



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: 1304475

463 West 3600 South
Salt Lake City, UT 84115

American West Analytical Laboratories received 8 sample(s) on 4/17/2013 for the analyses presented in the following report.

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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: 1304475

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: 4/17/2013
Date of Collection: 4/17/2013
Sample Condition: Intact
C-O-C Discrepancies: None
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: 1304475

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Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 4/17/2013
Date of Collection: 4/17/2013
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8270D/3510C
Analysis: Semivolatile Organics

General Set Comments: Bis(2-ethylhexyl) phthalate was observed above its reporting limit on 1304475-001B. 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 1304447-001B, multiple RPDs and the MS/MSD percent recoveries for Benzo(a)Pyrene were outside of their control limits due to sample non-homogeneity and/or matrix interference.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



Volatile Case Narrative

Client: Utah Division of Water Quality
Contact: Chris Bittner
Project: MP 44.9
Lab Set ID: 1304475

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 4/17/2013
Date of Collection: 4/17/2013
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8260C/5030C
Analysis: Volatile Organic Compounds

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

Holding Time and Preservation Requirements: All samples were received in appropriate containers 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, indicating no apparent matrix interferences.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304475-001C
Client Sample ID: East of I-15 / 4920392
Collection Date: 4/17/2013 800h
Received Date: 4/17/2013 1140h

Analytical Results

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

Analyzed: 4/19/2013 048h **Extracted:** 4/17/2013 1600h
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	0.227	0.4103	55.2	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: 1304475-002C
Client Sample ID: S. Marina / 4920495
Collection Date: 4/17/2013 815h
Received Date: 4/17/2013 1140h

Analytical Results

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

Analyzed: 4/19/2013 145h **Extracted:** 4/17/2013 1600h
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			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.219	0.4103	53.5	10-190	

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Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304475-004C
Client Sample ID: Duplicate / 4920401
Collection Date: 4/17/2013 930h
Received Date: 4/17/2013 1140h

Analytical Results

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

Analyzed: 4/19/2013 224h **Extracted:** 4/17/2013 1600h
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	0.556	1.19			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.231	0.4444	51.9	10-190	

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Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304475-001B
Client Sample ID: East of I-15 / 4920392
Collection Date: 4/17/2013 800h
Received Date: 4/17/2013 1140h

Analytical Results

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

Analyzed: 4/18/2013 1017h **Extracted:** 4/17/2013 1220h
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: 1304475-002B

Client Sample ID: S. Marina / 4920495

Collection Date: 4/17/2013 815h

Received Date: 4/17/2013 1140h

Analytical Results

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

Analyzed: 4/18/2013 1044h

Extracted: 4/17/2013 1220h

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: 1304475-003B
Client Sample ID: East of Boom / 4920395
Collection Date: 4/17/2013 940h
Received Date: 4/17/2013 1140h

Analytical Results

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

Analyzed: 4/18/2013 1110h **Extracted:** 4/17/2013 1220h
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	0.105	< 0.105	
2-Methylnaphthalene	91-57-6	0.105	< 0.105	
Acenaphthene	83-32-9	0.105	< 0.105	
Acenaphthylene	208-96-8	0.105	< 0.105	
Anthracene	120-12-7	0.105	< 0.105	
Benz(a)anthracene	56-55-3	0.105	< 0.105	
Benzo(a)pyrene	50-32-8	0.105	< 0.105	
Benzo(b)fluoranthene	205-99-2	0.105	< 0.105	
Benzo(g,h,i)perylene	191-24-2	0.105	< 0.105	
Benzo(k)fluoranthene	207-08-9	0.105	< 0.105	
Chrysene	218-01-9	0.105	< 0.105	
Dibenz(a,h)anthracene	53-70-3	0.105	< 0.105	
Fluoranthene	206-44-0	0.105	< 0.105	
Fluorene	86-73-7	0.105	< 0.105	
Indene	95-13-6	0.105	< 0.105	
Indeno(1,2,3-cd)pyrene	193-39-5	0.105	< 0.105	
Naphthalene	91-20-3	0.105	< 0.105	
Phenanthrene	85-01-8	0.105	< 0.105	
Pyrene	129-00-0	0.105	< 0.105	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304475-004B

Client Sample ID: Duplicate / 4920401

Collection Date: 4/17/2013 930h

Received Date: 4/17/2013 1140h

Analytical Results

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

Analyzed: 4/18/2013 1136h

Extracted: 4/17/2013 1220h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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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: 1304475-007B
Client Sample ID: East of Boom #3 / 4920402
Collection Date: 4/17/2013 920h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/18/2013 1202h **Extracted:** 4/17/2013 1220h
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	0.105	< 0.105	
2-Methylnaphthalene	91-57-6	0.105	< 0.105	
Acenaphthene	83-32-9	0.105	< 0.105	
Acenaphthylene	208-96-8	0.105	< 0.105	
Anthracene	120-12-7	0.105	< 0.105	
Benz(a)anthracene	56-55-3	0.105	< 0.105	
Benzo(a)pyrene	50-32-8	0.105	< 0.105	
Benzo(b)fluoranthene	205-99-2	0.105	< 0.105	
Benzo(g,h,i)perylene	191-24-2	0.105	< 0.105	
Benzo(k)fluoranthene	207-08-9	0.105	< 0.105	
Chrysene	218-01-9	0.105	< 0.105	
Dibenz(a,h)anthracene	53-70-3	0.105	< 0.105	
Fluoranthene	206-44-0	0.105	< 0.105	
Fluorene	86-73-7	0.105	< 0.105	
Indene	95-13-6	0.105	< 0.105	
Indeno(1,2,3-cd)pyrene	193-39-5	0.105	< 0.105	
Naphthalene	91-20-3	0.105	< 0.105	
Phenanthrene	85-01-8	0.105	< 0.105	
Pyrene	129-00-0	0.105	< 0.105	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304475-008B
Client Sample ID: Below Weirs ab Res. / 4920401
Collection Date: 4/17/2013 930h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/18/2013 1229h **Extracted:** 4/17/2013 1220h
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: 1304475-001B

Client Sample ID: East of I-15 / 4920392

Collection Date: 4/17/2013 800h

Received Date: 4/17/2013 1140h

Analytical Results

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

Analyzed: 4/18/2013 411h

Extracted: 4/17/2013 1220h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Salt Lake City, UT 84115

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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-Acetylamino fluorene	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: 1304475-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 4/18/2013 411h

Extracted: 4/17/2013 1220h

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: 1304475-001B
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/18/2013 411h **Extracted:** 4/17/2013 1220h
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	59.2	
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: 1304475-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 4/18/2013 411h

Extracted: 4/17/2013 1220h

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: 1304475-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 4/18/2013 411h

Extracted: 4/17/2013 1220h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	60.2	80.00	75.2	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	17.8	40.00	44.6	10-124	
Surr: 2-Fluorophenol	367-12-4	30.4	80.00	38.0	10-106	
Surr: Nitrobenzene-d5	4165-60-0	15.4	40.00	38.4	10-180	
Surr: Phenol-d6	13127-88-3	22.2	80.00	27.7	10-122	
Surr: Terphenyl-d14	1718-51-0	42.0	40.00	105	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

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304475-002B

Client Sample ID: S. Marina / 4920495

Collection Date: 4/17/2013 815h

Received Date: 4/17/2013 1140h

Analytical Results

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

Analyzed: 4/18/2013 437h

Extracted: 4/17/2013 1220h

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: 1304475-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/18/2013 437h **Extracted:** 4/17/2013 1220h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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



Lab Sample ID: 1304475-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/18/2013 437h **Extracted:** 4/17/2013 1220h
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: 1304475-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/18/2013 437h **Extracted:** 4/17/2013 1220h
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: 1304475-002B

Client Sample ID: S. Marina / 4920495

Analyzed: 4/18/2013 437h

Extracted: 4/17/2013 1220h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	57.8	80.00	72.3	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	14.4	40.00	36.0	10-124	
Surr: 2-Fluorophenol	367-12-4	30.9	80.00	38.6	10-106	
Surr: Nitrobenzene-d5	4165-60-0	12.3	40.00	30.7	10-180	
Surr: Phenol-d6	13127-88-3	21.7	80.00	27.2	10-122	
Surr: Terphenyl-d14	1718-51-0	33.5	40.00	83.7	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

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304475-003B

Client Sample ID: East of Boom / 4920395

Collection Date: 4/17/2013 940h

Received Date: 4/17/2013 1140h

Analytical Results

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

Analyzed: 4/18/2013 503h

Extracted: 4/17/2013 1220h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.5	< 10.5	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.5	< 10.5	
1,2,4-Trichlorobenzene	120-82-1	10.5	< 10.5	
1,2-Dichlorobenzene	95-50-1	10.5	< 10.5	
1,3,5-Trinitrobenzene	99-35-4	10.5	< 10.5	
1,3-Dichlorobenzene	541-73-1	10.5	< 10.5	
1,3-Dinitrobenzene	99-65-0	10.5	< 10.5	
1,4-Dichlorobenzene	106-46-7	10.5	< 10.5	
1,4-Dinitrobenzene	100-25-4	10.5	< 10.5	
1,4-Naphthoquinone	130-15-4	10.5	< 10.5	
1,4-Phenylenediamine	106-50-3	10.5	< 10.5	
1-Chloronaphthalene	90-13-1	10.5	< 10.5	
1-Methylnaphthalene	90-12-0	10.5	< 10.5	
1-Naphthylamine	134-32-7	10.5	< 10.5	
2,3,4,6-Tetrachlorophenol	58-90-2	10.5	< 10.5	
2,4,5-Trichlorophenol	95-95-4	10.5	< 10.5	
2,4,6-Trichlorophenol	88-06-2	10.5	< 10.5	
2,4-Dichlorophenol	120-83-2	10.5	< 10.5	
2,4-Dimethylphenol	105-67-9	10.5	< 10.5	
2,4-Dinitrophenol	51-28-5	10.5	< 10.5	
2,4-Dinitrotoluene	121-14-2	10.5	< 10.5	
2,6-Dichlorophenol	87-65-0	10.5	< 10.5	
2,6-Dinitrotoluene	606-20-2	10.5	< 10.5	
2-Acetylaminofluorene	53-96-3	10.5	< 10.5	
2-Chloronaphthalene	91-58-7	10.5	< 10.5	
2-Chlorophenol	95-57-8	10.5	< 10.5	
2-Methylnaphthalene	91-57-6	10.5	< 10.5	
2-Methylphenol	95-48-7	10.5	< 10.5	
2-Naphthylamine	91-59-8	10.5	< 10.5	
2-Nitroaniline	88-74-4	10.5	< 10.5	



Lab Sample ID: 1304475-003B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/18/2013 503h

Extracted: 4/17/2013 1220h

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	10.5	< 10.5	
2-Picoline	109-06-8	10.5	< 10.5	
3&4-Methylphenol		10.5	< 10.5	
3,3'-Dichlorobenzidine	91-94-1	10.5	< 10.5	
3,3'-Dimethylbenzidine	119-93-7	10.5	< 10.5	
3-Methylcholanthrene	56-49-5	10.5	< 10.5	
3-Nitroaniline	99-09-2	10.5	< 10.5	
4,6-Dinitro-2-methylphenol	534-52-1	10.5	< 10.5	
4-Aminobiphenyl	92-67-1	10.5	< 10.5	
4-Bromophenyl phenyl ether	101-55-3	10.5	< 10.5	
4-Chloro-3-methylphenol	59-50-7	10.5	< 10.5	
4-Chloroaniline	106-47-8	10.5	< 10.5	
4-Chlorophenyl phenyl ether	7005-72-3	10.5	< 10.5	
4-Nitroaniline	100-01-6	10.5	< 10.5	
4-Nitrophenol	100-02-7	10.5	< 10.5	
5-Nitro-o-toluidine	99-55-8	10.5	< 10.5	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.5	< 10.5	
a,a-Dimethylphenethylamine	122-09-8	10.5	< 10.5	
Acenaphthene	83-32-9	10.5	< 10.5	
Acenaphthylene	208-96-8	10.5	< 10.5	
Acetophenone	98-86-2	10.5	< 10.5	
alpha-Terpineol	98-55-5	10.5	< 10.5	
Aniline	62-53-3	10.5	< 10.5	
Anthracene	120-12-7	10.5	< 10.5	
Aramite	140-57-8	10.5	< 10.5	
Atrazine	1912-24-9	10.5	< 10.5	
Azobenzene	103-33-3	10.5	< 10.5	
Benz(a)anthracene	56-55-3	10.5	< 10.5	
Benzaldehyde	100-52-7	10.5	< 10.5	
Benzidine	92-87-5	10.5	< 10.5	
Benzo(a)pyrene	50-32-8	10.5	< 10.5	
Benzo(b)fluoranthene	205-99-2	10.5	< 10.5	
Benzo(g,h,i)perylene	191-24-2	10.5	< 10.5	
Benzo(k)fluoranthene	207-08-9	10.5	< 10.5	
Benzoic acid	65-85-0	21.1	< 21.1	
Benzyl alcohol	100-51-6	10.5	< 10.5	
Bis(2-chloroethoxy)methane	111-91-1	10.5	< 10.5	



Lab Sample ID: 1304475-003B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/18/2013 503h

Extracted: 4/17/2013 1220h

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	10.5	< 10.5	
Bis(2-chloroisopropyl) ether	108-60-1	10.5	< 10.5	
Bis(2-ethylhexyl) phthalate	117-81-7	10.5	< 10.5	
bis(2-ethylhexyl)adipate	103-23-1	10.5	< 10.5	
Butyl benzyl phthalate	85-68-7	10.5	< 10.5	
Caprolactam	105-60-2	10.5	< 10.5	
Carbazole	86-74-8	10.5	< 10.5	
Chlorobenzilate	510-15-6	10.5	< 10.5	
Chrysene	218-01-9	10.5	< 10.5	
Di-n-butyl phthalate	84-74-2	10.5	< 10.5	
Di-n-octyl phthalate	117-84-0	10.5	< 10.5	
Diallate (cis or trans)	2303-16-4	10.5	< 10.5	
Dibenz(a,h)anthracene	53-70-3	10.5	< 10.5	
Dibenzofuran	132-64-9	10.5	< 10.5	
Diethyl phthalate	84-66-2	10.5	< 10.5	
Dimethoate	60-51-5	10.5	< 10.5	
Dimethyl phthalate	131-11-3	10.5	< 10.5	
Dimethylaminoazobenzene	60-11-7	10.5	< 10.5	
Dinoseb	88-85-7	10.5	< 10.5	
Diphenylamine	122-39-4	10.5	< 10.5	
Disulfoton	298-04-4	10.5	< 10.5	
Ethyl methanesulfonate	62-50-0	10.5	< 10.5	
Famphur	52-85-7	10.5	< 10.5	
Fluoranthene	206-44-0	10.5	< 10.5	
Fluorene	86-73-7	10.5	< 10.5	
Hexachlorobenzene	118-74-1	10.5	< 10.5	
Hexachlorobutadiene	87-68-3	10.5	< 10.5	
Hexachlorocyclopentadiene	77-47-4	10.5	< 10.5	
Hexachloroethane	67-72-1	10.5	< 10.5	
Hexachlorophene	70-30-4	10.5	< 10.5	
Hexachloropropene	1888-71-7	10.5	< 10.5	
Indene	95-13-6	10.5	< 10.5	
Indeno(1,2,3-cd)pyrene	193-39-5	10.5	< 10.5	
Isodrin	465-73-6	10.5	< 10.5	
Isophorone	78-59-1	10.5	< 10.5	
Isosafrole	120-58-1	10.5	< 10.5	
Kepone	143-50-0	10.5	< 10.5	



Lab Sample ID: 1304475-003B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/18/2013 503h

Extracted: 4/17/2013 1220h

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	10.5	< 10.5	
Methyl methanesulfonate	66-27-3	10.5	< 10.5	
n-Decane	124-18-5	10.5	< 10.5	
N-Nitrosodi-n-butylamine	924-16-3	10.5	< 10.5	
N-Nitrosodiethylamine	55-18-5	10.5	< 10.5	
N-Nitrosodimethylamine	62-75-9	10.5	< 10.5	
N-Nitrosodiphenylamine	86-30-6	10.5	< 10.5	
N-Nitrosodi-n-propylamine	621-64-7	10.5	< 10.5	
N-Nitrosomethylethylamine	10595-95-6	10.5	< 10.5	
N-Nitrosomorpholine	59-89-2	10.5	< 10.5	
N-Nitrosopiperidine	100-75-4	10.5	< 10.5	
N-Nitrosopyrrolidine	930-55-2	10.5	< 10.5	
n-Octadecane	593-45-3	10.5	< 10.5	
Naphthalene	91-20-3	10.5	< 10.5	
Nitrobenzene	98-95-3	10.5	< 10.5	
Nitroquinoline-1-oxide	56-57-5	10.5	< 10.5	
O,O,O-Triethyl phosphorothioate	126-68-1	10.5	< 10.5	
o-Toluidine	95-53-4	10.5	< 10.5	
Parathion	56-38-2	10.5	< 10.5	
Methyl parathion	298-00-0	10.5	< 10.5	
Pentachlorobenzene	608-93-5	10.5	< 10.5	
Pentachloronitrobenzene	82-68-8	10.5	< 10.5	
Pentachlorophenol	87-86-5	10.5	< 10.5	
Phenacetin	62-44-2	10.5	< 10.5	
Phenanthrene	85-01-8	10.5	< 10.5	
Phenol	108-95-2	10.5	< 10.5	
Phorate	298-02-2	10.5	< 10.5	
Pronamide	23950-58-5	10.5	< 10.5	
Pyrene	129-00-0	10.5	< 10.5	
Pyridine	110-86-1	10.5	< 10.5	
Quinoline	91-22-5	10.5	< 10.5	
Safrole	94-59-7	10.5	< 10.5	
Tetraethyl dithiopyrophosphate	3689-24-5	10.5	< 10.5	
Thionazin	297-97-2	10.5	< 10.5	
TIC: 2,6,10,14,18,22-Tetracosah...	000111-02-4		4.24	JN



Lab Sample ID: 1304475-003B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/18/2013 503h

Extracted: 4/17/2013 1220h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	68.3	84.21	81.1	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	18.6	42.11	44.2	10-124	
Surr: 2-Fluorophenol	367-12-4	32.8	84.21	38.9	10-106	
Surr: Nitrobenzene-d5	4165-60-0	16.9	42.11	40.0	10-180	
Surr: Phenol-d6	13127-88-3	24.2	84.21	28.8	10-122	
Surr: Terphenyl-d14	1718-51-0	42.0	42.11	99.8	10-221	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

This sample was analyzed for TICs.

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304475-004B
Client Sample ID: Duplicate / 4920401
Collection Date: 4/17/2013 930h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/18/2013 529h **Extracted:** 4/17/2013 1220h
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: 1304475-004B
Client Sample ID: Duplicate / 4920401

Analyzed: 4/18/2013 529h **Extracted:** 4/17/2013 1220h
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: 1304475-004B
Client Sample ID: Duplicate / 4920401

Analyzed: 4/18/2013 529h **Extracted:** 4/17/2013 1220h
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: 1304475-004B
Client Sample ID: Duplicate / 4920401

Analyzed: 4/18/2013 529h **Extracted:** 4/17/2013 1220h
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-di...	000529-34-0		5.86	JN
TIC: 1(2H)-Naphthalenone, 3,4-dihy	005037-63-8		7.12	JN
TIC: 1(2H)-Naphthalenone, 3,4-dihydr	006939-35-1		18.3	JN



Lab Sample ID: 1304475-004B
Client Sample ID: Duplicate / 4920401

Analyzed: 4/18/2013 529h **Extracted:** 4/17/2013 1220h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 1(2H)-Naphthalenone, 3,4-dihydro...	014944-23-1		6.22	JN
TIC: 2H-1-Benzopyran-2-one, 6-methyl-	000092-48-8		5.59	JN
TIC: 3-Hydroxymethylene-2-indoli...	063273-23-4		6.93	JN
TIC: 5,8-Dimethyl-1,2,3,4-tetra...	032820-12-5		6.28	JN
TIC: Benzene, 1-ethyl-3,5-diisop...	015181-13-2		9.91	JN
TIC: Naphthalene, 1,2,3,4-tetra...	022824-32-4		5.23	JN
TIC: Tetrahydropyrro[2,3-b]-1H-2...	079432-04-5		5.32	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	56.7	80.00	70.9	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	14.0	40.00	35.0	10-124	
Surr: 2-Fluorophenol	367-12-4	21.6	80.00	27.0	10-106	
Surr: Nitrobenzene-d5	4165-60-0	12.6	40.00	31.6	10-180	
Surr: Phenol-d6	13127-88-3	16.5	80.00	20.6	10-122	
Surr: Terphenyl-d14	1718-51-0	36.6	40.00	91.5	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: 1304475-007B
Client Sample ID: East of Boom #3 / 4920402
Collection Date: 4/17/2013 920h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/18/2013 556h **Extracted:** 4/17/2013 1220h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.5	< 10.5	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.5	< 10.5	
1,2,4-Trichlorobenzene	120-82-1	10.5	< 10.5	
1,2-Dichlorobenzene	95-50-1	10.5	< 10.5	
1,3,5-Trinitrobenzene	99-35-4	10.5	< 10.5	
1,3-Dichlorobenzene	541-73-1	10.5	< 10.5	
1,3-Dinitrobenzene	99-65-0	10.5	< 10.5	
1,4-Dichlorobenzene	106-46-7	10.5	< 10.5	
1,4-Dinitrobenzene	100-25-4	10.5	< 10.5	
1,4-Naphthoquinone	130-15-4	10.5	< 10.5	
1,4-Phenylenediamine	106-50-3	10.5	< 10.5	
1-Chloronaphthalene	90-13-1	10.5	< 10.5	
1-Methylnaphthalene	90-12-0	10.5	< 10.5	
1-Naphthylamine	134-32-7	10.5	< 10.5	
2,3,4,6-Tetrachlorophenol	58-90-2	10.5	< 10.5	
2,4,5-Trichlorophenol	95-95-4	10.5	< 10.5	
2,4,6-Trichlorophenol	88-06-2	10.5	< 10.5	
2,4-Dichlorophenol	120-83-2	10.5	< 10.5	
2,4-Dimethylphenol	105-67-9	10.5	< 10.5	
2,4-Dinitrophenol	51-28-5	10.5	< 10.5	
2,4-Dinitrotoluene	121-14-2	10.5	< 10.5	
2,6-Dichlorophenol	87-65-0	10.5	< 10.5	
2,6-Dinitrotoluene	606-20-2	10.5	< 10.5	
2-Acetylaminofluorene	53-96-3	10.5	< 10.5	
2-Chloronaphthalene	91-58-7	10.5	< 10.5	
2-Chlorophenol	95-57-8	10.5	< 10.5	
2-Methylnaphthalene	91-57-6	10.5	< 10.5	
2-Methylphenol	95-48-7	10.5	< 10.5	
2-Naphthylamine	91-59-8	10.5	< 10.5	
2-Nitroaniline	88-74-4	10.5	< 10.5	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



Lab Sample ID: 1304475-007B
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/18/2013 556h **Extracted:** 4/17/2013 1220h
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	10.5	< 10.5	
2-Picoline	109-06-8	10.5	< 10.5	
3&4-Methylphenol		10.5	< 10.5	
3,3'-Dichlorobenzidine	91-94-1	10.5	< 10.5	
3,3'-Dimethylbenzidine	119-93-7	10.5	< 10.5	
3-Methylcholanthrene	56-49-5	10.5	< 10.5	
3-Nitroaniline	99-09-2	10.5	< 10.5	
4,6-Dinitro-2-methylphenol	534-52-1	10.5	< 10.5	
4-Aminobiphenyl	92-67-1	10.5	< 10.5	
4-Bromophenyl phenyl ether	101-55-3	10.5	< 10.5	
4-Chloro-3-methylphenol	59-50-7	10.5	< 10.5	
4-Chloroaniline	106-47-8	10.5	< 10.5	
4-Chlorophenyl phenyl ether	7005-72-3	10.5	< 10.5	
4-Nitroaniline	100-01-6	10.5	< 10.5	
4-Nitrophenol	100-02-7	10.5	< 10.5	
5-Nitro-o-toluidine	99-55-8	10.5	< 10.5	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.5	< 10.5	
a,a-Dimethylphenethylamine	122-09-8	10.5	< 10.5	
Acenaphthene	83-32-9	10.5	< 10.5	
Acenaphthylene	208-96-8	10.5	< 10.5	
Acetophenone	98-86-2	10.5	< 10.5	
alpha-Terpineol	98-55-5	10.5	< 10.5	
Aniline	62-53-3	10.5	< 10.5	
Anthracene	120-12-7	10.5	< 10.5	
Aramite	140-57-8	10.5	< 10.5	
Atrazine	1912-24-9	10.5	< 10.5	
Azobenzene	103-33-3	10.5	< 10.5	
Benz(a)anthracene	56-55-3	10.5	< 10.5	
Benzaldehyde	100-52-7	10.5	< 10.5	
Benzidine	92-87-5	10.5	< 10.5	
Benzo(a)pyrene	50-32-8	10.5	< 10.5	
Benzo(b)fluoranthene	205-99-2	10.5	< 10.5	
Benzo(g,h,i)perylene	191-24-2	10.5	< 10.5	
Benzo(k)fluoranthene	207-08-9	10.5	< 10.5	
Benzoic acid	65-85-0	21.1	< 21.1	
Benzyl alcohol	100-51-6	10.5	< 10.5	
Bis(2-chloroethoxy)methane	111-91-1	10.5	< 10.5	



Lab Sample ID: 1304475-007B

Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/18/2013 556h

Extracted: 4/17/2013 1220h

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	10.5	< 10.5	
Bis(2-chloroisopropyl) ether	108-60-1	10.5	< 10.5	
Bis(2-ethylhexyl) phthalate	117-81-7	10.5	< 10.5	
bis(2-ethylhexyl)adipate	103-23-1	10.5	< 10.5	
Butyl benzyl phthalate	85-68-7	10.5	< 10.5	
Caprolactam	105-60-2	10.5	< 10.5	
Carbazole	86-74-8	10.5	< 10.5	
Chlorobenzilate	510-15-6	10.5	< 10.5	
Chrysene	218-01-9	10.5	< 10.5	
Di-n-butyl phthalate	84-74-2	10.5	< 10.5	
Di-n-octyl phthalate	117-84-0	10.5	< 10.5	
Diallate (cis or trans)	2303-16-4	10.5	< 10.5	
Dibenz(a,h)anthracene	53-70-3	10.5	< 10.5	
Dibenzofuran	132-64-9	10.5	< 10.5	
Diethyl phthalate	84-66-2	10.5	< 10.5	
Dimethoate	60-51-5	10.5	< 10.5	
Dimethyl phthalate	131-11-3	10.5	< 10.5	
Dimethylaminoazobenzene	60-11-7	10.5	< 10.5	
Dinoseb	88-85-7	10.5	< 10.5	
Diphenylamine	122-39-4	10.5	< 10.5	
Disulfoton	298-04-4	10.5	< 10.5	
Ethyl methanesulfonate	62-50-0	10.5	< 10.5	
Famphur	52-85-7	10.5	< 10.5	
Fluoranthene	206-44-0	10.5	< 10.5	
Fluorene	86-73-7	10.5	< 10.5	
Hexachlorobenzene	118-74-1	10.5	< 10.5	
Hexachlorobutadiene	87-68-3	10.5	< 10.5	
Hexachlorocyclopentadiene	77-47-4	10.5	< 10.5	
Hexachloroethane	67-72-1	10.5	< 10.5	
Hexachlorophene	70-30-4	10.5	< 10.5	
Hexachloropropene	1888-71-7	10.5	< 10.5	
Indene	95-13-6	10.5	< 10.5	
Indeno(1,2,3-cd)pyrene	193-39-5	10.5	< 10.5	
Isodrin	465-73-6	10.5	< 10.5	
Isophorone	78-59-1	10.5	< 10.5	
Isosafrole	120-58-1	10.5	< 10.5	
Kepone	143-50-0	10.5	< 10.5	



Lab Sample ID: 1304475-007B
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/18/2013 556h **Extracted:** 4/17/2013 1220h
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	10.5	< 10.5	
Methyl methanesulfonate	66-27-3	10.5	< 10.5	
n-Decane	124-18-5	10.5	< 10.5	
N-Nitrosodi-n-butylamine	924-16-3	10.5	< 10.5	
N-Nitrosodiethylamine	55-18-5	10.5	< 10.5	
N-Nitrosodimethylamine	62-75-9	10.5	< 10.5	
N-Nitrosodiphenylamine	86-30-6	10.5	< 10.5	
N-Nitrosodi-n-propylamine	621-64-7	10.5	< 10.5	
N-Nitrosomethylethylamine	10595-95-6	10.5	< 10.5	
N-Nitrosomorpholine	59-89-2	10.5	< 10.5	
N-Nitrosopiperidine	100-75-4	10.5	< 10.5	
N-Nitrosopyrrolidine	930-55-2	10.5	< 10.5	
n-Octadecane	593-45-3	10.5	< 10.5	
Naphthalene	91-20-3	10.5	< 10.5	
Nitrobenzene	98-95-3	10.5	< 10.5	
Nitroquinoline-1-oxide	56-57-5	10.5	< 10.5	
O,O,O-Triethyl phosphorothioate	126-68-1	10.5	< 10.5	
o-Toluidine	95-53-4	10.5	< 10.5	
Parathion	56-38-2	10.5	< 10.5	
Methyl parathion	298-00-0	10.5	< 10.5	
Pentachlorobenzene	608-93-5	10.5	< 10.5	
Pentachloronitrobenzene	82-68-8	10.5	< 10.5	
Pentachlorophenol	87-86-5	10.5	< 10.5	
Phenacetin	62-44-2	10.5	< 10.5	
Phenanthrene	85-01-8	10.5	< 10.5	
Phenol	108-95-2	10.5	< 10.5	
Phorate	298-02-2	10.5	< 10.5	
Pronamide	23950-58-5	10.5	< 10.5	
Pyrene	129-00-0	10.5	< 10.5	
Pyridine	110-86-1	10.5	< 10.5	
Quinoline	91-22-5	10.5	< 10.5	
Safrole	94-59-7	10.5	< 10.5	
Tetraethyl dithiopyrophosphate	3689-24-5	10.5	< 10.5	
Thionazin	297-97-2	10.5	< 10.5	
TIC: Octadecanoic acid	000057-11-4		5.25	JN



Lab Sample ID: 1304475-007B

Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/18/2013 556h

Extracted: 4/17/2013 1220h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	70.4	84.21	83.6	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	19.4	42.11	46.1	10-124	
Surr: 2-Fluorophenol	367-12-4	33.4	84.21	39.7	10-106	
Surr: Nitrobenzene-d5	4165-60-0	18.5	42.11	43.9	10-180	
Surr: Phenol-d6	13127-88-3	26.0	84.21	30.9	10-122	
Surr: Terphenyl-d14	1718-51-0	41.4	42.11	98.4	10-221	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

This sample was analyzed for TICs.

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304475-008B
Client Sample ID: Below Weirs ab Res. / 4920401
Collection Date: 4/17/2013 930h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/18/2013 622h **Extracted:** 4/17/2013 1220h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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

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Laboratory Director

Jose Rocha
QA Officer



Lab Sample ID: 1304475-008B

Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/18/2013 622h

Extracted: 4/17/2013 1220h

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: 1304475-008B

Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/18/2013 622h

Extracted: 4/17/2013 1220h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Jose Rocha
QA Officer

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



Lab Sample ID: 1304475-008B

Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/18/2013 622h

Extracted: 4/17/2013 1220h

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-di...	000529-34-0		6.24	JN
TIC: 1(2H)-Naphthalenone, 3,4-dih...	005037-63-8		7.48	JN
TIC: 1(2H)-Naphthalenone, 3,4-dihydr	006939-35-1		19.1	JN



Lab Sample ID: 1304475-008B
Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/18/2013 622h **Extracted:** 4/17/2013 1220h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 1(2H)-Naphthalenone, 3,4-dihydro...	014944-23-1		6.45	JN
TIC: 1,2,3-Trimethylindene	004773-83-5		6.39	JN
TIC: 1H-Inden-1-one, 2,3-dihydro...	035322-84-0		5.04	JN
TIC: 2H-1-Benzopyran-2-one, 7-am...	026093-31-2		10.5	JN
TIC: 2H-1-Benzopyran-2-one, 7-methyl-	002445-83-2		5.70	JN
TIC: 3-Hydroxymethylene-2-indoli...	063273-23-4		8.44	JN
TIC: Tetrahydropyrro[2,3-b]-1H-2...	079432-04-5		6.17	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	64.0	80.00	80.0	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	16.7	40.00	41.6	10-124	
Surr: 2-Fluorophenol	367-12-4	23.6	80.00	29.5	10-106	
Surr: Nitrobenzene-d5	4165-60-0	13.6	40.00	33.9	10-180	
Surr: Phenol-d6	13127-88-3	18.2	80.00	22.7	10-122	
Surr: Terphenyl-d14	1718-51-0	37.2	40.00	93.1	10-221	

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

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304475-001A
Client Sample ID: East of I-15 / 4920392
Collection Date: 4/17/2013 800h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/17/2013 1509h

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: 1304475-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/17/2013 1509h

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: 1304475-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/17/2013 1509h

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: 1304475-001A

Client Sample ID: East of I-15 / 4920392

Analyzed: 4/17/2013 1509h

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	52.7	50.00	105	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.3	50.00	107	80-124	
Surr: Toluene-d8	2037-26-5	49.6	50.00	99.3	77-129	

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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: 1304475-002A
Client Sample ID: S. Marina / 4920495
Collection Date: 4/17/2013 815h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/17/2013 1625h

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: 1304475-002A
Client Sample ID: S. Marina / 4920495

Analyzed: 4/17/2013 1625h

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: 1304475-002A
Client Sample ID: S. Marina / 4920495

Analyzed: 4/17/2013 1625h

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: 1304475-002A

Client Sample ID: S. Marina / 4920495

Analyzed: 4/17/2013 1625h

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	53.4	50.00	107	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.6	50.00	107	80-124	
Surr: Toluene-d8	2037-26-5	50.5	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: 1304475-003A
Client Sample ID: East of Boom / 4920395
Collection Date: 4/17/2013 940h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/17/2013 1644h

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: 1304475-003A
Client Sample ID: East of Boom / 4920395

Analyzed: 4/17/2013 1644h

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: 1304475-003A
Client Sample ID: East of Boom / 4920395

Analyzed: 4/17/2013 1644h

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: 1304475-003A
Client Sample ID: East of Boom / 4920395

Analyzed: 4/17/2013 1644h

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

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.5	50.00	113	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.1	50.00	106	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.3	50.00	107	80-124	
Surr: Toluene-d8	2037-26-5	49.8	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: 1304475-004A
Client Sample ID: Duplicate / 4920401
Collection Date: 4/17/2013 930h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/17/2013 1703h

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	4.17	
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: 1304475-004A
Client Sample ID: Duplicate / 4920401

Analyzed: 4/17/2013 1703h

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: 1304475-004A
Client Sample ID: Duplicate / 4920401

Analyzed: 4/17/2013 1703h

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	3.31	
m,p-Xylene	179601-23-1	2.00	2.15	
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	3.30	



Lab Sample ID: 1304475-004A

Client Sample ID: Duplicate / 4920401

Analyzed: 4/17/2013 1703h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.5	50.00	113	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.0	50.00	100	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.8	50.00	108	80-124	
Surr: Toluene-d8	2037-26-5	49.6	50.00	99.3	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: 1304475-005A
Client Sample ID: Field Blank
Collection Date: 4/17/2013 835h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/17/2013 1431h

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: 1304475-005A

Client Sample ID: Field Blank

Analyzed: 4/17/2013 1431h

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: 1304475-005A

Client Sample ID: Field Blank

Analyzed: 4/17/2013 1431h

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: 1304475-005A

Client Sample ID: Field Blank

Analyzed: 4/17/2013 1431h

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	53.2	50.00	106	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.9	50.00	108	80-124	
Surr: Toluene-d8	2037-26-5	50.2	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: 1304475-006A
Client Sample ID: Trip Blank
Collection Date: 4/17/2013
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/17/2013 1450h

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: 1304475-006A

Client Sample ID: Trip Blank

Analyzed: 4/17/2013 1450h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1304475-006A

Client Sample ID: Trip Blank

Analyzed: 4/17/2013 1450h

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: 1304475-006A

Client Sample ID: Trip Blank

Analyzed: 4/17/2013 1450h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.0	50.00	112	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	51.8	50.00	104	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.3	50.00	107	80-124	
Surr: Toluene-d8	2037-26-5	50.2	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: 1304475-007A
Client Sample ID: East of Boom #3 / 4920402
Collection Date: 4/17/2013 920h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/17/2013 1722h

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: 1304475-007A
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/17/2013 1722h

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: 1304475-007A
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/17/2013 1722h

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: 1304475-007A

Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/17/2013 1722h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.0	50.00	110	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.7	50.00	107	80-128	
Surr: Dibromofluoromethane	1868-53-7	52.1	50.00	104	80-124	
Surr: Toluene-d8	2037-26-5	50.7	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: 1304475-008A
Client Sample ID: Below Weirs ab Res. / 4920401
Collection Date: 4/17/2013 930h
Received Date: 4/17/2013 1140h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 4/17/2013 1741h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Laboratory Director

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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	4.16	
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: 1304475-008A
Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/17/2013 1741h

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: 1304475-008A
Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/17/2013 1741h

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	3.31	
m,p-Xylene	179601-23-1	2.00	2.24	
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	3.47	



Lab Sample ID: 1304475-008A

Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/17/2013 1741h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.6	50.00	111	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.1	50.00	100	80-128	
Surr: Dibromofluoromethane	1868-53-7	52.8	50.00	106	80-124	
Surr: Toluene-d8	2037-26-5	50.1	50.00	100	77-129	

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-24882	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.65	2.000	0	82.3	48-118				4/19/2013 028h
LCS-24882	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.254	0.4000		63.5	18-95				4/19/2013 028h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24882	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	< 0.500				-				4/19/2013 009h
MB-24882	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.199	0.4000		49.6	18-95				4/19/2013 009h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304475-001CMS	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.93	2.105	0	91.7	60-161				4/19/2013 107h
1304475-001CMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.292	0.4211		69.4	10-190				4/19/2013 107h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304475-001CMSD	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.94	2.105	0	91.9	60-161	0.25	25		4/19/2013 126h
1304475-001CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.284	0.4211		67.5	10-190				4/19/2013 126h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-24866	1,2,4-Trichlorobenzene	µg/L	SW8270D	34.1	80.00	0	42.6	10-104				4/17/2013 2228h
LCS-24866	1,4-Dichlorobenzene	µg/L	SW8270D	24.4	80.00	0	30.5	10-118				4/17/2013 2228h
LCS-24866	2,4,6-Trichlorophenol	µg/L	SW8270D	61.1	80.00	0	76.4	17-119				4/17/2013 2228h
LCS-24866	2,4-Dimethylphenol	µg/L	SW8270D	56.5	80.00	0	70.6	10-131				4/17/2013 2228h
LCS-24866	2,4-Dinitrotoluene	µg/L	SW8270D	79.8	80.00	0	99.7	42-219				4/17/2013 2228h
LCS-24866	2-Chloronaphthalene	µg/L	SW8270D	42.7	80.00	0	53.4	23-126				4/17/2013 2228h
LCS-24866	2-Chlorophenol	µg/L	SW8270D	53.0	80.00	0	66.3	15-128				4/17/2013 2228h
LCS-24866	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	71.0	80.00	0	88.7	30-198				4/17/2013 2228h
LCS-24866	4-Chloro-3-methylphenol	µg/L	SW8270D	63.2	80.00	0	79.0	29-148				4/17/2013 2228h
LCS-24866	4-Nitrophenol	µg/L	SW8270D	23.3	80.00	0	29.1	10-157				4/17/2013 2228h
LCS-24866	Acenaphthene	µg/L	SW8270D	56.6	80.00	0	70.8	20-116				4/17/2013 2228h
LCS-24866	Benzo(a)pyrene	µg/L	SW8270D	160	80.00	0	199	10-221				4/17/2013 2228h
LCS-24866	N-Nitrosodi-n-propylamine	µg/L	SW8270D	44.1	80.00	0	55.1	20-148				4/17/2013 2228h
LCS-24866	Pentachlorophenol	µg/L	SW8270D	66.6	80.00	0	83.2	21-153				4/17/2013 2228h
LCS-24866	Phenol	µg/L	SW8270D	29.3	80.00	0	36.6	10-131				4/17/2013 2228h
LCS-24866	Pyrene	µg/L	SW8270D	81.5	80.00	0	102	37-150				4/17/2013 2228h
LCS-24866	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	73.4	80.00		91.7	10-165				4/17/2013 2228h
LCS-24866	Surr: 2-Fluorobiphenyl	%REC	SW8270D	26.0	40.00		65.0	10-118				4/17/2013 2228h
LCS-24866	Surr: 2-Fluorophenol	%REC	SW8270D	35.9	80.00		44.9	10-121				4/17/2013 2228h
LCS-24866	Surr: Nitrobenzene-d5	%REC	SW8270D	24.6	40.00		61.5	10-127				4/17/2013 2228h
LCS-24866	Surr: Phenol-d6	%REC	SW8270D	27.6	80.00		34.4	10-124				4/17/2013 2228h
LCS-24866	Surr: Terphenyl-d14	%REC	SW8270D	42.3	40.00		106	51-221				4/17/2013 2228h
LCS-24866	Acenaphthene	µg/L	SW8270D	53.2	80.00	0	66.5	23-159				4/17/2013 1425h
LCS-24866	Benzo(a)pyrene	µg/L	SW8270D	85.8	80.00	0	107	26-223				4/17/2013 1425h
LCS-24866	Pentachlorophenol	µg/L	SW8270D	120	80.00	0	150	10-249				4/17/2013 1425h
LCS-24866	Pyrene	µg/L	SW8270D	75.4	80.00	0	94.3	28-204				4/17/2013 1425h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24866	1,1'-Biphenyl	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1,2,4,5-Tetrachlorobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1,2,4-Trichlorobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1,2-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1,3,5-Trinitrobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1,3-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1,3-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1,4-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1,4-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1,4-Naphthoquinone	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1,4-Phenylenediamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	1-Naphthylamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2,3,4,6-Tetrachlorophenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2,4,5-Trichlorophenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2,4,6-Trichlorophenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2,4-Dichlorophenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2,4-Dimethylphenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2,4-Dinitrophenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2,4-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2,6-Dichlorophenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2,6-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2-Acetylaminofluorene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2-Chlorophenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24866	2-Methylphenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2-Naphthylamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2-Nitrophenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	2-Picoline	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	3&4-Methylphenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	3,3'-Dichlorobenzidine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	3,3'-Dimethylbenzidine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	3-Methylcholanthrene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	3-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	4-Aminobiphenyl	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	4-Bromophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	4-Chloro-3-methylphenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	4-Chloroaniline	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	4-Chlorophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	4-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	4-Nitrophenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	5-Nitro-o-toluidine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	7,12-Dimethylbenz(a)anthracene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	a,a-Dimethylphenethylamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Acenaphthene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Acenaphthylene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Acetophenone	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	alpha-Terpineol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Aniline	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Anthracene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h

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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24866	Aramite	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Atrazine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Azobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Benz(a)anthracene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Benzaldehyde	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Benzidine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Benzo(a)pyrene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Benzo(b)fluoranthene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Benzo(g,h,i)perylene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Benzo(k)fluoranthene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Benzoic acid	µg/L	SW8270D	< 20.0				-				4/17/2013 2202h
MB-24866	Benzyl alcohol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Bis(2-chloroethoxy)methane	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Bis(2-chloroethyl) ether	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Bis(2-chloroisopropyl) ether	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Bis(2-ethylhexyl) phthalate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	bis(2-ethylhexyl)adipate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Butyl benzyl phthalate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Caprolactam	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Carbazole	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Chlorobenzilate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Chrysene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Diallate (cis or trans)	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Dibenz(a,h)anthracene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Dibenzofuran	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Diethyl phthalate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Dimethoate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h

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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24866	Dimethyl phthalate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Dimethylaminoazobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Di-n-butyl phthalate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Di-n-octyl phthalate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Dinoseb	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Diphenylamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Disulfoton	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Ethyl methanesulfonate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Famphur	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Fluoranthene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Fluorene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Hexachlorobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Hexachlorobutadiene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Hexachlorocyclopentadiene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Hexachloroethane	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Hexachlorophene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Hexachloropropene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Indene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Isodrin	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Isophorone	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Isosafrole	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Kepone	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Methapyrilene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Methyl methanesulfonate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Naphthalene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	n-Decane	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h

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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24866	Nitrobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Nitroquinoline-1-oxide	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	N-Nitrosodiethylamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	N-Nitrosodimethylamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	N-Nitrosodi-n-butylamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	N-Nitrosodiphenylamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	N-Nitrosodi-n-propylamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	N-Nitrosomethylethylamine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	N-Nitrosomorpholine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	N-Nitrosopiperidine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	N-Nitrosopyrrolidine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	n-Octadecane	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	O,O,O-Triethyl phosphorothioate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	o-Toluidine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Parathion	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Methyl parathion	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Pentachlorobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Pentachloronitrobenzene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Pentachlorophenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Phenacetin	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Phenanthrene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Phenol	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Phorate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Pronamide	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Pyrene	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Pyridine	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Quinoline	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h

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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: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24866	Safrole	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Tetraethyl dithiopyrophosphate	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Thionazin	µg/L	SW8270D	< 10.0				-				4/17/2013 2202h
MB-24866	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	59.9	80.00		74.8	10-165				4/17/2013 2202h
MB-24866	Surr: 2-Fluorobiphenyl	%REC	SW8270D	23.2	40.00		57.9	10-118				4/17/2013 2202h
MB-24866	Surr: 2-Fluorophenol	%REC	SW8270D	35.8	80.00		44.7	10-121				4/17/2013 2202h
MB-24866	Surr: Nitrobenzene-d5	%REC	SW8270D	22.1	40.00		55.2	10-127				4/17/2013 2202h
MB-24866	Surr: Phenol-d6	%REC	SW8270D	24.8	80.00		31.0	10-124				4/17/2013 2202h
MB-24866	Surr: Terphenyl-d14	%REC	SW8270D	40.5	40.00		101	51-221				4/17/2013 2202h
MB-24866	1-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	2-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Acenaphthene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Acenaphthylene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Anthracene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Benz(a)anthracene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Benzo(a)pyrene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Benzo(b)fluoranthene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Benzo(g,h,i)perylene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Benzo(k)fluoranthene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Chrysene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Dibenz(a,h)anthracene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Fluoranthene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Fluorene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Hexachlorobenzene	µg/L	SW8270D	< 1.00				-				4/17/2013 1359h
MB-24866	Indene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Naphthalene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h

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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: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24866	Pentachlorophenol	µg/L	SW8270D	< 1.00				-				4/17/2013 1359h
MB-24866	Phenanthrene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h
MB-24866	Pyrene	µg/L	SW8270D	< 0.100				-				4/17/2013 1359h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304447-001BMS	1,2,4-Trichlorobenzene	µg/L	SW8270D	44.3	86.49	0	51.3	20-107				4/17/2013 2321h
1304447-001BMS	1,4-Dichlorobenzene	µg/L	SW8270D	30.8	86.49	0	35.6	11-90				4/17/2013 2321h
1304447-001BMS	2,4,6-Trichlorophenol	µg/L	SW8270D	63.2	86.49	0	73.1	10-223				4/17/2013 2321h
1304447-001BMS	2,4-Dimethylphenol	µg/L	SW8270D	29.0	86.49	0	33.6	10-176				4/17/2013 2321h
1304447-001BMS	2,4-Dinitrotoluene	µg/L	SW8270D	76.6	86.49	0	88.5	21-191				4/17/2013 2321h
1304447-001BMS	2-Chloronaphthalene	µg/L	SW8270D	48.7	86.49	0	56.3	12-132				4/17/2013 2321h
1304447-001BMS	2-Chlorophenol	µg/L	SW8270D	52.2	86.49	0	60.3	20-107				4/17/2013 2321h
1304447-001BMS	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	75.1	86.49	0	86.8	20-250				4/17/2013 2321h
1304447-001BMS	4-Chloro-3-methylphenol	µg/L	SW8270D	62.3	86.49	0	72.0	10-136				4/17/2013 2321h
1304447-001BMS	4-Nitrophenol	µg/L	SW8270D	24.3	86.49	0	28.1	10-135				4/17/2013 2321h
1304447-001BMS	Acenaphthene	µg/L	SW8270D	66.8	86.49	0	77.3	21-113				4/17/2013 2321h
1304447-001BMS	Benzo(a)pyrene	µg/L	SW8270D	170	86.49	0	197	15-169			1	4/17/2013 2321h
1304447-001BMS	N-Nitrosodi-n-propylamine	µg/L	SW8270D	49.1	86.49	0	56.8	10-133				4/17/2013 2321h
1304447-001BMS	Pentachlorophenol	µg/L	SW8270D	39.2	86.49	0	45.4	10-131				4/17/2013 2321h
1304447-001BMS	Phenol	µg/L	SW8270D	26.6	86.49	0	30.8	10-71				4/17/2013 2321h
1304447-001BMS	Pyrene	µg/L	SW8270D	85.8	86.49	0	99.2	23-150				4/17/2013 2321h
1304447-001BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	64.9	86.49		75.1	14-159				4/17/2013 2321h
1304447-001BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	29.8	43.24		68.8	10-124				4/17/2013 2321h
1304447-001BMS	Surr: 2-Fluorophenol	%REC	SW8270D	31.4	86.49		36.4	10-106				4/17/2013 2321h
1304447-001BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	25.4	43.24		58.8	10-180				4/17/2013 2321h
1304447-001BMS	Surr: Phenol-d6	%REC	SW8270D	24.9	86.49		28.8	10-122				4/17/2013 2321h
1304447-001BMS	Surr: Terphenyl-d14	%REC	SW8270D	41.6	43.24		96.3	10-221				4/17/2013 2321h
1304447-001BMS	Acenaphthene	µg/L	SW8270D	61.2	86.49	0	70.8	21-113				4/17/2013 1520h
1304447-001BMS	Benzo(a)pyrene	µg/L	SW8270D	85.0	86.49	0	98.3	15-169				4/17/2013 1520h
1304447-001BMS	Pentachlorophenol	µg/L	SW8270D	93.8	86.49	0	108	10-249				4/17/2013 1520h
1304447-001BMS	Pyrene	µg/L	SW8270D	75.2	86.49	0	87.0	23-150				4/17/2013 1520h

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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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: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304447-001BMSD	1,2,4-Trichlorobenzene	µg/L	SW8270D	24.4	86.49	0	28.2	20-107	58.1	25	@	4/17/2013 2348h
1304447-001BMSD	1,4-Dichlorobenzene	µg/L	SW8270D	14.1	86.49	0	16.3	11-90	74.3	25	@	4/17/2013 2348h
1304447-001BMSD	2,4,6-Trichlorophenol	µg/L	SW8270D	60.2	86.49	0	69.6	10-223	4.78	25		4/17/2013 2348h
1304447-001BMSD	2,4-Dimethylphenol	µg/L	SW8270D	33.8	86.49	0	39.1	10-176	15.2	25		4/17/2013 2348h
1304447-001BMSD	2,4-Dinitrotoluene	µg/L	SW8270D	88.5	86.49	0	102	21-191	14.4	25		4/17/2013 2348h
1304447-001BMSD	2-Chloronaphthalene	µg/L	SW8270D	31.4	86.49	0	36.3	12-132	43.1	25	@	4/17/2013 2348h
1304447-001BMSD	2-Chlorophenol	µg/L	SW8270D	43.1	86.49	0	49.9	20-107	19	25		4/17/2013 2348h
1304447-001BMSD	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	87.5	86.49	0	101	20-250	15.3	25		4/17/2013 2348h
1304447-001BMSD	4-Chloro-3-methylphenol	µg/L	SW8270D	63.4	86.49	0	73.3	10-136	1.75	25		4/17/2013 2348h
1304447-001BMSD	4-Nitrophenol	µg/L	SW8270D	26.4	86.49	0	30.5	10-135	8.27	25		4/17/2013 2348h
1304447-001BMSD	Acenaphthene	µg/L	SW8270D	51.9	86.49	0	60.0	21-113	25.1	25	@	4/17/2013 2348h
1304447-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	194	86.49	0	224	15-169	12.7	25	¹	4/17/2013 2348h
1304447-001BMSD	N-Nitrosodi-n-propylamine	µg/L	SW8270D	32.8	86.49	0	38.0	10-133	39.8	25	@	4/17/2013 2348h
1304447-001BMSD	Pentachlorophenol	µg/L	SW8270D	35.5	86.49	0	41.1	10-131	9.89	25		4/17/2013 2348h
1304447-001BMSD	Phenol	µg/L	SW8270D	23.7	86.49	0	27.4	10-71	11.6	25		4/17/2013 2348h
1304447-001BMSD	Pyrene	µg/L	SW8270D	87.4	86.49	0	101	23-150	1.89	25		4/17/2013 2348h
1304447-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	68.9	86.49		79.7	14-159				4/17/2013 2348h
1304447-001BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	20.7	43.24		47.9	10-124				4/17/2013 2348h
1304447-001BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	26.0	86.49		30.1	10-106				4/17/2013 2348h
1304447-001BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	15.6	43.24		36.1	10-180				4/17/2013 2348h
1304447-001BMSD	Surr: Phenol-d6	%REC	SW8270D	22.3	86.49		25.8	10-122				4/17/2013 2348h
1304447-001BMSD	Surr: Terphenyl-d14	%REC	SW8270D	43.4	43.24		100	10-221				4/17/2013 2348h
1304447-001BMSD	Acenaphthene	µg/L	SW8270D	52.3	86.49	0	60.5	21-113	15.6	25		4/17/2013 1546h
1304447-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	94.5	86.49	0	109	15-169	10.6	25		4/17/2013 1546h
1304447-001BMSD	Pentachlorophenol	µg/L	SW8270D	96.4	86.49	0	112	10-249	2.73	25		4/17/2013 1546h
1304447-001BMSD	Pyrene	µg/L	SW8270D	84.1	86.49	0	97.2	23-150	11.1	25		4/17/2013 1546h

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

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

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Kyle F. Gross
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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 041713A	1,1,1-Trichloroethane	µg/L	SW8260C	21.5	20.00	0	107	59-156				4/17/2013 1103h
LCS VOC 041713A	1,1-Dichloroethene	µg/L	SW8260C	20.2	20.00	0	101	46-171				4/17/2013 1103h
LCS VOC 041713A	1,2-Dichlorobenzene	µg/L	SW8260C	19.8	20.00	0	99.0	67-135				4/17/2013 1103h
LCS VOC 041713A	1,2-Dichloroethane	µg/L	SW8260C	19.6	20.00	0	98.0	60-137				4/17/2013 1103h
LCS VOC 041713A	1,2-Dichloropropane	µg/L	SW8260C	19.0	20.00	0	95.1	59-135				4/17/2013 1103h
LCS VOC 041713A	Benzene	µg/L	SW8260C	19.5	20.00	0	97.6	62-127				4/17/2013 1103h
LCS VOC 041713A	Chlorobenzene	µg/L	SW8260C	19.4	20.00	0	97.0	63-140				4/17/2013 1103h
LCS VOC 041713A	Chloroform	µg/L	SW8260C	19.7	20.00	0	98.3	67-132				4/17/2013 1103h
LCS VOC 041713A	Ethylbenzene	µg/L	SW8260C	19.5	20.00	0	97.6	55-133				4/17/2013 1103h
LCS VOC 041713A	Isopropylbenzene	µg/L	SW8260C	19.7	20.00	0	98.4	60-147				4/17/2013 1103h
LCS VOC 041713A	Methyl tert-butyl ether	µg/L	SW8260C	21.5	20.00	0	108	37-189				4/17/2013 1103h
LCS VOC 041713A	Methylene chloride	µg/L	SW8260C	18.7	20.00	0	93.3	32-185				4/17/2013 1103h
LCS VOC 041713A	Naphthalene	µg/L	SW8260C	16.4	20.00	0	82.0	28-136				4/17/2013 1103h
LCS VOC 041713A	Tetrahydrofuran	µg/L	SW8260C	16.5	20.00	0	82.6	43-146				4/17/2013 1103h
LCS VOC 041713A	Toluene	µg/L	SW8260C	19.0	20.00	0	95.2	64-129				4/17/2013 1103h
LCS VOC 041713A	Trichloroethene	µg/L	SW8260C	20.2	20.00	0	101	54-152				4/17/2013 1103h
LCS VOC 041713A	Xylenes, Total	µg/L	SW8260C	59.3	60.00	0	98.9	52-134				4/17/2013 1103h
LCS VOC 041713A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	52.7	50.00		105	76-138				4/17/2013 1103h
LCS VOC 041713A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.4	50.00		101	77-121				4/17/2013 1103h
LCS VOC 041713A	Surr: Dibromofluoromethane	%REC	SW8260C	53.5	50.00		107	67-128				4/17/2013 1103h
LCS VOC 041713A	Surr: Toluene-d8	%REC	SW8260C	49.3	50.00		98.7	81-135				4/17/2013 1103h



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Laboratory Director

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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 041713A	1,1,1,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,1,1-Trichloroethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,1,1,2,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,1,2-Trichloroethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,1-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,1-Dichloroethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,1-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,2,3-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,2,3-Trichloropropane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,2,3-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,2,4-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,2,4-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,2-Dibromo-3-chloropropane	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	1,2-Dibromoethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,2-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,2-Dichloroethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,3,5-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,3-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,3-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,4-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	1,4-Dioxane	µg/L	SW8260C	< 50.0				-				4/17/2013 1141h
MB VOC 041713A	2,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	2-Butanone	µg/L	SW8260C	< 10.0				-				4/17/2013 1141h
MB VOC 041713A	2-Chloroethyl vinyl ether	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h

Report Date: 4/19/2013 Page 94 of 141



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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: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 041713A	2-Chlorotoluene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	2-Hexanone	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	2-Nitropropane	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	4-Chlorotoluene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	4-Isopropyltoluene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	4-Methyl-2-pentanone	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Acetone	µg/L	SW8260C	< 10.0				-				4/17/2013 1141h
MB VOC 041713A	Acetonitrile	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Acrolein	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Acrylonitrile	µg/L	SW8260C	< 10.0				-				4/17/2013 1141h
MB VOC 041713A	Allyl chloride	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Benzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Benzyl chloride	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Bis(2-chloroisopropyl) ether	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Bromobenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Bromochloromethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Bromodichloromethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Bromoform	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Bromomethane	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Butyl acetate	µg/L	SW8260C	< 10.0				-				4/17/2013 1141h
MB VOC 041713A	Carbon disulfide	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Carbon tetrachloride	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Chlorobenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Chloroethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Chloroform	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Chloromethane	µg/L	SW8260C	< 3.00				-				4/17/2013 1141h
MB VOC 041713A	Chloroprene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h

Report Date: 4/19/2013 Page 95 of 141



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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: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 041713A	cis-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	cis-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Cyclohexane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Cyclohexanone	µg/L	SW8260C	< 50.0				-				4/17/2013 1141h
MB VOC 041713A	Dibromochloromethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Dibromomethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Dichlorodifluoromethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Ethyl acetate	µg/L	SW8260C	< 10.0				-				4/17/2013 1141h
MB VOC 041713A	Ethyl ether	µg/L	SW8260C	< 10.0				-				4/17/2013 1141h
MB VOC 041713A	Ethyl methacrylate	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Ethylbenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Hexachlorobutadiene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Iodomethane	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Isobutyl alcohol	µg/L	SW8260C	< 100				-				4/17/2013 1141h
MB VOC 041713A	Isopropyl acetate	µg/L	SW8260C	< 10.0				-				4/17/2013 1141h
MB VOC 041713A	Isopropyl alcohol	µg/L	SW8260C	< 40.0				-				4/17/2013 1141h
MB VOC 041713A	Isopropylbenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	m,p-Xylene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Methacrylonitrile	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Methyl Acetate	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Methyl methacrylate	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Methyl tert-butyl ether	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Methylcyclohexane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Methylene chloride	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	n-Amyl acetate	µg/L	SW8260C	< 10.0				-				4/17/2013 1141h
MB VOC 041713A	Naphthalene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	n-Butyl alcohol	µg/L	SW8260C	< 100				-				4/17/2013 1141h

Report Date: 4/19/2013 Page 96 of 141



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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: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 041713A	n-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	n-Hexane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	n-Octane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	n-Propylbenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	o-Xylene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Pentachloroethane	µg/L	SW8260C	< 5.00				-				4/17/2013 1141h
MB VOC 041713A	Propionitrile	µg/L	SW8260C	< 25.0				-				4/17/2013 1141h
MB VOC 041713A	Propyl acetate	µg/L	SW8260C	< 10.0				-				4/17/2013 1141h
MB VOC 041713A	sec-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Styrene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	tert-Butyl alcohol	µg/L	SW8260C	< 20.0				-				4/17/2013 1141h
MB VOC 041713A	tert-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Tetrachloroethene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Tetrahydrofuran	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Toluene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	trans-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	trans-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	trans-1,4-Dichloro-2-butene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Trichloroethene	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Trichlorofluoromethane	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Vinyl acetate	µg/L	SW8260C	< 10.0				-				4/17/2013 1141h
MB VOC 041713A	Vinyl chloride	µg/L	SW8260C	< 1.00				-				4/17/2013 1141h
MB VOC 041713A	Xylenes, Total	µg/L	SW8260C	< 2.00				-				4/17/2013 1141h
MB VOC 041713A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	55.0	50.00		110	76-138				4/17/2013 1141h
MB VOC 041713A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	51.1	50.00		102	77-121				4/17/2013 1141h
MB VOC 041713A	Surr: Dibromofluoromethane	%REC	SW8260C	52.5	50.00		105	67-128				4/17/2013 1141h
MB VOC 041713A	Surr: Toluene-d8	%REC	SW8260C	50.0	50.00		99.9	81-135				4/17/2013 1141h



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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: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304475-001AMS	1,1,1-Trichloroethane	µg/L	SW8260C	20.2	20.00	0	101	67-147				4/17/2013 1528h
1304475-001AMS	1,1-Dichloroethene	µg/L	SW8260C	18.3	20.00	0	91.3	51-152				4/17/2013 1528h
1304475-001AMS	1,2-Dichlorobenzene	µg/L	SW8260C	17.3	20.00	0	86.4	70-130				4/17/2013 1528h
1304475-001AMS	1,2-Dichloroethane	µg/L	SW8260C	18.5	20.00	0	92.3	39-162				4/17/2013 1528h
1304475-001AMS	1,2-Dichloropropane	µg/L	SW8260C	16.6	20.00	0	83.2	59-135				4/17/2013 1528h
1304475-001AMS	Benzene	µg/L	SW8260C	17.2	20.00	0	85.8	66-145				4/17/2013 1528h
1304475-001AMS	Chlorobenzene	µg/L	SW8260C	17.2	20.00	0	86.0	63-140				4/17/2013 1528h
1304475-001AMS	Chloroform	µg/L	SW8260C	17.8	20.00	0	89.0	50-146				4/17/2013 1528h
1304475-001AMS	Ethylbenzene	µg/L	SW8260C	16.9	20.00	0	84.6	69-133				4/17/2013 1528h
1304475-001AMS	Isopropylbenzene	µg/L	SW8260C	17.4	20.00	0	87.2	60-147				4/17/2013 1528h
1304475-001AMS	Methyl tert-butyl ether	µg/L	SW8260C	20.1	20.00	0	100	37-189				4/17/2013 1528h
1304475-001AMS	Methylene chloride	µg/L	SW8260C	17.2	20.00	0	85.9	30-192				4/17/2013 1528h
1304475-001AMS	Naphthalene	µg/L	SW8260C	14.7	20.00	0	73.3	41-131				4/17/2013 1528h
1304475-001AMS	Tetrahydrofuran	µg/L	SW8260C	16.8	20.00	0	84.1	43-146				4/17/2013 1528h
1304475-001AMS	Toluene	µg/L	SW8260C	17.0	20.00	0	84.9	18-192				4/17/2013 1528h
1304475-001AMS	Trichloroethene	µg/L	SW8260C	16.8	20.00	0	84.2	61-153				4/17/2013 1528h
1304475-001AMS	Xylenes, Total	µg/L	SW8260C	51.0	60.00	0	85.0	42-167				4/17/2013 1528h
1304475-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	55.9	50.00		112	72-151				4/17/2013 1528h
1304475-001AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.4	50.00		101	80-128				4/17/2013 1528h
1304475-001AMS	Surr: Dibromofluoromethane	%REC	SW8260C	55.5	50.00		111	80-124				4/17/2013 1528h
1304475-001AMS	Surr: Toluene-d8	%REC	SW8260C	48.5	50.00		97.1	77-129				4/17/2013 1528h



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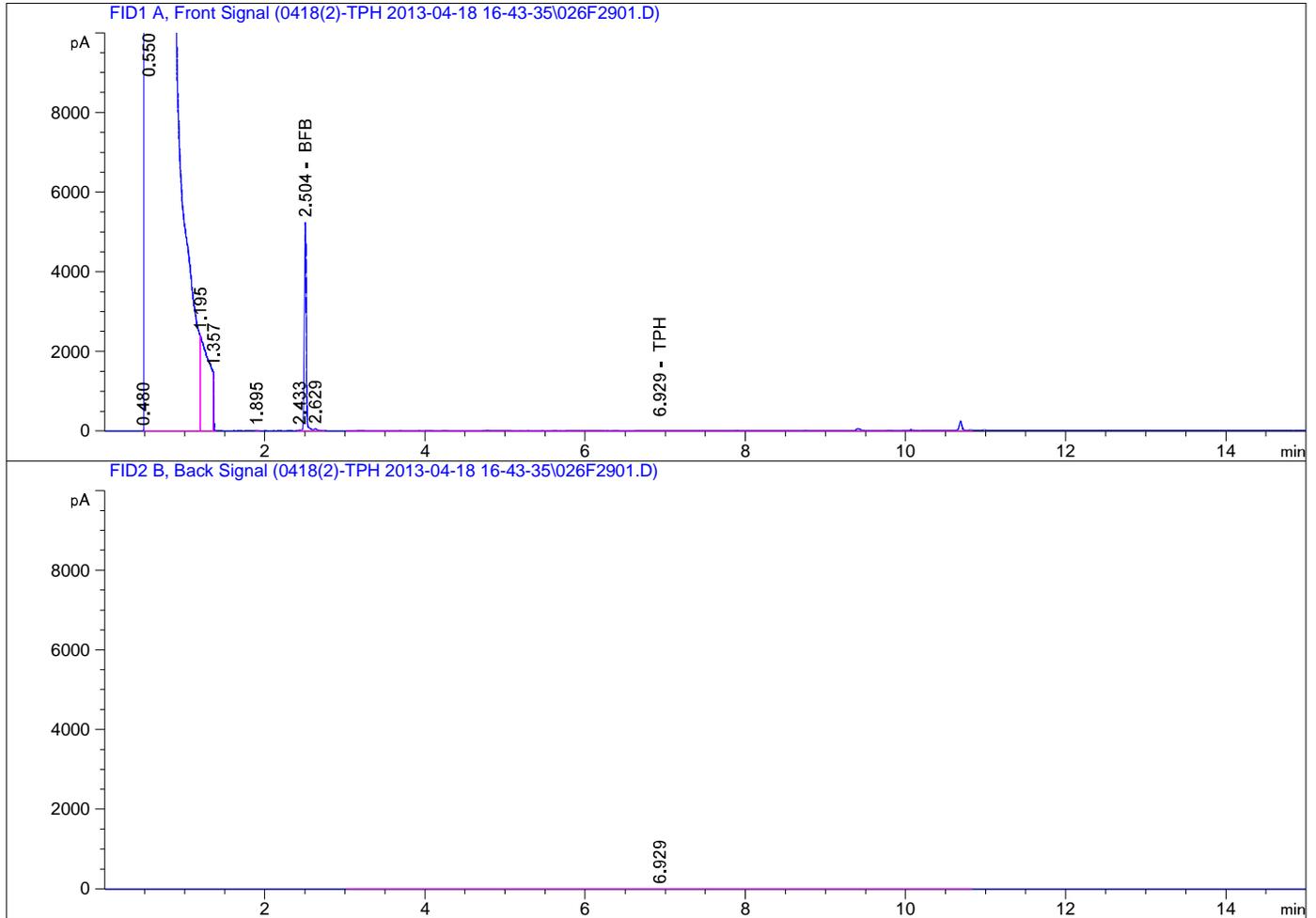
QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304475
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304475-001AMSD	1,1,1-Trichloroethane	µg/L	SW8260C	21.5	20.00	0	108	67-147	6.58	25		4/17/2013 1547h
1304475-001AMSD	1,1-Dichloroethene	µg/L	SW8260C	19.8	20.00	0	99.2	51-152	8.24	25		4/17/2013 1547h
1304475-001AMSD	1,2-Dichlorobenzene	µg/L	SW8260C	18.8	20.00	0	93.8	70-130	8.27	25		4/17/2013 1547h
1304475-001AMSD	1,2-Dichloroethane	µg/L	SW8260C	20.0	20.00	0	99.8	39-162	7.86	25		4/17/2013 1547h
1304475-001AMSD	1,2-Dichloropropane	µg/L	SW8260C	18.2	20.00	0	91.1	59-135	9.07	25		4/17/2013 1547h
1304475-001AMSD	Benzene	µg/L	SW8260C	19.0	20.00	0	94.8	66-145	10	25		4/17/2013 1547h
1304475-001AMSD	Chlorobenzene	µg/L	SW8260C	18.9	20.00	0	94.3	63-140	9.21	25		4/17/2013 1547h
1304475-001AMSD	Chloroform	µg/L	SW8260C	19.4	20.00	0	97.0	50-146	8.71	25		4/17/2013 1547h
1304475-001AMSD	Ethylbenzene	µg/L	SW8260C	18.4	20.00	0	92.0	69-133	8.33	25		4/17/2013 1547h
1304475-001AMSD	Isopropylbenzene	µg/L	SW8260C	18.8	20.00	0	93.8	60-147	7.35	25		4/17/2013 1547h
1304475-001AMSD	Methyl tert-butyl ether	µg/L	SW8260C	19.9	20.00	0	99.4	37-189	1	25		4/17/2013 1547h
1304475-001AMSD	Methylene chloride	µg/L	SW8260C	18.7	20.00	0	93.3	30-192	8.32	25		4/17/2013 1547h
1304475-001AMSD	Naphthalene	µg/L	SW8260C	15.9	20.00	0	79.6	41-131	8.24	25		4/17/2013 1547h
1304475-001AMSD	Tetrahydrofuran	µg/L	SW8260C	20.7	20.00	0	103	43-146	20.6	25		4/17/2013 1547h
1304475-001AMSD	Toluene	µg/L	SW8260C	18.2	20.00	0	91.2	18-192	7.1	25		4/17/2013 1547h
1304475-001AMSD	Trichloroethene	µg/L	SW8260C	18.0	20.00	0	89.8	61-153	6.55	25		4/17/2013 1547h
1304475-001AMSD	Xylenes, Total	µg/L	SW8260C	56.4	60.00	0	94.0	42-167	10.1	25		4/17/2013 1547h
1304475-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	56.8	50.00		114	72-151				4/17/2013 1547h
1304475-001AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	51.4	50.00		103	80-128				4/17/2013 1547h
1304475-001AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	55.3	50.00		111	80-124				4/17/2013 1547h
1304475-001AMSD	Surr: Toluene-d8	%REC	SW8260C	49.3	50.00		98.5	77-129				4/17/2013 1547h

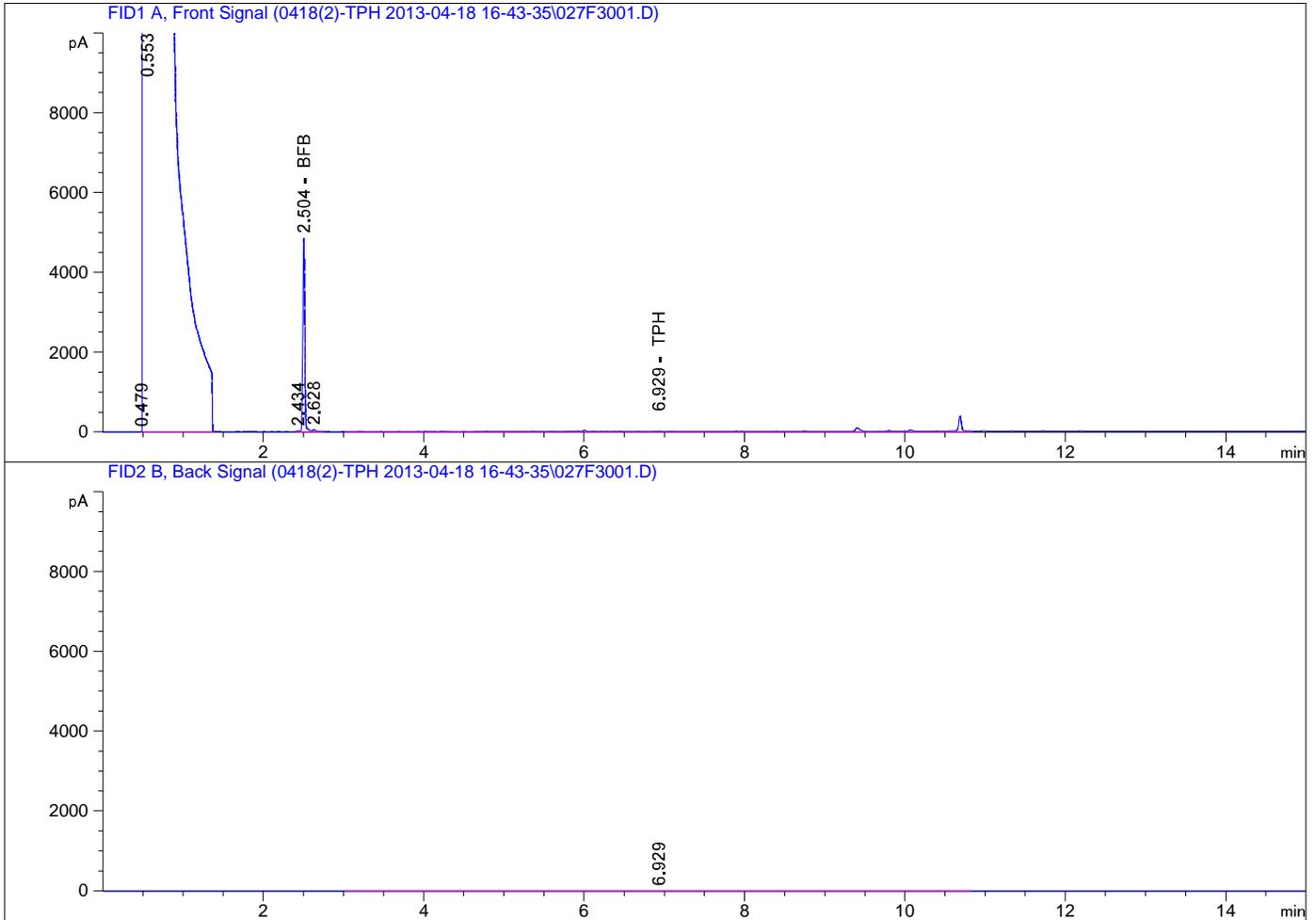
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Acq. Instrument : GC C Location : Vial 26
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Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
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Last changed : 4/19/2013 12:48:25 PM
(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

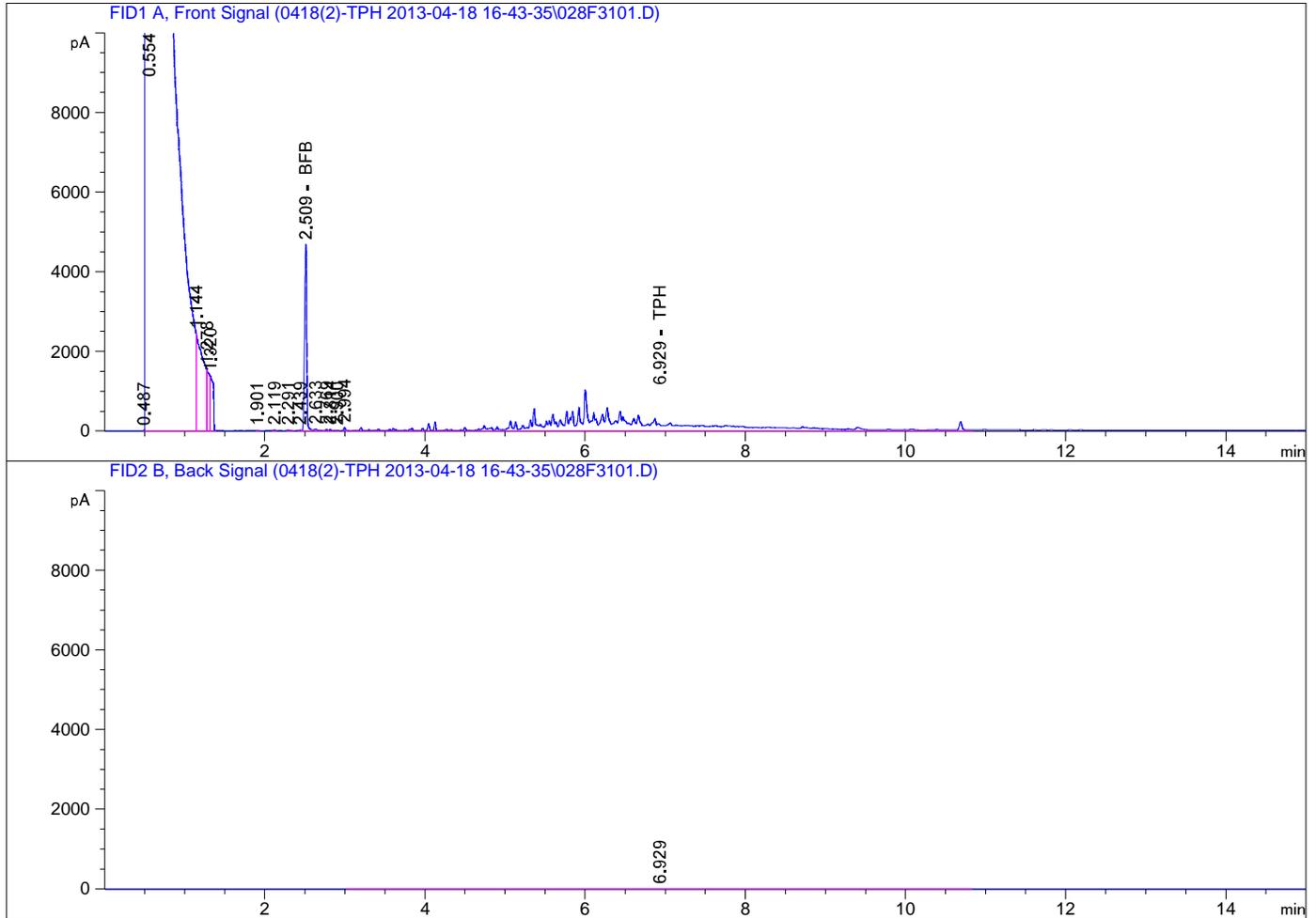
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Acq. Instrument : GC C Location : Vial 27
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Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
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Last changed : 4/19/2013 12:48:25 PM
(modified after loading)
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External Standard Report
=====

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

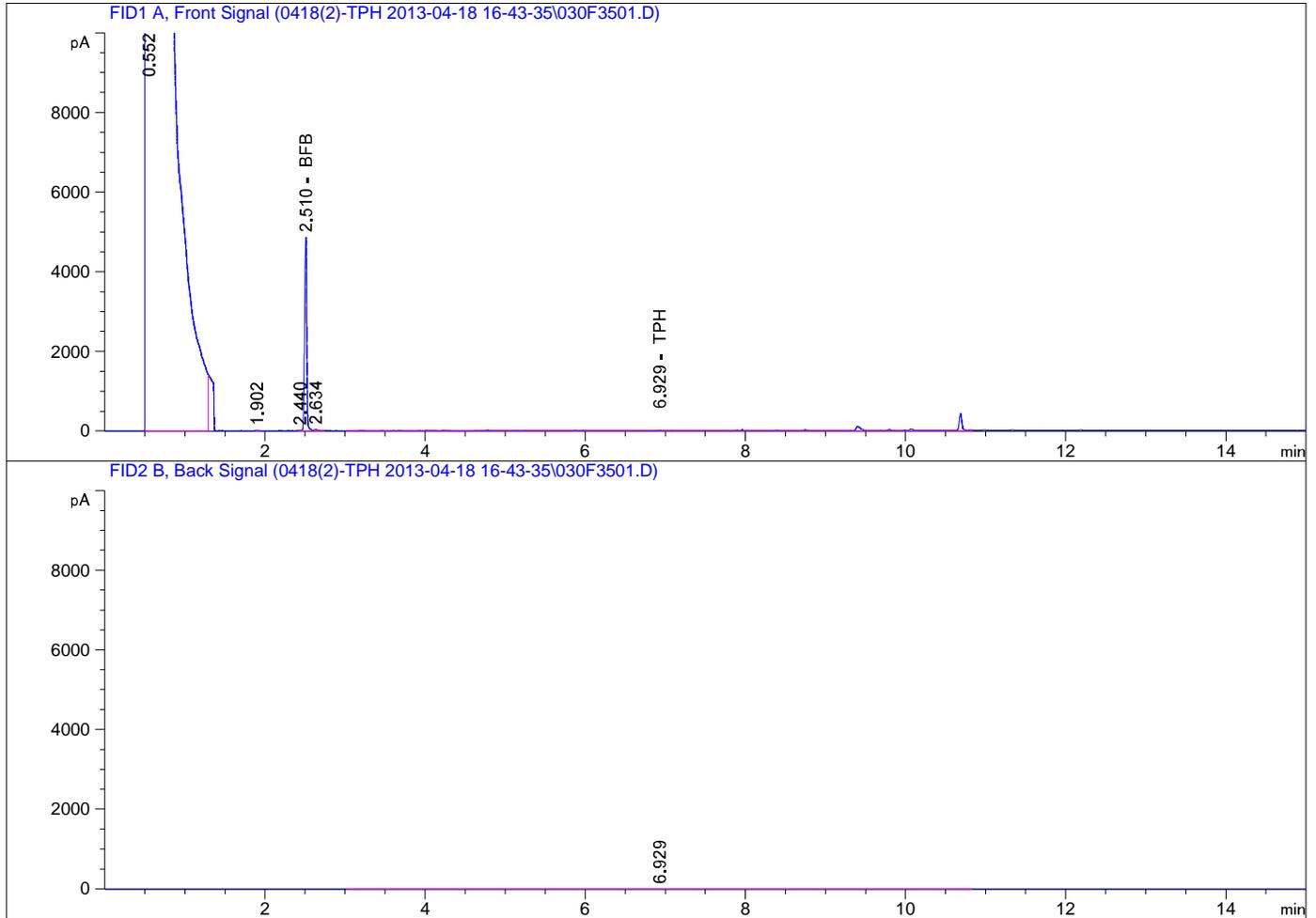
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Acq. Operator : Seq. Line : 31
Acq. Instrument : GC C Location : Vial 28
Injection Date : 4/19/2013 2:24:33 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
(modified after loading)
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=====
External Standard Report
=====

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

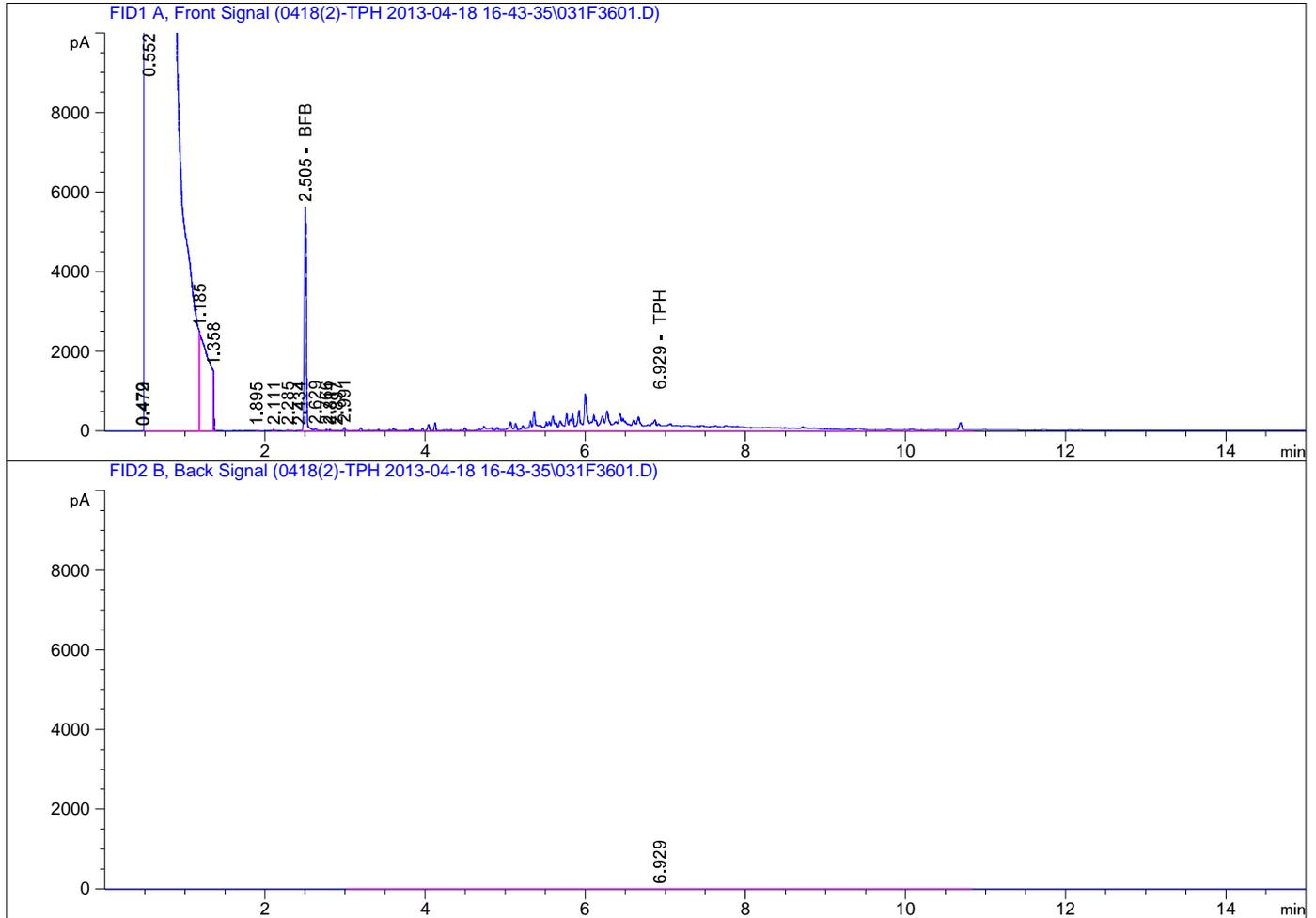
=====
Acq. Operator : Seq. Line : 35
Acq. Instrument : GC C Location : Vial 30
Injection Date : 4/19/2013 3:41:51 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
(modified after loading)
=====



=====
External Standard Report
=====

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

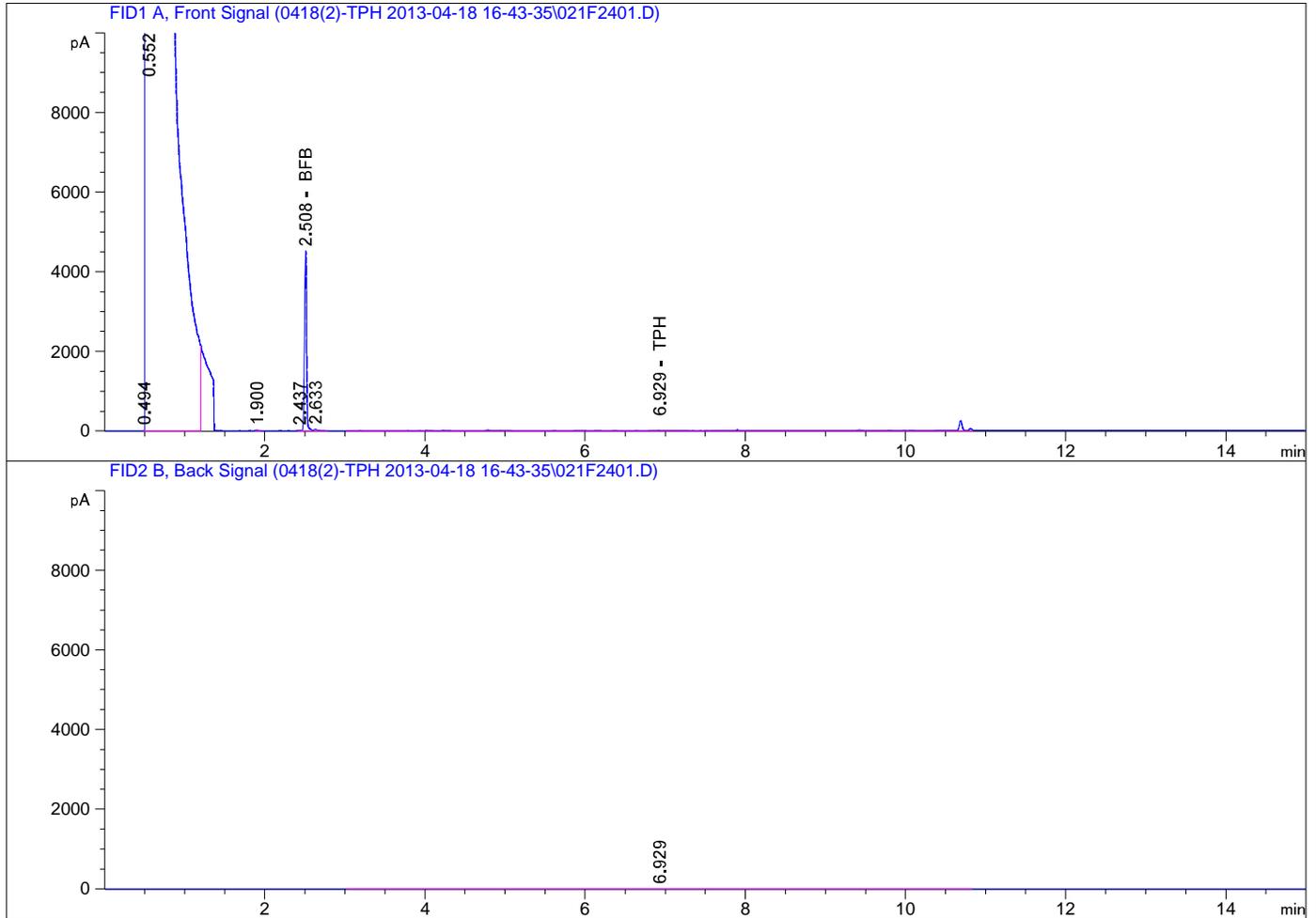
=====
Acq. Operator : Seq. Line : 36
Acq. Instrument : GC C Location : Vial 31
Injection Date : 4/19/2013 4:01:08 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
(modified after loading)
=====



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External Standard Report
=====

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

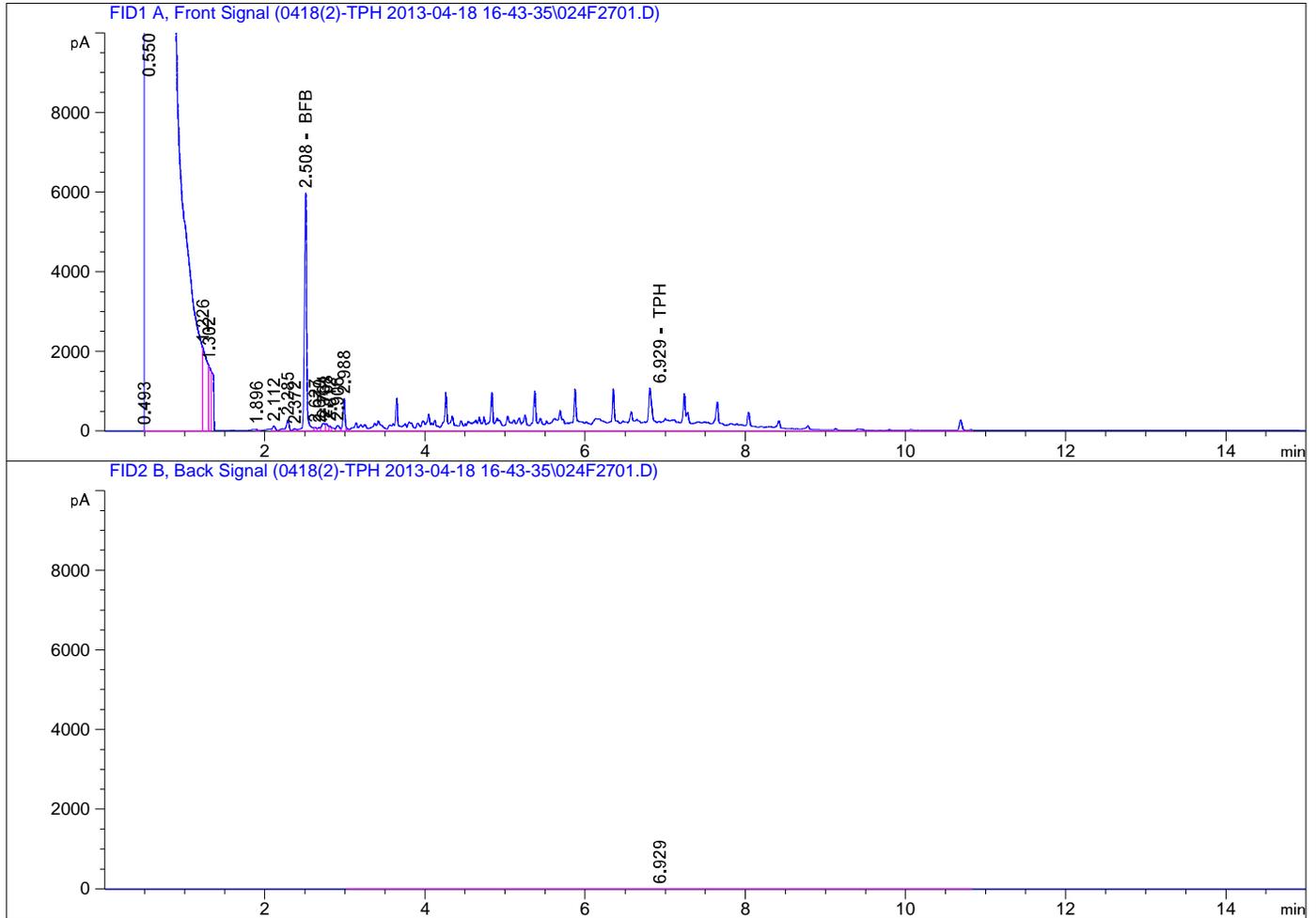
=====
Acq. Operator : Seq. Line : 24
Acq. Instrument : GC C Location : Vial 21
Injection Date : 4/19/2013 12:09:30 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
(modified after loading)
=====



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External Standard Report
=====

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

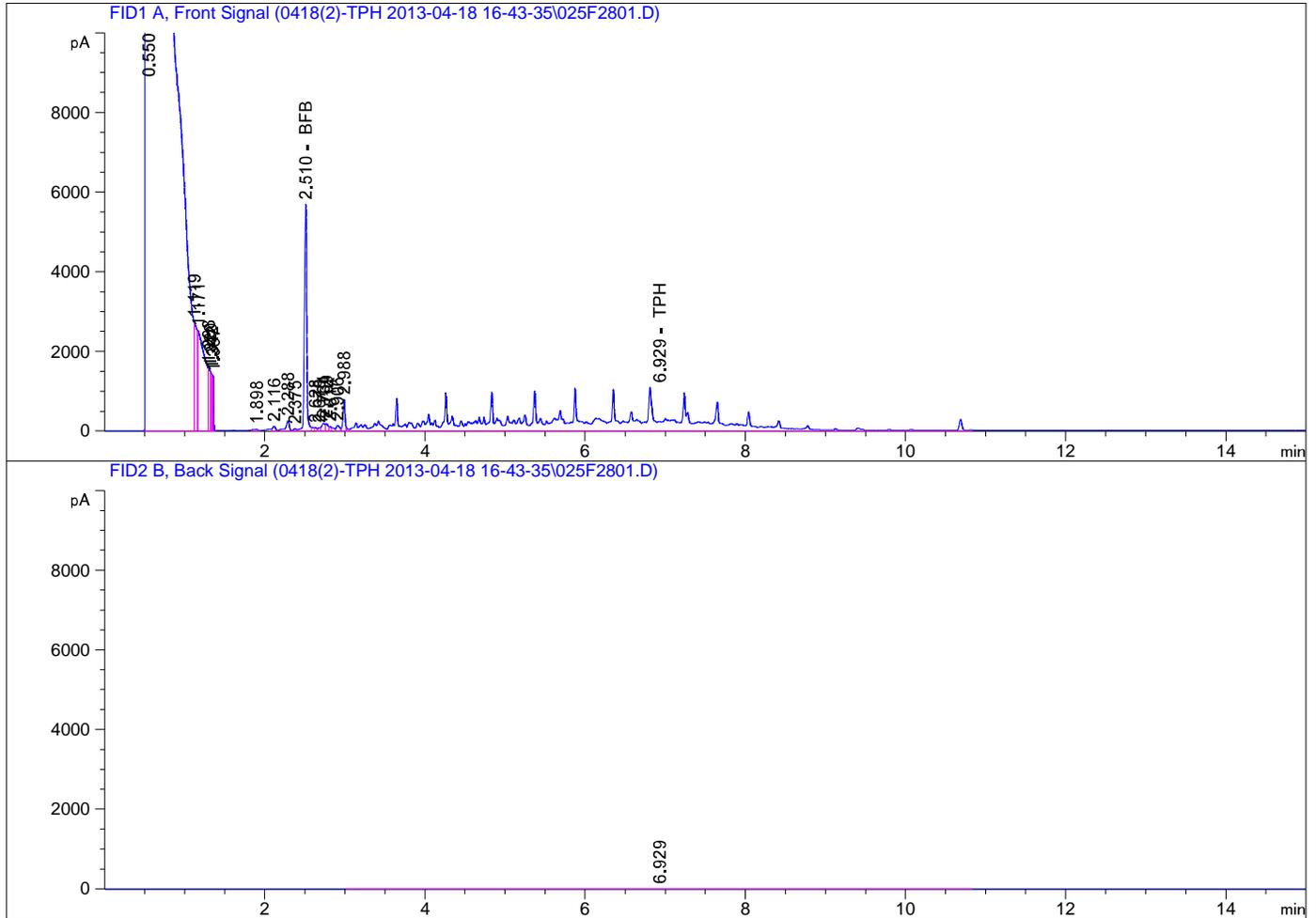
=====
Acq. Operator : Seq. Line : 27
Acq. Instrument : GC C Location : Vial 24
Injection Date : 4/19/2013 1:07:25 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
(modified after loading)
=====



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External Standard Report
=====

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 : 28
Acq. Instrument : GC C Location : Vial 25
Injection Date : 4/19/2013 1:26:38 AM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
(modified after loading)
=====



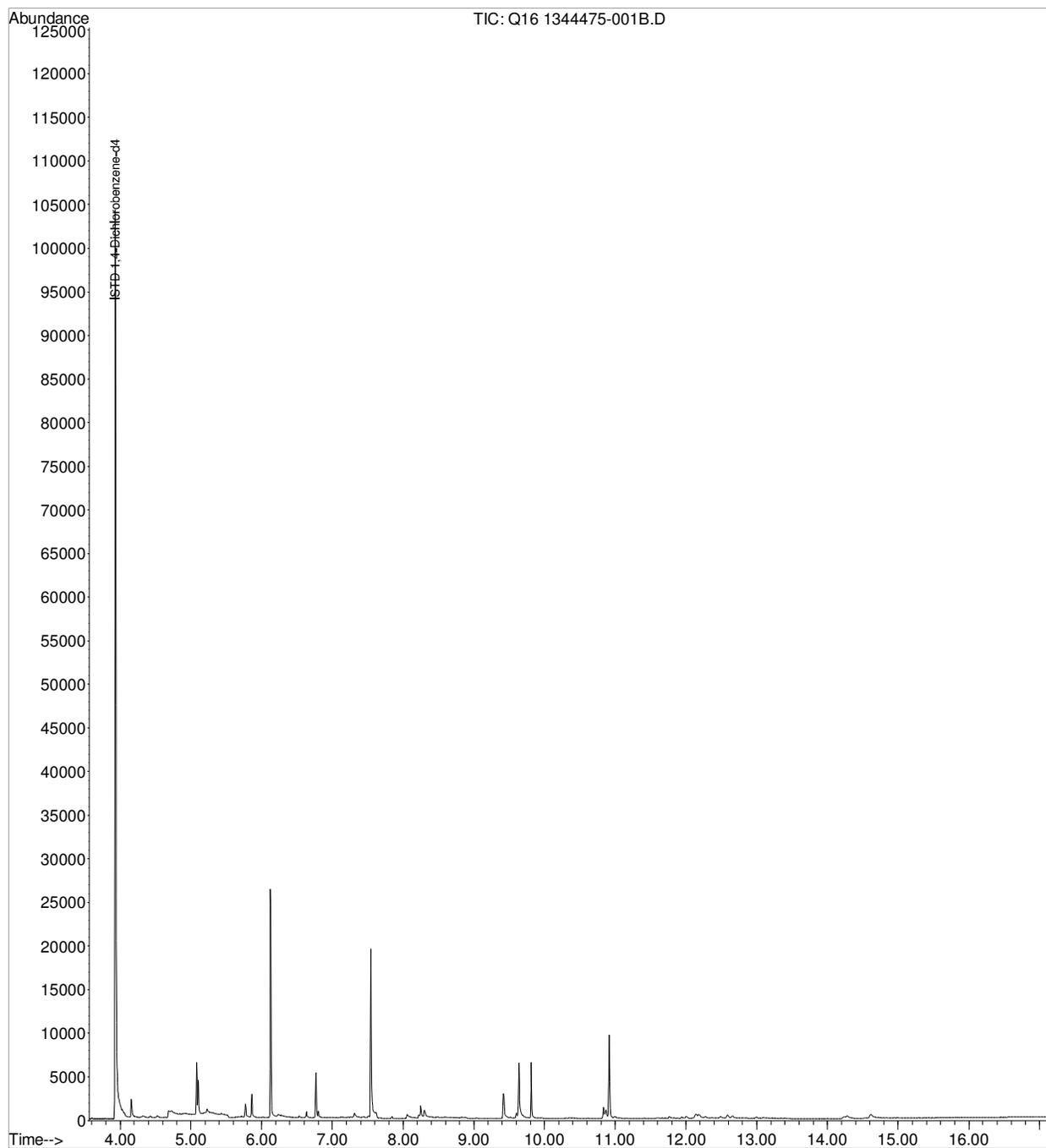
=====
External Standard Report
=====

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 : Z:\MSDCHEM\1\DATA\APR 13\18APR13-A\
Data File : Q16 1344475-001B.D
Acq On : 18 Apr 2013 10:17 am
Operator : ALICIA HABERLE
Sample : 1304475-001B
Misc : SAMP
ALS Vial : 5 Sample Multiplier: 1

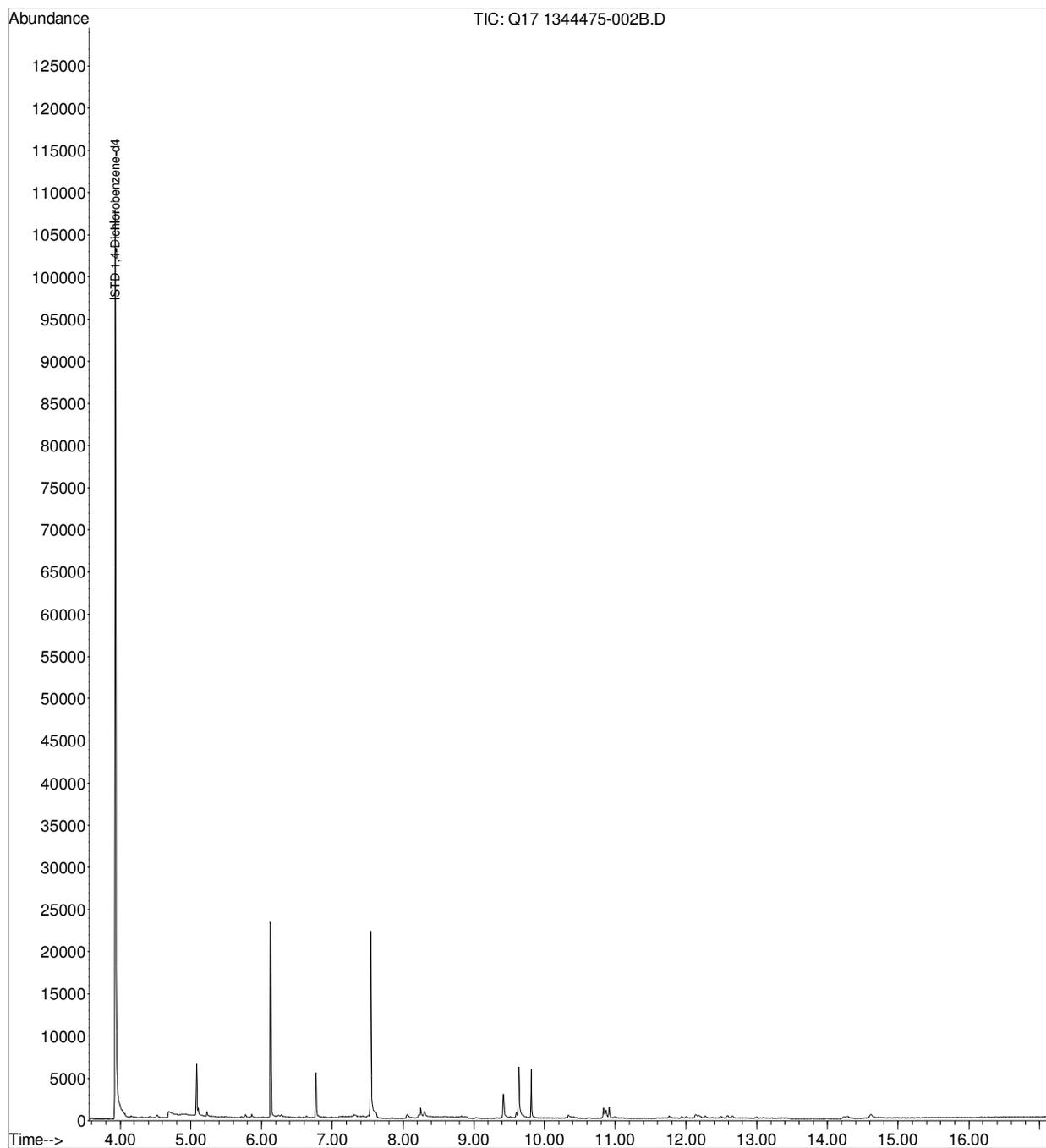
Quant Time: Apr 18 10:50:08 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 09:40:30 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\18APR13-A\
Data File : Q17 1344475-002B.D
Acq On : 18 Apr 2013 10:44 am
Operator : ALICIA HABERLE
Sample : 1304475-002B
Misc : SAMP
ALS Vial : 6 Sample Multiplier: 1

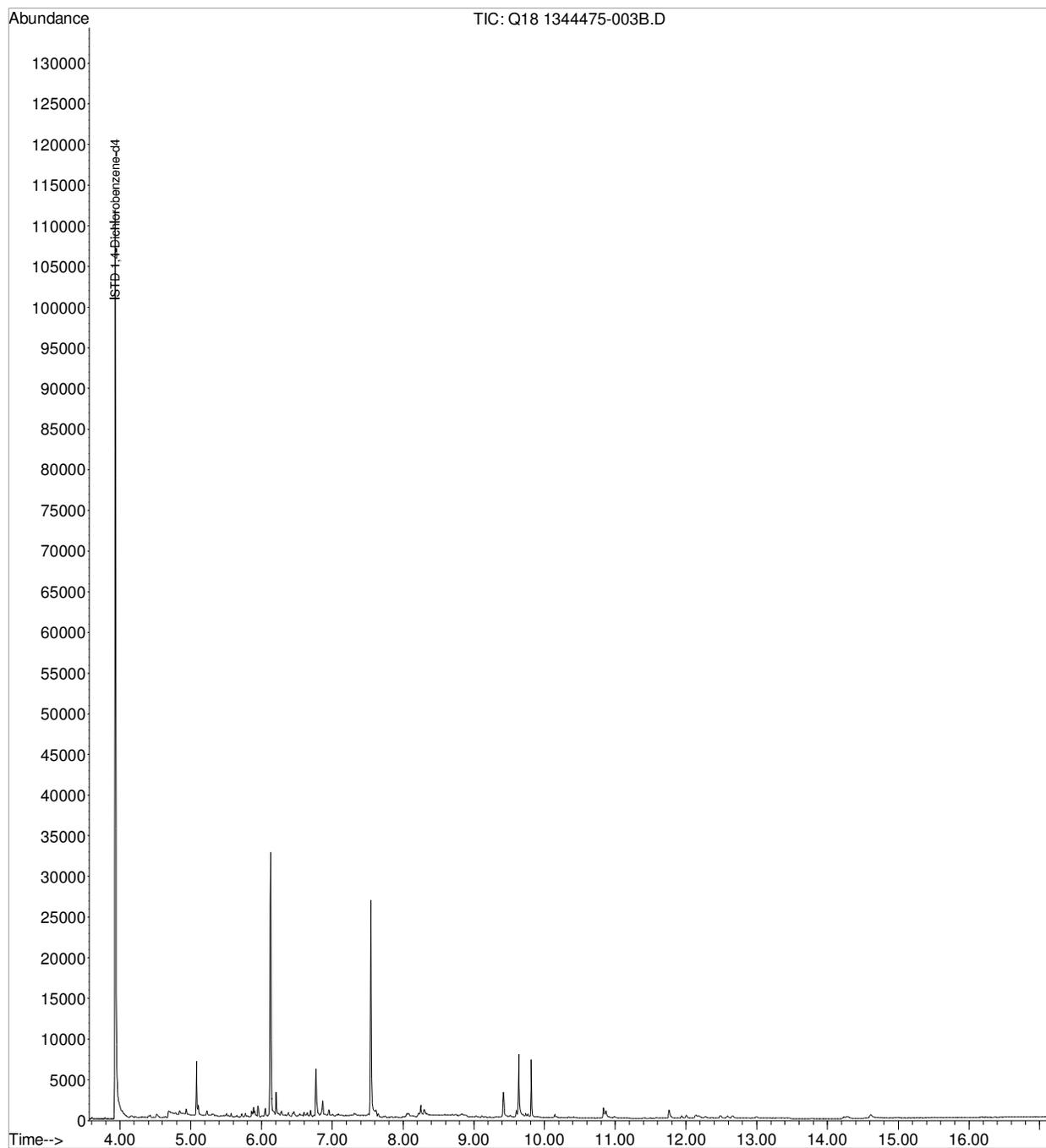
Quant Time: Apr 18 11:12:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 09:40:30 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\18APR13-A\
Data File : Q18 1344475-003B.D
Acq On : 18 Apr 2013 11:10 am
Operator : ALICIA HABERLE
Sample : 1304475-003B
Misc : SAMP
ALS Vial : 7 Sample Multiplier: 1

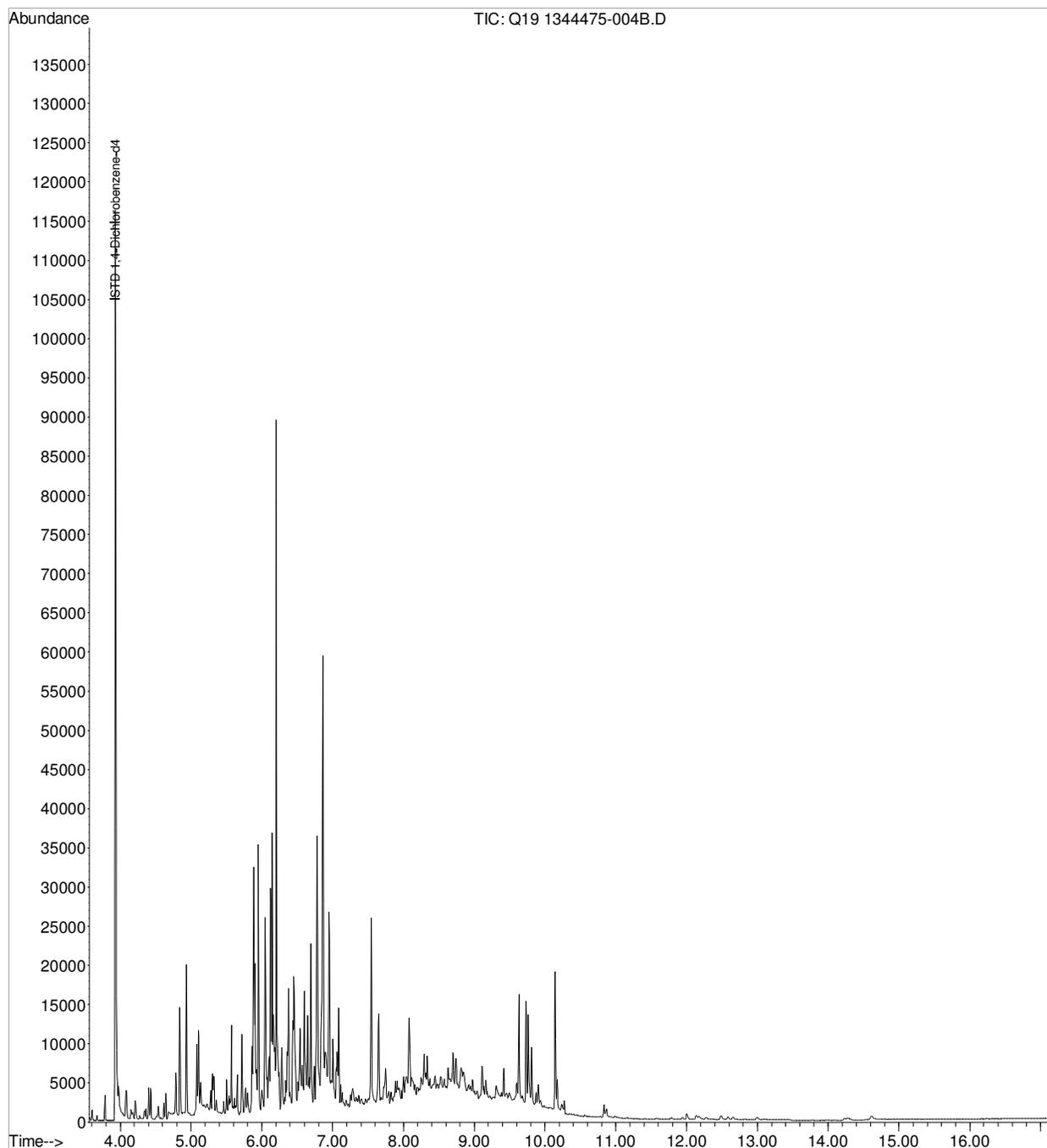
Quant Time: Apr 18 11:28:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 09:40:30 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\18APR13-A\
Data File : Q19 1344475-004B.D
Acq On : 18 Apr 2013 11:36 am
Operator : ALICIA HABERLE
Sample : 1304475-004B
Misc : SAMP
ALS Vial : 8 Sample Multiplier: 1

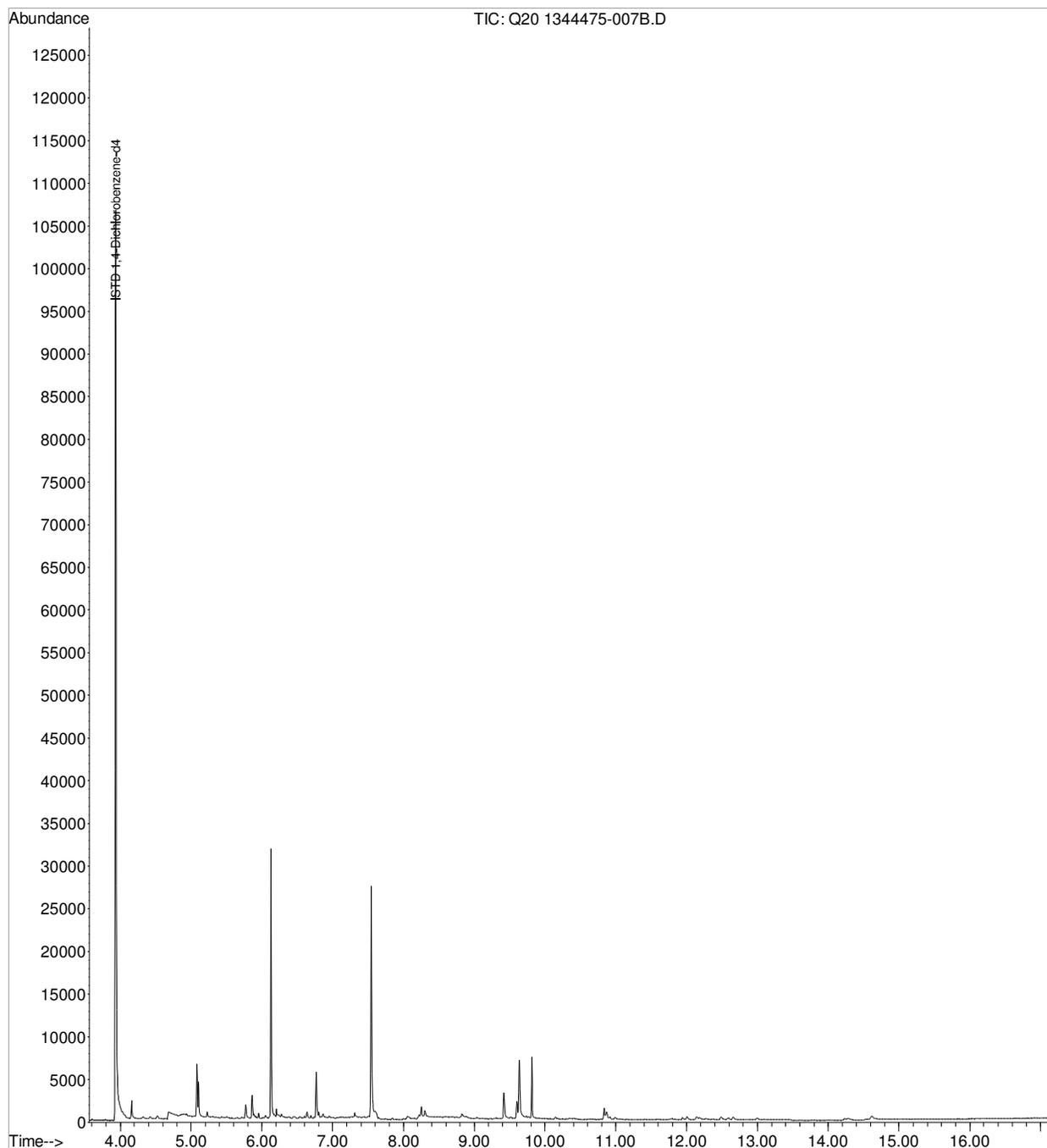
Quant Time: Apr 18 12:44:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 09:40:30 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\18APR13-A\
Data File : Q20 1344475-007B.D
Acq On : 18 Apr 2013 12:02 pm
Operator : ALICIA HABERLE
Sample : 1304475-007B
Misc : SAMP
ALS Vial : 9 Sample Multiplier: 1

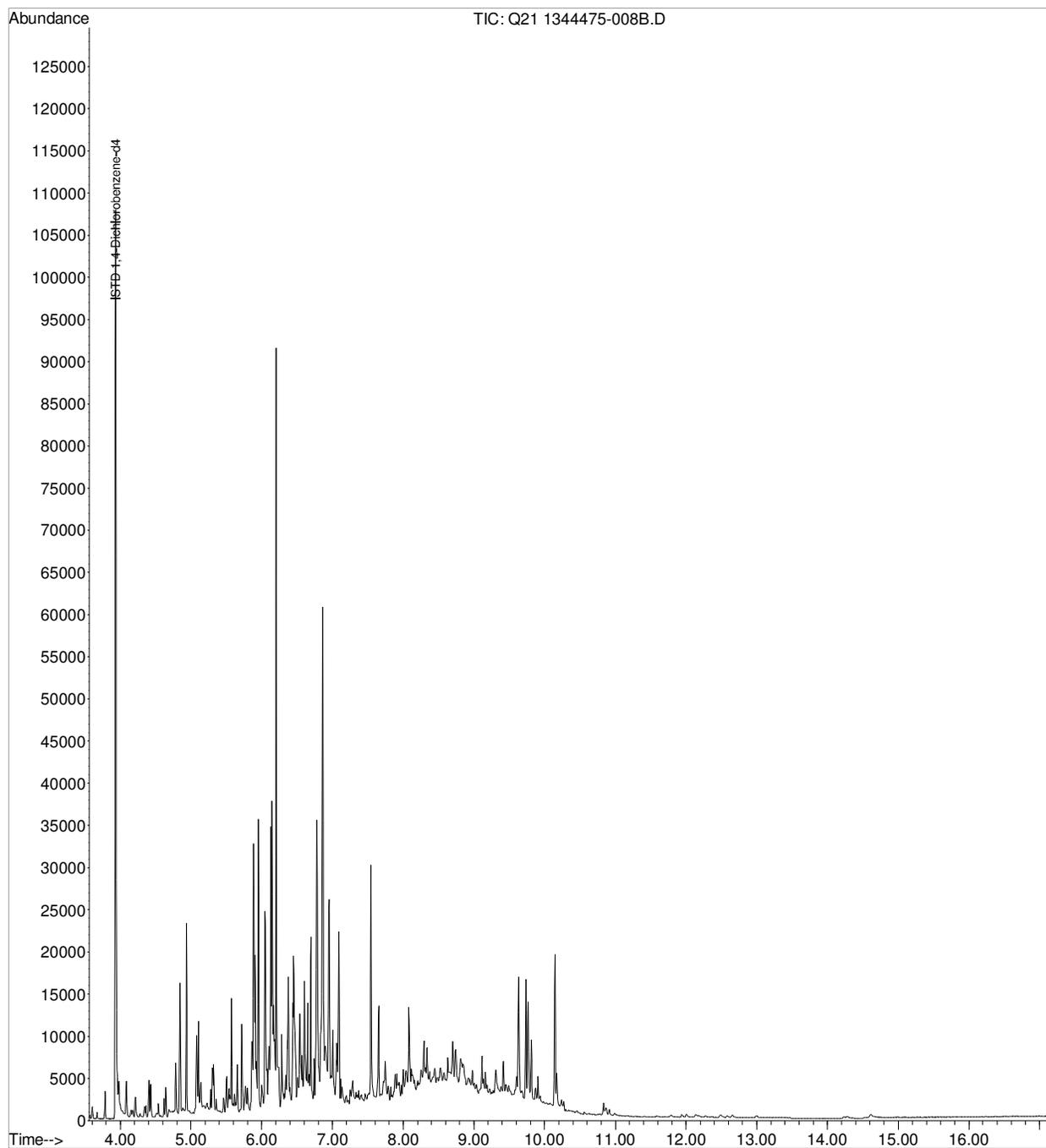
Quant Time: Apr 18 12:44:49 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 09:40:30 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\18APR13-A\
Data File : Q21 1344475-008B.D
Acq On : 18 Apr 2013 12:29 pm
Operator : ALICIA HABERLE
Sample : 1304475-008B
Misc : SAMP
ALS Vial : 10 Sample Multiplier: 1

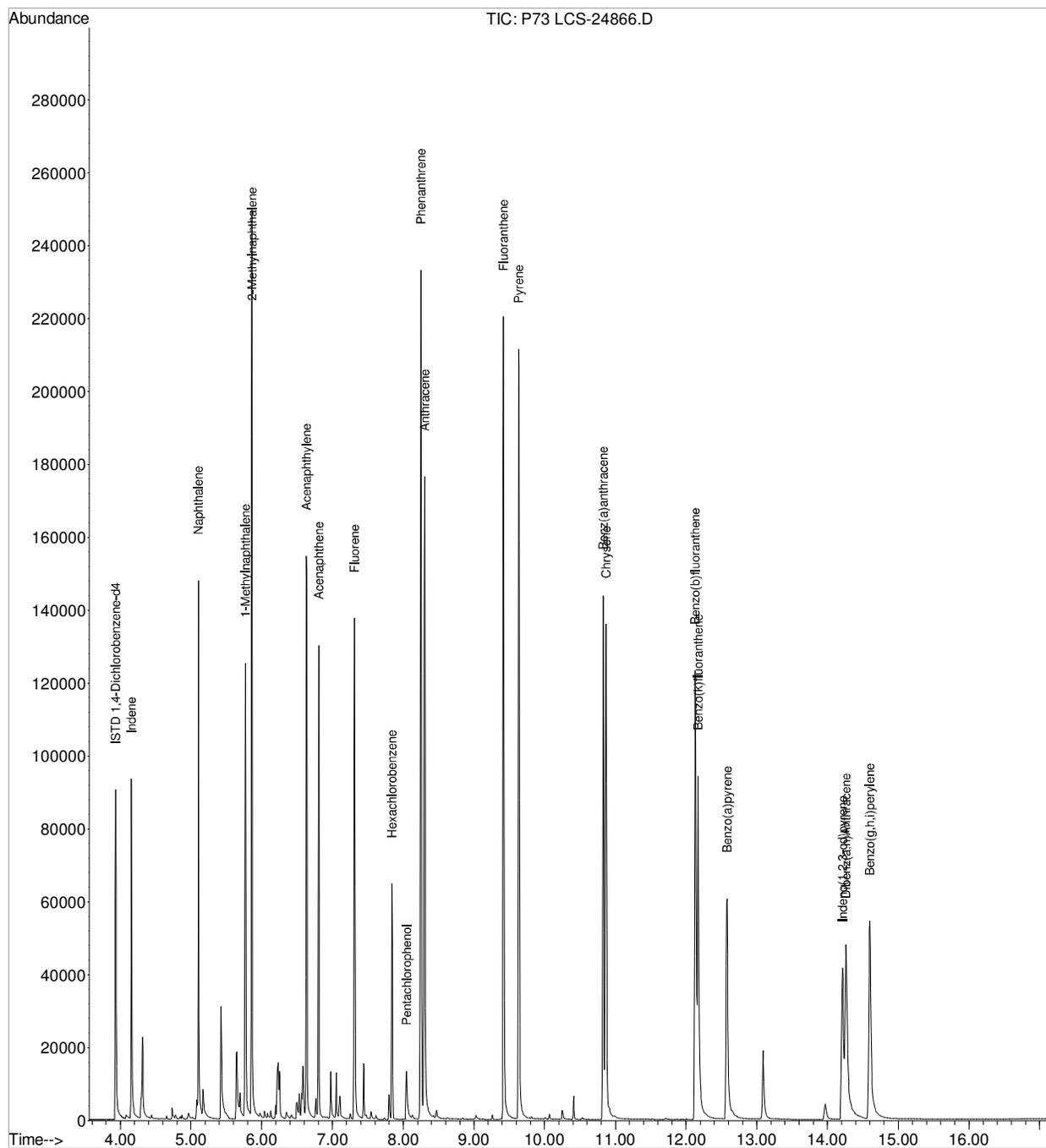
Quant Time: Apr 18 12:46:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 09:40:30 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
 Data File : P73 LCS-24866.D
 Acq On : 17 Apr 2013 2:25 pm
 Operator : ALICIA HABERLE
 Sample : LCS-24866
 Misc : LCS 20X
 ALS Vial : 17 Sample Multiplier: 1

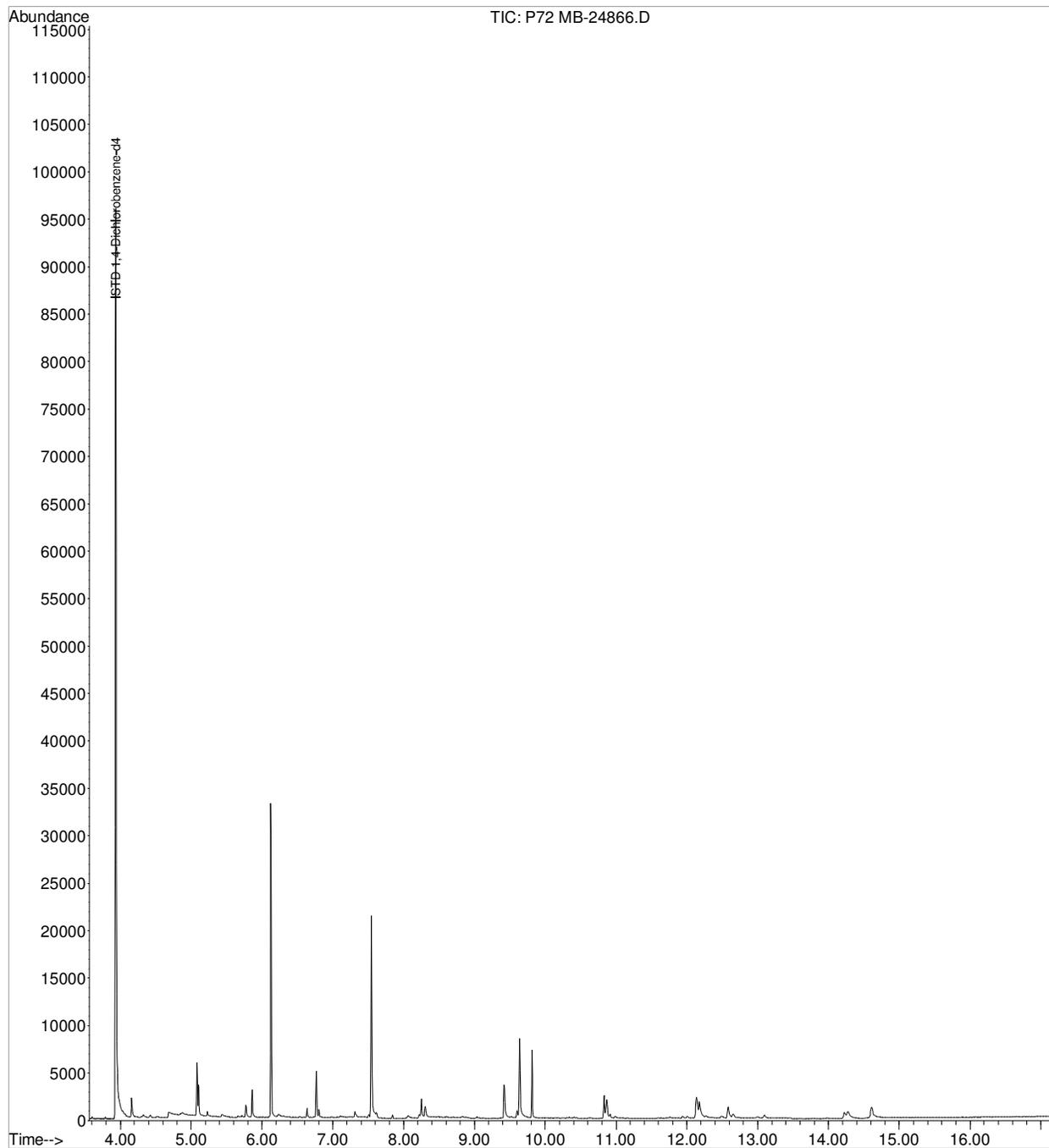
Quant Time: Apr 18 06:34:46 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Apr 17 09:40:30 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
Data File : P72 MB-24866.D
Acq On : 17 Apr 2013 1:59 pm
Operator : ALICIA HABERLE
Sample : MB-24866
Misc : MBLK
ALS Vial : 16 Sample Multiplier: 1

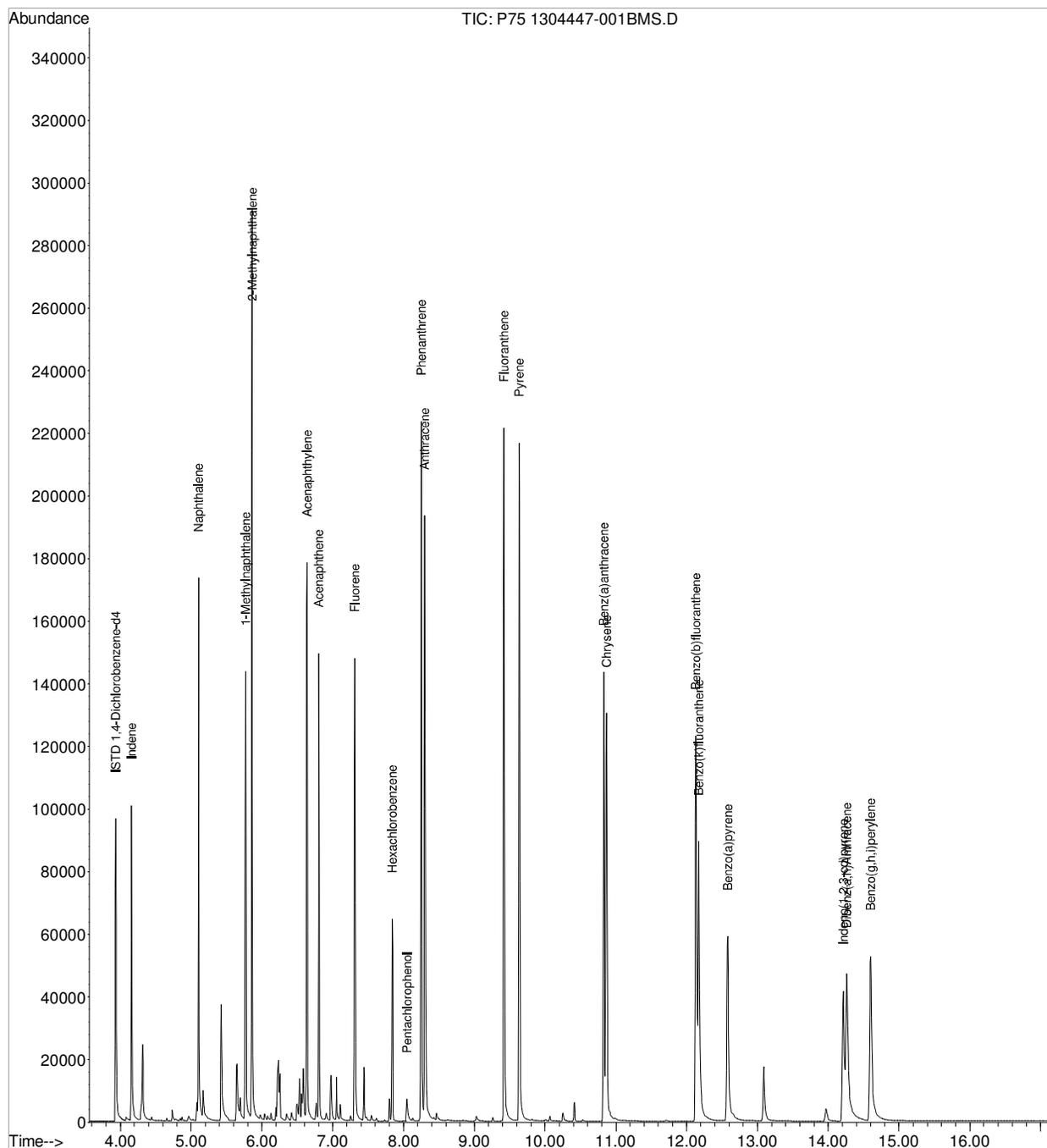
Quant Time: Apr 18 06:40:40 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 09:40:30 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
 Data File : P75 1304447-001BMS.D
 Acq On : 17 Apr 2013 3:20 pm
 Operator : ALICIA HABERLE
 Sample : 1304447-001BMS
 Misc : MS 20X
 ALS Vial : 19 Sample Multiplier: 1

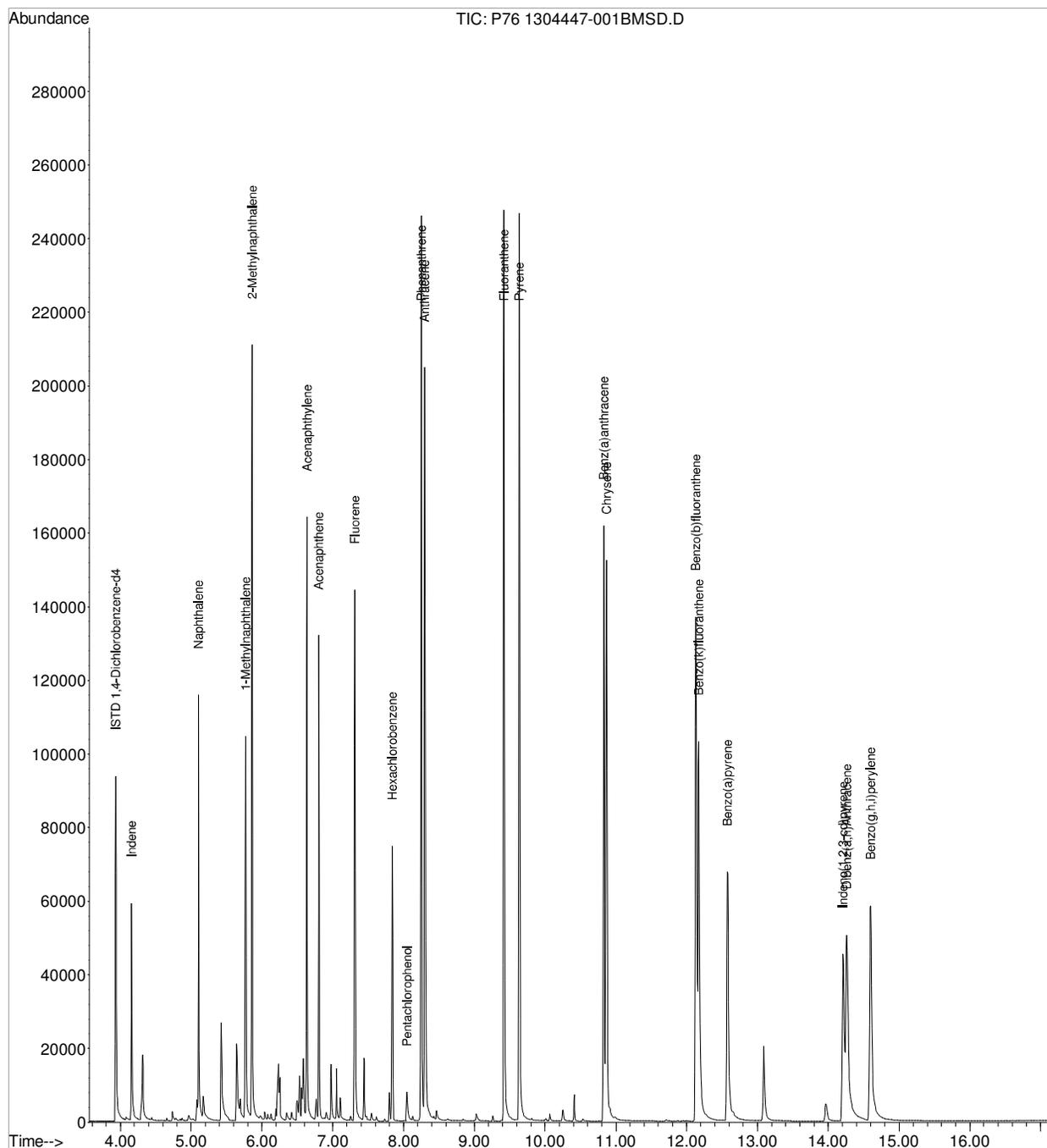
Quant Time: Apr 18 06:34:50 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Apr 17 09:40:30 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
 Data File : P76 1304447-001BMSD.D
 Acq On : 17 Apr 2013 3:46 pm
 Operator : ALICIA HABERLE
 Sample : 1304447-001BMSD
 Misc : MSD 20X
 ALS Vial : 20 Sample Multiplier: 1

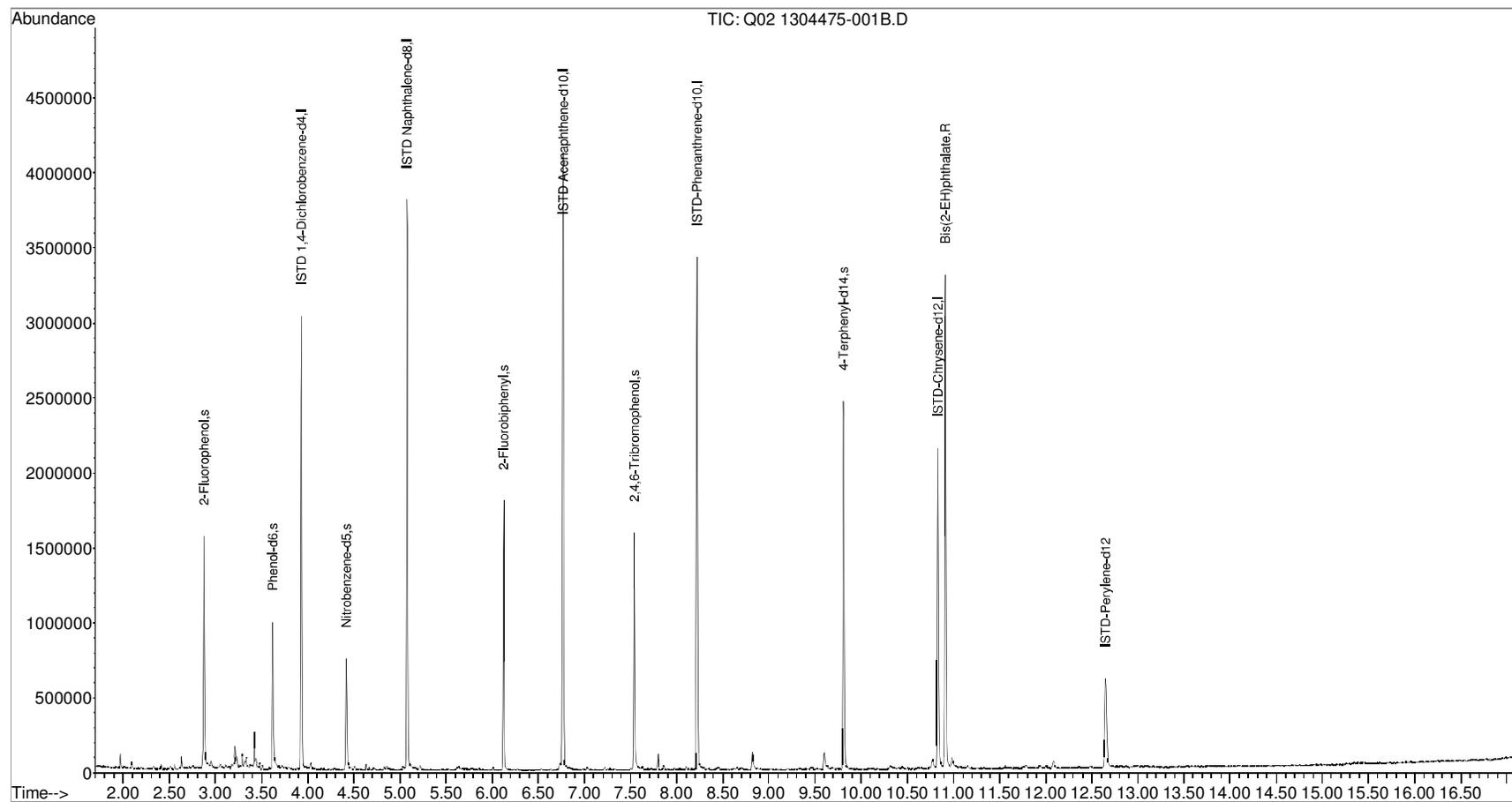
Quant Time: Apr 18 06:34:51 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Apr 17 09:40:30 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
 Data File : Q02 1304475-001B.D
 Acq On : 18 Apr 2013 4:11 am
 Operator : ALICIA HABERLE
 Sample : 1304475-001B
 Misc : SAMP
 ALS Vial : 19 Sample Multiplier: 1

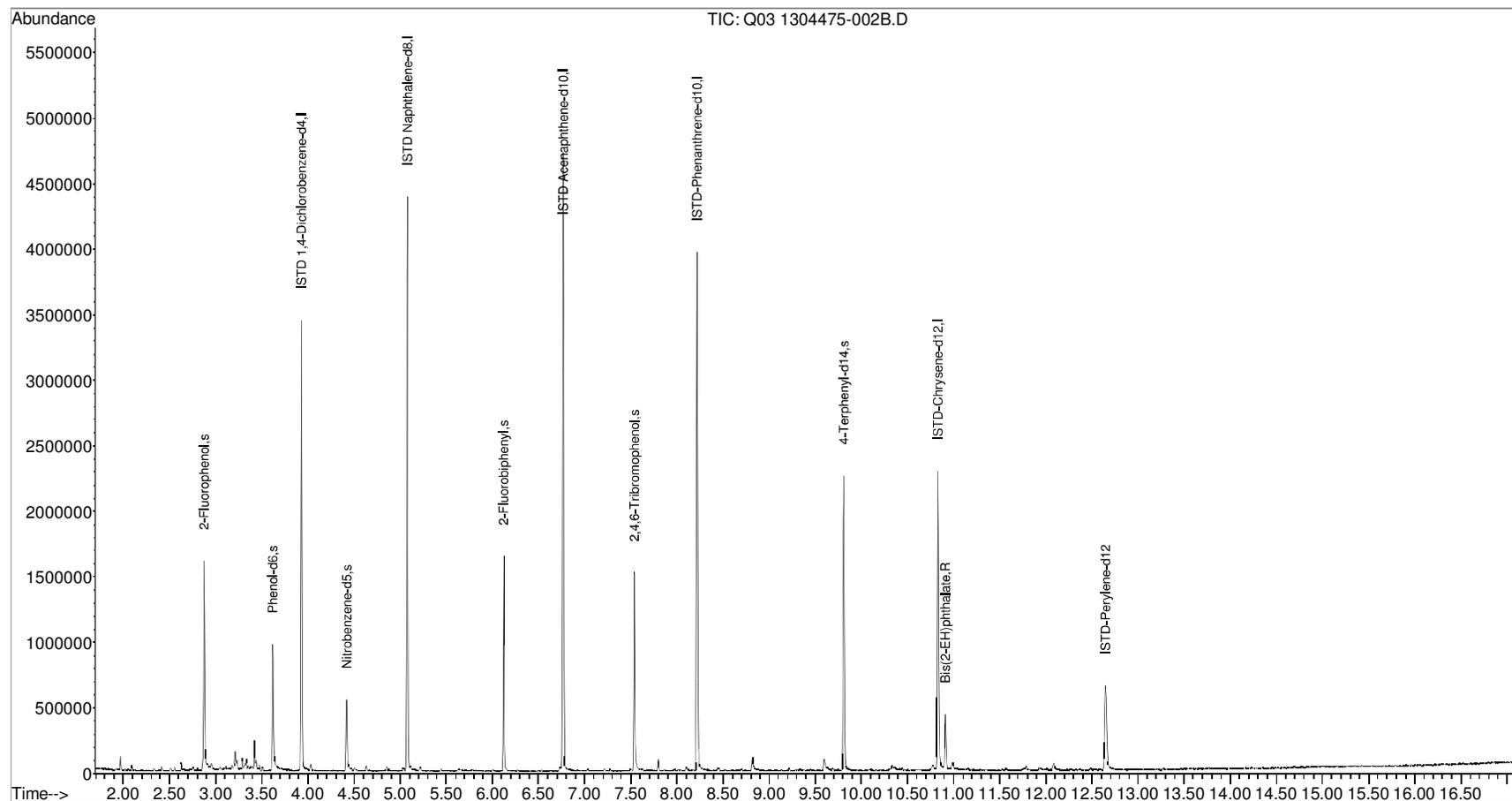
Quant Time: Apr 18 07:09:08 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Apr 17 21:24:24 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
Data File : Q03 1304475-002B.D
Acq On : 18 Apr 2013 4:37 am
Operator : ALICIA HABERLE
Sample : 1304475-002B
Misc : SAMP
ALS Vial : 20 Sample Multiplier: 1

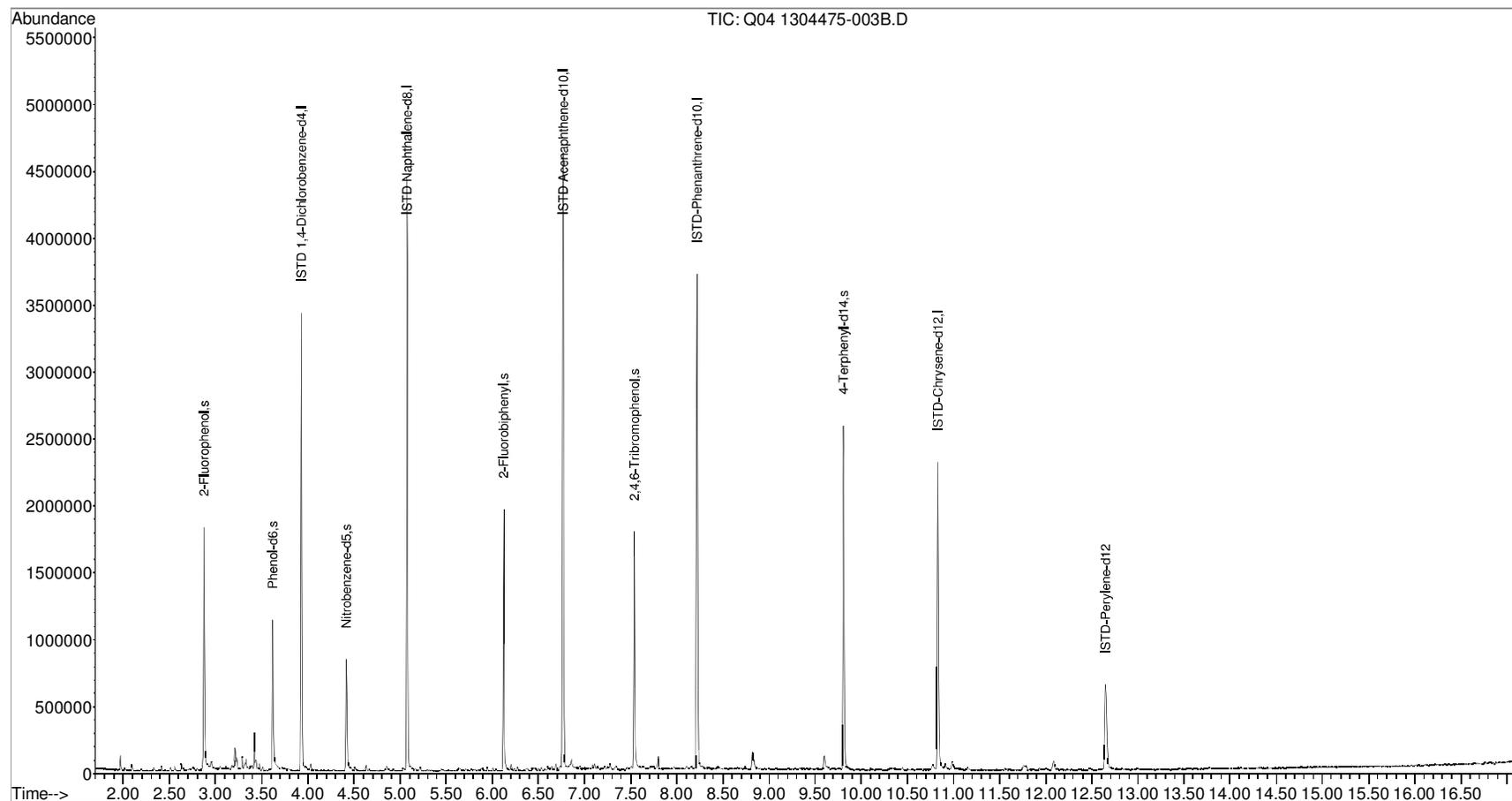
Quant Time: Apr 18 08:03:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 21:24:24 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
Data File : Q04 1304475-003B.D
Acq On : 18 Apr 2013 5:03 am
Operator : ALICIA HABERLE
Sample : 1304475-003B
Misc : SAMP
ALS Vial : 21 Sample Multiplier: 1

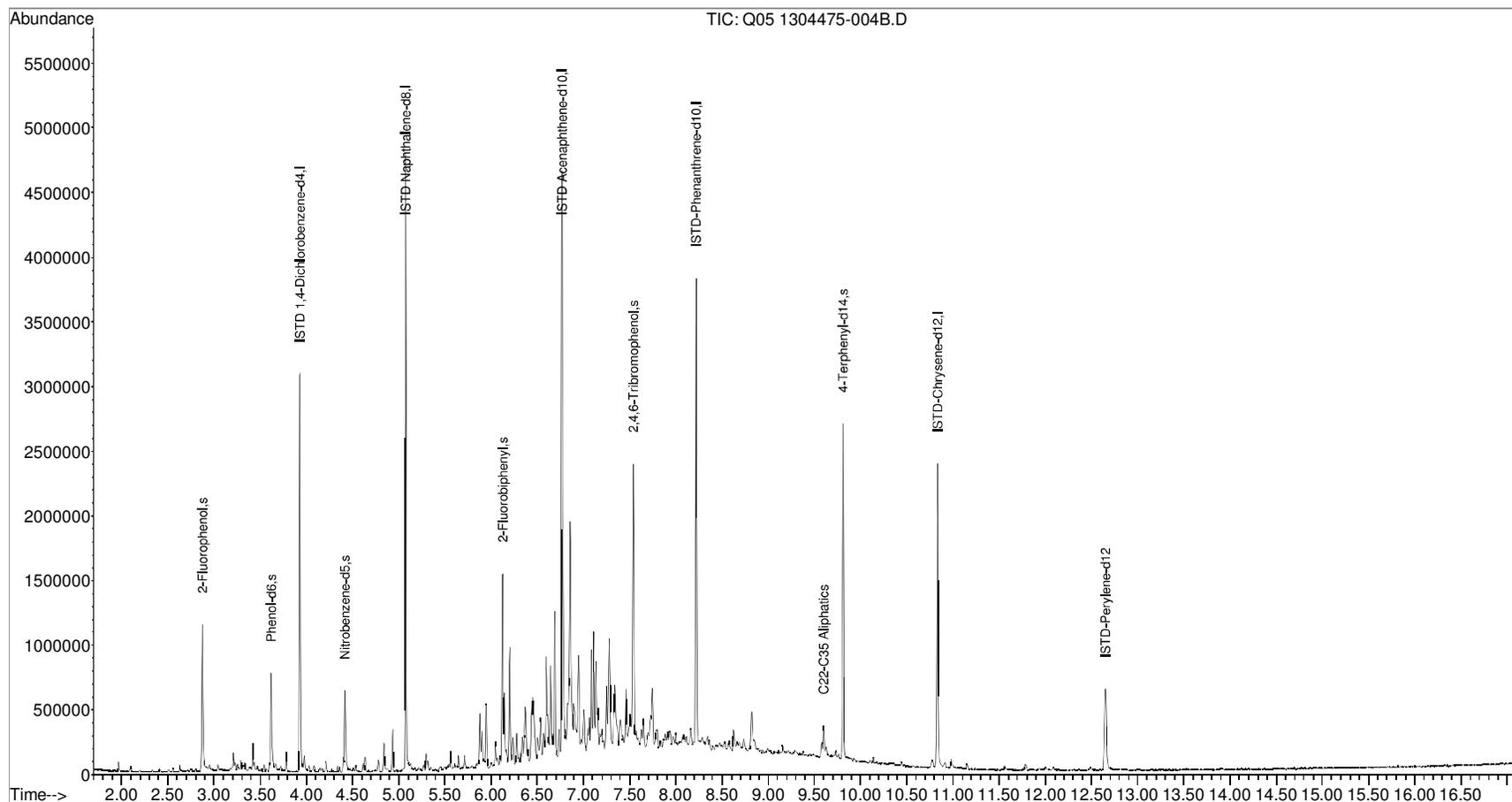
Quant Time: Apr 18 08:03:35 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 21:24:24 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
Data File : Q05 1304475-004B.D
Acq On : 18 Apr 2013 5:29 am
Operator : ALICIA HABERLE
Sample : 1304475-004B
Misc : SAMP
ALS Vial : 22 Sample Multiplier: 1

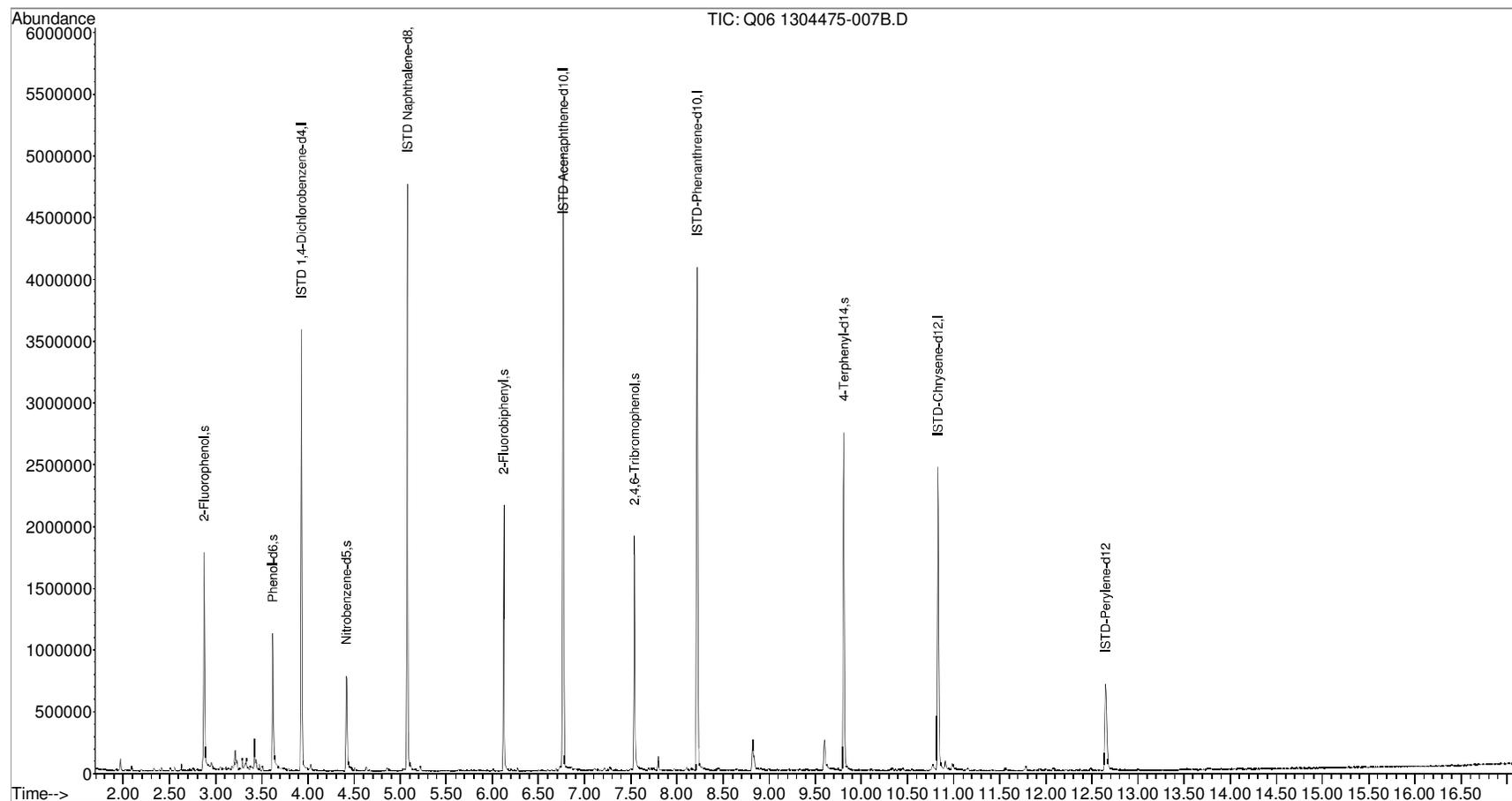
Quant Time: Apr 18 08:04:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 21:24:24 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
Data File : Q06 1304475-007B.D
Acq On : 18 Apr 2013 5:56 am
Operator : ALICIA HABERLE
Sample : 1304475-007B
Misc : SAMP
ALS Vial : 23 Sample Multiplier: 1

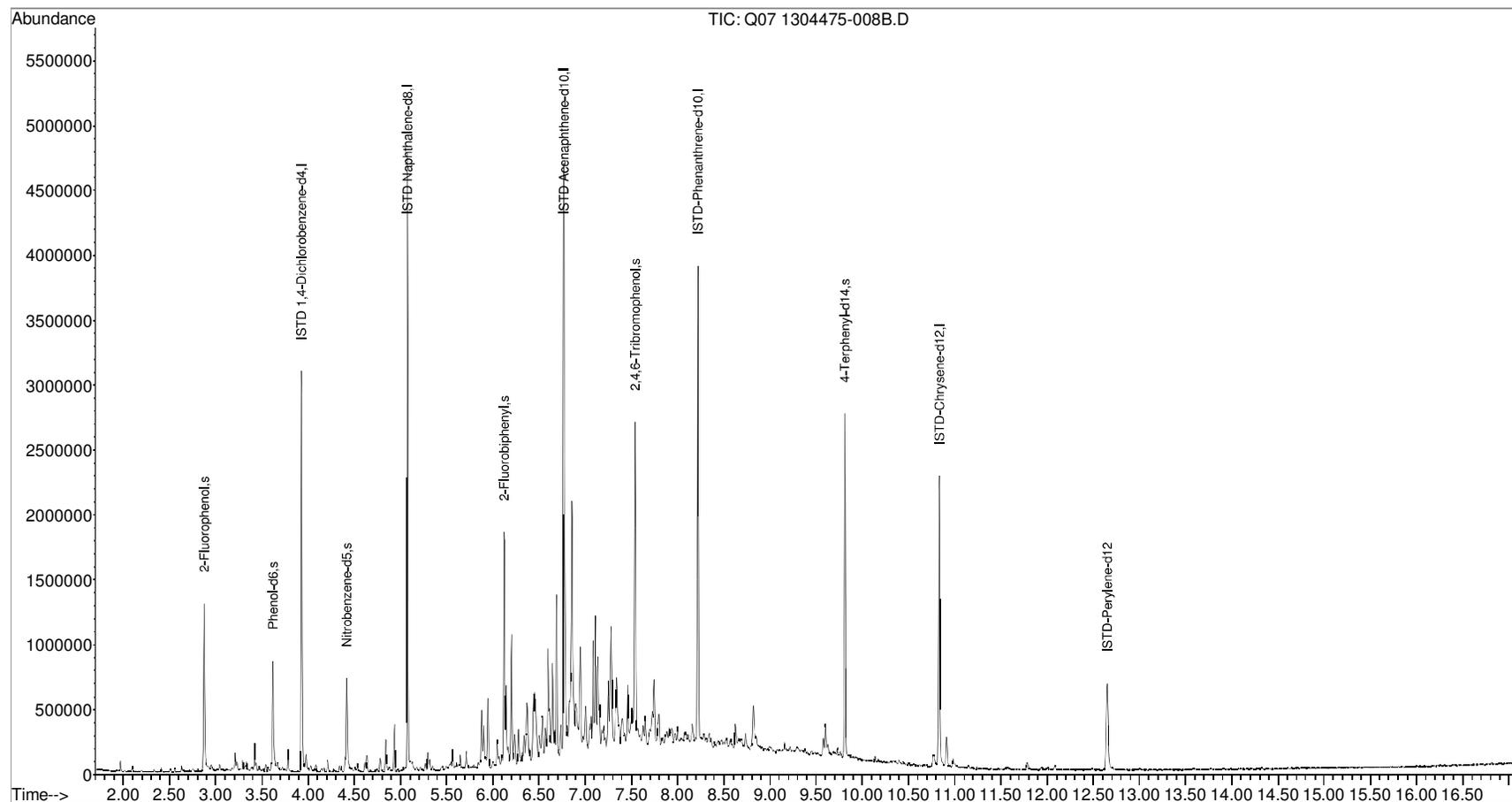
Quant Time: Apr 18 08:04:34 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 21:24:24 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
Data File : Q07 1304475-008B.D
Acq On : 18 Apr 2013 6:22 am
Operator : ALICIA HABERLE
Sample : 1304475-008B
Misc : SAMP
ALS Vial : 24 Sample Multiplier: 1

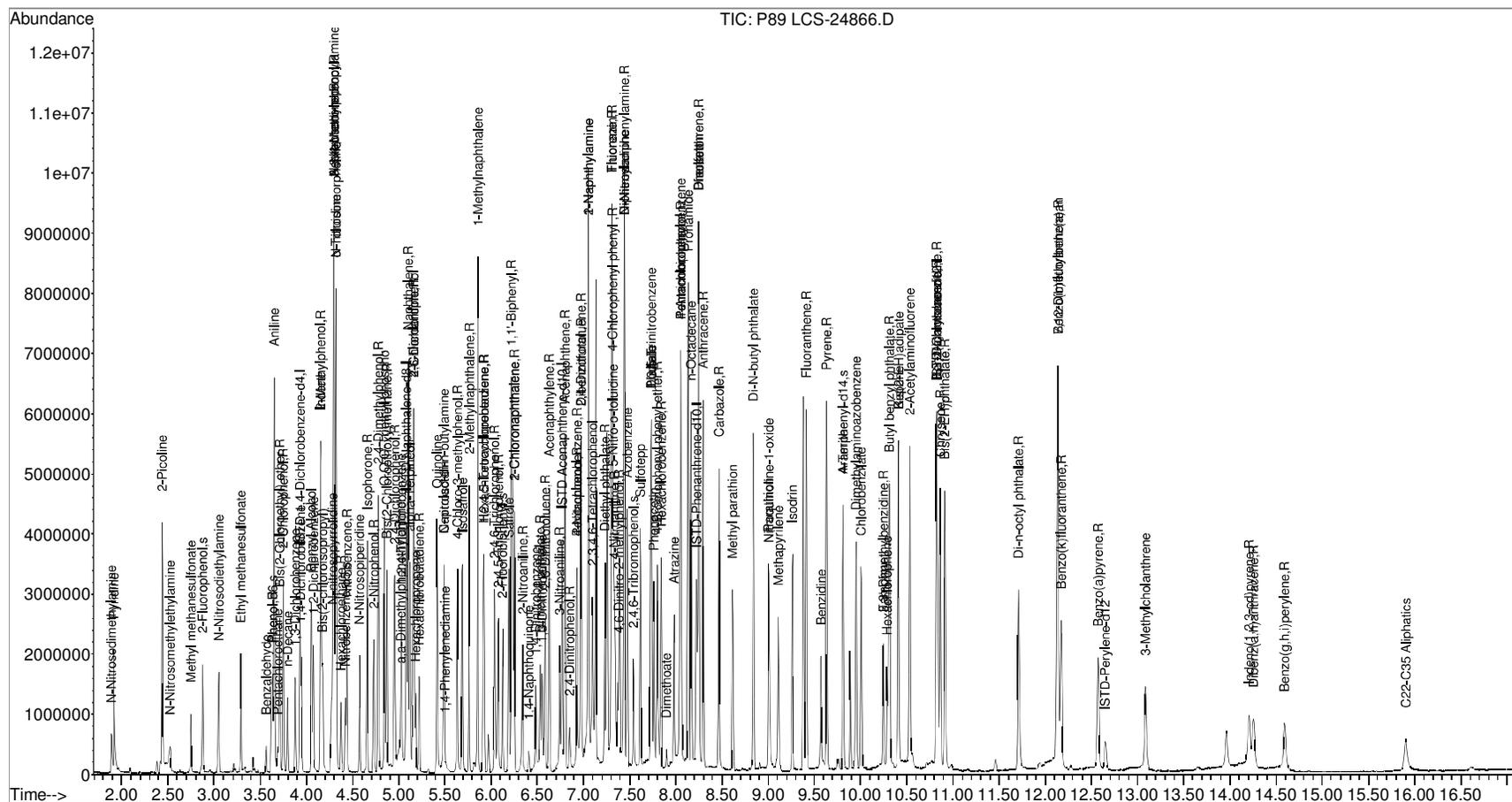
Quant Time: Apr 18 08:05:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 21:24:24 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
 Data File : P89 LCS-24866.D
 Acq On : 17 Apr 2013 10:28 pm
 Operator : ALICIA HABERLE
 Sample : LCS-24866
 Misc : LCS
 ALS Vial : 6 Sample Multiplier: 1

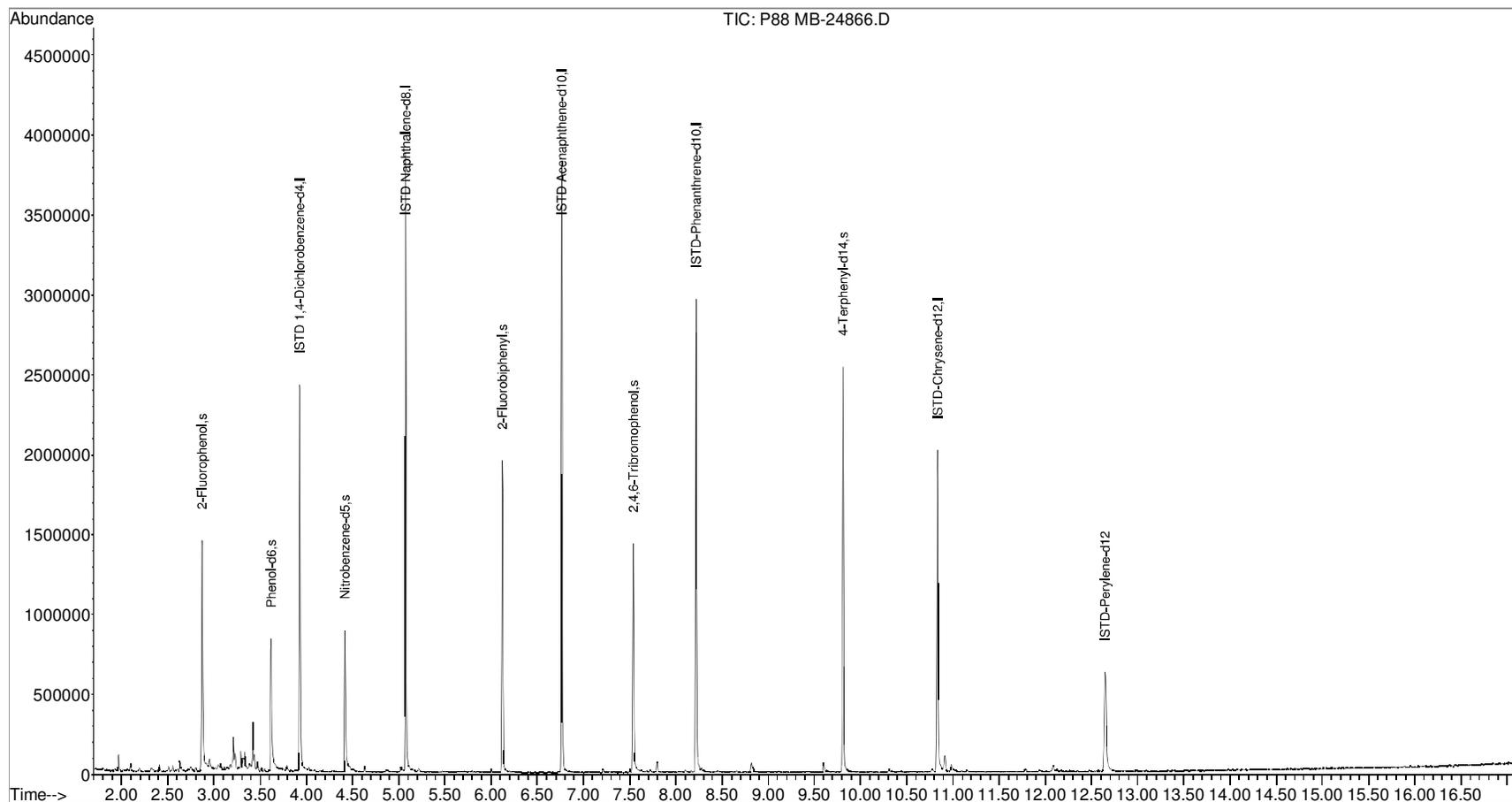
Quant Time: Apr 18 07:22:54 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Apr 17 21:24:24 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
Data File : P88 MB-24866.D
Acq On : 17 Apr 2013 10:02 pm
Operator : ALICIA HABERLE
Sample : MB-24866
Misc : MBLK
ALS Vial : 5 Sample Multiplier: 1

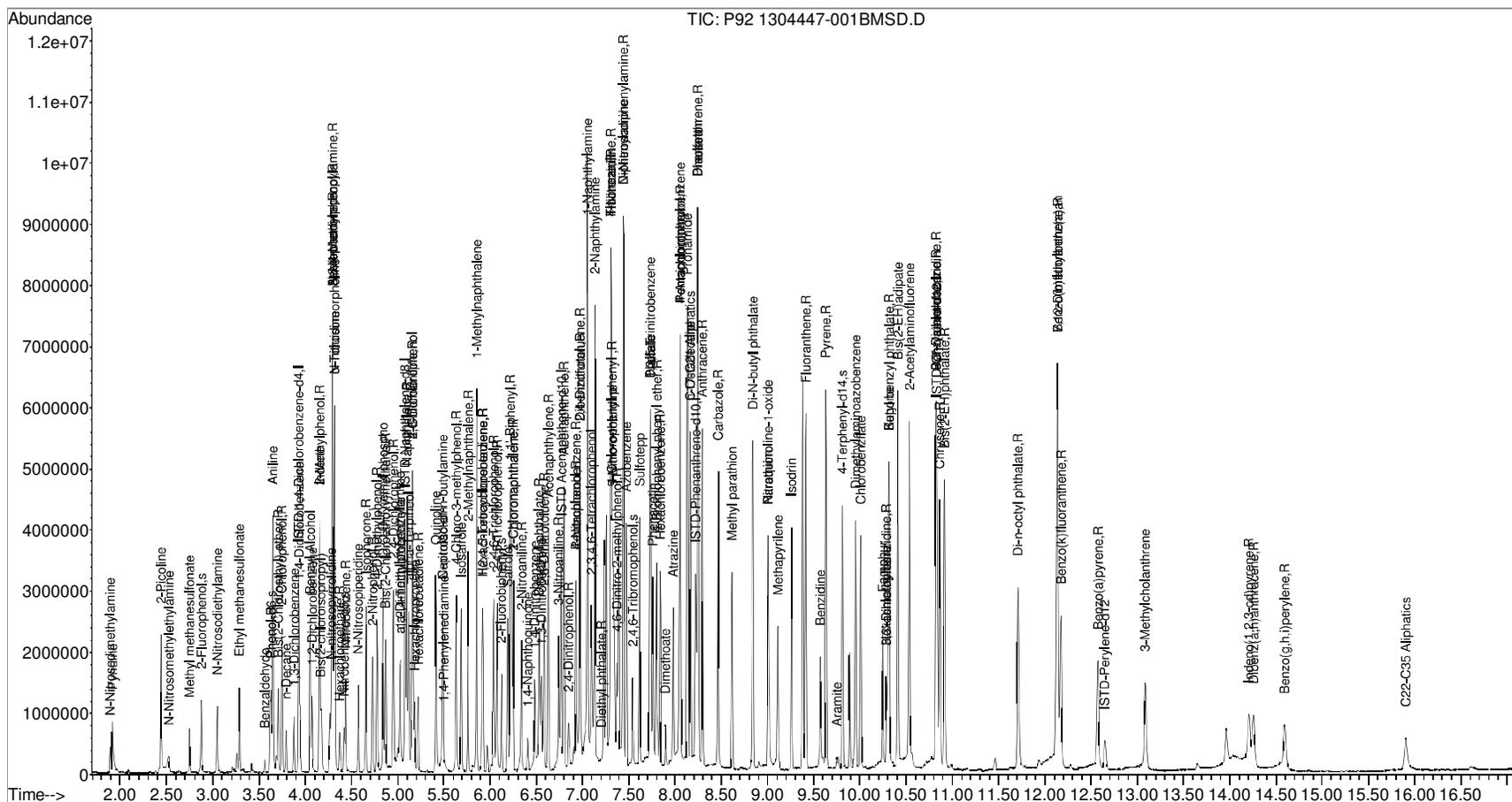
Quant Time: Apr 18 07:20:37 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 21:24:24 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\17APR13-A\
 Data File : P92 1304447-001BMSD.D
 Acq On : 17 Apr 2013 11:48 pm
 Operator : ALICIA HABERLE
 Sample : 1304447-001BMSD
 Misc : MSD
 ALS Vial : 9 Sample Multiplier: 1

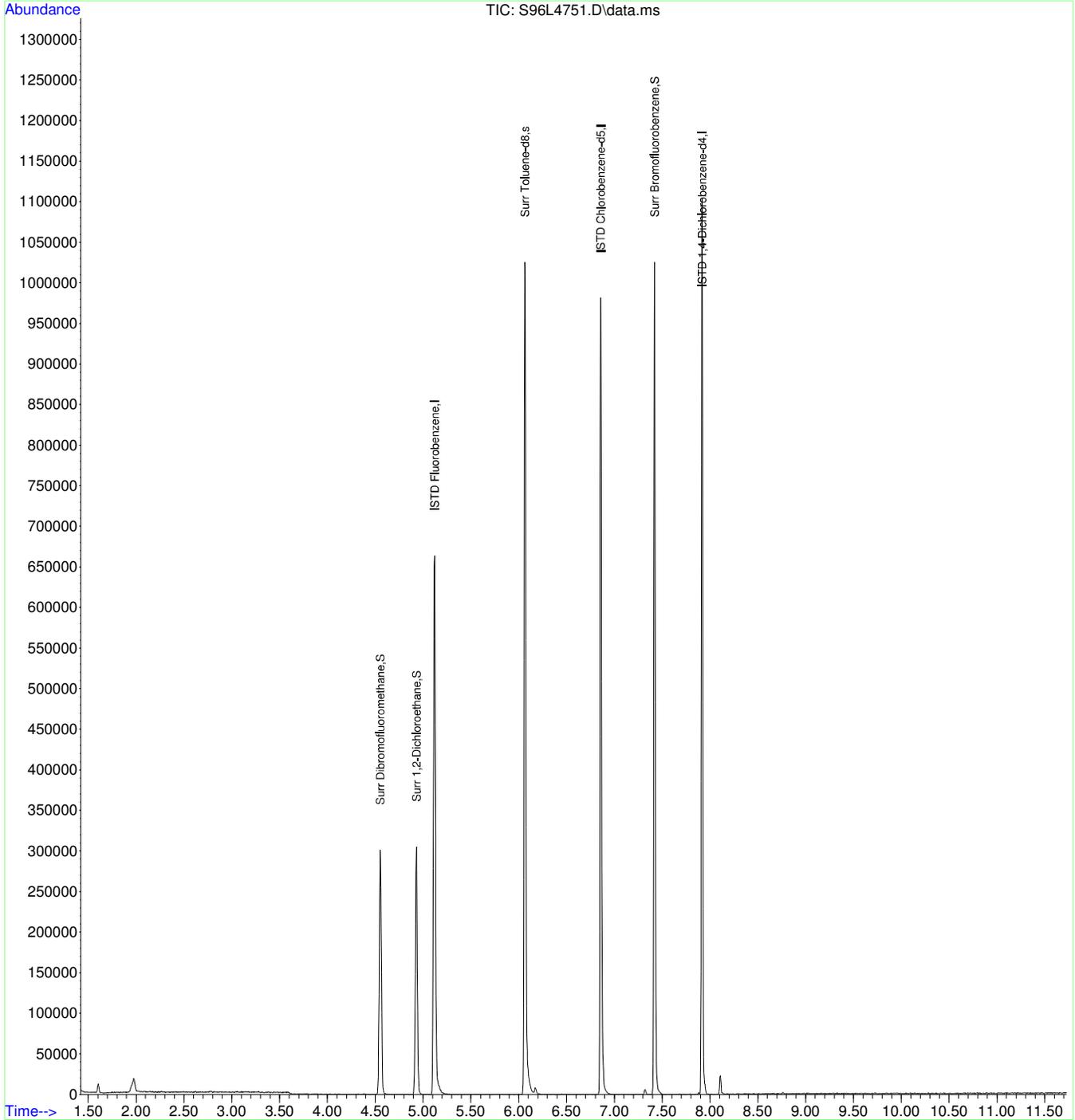
Quant Time: Apr 18 07:24:33 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Apr 17 21:24:24 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : S96L4751.D
Acq On : 17 Apr 2013 3:09 pm
Operator : AAP
Sample : 1304475-001A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 16 Sample Multiplier: 1

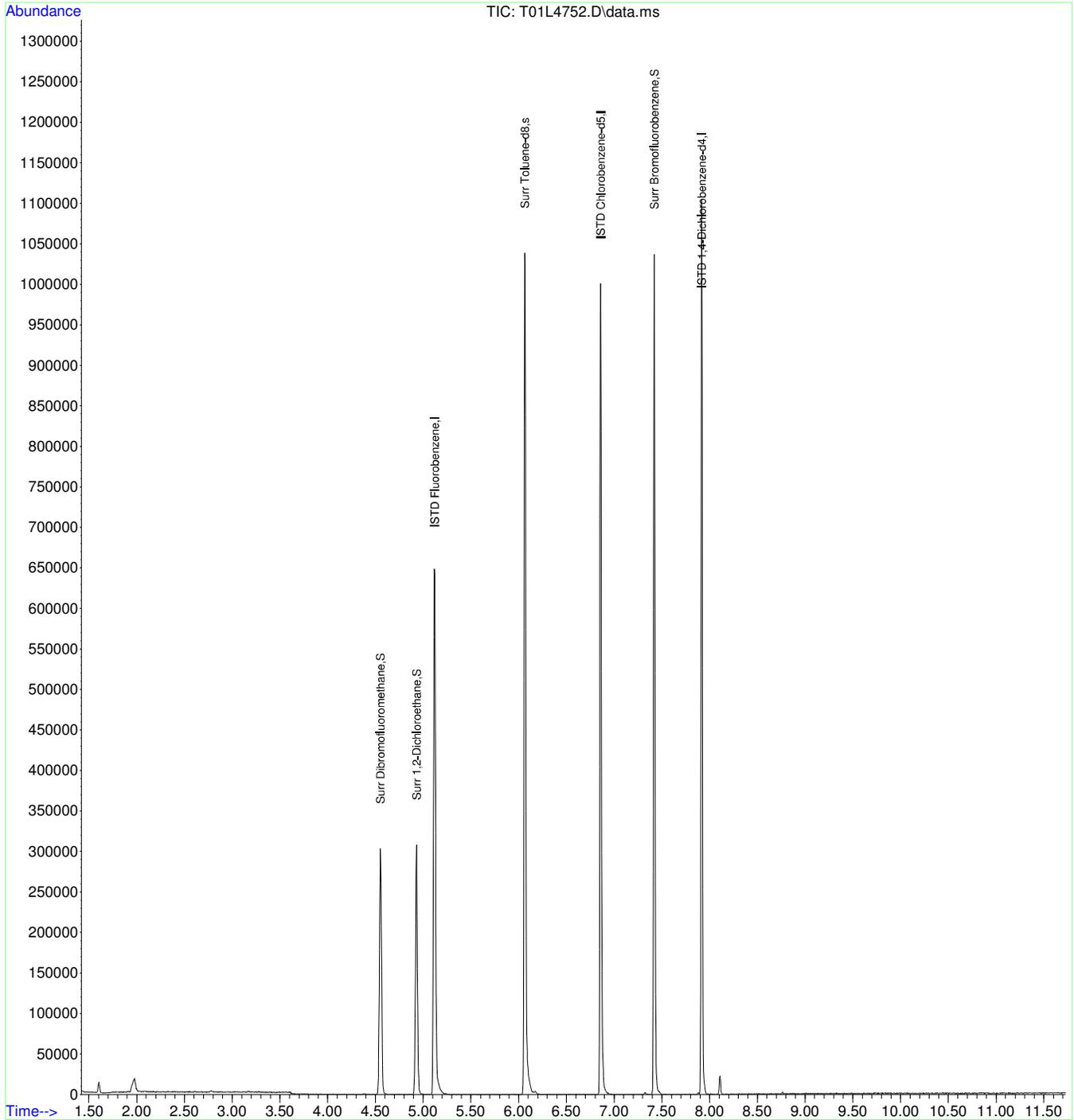
Quant Time: Apr 17 16:48:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : T01L4752.D
Acq On : 17 Apr 2013 4:25 pm
Operator : AAP
Sample : 1304475-002A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 20 Sample Multiplier: 1

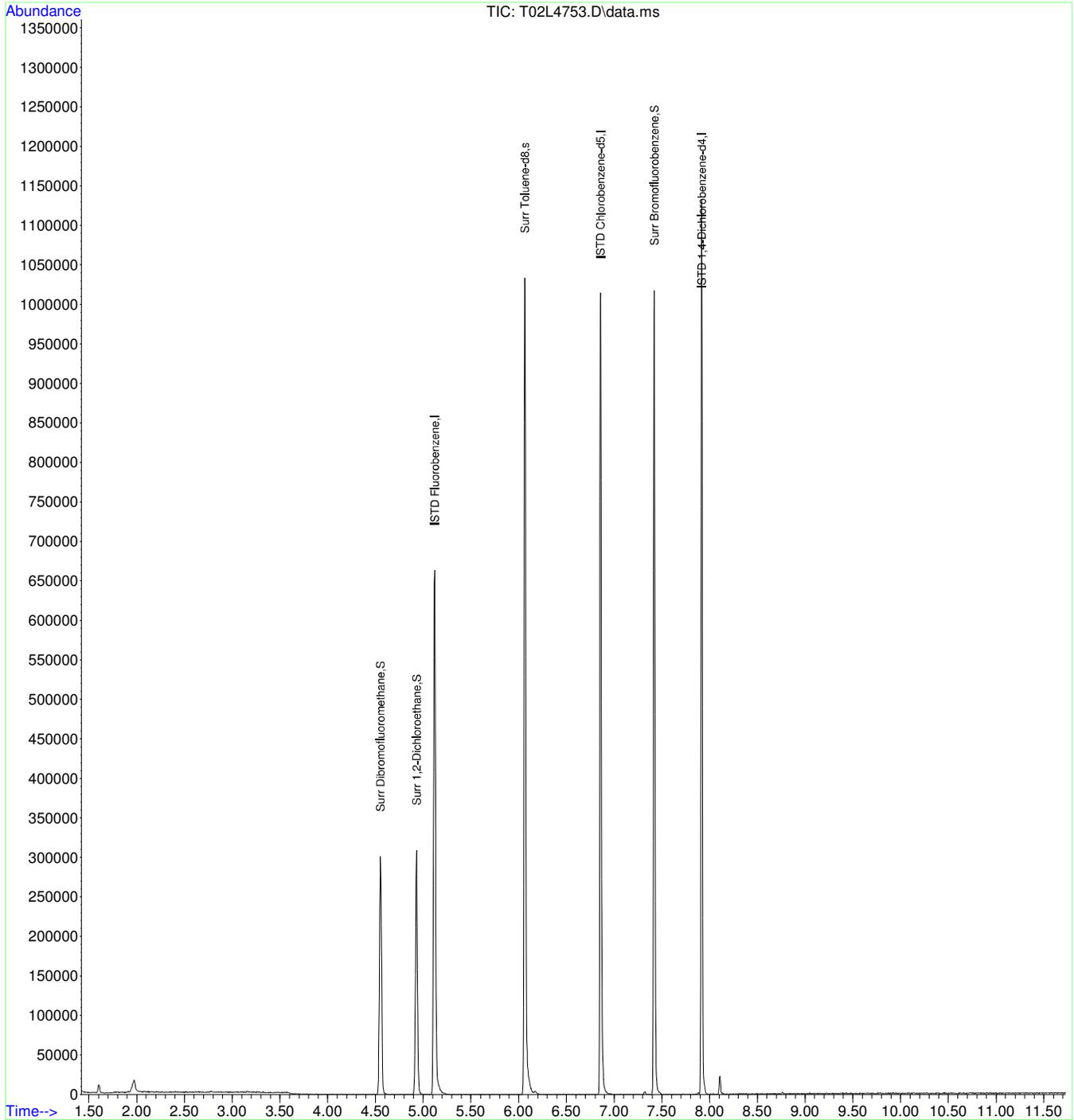
Quant Time: Apr 17 16:49:40 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : T02L4753.D
Acq On : 17 Apr 2013 4:44 pm
Operator : AAP
Sample : 1304475-003A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 21 Sample Multiplier: 1

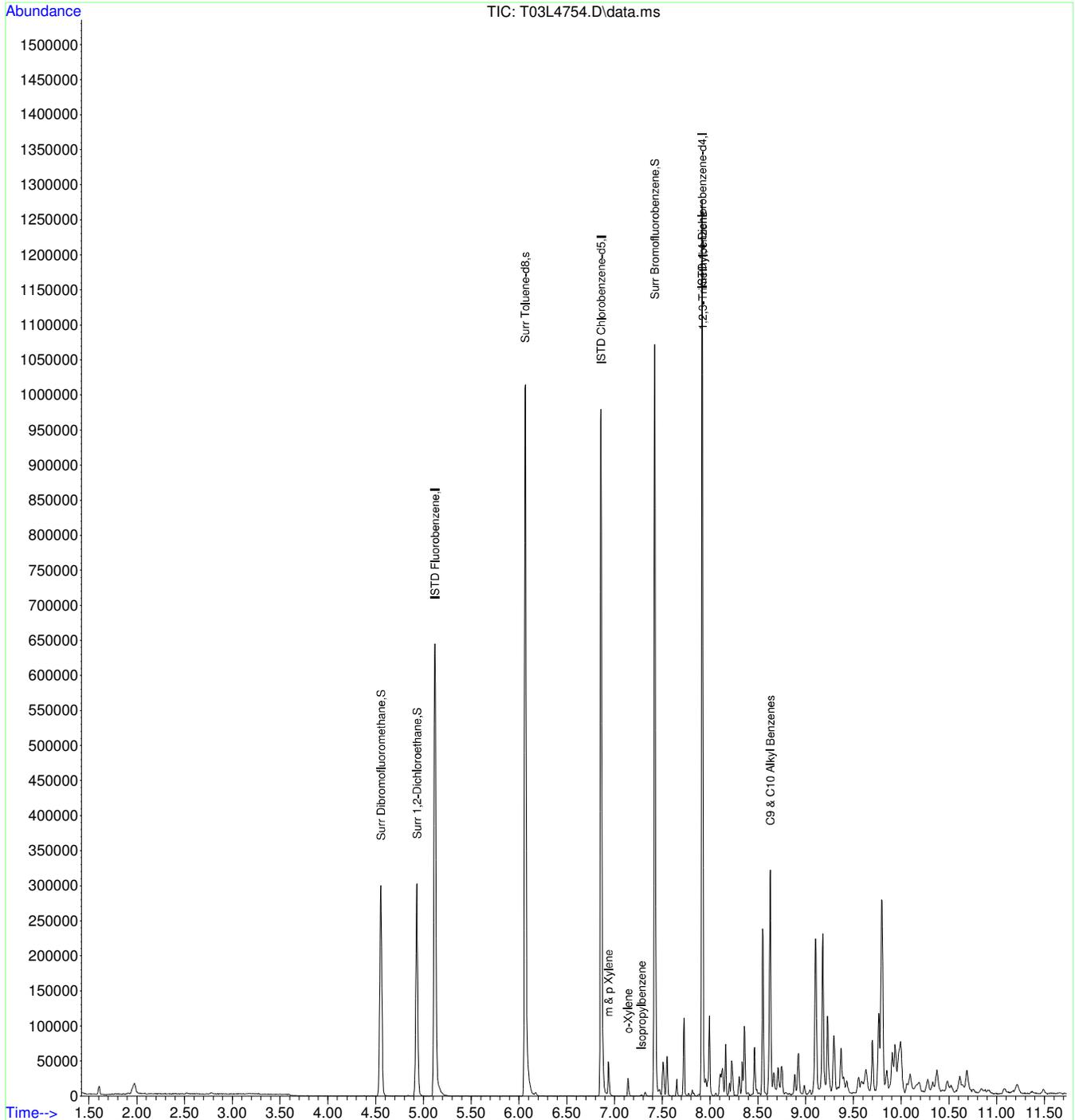
Quant Time: Apr 17 17:48:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : T03L4754.D
Acq On : 17 Apr 2013 5:03 pm
Operator : AAP
Sample : 1304475-004A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 22 Sample Multiplier: 1

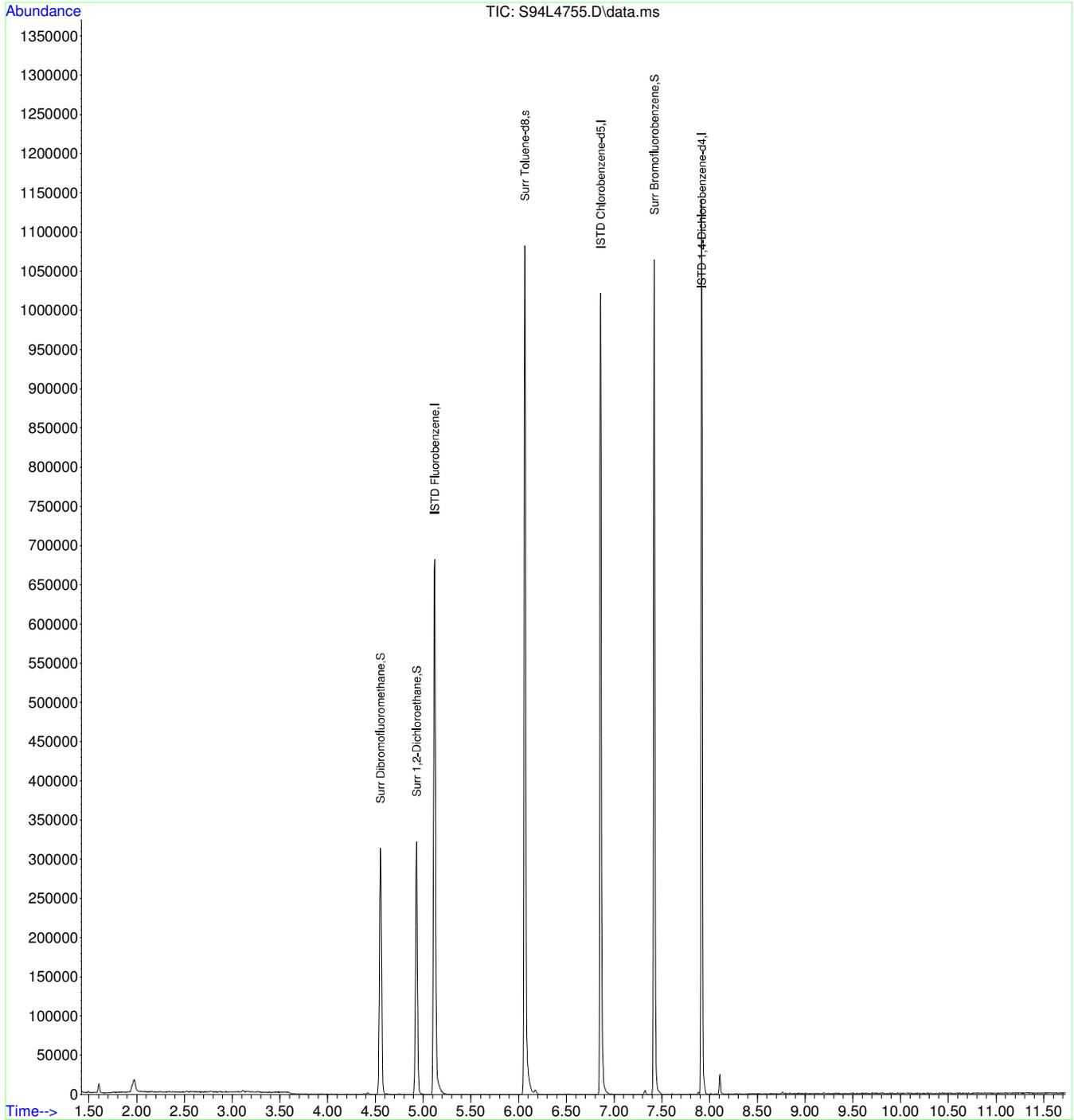
Quant Time: Apr 17 17:51:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : S94L4755.D
Acq On : 17 Apr 2013 2:31 pm
Operator : AAP
Sample : 1304475-005A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 14 Sample Multiplier: 1

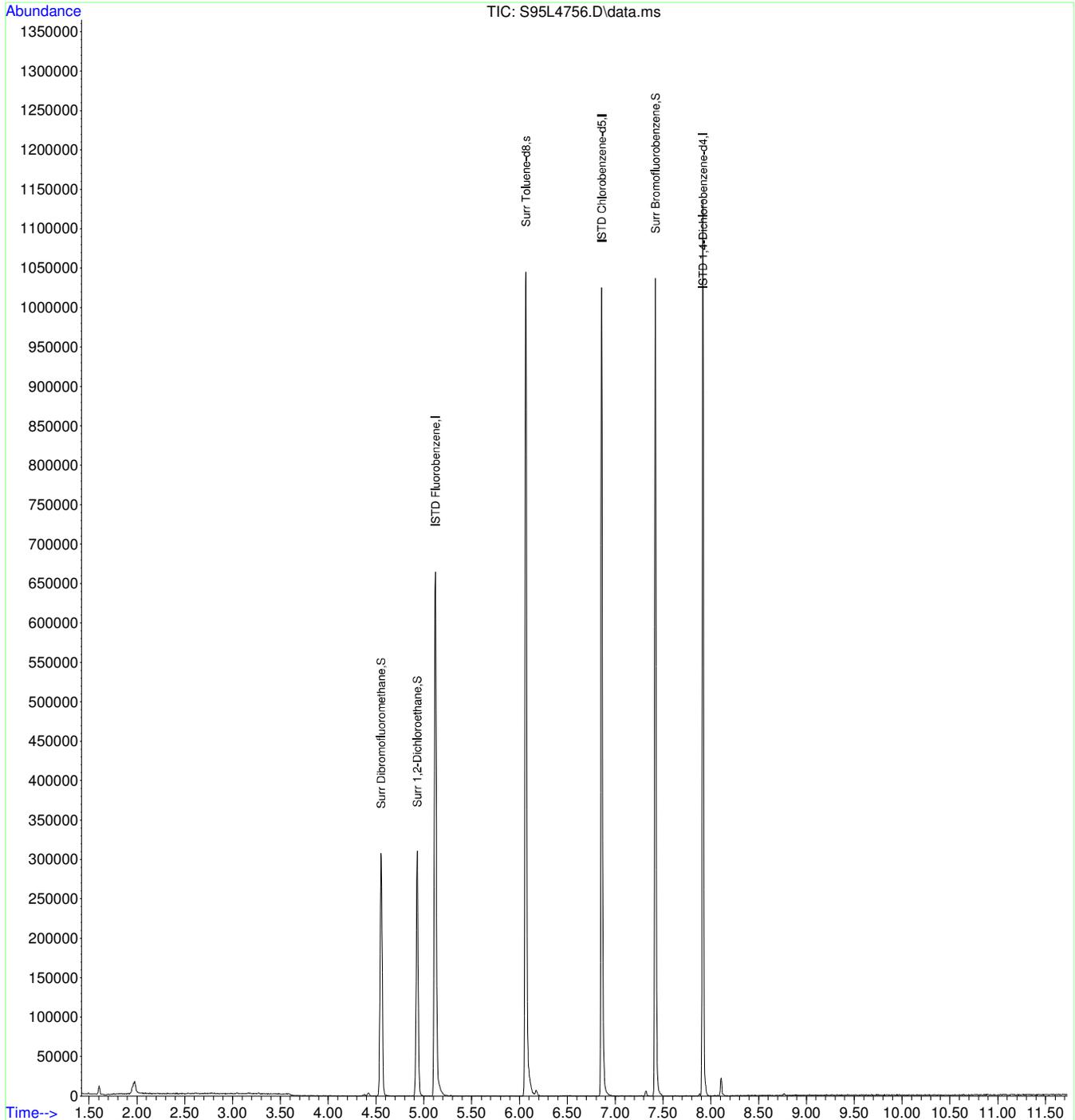
Quant Time: Apr 17 14:48:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : S95L4756.D
Acq On : 17 Apr 2013 2:50 pm
Operator : AAP
Sample : 1304475-006A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 15 Sample Multiplier: 1

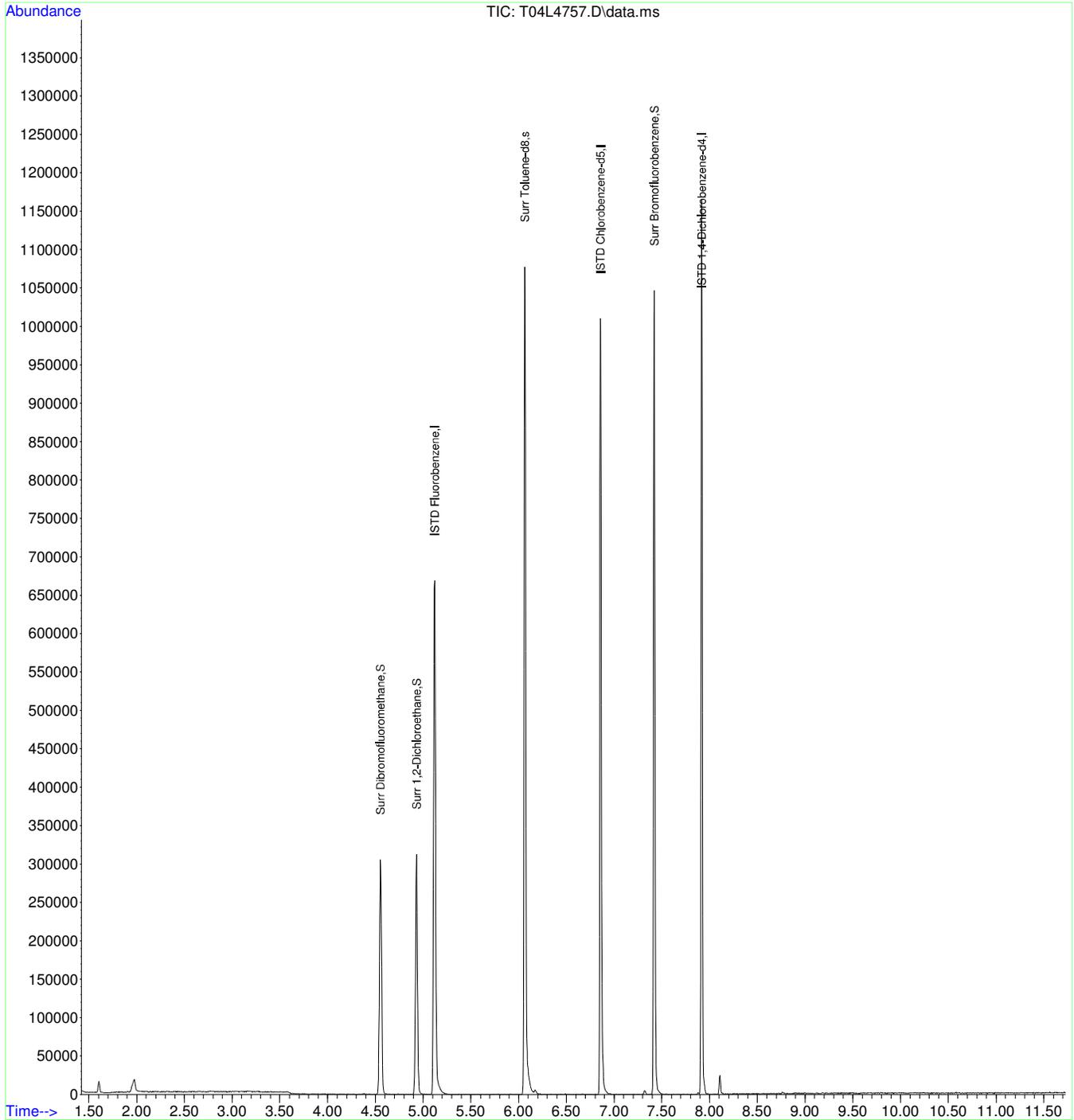
Quant Time: Apr 17 16:48:33 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : T04L4757.D
Acq On : 17 Apr 2013 5:22 pm
Operator : AAP
Sample : 1304475-007A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 23 Sample Multiplier: 1

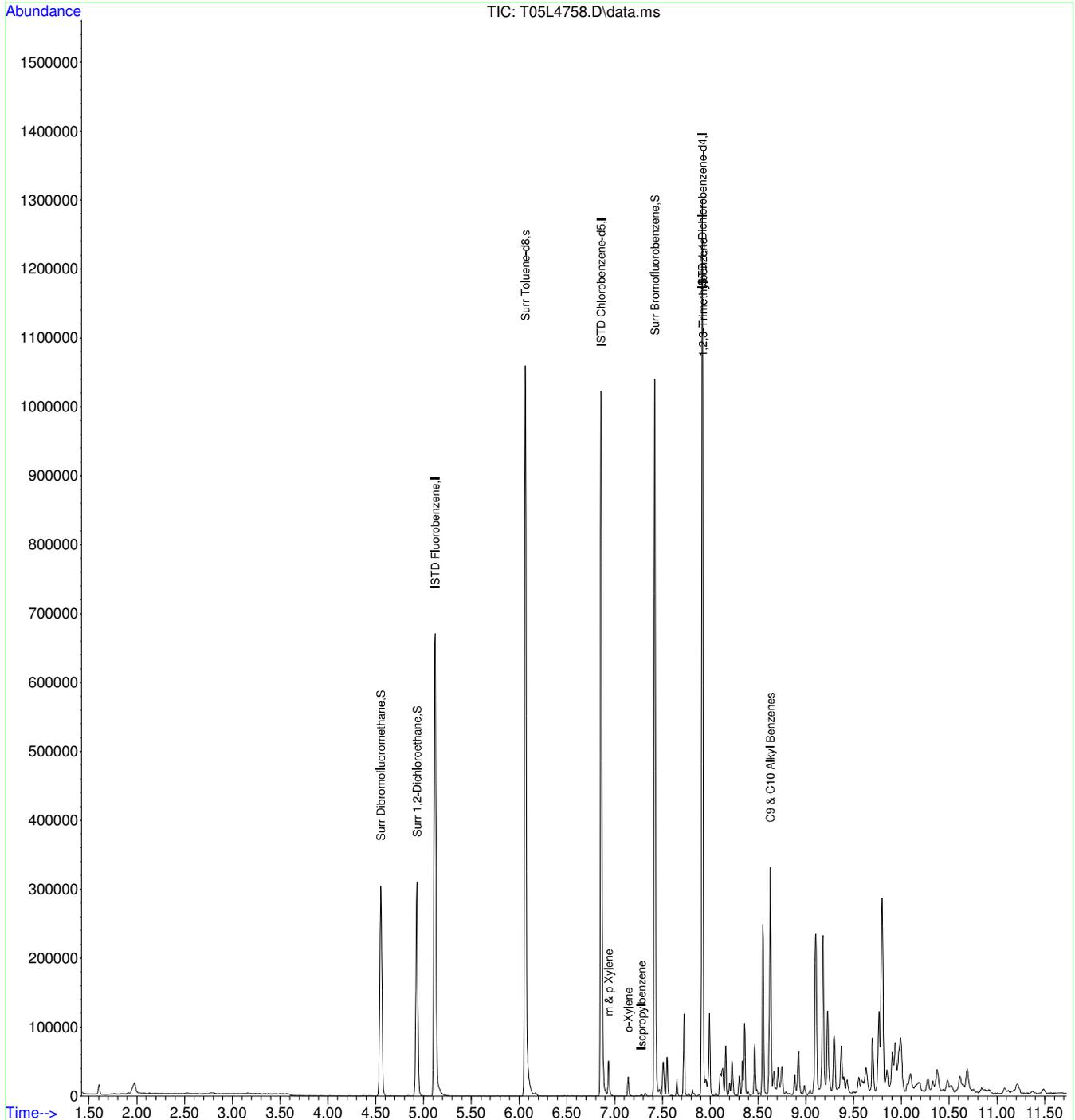
Quant Time: Apr 17 17:55:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : T05L4758.D
Acq On : 17 Apr 2013 5:41 pm
Operator : AAP
Sample : 1304475-008A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 24 Sample Multiplier: 1

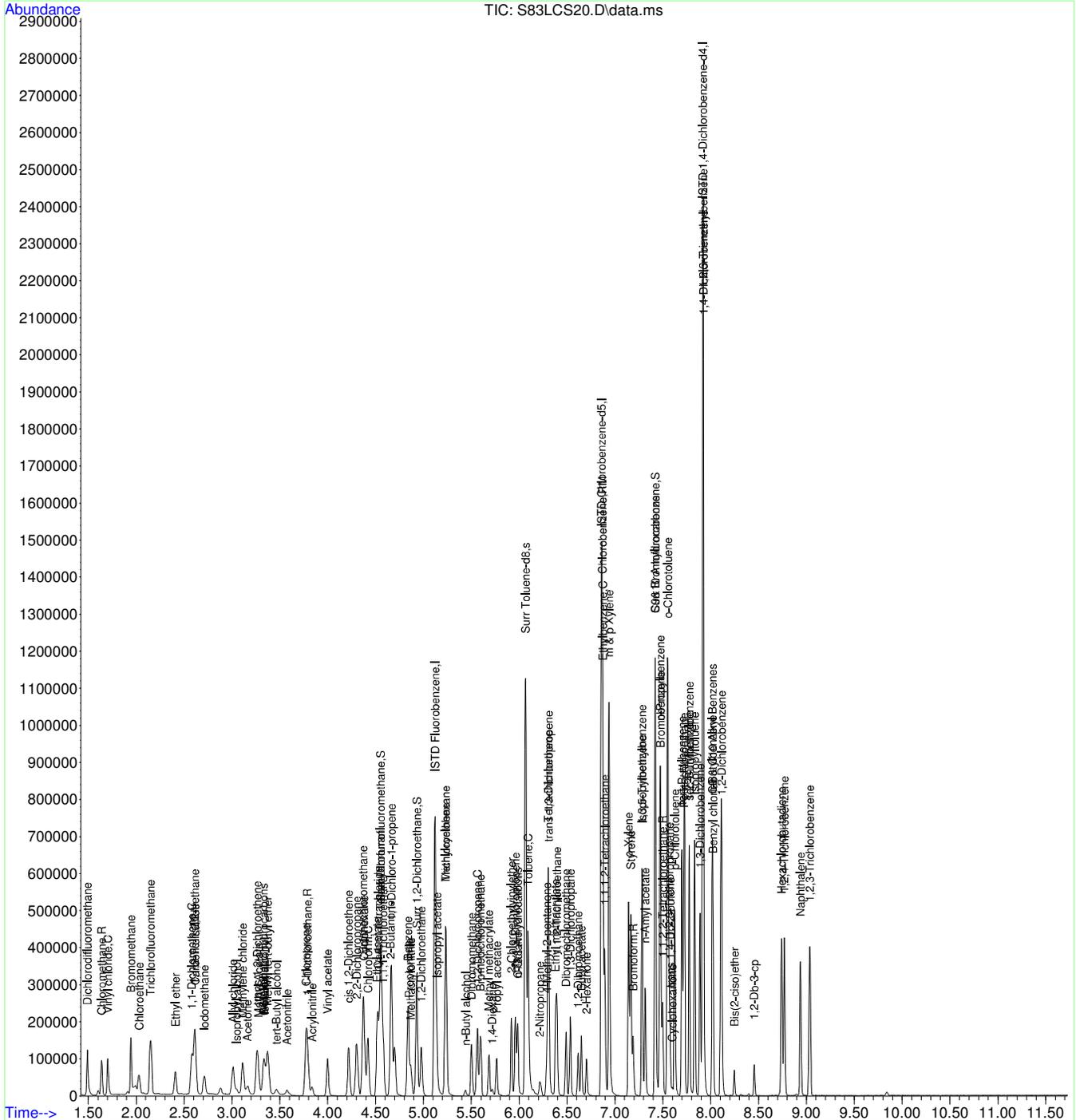
Quant Time: Apr 17 17:57:06 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : S83LCS20.D
Acq On : 17 Apr 2013 11:03 am
Operator : AAP
Sample : LCS VOC 041713A
Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT SB
ALS Vial : 3 Sample Multiplier: 1

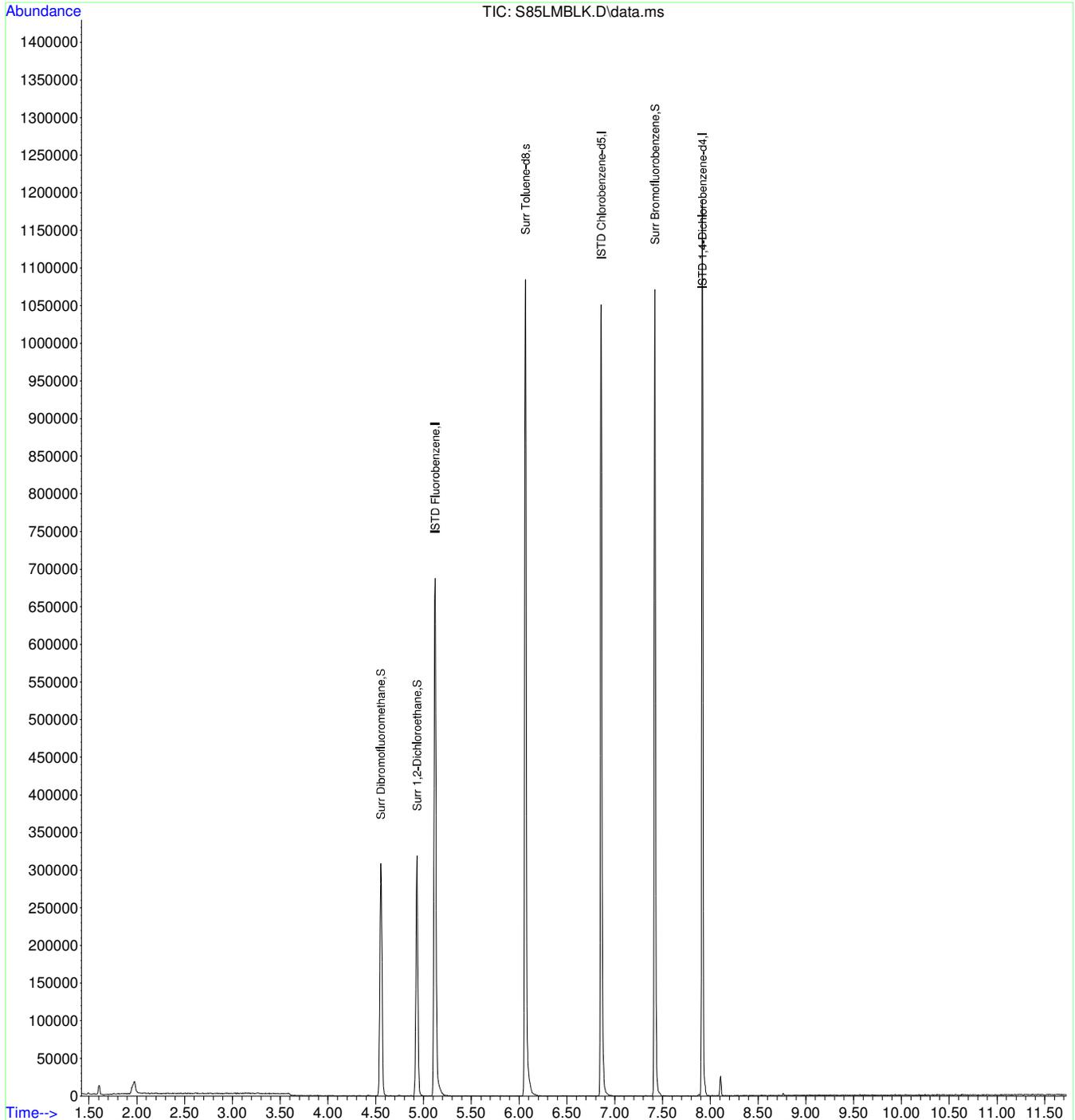
Quant Time: Apr 17 11:14:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

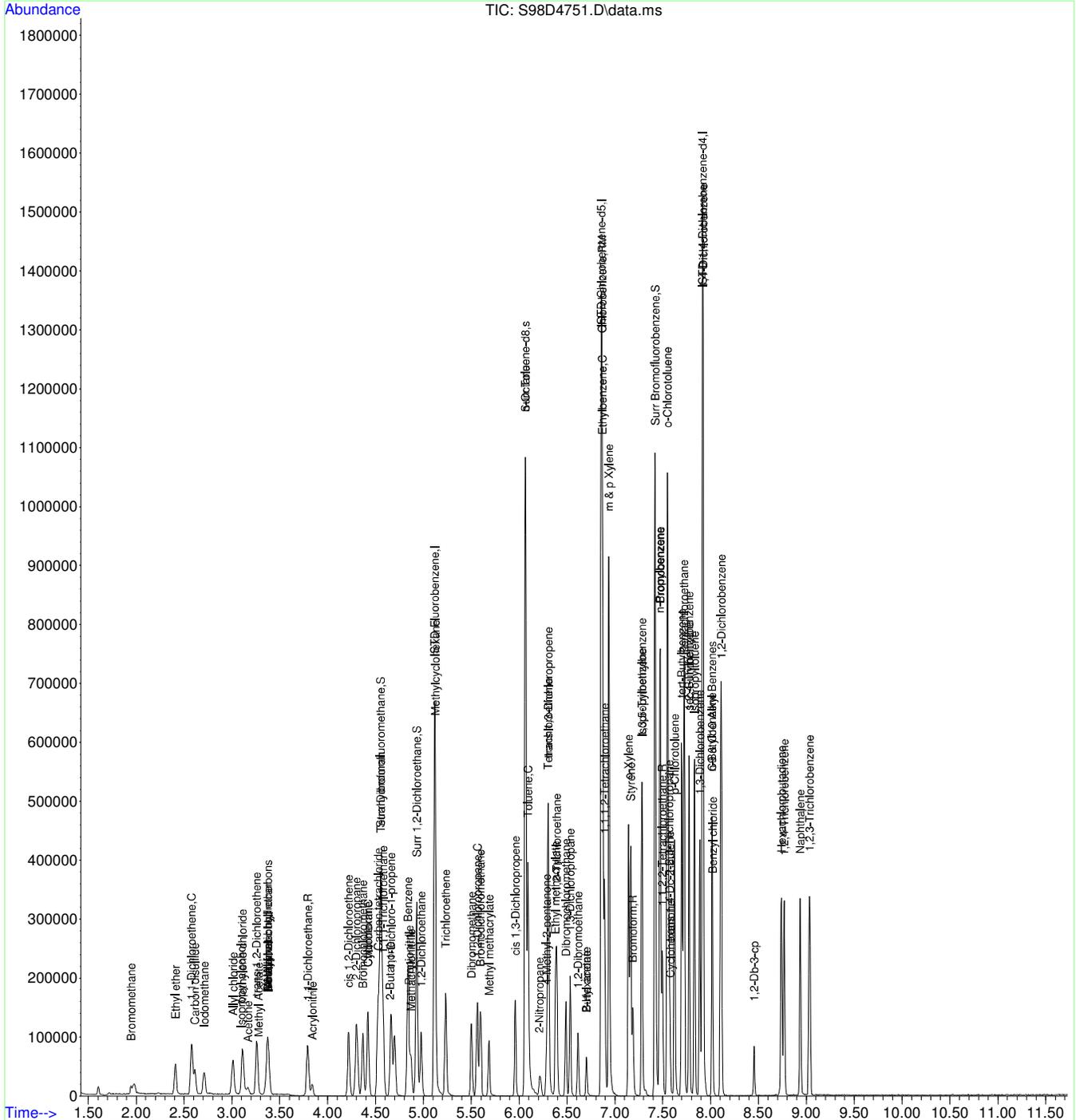
Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : S85LMBLK.D
Acq On : 17 Apr 2013 11:41 am
Operator : AAP
Sample : MB VOC 041713A
Misc : MBLK 5.0ML SB
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 17 14:31:46 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\APR13-D\17APR13\
Data File : S98D4751.D
Acq On : 17 Apr 2013 3:47 pm
Operator : AAP
Sample : 1304475-001AMSD
Misc : MSD 5.0ML 3OF3 SB
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 17 15:59:40 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_18.M
Quant Title : VOA Calibration
QLast Update : Thu Apr 11 15:41:59 2013
Response via : Initial Calibration



WORK ORDER Summary

Work Order: **1304475** Page 1 of 2

Client: Utah Division of Water Quality

Due Date: 4/19/2013

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			
1304475-001A	East of I-15 / 4920392	4/17/2013 0800h	4/17/2013 1140h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
1304475-001B				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>						
1304475-001C				3510-TPH-PR		<input type="checkbox"/>	walkin - tph			
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	walkin - tph			
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>						
1304475-002A	S. Marina / 4920495	4/17/2013 0815h	4/17/2013 1140h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
1304475-002B				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>						
1304475-002C				3510-TPH-PR		<input type="checkbox"/>	walkin - tph			
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	walkin - tph			
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>						
1304475-003A	East of Boom / 4920395	4/17/2013 0940h	4/17/2013 1140h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
1304475-003B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2		
				8270-W		<input checked="" type="checkbox"/>	walkin - semi			
				<i>Test Group: 8270-W-Custom; # of Analytes: 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>						
1304475-003C				3510-TPH-PR		<input type="checkbox"/>	walkin - tph			
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	walkin - tph			
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>						
1304475-004A	Duplicate / 4920401	4/17/2013 0930h	4/17/2013 1140h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
1304475-004B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2		

WORK ORDER Summary

Work Order: **1304475** Page 2 of 2

Client: Utah Division of Water Quality

Due Date: 4/19/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1304475-004B	Duplicate / 4920401	4/17/2013 0930h	4/17/2013 1140h	8270-W	Aqueous	<input checked="" type="checkbox"/>	walkin - semi	2
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi	
1304475-004C				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				
				3510-TPH-PR		<input type="checkbox"/>	walkin - tph	
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	walkin - tph	
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>				
1304475-005A	Field Blank	4/17/2013 0835h	4/17/2013 1140h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				
1304475-006A	Trip Blank	4/17/2013	4/17/2013 1140h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				
1304475-007A	East of Boom #3 / 4920402	4/17/2013 0920h	4/17/2013 1140h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
1304475-007B				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				
				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>				
1304475-007C				3510-TPH-PR		<input type="checkbox"/>	walkin - tph	
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	walkin - tph	
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>				
1304475-008A	Below Weirs ab Res. / 4920401	4/17/2013 0930h	4/17/2013 1140h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
1304475-008B				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				
				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>				
1304475-008C				3510-TPH-PR		<input type="checkbox"/>	walkin - tph	
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	walkin - tph	
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>				

