl alcohol	< 20.0	µg/L	SW8260C	5.57	20.0								
tert-Butylbenzene	< 2.00	µg/L	SW8260C	0.306	2.00								
Tetrachloroethene	< 2.00	µg/L	SW8260C	0.191	2.00								
Tetrahydrofuran	< 2.00	µg/L	SW8260C	0.874	2.00								
Toluene	< 2.00	µg/L	SW8260C	0.429	2.00								
trans-1,2-Dichloroethene	< 2.00	µg/L	SW8260C	0.149	2.00								
trans-1,3-Dichloropropene	< 2.00	µg/L	SW8260C	0.200	2.00								
trans-1,4-Dichloro-2-butene	< 2.00	µg/L	SW8260C	0.575	2.00								
Trichloroethene	< 2.00	µg/L	SW8260C	0.181	2.00								
Trichlorofluoromethane	< 2.00	µg/L	SW8260C	0.135	2.00								
Vinyl acetate	< 10.0	µg/L	SW8260C	0.830	10.0								
Vinyl chloride	< 1.00	µg/L	SW8260C	0.110	1.00								
Xylenes, Total	< 2.00	µg/L	SW8260C	0.870	2.00								
Surr: 1,2-Dichloroethane-d4	56.9	µg/L	SW8260C			50.00		114	76 - 138				
Surr: 4-Bromofluorobenzene	54.7	µg/L	SW8260C			50.00		109	77 - 121				
Surr: Dibromofluoromethane	54.0	µg/L	SW8260C			50.00		108	67 - 128				
Surr: Toluene-d8	49.8	µg/L	SW8260C			50.00		99.6	81 - 135				

Lab Sample ID: MB VOC 042313A		Date Analyzed: 04/23/2013 1030h											
Test Code: 8260-W													
1,1,1,2-Tetrachloroethane	< 2.00	µg/L	SW8260C	0.198	2.00								
1,1,1-Trichloroethane	< 2.00	µg/L	SW8260C	0.269	2.00								
1,1,2,2-Tetrachloroethane	< 2.00	µg/L	SW8260C	0.235	2.00								
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2.00	µg/L	SW8260C	0.249	2.00								
1,1,2-Trichloroethane	< 2.00	µg/L	SW8260C	0.177	2.00								
1,1-Dichloropropene	< 2.00	µg/L	SW8260C	0.216	2.00								

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Kyle F. Gross
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Jose Rocha
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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC 042313A	Date Analyzed: 04/23/2013 1030h												
Test Code: 8260-W													
1,1-Dichloroethane	< 2.00	µg/L	SW8260C	0.142	2.00								
1,1-Dichloroethene	< 2.00	µg/L	SW8260C	0.124	2.00								
1,2,3-Trichlorobenzene	< 2.00	µg/L	SW8260C	0.211	2.00								
1,2,3-Trichloropropane	< 2.00	µg/L	SW8260C	0.226	2.00								
1,2,3-Trimethylbenzene	< 2.00	µg/L	SW8260C	0.0799	2.00								
1,2,4-Trichlorobenzene	< 2.00	µg/L	SW8260C	0.169	2.00								
1,2,4-Trimethylbenzene	< 2.00	µg/L	SW8260C	0.256	2.00								
1,2-Dibromo-3-chloropropane	< 5.00	µg/L	SW8260C	0.392	5.00								
1,2-Dibromoethane	< 2.00	µg/L	SW8260C	0.258	2.00								
1,2-Dichlorobenzene	< 2.00	µg/L	SW8260C	0.161	2.00								
1,2-Dichloroethane	< 2.00	µg/L	SW8260C	0.127	2.00								
1,2-Dichloropropane	< 2.00	µg/L	SW8260C	0.276	2.00								
1,3,5-Trimethylbenzene	< 2.00	µg/L	SW8260C	0.220	2.00								
1,3-Dichlorobenzene	< 2.00	µg/L	SW8260C	0.190	2.00								
1,3-Dichloropropane	< 2.00	µg/L	SW8260C	0.222	2.00								
1,4-Dichlorobenzene	< 2.00	µg/L	SW8260C	0.257	2.00								
1,4-Dioxane	< 50.0	µg/L	SW8260C	11.9	50.0								
2,2-Dichloropropane	< 2.00	µg/L	SW8260C	0.235	2.00								
2-Butanone	< 10.0	µg/L	SW8260C	1.45	10.0								
2-Chloroethyl vinyl ether	< 5.00	µg/L	SW8260C	4.69	5.00								
2-Chlorotoluene	< 2.00	µg/L	SW8260C	0.220	2.00								
2-Hexanone	< 5.00	µg/L	SW8260C	0.327	5.00								
2-Nitropropane	< 5.00	µg/L	SW8260C	0.501	5.00								
4-Chlorotoluene	< 2.00	µg/L	SW8260C	0.267	2.00								
4-Isopropyltoluene	< 2.00	µg/L	SW8260C	0.379	2.00								
4-Methyl-2-pentanone	< 5.00	µg/L	SW8260C	0.593	5.00								
Acetone	< 10.0	µg/L	SW8260C	3.35	10.0								
Acetonitrile	< 5.00	µg/L	SW8260C	2.80	5.00								
Acrolein	< 5.00	µg/L	SW8260C	1.29	5.00								



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC 042313A	Date Analyzed: 04/23/2013 1030h												
Test Code: 8260-W													
Acrylonitrile	< 10.0	µg/L	SW8260C	0.323	10.0								
Allyl chloride	< 5.00	µg/L	SW8260C	0.265	5.00								
Benzene	< 2.00	µg/L	SW8260C	0.149	2.00								
Benzyl chloride	< 5.00	µg/L	SW8260C	0.271	5.00								
Bis(2-chloroisopropyl) ether	< 5.00	µg/L	SW8260C	0.590	5.00								
Bromobenzene	< 2.00	µg/L	SW8260C	0.225	2.00								
Bromochloromethane	< 2.00	µg/L	SW8260C	0.149	2.00								
Bromodichloromethane	< 2.00	µg/L	SW8260C	0.324	2.00								
Bromoform	< 2.00	µg/L	SW8260C	0.206	2.00								
Bromomethane	< 5.00	µg/L	SW8260C	0.160	5.00								
Butyl acetate	< 10.0	µg/L	SW8260C	1.76	10.0								
Carbon disulfide	< 2.00	µg/L	SW8260C	0.257	2.00								
Carbon tetrachloride	< 2.00	µg/L	SW8260C	0.137	2.00								
Chlorobenzene	< 2.00	µg/L	SW8260C	0.352	2.00								
Chloroethane	< 2.00	µg/L	SW8260C	0.251	2.00								
Chloroform	< 2.00	µg/L	SW8260C	0.277	2.00								
Chloromethane	< 3.00	µg/L	SW8260C	0.127	3.00								
Chloroprene	< 2.00	µg/L	SW8260C	0.135	2.00								
cis-1,2-Dichloroethene	< 2.00	µg/L	SW8260C	0.138	2.00								
cis-1,3-Dichloropropene	< 2.00	µg/L	SW8260C	0.227	2.00								
Cyclohexane	< 2.00	µg/L	SW8260C	0.144	2.00								
Cyclohexanone	< 50.0	µg/L	SW8260C	2.90	50.0								
Dibromochloromethane	< 2.00	µg/L	SW8260C	0.276	2.00								
Dibromomethane	< 2.00	µg/L	SW8260C	0.230	2.00								
Dichlorodifluoromethane	< 2.00	µg/L	SW8260C	0.100	2.00								
Ethyl acetate	< 10.0	µg/L	SW8260C	0.583	10.0								
Ethyl ether	< 10.0	µg/L	SW8260C	0.273	10.0								
Ethyl methacrylate	< 2.00	µg/L	SW8260C	0.176	2.00								
Ethylbenzene	< 2.00	µg/L	SW8260C	0.299	2.00								



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Jose Rocha
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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1304578

Project: MP 44.9

Contact: Chris Bittner

Dept: MSVOA

QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC 042313A	Date Analyzed: 04/23/2013 1030h												
Test Code: 8260-W													
Hexachlorobutadiene	< 2.00	µg/L	SW8260C	0.244	2.00								
Iodomethane	< 5.00	µg/L	SW8260C	0.516	5.00								
Isobutyl alcohol	< 100	µg/L	SW8260C	8.93	100								
Isopropyl acetate	< 10.0	µg/L	SW8260C	0.360	10.0								
Isopropyl alcohol	< 40.0	µg/L	SW8260C	9.35	40.0								
Isopropylbenzene	< 2.00	µg/L	SW8260C	0.357	2.00								
m,p-Xylene	< 2.00	µg/L	SW8260C	0.621	2.00								
Methacrylonitrile	< 5.00	µg/L	SW8260C	1.56	5.00								
Methyl Acetate	< 5.00	µg/L	SW8260C	0.535	5.00								
Methyl methacrylate	< 5.00	µg/L	SW8260C	0.241	5.00								
Methyl tert-butyl ether	< 2.00	µg/L	SW8260C	0.389	2.00								
Methylcyclohexane	< 2.00	µg/L	SW8260C	0.0914	2.00								
Methylene chloride	< 2.00	µg/L	SW8260C	0.155	2.00								
n-Amyl acetate	< 10.0	µg/L	SW8260C	0.545	10.0								
n-Butyl alcohol	< 100	µg/L	SW8260C	6.71	100								
n-Butylbenzene	< 2.00	µg/L	SW8260C	0.309	2.00								
n-Hexane	< 2.00	µg/L	SW8260C	0.456	2.00								
n-Octane	< 2.00	µg/L	SW8260C	1.14	2.00								
n-Propylbenzene	< 2.00	µg/L	SW8260C	0.640	2.00								
Naphthalene	< 2.00	µg/L	SW8260C	0.547	2.00								
o-Xylene	< 2.00	µg/L	SW8260C	0.271	2.00								
Pentachloroethane	< 5.00	µg/L	SW8260C	0.172	5.00								
Propionitrile	< 25.0	µg/L	SW8260C	1.29	25.0								
Propyl acetate	< 10.0	µg/L	SW8260C	1.19	10.0								
sec-Butylbenzene	< 2.00	µg/L	SW8260C	0.484	2.00								
Styrene	< 2.00	µg/L	SW8260C	0.209	2.00								
tert-Butyl alcohol	< 20.0	µg/L	SW8260C	5.57	20.0								
tert-Butylbenzene	< 2.00	µg/L	SW8260C	0.306	2.00								
Tetrachloroethene	< 2.00	µg/L	SW8260C	0.191	2.00								



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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1304578

Project: MP 44.9

Contact: Chris Bittner

Dept: MSVOA

QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC 042313A	Date Analyzed: 04/23/2013 1030h												
Test Code: 8260-W													
Tetrahydrofuran	< 2.00	µg/L	SW8260C	0.874	2.00								
Toluene	< 2.00	µg/L	SW8260C	0.429	2.00								
trans-1,2-Dichloroethene	< 2.00	µg/L	SW8260C	0.149	2.00								
trans-1,3-Dichloropropene	< 2.00	µg/L	SW8260C	0.200	2.00								
trans-1,4-Dichloro-2-butene	< 2.00	µg/L	SW8260C	0.575	2.00								
Trichloroethene	< 2.00	µg/L	SW8260C	0.181	2.00								
Trichlorofluoromethane	< 2.00	µg/L	SW8260C	0.135	2.00								
Vinyl acetate	< 10.0	µg/L	SW8260C	0.830	10.0								
Vinyl chloride	< 1.00	µg/L	SW8260C	0.110	1.00								
Xylenes, Total	< 2.00	µg/L	SW8260C	0.870	2.00								
Surr: 1,2-Dichloroethane-d4	57.7	µg/L	SW8260C			50.00		115	76 - 138				
Surr: 4-Bromofluorobenzene	56.1	µg/L	SW8260C			50.00		112	77 - 121				
Surr: Dibromofluoromethane	54.4	µg/L	SW8260C			50.00		109	67 - 128				
Surr: Toluene-d8	50.5	µg/L	SW8260C			50.00		101	81 - 135				



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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1304578

Project: MP 44.9

Contact: Chris Bittner

Dept: MSVOA

QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1304578-001AMS		Date Analyzed: 04/22/2013 1717h											
Test Code: 8260-W													
1,1,1-Trichloroethane	20.4	µg/L	SW8260C	0.269	2.00	20.00	0	102	67 - 147				
1,1-Dichloroethene	19.9	µg/L	SW8260C	0.124	2.00	20.00	0	99.7	51 - 152				
1,2-Dichlorobenzene	16.4	µg/L	SW8260C	0.161	2.00	20.00	0	81.8	70 - 130				
1,2-Dichloroethane	18.4	µg/L	SW8260C	0.127	2.00	20.00	0	91.8	39 - 162				
1,2-Dichloropropane	15.9	µg/L	SW8260C	0.276	2.00	20.00	0	79.4	59 - 135				
Benzene	17.0	µg/L	SW8260C	0.149	2.00	20.00	0	85.2	66 - 145				
Chlorobenzene	15.9	µg/L	SW8260C	0.352	2.00	20.00	0	79.6	63 - 140				
Chloroform	17.8	µg/L	SW8260C	0.277	2.00	20.00	0	89.1	50 - 146				
Ethylbenzene	16.5	µg/L	SW8260C	0.299	2.00	20.00	0	82.6	69 - 133				
Isopropylbenzene	17.0	µg/L	SW8260C	0.357	2.00	20.00	0	85.2	60 - 147				
Methyl tert-butyl ether	23.9	µg/L	SW8260C	0.389	2.00	20.00	0	120	37 - 189				
Methylene chloride	19.5	µg/L	SW8260C	0.155	2.00	20.00	0	97.6	30 - 192				
Naphthalene	11.3	µg/L	SW8260C	0.547	2.00	20.00	0	56.4	41 - 131				
Tetrahydrofuran	19.4	µg/L	SW8260C	0.874	2.00	20.00	0	97.3	43 - 146				
Toluene	16.1	µg/L	SW8260C	0.429	2.00	20.00	0	80.6	18 - 192				
Trichloroethene	18.8	µg/L	SW8260C	0.181	2.00	20.00	0	94.0	61 - 153				
Xylenes, Total	48.2	µg/L	SW8260C	0.870	2.00	60.00	0	80.4	42 - 167				
Surr: 1,2-Dichloroethane-d4	57.4	µg/L	SW8260C			50.00		115	72 - 151				
Surr: 4-Bromofluorobenzene	51.0	µg/L	SW8260C			50.00		102	80 - 128				
Surr: Dibromofluoromethane	54.5	µg/L	SW8260C			50.00		109	80 - 124				
Surr: Toluene-d8	48.1	µg/L	SW8260C			50.00		96.2	77 - 129				



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QC SUMMARY REPORT

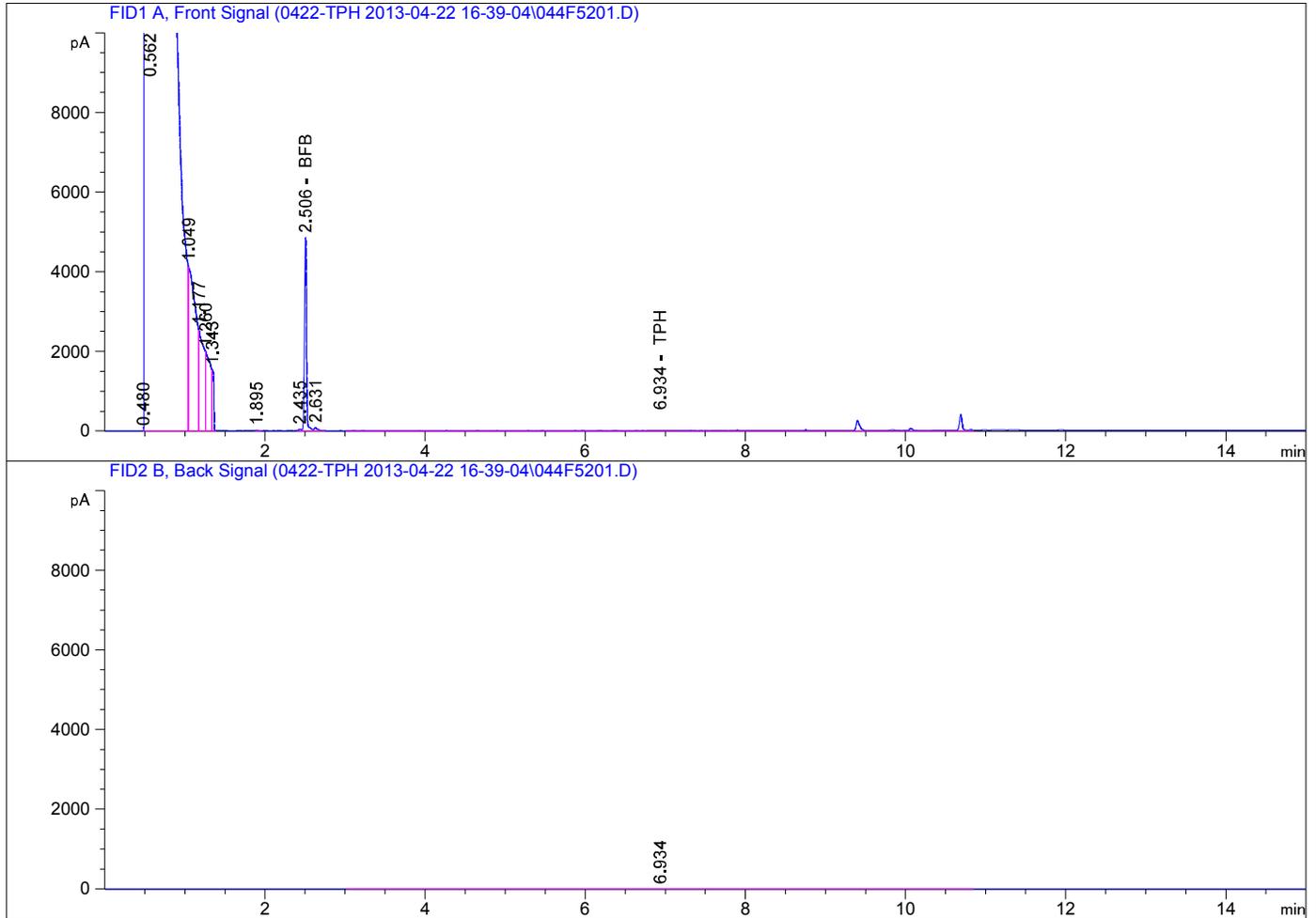
Client: Utah Division of Water Quality
Lab Set ID: 1304578
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1304578-001AMSD		Date Analyzed: 04/22/2013 1736h											
Test Code: 8260-W													
1,1,1-Trichloroethane	24.6	µg/L	SW8260C	0.269	2.00	20.00	0	123	67 - 147	20.4	18.7	25	
1,1-Dichloroethene	24.2	µg/L	SW8260C	0.124	2.00	20.00	0	121	51 - 152	19.9	19.4	25	
1,2-Dichlorobenzene	20.4	µg/L	SW8260C	0.161	2.00	20.00	0	102	70 - 130	16.4	22.1	25	
1,2-Dichloroethane	22.4	µg/L	SW8260C	0.127	2.00	20.00	0	112	39 - 162	18.4	19.8	25	
1,2-Dichloropropane	19.1	µg/L	SW8260C	0.276	2.00	20.00	0	95.7	59 - 135	15.9	18.6	25	
Benzene	21.0	µg/L	SW8260C	0.149	2.00	20.00	0	105	66 - 145	17	21.0	25	
Chlorobenzene	20.0	µg/L	SW8260C	0.352	2.00	20.00	0	100	63 - 140	15.9	22.7	25	
Chloroform	21.6	µg/L	SW8260C	0.277	2.00	20.00	0	108	50 - 146	17.8	19.1	25	
Ethylbenzene	20.8	µg/L	SW8260C	0.299	2.00	20.00	0	104	69 - 133	16.5	23.2	25	
Isopropylbenzene	21.6	µg/L	SW8260C	0.357	2.00	20.00	0	108	60 - 147	17	23.8	25	
Methyl tert-butyl ether	18.9	µg/L	SW8260C	0.389	2.00	20.00	0	94.4	37 - 189	23.9	23.6	25	
Methylene chloride	23.1	µg/L	SW8260C	0.155	2.00	20.00	0	116	30 - 192	19.5	16.9	25	
Naphthalene	14.5	µg/L	SW8260C	0.547	2.00	20.00	0	72.4	41 - 131	11.3	25.0	25	@
Tetrahydrofuran	13.7	µg/L	SW8260C	0.874	2.00	20.00	0	68.6	43 - 146	19.5	34.6	25	@
Toluene	20.5	µg/L	SW8260C	0.429	2.00	20.00	0	102	18 - 192	16.1	23.8	25	
Trichloroethene	21.7	µg/L	SW8260C	0.181	2.00	20.00	0	108	61 - 153	18.8	14.2	25	
Xylenes, Total	61.5	µg/L	SW8260C	0.870	2.00	60.00	0	103	42 - 167	48.2	24.2	25	
Surr: 1,2-Dichloroethane-d4	56.3	µg/L	SW8260C			50.00		113	72 - 151				
Surr: 4-Bromofluorobenzene	52.0	µg/L	SW8260C			50.00		104	80 - 128				
Surr: Dibromofluoromethane	53.2	µg/L	SW8260C			50.00		106	80 - 124				
Surr: Toluene-d8	48.3	µg/L	SW8260C			50.00		96.5	77 - 129				

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

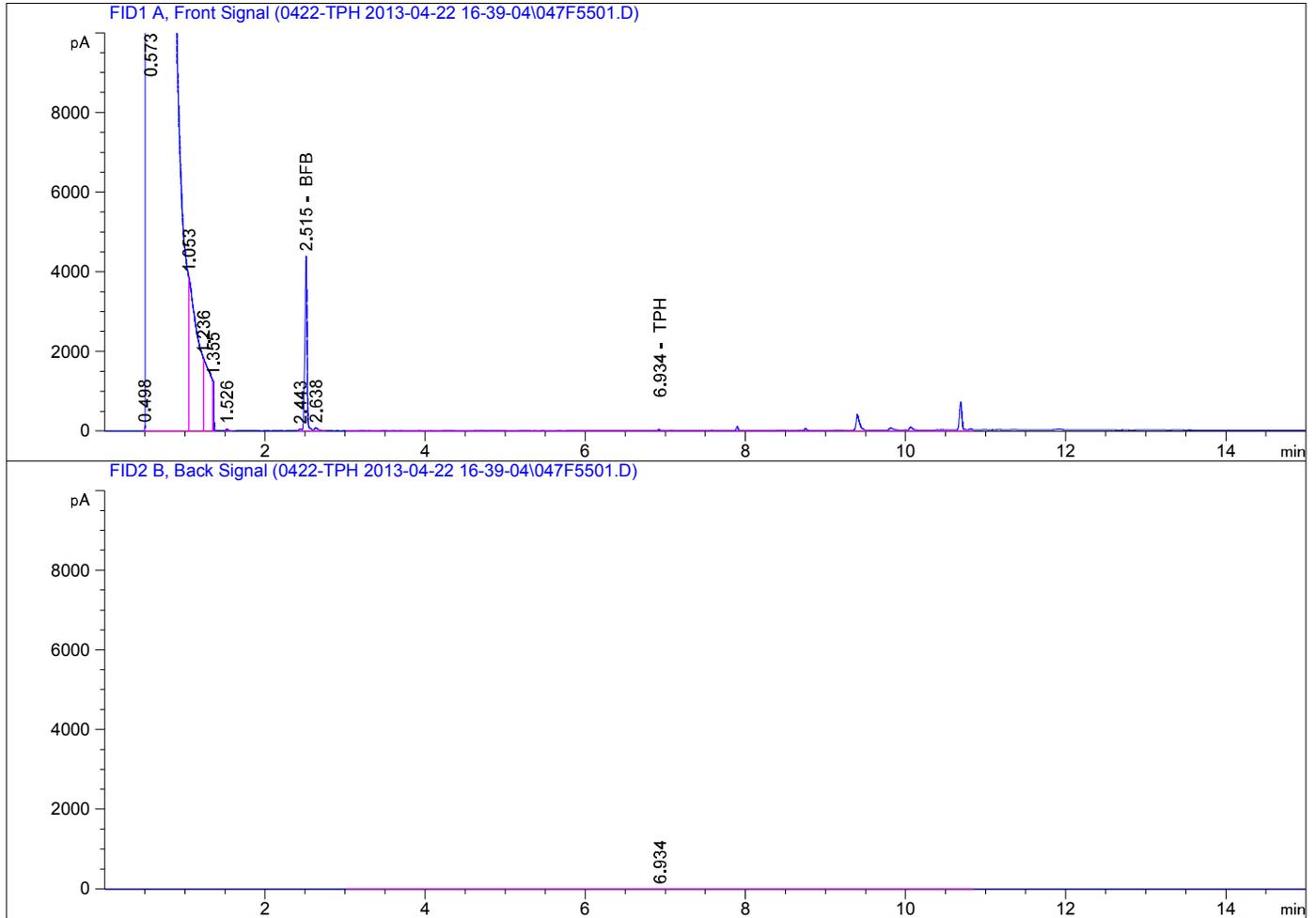
=====
Acq. Operator : Seq. Line : 52
Acq. Instrument : GC C Location : Vial 44
Injection Date : 4/23/2013 9:10:09 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/23/2013 11:13:16 AM
(modified after loading)
=====



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

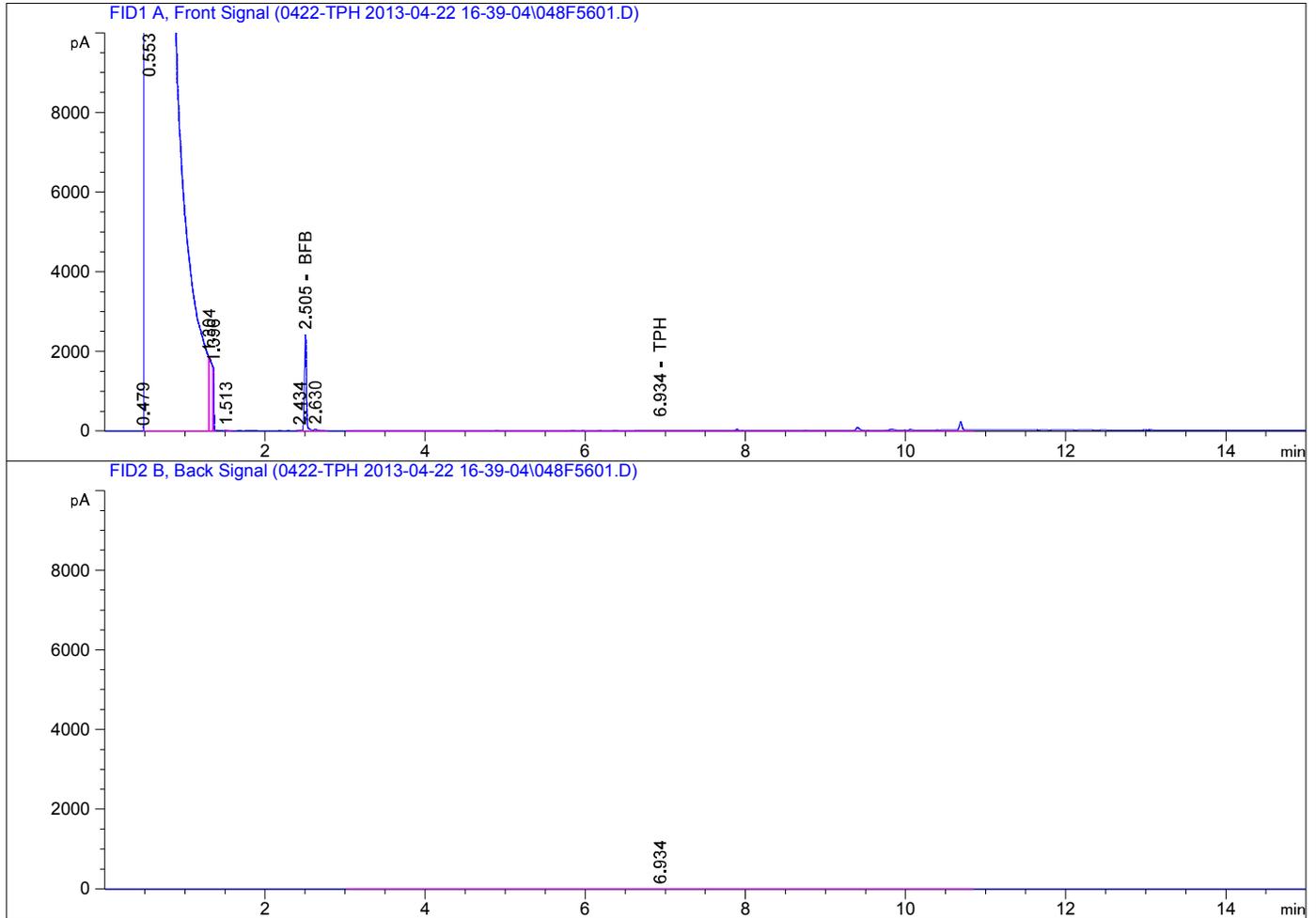
=====
Acq. Operator : Seq. Line : 55
Acq. Instrument : GC C Location : Vial 47
Injection Date : 4/23/2013 10:08:04 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/23/2013 11:13:16 AM
(modified after loading)
=====



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

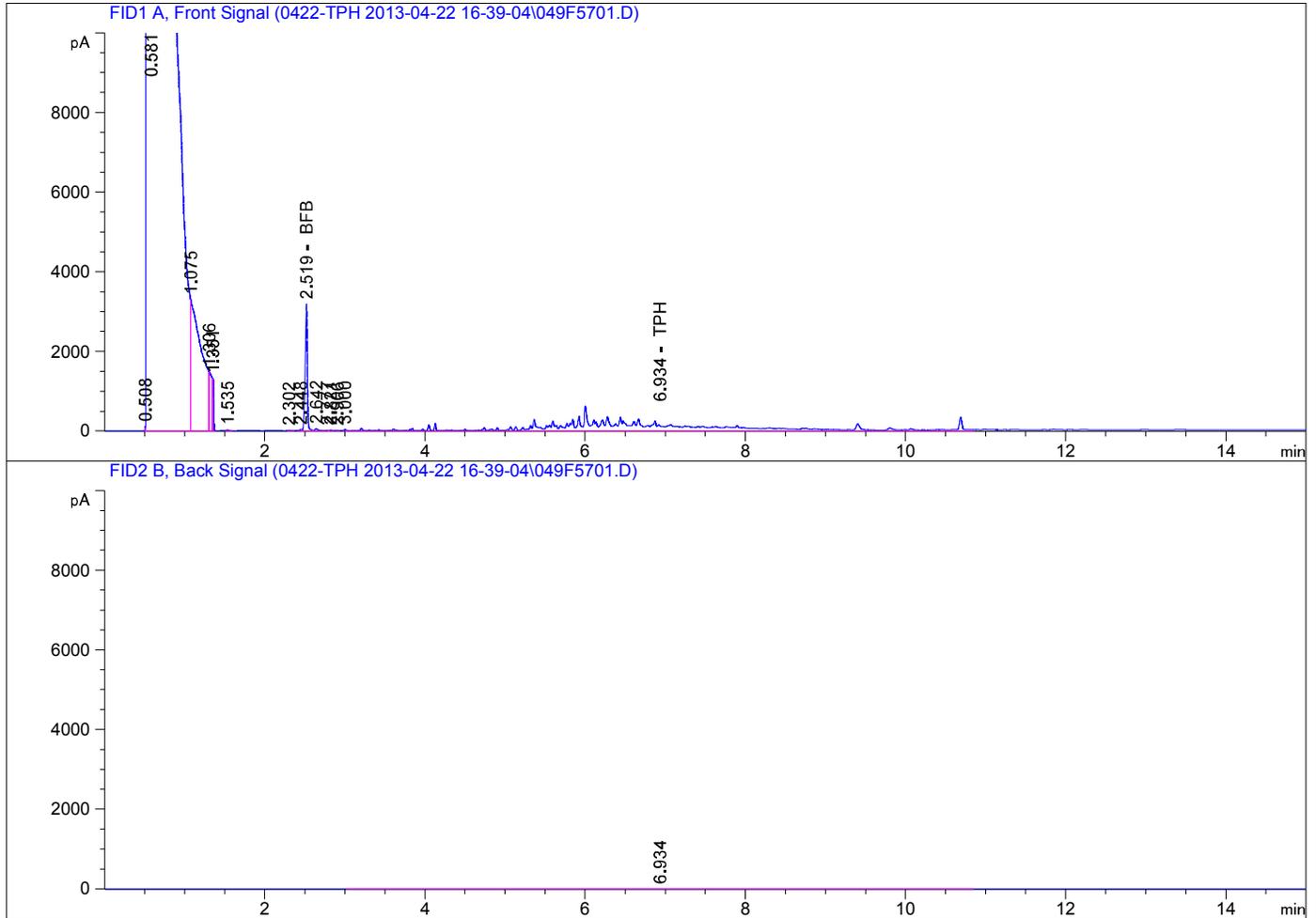
=====
Acq. Operator : Seq. Line : 56
Acq. Instrument : GC C Location : Vial 48
Injection Date : 4/23/2013 10:27:30 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/23/2013 11:13:16 AM
(modified after loading)
=====



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

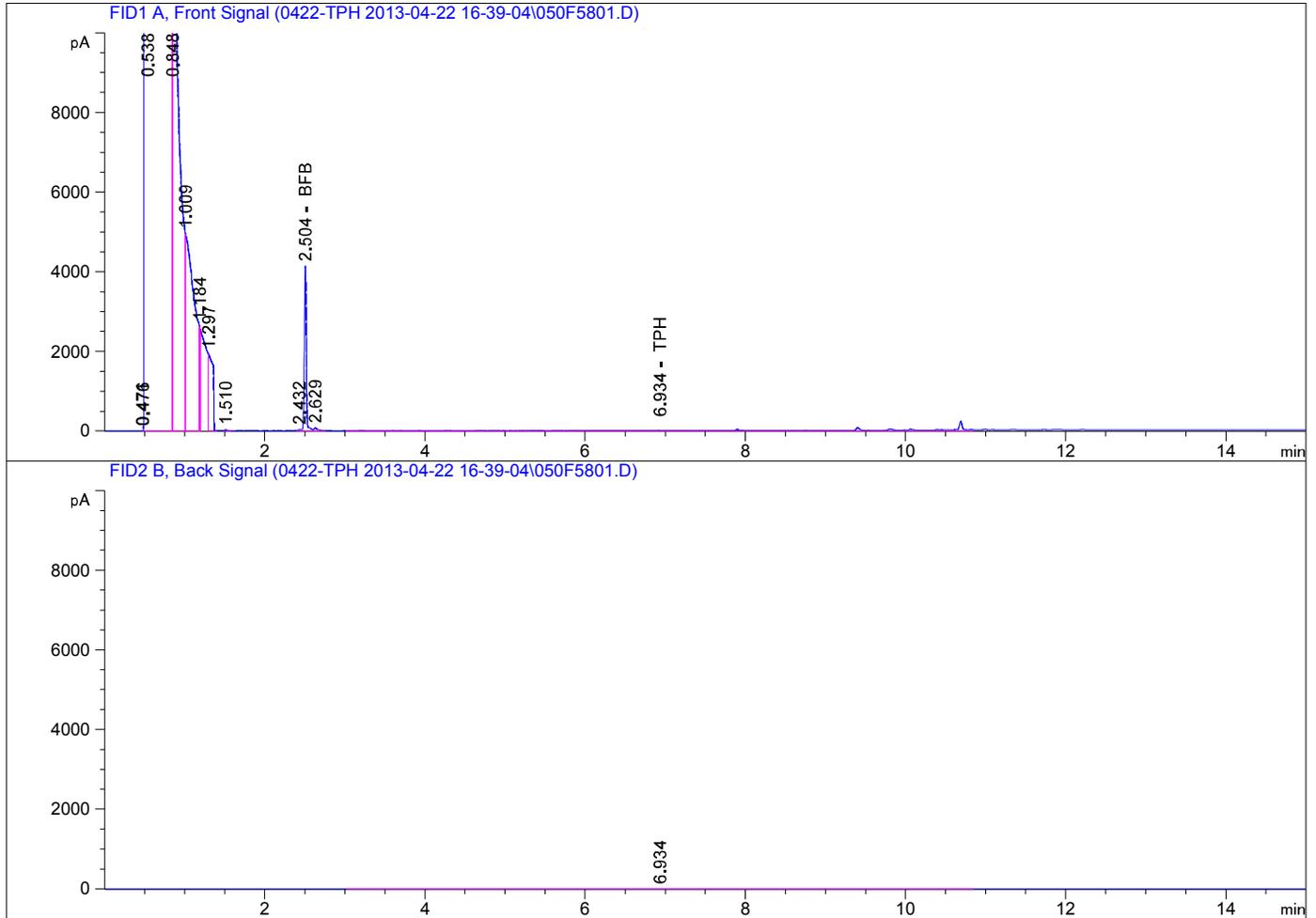
=====
Acq. Operator : Seq. Line : 57
Acq. Instrument : GC C Location : Vial 49
Injection Date : 4/23/2013 10:46:43 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/23/2013 11:13:16 AM
(modified after loading)
=====



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

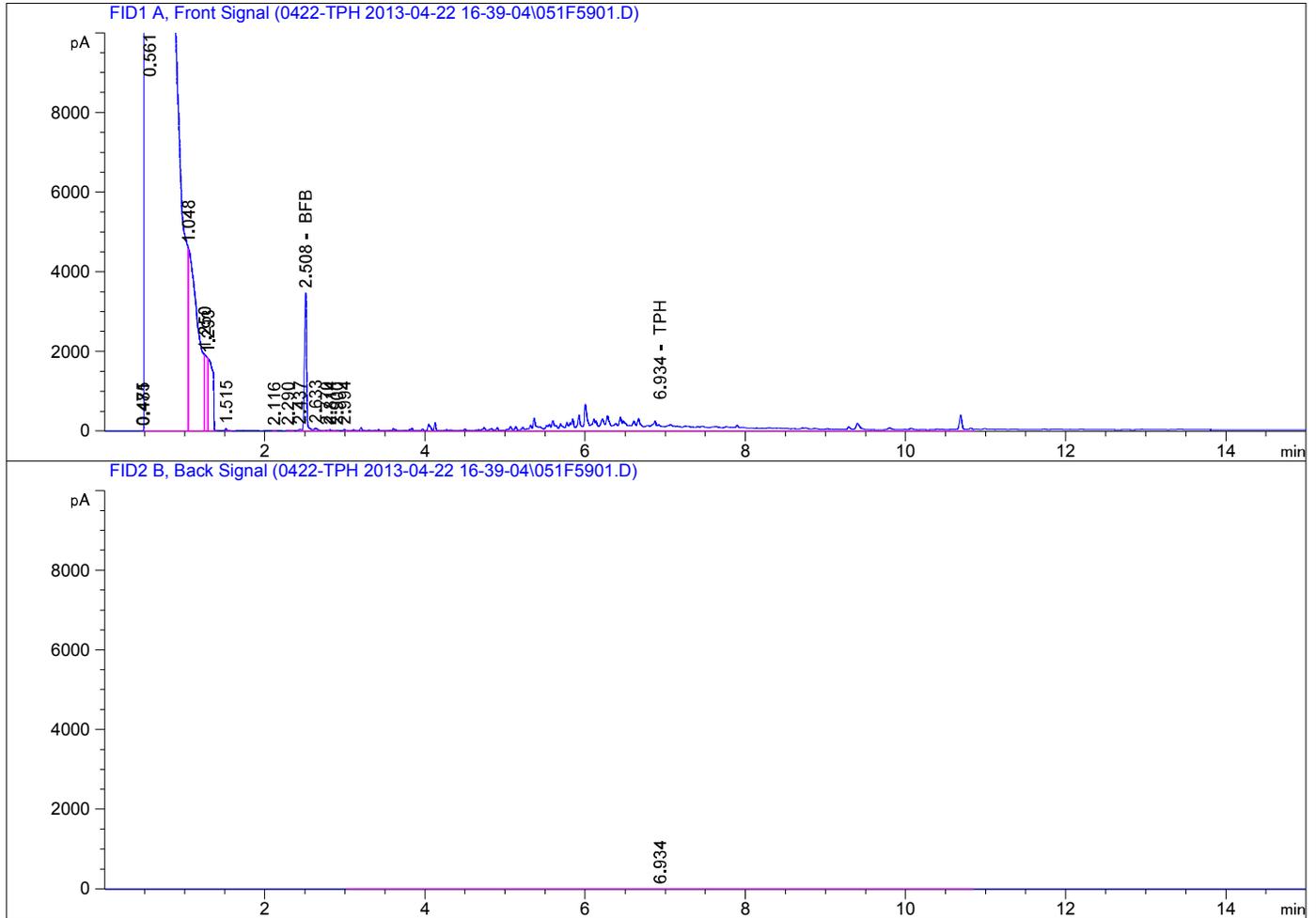
=====
Acq. Operator : Seq. Line : 58
Acq. Instrument : GC C Location : Vial 50
Injection Date : 4/23/2013 11:06:07 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/23/2013 11:13:16 AM
(modified after loading)
=====



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

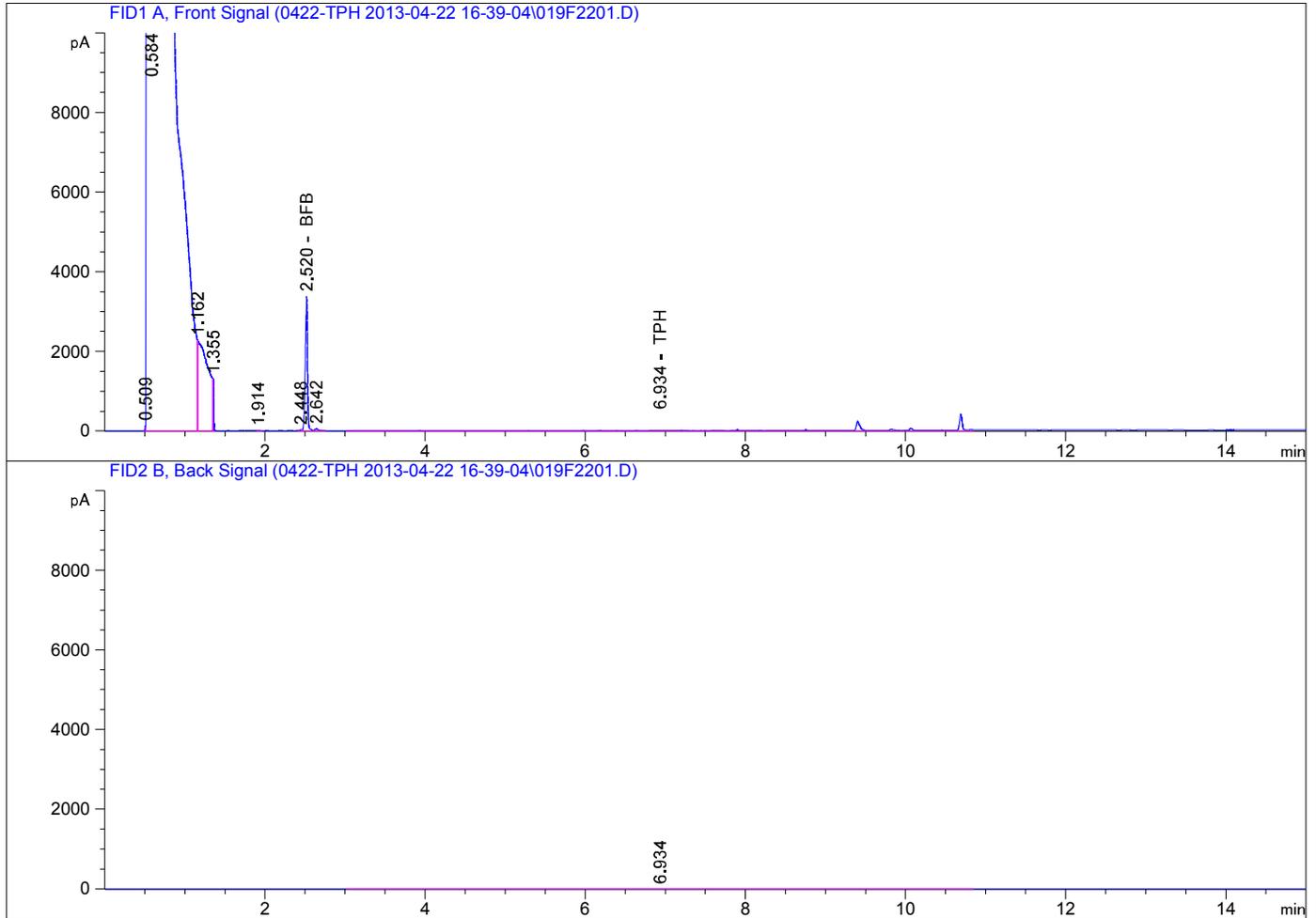
=====
Acq. Operator : Seq. Line : 59
Acq. Instrument : GC C Location : Vial 51
Injection Date : 4/23/2013 11:25:31 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/23/2013 11:41:58 AM
(modified after loading)
=====



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

=====
Acq. Operator : Seq. Line : 22
Acq. Instrument : GC C Location : Vial 19
Injection Date : 4/22/2013 11:29:03 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/23/2013 11:13:16 AM
(modified after loading)
=====

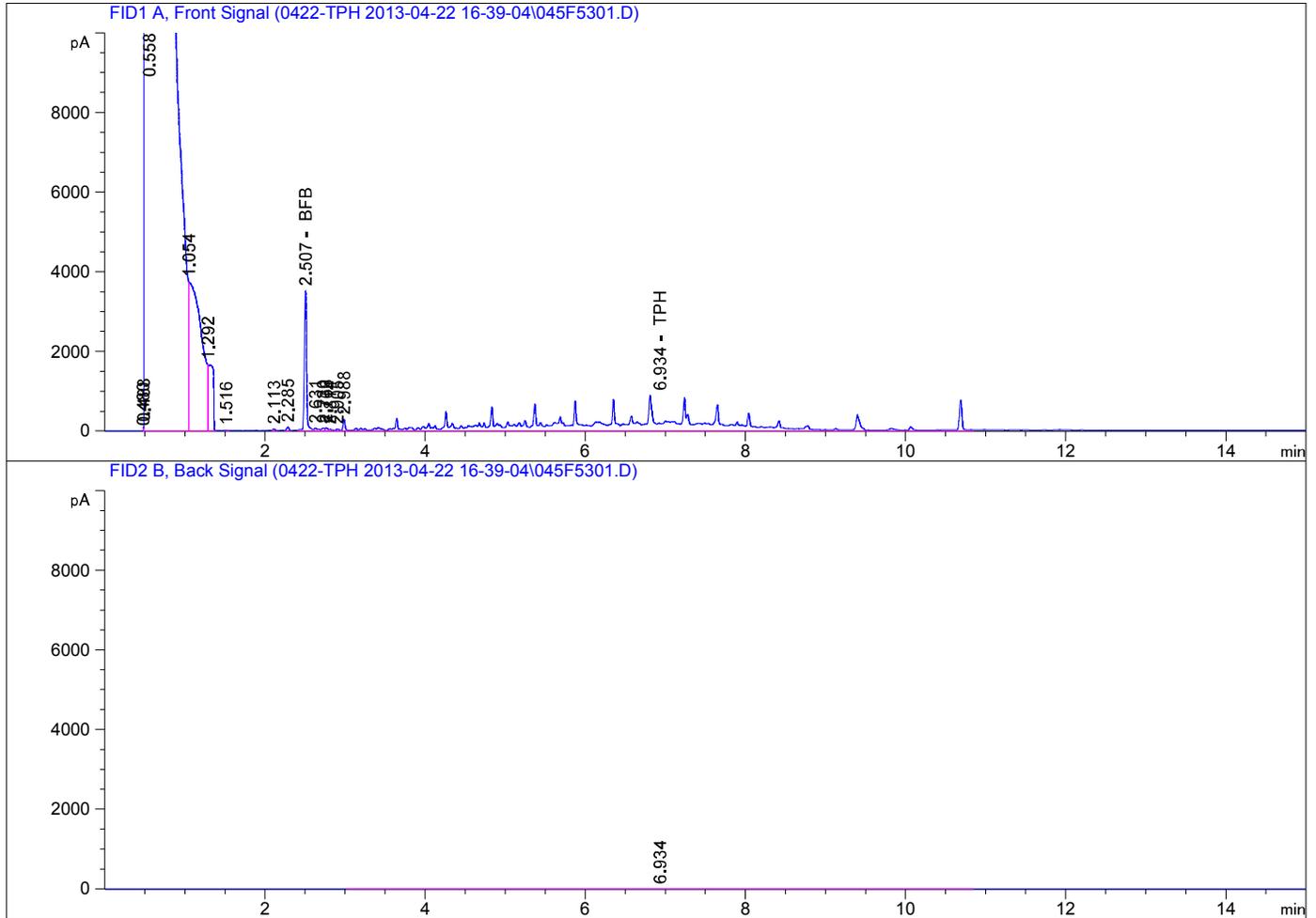


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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Sample Name: ~~1304578-001CMSD~~ **1304578-001CMS** **04-23-13 JS**

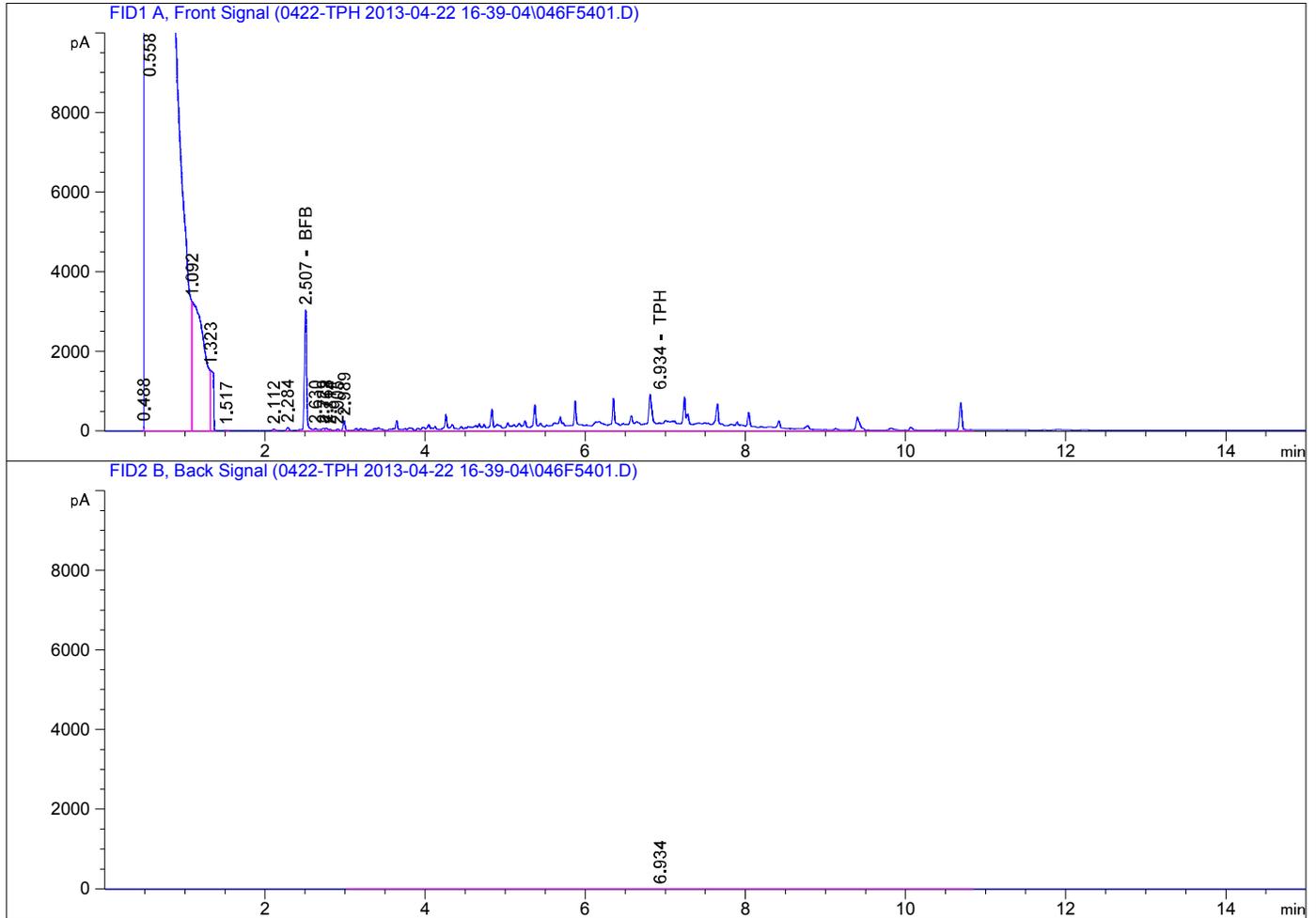
=====
Acq. Operator : Seq. Line : 53
Acq. Instrument : GC C Location : Vial 45
Injection Date : 4/23/2013 9:29:33 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/23/2013 11:13:16 AM
(modified after loading)
=====



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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

=====
Acq. Operator : Seq. Line : 54
Acq. Instrument : GC C Location : Vial 46
Injection Date : 4/23/2013 9:48:51 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0422-TPH 2013-04-22 16-39-04\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/23/2013 11:13:16 AM
(modified after loading)
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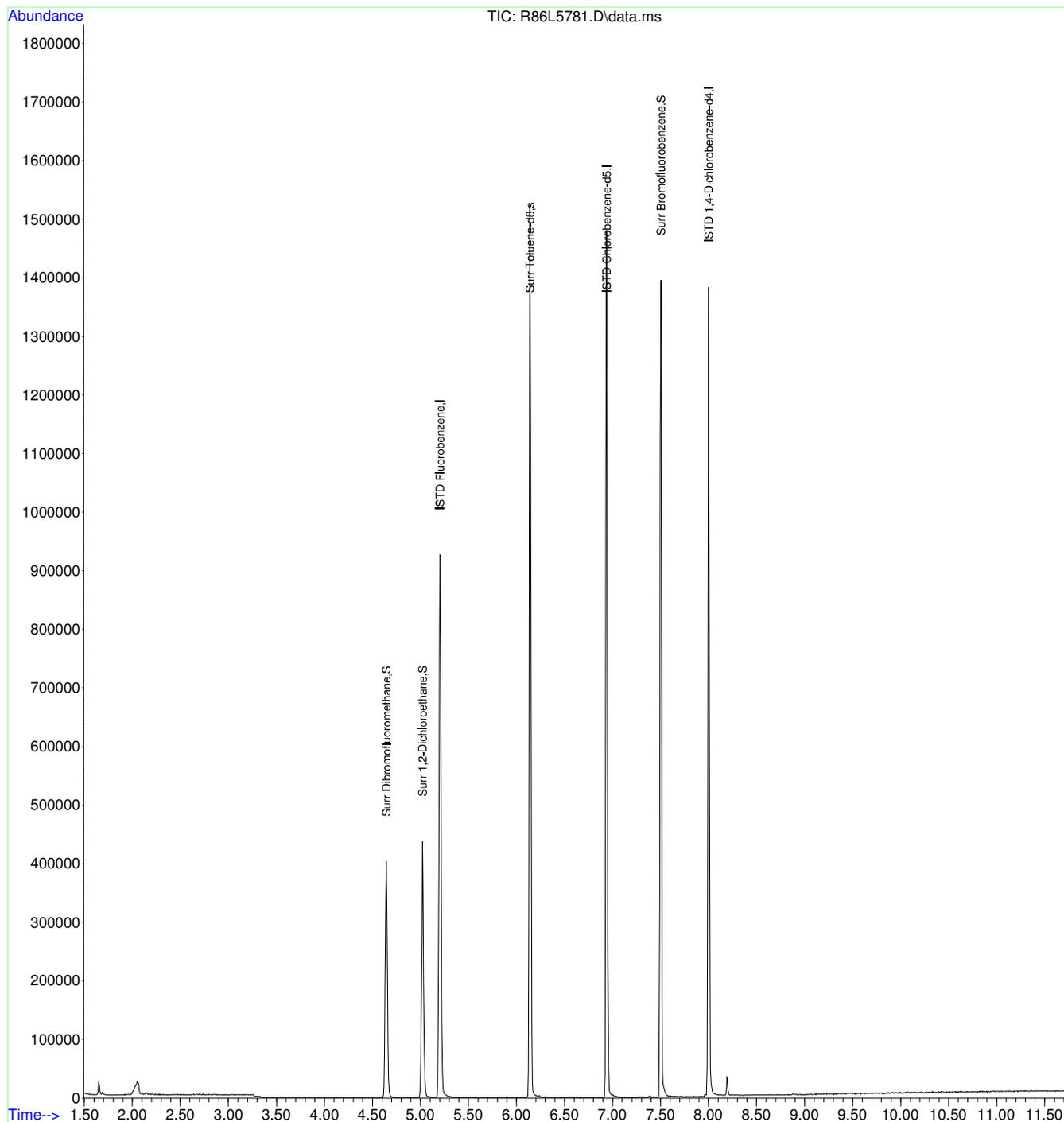
=====
External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\22APR13\
Data File : R86L5781.D
Acq On : 22 Apr 2013 4:58 pm
Operator :
Sample : 1304578-001A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 19 Sample Multiplier: 1

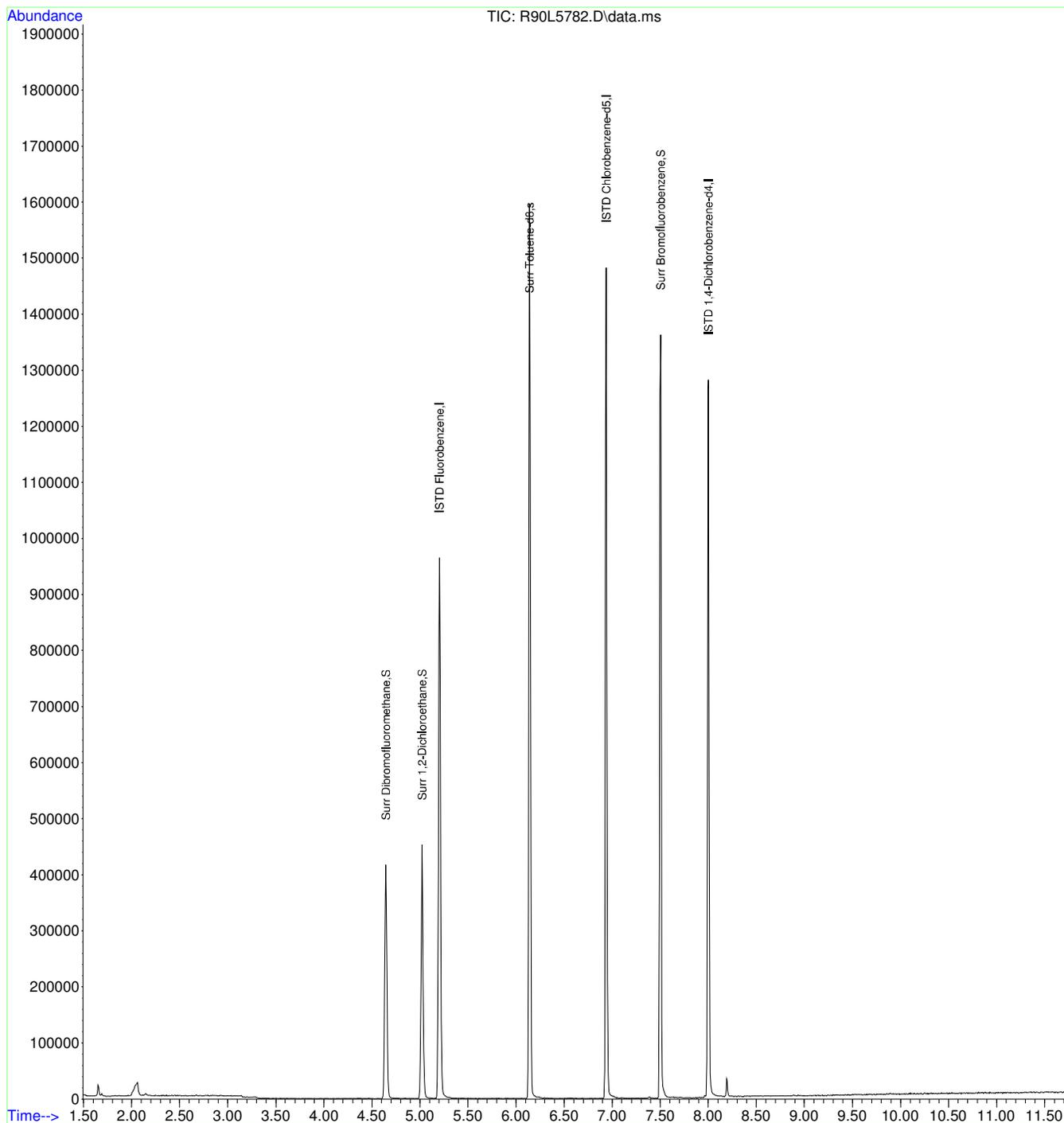
Quant Time: Apr 23 09:12:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Fri Apr 19 11:29:31 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\22APR13\
Data File : R90L5782.D
Acq On : 22 Apr 2013 6:14 pm
Operator :
Sample : 1304578-002A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 23 Sample Multiplier: 1

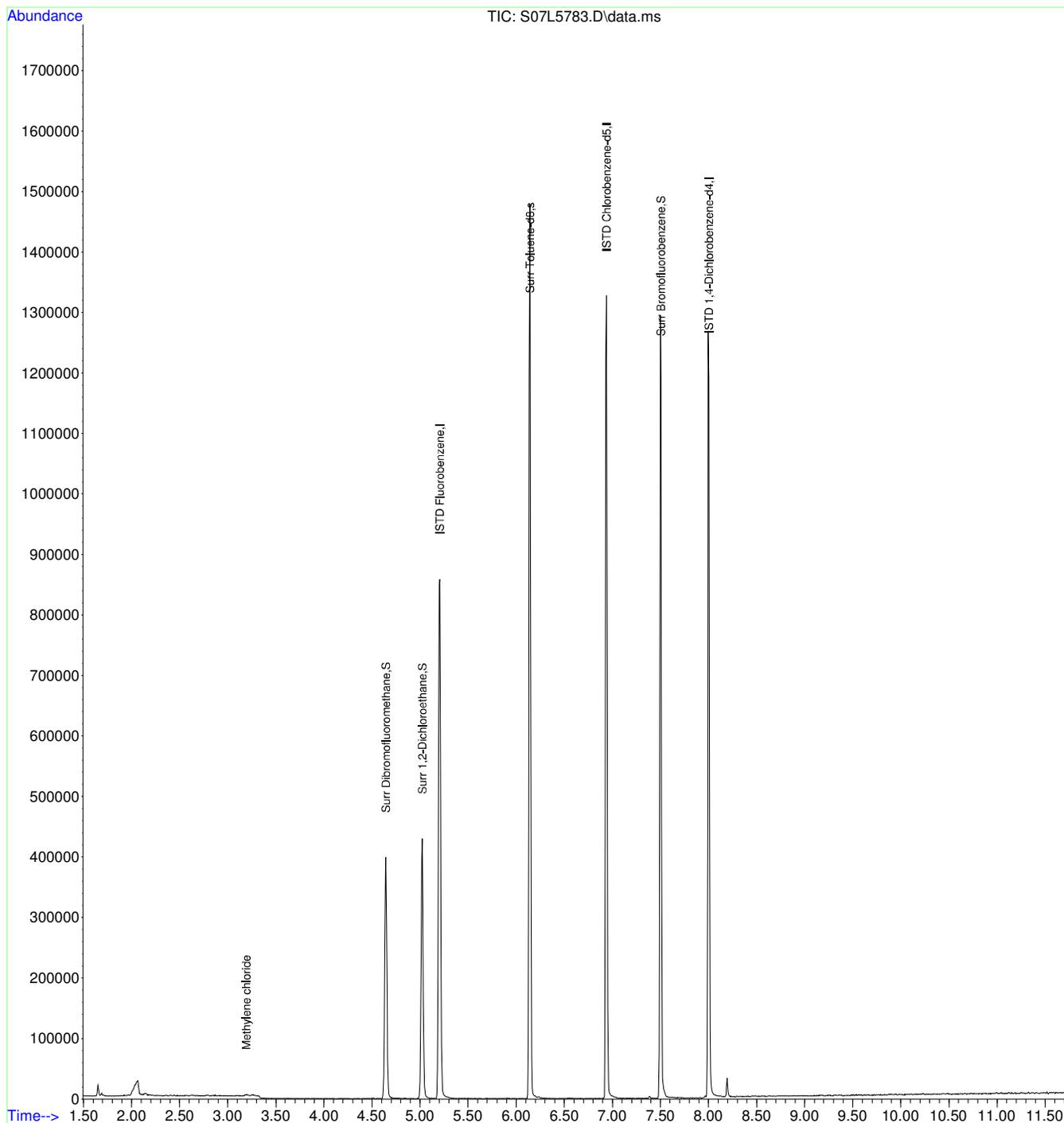
Quant Time: Apr 23 09:13:08 2013
Quant Method : C:\msdchem\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Tue Apr 23 09:06:02 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\23APR13\
Data File : S07L5783.D
Acq On : 23 Apr 2013 11:10 am
Operator :
Sample : 1304578-003A
Misc : SAMP 5.0ML 2OF3 SB
ALS Vial : 7 Sample Multiplier: 1

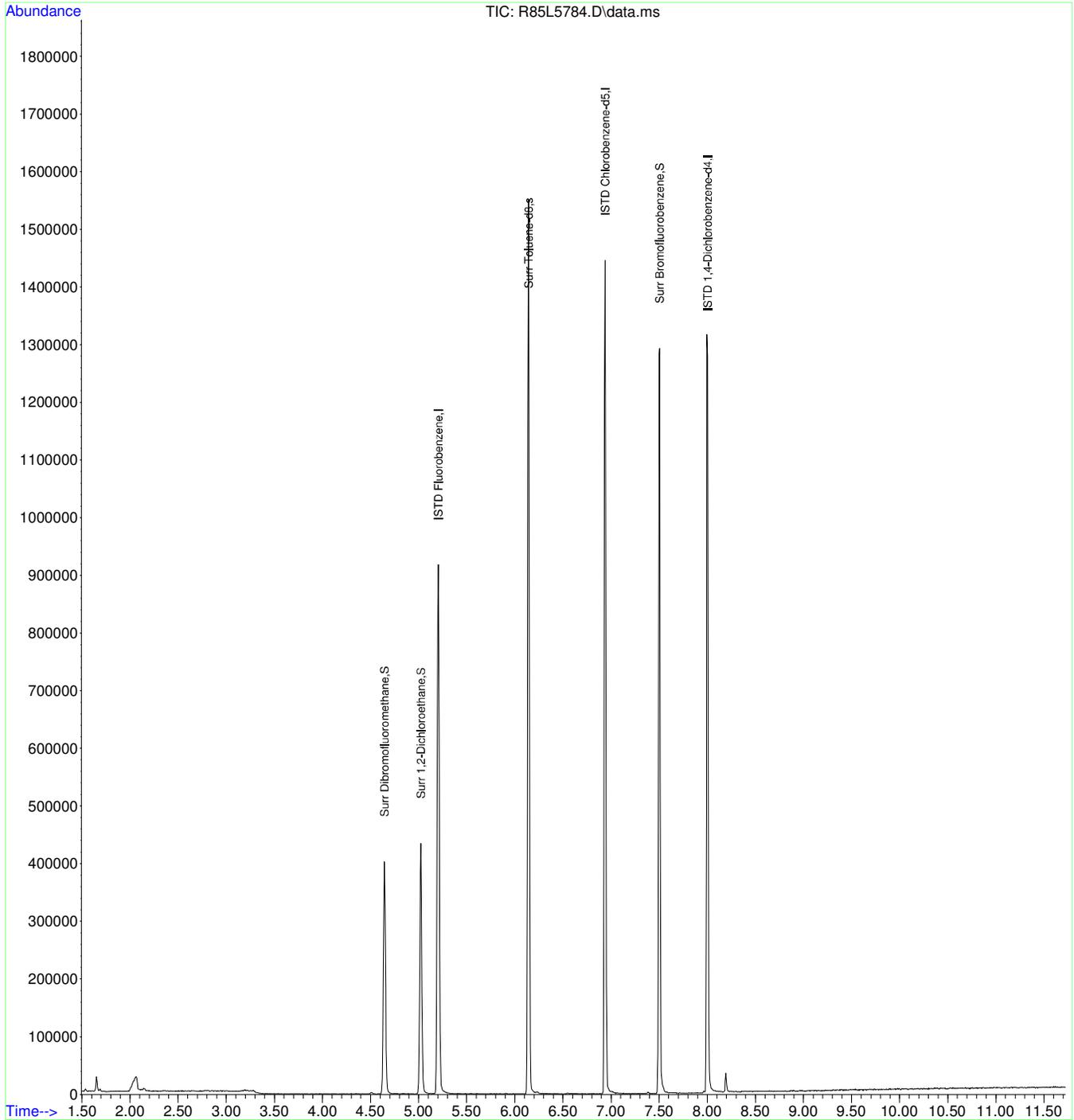
Quant Time: Apr 23 13:32:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Tue Apr 23 09:06:02 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\22APR13\
Data File : R85L5784.D
Acq On : 22 Apr 2013 4:39 pm
Operator :
Sample : 1304578-004A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 18 Sample Multiplier: 1

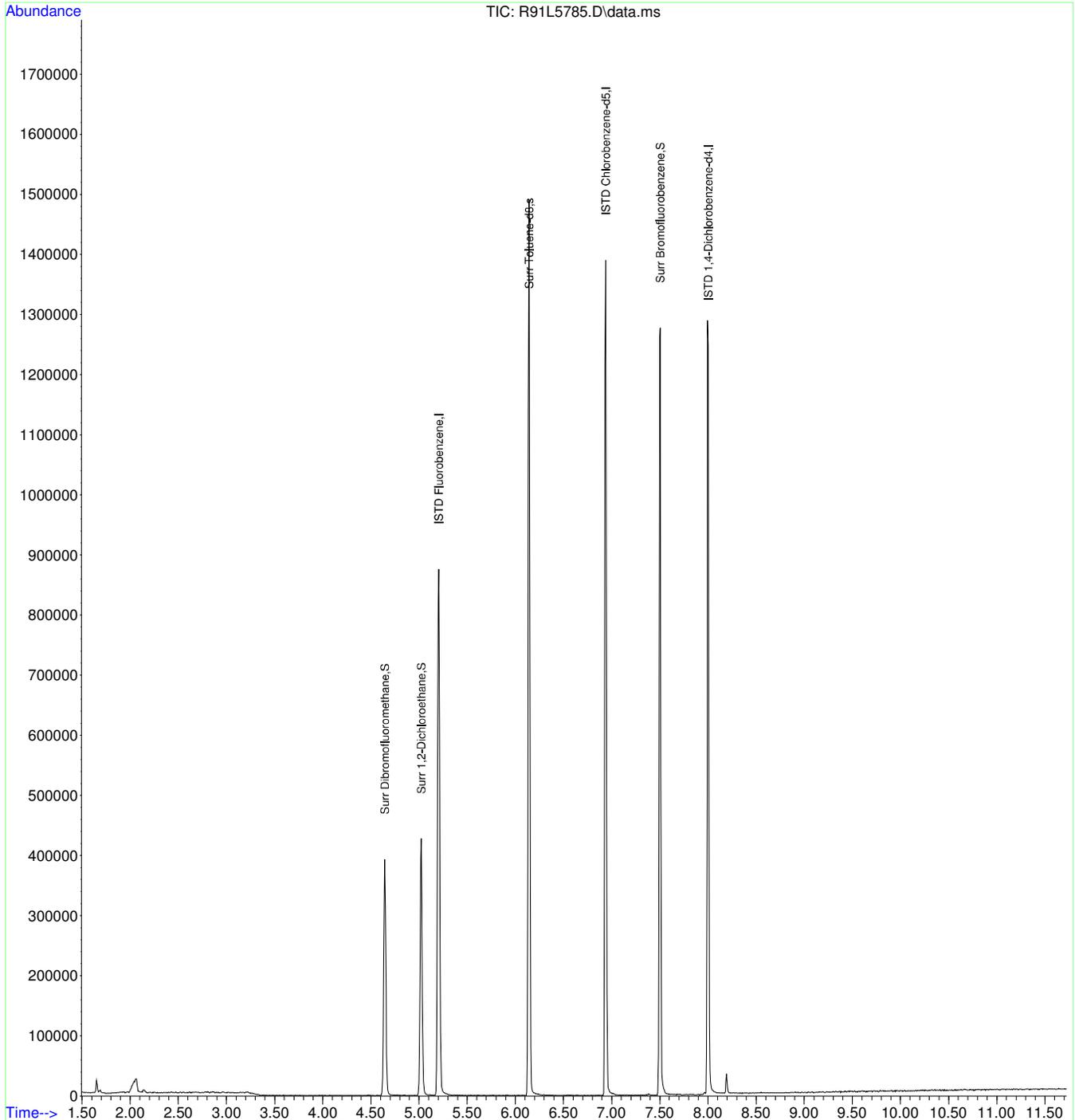
Quant Time: Apr 23 09:11:43 2013
Quant Method : C:\msdchem\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Tue Apr 23 09:06:02 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\22APR13\
Data File : R91L5785.D
Acq On : 22 Apr 2013 6:33 pm
Operator :
Sample : 1304578-005A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 24 Sample Multiplier: 1

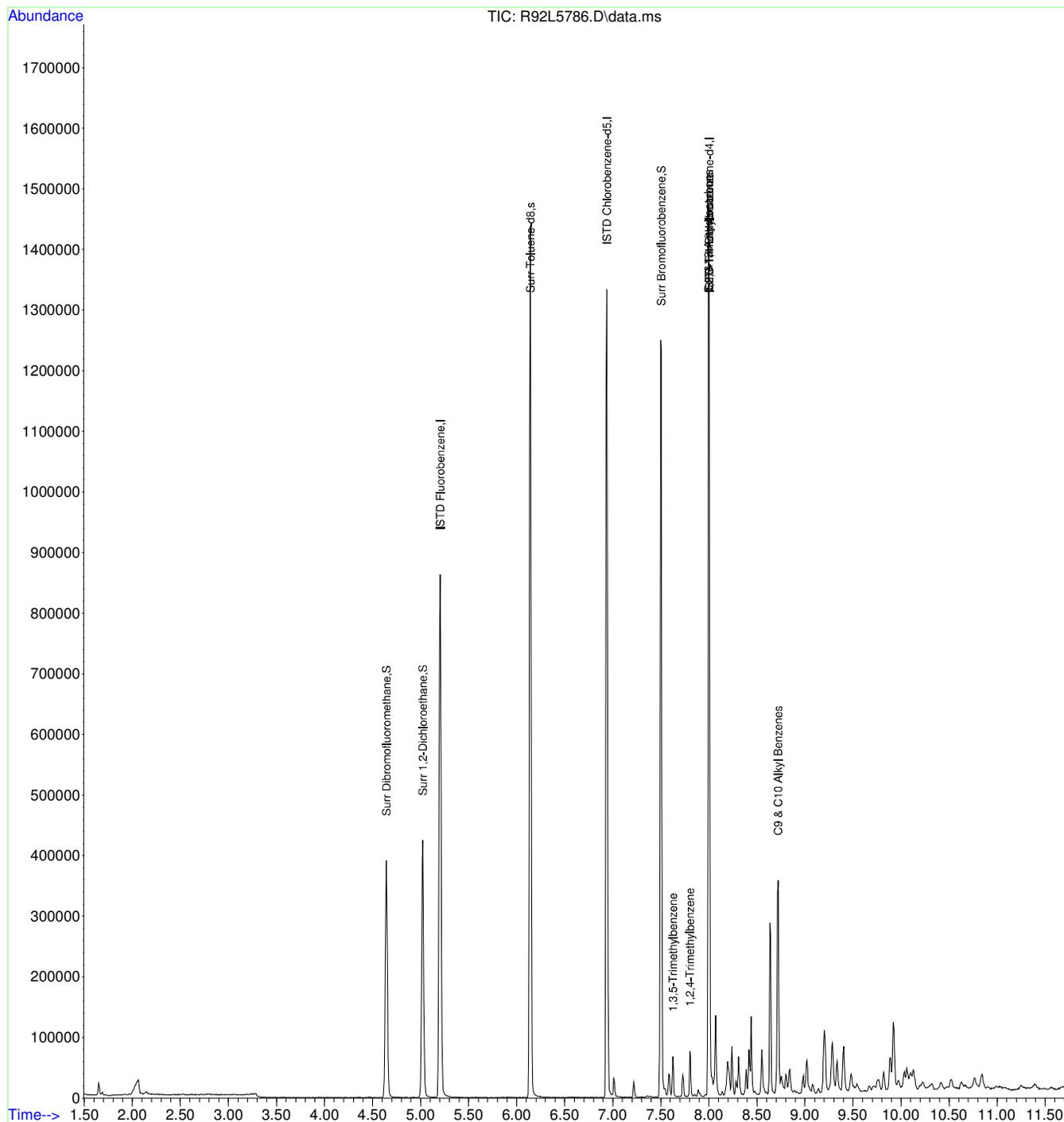
Quant Time: Apr 23 09:13:42 2013
Quant Method : C:\msdchem\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Tue Apr 23 09:06:02 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\22APR13\
Data File : R92L5786.D
Acq On : 22 Apr 2013 6:52 pm
Operator :
Sample : 1304578-006A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 25 Sample Multiplier: 1

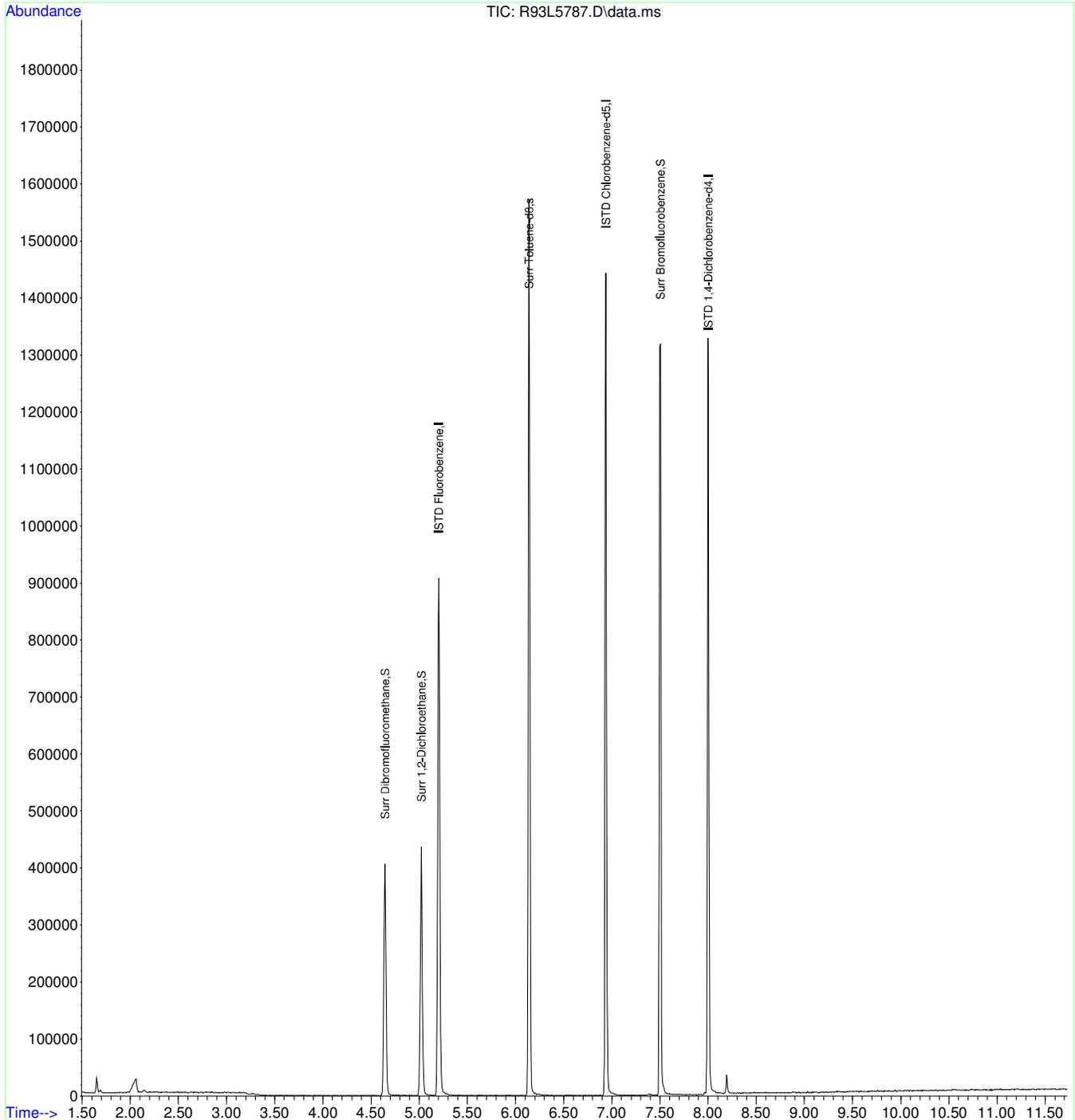
Quant Time: Apr 23 09:16:32 2013
Quant Method : C:\msdchem\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Tue Apr 23 09:06:02 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\22APR13\
Data File : R93L5787.D
Acq On : 22 Apr 2013 7:11 pm
Operator :
Sample : 1304578-007A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 26 Sample Multiplier: 1

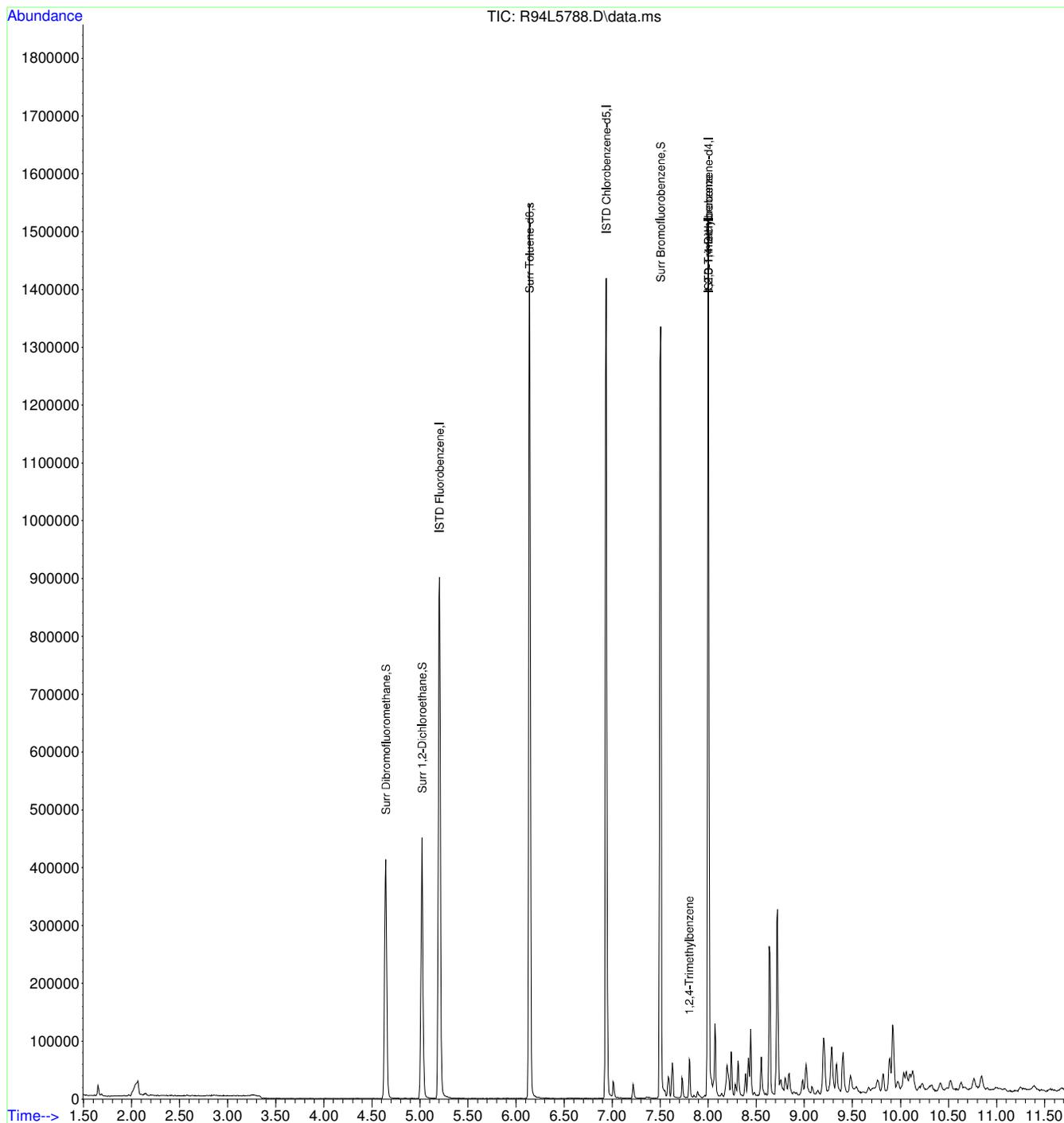
Quant Time: Apr 23 09:16:58 2013
Quant Method : C:\msdchem\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Tue Apr 23 09:06:02 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\22APR13\
Data File : R94L5788.D
Acq On : 22 Apr 2013 7:30 pm
Operator :
Sample : 1304578-008A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 27 Sample Multiplier: 1

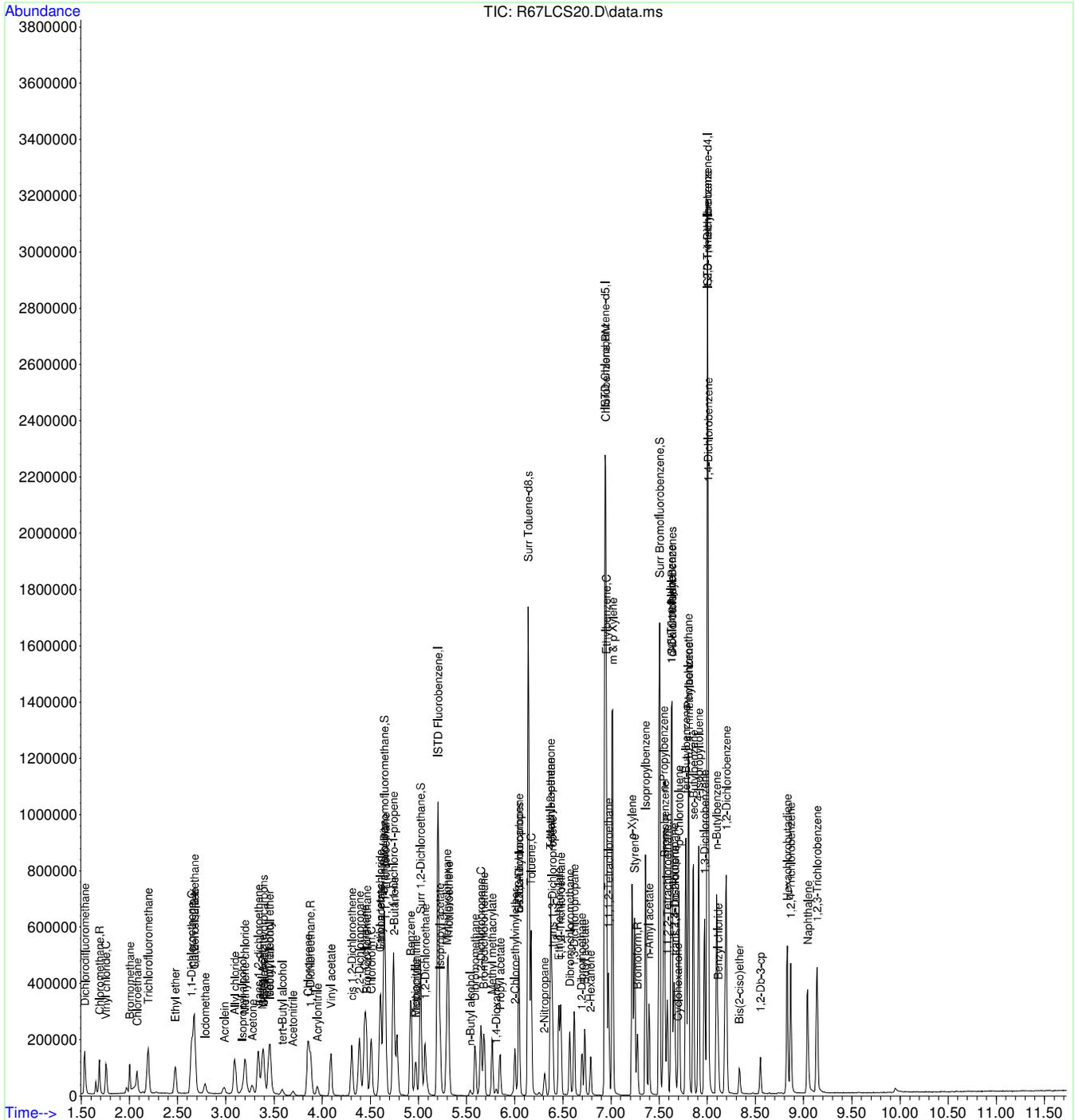
Quant Time: Apr 23 09:17:44 2013
Quant Method : C:\msdchem\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Tue Apr 23 09:06:02 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\22APR13\
 Data File : R67LCS20.D
 Acq On : 22 Apr 2013 10:48 am
 Operator :
 Sample : LCS VOC 042213A
 Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT SB
 ALS Vial : 3 Sample Multiplier: 1

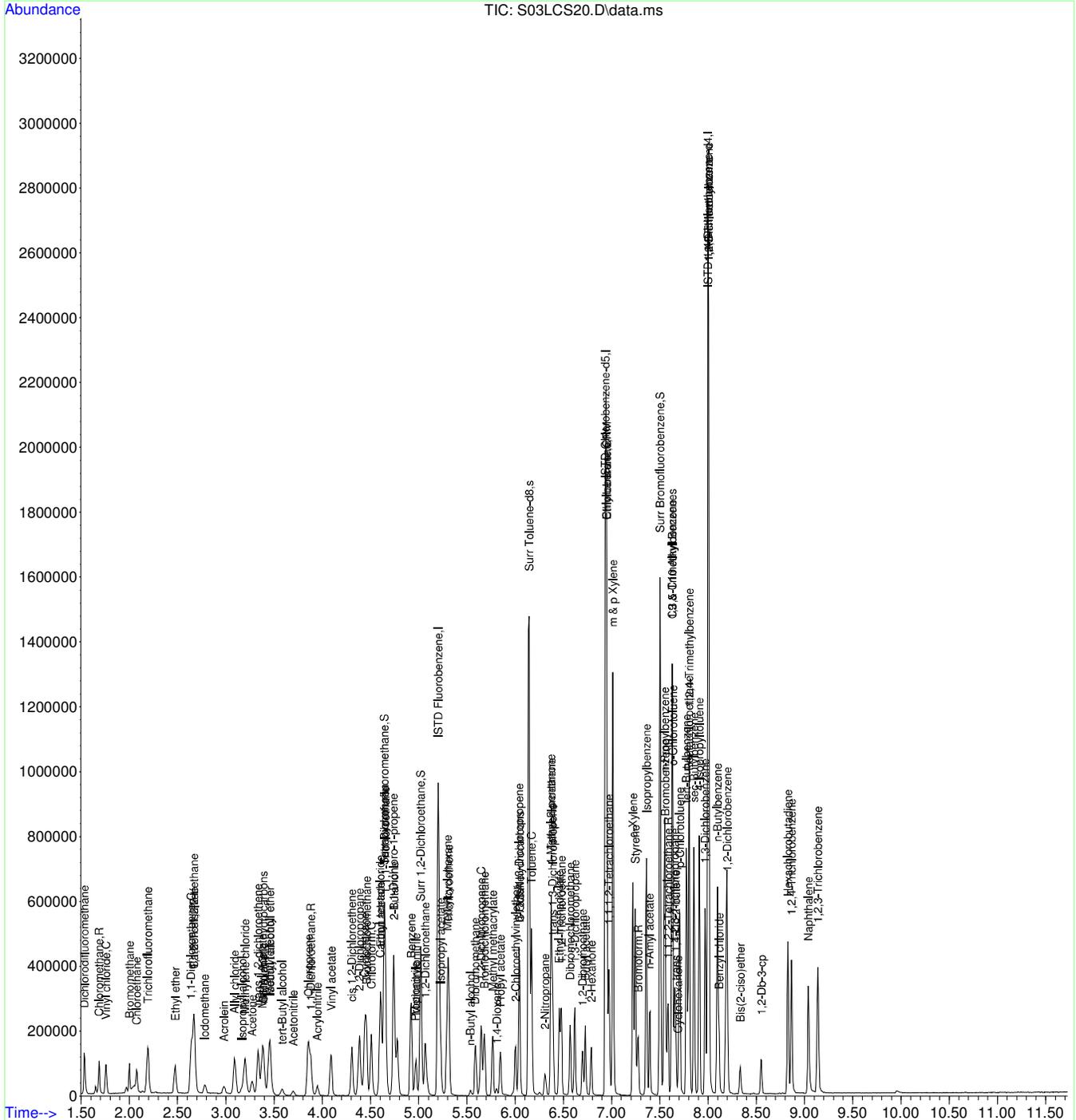
Quant Time: Apr 22 11:00:48 2013
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_80.M
 Quant Title : VOA Calibration
 QLast Update : Fri Apr 19 11:29:31 2013
 Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\23APR13\
Data File : S03LCS20.D
Acq On : 23 Apr 2013 9:52 am
Operator :
Sample : LCS VOC 042313A
Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT SB
ALS Vial : 3 Sample Multiplier: 1

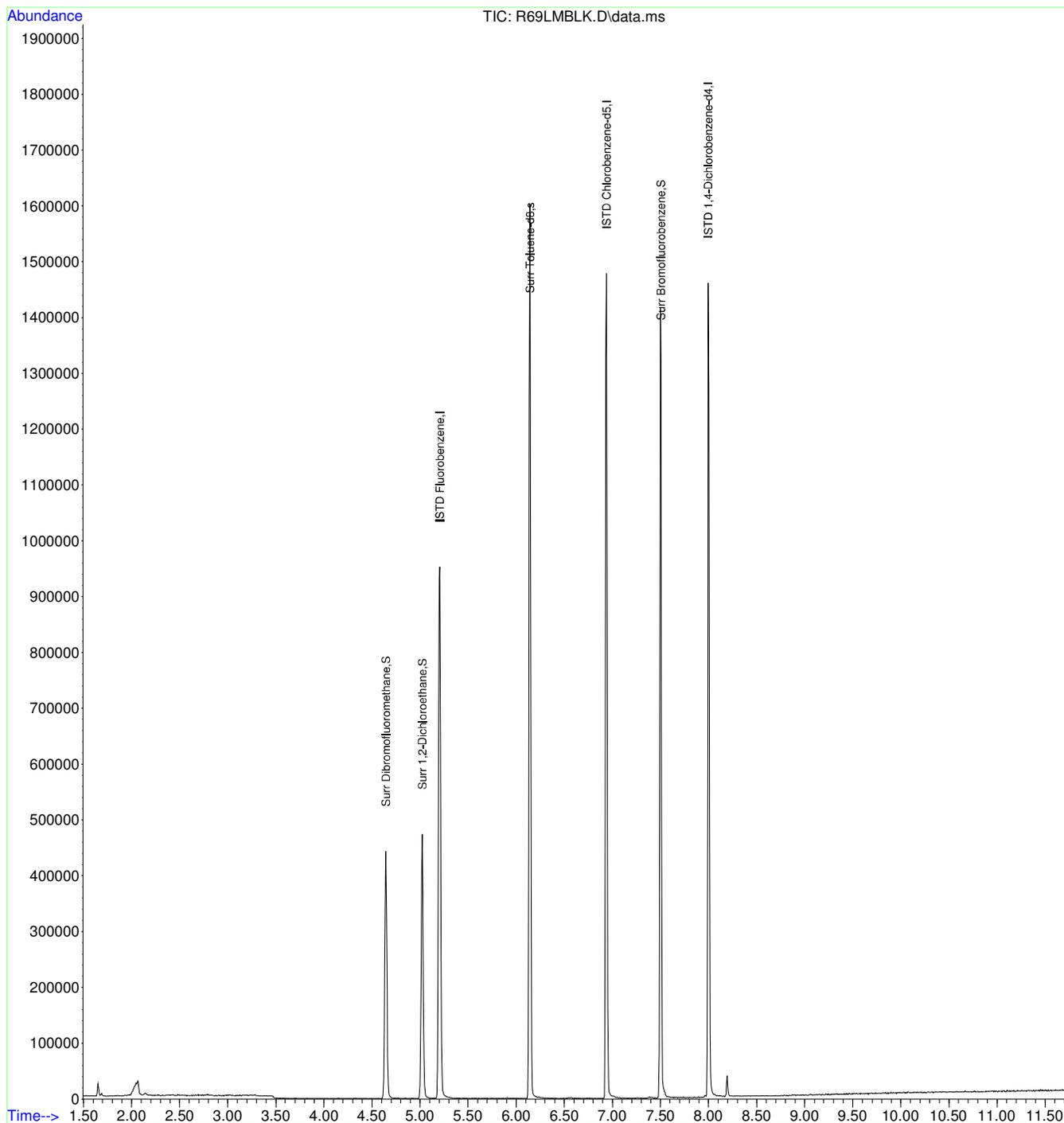
Quant Time: Apr 23 10:03:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Tue Apr 23 09:06:02 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\22APR13\
Data File : R69LMBLK.D
Acq On : 22 Apr 2013 11:26 am
Operator :
Sample : MB VOC 042213A
Misc : MBLK 5.0ML SB
ALS Vial : 5 Sample Multiplier: 1

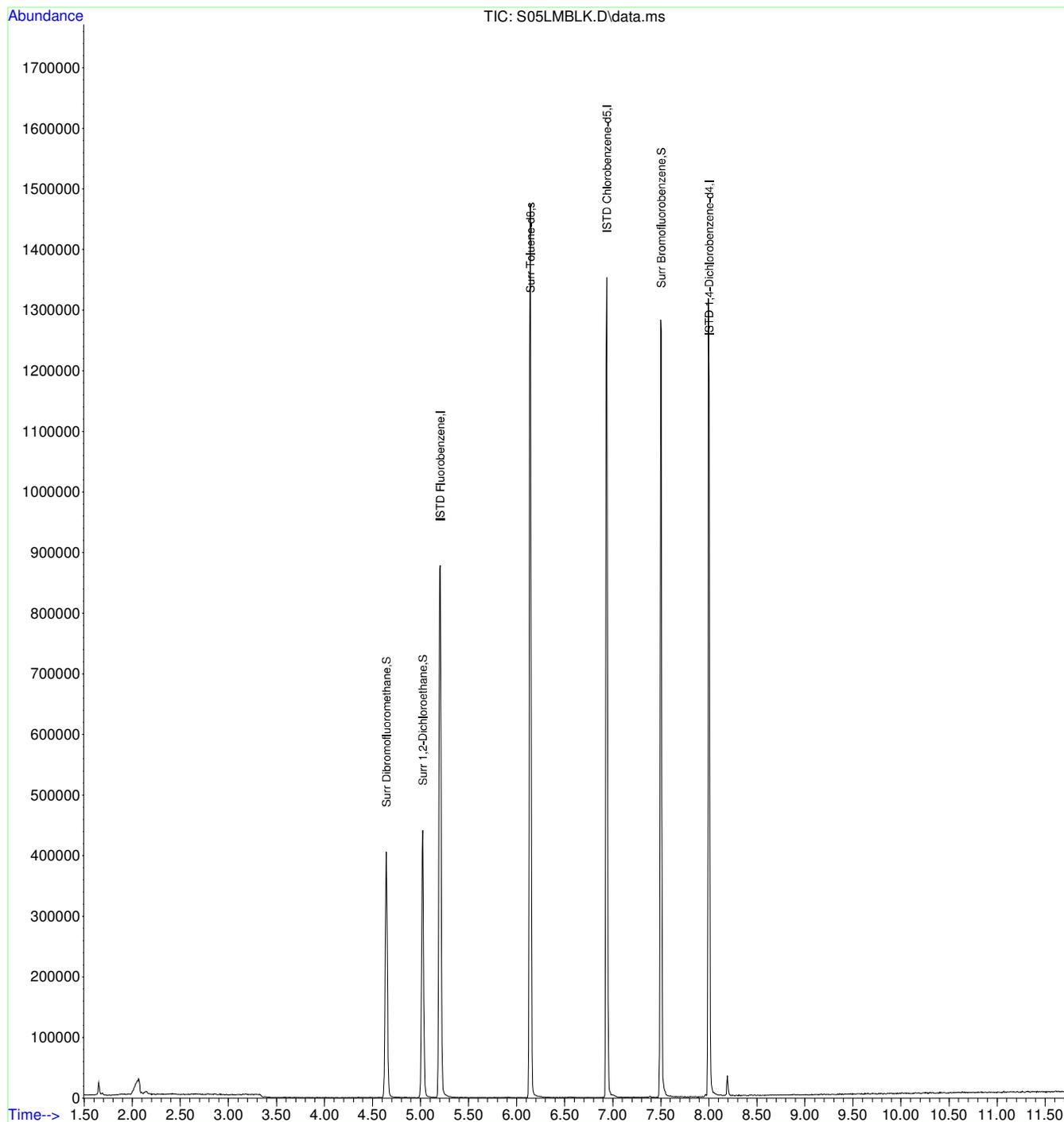
Quant Time: Apr 22 14:42:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Fri Apr 19 11:29:31 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

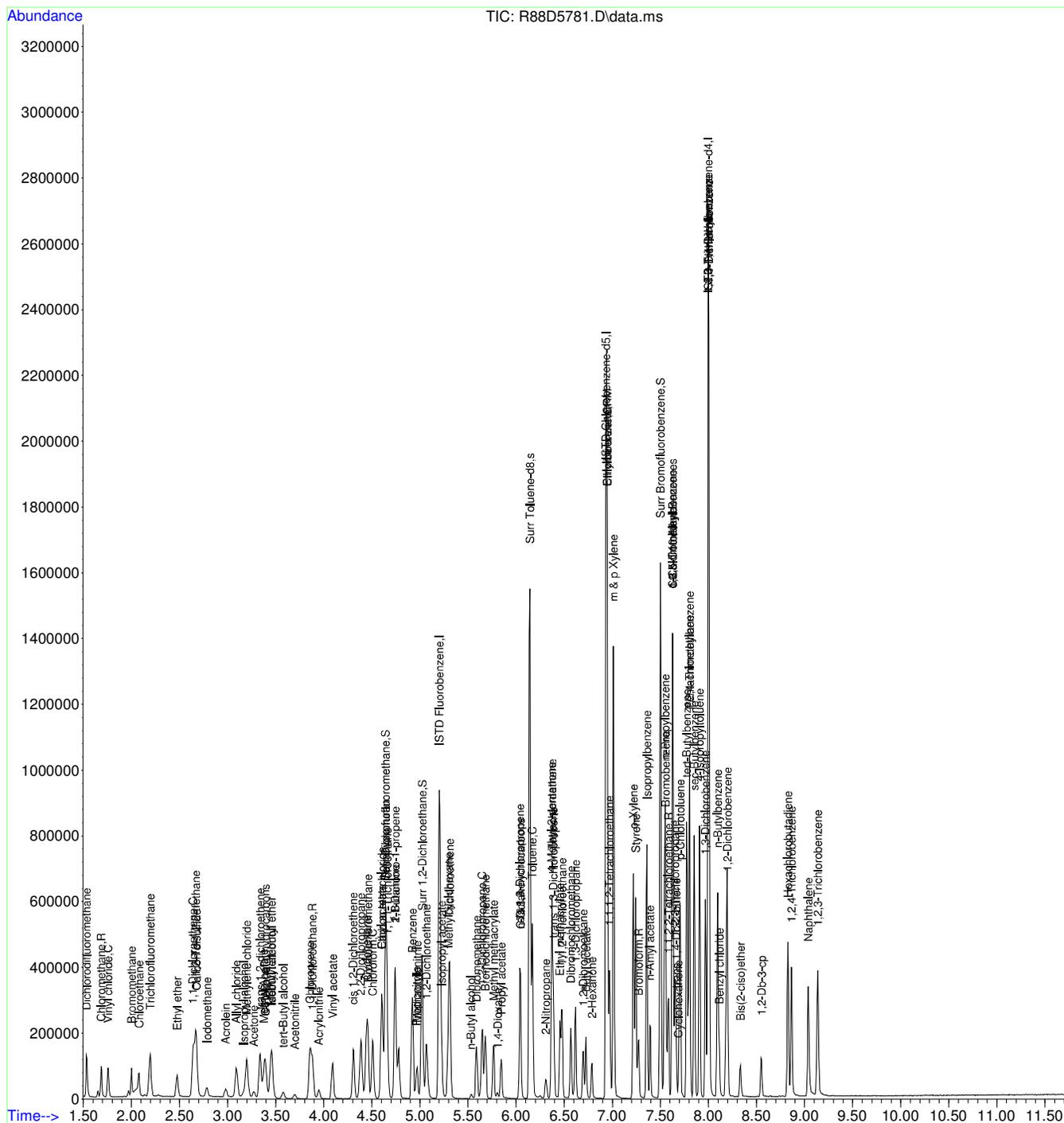
Data Path : C:\msdchem\1\DATA\APR13-C\23APR13\
Data File : S05LMBLK.D
Acq On : 23 Apr 2013 10:30 am
Operator :
Sample : MB VOC 042313A
Misc : MBLK 5.0ML SB
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 23 13:30:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_80.M
Quant Title : VOA Calibration
QLast Update : Tue Apr 23 09:06:02 2013
Response via : Initial Calibration



Data Path : C:\msdchem\1\DATA\APR13-C\22APR13\
 Data File : R88D5781.D
 Acq On : 22 Apr 2013 5:36 pm
 Operator :
 Sample : 1304578-001AMSD
 Misc : MSD 5.0ML 30F3 SB
 ALS Vial : 21 Sample Multiplier: 1

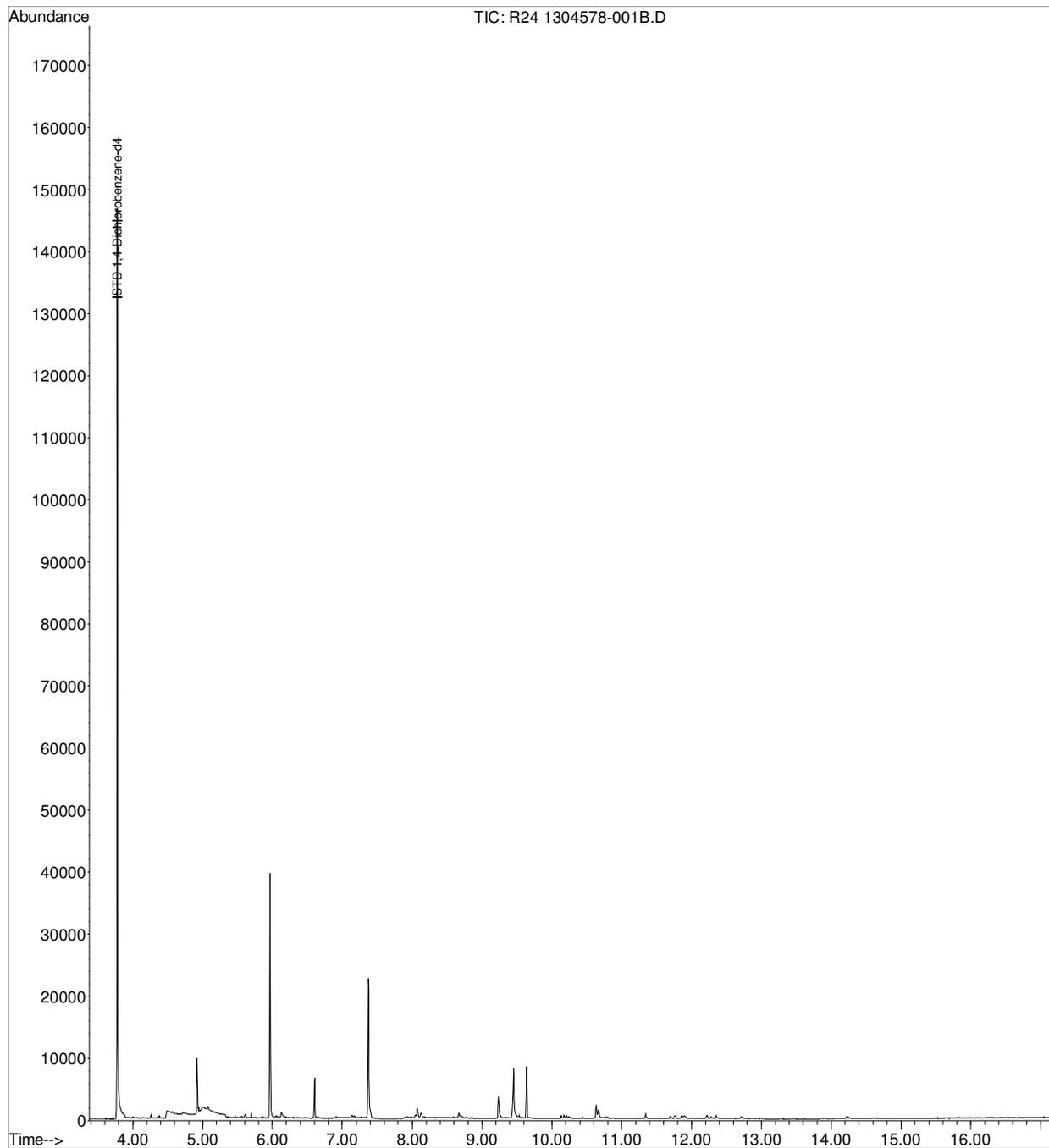
Quant Time: Apr 22 17:48:15 2013
 Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_80.M
 Quant Title : VOA Calibration
 QLast Update : Fri Apr 19 11:29:31 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\23APR13-A\
Data File : R24 1304578-001B.D
Acq On : 23 Apr 2013 12:59 pm
Operator : ALICIA HABERLE
Sample : 1304578-001B
Misc : SAMP
ALS Vial : 16 Sample Multiplier: 1

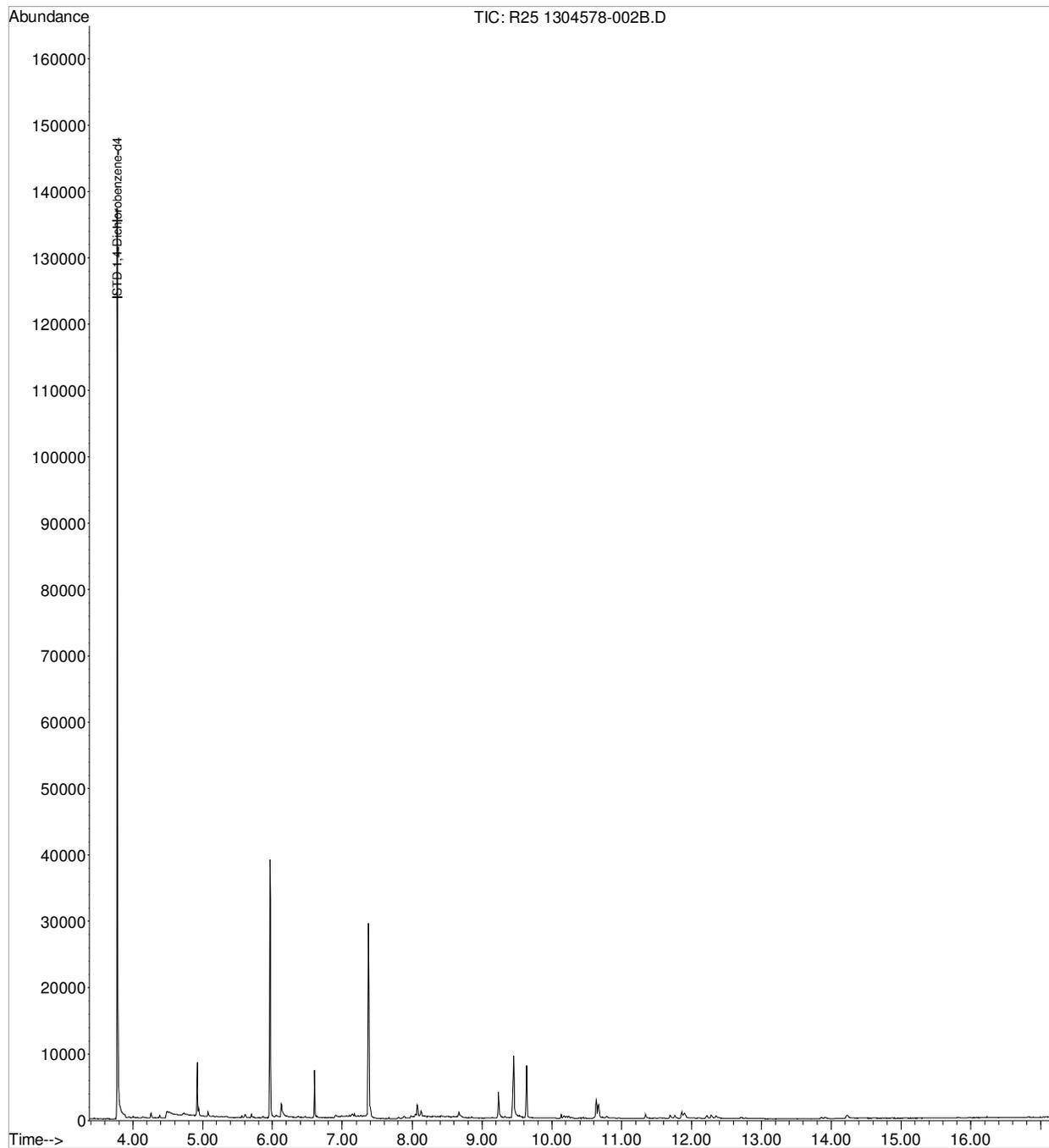
Quant Time: Apr 23 15:46:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Mon Apr 22 10:01:37 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\23APR13-A\
Data File : R25 1304578-002B.D
Acq On : 23 Apr 2013 1:25 pm
Operator : ALICIA HABERLE
Sample : 1304578-002B
Misc : SAMP
ALS Vial : 17 Sample Multiplier: 1

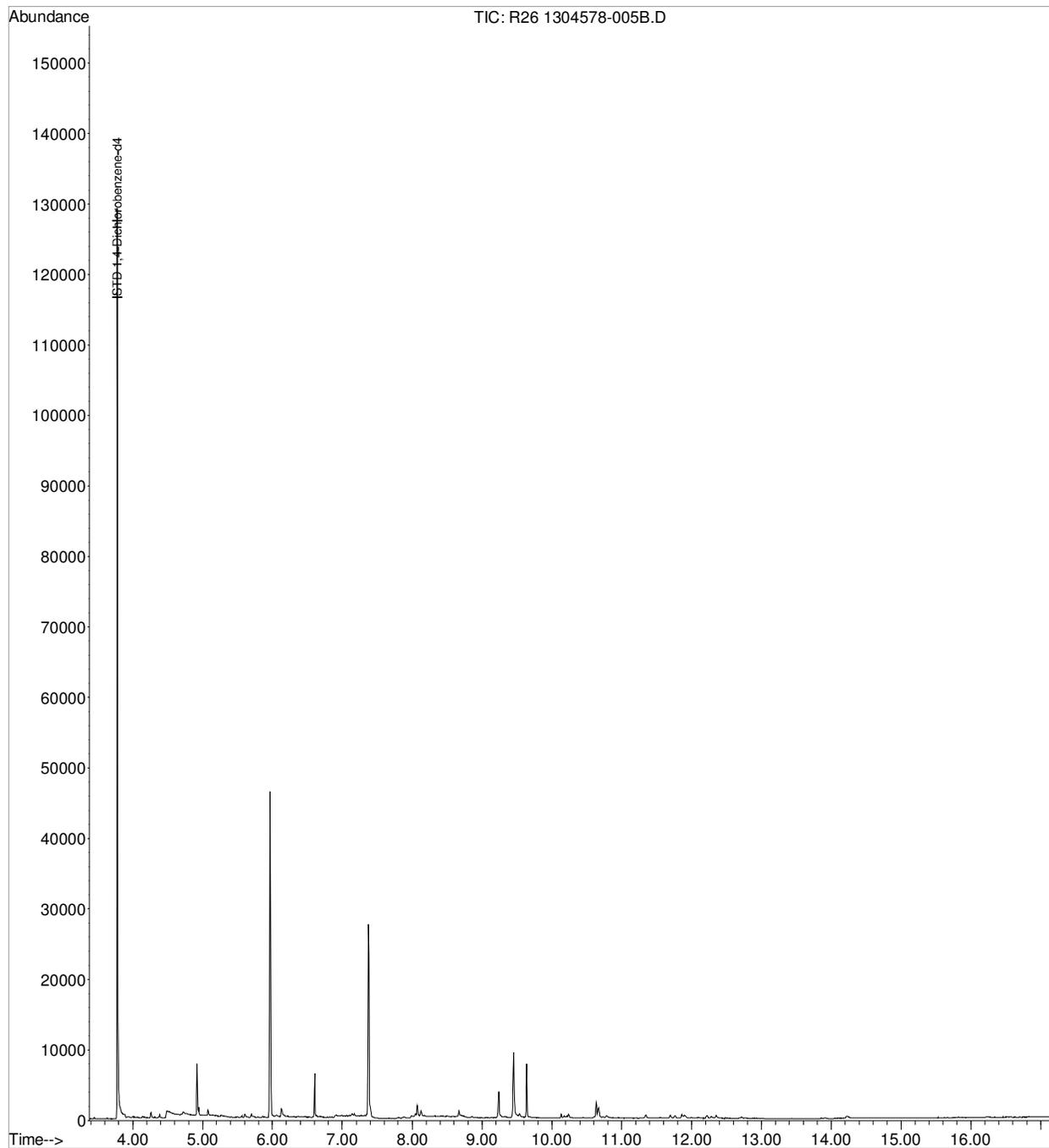
Quant Time: Apr 23 15:46:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Mon Apr 22 10:01:37 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\23APR13-A\
Data File : R26 1304578-005B.D
Acq On : 23 Apr 2013 1:52 pm
Operator : ALICIA HABERLE
Sample : 1304578-005B
Misc : SAMP
ALS Vial : 18 Sample Multiplier: 1

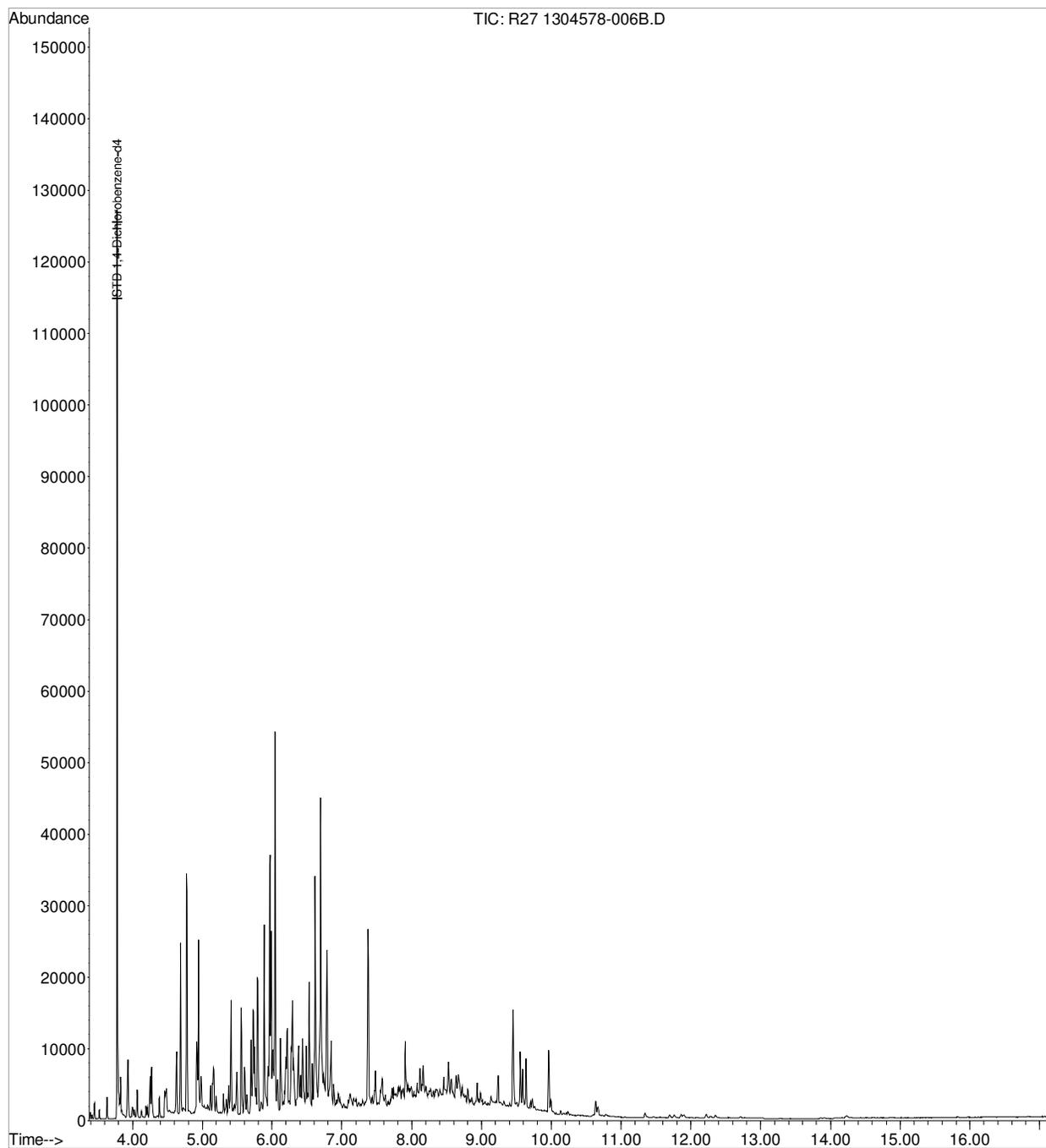
Quant Time: Apr 23 15:47:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Mon Apr 22 10:01:37 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\23APR13-A\
Data File : R27 1304578-006B.D
Acq On : 23 Apr 2013 2:18 pm
Operator : ALICIA HABERLE
Sample : 1304578-006B
Misc : SAMP
ALS Vial : 19 Sample Multiplier: 1

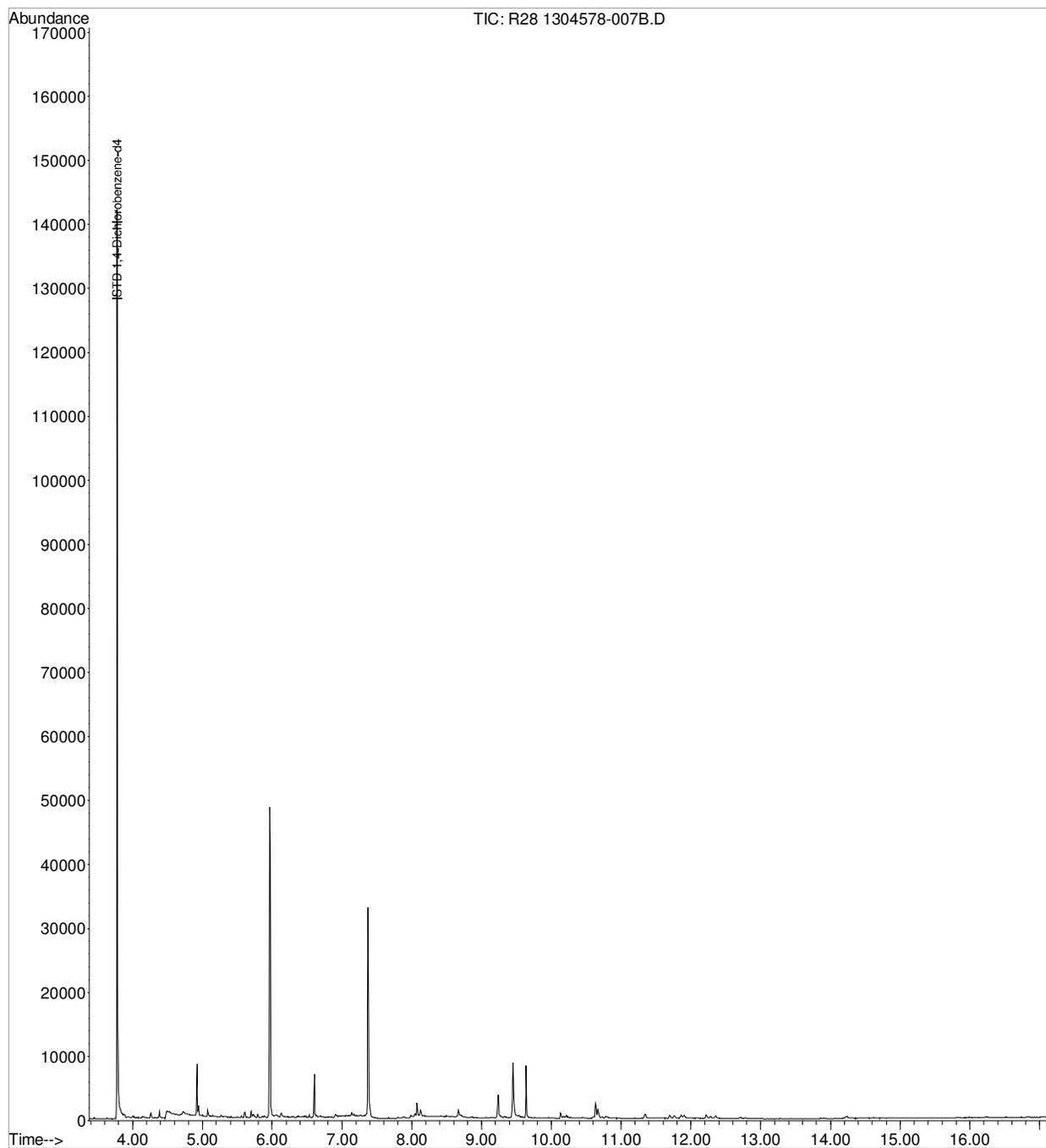
Quant Time: Apr 23 15:47:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Mon Apr 22 10:01:37 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\23APR13-A\
Data File : R28 1304578-007B.D
Acq On : 23 Apr 2013 2:44 pm
Operator : ALICIA HABERLE
Sample : 1304578-007B
Misc : SAMP
ALS Vial : 20 Sample Multiplier: 1

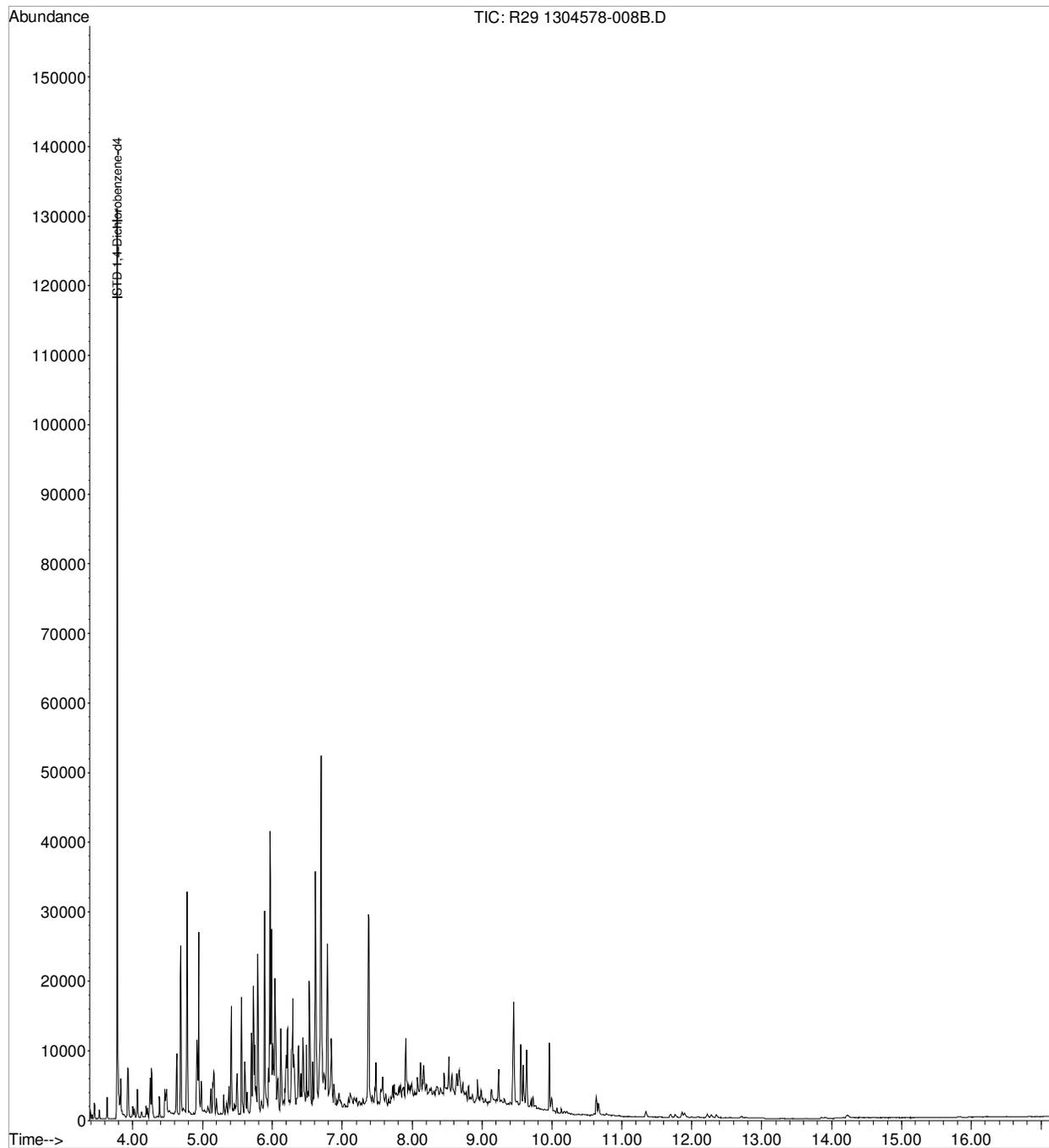
Quant Time: Apr 23 15:48:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Mon Apr 22 10:01:37 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\23APR13-A\
Data File : R29 1304578-008B.D
Acq On : 23 Apr 2013 3:10 pm
Operator : ALICIA HABERLE
Sample : 1304578-008B
Misc : SAMP
ALS Vial : 21 Sample Multiplier: 1

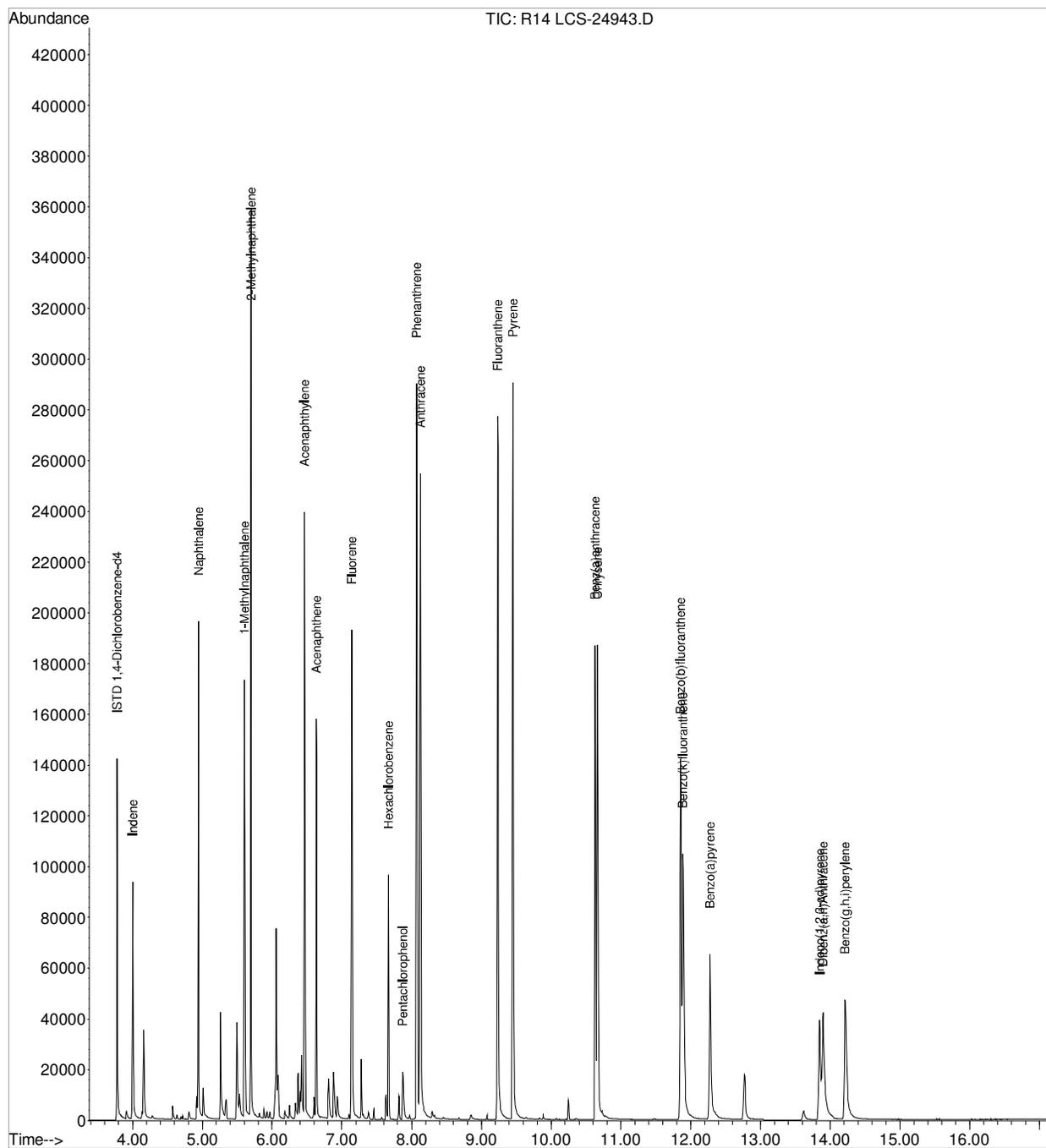
Quant Time: Apr 23 16:16:22 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Mon Apr 22 10:01:37 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\23APR13-A\
 Data File : R14 LCS-24943.D
 Acq On : 23 Apr 2013 8:37 am
 Operator : ALICIA HABERLE
 Sample : LCS-24943
 Misc : LCS
 ALS Vial : 6 Sample Multiplier: 1

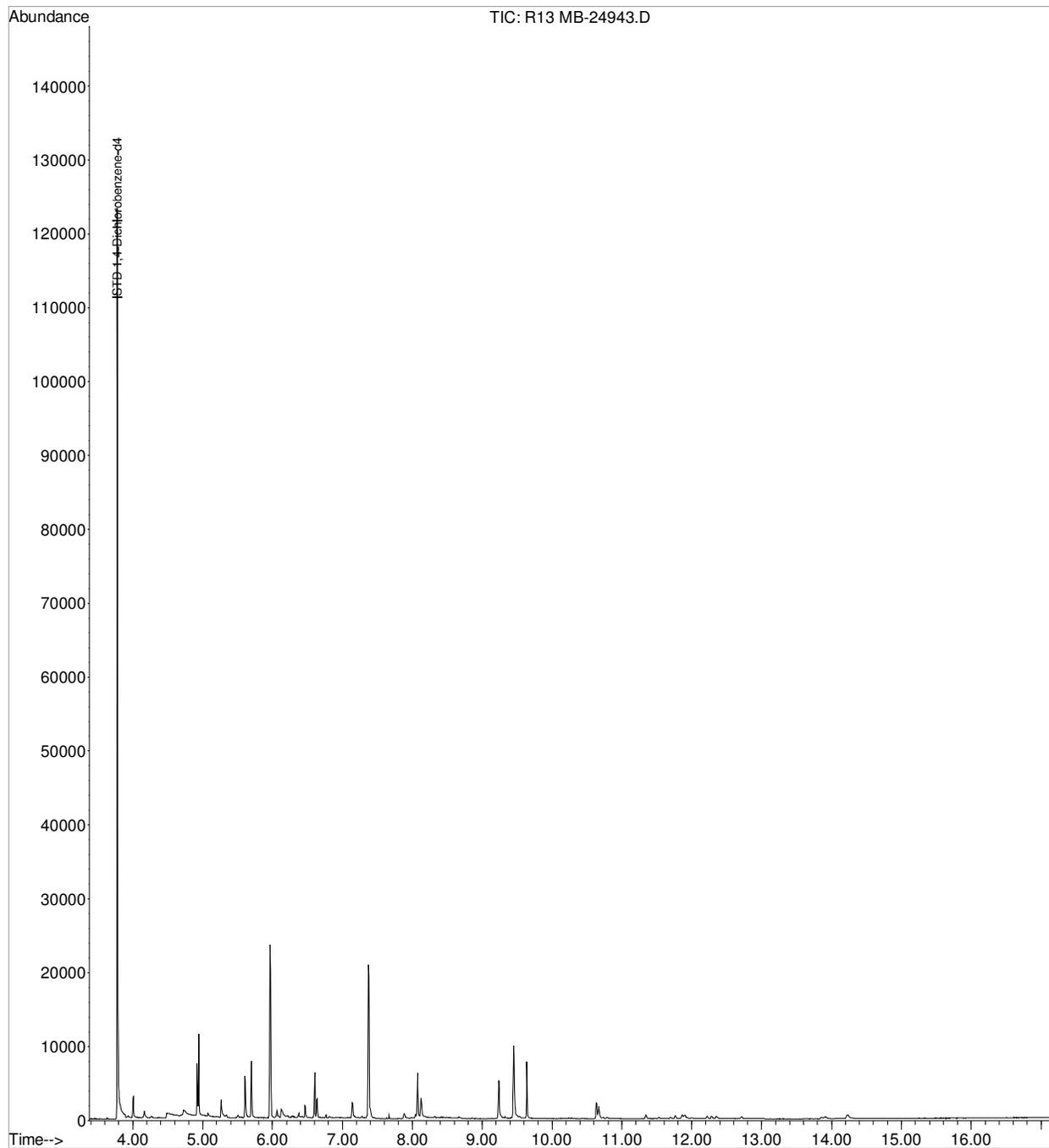
Quant Time: Apr 23 15:39:05 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Mon Apr 22 10:01:37 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\23APR13-A\
Data File : R13 MB-24943.D
Acq On : 23 Apr 2013 8:11 am
Operator : ALICIA HABERLE
Sample : MB-24943
Misc : MBLK
ALS Vial : 5 Sample Multiplier: 1

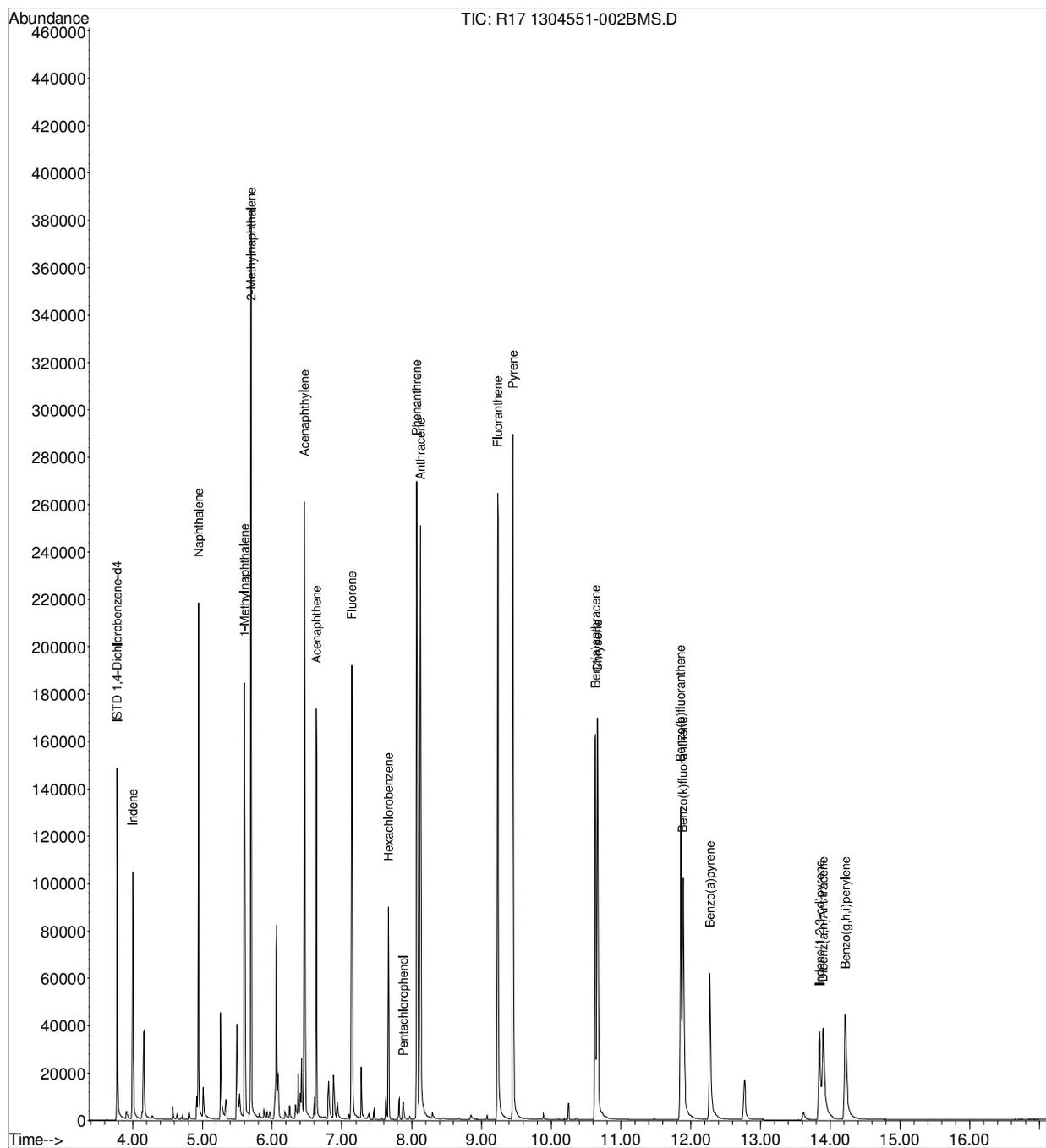
Quant Time: Apr 23 15:38:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Mon Apr 22 10:01:37 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\23APR13-A\
 Data File : R17 1304551-002BMS.D
 Acq On : 23 Apr 2013 9:56 am
 Operator : ALICIA HABERLE
 Sample : 1304551-002BMS
 Misc : MS
 ALS Vial : 9 Sample Multiplier: 1

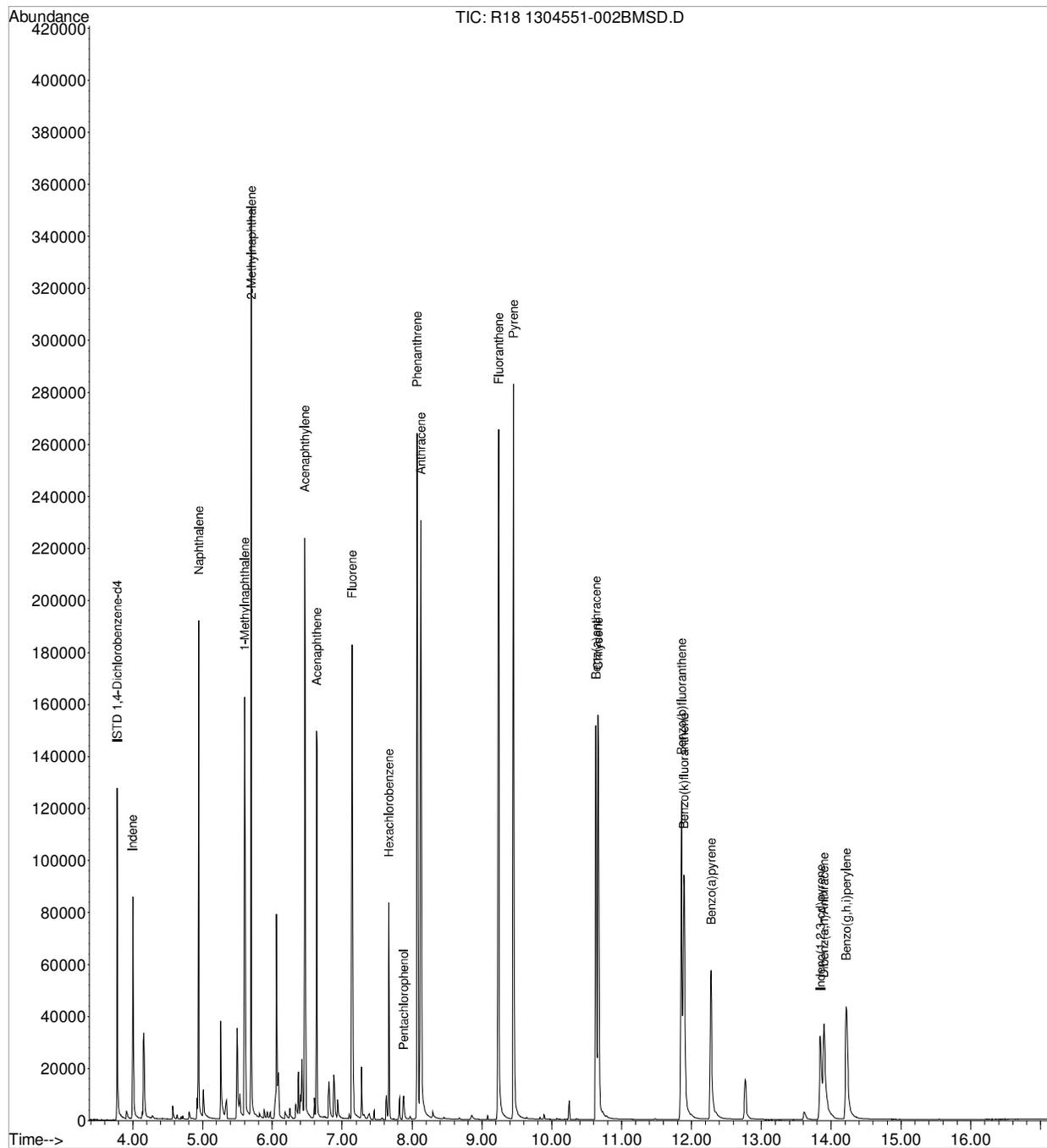
Quant Time: Apr 23 15:42:14 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Mon Apr 22 10:01:37 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\23APR13-A\
 Data File : R18 1304551-002BMSD.D
 Acq On : 23 Apr 2013 10:22 am
 Operator : ALICIA HABERLE
 Sample : 1304551-002BMSD
 Misc : MSD
 ALS Vial : 10 Sample Multiplier: 1

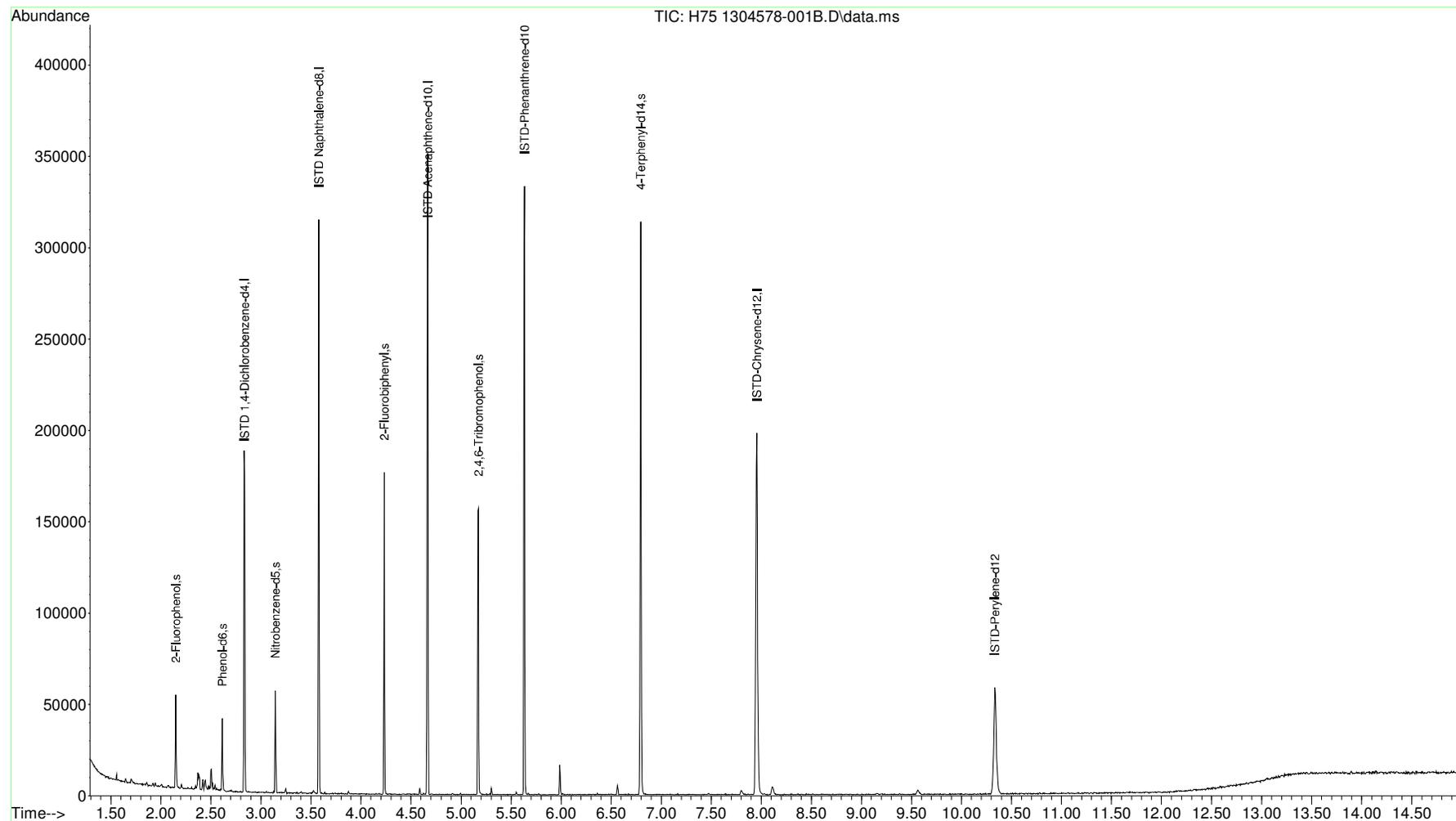
Quant Time: Apr 23 15:42:31 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Mon Apr 22 10:01:37 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\23APR 13-A\
Data File : H75 1304578-001B.D
Acq On : 23 Apr 2013 11:19 pm
Operator : ALICIA HABERLE
Sample : 1304578-001B
Misc : SAMP
ALS Vial : 16 Sample Multiplier: 1

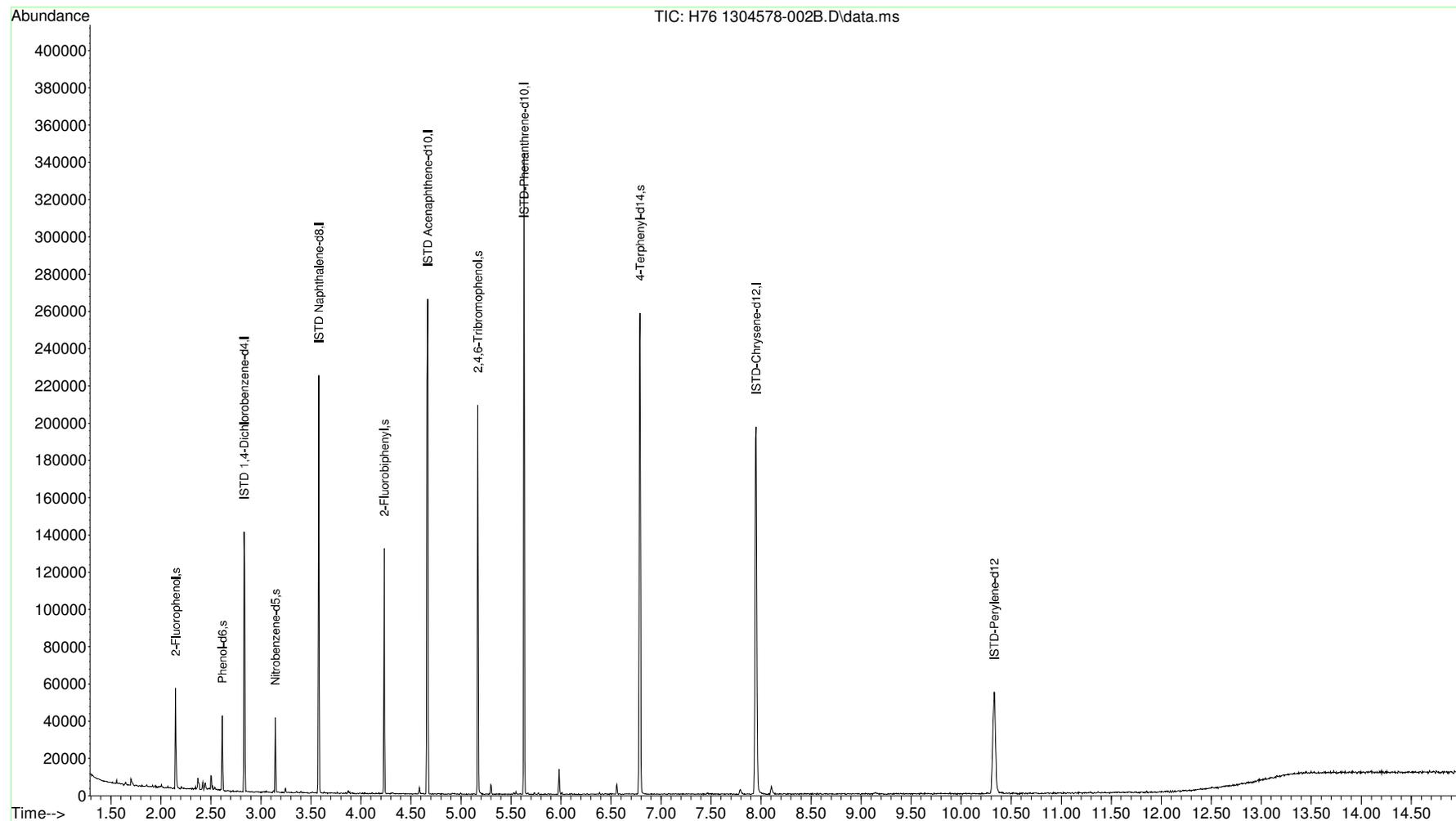
Quant Time: Apr 24 11:10:31 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Fri Apr 19 15:38:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\23APR 13-A\
 Data File : H76 1304578-002B.D
 Acq On : 23 Apr 2013 11:43 pm
 Operator : ALICIA HABERLE
 Sample : 1304578-002B
 Misc : SAMP
 ALS Vial : 17 Sample Multiplier: 1

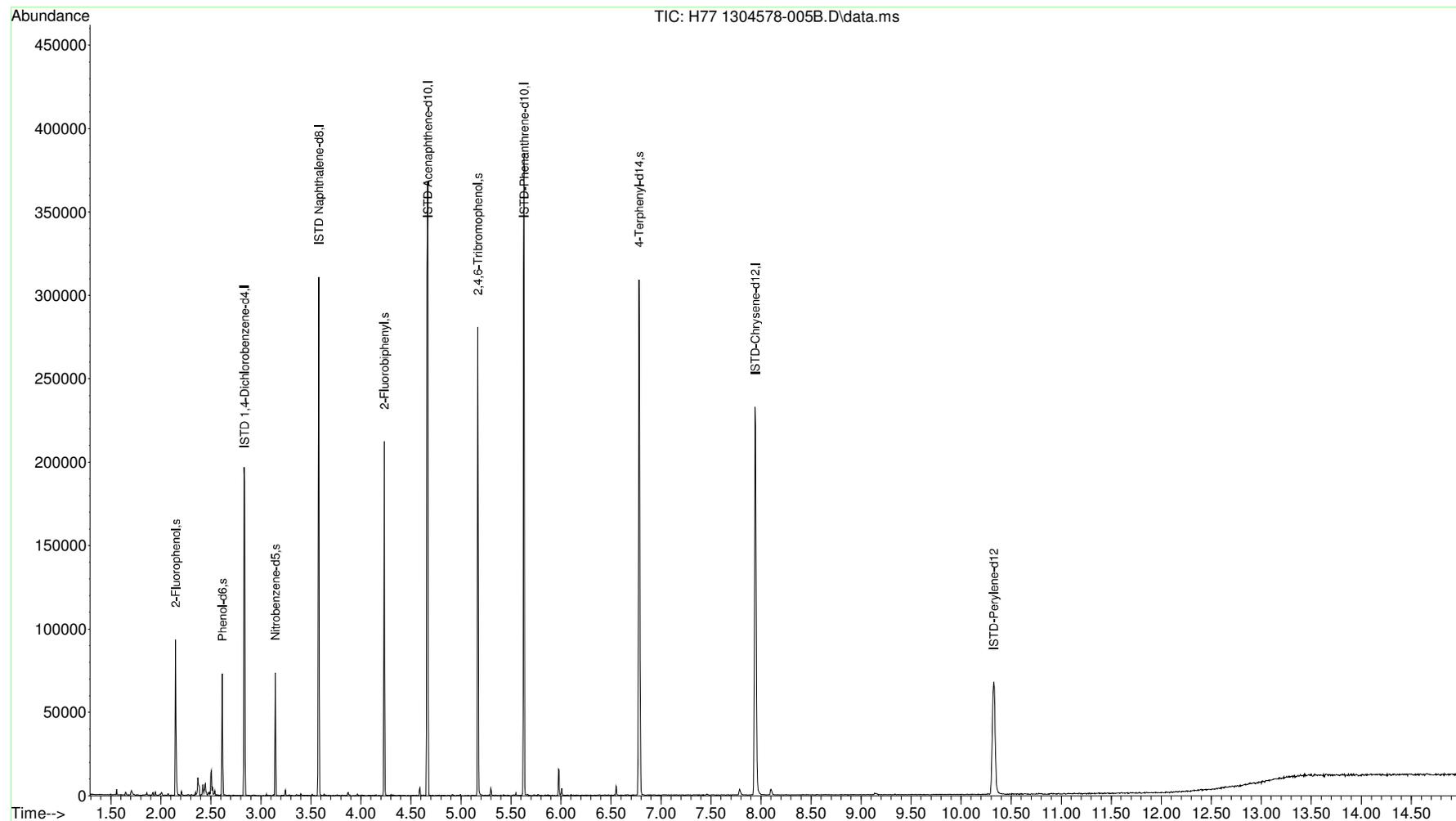
Quant Time: Apr 24 11:10:33 2013
 Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Fri Apr 19 15:38:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\23APR 13-A\
Data File : H77 1304578-005B.D
Acq On : 24 Apr 2013 12:07 am
Operator : ALICIA HABERLE
Sample : 1304578-005B
Misc : SAMP
ALS Vial : 18 Sample Multiplier: 1

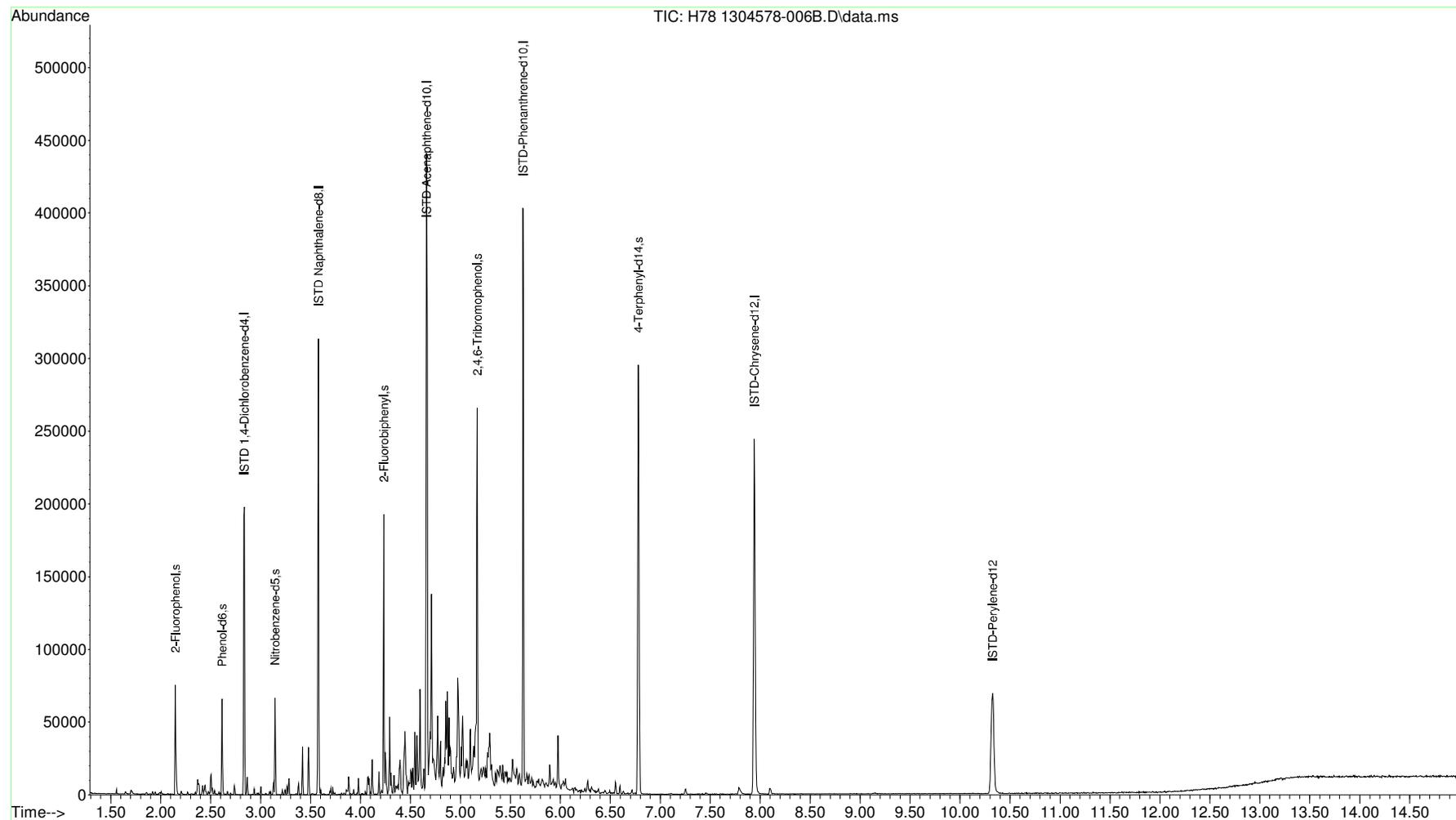
Quant Time: Apr 24 12:19:46 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Fri Apr 19 15:38:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\23APR 13-A\
Data File : H78 1304578-006B.D
Acq On : 24 Apr 2013 12:30 am
Operator : ALICIA HABERLE
Sample : 1304578-006B
Misc : SAMP
ALS Vial : 19 Sample Multiplier: 1

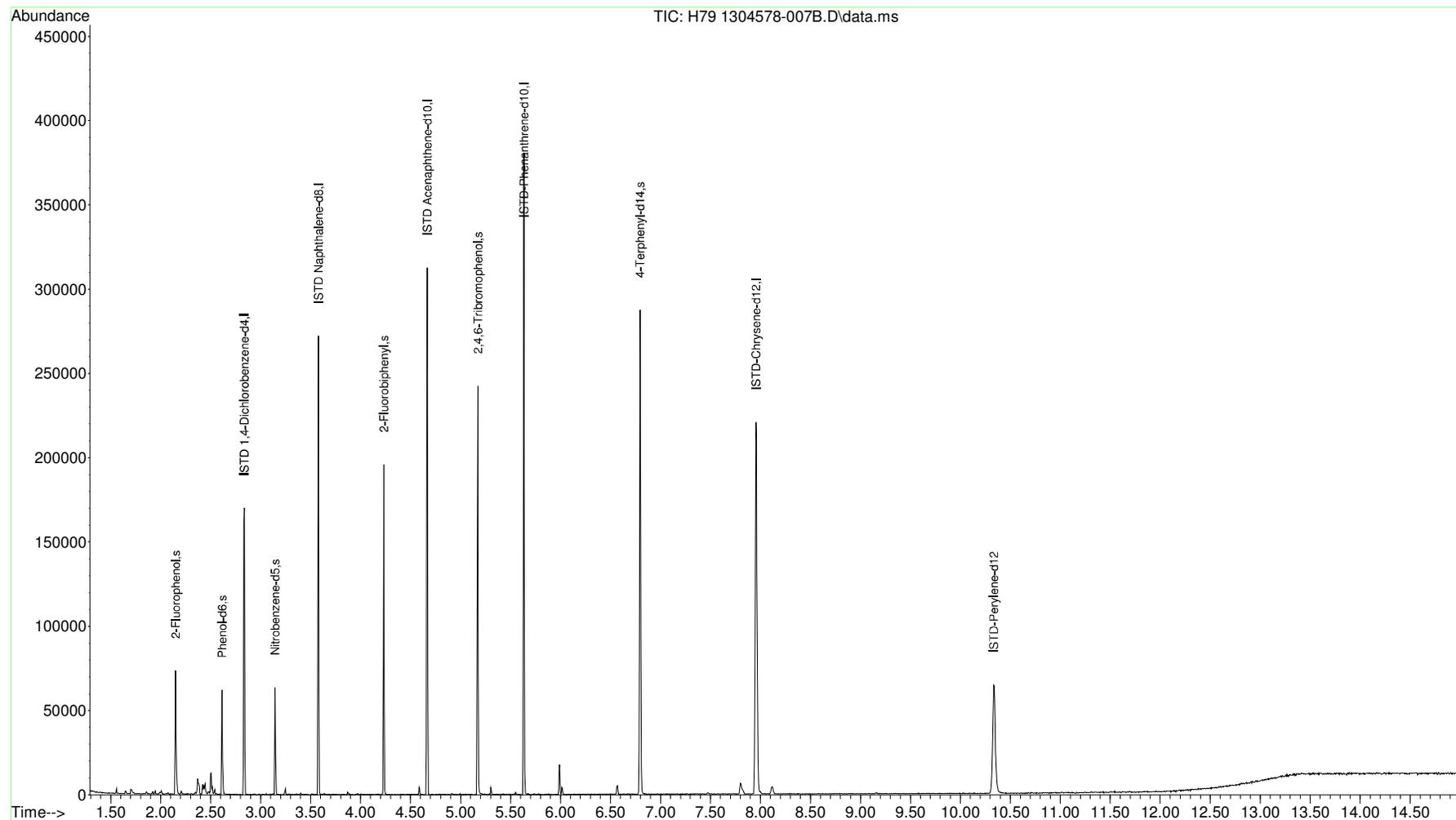
Quant Time: Apr 24 12:20:09 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Fri Apr 19 15:38:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\23APR 13-A\
Data File : H79 1304578-007B.D
Acq On : 24 Apr 2013 12:55 am
Operator : ALICIA HABERLE
Sample : 1304578-007B
Misc : SAMP
ALS Vial : 20 Sample Multiplier: 1

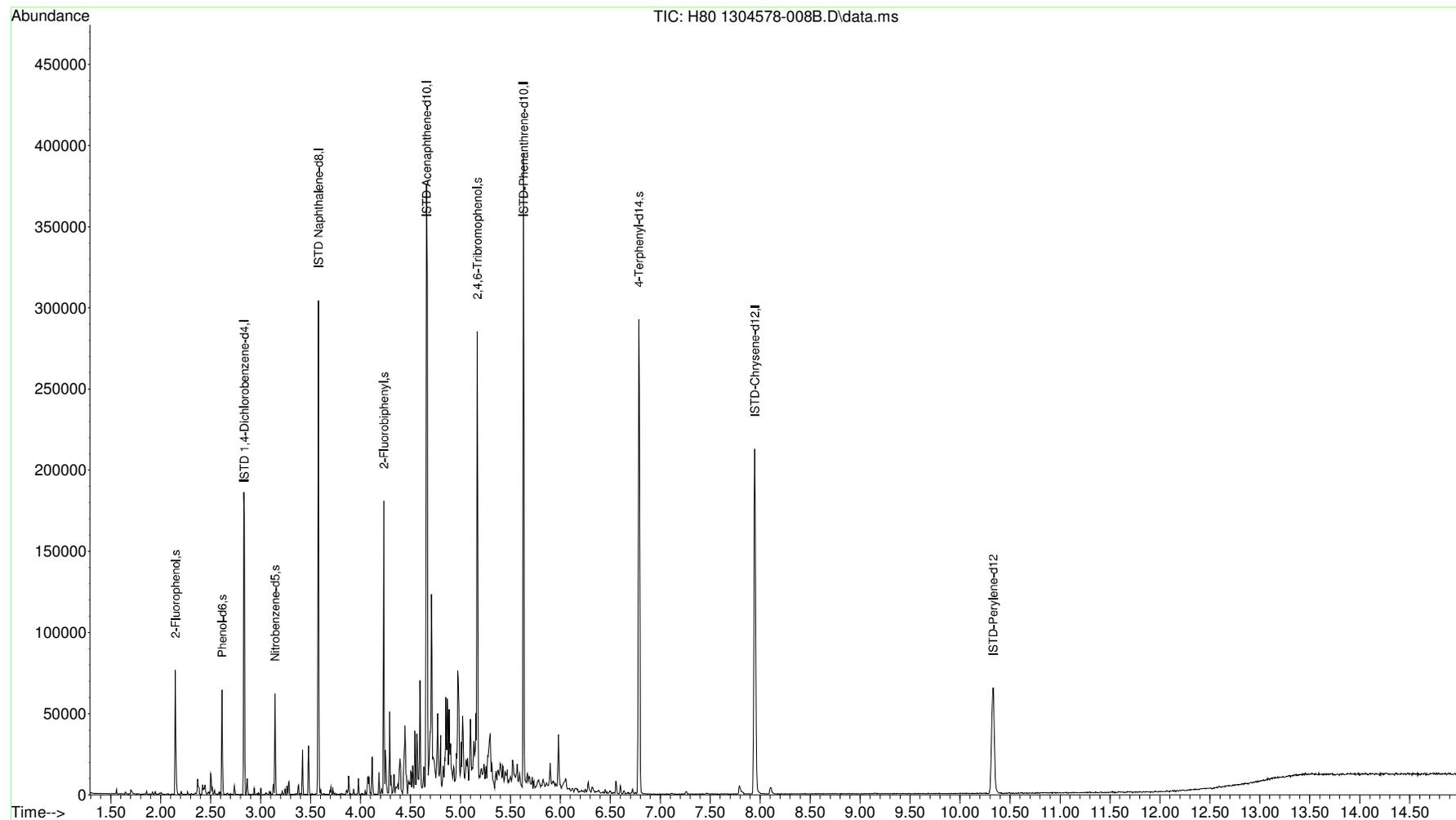
Quant Time: Apr 24 12:20:30 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Fri Apr 19 15:38:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\23APR 13-A\
Data File : H80 1304578-008B.D
Acq On : 24 Apr 2013 1:20 am
Operator : ALICIA HABERLE
Sample : 1304578-008B
Misc : SAMP
ALS Vial : 21 Sample Multiplier: 1

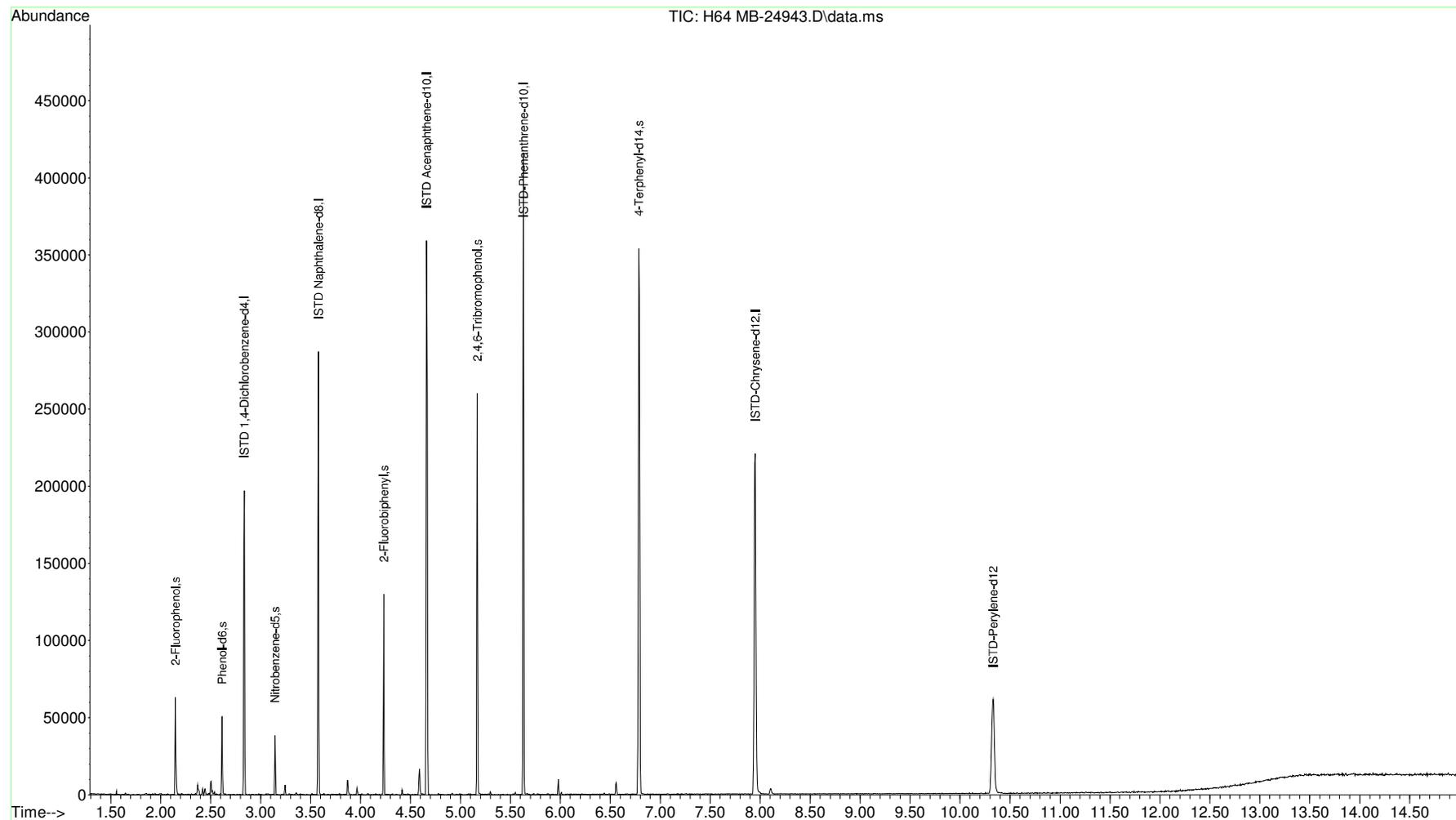
Quant Time: Apr 24 12:21:03 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Fri Apr 19 15:38:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\23APR 13-A\
Data File : H64 MB-24943.D
Acq On : 23 Apr 2013 6:55 pm
Operator : ALICIA HABERLE
Sample : MB-24943
Misc : MBLK
ALS Vial : 5 Sample Multiplier: 1

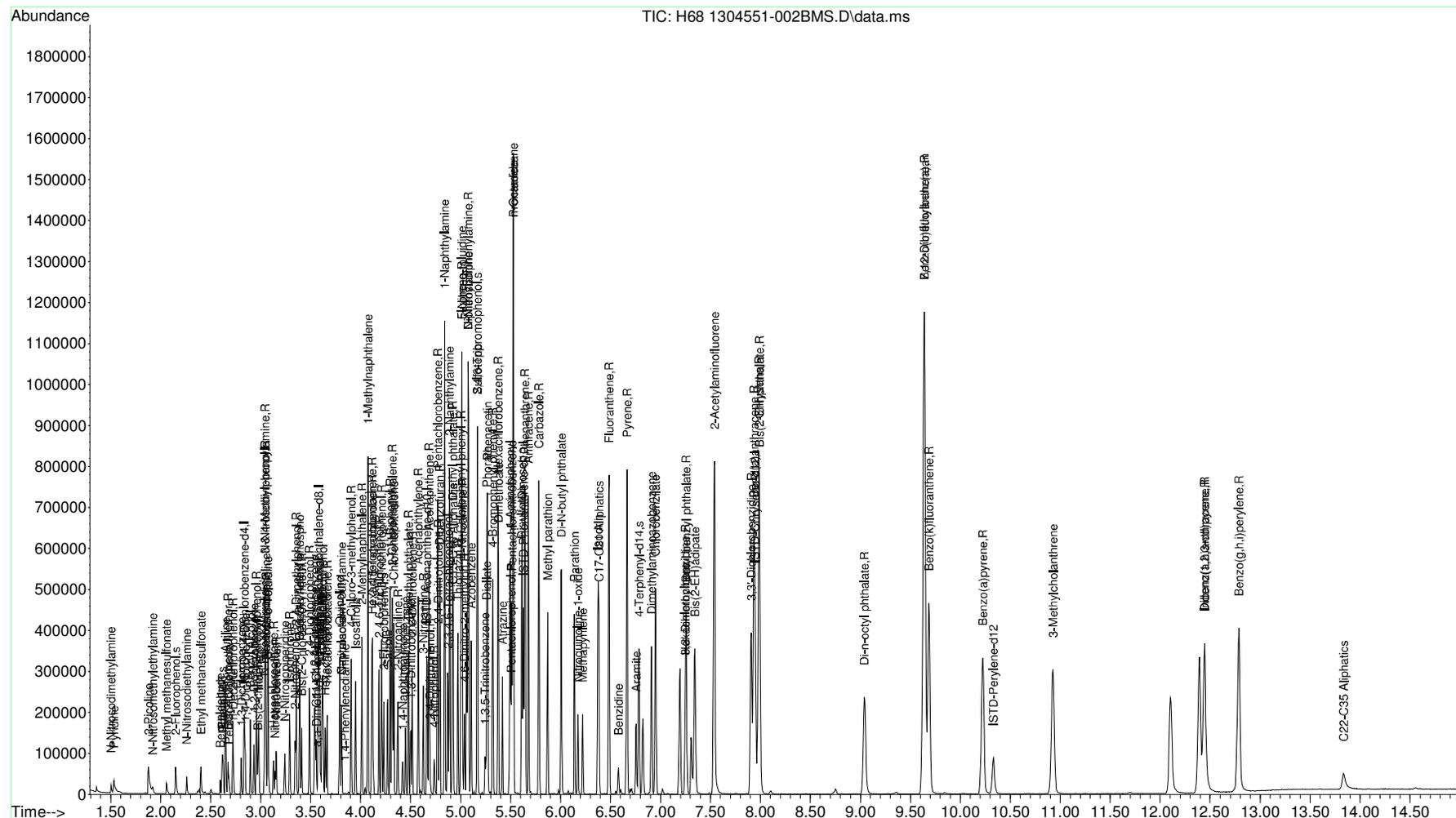
Quant Time: Apr 24 12:14:06 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Fri Apr 19 15:38:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\23APR 13-A\
 Data File : H68 1304551-002BMS.D
 Acq On : 23 Apr 2013 8:31 pm
 Operator : ALICIA HABERLE
 Sample : 1304551-002BMS
 Misc : MS
 ALS Vial : 9 Sample Multiplier: 1

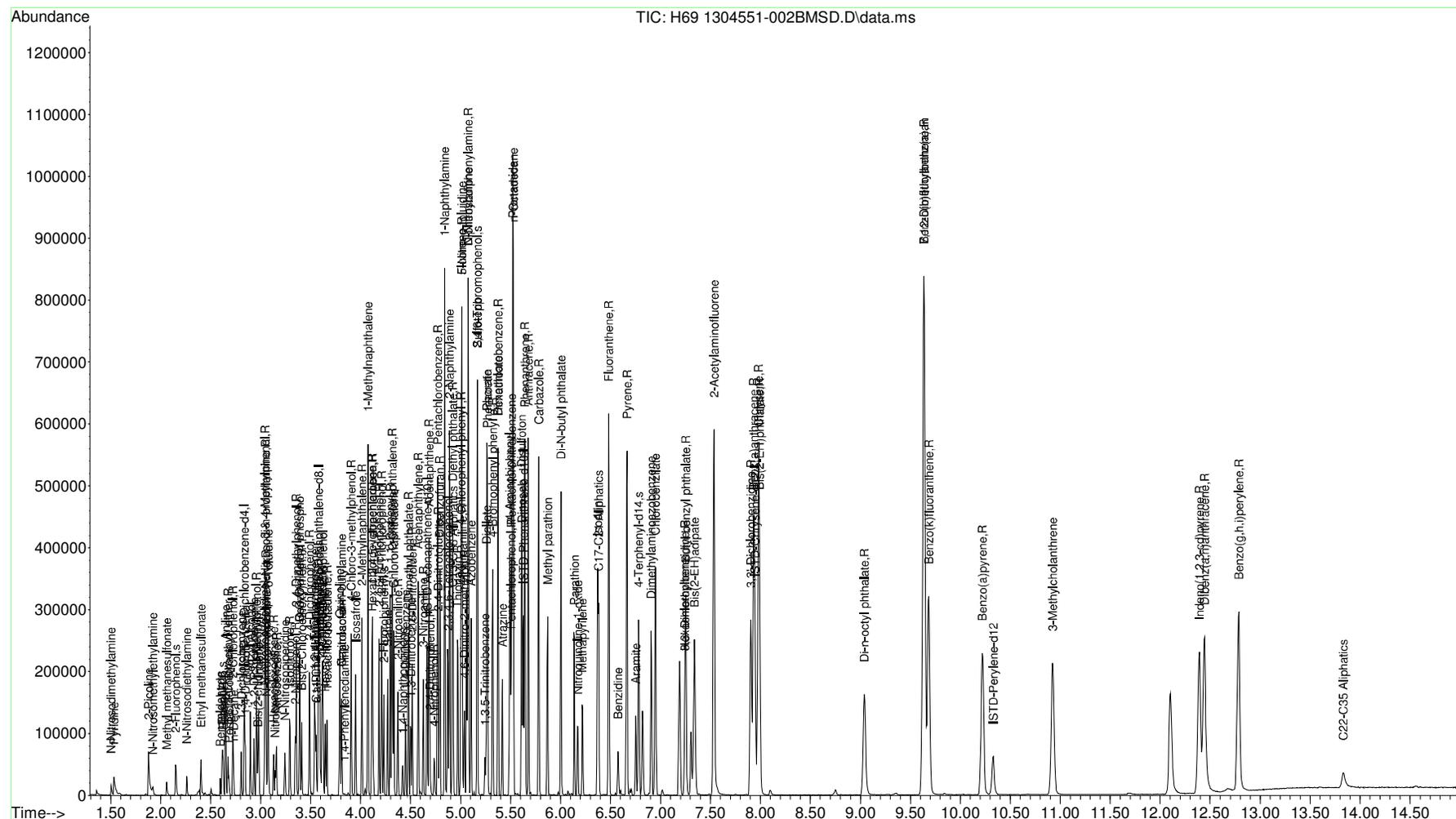
Quant Time: Apr 24 12:16:18 2013
 Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Fri Apr 19 15:38:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\23APR 13-A\
Data File : H69 1304551-002BMSD.D
Acq On : 23 Apr 2013 8:55 pm
Operator : ALICIA HABERLE
Sample : 1304551-002BMSD
Misc : MSD
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 24 12:16:57 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Fri Apr 19 15:38:07 2013
Response via : Initial Calibration



WORK ORDER Summary

Work Order: **1304578** Page 1 of 2

Client: Utah Division of Water Quality

Due Date: 4/24/2013

Client ID: UTD200

Contact: Chris Bittner

Project: MP 44.9

QC Level: III

WO Type: Standard

Comments: 2 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	
1304578-001A	East of I-15 / 4920392	4/22/2013 0900h	4/22/2013 1145h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304578-001B				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: 138 / # 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>								
1304578-001C				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>								
1304578-002A	S. Marina / 4920495	4/22/2013 0930h	4/22/2013 1145h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304578-002B				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: 138 / # 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>								
1304578-002C				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>								
1304578-003A	Field Blank	4/22/2013 1045h	4/22/2013 1145h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304578-004A	Trip Blank	4/22/2013	4/22/2013 1145h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304578-005A	East of Boom #3 / 4920402	4/22/2013 1020h	4/22/2013 1145h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304578-005B				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: 138 / # 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>								
1304578-005C				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: **1304578** Page 2 of 2

Client: Utah Division of Water Quality

Due Date: 4/24/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1304578-006A	Duplicate	4/22/2013 1035h	4/22/2013 1145h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304578-006B				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: 138 / # 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>								
1304578-006C				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>								
1304578-007A	East of Boom / 4920395	4/22/2013 1030h	4/22/2013 1145h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304578-007B				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: 138 / # 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>								
1304578-007C				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>								
1304578-008A	North Weir	4/22/2013 1010h	4/22/2013 1145h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304578-008B				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: 138 / # 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>								
1304578-008C				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>								

American West Analytical Laboratories

Chain of Custody

Lab Sample Set # 1309578

Client: **Utah Division of Water Quality**
 Address: **195 N. 1950 W.**
Salt Lake City, UT 84115

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
2 DAY RUSH

Sample ID:	Date Sampled	Time	# of Containers	Sample Matrix	VOC's (8260C)	Full SVOC - w/ TICs (8270D)	PNA SVOC - SIM (8270D)	DRO (8015D)	Comments
1 East of I-15	4920392	4/22/2013	9:20	7 W	X	X	X	X	
2 S. Marina	4920495	4/22/2013	9:30	7 W	X	X	X	X	
3 Field Blank		4/22/2013	10:45	3 W	X				
4 Trip Blank		4/22/2013		3 W	X				
5 East of Boom #3	4920402	4/22/2013	10:20	7 W	X	X	X	X	
6 Below Weirs at Res.	4920401	4/22/2013		7 W	X	X	X	X	DRY
7 Duplicate - Eq: 2000		4/22/2013	10:35	7 W	X	X	X	X	* bottles say Dup N. Weir
8 East of Boom	4920395	4/22/2013	10:50	7 W	X	X	X	X	
9 North Weir		4/22/2013	10:10	7 W	X	X	X	X	
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

Laboratory Use Only

Samples Were:

- Shipped or hand delivered Y N
- Ambient or Chilled Y N
- Temperature 2.6
- Received Broken/Leaking (Improperly Sealed) Y N
- Properly Preserved Y N
- Received Within Holding Times Y N

COC Tape Was:

- Present on Outer Package Y N NA
- Unbroken on Outer Package Y N NA
- Present on Sample Y N NA
- Unbroken on Sample Y N NA

Discrepancies Between Sample Labels and COC Record: Y N NA

Special Instructions: **Release results as they become available**

Relinquished by: Signature <i>[Signature]</i>	Date: <u>4/22/13</u>	Received by: Signature <i>[Signature]</i>	Date: <u>4-22-13</u>
Print Name: <u>Alex Anderson</u>	Time: <u>11:43</u>	Print Name: <u>Elma Hayward</u>	Time: <u>11:45</u>
Relinquished by: Signature	Date:	Received by: Signature	Date:
Print Name	Time:	Print Name	Time: