Appendix N
Laboratory Analytical Data – November 2011
(Level IV Data on CD)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

LABORATORY REPORT

Prepared For: Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project: OU3/0096498.020

Sampled: 11/15/11-11/16/11
Received: 11/16/11
Issued: 11/23/11 15:23

NELAP #01109CA Arizona DHS#AZ0728

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

LABORATORY ID	CLIENT ID	MATRIX
PUK1116-01	AT-OU3-5SR-S-111511-17:42-1	Water
PUK1116-02	AT-OU3-5SR-S-111511-23:11-2	Water
PUK1116-03	AT-OU3-5SR-S-111611-05:11-3	Water
PUK1116-04	AT-L1-1-111511	Water

SAMPLE RECEIPT: Samples were received intact, at 1°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

Reviewed By:

TestAmerica Phoenix

Kylie Emily
Project Manager

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Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-01 (AT-OU3-5SR-S-111511-17:42-1 - Water) **Sampled: 11/15/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0879	10	ND	1	11/22/2011	11/22/2011	
Benzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromodichloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromoform	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Bromomethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Butanone (MEK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
sec-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
tert-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Carbon disulfide	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Carbon tetrachloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chloroethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Chloroform	EPA 8260B	11K0879	0.50	**4.7**	1	11/22/2011	11/22/2011	
Chloromethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
4-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromomethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dichlorodifluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethane	EPA 8260B	11K0879	0.50	**3.5**	1	11/22/2011	11/22/2011	
1,2-Dichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethene	EPA 8260B	11K0879	0.50	**4.2**	1	11/22/2011	11/22/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	**5.8**	1	11/22/2011	11/22/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
2,2-Dichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Ethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Hexachlorobutadiene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	

TestAmerica Phoenix

Kylie Emily
Project Manager

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Project ID: OU3/0096498.020
Report Number: PUK1116

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Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-01 (AT-OU3-5SR-S-111511-17:42-1 - Water) - cont. **Sampled: 11/15/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
2-Hexanone	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Iodomethane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Isopropylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
p-Isopropyltoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Methylene Chloride	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Naphthalene	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Propylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Styrene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Tetrachloroethene	EPA 8260B	11K0879	0.50	**1.5**	1	11/22/2011	11/22/2011	
Toluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Trichloroethene	EPA 8260B	11K0879	0.50	**29**	1	11/22/2011	11/22/2011	
Trichlorofluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Vinyl Acetate	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Vinyl chloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Xylenes, Total	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Freon 113	EPA 8260B	11K0879	2.0	ND	1	11/22/2011	11/22/2011	
Surrogate: Dibromofluoromethane (80-130%)				*102 %*				
Surrogate: Toluene-d8 (80-120%)				*101 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*93 %*				

TestAmerica Phoenix

Kylie Emily
Project Manager

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Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-02 (AT-OU3-5SR-S-111511-23:11-2 - Water) **Sampled: 11/15/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0879	10	ND	1	11/22/2011	11/22/2011	
Benzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromodichloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromoform	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Bromomethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Butanone (MEK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
sec-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
tert-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Carbon disulfide	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Carbon tetrachloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chloroethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Chloroform	EPA 8260B	11K0879	0.50	**4.5**	1	11/22/2011	11/22/2011	
Chloromethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
4-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromomethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dichlorodifluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethane	EPA 8260B	11K0879	0.50	**3.4**	1	11/22/2011	11/22/2011	
1,2-Dichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethene	EPA 8260B	11K0879	0.50	**4.3**	1	11/22/2011	11/22/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	**5.8**	1	11/22/2011	11/22/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
2,2-Dichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Ethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Hexachlorobutadiene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	

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Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-02 (AT-OU3-5SR-S-111511-23:11-2 - Water) - cont. **Sampled: 11/15/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
2-Hexanone	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Iodomethane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Isopropylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
p-Isopropyltoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Methylene Chloride	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Naphthalene	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Propylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Styrene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Tetrachloroethene	EPA 8260B	11K0879	0.50	**1.5**	1	11/22/2011	11/22/2011	
Toluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Trichloroethene	EPA 8260B	11K0879	0.50	**29**	1	11/22/2011	11/22/2011	
Trichlorofluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Vinyl Acetate	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Vinyl chloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Xylenes, Total	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Freon 113	EPA 8260B	11K0879	2.0	ND	1	11/22/2011	11/22/2011	
Surrogate: Dibromofluoromethane (80-130%)				*101 %*				
Surrogate: Toluene-d8 (80-120%)				*101 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*93 %*				

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Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-03 (AT-OU3-5SR-S-111611-05:11-3 - Water) **Sampled: 11/16/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0879	10	ND	1	11/22/2011	11/22/2011	
Benzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromodichloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromoform	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Bromomethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Butanone (MEK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
sec-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
tert-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Carbon disulfide	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Carbon tetrachloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chloroethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Chloroform	EPA 8260B	11K0879	0.50	**4.5**	1	11/22/2011	11/22/2011	
Chloromethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
4-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromomethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dichlorodifluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethane	EPA 8260B	11K0879	0.50	**3.4**	1	11/22/2011	11/22/2011	
1,2-Dichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethene	EPA 8260B	11K0879	0.50	**4.0**	1	11/22/2011	11/22/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	**5.5**	1	11/22/2011	11/22/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
2,2-Dichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Ethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Hexachlorobutadiene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	

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Kylie Emily
Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-03 (AT-OU3-5SR-S-111611-05:11-3 - Water) - cont. **Sampled: 11/16/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
2-Hexanone	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Iodomethane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Isopropylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
p-Isopropyltoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Methylene Chloride	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Naphthalene	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Propylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Styrene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Tetrachloroethene	EPA 8260B	11K0879	0.50	**1.5**	1	11/22/2011	11/22/2011	
Toluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Trichloroethene	EPA 8260B	11K0879	0.50	**30**	1	11/22/2011	11/22/2011	
Trichlorofluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Vinyl Acetate	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Vinyl chloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Xylenes, Total	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Freon 113	EPA 8260B	11K0879	2.0	ND	1	11/22/2011	11/22/2011	
Surrogate: Dibromofluoromethane (80-130%)				*103 %*				
Surrogate: Toluene-d8 (80-120%)				*101 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*95 %*				

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Project Manager

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Environmental Resources Management Inc.-West
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Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-04 (AT-L1-1-111511 - Water) **Sampled: 11/15/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0879	10	ND	1	11/22/2011	11/22/2011	
Benzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromodichloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromoform	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Bromomethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Butanone (MEK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
sec-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
tert-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Carbon disulfide	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Carbon tetrachloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chloroethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Chloroform	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chloromethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
4-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromomethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dichlorodifluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
2,2-Dichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Ethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Hexachlorobutadiene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	

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Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-04 (AT-L1-1-111511 - Water) - cont. **Sampled: 11/15/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
2-Hexanone	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Iodomethane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Isopropylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
p-Isopropyltoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Methylene Chloride	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Naphthalene	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Propylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Styrene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Tetrachloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Toluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Trichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Trichlorofluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Vinyl Acetate	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Vinyl chloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Xylenes, Total	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Freon 113	EPA 8260B	11K0879	2.0	ND	1	11/22/2011	11/22/2011	
Surrogate: Dibromofluoromethane (80-130%)				*93 %*				
Surrogate: Toluene-d8 (80-120%)				*97 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*92 %*				

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Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
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Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Blank Analyzed: 11/22/2011 (11K0879-BLK1)										
Acetone	ND	10	ug/l							
Benzene	ND	0.50	ug/l							
Bromobenzene	ND	0.50	ug/l							
Bromochloromethane	ND	0.50	ug/l							
Bromodichloromethane	ND	0.50	ug/l							
Bromoform	ND	1.0	ug/l							
Bromomethane	ND	1.0	ug/l							
2-Butanone (MEK)	ND	2.5	ug/l							
n-Butylbenzene	ND	0.50	ug/l							
sec-Butylbenzene	ND	0.50	ug/l							
tert-Butylbenzene	ND	0.50	ug/l							
Carbon disulfide	ND	1.0	ug/l							
Carbon tetrachloride	ND	0.50	ug/l							
Chlorobenzene	ND	0.50	ug/l							
Chloroethane	ND	1.0	ug/l							
Chloroform	ND	0.50	ug/l							
Chloromethane	ND	1.0	ug/l							
2-Chlorotoluene	ND	0.50	ug/l							
4-Chlorotoluene	ND	0.50	ug/l							
Dibromochloromethane	ND	0.50	ug/l							
1,2-Dibromo-3-chloropropane	ND	2.5	ug/l							
1,2-Dibromoethane (EDB)	ND	0.50	ug/l							
Dibromomethane	ND	0.50	ug/l							
1,2-Dichlorobenzene	ND	0.50	ug/l							
1,3-Dichlorobenzene	ND	0.50	ug/l							
1,4-Dichlorobenzene	ND	0.50	ug/l							
Dichlorodifluoromethane	ND	0.50	ug/l							
1,1-Dichloroethane	ND	0.50	ug/l							
1,2-Dichloroethane	ND	0.50	ug/l							
1,1-Dichloroethene	ND	0.50	ug/l							
cis-1,2-Dichloroethene	ND	0.50	ug/l							
trans-1,2-Dichloroethene	ND	0.50	ug/l							
1,2-Dichloropropane	ND	0.50	ug/l							
1,3-Dichloropropane	ND	0.50	ug/l							
2,2-Dichloropropane	ND	1.0	ug/l							

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Kylie Emily
Project Manager

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Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Blank Analyzed: 11/22/2011 (11K0879-BLK1)										
1,1-Dichloropropene	ND	0.50	ug/l							
cis-1,3-Dichloropropene	ND	0.50	ug/l							
trans-1,3-Dichloropropene	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Hexachlorobutadiene	ND	1.0	ug/l							
2-Hexanone	ND	2.5	ug/l							
Iodomethane	ND	2.5	ug/l							
Isopropylbenzene	ND	0.50	ug/l							
p-Isopropyltoluene	ND	0.50	ug/l							
Methylene Chloride	ND	1.0	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	0.50	ug/l							
Naphthalene	ND	2.5	ug/l							
n-Propylbenzene	ND	0.50	ug/l							
Styrene	ND	0.50	ug/l							
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l							
Tetrachloroethene	ND	0.50	ug/l							
Toluene	ND	0.50	ug/l							
1,2,3-Trichlorobenzene	ND	1.0	ug/l							
1,2,4-Trichlorobenzene	ND	1.0	ug/l							
1,1,1-Trichloroethane	ND	0.50	ug/l							
1,1,2-Trichloroethane	ND	0.50	ug/l							
Trichloroethene	ND	0.50	ug/l							
Trichlorofluoromethane	ND	0.50	ug/l							
1,2,3-Trichloropropane	ND	1.0	ug/l							
1,2,4-Trimethylbenzene	ND	0.50	ug/l							
1,3,5-Trimethylbenzene	ND	0.50	ug/l							
Vinyl Acetate	ND	1.0	ug/l							
Vinyl chloride	ND	0.50	ug/l							
Xylenes, Total	ND	1.0	ug/l							
Freon 113	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	*23.6*		*ug/l*	*25.0*		*94*	*80-130*			
Surrogate: Toluene-d8	*24.1*		*ug/l*	*25.0*		*96*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.3*		*ug/l*	*25.0*		*93*	*80-125*			

TestAmerica Phoenix

Kylie Emily
Project Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
LCS Analyzed: 11/22/2011 (11K0879-BS1)										
Acetone	27.5	10	ug/l	25.0		110	10-150			
Benzene	23.3	0.50	ug/l	25.0		93	80-120			
Bromobenzene	27.2	0.50	ug/l	25.0		109	80-120			
Bromochloromethane	20.9	0.50	ug/l	25.0		84	80-125			
Bromodichloromethane	21.9	0.50	ug/l	25.0		88	80-120			
Bromoform	27.4	1.0	ug/l	25.0		109	75-130			
Bromomethane	20.5	1.0	ug/l	25.0		82	55-150			
2-Butanone (MEK)	25.0	2.5	ug/l	25.0		100	40-150			
n-Butylbenzene	29.4	0.50	ug/l	25.0		118	80-130			
sec-Butylbenzene	28.7	0.50	ug/l	25.0		115	80-125			
tert-Butylbenzene	28.6	0.50	ug/l	25.0		115	80-120			
Carbon disulfide	24.2	1.0	ug/l	25.0		97	70-140			
Carbon tetrachloride	23.9	0.50	ug/l	25.0		95	75-130			
Chlorobenzene	24.2	0.50	ug/l	25.0		97	80-120			
Chloroethane	22.6	1.0	ug/l	25.0		90	70-130			
Chloroform	19.8	0.50	ug/l	25.0		79	75-120			
Chloromethane	19.3	1.0	ug/l	25.0		77	60-140			
2-Chlorotoluene	28.0	0.50	ug/l	25.0		112	80-120			
4-Chlorotoluene	27.8	0.50	ug/l	25.0		111	80-120			
Dibromochloromethane	25.1	0.50	ug/l	25.0		100	80-120			
1,2-Dibromo-3-chloropropane	26.7	2.5	ug/l	25.0		107	50-150			
1,2-Dibromoethane (EDB)	25.6	0.50	ug/l	25.0		103	80-120			
Dibromomethane	22.4	0.50	ug/l	25.0		90	75-120			
1,2-Dichlorobenzene	27.0	0.50	ug/l	25.0		108	80-120			
1,3-Dichlorobenzene	26.7	0.50	ug/l	25.0		107	80-120			
1,4-Dichlorobenzene	25.8	0.50	ug/l	25.0		103	80-120			
Dichlorodifluoromethane	19.0	0.50	ug/l	25.0		76	60-150			
1,1-Dichloroethane	20.3	0.50	ug/l	25.0		81	70-125			
1,2-Dichloroethane	20.5	0.50	ug/l	25.0		82	75-130			
1,1-Dichloroethene	22.4	0.50	ug/l	25.0		90	75-125			
cis-1,2-Dichloroethene	21.8	0.50	ug/l	25.0		87	80-120			
trans-1,2-Dichloroethene	22.1	0.50	ug/l	25.0		88	80-120			
1,2-Dichloropropane	23.0	0.50	ug/l	25.0		92	80-120			
1,3-Dichloropropane	24.4	0.50	ug/l	25.0		98	80-120			
2,2-Dichloropropane	22.9	1.0	ug/l	25.0		91	75-130			

TestAmerica Phoenix

Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
LCS Analyzed: 11/22/2011 (11K0879-BS1)										
1,1-Dichloropropene	26.0	0.50	ug/l	25.0		104	75-120			
cis-1,3-Dichloropropene	23.7	0.50	ug/l	25.0		95	80-120			
trans-1,3-Dichloropropene	22.8	0.50	ug/l	25.0		91	80-125			
Ethylbenzene	27.4	0.50	ug/l	25.0		109	80-120			
Hexachlorobutadiene	28.7	1.0	ug/l	25.0		115	40-150			
2-Hexanone	31.2	2.5	ug/l	25.0		125	20-150			
Iodomethane	25.4	2.5	ug/l	25.0		102	80-130			
Isopropylbenzene	31.1	0.50	ug/l	25.0		124	80-130			
p-Isopropyltoluene	27.8	0.50	ug/l	25.0		111	80-130			
Methylene Chloride	19.8	1.0	ug/l	25.0		79	70-120			
4-Methyl-2-pentanone (MIBK)	23.5	2.5	ug/l	25.0		94	60-135			
Methyl-tert-butyl Ether (MTBE)	23.1	0.50	ug/l	25.0		92	70-130			
Naphthalene	27.0	2.5	ug/l	25.0		108	40-150			
n-Propylbenzene	30.3	0.50	ug/l	25.0		121	75-130			
Styrene	26.4	0.50	ug/l	25.0		106	80-120			
1,1,1,2-Tetrachloroethane	24.8	0.50	ug/l	25.0		99	75-125			
1,1,2,2-Tetrachloroethane	25.6	0.50	ug/l	25.0		102	80-120			
Tetrachloroethene	26.0	0.50	ug/l	25.0		104	70-130			
Toluene	23.1	0.50	ug/l	25.0		92	80-120			
1,2,3-Trichlorobenzene	29.7	1.0	ug/l	25.0		119	55-150			
1,2,4-Trichlorobenzene	29.8	1.0	ug/l	25.0		119	50-150			
1,1,1-Trichloroethane	21.4	0.50	ug/l	25.0		86	75-125			
1,1,2-Trichloroethane	22.3	0.50	ug/l	25.0		89	80-120			
Trichloroethene	22.8	0.50	ug/l	25.0		91	80-120			
Trichlorofluoromethane	26.8	0.50	ug/l	25.0		107	70-150			
1,2,3-Trichloropropane	27.0	1.0	ug/l	25.0		108	70-130			
1,2,4-Trimethylbenzene	28.4	0.50	ug/l	25.0		114	80-120			
1,3,5-Trimethylbenzene	29.0	0.50	ug/l	25.0		116	80-130			
Vinyl Acetate	20.7	1.0	ug/l	25.0		83	40-150			
Vinyl chloride	23.8	0.50	ug/l	25.0		95	70-130			
Xylenes, Total	53.9	1.0	ug/l	50.0		108	60-140			
Freon 113	23.0	2.0	ug/l	25.0		92	60-140			
Surrogate: Dibromofluoromethane	*23.3*		*ug/l*	*25.0*		*93*	*80-130*			
Surrogate: Toluene-d8	*24.3*		*ug/l*	*25.0*		*97*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.6*		*ug/l*	*25.0*		*94*	*80-125*			

TestAmerica Phoenix

Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
LCS Dup Analyzed: 11/22/2011 (11K0879-BSD1)										
Acetone	22.3	10	ug/l	25.0		89	10-150	21	35	
Benzene	23.0	0.50	ug/l	25.0		92	80-120	2	15	
Bromobenzene	27.2	0.50	ug/l	25.0		109	80-120	0.2	15	
Bromochloromethane	20.8	0.50	ug/l	25.0		83	80-125	0.8	15	
Bromodichloromethane	22.1	0.50	ug/l	25.0		88	80-120	0.7	15	
Bromoform	28.0	1.0	ug/l	25.0		112	75-130	2	20	
Bromomethane	20.1	1.0	ug/l	25.0		80	55-150	2	20	
2-Butanone (MEK)	21.9	2.5	ug/l	25.0		88	40-150	13	35	
n-Butylbenzene	29.4	0.50	ug/l	25.0		117	80-130	0.1	15	
sec-Butylbenzene	28.4	0.50	ug/l	25.0		114	80-125	1	15	
tert-Butylbenzene	27.9	0.50	ug/l	25.0		111	80-120	3	15	
Carbon disulfide	23.3	1.0	ug/l	25.0		93	70-140	4	15	
Carbon tetrachloride	23.6	0.50	ug/l	25.0		94	75-130	1	20	
Chlorobenzene	23.9	0.50	ug/l	25.0		96	80-120	1	15	
Chloroethane	22.0	1.0	ug/l	25.0		88	70-130	3	15	
Chloroform	19.3	0.50	ug/l	25.0		77	75-120	3	15	
Chloromethane	19.0	1.0	ug/l	25.0		76	60-140	2	20	
2-Chlorotoluene	27.4	0.50	ug/l	25.0		110	80-120	2	15	
4-Chlorotoluene	27.6	0.50	ug/l	25.0		110	80-120	0.9	15	
Dibromochloromethane	25.6	0.50	ug/l	25.0		102	80-120	2	15	
1,2-Dibromo-3-chloropropane	29.5	2.5	ug/l	25.0		118	50-150	10	35	
1,2-Dibromoethane (EDB)	26.3	0.50	ug/l	25.0		105	80-120	2	15	
Dibromomethane	23.3	0.50	ug/l	25.0		93	75-120	4	15	
1,2-Dichlorobenzene	27.0	0.50	ug/l	25.0		108	80-120	0	15	
1,3-Dichlorobenzene	26.4	0.50	ug/l	25.0		106	80-120	1	15	
1,4-Dichlorobenzene	25.9	0.50	ug/l	25.0		103	80-120	0.5	15	
Dichlorodifluoromethane	18.5	0.50	ug/l	25.0		74	60-150	3	30	
1,1-Dichloroethane	19.6	0.50	ug/l	25.0		79	70-125	3	15	
1,2-Dichloroethane	20.8	0.50	ug/l	25.0		83	75-130	1	15	
1,1-Dichloroethene	20.8	0.50	ug/l	25.0		83	75-125	8	20	
cis-1,2-Dichloroethene	21.0	0.50	ug/l	25.0		84	80-120	4	15	
trans-1,2-Dichloroethene	21.1	0.50	ug/l	25.0		84	80-120	5	15	
1,2-Dichloropropane	23.0	0.50	ug/l	25.0		92	80-120	0.09	15	
1,3-Dichloropropane	24.4	0.50	ug/l	25.0		97	80-120	0.08	15	
2,2-Dichloropropane	21.7	1.0	ug/l	25.0		87	75-130	5	15	

TestAmerica Phoenix

Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
LCS Dup Analyzed: 11/22/2011 (11K0879-BSD1)										
1,1-Dichloropropene	25.7	0.50	ug/l	25.0		103	75-120	0.9	15	
cis-1,3-Dichloropropene	24.2	0.50	ug/l	25.0		97	80-120	2	15	
trans-1,3-Dichloropropene	23.6	0.50	ug/l	25.0		94	80-125	3	15	
Ethylbenzene	27.0	0.50	ug/l	25.0		108	80-120	1	15	
Hexachlorobutadiene	27.9	1.0	ug/l	25.0		112	40-150	3	35	
2-Hexanone	29.1	2.5	ug/l	25.0		116	20-150	7	35	
Iodomethane	24.5	2.5	ug/l	25.0		98	80-130	4	10	
Isopropylbenzene	30.4	0.50	ug/l	25.0		122	80-130	2	15	
p-Isopropyltoluene	27.2	0.50	ug/l	25.0		109	80-130	2	15	
Methylene Chloride	19.1	1.0	ug/l	25.0		76	70-120	4	15	
4-Methyl-2-pentanone (MIBK)	26.2	2.5	ug/l	25.0		105	60-135	11	25	
Methyl-tert-butyl Ether (MTBE)	23.5	0.50	ug/l	25.0		94	70-130	2	20	
Naphthalene	28.6	2.5	ug/l	25.0		115	40-150	6	30	
n-Propylbenzene	29.8	0.50	ug/l	25.0		119	75-130	2	15	
Styrene	26.4	0.50	ug/l	25.0		106	80-120	0.04	15	
1,1,1,2-Tetrachloroethane	25.0	0.50	ug/l	25.0		100	75-125	0.6	15	
1,1,2,2-Tetrachloroethane	25.9	0.50	ug/l	25.0		104	80-120	1	20	
Tetrachloroethene	24.9	0.50	ug/l	25.0		99	70-130	4	20	
Toluene	23.4	0.50	ug/l	25.0		93	80-120	1	15	
1,2,3-Trichlorobenzene	30.4	1.0	ug/l	25.0		122	55-150	2	35	
1,2,4-Trichlorobenzene	30.0	1.0	ug/l	25.0		120	50-150	0.7	30	
1,1,1-Trichloroethane	21.2	0.50	ug/l	25.0		85	75-125	1	15	
1,1,2-Trichloroethane	23.6	0.50	ug/l	25.0		94	80-120	6	15	
Trichloroethene	22.1	0.50	ug/l	25.0		88	80-120	3	15	
Trichlorofluoromethane	25.9	0.50	ug/l	25.0		104	70-150	3	25	
1,2,3-Trichloropropane	27.8	1.0	ug/l	25.0		111	70-130	3	20	
1,2,4-Trimethylbenzene	28.0	0.50	ug/l	25.0		112	80-120	1	15	
1,3,5-Trimethylbenzene	28.7	0.50	ug/l	25.0		115	80-130	1	15	
Vinyl Acetate	21.2	1.0	ug/l	25.0		85	40-150	2	25	
Vinyl chloride	22.7	0.50	ug/l	25.0		91	70-130	5	20	
Xylenes, Total	52.5	1.0	ug/l	50.0		105	60-140	3	15	
Freon 113	21.4	2.0	ug/l	25.0		86	60-140	7	15	
Surrogate: Dibromofluoromethane	*22.8*		*ug/l*	*25.0*		*91*	*80-130*			
Surrogate: Toluene-d8	*24.7*		*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.1*		*ug/l*	*25.0*		*96*	*80-125*			

TestAmerica Phoenix

Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Matrix Spike Analyzed: 11/22/2011 (11K0879-MS1)					**Source: PUK1044-03**					
Acetone	20.3	10	ug/l	25.0	ND	81	10-150			
Benzene	23.6	0.50	ug/l	25.0	ND	95	70-125			
Bromobenzene	27.7	0.50	ug/l	25.0	ND	111	75-120			
Bromochloromethane	20.3	0.50	ug/l	25.0	ND	81	75-130			
Bromodichloromethane	22.0	0.50	ug/l	25.0	ND	88	75-125			
Bromoform	27.1	1.0	ug/l	25.0	ND	108	65-125			
Bromomethane	21.4	1.0	ug/l	25.0	ND	86	45-150			
2-Butanone (MEK)	20.1	2.5	ug/l	25.0	ND	80	15-150			
n-Butylbenzene	30.6	0.50	ug/l	25.0	ND	122	70-130			
sec-Butylbenzene	29.7	0.50	ug/l	25.0	ND	119	70-125			
tert-Butylbenzene	29.6	0.50	ug/l	25.0	ND	119	70-125			
Carbon disulfide	24.4	1.0	ug/l	25.0	ND	98	65-145			
Carbon tetrachloride	24.7	0.50	ug/l	25.0	ND	99	65-135			
Chlorobenzene	24.4	0.50	ug/l	25.0	ND	98	75-120			
Chloroethane	23.5	1.0	ug/l	25.0	ND	94	65-140			
Chloroform	19.8	0.50	ug/l	25.0	0.270	78	70-130			
Chloromethane	20.0	1.0	ug/l	25.0	ND	80	55-145			
2-Chlorotoluene	28.4	0.50	ug/l	25.0	ND	113	70-125			
4-Chlorotoluene	27.8	0.50	ug/l	25.0	ND	111	70-125			
Dibromochloromethane	24.7	0.50	ug/l	25.0	ND	99	70-130			
1,2-Dibromo-3-chloropropane	26.3	2.5	ug/l	25.0	ND	105	50-150			
1,2-Dibromoethane (EDB)	25.1	0.50	ug/l	25.0	ND	100	70-125			
Dibromomethane	22.1	0.50	ug/l	25.0	ND	88	70-120			
1,2-Dichlorobenzene	27.2	0.50	ug/l	25.0	ND	109	75-120			
1,3-Dichlorobenzene	27.1	0.50	ug/l	25.0	ND	108	75-120			
1,4-Dichlorobenzene	26.2	0.50	ug/l	25.0	ND	105	70-125			
Dichlorodifluoromethane	20.0	0.50	ug/l	25.0	ND	80	60-150			
1,1-Dichloroethane	20.3	0.50	ug/l	25.0	ND	81	70-130			
1,2-Dichloroethane	20.0	0.50	ug/l	25.0	0.400	79	65-140			
1,1-Dichloroethene	23.2	0.50	ug/l	25.0	ND	93	70-130			
cis-1,2-Dichloroethene	21.7	0.50	ug/l	25.0	ND	87	70-125			
trans-1,2-Dichloroethene	21.9	0.50	ug/l	25.0	ND	88	75-125			
1,2-Dichloropropane	23.1	0.50	ug/l	25.0	ND	93	75-125			
1,3-Dichloropropane	23.9	0.50	ug/l	25.0	ND	96	70-120			
2,2-Dichloropropane	23.2	1.0	ug/l	25.0	ND	93	65-140			

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Kylie Emily
Project Manager

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Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Matrix Spike Analyzed: 11/22/2011 (11K0879-MS1)					**Source: PUK1044-03**					
1,1-Dichloropropene	27.5	0.50	ug/l	25.0	ND	110	65-130			
cis-1,3-Dichloropropene	23.5	0.50	ug/l	25.0	ND	94	75-130			
trans-1,3-Dichloropropene	22.8	0.50	ug/l	25.0	ND	91	70-130			
Ethylbenzene	27.9	0.50	ug/l	25.0	ND	112	70-125			
Hexachlorobutadiene	30.0	1.0	ug/l	25.0	ND	120	40-150			
2-Hexanone	25.8	2.5	ug/l	25.0	ND	103	20-150			
Iodomethane	25.6	2.5	ug/l	25.0	ND	102	60-150			
Isopropylbenzene	31.4	0.50	ug/l	25.0	ND	126	75-130			
p-Isopropyltoluene	28.2	0.50	ug/l	25.0	ND	113	70-130			
Methylene Chloride	19.3	1.0	ug/l	25.0	ND	77	65-130			
4-Methyl-2-pentanone (MIBK)	23.2	2.5	ug/l	25.0	ND	93	55-135			
Methyl-tert-butyl Ether (MTBE)	21.6	0.50	ug/l	25.0	ND	86	65-140			
Naphthalene	27.0	2.5	ug/l	25.0	ND	108	40-150			
n-Propylbenzene	31.2	0.50	ug/l	25.0	ND	125	70-130			
Styrene	23.6	0.50	ug/l	25.0	ND	95	55-135			
1,1,1,2-Tetrachloroethane	25.0	0.50	ug/l	25.0	ND	100	70-125			
1,1,2,2-Tetrachloroethane	24.8	0.50	ug/l	25.0	ND	99	70-125			
Tetrachloroethene	27.2	0.50	ug/l	25.0	ND	109	65-130			
Toluene	23.8	0.50	ug/l	25.0	ND	95	70-125			
1,2,3-Trichlorobenzene	30.0	1.0	ug/l	25.0	ND	120	50-150			
1,2,4-Trichlorobenzene	30.6	1.0	ug/l	25.0	ND	123	50-150			
1,1,1-Trichloroethane	21.9	0.50	ug/l	25.0	ND	88	70-130			
1,1,2-Trichloroethane	21.8	0.50	ug/l	25.0	ND	87	75-125			
Trichloroethene	23.8	0.50	ug/l	25.0	ND	95	70-125			
Trichlorofluoromethane	28.2	0.50	ug/l	25.0	ND	113	65-150			
1,2,3-Trichloropropane	25.3	1.0	ug/l	25.0	ND	101	70-130			
1,2,4-Trimethylbenzene	27.3	0.50	ug/l	25.0	ND	109	70-125			
1,3,5-Trimethylbenzene	28.8	0.50	ug/l	25.0	ND	115	75-130			
Vinyl Acetate	19.7	1.0	ug/l	25.0	ND	79	40-150			
Vinyl chloride	25.1	0.50	ug/l	25.0	ND	100	60-140			
Xylenes, Total	54.2	1.0	ug/l	50.0	ND	108	75-120			
Freon 113	23.8	2.0	ug/l	25.0	ND	95	65-140			
Surrogate: Dibromofluoromethane	*22.7*		*ug/l*	*25.0*		*91*	*80-130*			
Surrogate: Toluene-d8	*24.5*		*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.8*		*ug/l*	*25.0*		*95*	*80-125*			

TestAmerica Phoenix

Kylie Emily
Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Matrix Spike Dup Analyzed: 11/22/2011 (11K0879-MSD1)					**Source: PUK1044-03**					
Acetone	18.5	10	ug/l	25.0	ND	74	10-150	9	35	
Benzene	22.3	0.50	ug/l	25.0	ND	89	70-125	6	25	
Bromobenzene	26.4	0.50	ug/l	25.0	ND	106	75-120	5	20	
Bromochloromethane	19.5	0.50	ug/l	25.0	ND	78	75-130	4	20	
Bromodichloromethane	21.4	0.50	ug/l	25.0	ND	85	75-125	3	20	
Bromoform	24.5	1.0	ug/l	25.0	ND	98	65-125	10	25	
Bromomethane	18.9	1.0	ug/l	25.0	ND	76	45-150	13	35	
2-Butanone (MEK)	18.8	2.5	ug/l	25.0	ND	75	15-150	7	30	
n-Butylbenzene	29.4	0.50	ug/l	25.0	ND	118	70-130	4	30	
sec-Butylbenzene	28.8	0.50	ug/l	25.0	ND	115	70-125	3	30	
tert-Butylbenzene	28.2	0.50	ug/l	25.0	ND	113	70-125	5	25	
Carbon disulfide	16.8	1.0	ug/l	25.0	ND	67	65-145	37	25	*R1*
Carbon tetrachloride	22.7	0.50	ug/l	25.0	ND	91	65-135	8	25	
Chlorobenzene	23.7	0.50	ug/l	25.0	ND	95	75-120	3	20	
Chloroethane	21.0	1.0	ug/l	25.0	ND	84	65-140	11	25	
Chloroform	19.1	0.50	ug/l	25.0	0.270	75	70-130	3	20	
Chloromethane	17.6	1.0	ug/l	25.0	ND	70	55-145	13	35	
2-Chlorotoluene	27.5	0.50	ug/l	25.0	ND	110	70-125	3	25	
4-Chlorotoluene	27.0	0.50	ug/l	25.0	ND	108	70-125	3	25	
Dibromochloromethane	23.6	0.50	ug/l	25.0	ND	94	70-130	4	20	
1,2-Dibromo-3-chloropropane	25.3	2.5	ug/l	25.0	ND	101	50-150	4	30	
1,2-Dibromoethane (EDB)	24.7	0.50	ug/l	25.0	ND	99	70-125	2	20	
Dibromomethane	21.4	0.50	ug/l	25.0	ND	85	70-120	3	20	
1,2-Dichlorobenzene	25.7	0.50	ug/l	25.0	ND	103	75-120	6	20	
1,3-Dichlorobenzene	25.6	0.50	ug/l	25.0	ND	103	75-120	5	25	
1,4-Dichlorobenzene	25.0	0.50	ug/l	25.0	ND	100	70-125	5	20	
Dichlorodifluoromethane	18.3	0.50	ug/l	25.0	ND	73	60-150	9	30	
1,1-Dichloroethane	19.0	0.50	ug/l	25.0	ND	76	70-130	6	20	
1,2-Dichloroethane	19.6	0.50	ug/l	25.0	0.400	77	65-140	2	20	
1,1-Dichloroethene	21.4	0.50	ug/l	25.0	ND	86	70-130	8	25	
cis-1,2-Dichloroethene	20.5	0.50	ug/l	25.0	ND	82	70-125	6	20	
trans-1,2-Dichloroethene	20.9	0.50	ug/l	25.0	ND	84	75-125	5	25	
1,2-Dichloropropane	22.1	0.50	ug/l	25.0	ND	89	75-125	4	20	
1,3-Dichloropropane	23.4	0.50	ug/l	25.0	ND	94	70-120	2	20	
2,2-Dichloropropane	21.0	1.0	ug/l	25.0	ND	84	65-140	10	25	

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Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Matrix Spike Dup Analyzed: 11/22/2011 (11K0879-MSD1)					**Source: PUK1044-03**					
1,1-Dichloropropene	25.5	0.50	ug/l	25.0	ND	102	65-130	8	25	
cis-1,3-Dichloropropene	21.4	0.50	ug/l	25.0	ND	86	75-130	9	20	
trans-1,3-Dichloropropene	21.2	0.50	ug/l	25.0	ND	85	70-130	7	20	
Ethylbenzene	26.7	0.50	ug/l	25.0	ND	107	70-125	4	25	
Hexachlorobutadiene	28.0	1.0	ug/l	25.0	ND	112	40-150	7	30	
2-Hexanone	25.6	2.5	ug/l	25.0	ND	103	20-150	0.5	30	
Iodomethane	24.0	2.5	ug/l	25.0	ND	96	60-150	6	30	
Isopropylbenzene	30.3	0.50	ug/l	25.0	ND	121	75-130	4	25	
p-Isopropyltoluene	27.0	0.50	ug/l	25.0	ND	108	70-130	4	30	
Methylene Chloride	17.7	1.0	ug/l	25.0	ND	71	65-130	8	20	
4-Methyl-2-pentanone (MIBK)	23.0	2.5	ug/l	25.0	ND	92	55-135	0.9	25	
Methyl-tert-butyl Ether (MTBE)	20.3	0.50	ug/l	25.0	ND	81	65-140	6	25	
Naphthalene	25.6	2.5	ug/l	25.0	ND	102	40-150	6	30	
n-Propylbenzene	29.8	0.50	ug/l	25.0	ND	119	70-130	4	30	
Styrene	23.2	0.50	ug/l	25.0	ND	93	55-135	2	35	
1,1,1,2-Tetrachloroethane	23.9	0.50	ug/l	25.0	ND	96	70-125	4	20	
1,1,2,2-Tetrachloroethane	24.3	0.50	ug/l	25.0	ND	97	70-125	2	25	
Tetrachloroethene	25.8	0.50	ug/l	25.0	ND	103	65-130	5	25	
Toluene	22.6	0.50	ug/l	25.0	ND	90	70-125	5	20	
1,2,3-Trichlorobenzene	28.1	1.0	ug/l	25.0	ND	112	50-150	7	35	
1,2,4-Trichlorobenzene	28.7	1.0	ug/l	25.0	ND	115	50-150	6	25	
1,1,1-Trichloroethane	20.8	0.50	ug/l	25.0	ND	83	70-130	5	25	
1,1,2-Trichloroethane	21.1	0.50	ug/l	25.0	ND	85	75-125	3	20	
Trichloroethene	22.2	0.50	ug/l	25.0	ND	89	70-125	7	25	
Trichlorofluoromethane	25.3	0.50	ug/l	25.0	ND	101	65-150	11	25	
1,2,3-Trichloropropane	26.1	1.0	ug/l	25.0	ND	104	70-130	3	25	
1,2,4-Trimethylbenzene	26.7	0.50	ug/l	25.0	ND	107	70-125	2	30	
1,3,5-Trimethylbenzene	27.7	0.50	ug/l	25.0	ND	111	75-130	4	25	
Vinyl Acetate	17.8	1.0	ug/l	25.0	ND	71	40-150	11	30	
Vinyl chloride	21.9	0.50	ug/l	25.0	ND	88	60-140	14	25	
Xylenes, Total	52.2	1.0	ug/l	50.0	ND	104	75-120	4	15	
Freon 113	22.3	2.0	ug/l	25.0	ND	89	65-140	6	20	
Surrogate: Dibromofluoromethane	*22.4*		*ug/l*	*25.0*		*90*	*80-130*			
Surrogate: Toluene-d8	*24.5*		*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.8*		*ug/l*	*25.0*		*95*	*80-125*			

TestAmerica Phoenix

Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

DATA QUALIFIERS AND DEFINITIONS

R1	The RPD/RSD exceeded the method acceptance limit.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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Project Manager

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Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

Certification Summary

TestAmerica Phoenix

Method	Matrix	Nelac	Arizona
EPA 8260B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Phoenix

Kylie Emily
Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

[X] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page 1 of 1

Client Name/Address: ERM / 7272 E. Indian School Rd Suite 100 Scottsdale, AZ

Project/PO Number: OU3 / 0096498.020

Project Manager: David Abramovic

Phone Number: 480-998-2401

Sampler: J. Hilker / T. Shamacher

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260B									Special Instructions
AT-OU3-SSR-S-111511-17:42-1	H_2O	40 mL	3	11-15-11	17:42	HCL	X							—	01	~~USE~~
AT-OU3-SSR-S-111511-23:11-2	↓	↓	↓	11-15-11	23:11	↓	↓							—	02	USE OU3
AT-OU3-SSR-S-111611-05:11-3	↓	↓	↓	11-16-11	05:11	↓	↓							—	03	QAPP limits
AT-L1-1-111511	H_2O	40 mL	1	—	—	HCL	↓							—	04	

PUK 1116

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	11-16-11 @ 10:46		
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received in Lab By: [signature]	Date/Time: 11/16/11 10:45

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

0.6°C

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

LABORATORY REPORT

Prepared For: Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project: OU3 0096498.020

Sampled: 11/16/11-11/17/11
Received: 11/17/11
Issued: 11/30/11 09:14

NELAP #01109CA Arizona DHS#AZ0728

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

LABORATORY ID	CLIENT ID	MATRIX
PUK1257-01	AT-OU3-AT-M-111611-2315-1	Water
PUK1257-02	AT-OU3-AT-M-111711-0445-2	Water
PUK1257-03	AT-OU3-AT-M-111711-1045-3	Water
PUK1257-04	AT-L1-1-111611	Water

SAMPLE RECEIPT: Samples were received intact, at 1°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.
L3-Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.

COMMENTS: No significant observations were made.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

Reviewed By:

TestAmerica Phoenix

Kylie Emily
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1257-01 (AT-OU3-AT-M-111611-2315-1 - Water) **Sampled: 11/16/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0979	10	ND	1	11/28/2011	11/28/2011	
Benzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromochloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromodichloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromoform	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Bromomethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
2-Butanone (MEK)	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
n-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
sec-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
tert-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Carbon disulfide	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Carbon tetrachloride	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Chlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Chloroethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Chloroform	EPA 8260B	11K0979	0.50	**1.2**	1	11/28/2011	11/28/2011	
Chloromethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
2-Chlorotoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
4-Chlorotoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dibromochloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dibromomethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dichlorodifluoromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1-Dichloroethane	EPA 8260B	11K0979	0.50	**6.4**	1	11/28/2011	11/28/2011	
1,2-Dichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1-Dichloroethene	EPA 8260B	11K0979	0.50	**7.6**	1	11/28/2011	11/28/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0979	0.50	**17**	1	11/28/2011	11/28/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dichloropropane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3-Dichloropropane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
2,2-Dichloropropane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,1-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Ethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Hexachlorobutadiene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	L3

TestAmerica Phoenix

Kylie Emily
Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1257-01 (AT-OU3-AT-M-111611-2315-1 - Water) - cont. **Sampled: 11/16/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
2-Hexanone	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Iodomethane	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Isopropylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
p-Isopropyltoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Methylene Chloride	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Naphthalene	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
n-Propylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Styrene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Tetrachloroethene	EPA 8260B	11K0979	0.50	**3.7**	1	11/28/2011	11/28/2011	
Toluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	L3
1,2,3-Trichlorobenzene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Trichloroethene	EPA 8260B	11K0979	0.50	**100**	1	11/28/2011	11/28/2011	
Trichlorofluoromethane	EPA 8260B	11K0979	0.50	**0.76**	1	11/28/2011	11/28/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Vinyl Acetate	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Vinyl chloride	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Xylenes, Total	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Freon 113	EPA 8260B	11K0979	2.0	ND	1	11/28/2011	11/28/2011	
Surrogate: Dibromofluoromethane (80-130%)				*106 %*				
Surrogate: Toluene-d8 (80-120%)				*104 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*93 %*				

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Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1257-02 (AT-OU3-AT-M-111711-0445-2 - Water) **Sampled: 11/17/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0979	10	ND	1	11/28/2011	11/28/2011	
Benzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromochloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromodichloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromoform	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Bromomethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
2-Butanone (MEK)	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
n-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
sec-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
tert-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Carbon disulfide	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Carbon tetrachloride	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Chlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Chloroethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Chloroform	EPA 8260B	11K0979	0.50	**1.3**	1	11/28/2011	11/28/2011	
Chloromethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
2-Chlorotoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
4-Chlorotoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dibromochloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dibromomethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dichlorodifluoromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1-Dichloroethane	EPA 8260B	11K0979	0.50	**6.7**	1	11/28/2011	11/28/2011	
1,2-Dichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1-Dichloroethene	EPA 8260B	11K0979	0.50	**9.0**	1	11/28/2011	11/28/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0979	0.50	**18**	1	11/28/2011	11/28/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dichloropropane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3-Dichloropropane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
2,2-Dichloropropane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,1-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Ethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Hexachlorobutadiene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	L3

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Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1257-02 (AT-OU3-AT-M-111711-0445-2 - Water) - cont. **Sampled: 11/17/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
2-Hexanone	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Iodomethane	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Isopropylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
p-Isopropyltoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Methylene Chloride	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Naphthalene	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
n-Propylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Styrene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Tetrachloroethene	EPA 8260B	11K0979	0.50	**3.8**	1	11/28/2011	11/28/2011	
Toluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	L3
1,2,3-Trichlorobenzene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Trichloroethene	EPA 8260B	11K0979	0.50	**110**	1	11/28/2011	11/28/2011	
Trichlorofluoromethane	EPA 8260B	11K0979	0.50	**0.95**	1	11/28/2011	11/28/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Vinyl Acetate	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Vinyl chloride	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Xylenes, Total	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Freon 113	EPA 8260B	11K0979	2.0	ND	1	11/28/2011	11/28/2011	
Surrogate: Dibromofluoromethane (80-130%)				*107 %*				
Surrogate: Toluene-d8 (80-120%)				*109 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*90 %*				

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Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1257-03 (AT-OU3-AT-M-111711-1045-3 - Water) **Sampled: 11/17/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0979	10	ND	1	11/28/2011	11/28/2011	
Benzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromochloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromodichloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromoform	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Bromomethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
2-Butanone (MEK)	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
n-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
sec-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
tert-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Carbon disulfide	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Carbon tetrachloride	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Chlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Chloroethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Chloroform	EPA 8260B	11K0979	0.50	**1.2**	1	11/28/2011	11/28/2011	
Chloromethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
2-Chlorotoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
4-Chlorotoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dibromochloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dibromomethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dichlorodifluoromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1-Dichloroethane	EPA 8260B	11K0979	0.50	**6.2**	1	11/28/2011	11/28/2011	
1,2-Dichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1-Dichloroethene	EPA 8260B	11K0979	0.50	**7.6**	1	11/28/2011	11/28/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0979	0.50	**16**	1	11/28/2011	11/28/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dichloropropane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3-Dichloropropane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
2,2-Dichloropropane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,1-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Ethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Hexachlorobutadiene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	L3

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Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
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Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1257-03 (AT-OU3-AT-M-111711-1045-3 - Water) - cont. **Sampled: 11/17/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
2-Hexanone	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Iodomethane	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Isopropylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
p-Isopropyltoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Methylene Chloride	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Naphthalene	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
n-Propylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Styrene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Tetrachloroethene	EPA 8260B	11K0979	0.50	**3.6**	1	11/28/2011	11/28/2011	
Toluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	L3
1,2,3-Trichlorobenzene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Trichloroethene	EPA 8260B	11K0979	0.50	**96**	1	11/28/2011	11/28/2011	
Trichlorofluoromethane	EPA 8260B	11K0979	0.50	**0.84**	1	11/28/2011	11/28/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Vinyl Acetate	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Vinyl chloride	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Xylenes, Total	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Freon 113	EPA 8260B	11K0979	2.0	ND	1	11/28/2011	11/28/2011	
Surrogate: Dibromofluoromethane (80-130%)				*104 %*				
Surrogate: Toluene-d8 (80-120%)				*109 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*92 %*				

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1257-04 (AT-L1-1-111611 - Water) **Sampled: 11/16/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0979	10	ND	1	11/28/2011	11/28/2011	
Benzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromochloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromodichloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Bromoform	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Bromomethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
2-Butanone (MEK)	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
n-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
sec-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
tert-Butylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Carbon disulfide	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Carbon tetrachloride	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Chlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Chloroethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Chloroform	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Chloromethane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
2-Chlorotoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
4-Chlorotoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dibromochloromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dibromomethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Dichlorodifluoromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1-Dichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1-Dichloroethene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2-Dichloropropane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3-Dichloropropane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
2,2-Dichloropropane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,1-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Ethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Hexachlorobutadiene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	L3

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Environmental Resources Management Inc.-West
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Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1257-04 (AT-L1-1-111611 - Water) - cont. **Sampled: 11/16/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
2-Hexanone	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Iodomethane	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Isopropylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
p-Isopropyltoluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Methylene Chloride	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Naphthalene	EPA 8260B	11K0979	2.5	ND	1	11/28/2011	11/28/2011	
n-Propylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Styrene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Tetrachloroethene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Toluene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	L3
1,2,3-Trichlorobenzene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Trichloroethene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Trichlorofluoromethane	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Vinyl Acetate	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Vinyl chloride	EPA 8260B	11K0979	0.50	ND	1	11/28/2011	11/28/2011	
Xylenes, Total	EPA 8260B	11K0979	1.0	ND	1	11/28/2011	11/28/2011	
Freon 113	EPA 8260B	11K0979	2.0	ND	1	11/28/2011	11/28/2011	
Surrogate: Dibromofluoromethane (80-130%)				*106 %*				
Surrogate: Toluene-d8 (80-120%)				*107 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*93 %*				

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Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0979 Extracted: 11/28/11										
Blank Analyzed: 11/28/2011 (11K0979-BLK1)										
Acetone	ND	10	ug/l							
Benzene	ND	0.50	ug/l							
Bromobenzene	ND	0.50	ug/l							
Bromochloromethane	ND	0.50	ug/l							
Bromodichloromethane	ND	0.50	ug/l							
Bromoform	ND	1.0	ug/l							
Bromomethane	ND	1.0	ug/l							
2-Butanone (MEK)	ND	2.5	ug/l							
n-Butylbenzene	ND	0.50	ug/l							
sec-Butylbenzene	ND	0.50	ug/l							
tert-Butylbenzene	ND	0.50	ug/l							
Carbon disulfide	ND	1.0	ug/l							
Carbon tetrachloride	ND	0.50	ug/l							
Chlorobenzene	ND	0.50	ug/l							
Chloroethane	ND	1.0	ug/l							
Chloroform	ND	0.50	ug/l							
Chloromethane	ND	1.0	ug/l							
2-Chlorotoluene	ND	0.50	ug/l							
4-Chlorotoluene	ND	0.50	ug/l							
Dibromochloromethane	ND	0.50	ug/l							
1,2-Dibromo-3-chloropropane	ND	2.5	ug/l							
1,2-Dibromoethane (EDB)	ND	0.50	ug/l							
Dibromomethane	ND	0.50	ug/l							
1,2-Dichlorobenzene	ND	0.50	ug/l							
1,3-Dichlorobenzene	ND	0.50	ug/l							
1,4-Dichlorobenzene	ND	0.50	ug/l							
Dichlorodifluoromethane	ND	0.50	ug/l							
1,1-Dichloroethane	ND	0.50	ug/l							
1,2-Dichloroethane	ND	0.50	ug/l							
1,1-Dichloroethene	ND	0.50	ug/l							
cis-1,2-Dichloroethene	ND	0.50	ug/l							
trans-1,2-Dichloroethene	ND	0.50	ug/l							
1,2-Dichloropropane	ND	0.50	ug/l							
1,3-Dichloropropane	ND	0.50	ug/l							
2,2-Dichloropropane	ND	1.0	ug/l							

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Kylie Emily
Project Manager

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Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0979 Extracted: 11/28/11										
Blank Analyzed: 11/28/2011 (11K0979-BLK1)										
1,1-Dichloropropene	ND	0.50	ug/l							
cis-1,3-Dichloropropene	ND	0.50	ug/l							
trans-1,3-Dichloropropene	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Hexachlorobutadiene	ND	1.0	ug/l							
2-Hexanone	ND	2.5	ug/l							
Iodomethane	ND	2.5	ug/l							
Isopropylbenzene	ND	0.50	ug/l							
p-Isopropyltoluene	ND	0.50	ug/l							
Methylene Chloride	ND	1.0	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	0.50	ug/l							
Naphthalene	ND	2.5	ug/l							
n-Propylbenzene	ND	0.50	ug/l							
Styrene	ND	0.50	ug/l							
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l							
Tetrachloroethene	ND	0.50	ug/l							
Toluene	ND	0.50	ug/l							
1,2,3-Trichlorobenzene	ND	1.0	ug/l							
1,2,4-Trichlorobenzene	ND	1.0	ug/l							
1,1,1-Trichloroethane	ND	0.50	ug/l							
1,1,2-Trichloroethane	ND	0.50	ug/l							
Trichloroethene	ND	0.50	ug/l							
Trichlorofluoromethane	ND	0.50	ug/l							
1,2,3-Trichloropropane	ND	1.0	ug/l							
1,2,4-Trimethylbenzene	ND	0.50	ug/l							
1,3,5-Trimethylbenzene	ND	0.50	ug/l							
Vinyl Acetate	ND	1.0	ug/l							
Vinyl chloride	ND	0.50	ug/l							
Xylenes, Total	ND	1.0	ug/l							
Freon 113	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	*25.2*		*ug/l*	*25.0*		*101*	*80-130*			
Surrogate: Toluene-d8	*26.6*		*ug/l*	*25.0*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.0*		*ug/l*	*25.0*		*92*	*80-125*			

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Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0979 Extracted: 11/28/11										
LCS Analyzed: 11/28/2011 (11K0979-BS1)										
Acetone	30.8	10	ug/l	25.0		123	10-150			
Benzene	29.4	0.50	ug/l	25.0		118	80-120			
Bromobenzene	26.4	0.50	ug/l	25.0		106	80-120			
Bromochloromethane	25.9	0.50	ug/l	25.0		103	80-125			
Bromodichloromethane	26.0	0.50	ug/l	25.0		104	80-120			
Bromoform	25.5	1.0	ug/l	25.0		102	75-130			
Bromomethane	15.9	1.0	ug/l	25.0		64	55-150			
2-Butanone (MEK)	26.0	2.5	ug/l	25.0		104	40-150			
n-Butylbenzene	27.1	0.50	ug/l	25.0		108	80-130			
sec-Butylbenzene	26.8	0.50	ug/l	25.0		107	80-125			
tert-Butylbenzene	26.0	0.50	ug/l	25.0		104	80-120			
Carbon disulfide	27.1	1.0	ug/l	25.0		108	70-140			
Carbon tetrachloride	26.3	0.50	ug/l	25.0		105	75-130			
Chlorobenzene	28.5	0.50	ug/l	25.0		114	80-120			
Chloroethane	25.5	1.0	ug/l	25.0		102	70-130			
Chloroform	25.6	0.50	ug/l	25.0		103	75-120			
Chloromethane	17.3	1.0	ug/l	25.0		69	60-140			
2-Chlorotoluene	26.4	0.50	ug/l	25.0		105	80-120			
4-Chlorotoluene	25.7	0.50	ug/l	25.0		103	80-120			
Dibromochloromethane	27.2	0.50	ug/l	25.0		109	80-120			
1,2-Dibromo-3-chloropropane	27.5	2.5	ug/l	25.0		110	50-150			
1,2-Dibromoethane (EDB)	25.6	0.50	ug/l	25.0		102	80-120			
Dibromomethane	25.1	0.50	ug/l	25.0		100	75-120			
1,2-Dichlorobenzene	30.1	0.50	ug/l	25.0		120	80-120			
1,3-Dichlorobenzene	29.3	0.50	ug/l	25.0		117	80-120			
1,4-Dichlorobenzene	28.1	0.50	ug/l	25.0		112	80-120			
Dichlorodifluoromethane	24.8	0.50	ug/l	25.0		99	60-150			
1,1-Dichloroethane	25.7	0.50	ug/l	25.0		103	70-125			
1,2-Dichloroethane	25.2	0.50	ug/l	25.0		101	75-130			
1,1-Dichloroethene	23.5	0.50	ug/l	25.0		94	75-125			
cis-1,2-Dichloroethene	24.7	0.50	ug/l	25.0		99	80-120			
trans-1,2-Dichloroethene	25.5	0.50	ug/l	25.0		102	80-120			
1,2-Dichloropropane	26.6	0.50	ug/l	25.0		107	80-120			
1,3-Dichloropropane	25.0	0.50	ug/l	25.0		100	80-120			
2,2-Dichloropropane	28.3	1.0	ug/l	25.0		113	75-130			

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Kylie Emily
Project Manager

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Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0979 Extracted: 11/28/11										
LCS Analyzed: 11/28/2011 (11K0979-BS1)										
1,1-Dichloropropene	26.8	0.50	ug/l	25.0		107	75-120			
cis-1,3-Dichloropropene	26.8	0.50	ug/l	25.0		107	80-120			
trans-1,3-Dichloropropene	25.0	0.50	ug/l	25.0		100	80-125			
Ethylbenzene	27.9	0.50	ug/l	25.0		111	80-120			
Hexachlorobutadiene	37.2	1.0	ug/l	25.0		149	40-150			
2-Hexanone	23.0	2.5	ug/l	25.0		92	20-150			
Iodomethane	22.2	2.5	ug/l	25.0		89	80-130			
Isopropylbenzene	30.0	0.50	ug/l	25.0		120	80-130			
p-Isopropyltoluene	26.6	0.50	ug/l	25.0		106	80-130			
Methylene Chloride	22.5	1.0	ug/l	25.0		90	70-120			
4-Methyl-2-pentanone (MIBK)	22.2	2.5	ug/l	25.0		89	60-135			
Methyl-tert-butyl Ether (MTBE)	20.6	0.50	ug/l	25.0		83	70-130			
Naphthalene	31.7	2.5	ug/l	25.0		127	40-150			
n-Propylbenzene	28.6	0.50	ug/l	25.0		114	75-130			
Styrene	26.3	0.50	ug/l	25.0		105	80-120			
1,1,1,2-Tetrachloroethane	29.3	0.50	ug/l	25.0		117	75-125			
1,1,2,2-Tetrachloroethane	24.8	0.50	ug/l	25.0		99	80-120			
Tetrachloroethene	24.5	0.50	ug/l	25.0		98	70-130			
Toluene	29.2	0.50	ug/l	25.0		117	80-120			
1,2,3-Trichlorobenzene	32.4	1.0	ug/l	25.0		130	55-150			
1,2,4-Trichlorobenzene	31.6	1.0	ug/l	25.0		127	50-150			
1,1,1-Trichloroethane	26.4	0.50	ug/l	25.0		106	75-125			
1,1,2-Trichloroethane	26.3	0.50	ug/l	25.0		105	80-120			
Trichloroethene	27.2	0.50	ug/l	25.0		109	80-120			
Trichlorofluoromethane	27.2	0.50	ug/l	25.0		109	70-150			
1,2,3-Trichloropropane	25.3	1.0	ug/l	25.0		101	70-130			
1,2,4-Trimethylbenzene	26.9	0.50	ug/l	25.0		108	80-120			
1,3,5-Trimethylbenzene	24.7	0.50	ug/l	25.0		99	80-130			
Vinyl Acetate	25.6	1.0	ug/l	25.0		102	40-150			
Vinyl chloride	24.9	0.50	ug/l	25.0		100	70-130			
Xylenes, Total	53.6	1.0	ug/l	50.0		107	60-140			
Freon 113	23.1	2.0	ug/l	25.0		92	60-140			
Surrogate: Dibromofluoromethane	*23.8*		*ug/l*	*25.0*		*95*	*80-130*			
Surrogate: Toluene-d8	*24.8*		*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.2*		*ug/l*	*25.0*		*101*	*80-125*			

TestAmerica Phoenix

Kylie Emily
Project Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0979 Extracted: 11/28/11										
LCS Dup Analyzed: 11/28/2011 (11K0979-BSD1)										
Acetone	31.2	10	ug/l	25.0		125	10-150	1	35	
Benzene	29.6	0.50	ug/l	25.0		118	80-120	0.6	15	
Bromobenzene	26.5	0.50	ug/l	25.0		106	80-120	0.3	15	
Bromochloromethane	25.8	0.50	ug/l	25.0		103	80-125	0.2	15	
Bromodichloromethane	26.7	0.50	ug/l	25.0		107	80-120	2	15	
Bromoform	23.8	1.0	ug/l	25.0		95	75-130	7	20	
Bromomethane	17.0	1.0	ug/l	25.0		68	55-150	6	20	
2-Butanone (MEK)	27.0	2.5	ug/l	25.0		108	40-150	4	35	
n-Butylbenzene	26.6	0.50	ug/l	25.0		106	80-130	2	15	
sec-Butylbenzene	27.3	0.50	ug/l	25.0		109	80-125	2	15	
tert-Butylbenzene	26.5	0.50	ug/l	25.0		106	80-120	2	15	
Carbon disulfide	26.4	1.0	ug/l	25.0		106	70-140	3	15	
Carbon tetrachloride	26.7	0.50	ug/l	25.0		107	75-130	2	20	
Chlorobenzene	28.8	0.50	ug/l	25.0		115	80-120	1	15	
Chloroethane	24.9	1.0	ug/l	25.0		99	70-130	2	15	
Chloroform	25.7	0.50	ug/l	25.0		103	75-120	0.3	15	
Chloromethane	18.1	1.0	ug/l	25.0		72	60-140	5	20	
2-Chlorotoluene	26.5	0.50	ug/l	25.0		106	80-120	0.5	15	
4-Chlorotoluene	26.3	0.50	ug/l	25.0		105	80-120	2	15	
Dibromochloromethane	26.7	0.50	ug/l	25.0		107	80-120	2	15	
1,2-Dibromo-3-chloropropane	25.3	2.5	ug/l	25.0		101	50-150	9	35	
1,2-Dibromoethane (EDB)	25.1	0.50	ug/l	25.0		100	80-120	2	15	
Dibromomethane	25.6	0.50	ug/l	25.0		102	75-120	2	15	
1,2-Dichlorobenzene	29.5	0.50	ug/l	25.0		118	80-120	2	15	
1,3-Dichlorobenzene	29.4	0.50	ug/l	25.0		118	80-120	0.3	15	
1,4-Dichlorobenzene	28.5	0.50	ug/l	25.0		114	80-120	1	15	
Dichlorodifluoromethane	25.5	0.50	ug/l	25.0		102	60-150	3	30	
1,1-Dichloroethane	25.4	0.50	ug/l	25.0		102	70-125	1	15	
1,2-Dichloroethane	25.7	0.50	ug/l	25.0		103	75-130	2	15	
1,1-Dichloroethene	22.9	0.50	ug/l	25.0		91	75-125	3	20	
cis-1,2-Dichloroethene	24.6	0.50	ug/l	25.0		98	80-120	0.3	15	
trans-1,2-Dichloroethene	24.8	0.50	ug/l	25.0		99	80-120	3	15	
1,2-Dichloropropane	26.4	0.50	ug/l	25.0		106	80-120	0.7	15	
1,3-Dichloropropane	24.4	0.50	ug/l	25.0		98	80-120	3	15	
2,2-Dichloropropane	28.4	1.0	ug/l	25.0		114	75-130	0.5	15	

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0979 Extracted: 11/28/11										
LCS Dup Analyzed: 11/28/2011 (11K0979-BSD1)										
1,1-Dichloropropene	27.3	0.50	ug/l	25.0		109	75-120	2	15	
cis-1,3-Dichloropropene	26.7	0.50	ug/l	25.0		107	80-120	0.3	15	
trans-1,3-Dichloropropene	25.4	0.50	ug/l	25.0		102	80-125	2	15	
Ethylbenzene	27.7	0.50	ug/l	25.0		111	80-120	0.6	15	
Hexachlorobutadiene	37.6	1.0	ug/l	25.0		151	40-150	1	35	*L3*
2-Hexanone	23.1	2.5	ug/l	25.0		93	20-150	0.4	35	
Iodomethane	22.7	2.5	ug/l	25.0		91	80-130	2	10	
Isopropylbenzene	30.8	0.50	ug/l	25.0		123	80-130	3	15	
p-Isopropyltoluene	27.2	0.50	ug/l	25.0		109	80-130	2	15	
Methylene Chloride	21.6	1.0	ug/l	25.0		86	70-120	4	15	
4-Methyl-2-pentanone (MIBK)	23.0	2.5	ug/l	25.0		92	60-135	3	25	
Methyl-tert-butyl Ether (MTBE)	20.2	0.50	ug/l	25.0		81	70-130	2	20	
Naphthalene	30.8	2.5	ug/l	25.0		123	40-150	3	30	
n-Propylbenzene	29.2	0.50	ug/l	25.0		117	75-130	2	15	
Styrene	25.4	0.50	ug/l	25.0		102	80-120	4	15	
1,1,1,2-Tetrachloroethane	28.5	0.50	ug/l	25.0		114	75-125	3	15	
1,1,2,2-Tetrachloroethane	23.2	0.50	ug/l	25.0		93	80-120	7	20	
Tetrachloroethene	24.7	0.50	ug/l	25.0		99	70-130	1	20	
Toluene	30.3	0.50	ug/l	25.0		121	80-120	4	15	*L3*
1,2,3-Trichlorobenzene	32.6	1.0	ug/l	25.0		130	55-150	0.4	35	
1,2,4-Trichlorobenzene	31.1	1.0	ug/l	25.0		124	50-150	2	30	
1,1,1-Trichloroethane	27.1	0.50	ug/l	25.0		108	75-125	3	15	
1,1,2-Trichloroethane	26.8	0.50	ug/l	25.0		107	80-120	2	15	
Trichloroethene	27.6	0.50	ug/l	25.0		110	80-120	1	15	
Trichlorofluoromethane	26.7	0.50	ug/l	25.0		107	70-150	2	25	
1,2,3-Trichloropropane	23.9	1.0	ug/l	25.0		96	70-130	6	20	
1,2,4-Trimethylbenzene	27.6	0.50	ug/l	25.0		110	80-120	2	15	
1,3,5-Trimethylbenzene	25.5	0.50	ug/l	25.0		102	80-130	3	15	
Vinyl Acetate	24.9	1.0	ug/l	25.0		100	40-150	3	25	
Vinyl chloride	25.5	0.50	ug/l	25.0		102	70-130	2	20	
Xylenes, Total	53.0	1.0	ug/l	50.0		106	60-140	1	15	
Freon 113	23.3	2.0	ug/l	25.0		93	60-140	0.6	15	
Surrogate: Dibromofluoromethane	*24.3*		*ug/l*	*25.0*		*97*	*80-130*			
Surrogate: Toluene-d8	*26.1*		*ug/l*	*25.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*26.7*		*ug/l*	*25.0*		*107*	*80-125*			

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0979 Extracted: 11/28/11										
Matrix Spike Analyzed: 11/28/2011 (11K0979-MS1)					**Source: PUK1381-02**					
Acetone	17.9	10	ug/l	25.0	ND	72	10-150			
Benzene	28.4	0.50	ug/l	25.0	ND	114	70-125			
Bromobenzene	26.4	0.50	ug/l	25.0	ND	105	75-120			
Bromochloromethane	24.5	0.50	ug/l	25.0	ND	98	75-130			
Bromodichloromethane	25.4	0.50	ug/l	25.0	ND	101	75-125			
Bromoform	23.5	1.0	ug/l	25.0	ND	94	65-125			
Bromomethane	16.9	1.0	ug/l	25.0	ND	68	45-150			
2-Butanone (MEK)	20.8	2.5	ug/l	25.0	ND	83	15-150			
n-Butylbenzene	26.0	0.50	ug/l	25.0	0.250	103	70-130			
sec-Butylbenzene	27.0	0.50	ug/l	25.0	0.250	107	70-125			
tert-Butylbenzene	26.5	0.50	ug/l	25.0	0.340	105	70-125			
Carbon disulfide	27.4	1.0	ug/l	25.0	ND	109	65-145			
Carbon tetrachloride	27.1	0.50	ug/l	25.0	0.310	107	65-135			
Chlorobenzene	27.3	0.50	ug/l	25.0	ND	109	75-120			
Chloroethane	25.2	1.0	ug/l	25.0	ND	101	65-140			
Chloroform	24.4	0.50	ug/l	25.0	0.440	96	70-130			
Chloromethane	18.8	1.0	ug/l	25.0	ND	75	55-145			
2-Chlorotoluene	26.7	0.50	ug/l	25.0	ND	107	70-125			
4-Chlorotoluene	26.6	0.50	ug/l	25.0	ND	106	70-125			
Dibromochloromethane	23.1	0.50	ug/l	25.0	ND	92	70-130			
1,2-Dibromo-3-chloropropane	23.7	2.5	ug/l	25.0	ND	95	50-150			
1,2-Dibromoethane (EDB)	21.5	0.50	ug/l	25.0	ND	86	70-125			
Dibromomethane	23.9	0.50	ug/l	25.0	ND	96	70-120			
1,2-Dichlorobenzene	28.7	0.50	ug/l	25.0	ND	115	75-120			
1,3-Dichlorobenzene	29.6	0.50	ug/l	25.0	ND	118	75-120			
1,4-Dichlorobenzene	27.7	0.50	ug/l	25.0	ND	111	70-125			
Dichlorodifluoromethane	26.2	0.50	ug/l	25.0	0.270	104	60-150			
1,1-Dichloroethane	24.0	0.50	ug/l	25.0	ND	96	70-130			
1,2-Dichloroethane	23.4	0.50	ug/l	25.0	ND	93	65-140			
1,1-Dichloroethene	22.8	0.50	ug/l	25.0	0.310	90	70-130			
cis-1,2-Dichloroethene	22.6	0.50	ug/l	25.0	ND	91	70-125			
trans-1,2-Dichloroethene	24.8	0.50	ug/l	25.0	ND	99	75-125			
1,2-Dichloropropane	25.3	0.50	ug/l	25.0	ND	101	75-125			
1,3-Dichloropropane	20.3	0.50	ug/l	25.0	ND	81	70-120			
2,2-Dichloropropane	27.8	1.0	ug/l	25.0	ND	111	65-140			

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Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0979 Extracted: 11/28/11										
Matrix Spike Analyzed: 11/28/2011 (11K0979-MS1)					**Source: PUK1381-02**					
1,1-Dichloropropene	27.7	0.50	ug/l	25.0	ND	111	65-130			
cis-1,3-Dichloropropene	24.9	0.50	ug/l	25.0	ND	100	75-130			
trans-1,3-Dichloropropene	24.2	0.50	ug/l	25.0	ND	97	70-130			
Ethylbenzene	26.5	0.50	ug/l	25.0	ND	106	70-125			
Hexachlorobutadiene	35.5	1.0	ug/l	25.0	ND	142	40-150			
2-Hexanone	17.2	2.5	ug/l	25.0	ND	69	20-150			
Iodomethane	22.9	2.5	ug/l	25.0	ND	92	60-150			
Isopropylbenzene	31.0	0.50	ug/l	25.0	ND	124	75-130			
p-Isopropyltoluene	26.6	0.50	ug/l	25.0	0.270	105	70-130			
Methylene Chloride	20.9	1.0	ug/l	25.0	ND	84	65-130			
4-Methyl-2-pentanone (MIBK)	20.3	2.5	ug/l	25.0	ND	81	55-135			
Methyl-tert-butyl Ether (MTBE)	19.0	0.50	ug/l	25.0	ND	76	65-140			
Naphthalene	30.0	2.5	ug/l	25.0	ND	120	40-150			
n-Propylbenzene	29.2	0.50	ug/l	25.0	ND	117	70-130			
Styrene	23.5	0.50	ug/l	25.0	0.290	93	55-135			
1,1,1,2-Tetrachloroethane	26.8	0.50	ug/l	25.0	ND	107	70-125			
1,1,2,2-Tetrachloroethane	24.2	0.50	ug/l	25.0	ND	97	70-125			
Tetrachloroethene	22.5	0.50	ug/l	25.0	0.460	88	65-130			
Toluene	29.7	0.50	ug/l	25.0	ND	119	70-125			
1,2,3-Trichlorobenzene	29.8	1.0	ug/l	25.0	ND	119	50-150			
1,2,4-Trichlorobenzene	29.8	1.0	ug/l	25.0	ND	119	50-150			
1,1,1-Trichloroethane	26.0	0.50	ug/l	25.0	ND	104	70-130			
1,1,2-Trichloroethane	24.8	0.50	ug/l	25.0	ND	99	75-125			
Trichloroethene	27.1	0.50	ug/l	25.0	ND	108	70-125			
Trichlorofluoromethane	27.8	0.50	ug/l	25.0	0.230	110	65-150			
1,2,3-Trichloropropane	24.6	1.0	ug/l	25.0	ND	98	70-130			
1,2,4-Trimethylbenzene	27.4	0.50	ug/l	25.0	ND	110	70-125			
1,3,5-Trimethylbenzene	25.4	0.50	ug/l	25.0	0.230	101	75-130			
Vinyl Acetate	22.3	1.0	ug/l	25.0	ND	89	40-150			
Vinyl chloride	26.7	0.50	ug/l	25.0	ND	107	60-140			
Xylenes, Total	50.7	1.0	ug/l	50.0	ND	101	75-120			
Freon 113	23.4	2.0	ug/l	25.0	ND	94	65-140			
Surrogate: Dibromofluoromethane	*23.4*		*ug/l*	*25.0*		*94*	*80-130*			
Surrogate: Toluene-d8	*26.7*		*ug/l*	*25.0*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.1*		*ug/l*	*25.0*		*100*	*80-125*			

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Attention: David Abranovic

Project ID: OU3 0096498.020
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Sampled: 11/16/11-11/17/11
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0979 Extracted: 11/28/11										
Matrix Spike Dup Analyzed: 11/28/2011 (11K0979-MSD1)					**Source: PUK1381-02**					
Acetone	22.3	10	ug/l	25.0	ND	89	10-150	22	35	
Benzene	30.2	0.50	ug/l	25.0	ND	121	70-125	6	25	
Bromobenzene	26.9	0.50	ug/l	25.0	ND	107	75-120	2	20	
Bromochloromethane	25.5	0.50	ug/l	25.0	ND	102	75-130	4	20	
Bromodichloromethane	27.7	0.50	ug/l	25.0	ND	111	75-125	9	20	
Bromoform	25.6	1.0	ug/l	25.0	ND	103	65-125	9	25	
Bromomethane	16.8	1.0	ug/l	25.0	ND	67	45-150	0.9	35	
2-Butanone (MEK)	24.4	2.5	ug/l	25.0	ND	98	15-150	16	30	
n-Butylbenzene	27.4	0.50	ug/l	25.0	0.250	109	70-130	5	30	
sec-Butylbenzene	27.5	0.50	ug/l	25.0	0.250	109	70-125	2	30	
tert-Butylbenzene	26.7	0.50	ug/l	25.0	0.340	105	70-125	0.6	25	
Carbon disulfide	28.5	1.0	ug/l	25.0	ND	114	65-145	4	25	
Carbon tetrachloride	27.9	0.50	ug/l	25.0	0.310	110	65-135	3	25	
Chlorobenzene	29.2	0.50	ug/l	25.0	ND	117	75-120	7	20	
Chloroethane	26.9	1.0	ug/l	25.0	ND	108	65-140	6	25	
Chloroform	25.8	0.50	ug/l	25.0	0.440	101	70-130	5	20	
Chloromethane	19.1	1.0	ug/l	25.0	ND	76	55-145	2	35	
2-Chlorotoluene	26.2	0.50	ug/l	25.0	ND	105	70-125	2	25	
4-Chlorotoluene	26.3	0.50	ug/l	25.0	ND	105	70-125	1	25	
Dibromochloromethane	26.9	0.50	ug/l	25.0	ND	108	70-130	15	20	
1,2-Dibromo-3-chloropropane	27.9	2.5	ug/l	25.0	ND	111	50-150	16	30	
1,2-Dibromoethane (EDB)	26.0	0.50	ug/l	25.0	ND	104	70-125	19	20	
Dibromomethane	26.1	0.50	ug/l	25.0	ND	104	70-120	9	20	
1,2-Dichlorobenzene	30.6	0.50	ug/l	25.0	ND	122	75-120	6	20	*M1*
1,3-Dichlorobenzene	30.0	0.50	ug/l	25.0	ND	120	75-120	2	25	
1,4-Dichlorobenzene	28.6	0.50	ug/l	25.0	ND	115	70-125	3	20	
Dichlorodifluoromethane	25.9	0.50	ug/l	25.0	0.270	102	60-150	1	30	
1,1-Dichloroethane	26.1	0.50	ug/l	25.0	ND	105	70-130	8	20	
1,2-Dichloroethane	25.4	0.50	ug/l	25.0	ND	102	65-140	8	20	
1,1-Dichloroethene	24.8	0.50	ug/l	25.0	0.310	98	70-130	8	25	
cis-1,2-Dichloroethene	24.0	0.50	ug/l	25.0	ND	96	70-125	6	20	
trans-1,2-Dichloroethene	26.2	0.50	ug/l	25.0	ND	105	75-125	5	25	
1,2-Dichloropropane	26.9	0.50	ug/l	25.0	ND	108	75-125	6	20	
1,3-Dichloropropane	24.5	0.50	ug/l	25.0	ND	98	70-120	19	20	
2,2-Dichloropropane	29.3	1.0	ug/l	25.0	ND	117	65-140	5	25	

TestAmerica Phoenix

Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0979 Extracted: 11/28/11										
Matrix Spike Dup Analyzed: 11/28/2011 (11K0979-MSD1)					**Source: PUK1381-02**					
1,1-Dichloropropene	28.7	0.50	ug/l	25.0	ND	115	65-130	4	25	
cis-1,3-Dichloropropene	27.8	0.50	ug/l	25.0	ND	111	75-130	11	20	
trans-1,3-Dichloropropene	26.5	0.50	ug/l	25.0	ND	106	70-130	9	20	
Ethylbenzene	28.6	0.50	ug/l	25.0	ND	115	70-125	8	25	
Hexachlorobutadiene	36.8	1.0	ug/l	25.0	ND	147	40-150	4	30	
2-Hexanone	22.3	2.5	ug/l	25.0	ND	89	20-150	26	30	
Iodomethane	23.4	2.5	ug/l	25.0	ND	93	60-150	2	30	
Isopropylbenzene	30.5	0.50	ug/l	25.0	ND	122	75-130	2	25	
p-Isopropyltoluene	26.9	0.50	ug/l	25.0	0.270	106	70-130	1	30	
Methylene Chloride	22.8	1.0	ug/l	25.0	ND	91	65-130	9	20	
4-Methyl-2-pentanone (MIBK)	24.7	2.5	ug/l	25.0	ND	99	55-135	20	25	
Methyl-tert-butyl Ether (MTBE)	22.3	0.50	ug/l	25.0	ND	89	65-140	16	25	
Naphthalene	32.8	2.5	ug/l	25.0	ND	131	40-150	9	30	
n-Propylbenzene	28.8	0.50	ug/l	25.0	ND	115	70-130	1	30	
Styrene	25.0	0.50	ug/l	25.0	0.290	99	55-135	6	35	
1,1,1,2-Tetrachloroethane	29.6	0.50	ug/l	25.0	ND	118	70-125	10	20	
1,1,2,2-Tetrachloroethane	25.5	0.50	ug/l	25.0	ND	102	70-125	5	25	
Tetrachloroethene	25.1	0.50	ug/l	25.0	0.460	99	65-130	11	25	
Toluene	30.0	0.50	ug/l	25.0	ND	120	70-125	1	20	
1,2,3-Trichlorobenzene	33.7	1.0	ug/l	25.0	ND	135	50-150	12	35	
1,2,4-Trichlorobenzene	32.1	1.0	ug/l	25.0	ND	129	50-150	8	25	
1,1,1-Trichloroethane	27.4	0.50	ug/l	25.0	ND	110	70-130	5	25	
1,1,2-Trichloroethane	28.1	0.50	ug/l	25.0	ND	112	75-125	12	20	
Trichloroethene	28.8	0.50	ug/l	25.0	ND	115	70-125	6	25	
Trichlorofluoromethane	28.0	0.50	ug/l	25.0	0.230	111	65-150	1	25	
1,2,3-Trichloropropane	25.3	1.0	ug/l	25.0	ND	101	70-130	3	25	
1,2,4-Trimethylbenzene	27.2	0.50	ug/l	25.0	ND	109	70-125	0.8	30	
1,3,5-Trimethylbenzene	25.2	0.50	ug/l	25.0	0.230	100	75-130	0.9	25	
Vinyl Acetate	24.8	1.0	ug/l	25.0	ND	99	40-150	11	30	
Vinyl chloride	26.5	0.50	ug/l	25.0	ND	106	60-140	0.6	25	
Xylenes, Total	55.4	1.0	ug/l	50.0	ND	111	75-120	9	15	
Freon 113	23.9	2.0	ug/l	25.0	ND	96	65-140	2	20	
Surrogate: Dibromofluoromethane	*24.1*		*ug/l*	*25.0*		*97*	*80-130*			
Surrogate: Toluene-d8	*26.4*		*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*26.0*		*ug/l*	*25.0*		*104*	*80-125*			

TestAmerica Phoenix

Kylie Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

DATA QUALIFIERS AND DEFINITIONS

L3	The associated blank spike recovery was above method acceptance limits.
M1	Matrix spike recovery was high; the associated blank spike recovery was acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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Project Manager

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Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3 0096498.020
Report Number: PUK1257

Sampled: 11/16/11-11/17/11
Received: 11/17/11

Certification Summary

TestAmerica Phoenix

Method	Matrix	Nelac	Arizona
EPA 8260B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Phoenix

Kylie Emily
Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

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[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page 1 of 1

Client Name/Address: ERM, 7272 E. Indian School Rd, Suite 100 Scottsdale, AZ 85251

Project/PO Number: OU3 0096498.020

Project Manager: David Abramowitz

Phone Number: 480-998-2401

Sampler: J. Hilka / T. Schumacher

Fax Number:

Analysis Required: 8260B

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260B									Special Instructions
AT-OU3-AT-M-111611-2315-1	water	40mL	3	11-16-11	23:15	HCL	X					PUK	12572-01			USE OU3
AT-OU3-AT-M-111711-0445-2				11-17-11	04:45								-02			QAPP limits
AT-OU3-AT-M-111711-1045-3					10:45								-03			
AT-LI-1-111611			1	—	—								-04			

Relinquished By:	Date/Time:	Received By:	Date/Time:
	11-17-11 @ 1320		
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time: 11/17/11 1320

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X 1.0°C

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Level IV Data Package

Environmental Resources Management Inc.

TestAmerica Work Order Number:

PUK1116

Prepared for:

David Abranovic
Environmental Resources Management, Inc.
7272 East Indian School Road, Suite 100
Scottsdale, AZ 85251

QA/QC DATA PACKAGE: LEVEL IV

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THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

LABORATORY REPORT

Prepared For: Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project: OU3/0096498.020

Sampled: 11/15/11-11/16/11
Received: 11/16/11
Issued: 11/23/11 15:23

NELAP #01109CA Arizona DHS#AZ0728

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

LABORATORY ID	CLIENT ID	MATRIX
PUK1116-01	AT-OU3-5SR-S-111511-17:42-1	Water
PUK1116-02	AT-OU3-5SR-S-111511-23:11-2	Water
PUK1116-03	AT-OU3-5SR-S-111611-05:11-3	Water
PUK1116-04	AT-L1-1-111511	Water

SAMPLE RECEIPT: Samples were received intact, at 1°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

Reviewed By:

TestAmerica Phoenix

Kyli Emily
Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QA/QC DATA PACKAGE: LEVEL IV

CHAIN OF CUSTODY FORMS

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TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

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[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page 1 of 1

Client Name/Address: ERM / 7272 E. Indian School Rd Suite 100 Scottsdale, AZ

Project/PO Number: OU3 / 0096498.020

Project Manager: David Abramovitz

Phone Number: 480-988-2401

Sampler: J. Hilker / T. Shamachi

Fax Number:

Analysis Required: 8260B

PUK 1114

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260B									Special Instructions
AT-OU3-SSR-S-111511-1742-1	H_2O	40 ML	3	11-15-11	17:42	HCL	X							-	01	
AT-OU3-SSR-S-111511-2311-2	↓	↓	↓	11-15-11	23:11	↓	↓							-	02	USE OU3
AT-OU3-SSR-S-111611-0511-3	↓	↓	↓	11-16-11	05:11	↓	↓							-	03	QAPP limits
AT-LI-1-111511	H_2O	40 ML	1	—	—	HCL	↓							-	04	

Relinquished By:	Date/Time:	Received By:	Date/Time:	Turnaround Time: (Check)
[signature]	11-16-11 @ 10:46	[signature]		same day ___ 72 hours ___
Relinquished By:	Date/Time:	Received By:	Date/Time:	24 hours ___ 5 days ___
				48 hours ___ normal X
Relinquishe	Date/Time:	Received in Lab By: [signature]	Date/Time: 11/16/11 10:45	Sample Integrity: (Check) intact ✓ on ice ✓

Note: By re ishing samples to TestAmerica. client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment fo ices is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

0.6°C

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THE LEADER IN ENVIRONMENTAL TESTING

QA/QC DATA PACKAGE: LEVEL IV

ANALYTICAL REPORTS

TestAmerica
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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PUK1116-01 (AT-OU3-5SR-S-111511-17:42-1 - Water)				**Sampled: 11/15/11**				
Reporting Units: ug/l								
Acetone	EPA 8260B	11K0879	10	ND	1	11/22/2011	11/22/2011	
Benzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromodichloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromoform	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Bromomethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Butanone (MEK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
sec-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
tert-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Carbon disulfide	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Carbon tetrachloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chloroethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Chloroform	EPA 8260B	11K0879	0.50	**4.7**	1	11/22/2011	11/22/2011	
Chloromethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
4-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromomethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dichlorodifluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethane	EPA 8260B	11K0879	0.50	**3.5**	1	11/22/2011	11/22/2011	
1,2-Dichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethene	EPA 8260B	11K0879	0.50	**4.2**	1	11/22/2011	11/22/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	**5.8**	1	11/22/2011	11/22/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
2,2-Dichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Ethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Hexachlorobutadiene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	

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Kyli Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-01 (AT-OU3-5SR-S-111511-17:42-1 - Water) - cont. **Sampled: 11/15/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
2-Hexanone	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Iodomethane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Isopropylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
p-Isopropyltoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Methylene Chloride	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Naphthalene	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Propylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Styrene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Tetrachloroethene	EPA 8260B	11K0879	0.50	**1.5**	1	11/22/2011	11/22/2011	
Toluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Trichloroethene	EPA 8260B	11K0879	0.50	**29**	1	11/22/2011	11/22/2011	
Trichlorofluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Vinyl Acetate	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Vinyl chloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Xylenes, Total	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Freon 113	EPA 8260B	11K0879	2.0	ND	1	11/22/2011	11/22/2011	
Surrogate: Dibromofluoromethane (80-130%)				*102 %*				
Surrogate: Toluene-d8 (80-120%)				*101 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*93 %*				

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Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-02 (AT-OU3-5SR-S-111511-23:11-2 - Water) **Sampled: 11/15/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0879	10	ND	1	11/22/2011	11/22/2011	
Benzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromodichloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromoform	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Bromomethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Butanone (MEK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
sec-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
tert-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Carbon disulfide	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Carbon tetrachloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chloroethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Chloroform	EPA 8260B	11K0879	0.50	**4.5**	1	11/22/2011	11/22/2011	
Chloromethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
4-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromomethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dichlorodifluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethane	EPA 8260B	11K0879	0.50	**3.4**	1	11/22/2011	11/22/2011	
1,2-Dichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethene	EPA 8260B	11K0879	0.50	**4.3**	1	11/22/2011	11/22/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	**5.8**	1	11/22/2011	11/22/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
2,2-Dichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Ethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Hexachlorobutadiene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PUK1116-02 (AT-OU3-5SR-S-111511-23:11-2 - Water) - cont.					**Sampled: 11/15/11**			
Reporting Units: ug/l								
2-Hexanone	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Iodomethane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Isopropylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
p-Isopropyltoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Methylene Chloride	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Naphthalene	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Propylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Styrene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Tetrachloroethene	EPA 8260B	11K0879	0.50	**1.5**	1	11/22/2011	11/22/2011	
Toluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Trichloroethene	EPA 8260B	11K0879	0.50	**29**	1	11/22/2011	11/22/2011	
Trichlorofluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Vinyl Acetate	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Vinyl chloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Xylenes, Total	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Freon 113	EPA 8260B	11K0879	2.0	ND	1	11/22/2011	11/22/2011	
Surrogate: Dibromofluoromethane (80-130%)				*101 %*				
Surrogate: Toluene-d8 (80-120%)				*101 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*93 %*				

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Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-03 (AT-OU3-5SR-S-111611-05:11-3 - Water) **Sampled: 11/16/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0879	10	ND	1	11/22/2011	11/22/2011	
Benzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromodichloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromoform	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Bromomethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Butanone (MEK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
sec-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
tert-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Carbon disulfide	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Carbon tetrachloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chloroethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Chloroform	EPA 8260B	11K0879	0.50	**4.5**	1	11/22/2011	11/22/2011	
Chloromethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
4-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromomethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dichlorodifluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethane	EPA 8260B	11K0879	0.50	**3.4**	1	11/22/2011	11/22/2011	
1,2-Dichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethene	EPA 8260B	11K0879	0.50	**4.0**	1	11/22/2011	11/22/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	**5.5**	1	11/22/2011	11/22/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
2,2-Dichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Ethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Hexachlorobutadiene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	

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Kyli Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-03 (AT-OU3-5SR-S-111611-05:11-3 - Water) - cont. **Sampled: 11/16/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
2-Hexanone	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Iodomethane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Isopropylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
p-Isopropyltoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Methylene Chloride	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Naphthalene	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Propylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Styrene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Tetrachloroethene	EPA 8260B	11K0879	0.50	**1.5**	1	11/22/2011	11/22/2011	
Toluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Trichloroethene	EPA 8260B	11K0879	0.50	**30**	1	11/22/2011	11/22/2011	
Trichlorofluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Vinyl Acetate	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Vinyl chloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Xylenes, Total	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Freon 113	EPA 8260B	11K0879	2.0	ND	1	11/22/2011	11/22/2011	
Surrogate: Dibromofluoromethane (80-130%)				*103 %*				
Surrogate: Toluene-d8 (80-120%)				*101 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*95 %*				

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Kyli Emily
Project Manager

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Sample ID: PUK1116-04 (AT-L1-1-111511 - Water) **Sampled: 11/15/11**

Reporting Units: ug/l

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Acetone	EPA 8260B	11K0879	10	ND	1	11/22/2011	11/22/2011	
Benzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromodichloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Bromoform	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Bromomethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Butanone (MEK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
sec-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
tert-Butylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Carbon disulfide	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Carbon tetrachloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chloroethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Chloroform	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Chloromethane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
2-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
4-Chlorotoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromochloromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dibromo-3-chloropropane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
1,2-Dibromoethane (EDB)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dibromomethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,4-Dichlorobenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Dichlorodifluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
cis-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
trans-1,2-Dichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3-Dichloropropane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
2,2-Dichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
cis-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
trans-1,3-Dichloropropene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Ethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Hexachlorobutadiene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PUK1116-04 (AT-L1-1-111511 - Water) - cont.				**Sampled: 11/15/11**				
Reporting Units: ug/l								
2-Hexanone	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Iodomethane	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Isopropylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
p-Isopropyltoluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Methylene Chloride	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Naphthalene	EPA 8260B	11K0879	2.5	ND	1	11/22/2011	11/22/2011	
n-Propylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Styrene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,1,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2,2-Tetrachloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Tetrachloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Toluene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trichlorobenzene	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,1,1-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,1,2-Trichloroethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Trichloroethene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Trichlorofluoromethane	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,2,3-Trichloropropane	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
1,2,4-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
1,3,5-Trimethylbenzene	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Vinyl Acetate	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Vinyl chloride	EPA 8260B	11K0879	0.50	ND	1	11/22/2011	11/22/2011	
Xylenes, Total	EPA 8260B	11K0879	1.0	ND	1	11/22/2011	11/22/2011	
Freon 113	EPA 8260B	11K0879	2.0	ND	1	11/22/2011	11/22/2011	
Surrogate: Dibromofluoromethane (80-130%)				*93 %*				
Surrogate: Toluene-d8 (80-120%)				*97 %*				
Surrogate: 4-Bromofluorobenzene (80-125%)				*92 %*				

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Project Manager

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QA/QC DATA PACKAGE: LEVEL IV

QUALITY CONTROL SUMMARIES

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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Blank Analyzed: 11/22/2011 (11K0879-BLK1)										
Acetone	ND	10	ug/l							
Benzene	ND	0.50	ug/l							
Bromobenzene	ND	0.50	ug/l							
Bromochloromethane	ND	0.50	ug/l							
Bromodichloromethane	ND	0.50	ug/l							
Bromoform	ND	1.0	ug/l							
Bromomethane	ND	1.0	ug/l							
2-Butanone (MEK)	ND	2.5	ug/l							
n-Butylbenzene	ND	0.50	ug/l							
sec-Butylbenzene	ND	0.50	ug/l							
tert-Butylbenzene	ND	0.50	ug/l							
Carbon disulfide	ND	1.0	ug/l							
Carbon tetrachloride	ND	0.50	ug/l							
Chlorobenzene	ND	0.50	ug/l							
Chloroethane	ND	1.0	ug/l							
Chloroform	ND	0.50	ug/l							
Chloromethane	ND	1.0	ug/l							
2-Chlorotoluene	ND	0.50	ug/l							
4-Chlorotoluene	ND	0.50	ug/l							
Dibromochloromethane	ND	0.50	ug/l							
1,2-Dibromo-3-chloropropane	ND	2.5	ug/l							
1,2-Dibromoethane (EDB)	ND	0.50	ug/l							
Dibromomethane	ND	0.50	ug/l							
1,2-Dichlorobenzene	ND	0.50	ug/l							
1,3-Dichlorobenzene	ND	0.50	ug/l							
1,4-Dichlorobenzene	ND	0.50	ug/l							
Dichlorodifluoromethane	ND	0.50	ug/l							
1,1-Dichloroethane	ND	0.50	ug/l							
1,2-Dichloroethane	ND	0.50	ug/l							
1,1-Dichloroethene	ND	0.50	ug/l							
cis-1,2-Dichloroethene	ND	0.50	ug/l							
trans-1,2-Dichloroethene	ND	0.50	ug/l							
1,2-Dichloropropane	ND	0.50	ug/l							
1,3-Dichloropropane	ND	0.50	ug/l							
2,2-Dichloropropane	ND	1.0	ug/l							

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Kyli Emily
Project Manager

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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Blank Analyzed: 11/22/2011 (11K0879-BLK1)										
1,1-Dichloropropene	ND	0.50	ug/l							
cis-1,3-Dichloropropene	ND	0.50	ug/l							
trans-1,3-Dichloropropene	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Hexachlorobutadiene	ND	1.0	ug/l							
2-Hexanone	ND	2.5	ug/l							
Iodomethane	ND	2.5	ug/l							
Isopropylbenzene	ND	0.50	ug/l							
p-Isopropyltoluene	ND	0.50	ug/l							
Methylene Chloride	ND	1.0	ug/l							
4-Methyl-2-pentanone (MIBK)	ND	2.5	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	0.50	ug/l							
Naphthalene	ND	2.5	ug/l							
n-Propylbenzene	ND	0.50	ug/l							
Styrene	ND	0.50	ug/l							
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l							
Tetrachloroethene	ND	0.50	ug/l							
Toluene	ND	0.50	ug/l							
1,2,3-Trichlorobenzene	ND	1.0	ug/l							
1,2,4-Trichlorobenzene	ND	1.0	ug/l							
1,1,1-Trichloroethane	ND	0.50	ug/l							
1,1,2-Trichloroethane	ND	0.50	ug/l							
Trichloroethene	ND	0.50	ug/l							
Trichlorofluoromethane	ND	0.50	ug/l							
1,2,3-Trichloropropane	ND	1.0	ug/l							
1,2,4-Trimethylbenzene	ND	0.50	ug/l							
1,3,5-Trimethylbenzene	ND	0.50	ug/l							
Vinyl Acetate	ND	1.0	ug/l							
Vinyl chloride	ND	0.50	ug/l							
Xylenes, Total	ND	1.0	ug/l							
Freon 113	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	*23.6*		*ug/l*	*25.0*		*94*	*80-130*			
Surrogate: Toluene-d8	*24.1*		*ug/l*	*25.0*		*96*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.3*		*ug/l*	*25.0*		*93*	*80-125*			

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VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
LCS Analyzed: 11/22/2011 (11K0879-BS1)										
Acetone	27.5	10	ug/l	25.0		110	10-150			
Benzene	23.3	0.50	ug/l	25.0		93	80-120			
Bromobenzene	27.2	0.50	ug/l	25.0		109	80-120			
Bromochloromethane	20.9	0.50	ug/l	25.0		84	80-125			
Bromodichloromethane	21.9	0.50	ug/l	25.0		88	80-120			
Bromoform	27.4	1.0	ug/l	25.0		109	75-130			
Bromomethane	20.5	1.0	ug/l	25.0		82	55-150			
2-Butanone (MEK)	25.0	2.5	ug/l	25.0		100	40-150			
n-Butylbenzene	29.4	0.50	ug/l	25.0		118	80-130			
sec-Butylbenzene	28.7	0.50	ug/l	25.0		115	80-125			
tert-Butylbenzene	28.6	0.50	ug/l	25.0		115	80-120			
Carbon disulfide	24.2	1.0	ug/l	25.0		97	70-140			
Carbon tetrachloride	23.9	0.50	ug/l	25.0		95	75-130			
Chlorobenzene	24.2	0.50	ug/l	25.0		97	80-120			
Chloroethane	22.6	1.0	ug/l	25.0		90	70-130			
Chloroform	19.8	0.50	ug/l	25.0		79	75-120			
Chloromethane	19.3	1.0	ug/l	25.0		77	60-140			
2-Chlorotoluene	28.0	0.50	ug/l	25.0		112	80-120			
4-Chlorotoluene	27.8	0.50	ug/l	25.0		111	80-120			
Dibromochloromethane	25.1	0.50	ug/l	25.0		100	80-120			
1,2-Dibromo-3-chloropropane	26.7	2.5	ug/l	25.0		107	50-150			
1,2-Dibromoethane (EDB)	25.6	0.50	ug/l	25.0		103	80-120			
Dibromomethane	22.4	0.50	ug/l	25.0		90	75-120			
1,2-Dichlorobenzene	27.0	0.50	ug/l	25.0		108	80-120			
1,3-Dichlorobenzene	26.7	0.50	ug/l	25.0		107	80-120			
1,4-Dichlorobenzene	25.8	0.50	ug/l	25.0		103	80-120			
Dichlorodifluoromethane	19.0	0.50	ug/l	25.0		76	60-150			
1,1-Dichloroethane	20.3	0.50	ug/l	25.0		81	70-125			
1,2-Dichloroethane	20.5	0.50	ug/l	25.0		82	75-130			
1,1-Dichloroethene	22.4	0.50	ug/l	25.0		90	75-125			
cis-1,2-Dichloroethene	21.8	0.50	ug/l	25.0		87	80-120			
trans-1,2-Dichloroethene	22.1	0.50	ug/l	25.0		88	80-120			
1,2-Dichloropropane	23.0	0.50	ug/l	25.0		92	80-120			
1,3-Dichloropropane	24.4	0.50	ug/l	25.0		98	80-120			
2,2-Dichloropropane	22.9	1.0	ug/l	25.0		91	75-130			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
LCS Analyzed: 11/22/2011 (11K0879-BS1)										
1,1-Dichloropropene	26.0	0.50	ug/l	25.0		104	75-120			
cis-1,3-Dichloropropene	23.7	0.50	ug/l	25.0		95	80-120			
trans-1,3-Dichloropropene	22.8	0.50	ug/l	25.0		91	80-125			
Ethylbenzene	27.4	0.50	ug/l	25.0		109	80-120			
Hexachlorobutadiene	28.7	1.0	ug/l	25.0		115	40-150			
2-Hexanone	31.2	2.5	ug/l	25.0		125	20-150			
Iodomethane	25.4	2.5	ug/l	25.0		102	80-130			
Isopropylbenzene	31.1	0.50	ug/l	25.0		124	80-130			
p-Isopropyltoluene	27.8	0.50	ug/l	25.0		111	80-130			
Methylene Chloride	19.8	1.0	ug/l	25.0		79	70-120			
4-Methyl-2-pentanone (MIBK)	23.5	2.5	ug/l	25.0		94	60-135			
Methyl-tert-butyl Ether (MTBE)	23.1	0.50	ug/l	25.0		92	70-130			
Naphthalene	27.0	2.5	ug/l	25.0		108	40-150			
n-Propylbenzene	30.3	0.50	ug/l	25.0		121	75-130			
Styrene	26.4	0.50	ug/l	25.0		106	80-120			
1,1,1,2-Tetrachloroethane	24.8	0.50	ug/l	25.0		99	75-125			
1,1,2,2-Tetrachloroethane	25.6	0.50	ug/l	25.0		102	80-120			
Tetrachloroethene	26.0	0.50	ug/l	25.0		104	70-130			
Toluene	23.1	0.50	ug/l	25.0		92	80-120			
1,2,3-Trichlorobenzene	29.7	1.0	ug/l	25.0		119	55-150			
1,2,4-Trichlorobenzene	29.8	1.0	ug/l	25.0		119	50-150			
1,1,1-Trichloroethane	21.4	0.50	ug/l	25.0		86	75-125			
1,1,2-Trichloroethane	22.3	0.50	ug/l	25.0		89	80-120			
Trichloroethene	22.8	0.50	ug/l	25.0		91	80-120			
Trichlorofluoromethane	26.8	0.50	ug/l	25.0		107	70-150			
1,2,3-Trichloropropane	27.0	1.0	ug/l	25.0		108	70-130			
1,2,4-Trimethylbenzene	28.4	0.50	ug/l	25.0		114	80-120			
1,3,5-Trimethylbenzene	29.0	0.50	ug/l	25.0		116	80-130			
Vinyl Acetate	20.7	1.0	ug/l	25.0		83	40-150			
Vinyl chloride	23.8	0.50	ug/l	25.0		95	70-130			
Xylenes, Total	53.9	1.0	ug/l	50.0		108	60-140			
Freon 113	23.0	2.0	ug/l	25.0		92	60-140			
Surrogate: Dibromofluoromethane	*23.3*		*ug/l*	*25.0*		*93*	*80-130*			
Surrogate: Toluene-d8	*24.3*		*ug/l*	*25.0*		*97*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.6*		*ug/l*	*25.0*		*94*	*80-125*			

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Kyli Emily
Project Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
LCS Dup Analyzed: 11/22/2011 (11K0879-BSD1)										
Acetone	22.3	10	ug/l	25.0		89	10-150	21	35	
Benzene	23.0	0.50	ug/l	25.0		92	80-120	2	15	
Bromobenzene	27.2	0.50	ug/l	25.0		109	80-120	0.2	15	
Bromochloromethane	20.8	0.50	ug/l	25.0		83	80-125	0.8	15	
Bromodichloromethane	22.1	0.50	ug/l	25.0		88	80-120	0.7	15	
Bromoform	28.0	1.0	ug/l	25.0		112	75-130	2	20	
Bromomethane	20.1	1.0	ug/l	25.0		80	55-150	2	20	
2-Butanone (MEK)	21.9	2.5	ug/l	25.0		88	40-150	13	35	
n-Butylbenzene	29.4	0.50	ug/l	25.0		117	80-130	0.1	15	
sec-Butylbenzene	28.4	0.50	ug/l	25.0		114	80-125	1	15	
tert-Butylbenzene	27.9	0.50	ug/l	25.0		111	80-120	3	15	
Carbon disulfide	23.3	1.0	ug/l	25.0		93	70-140	4	15	
Carbon tetrachloride	23.6	0.50	ug/l	25.0		94	75-130	1	20	
Chlorobenzene	23.9	0.50	ug/l	25.0		96	80-120	1	15	
Chloroethane	22.0	1.0	ug/l	25.0		88	70-130	3	15	
Chloroform	19.3	0.50	ug/l	25.0		77	75-120	3	15	
Chloromethane	19.0	1.0	ug/l	25.0		76	60-140	2	20	
2-Chlorotoluene	27.4	0.50	ug/l	25.0		110	80-120	2	15	
4-Chlorotoluene	27.6	0.50	ug/l	25.0		110	80-120	0.9	15	
Dibromochloromethane	25.6	0.50	ug/l	25.0		102	80-120	2	15	
1,2-Dibromo-3-chloropropane	29.5	2.5	ug/l	25.0		118	50-150	10	35	
1,2-Dibromoethane (EDB)	26.3	0.50	ug/l	25.0		105	80-120	2	15	
Dibromomethane	23.3	0.50	ug/l	25.0		93	75-120	4	15	
1,2-Dichlorobenzene	27.0	0.50	ug/l	25.0		108	80-120	0	15	
1,3-Dichlorobenzene	26.4	0.50	ug/l	25.0		106	80-120	1	15	
1,4-Dichlorobenzene	25.9	0.50	ug/l	25.0		103	80-120	0.5	15	
Dichlorodifluoromethane	18.5	0.50	ug/l	25.0		74	60-150	3	30	
1,1-Dichloroethane	19.6	0.50	ug/l	25.0		79	70-125	3	15	
1,2-Dichloroethane	20.8	0.50	ug/l	25.0		83	75-130	1	15	
1,1-Dichloroethene	20.8	0.50	ug/l	25.0		83	75-125	8	20	
cis-1,2-Dichloroethene	21.0	0.50	ug/l	25.0		84	80-120	4	15	
trans-1,2-Dichloroethene	21.1	0.50	ug/l	25.0		84	80-120	5	15	
1,2-Dichloropropane	23.0	0.50	ug/l	25.0		92	80-120	0.09	15	
1,3-Dichloropropane	24.4	0.50	ug/l	25.0		97	80-120	0.08	15	
2,2-Dichloropropane	21.7	1.0	ug/l	25.0		87	75-130	5	15	

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Environmental Resources Management Inc.-West
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Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
LCS Dup Analyzed: 11/22/2011 (11K0879-BSD1)										
1,1-Dichloropropene	25.7	0.50	ug/l	25.0		103	75-120	0.9	15	
cis-1,3-Dichloropropene	24.2	0.50	ug/l	25.0		97	80-120	2	15	
trans-1,3-Dichloropropene	23.6	0.50	ug/l	25.0		94	80-125	3	15	
Ethylbenzene	27.0	0.50	ug/l	25.0		108	80-120	1	15	
Hexachlorobutadiene	27.9	1.0	ug/l	25.0		112	40-150	3	35	
2-Hexanone	29.1	2.5	ug/l	25.0		116	20-150	7	35	
Iodomethane	24.5	2.5	ug/l	25.0		98	80-130	4	10	
Isopropylbenzene	30.4	0.50	ug/l	25.0		122	80-130	2	15	
p-Isopropyltoluene	27.2	0.50	ug/l	25.0		109	80-130	2	15	
Methylene Chloride	19.1	1.0	ug/l	25.0		76	70-120	4	15	
4-Methyl-2-pentanone (MIBK)	26.2	2.5	ug/l	25.0		105	60-135	11	25	
Methyl-tert-butyl Ether (MTBE)	23.5	0.50	ug/l	25.0		94	70-130	2	20	
Naphthalene	28.6	2.5	ug/l	25.0		115	40-150	6	30	
n-Propylbenzene	29.8	0.50	ug/l	25.0		119	75-130	2	15	
Styrene	26.4	0.50	ug/l	25.0		106	80-120	0.04	15	
1,1,1,2-Tetrachloroethane	25.0	0.50	ug/l	25.0		100	75-125	0.6	15	
1,1,2,2-Tetrachloroethane	25.9	0.50	ug/l	25.0		104	80-120	1	20	
Tetrachloroethene	24.9	0.50	ug/l	25.0		99	70-130	4	20	
Toluene	23.4	0.50	ug/l	25.0		93	80-120	1	15	
1,2,3-Trichlorobenzene	30.4	1.0	ug/l	25.0		122	55-150	2	35	
1,2,4-Trichlorobenzene	30.0	1.0	ug/l	25.0		120	50-150	0.7	30	
1,1,1-Trichloroethane	21.2	0.50	ug/l	25.0		85	75-125	1	15	
1,1,2-Trichloroethane	23.6	0.50	ug/l	25.0		94	80-120	6	15	
Trichloroethene	22.1	0.50	ug/l	25.0		88	80-120	3	15	
Trichlorofluoromethane	25.9	0.50	ug/l	25.0		104	70-150	3	25	
1,2,3-Trichloropropane	27.8	1.0	ug/l	25.0		111	70-130	3	20	
1,2,4-Trimethylbenzene	28.0	0.50	ug/l	25.0		112	80-120	1	15	
1,3,5-Trimethylbenzene	28.7	0.50	ug/l	25.0		115	80-130	1	15	
Vinyl Acetate	21.2	1.0	ug/l	25.0		85	40-150	2	25	
Vinyl chloride	22.7	0.50	ug/l	25.0		91	70-130	5	20	
Xylenes, Total	52.5	1.0	ug/l	50.0		105	60-140	3	15	
Freon 113	21.4	2.0	ug/l	25.0		86	60-140	7	15	
Surrogate: Dibromofluoromethane	*22.8*		*ug/l*	*25.0*		*91*	*80-130*			
Surrogate: Toluene-d8	*24.7*		*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.1*		*ug/l*	*25.0*		*96*	*80-125*			

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Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Matrix Spike Analyzed: 11/22/2011 (11K0879-MS1)					**Source: PUK1044-03**					
Acetone	20.3	10	ug/l	25.0	ND	81	10-150			
Benzene	23.6	0.50	ug/l	25.0	ND	95	70-125			
Bromobenzene	27.7	0.50	ug/l	25.0	ND	111	75-120			
Bromochloromethane	20.3	0.50	ug/l	25.0	ND	81	75-130			
Bromodichloromethane	22.0	0.50	ug/l	25.0	ND	88	75-125			
Bromoform	27.1	1.0	ug/l	25.0	ND	108	65-125			
Bromomethane	21.4	1.0	ug/l	25.0	ND	86	45-150			
2-Butanone (MEK)	20.1	2.5	ug/l	25.0	ND	80	15-150			
n-Butylbenzene	30.6	0.50	ug/l	25.0	ND	122	70-130			
sec-Butylbenzene	29.7	0.50	ug/l	25.0	ND	119	70-125			
tert-Butylbenzene	29.6	0.50	ug/l	25.0	ND	119	70-125			
Carbon disulfide	24.4	1.0	ug/l	25.0	ND	98	65-145			
Carbon tetrachloride	24.7	0.50	ug/l	25.0	ND	99	65-135			
Chlorobenzene	24.4	0.50	ug/l	25.0	ND	98	75-120			
Chloroethane	23.5	1.0	ug/l	25.0	ND	94	65-140			
Chloroform	19.8	0.50	ug/l	25.0	0.270	78	70-130			
Chloromethane	20.0	1.0	ug/l	25.0	ND	80	55-145			
2-Chlorotoluene	28.4	0.50	ug/l	25.0	ND	113	70-125			
4-Chlorotoluene	27.8	0.50	ug/l	25.0	ND	111	70-125			
Dibromochloromethane	24.7	0.50	ug/l	25.0	ND	99	70-130			
1,2-Dibromo-3-chloropropane	26.3	2.5	ug/l	25.0	ND	105	50-150			
1,2-Dibromoethane (EDB)	25.1	0.50	ug/l	25.0	ND	100	70-125			
Dibromomethane	22.1	0.50	ug/l	25.0	ND	88	70-120			
1,2-Dichlorobenzene	27.2	0.50	ug/l	25.0	ND	109	75-120			
1,3-Dichlorobenzene	27.1	0.50	ug/l	25.0	ND	108	75-120			
1,4-Dichlorobenzene	26.2	0.50	ug/l	25.0	ND	105	70-125			
Dichlorodifluoromethane	20.0	0.50	ug/l	25.0	ND	80	60-150			
1,1-Dichloroethane	20.3	0.50	ug/l	25.0	ND	81	70-130			
1,2-Dichloroethane	20.0	0.50	ug/l	25.0	0.400	79	65-140			
1,1-Dichloroethene	23.2	0.50	ug/l	25.0	ND	93	70-130			
cis-1,2-Dichloroethene	21.7	0.50	ug/l	25.0	ND	87	70-125			
trans-1,2-Dichloroethene	21.9	0.50	ug/l	25.0	ND	88	75-125			
1,2-Dichloropropane	23.1	0.50	ug/l	25.0	ND	93	75-125			
1,3-Dichloropropane	23.9	0.50	ug/l	25.0	ND	96	70-120			
2,2-Dichloropropane	23.2	1.0	ug/l	25.0	ND	93	65-140			

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Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Matrix Spike Analyzed: 11/22/2011 (11K0879-MS1)					**Source: PUK1044-03**					
1,1-Dichloropropene	27.5	0.50	ug/l	25.0	ND	110	65-130			
cis-1,3-Dichloropropene	23.5	0.50	ug/l	25.0	ND	94	75-130			
trans-1,3-Dichloropropene	22.8	0.50	ug/l	25.0	ND	91	70-130			
Ethylbenzene	27.9	0.50	ug/l	25.0	ND	112	70-125			
Hexachlorobutadiene	30.0	1.0	ug/l	25.0	ND	120	40-150			
2-Hexanone	25.8	2.5	ug/l	25.0	ND	103	20-150			
Iodomethane	25.6	2.5	ug/l	25.0	ND	102	60-150			
Isopropylbenzene	31.4	0.50	ug/l	25.0	ND	126	75-130			
p-Isopropyltoluene	28.2	0.50	ug/l	25.0	ND	113	70-130			
Methylene Chloride	19.3	1.0	ug/l	25.0	ND	77	65-130			
4-Methyl-2-pentanone (MIBK)	23.2	2.5	ug/l	25.0	ND	93	55-135			
Methyl-tert-butyl Ether (MTBE)	21.6	0.50	ug/l	25.0	ND	86	65-140			
Naphthalene	27.0	2.5	ug/l	25.0	ND	108	40-150			
n-Propylbenzene	31.2	0.50	ug/l	25.0	ND	125	70-130			
Styrene	23.6	0.50	ug/l	25.0	ND	95	55-135			
1,1,1,2-Tetrachloroethane	25.0	0.50	ug/l	25.0	ND	100	70-125			
1,1,2,2-Tetrachloroethane	24.8	0.50	ug/l	25.0	ND	99	70-125			
Tetrachloroethene	27.2	0.50	ug/l	25.0	ND	109	65-130			
Toluene	23.8	0.50	ug/l	25.0	ND	95	70-125			
1,2,3-Trichlorobenzene	30.0	1.0	ug/l	25.0	ND	120	50-150			
1,2,4-Trichlorobenzene	30.6	1.0	ug/l	25.0	ND	123	50-150			
1,1,1-Trichloroethane	21.9	0.50	ug/l	25.0	ND	88	70-130			
1,1,2-Trichloroethane	21.8	0.50	ug/l	25.0	ND	87	75-125			
Trichloroethene	23.8	0.50	ug/l	25.0	ND	95	70-125			
Trichlorofluoromethane	28.2	0.50	ug/l	25.0	ND	113	65-150			
1,2,3-Trichloropropane	25.3	1.0	ug/l	25.0	ND	101	70-130			
1,2,4-Trimethylbenzene	27.3	0.50	ug/l	25.0	ND	109	70-125			
1,3,5-Trimethylbenzene	28.8	0.50	ug/l	25.0	ND	115	75-130			
Vinyl Acetate	19.7	1.0	ug/l	25.0	ND	79	40-150			
Vinyl chloride	25.1	0.50	ug/l	25.0	ND	100	60-140			
Xylenes, Total	54.2	1.0	ug/l	50.0	ND	108	75-120			
Freon 113	23.8	2.0	ug/l	25.0	ND	95	65-140			
Surrogate: Dibromofluoromethane	*22.7*		*ug/l*	*25.0*		*91*	*80-130*			
Surrogate: Toluene-d8	*24.5*		*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.8*		*ug/l*	*25.0*		*95*	*80-125*			

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Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Matrix Spike Dup Analyzed: 11/22/2011 (11K0879-MSD1)					**Source: PUK1044-03**					
Acetone	18.5	10	ug/l	25.0	ND	74	10-150	9	35	
Benzene	22.3	0.50	ug/l	25.0	ND	89	70-125	6	25	
Bromobenzene	26.4	0.50	ug/l	25.0	ND	106	75-120	5	20	
Bromochloromethane	19.5	0.50	ug/l	25.0	ND	78	75-130	4	20	
Bromodichloromethane	21.4	0.50	ug/l	25.0	ND	85	75-125	3	20	
Bromoform	24.5	1.0	ug/l	25.0	ND	98	65-125	10	25	
Bromomethane	18.9	1.0	ug/l	25.0	ND	76	45-150	13	35	
2-Butanone (MEK)	18.8	2.5	ug/l	25.0	ND	75	15-150	7	30	
n-Butylbenzene	29.4	0.50	ug/l	25.0	ND	118	70-130	4	30	
sec-Butylbenzene	28.8	0.50	ug/l	25.0	ND	115	70-125	3	30	
tert-Butylbenzene	28.2	0.50	ug/l	25.0	ND	113	70-125	5	25	
Carbon disulfide	16.8	1.0	ug/l	25.0	ND	67	65-145	37	25	*R1*
Carbon tetrachloride	22.7	0.50	ug/l	25.0	ND	91	65-135	8	25	
Chlorobenzene	23.7	0.50	ug/l	25.0	ND	95	75-120	3	20	
Chloroethane	21.0	1.0	ug/l	25.0	ND	84	65-140	11	25	
Chloroform	19.1	0.50	ug/l	25.0	0.270	75	70-130	3	20	
Chloromethane	17.6	1.0	ug/l	25.0	ND	70	55-145	13	35	
2-Chlorotoluene	27.5	0.50	ug/l	25.0	ND	110	70-125	3	25	
4-Chlorotoluene	27.0	0.50	ug/l	25.0	ND	108	70-125	3	25	
Dibromochloromethane	23.6	0.50	ug/l	25.0	ND	94	70-130	4	20	
1,2-Dibromo-3-chloropropane	25.3	2.5	ug/l	25.0	ND	101	50-150	4	30	
1,2-Dibromoethane (EDB)	24.7	0.50	ug/l	25.0	ND	99	70-125	2	20	
Dibromomethane	21.4	0.50	ug/l	25.0	ND	85	70-120	3	20	
1,2-Dichlorobenzene	25.7	0.50	ug/l	25.0	ND	103	75-120	6	20	
1,3-Dichlorobenzene	25.6	0.50	ug/l	25.0	ND	103	75-120	5	25	
1,4-Dichlorobenzene	25.0	0.50	ug/l	25.0	ND	100	70-125	5	20	
Dichlorodifluoromethane	18.3	0.50	ug/l	25.0	ND	73	60-150	9	30	
1,1-Dichloroethane	19.0	0.50	ug/l	25.0	ND	76	70-130	6	20	
1,2-Dichloroethane	19.6	0.50	ug/l	25.0	0.400	77	65-140	2	20	
1,1-Dichloroethene	21.4	0.50	ug/l	25.0	ND	86	70-130	8	25	
cis-1,2-Dichloroethene	20.5	0.50	ug/l	25.0	ND	82	70-125	6	20	
trans-1,2-Dichloroethene	20.9	0.50	ug/l	25.0	ND	84	75-125	5	25	
1,2-Dichloropropane	22.1	0.50	ug/l	25.0	ND	89	75-125	4	20	
1,3-Dichloropropane	23.4	0.50	ug/l	25.0	ND	94	70-120	2	20	
2,2-Dichloropropane	21.0	1.0	ug/l	25.0	ND	84	65-140	10	25	

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Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 11K0879 Extracted: 11/22/11										
Matrix Spike Dup Analyzed: 11/22/2011 (11K0879-MSD1)					**Source: PUK1044-03**					
1,1-Dichloropropene	25.5	0.50	ug/l	25.0	ND	102	65-130	8	25	
cis-1,3-Dichloropropene	21.4	0.50	ug/l	25.0	ND	86	75-130	9	20	
trans-1,3-Dichloropropene	21.2	0.50	ug/l	25.0	ND	85	70-130	7	20	
Ethylbenzene	26.7	0.50	ug/l	25.0	ND	107	70-125	4	25	
Hexachlorobutadiene	28.0	1.0	ug/l	25.0	ND	112	40-150	7	30	
2-Hexanone	25.6	2.5	ug/l	25.0	ND	103	20-150	0.5	30	
Iodomethane	24.0	2.5	ug/l	25.0	ND	96	60-150	6	30	
Isopropylbenzene	30.3	0.50	ug/l	25.0	ND	121	75-130	4	25	
p-Isopropyltoluene	27.0	0.50	ug/l	25.0	ND	108	70-130	4	30	
Methylene Chloride	17.7	1.0	ug/l	25.0	ND	71	65-130	8	20	
4-Methyl-2-pentanone (MIBK)	23.0	2.5	ug/l	25.0	ND	92	55-135	0.9	25	
Methyl-tert-butyl Ether (MTBE)	20.3	0.50	ug/l	25.0	ND	81	65-140	6	25	
Naphthalene	25.6	2.5	ug/l	25.0	ND	102	40-150	6	30	
n-Propylbenzene	29.8	0.50	ug/l	25.0	ND	119	70-130	4	30	
Styrene	23.2	0.50	ug/l	25.0	ND	93	55-135	2	35	
1,1,1,2-Tetrachloroethane	23.9	0.50	ug/l	25.0	ND	96	70-125	4	20	
1,1,2,2-Tetrachloroethane	24.3	0.50	ug/l	25.0	ND	97	70-125	2	25	
Tetrachloroethene	25.8	0.50	ug/l	25.0	ND	103	65-130	5	25	
Toluene	22.6	0.50	ug/l	25.0	ND	90	70-125	5	20	
1,2,3-Trichlorobenzene	28.1	1.0	ug/l	25.0	ND	112	50-150	7	35	
1,2,4-Trichlorobenzene	28.7	1.0	ug/l	25.0	ND	115	50-150	6	25	
1,1,1-Trichloroethane	20.8	0.50	ug/l	25.0	ND	83	70-130	5	25	
1,1,2-Trichloroethane	21.1	0.50	ug/l	25.0	ND	85	75-125	3	20	
Trichloroethene	22.2	0.50	ug/l	25.0	ND	89	70-125	7	25	
Trichlorofluoromethane	25.3	0.50	ug/l	25.0	ND	101	65-150	11	25	
1,2,3-Trichloropropane	26.1	1.0	ug/l	25.0	ND	104	70-130	3	25	
1,2,4-Trimethylbenzene	26.7	0.50	ug/l	25.0	ND	107	70-125	2	30	
1,3,5-Trimethylbenzene	27.7	0.50	ug/l	25.0	ND	111	75-130	4	25	
Vinyl Acetate	17.8	1.0	ug/l	25.0	ND	71	40-150	11	30	
Vinyl chloride	21.9	0.50	ug/l	25.0	ND	88	60-140	14	25	
Xylenes, Total	52.2	1.0	ug/l	50.0	ND	104	75-120	4	15	
Freon 113	22.3	2.0	ug/l	25.0	ND	89	65-140	6	20	
Surrogate: Dibromofluoromethane	*22.4*		*ug/l*	*25.0*		*90*	*80-130*			
Surrogate: Toluene-d8	*24.5*		*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.8*		*ug/l*	*25.0*		*95*	*80-125*			

TestAmerica Phoenix

Kyli Emily
Project Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4625 East Cotton Center Blvd. Ste 189, Phoenix, AZ 85040 (602) 437-3340 Fax:(602) 454-9303

Environmental Resources Management Inc.-West
7272 E. Indian School Rd., Ste. 100
Scottsdale, AZ 85251
Attention: David Abranovic

Project ID: OU3/0096498.020
Report Number: PUK1116

Sampled: 11/15/11-11/16/11
Received: 11/16/11

DATA QUALIFIERS AND DEFINITIONS

R1	The RPD/RSD exceeded the method acceptance limit.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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Received: 11/16/11

Certification Summary

TestAmerica Phoenix

Method	Matrix	Nelac	Arizona
EPA 8260B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Phoenix

Kyli Emily
Project Manager

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CALIBRATION DATA

METHOD: 8260

DATE: 11/21/11

TestAmerica
Phoenix

Instrument ID	GCMS 9
Date:	11/21/11
Analyst	☆
Method(s)	8260/624
50 ppm Cal. Std.	PU07078
500 / 250 ppm EtOH/TBA Cal. Std.	07051
50 ppm SS Std.	07128
500 / 250 ppm EtOH/TBA SS Std.	06961

This table outlines the initial calibration preparation for GCMS 9 & GCMS 13.

	FINAL CONCENTRATIONS (ppb)		SPIKE AMOUNTS (uL)	
Calibration number	ISTD / Surrogates *	Target Compounds VOC / EtOH / TBA	Calibration standard 50 ppm and Ethanol/TBA standard 500 ppm /250 ppm	Final Volume (mL)
1	25	0.5 / 2.5 / 5	1	100
2	25	1 / 5 10	1	50
3	25	2 / 10 / 20	2	50
4	25	5 / 25 / 50	5	50
5	25	10 / 50 / 100	10	50
6*	**25**	**25 / 125 / 250**	**25**	**50**
7	25	50 / 250 / 500	50	50
8	25	100 / 500 / 1000	100	50
~~9~~	~~25~~	~~200 / 1000 / 2000~~	~~200~~	~~50~~ ①

**SS/ICVs are at the same level as Calibration point #6 and prepared the same way.*

① this pt not run ☆ 11/22/11

Reviewed By: [signature] Date: 11/~~22~~ 23/11

PX-VOA-027B-07/11

RESPONSE FACTOR REPORT
Operator
Standard Lot
Reviewed by
GCMS9

11/23/11

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

Calibration File
1 =11211111.D 2 =11211112.D 3 =11211113.D 4 =11211114.D
6 =11211116.D 7 =11211117.D 8 =11211118.D = =

	Compound	1	2	3	4	5	6	7	8	Avg	%RSD	
I	TBA-d9	ISTD										
T	Ethanol	—	—	—	1.025	0.767	0.892	0.808	0.703	0.839	14.84	
T	tert-Butanol (TBA)	—	—	3.411	3.393	3.192	3.139	3.148	2.943	3.204	5.48	
I	Pentafluorobenzene	ISTD										
T	Dichlorodifluoromethane	1.436	1.531	1.662	1.471	1.461	1.529	1.479	1.301	1.484	6.87	
P	Chloromethane	1.563	1.632	1.465	1.396	1.499	1.319	1.187	1.096	1.395	>113.24	
C	Vinyl Chloride	1.162	1.238	1.175	1.070	1.044	1.020	0.968	0.847	1.066	11.80	<30
#												
T	1,3-Butadiene	0.621	0.616	0.669	0.663	0.655	0.633	0.621	0.546	0.628	6.18	
T	Bromomethane	0.810	0.823	0.820	0.794	0.767	0.745	0.706	0.687	0.769	6.79	
T	Chloroethane	0.572	0.613	0.589	0.590	0.592	0.593	0.582	0.569	0.587	2.35	
	Acrolein									0.000	~~1.00~~	NO CAL
T	Trichlorofluoromethane	1.003	0.967	1.143	1.119	1.122	1.184	1.157	1.110	1.101	6.89	
T	Acetone	—	—	—	0.309	0.289	0.251	0.231	0.218	0.259	14.82	
	Acrylonitrile									0.000	~~1.00~~	NO CAL
T	Iodomethane	1.043	1.170	1.132	1.154	1.145	1.152	1.155	1.197	1.143	3.93	
T	1,1-Dichloroethene	0.596	0.638	0.648	0.667	0.638	0.655	0.652	0.650	0.643	3.29	
T	Methylene Chloride	1.016	0.813	0.839	0.868	0.799	0.773	0.749	0.770	0.828	10.28	
T	Freon 113	0.603	0.766	0.718	0.707	0.673	0.705	0.697	0.670	0.692	6.75	
T	Carbon Disulfide	1.918	1.891	1.965	1.914	1.878	1.970	2.010	1.983	1.941	2.44	
T	trans-1,2-Dichloroethene	0.786	0.785	0.814	0.858	0.819	0.835	0.802	0.742	0.805	4.39	
T	MTBE	0.772	0.757	0.884	0.868	1.000	0.984	1.025	1.036	0.915	12.20	
P	1,1-Dichloroethane	1.590	1.687	1.773	1.804	1.733	1.682	1.595	1.549	1.677	>1 5.50	
T	Vinyl Acetate	—	0.411	0.600	0.578	0.979	1.046	1.203	1.298	0.874	39.28	
T	n-Hexane	0.112	0.099	0.133	0.144	0.133	0.149	0.139	0.128	0.130	12.79	
T	2-Butanone (MEK)	—	—	0.043	0.049	0.053	0.048	0.046	0.041	0.047	9.00	
T	Diisopropylether (DIPE)	2.201	2.666	2.954	3.046	3.048	2.906	2.835	2.653	2.789	10.10	
T	cis-1,2-Dichloroethene	0.674	0.821	0.829	0.874	0.836	0.838	0.809	0.768	0.806	7.59	

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T	Bromochloromethane	0.380	0.379	0.403	0.395	0.396	0.376	0.356	0.349	0.379	5.00	
C	Chloroform	1.600	1.808	1.887	1.776	1.714	1.646	1.542	1.454	1.679	8.64	<30
#												
T	2,2-Dichloropropane	0.585	0.540	0.713	0.611	0.683	0.681	0.660	0.673	0.643	9.12	
T	(ETBE) 2-Ethoxy-2-methyl propane	—	—	0.911	0.928	1.064	1.074	1.122	1.138	1.040	9.35	
S	Dibromofluoromethane(surr)	0.689	0.690	0.684	0.677	0.672	0.643	0.641	0.618	0.664	4.05	
T	Tetrahydrofuran	—	—	0.041	0.030	0.031	0.037	0.041	0.037	0.036	12.90	
T	1,2-Dichloroethane	1.235	1.243	1.348	1.284	1.256	1.193	1.151	1.071	1.223	6.92	
T	1,1,1-Trichloroethane	1.229	1.229	1.395	1.301	1.287	1.325	1.270	1.168	1.276	5.42	
T	(TAME) tert-Amyl methyl ether	—	—	—	0.471	0.598	0.607	0.647	0.675	0.599	13.03	
I	1,4-Difluorobenzene	----------ISTD----------										
T	1,1-Dichloropropene	0.561	0.481	0.629	0.644	0.641	0.696	0.650	0.618	0.615	10.70	
T	Carbon Tetrachloride	0.709	0.784	0.864	0.804	0.783	0.812	0.766	0.717	0.780	6.47	
T	Benzene	1.570	1.524	1.681	1.677	1.630	1.656	1.560	1.469	1.596	4.85	
T	Dibromomethane	0.237	0.239	0.298	0.271	0.268	0.265	0.255	0.243	0.260	7.93	
C	1,2-Dichloropropane	0.431	0.440	0.459	0.485	0.481	0.464	0.441	0.412	0.452	5.55	<30
#												
T	Trichloroethene	0.443	0.498	0.519	0.532	0.497	0.498	0.475	0.447	0.489	6.49	
T	Bromodichloromethane	0.651	0.707	0.788	0.731	0.733	0.722	0.704	0.666	0.713	5.95	
	2-Chloroethyl vinylether	—	—	0.038	0.044	0.066	0.086	0.101	0.105	0.074	39.07	
T	cis-1,3-Dichloropropene	0.411	0.452	0.541	0.604	0.663	0.687	0.687	0.650	0.587	18.39	
T	4-Methyl-2-pentanone (MIBK)	—	—	0.209	0.239	0.279	0.284	0.293	0.282	0.264	12.49	
T	trans-1,3-Dichloropropene	0.392	0.401	0.475	0.502	0.564	0.591	0.598	0.571	0.512	16.17	
T	1,1,2-Trichloroethane	0.261	0.273	0.318	0.298	0.297	0.286	0.285	0.267	0.286	6.54	
S	Toluene-d8 (surr)	1.093	1.077	1.098	1.096	1.092	1.107	1.100	1.090	1.094	0.79	
C	Toluene	0.923	0.938	0.968	0.990	0.968	0.971	0.936	0.860	0.944	4.29	<30
#												
I	Chlorobenzene-d5	----------ISTD----------										
T	1,3-Dichloropropane	0.522	0.609	0.588	0.631	0.628	0.589	0.560	0.529	0.582	7.16	
T	2-Hexanone	—	—	0.147	0.182	0.190	0.203	0.213	0.210	0.191	12.96	
T	Dibromochloromethane	0.400	0.413	0.487	0.503	0.507	0.495	0.485	0.482	0.471	8.72	
T	1,2-Dibromoethane	0.262	0.287	0.357	0.332	0.353	0.346	0.338	0.336	0.326	10.31	
T	Tetrachloroethene	0.359	0.389	0.402	0.405	0.397	0.404	0.383	0.373	0.389	4.23	
T	1,1,1,2-Tetrachloroethane	0.440	0.525	0.504	0.526	0.503	0.505	0.485	0.479	0.496	5.63	
P	Chlorobenzene	1.205	1.323	1.391	1.388	1.328	1.327	1.228	1.182	1.297 >3	6.26	
C	Ethylbenzene	1.499	1.792	2.022	2.197	2.160	2.162	1.981	1.842	1.957	12.16	<30
#												
T	m,p-Xylene	0.557	0.626	0.749	0.828	0.824	0.827	0.772	0.742	0.740	13.50	
T	Styrene	0.638	0.811	1.071	1.249	1.296	1.292	1.208	1.145	1.089	22.17	
T	o-Xylene	0.512	0.732	0.822	0.880	0.827	0.811	0.736	0.689	0.751	15.32	
S	4-Bromofluorobenzene (surr)	0.581	0.581	0.603	0.596	0.588	0.576	0.549	0.530	0.576	4.24	
I	1,4-Dichlorobenzene-d4	----------ISTD----------										
P	Bromoform	0.405	0.423	0.416	0.441	0.466	0.492	0.504	0.525	0.459 >1	9.73	
P	1,1,2,2-Tetrachloroethane	0.604	0.717	0.711	0.671	0.635	0.611	0.570	0.527	0.631 >3	10.52	
T	1,2,3-Trichloropropane	—	0.195	0.194	0.182	0.198	0.189	0.194	0.190	0.192 *	2.70	

11/22/11

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T	trans-1,4-Dichloro-2-butene	—	—	0.173	0.214	0.263	0.264	0.272	0.277	0.244	17.01
T	Isopropylbenzene	2.142	2.723	3.296	3.687	3.647	3.795	3.546	3.439	3.285	17.33
T	Bromobenzene	0.751	0.873	0.911	0.955	0.975	0.970	0.940	0.931	0.913	8.03
T	n-Propylbenzene	3.217	3.918	4.444	4.746	4.568	4.702	4.379	4.152	4.266	11.86
T	2-Chlorotoluene	2.304	2.684	2.957	3.178	3.024	3.042	2.851	2.760	2.850	9.57
T	4-Chlorotoluene	2.344	2.805	3.146	3.268	3.164	3.144	2.943	2.779	2.949	10.26
T	1,3,5-Trimethylbenzene	2.296	2.937	3.385	3.612	3.549	3.576	3.346	3.190	3.236	13.64
T	tert-Butylbenzene	1.764	2.217	2.576	2.803	2.870	2.916	2.761	2.703	2.576	15.33
T	1,2,4-Trimethylbenzene	2.316	2.953	3.590	3.747	3.637	3.668	3.412	3.279	3.325	14.50
T	sec-Butylbenzene	3.153	3.791	4.173	4.513	4.270	4.339	4.043	3.761	4.005	10.77
T	1,3-Dichlorobenzene	1.752	1.747	2.001	1.981	1.912	1.921	1.832	1.783	1.866	5.42
T	1,4-Dichlorobenzene	1.888	1.931	1.954	1.949	1.935	1.868	1.796	1.724	1.881	4.39
T	4-Isopropyltoluene	3.257	3.504	3.857	3.913	3.741	3.848	3.543	3.321	3.623	6.99
T	1,2-Dichlorobenzene	1.466	1.562	1.714	1.690	1.717	1.714	1.657	1.568	1.636	5.72
T	n-Butylbenzene	2.576	2.923	3.488	3.625	3.470	3.536	3.236	2.956	3.226	11.54
T	1,2-Dibromo-3-chloropropane	—	—	0.104	0.108	0.116	0.116	0.117	0.114	0.113	4.75
T	1,2,4-Trichlorobenzene	—	0.903	1.013	1.143	1.205	1.307	1.312	1.259	1.163	13.34
T	Naphthalene	—	—	0.984	1.253	1.562	1.676	1.750	1.642	1.478	20.12
T	Hexachlorobutadiene	0.987	0.838	0.938	0.880	0.837	0.883	0.833	0.826	0.878	6.61
T	1,2,3-Trichlorobenzene	—	0.676	0.852	0.929	0.997	1.047	1.057	1.007	0.938	14.47

(#) = Out of Range

112111.M Tue Nov 22 12:27:21 2011

Compound List Report GCMS9

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
Total Cpnds : 88

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	TBA-d9	65	7.59	1.000	A	0	A	B
2	T	Ethanol	45	6.17	0.813	A	1	A	B
3	T	tert-Butanol (TBA)	59	7.70	1.014	A	1	A	B
4	I	Pentafluorobenzene	168	10.70	1.000	A	1	A	B
5	T	Dichlorodifluoromethane	85	4.88	0.456	A	1	A	B
6	P	Chloromethane	50	5.14	0.481	A	1	A	B
7	C	Vinyl Chloride	62	5.48	0.512	A	1	A	B
8	T	1,3-Butadiene	54	5.57	0.521	A	2	A	B
9	T	Bromomethane	94	6.03	0.564	A	1	A	B
10	T	Chloroethane	64	6.21	0.580	A	2	A	B
11		Acrolein	56	6.99	0.653	A	1	A	B
12	T	Trichlorofluoromethane	101	6.96	0.650	A	1	A	B
13	T	Acetone	43	7.11	0.664	A	1	A	L
14		Acrylonitrile	53	7.65	0.715	A	1	A	B
15	T	Iodomethane	142	7.79	0.728	A	2	A	B
16	T	1,1-Dichloroethene	96	7.72	0.722	A	2	A	L
17	T	Methylene Chloride	84	7.86	0.735	A	2	A	B
18	T	Freon 113	101	8.01	0.749	A	2	A	B
19	T	Carbon Disulfide	76	8.19	0.766	A	2	A	B
20	T	trans-1,2-Dichloroethene	96	8.73	0.816	A	2	A	B
21	T	MTBE	73	8.87	0.829	A	1	A	B
22	P	1,1-Dichloroethane	63	9.05	0.846	A	2	A	B
23	T	Vinyl Acetate	43	9.21	0.860	L	1	A	B
24	T	n-Hexane	86	9.55	0.893	A	1	A	B
25	T	2-Butanone (MEK)	72	9.59	0.897	A	2	A	B
26	T	Diisopropylether (DIPE)	45	9.59	0.897	A	3	A	B
27	T	cis-1,2-Dichloroethene	96	9.79	0.915	A	2	A	B
28	T	Bromochloromethane	128	10.00	0.935	A	2	A	B
29	C	Chloroform	83	10.05	0.939	A	2	A	B
30	T	2,2-Dichloropropane	77	10.16	0.950	A	2	A	B
31	T	(ETBE) 2-Ethoxy-2-methyl propa	59	10.10	0.944	A	2	A	B
32	S	Dibromofluoromethane(surr)	113	10.21	0.954	A	0	A	B
33	T	Tetrahydrofuran	72	10.47	0.979	A	2	A	B
34	T	1,2-Dichloroethane	62	10.88	1.017	A	2	A	B
35	T	1,1,1-Trichloroethane	97	11.02	1.030	A	2	A	B
36	T	(TAME) tert-Amyl methyl ether	73	11.71	1.094	A	3	A	R
37	I	1,4-Difluorobenzene	114	11.82	1.000	A	0	A	B
38	T	1,1-Dichloropropene	75	11.25	0.952	A	2	A	B
39	T	Carbon Tetrachloride	117	11.49	0.972	A	2	A	B
40	T	Benzene	78	11.54	0.976	A	1	A	B
41	T	Dibromomethane	93	12.26	1.037	A	2	A	B
42	C	1,2-Dichloropropane	63	12.31	1.041	A	2	A	B
43	T	Trichloroethene	95	12.35	1.045	A	3	A	B
44	T	Bromodichloromethane	83	12.42	1.051	A	2	A	B
45		2-Chloroethyl vinylether	63	12.93	1.094	L	1	A	B
46	T	cis-1,3-Dichloropropene	75	13.24	1.120	L	2	A	B
47	T	4-Methyl-2-pentanone (MIBK)	43	13.38	1.132	A	1	A	L
48	T	trans-1,3-Dichloropropene	75	13.81	1.168	L	2	A	B
49	T	1,1,2-Trichloroethane	97	14.03	1.187	A	2	A	Q
50	S	Toluene-d8 (surr)	98	14.19	1.200	A	0	A	B
51	C	Toluene	92	14.29	1.209	A	2	A	Q
52	I	Chlorobenzene-d5	117	16.14	1.000	A	0	A	B
53	T	1,3-Dichloropropane	76	14.34	0.888	A	1	A	B
54	T	2-Hexanone	43	14.52	0.900	A	2	A	B
55	T	Dibromochloromethane	129	14.72	0.912	A	1	A	B
56	T	1,2-Dibromoethane	107	15.05	0.933	A	1	A	B
57	T	Tetrachloroethene	164	15.27	0.946	A	2	A	B
58	T	1,1,1,2-Tetrachloroethane	131	16.08	0.996	A	2	A	B
59	P	Chlorobenzene	112	16.19	1.003	A	2	A	B

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60	C	Ethylbenzene	91	16.44	1.019	A	1	A	B
61	T	m,p-Xylene	106	16.71	1.035	A	2	A	B
62	T	Styrene	104	17.16	1.063	L	3	A	B
63	T	o-Xylene	106	17.26	1.069	L	2	A	B
64	S	4-Bromofluorobenzene (surr)	95	17.82	1.104	A	2	A	B
65	I	1,4-Dichlorobenzene-d4	152	19.59	1.000	A	2	A	B
66	P	Bromoform	173	16.88	0.862	A	1	A	B
67	P	1,1,2,2-Tetrachloroethane	83	17.25	0.880	A	2	A	B
68	T	1,2,3-Trichloropropane	110	17.45	0.891	A	2	A	R
69	T	trans-1,4-Dichloro-2-butene	53	17.46	0.892	L	2	A	B
70	T	Isopropylbenzene	105	17.76	0.907	L	1	A	L
71	T	Bromobenzene	156	18.12	0.925	A	2	A	B
72	T	n-Propylbenzene	91	18.37	0.938	A	1	A	B
73	T	2-Chlorotoluene	91	18.51	0.945	A	1	A	R
74	T	4-Chlorotoluene	91	18.62	0.951	A	1	A	R
75	T	1,3,5-Trimethylbenzene	105	18.76	0.958	A	1	A	B
76	T	tert-Butylbenzene	119	19.14	0.977	L	2	A	B
77	T	1,2,4-Trimethylbenzene	105	19.28	0.984	A	1	A	B
78	T	sec-Butylbenzene	105	19.43	0.992	A	1	A	R
79	T	1,3-Dichlorobenzene	146	19.54	0.997	A	2	A	R
80	T	1,4-Dichlorobenzene	146	19.62	1.002	A	2	A	R
81	T	4-Isopropyltoluene	119	19.65	1.003	A	2	A	R
82	T	1,2-Dichlorobenzene	146	20.06	1.024	A	2	A	B
83	T	n-Butylbenzene	91	20.15	1.029	A	2	A	B
84	T	1,2-Dibromo-3-chloropropane	75	20.62	1.053	A	2	A	B
85	T	1,2,4-Trichlorobenzene	180	22.36	1.141	A	2	A	B
86	T	Naphthalene	128	22.71	1.160	L	1	A	B
87	T	Hexachlorobutadiene	225	22.76	1.162	A	2	A	B
88	T	1,2,3-Trichlorobenzene	180	22.98	1.173	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

112111.M Tue Nov 22 12:26:56 2011

Calibration Status Report GCMS9

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

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#	ID	Conc	ISTD Conc	Path\File
1	1	5	200	C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D
2	2	10	200	C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D
3	3	20	200	C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D
4	4	50	200	C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D
5	5	100	200	C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D
6	6	250	200	C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D
7	7	500	200	C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D
8	8	1000	200	C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Nov 22 10:55 2011	Nov 22 10:31 19111	21 Nov 2011 3:56 pm
2	2	Nov 22 10:55 2011	Nov 22 10:34 19111	21 Nov 2011 4:28 pm
3	3	Nov 22 10:59 2011	Nov 22 10:59 19111	21 Nov 2011 4:59 pm
4	4	Nov 22 10:56 2011	Nov 22 10:40 19111	21 Nov 2011 5:31 pm
5	5	Nov 22 10:56 2011	Nov 22 10:43 19111	21 Nov 2011 6:03 pm
6	6	Nov 22 10:56 2011	Nov 22 10:46 19111	21 Nov 2011 6:35 pm
7	7	Nov 22 10:56 2011	Nov 22 10:54 19111	21 Nov 2011 7:06 pm
8	8	Nov 22 10:56 2011	Nov 22 10:52 19111	21 Nov 2011 7:38 pm

112111.M Tue Nov 22 12:27:09 2011

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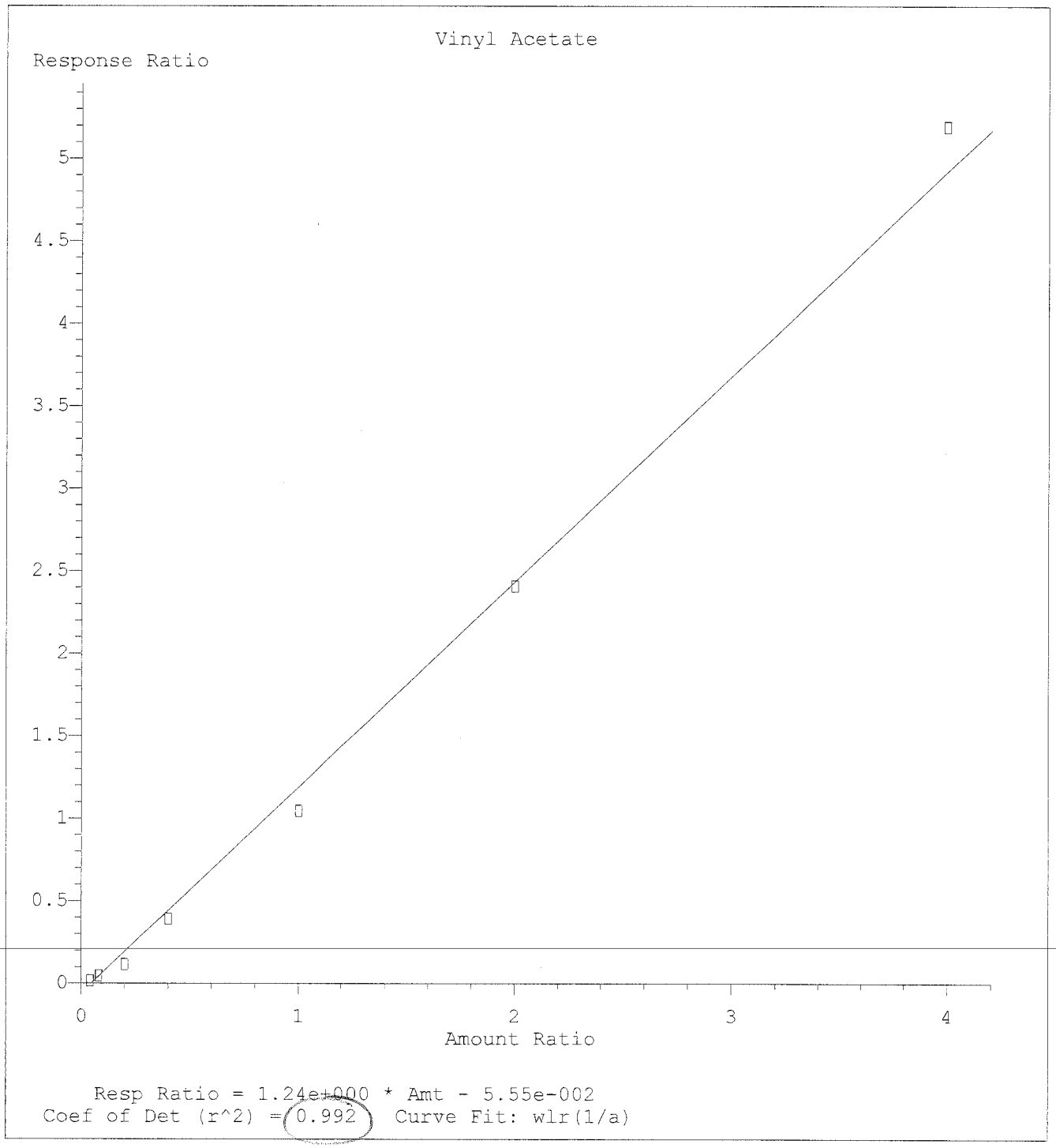

Method Name: C:\HPCHEM\1\GCMS9\METHODS\112111.M
Calibration Table Last Updated: Tue Nov 22 11:07:12 2011

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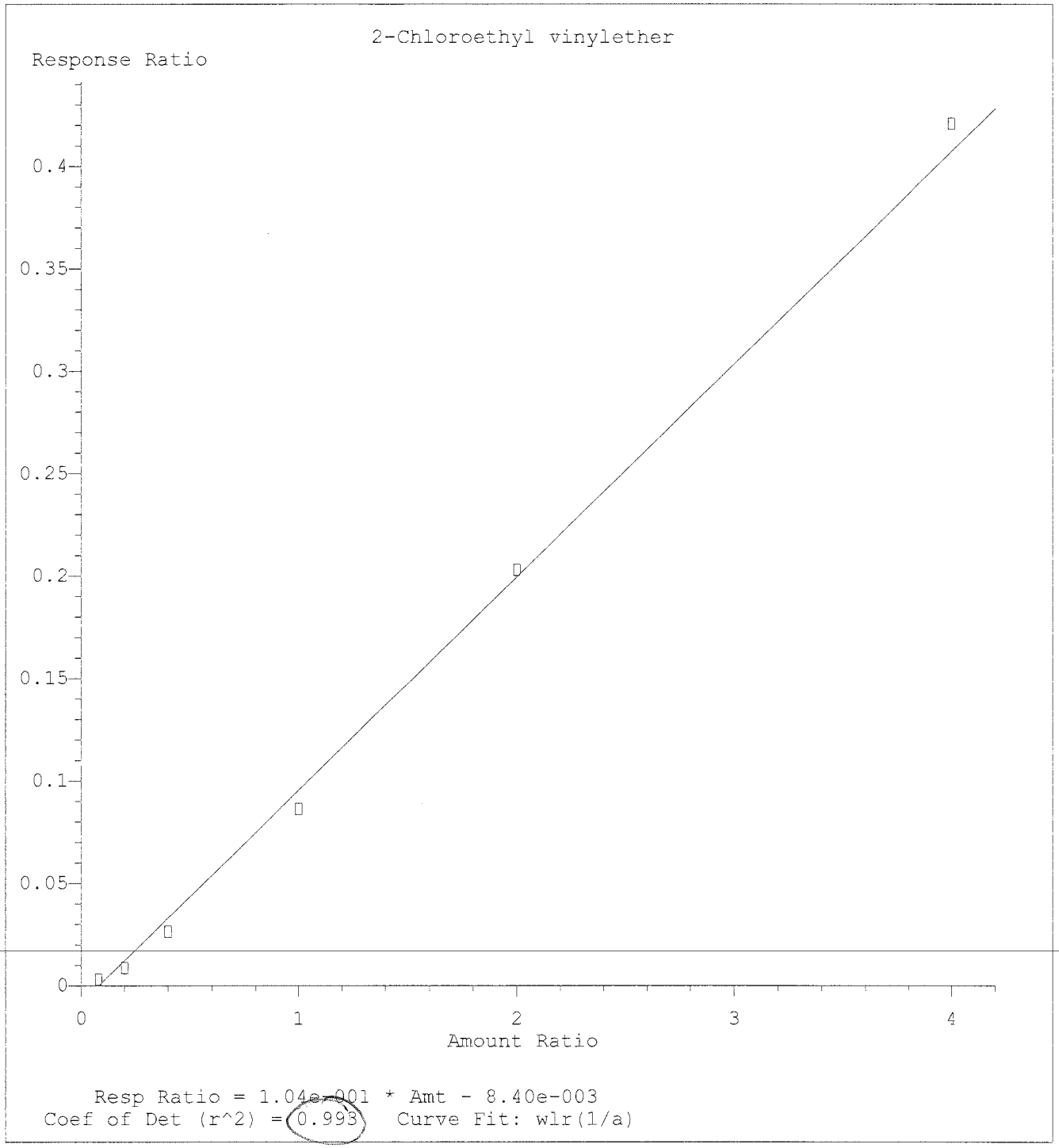
11/22/11



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Calibration Table Last Updated: Tue Nov 22 11:07:12 2011

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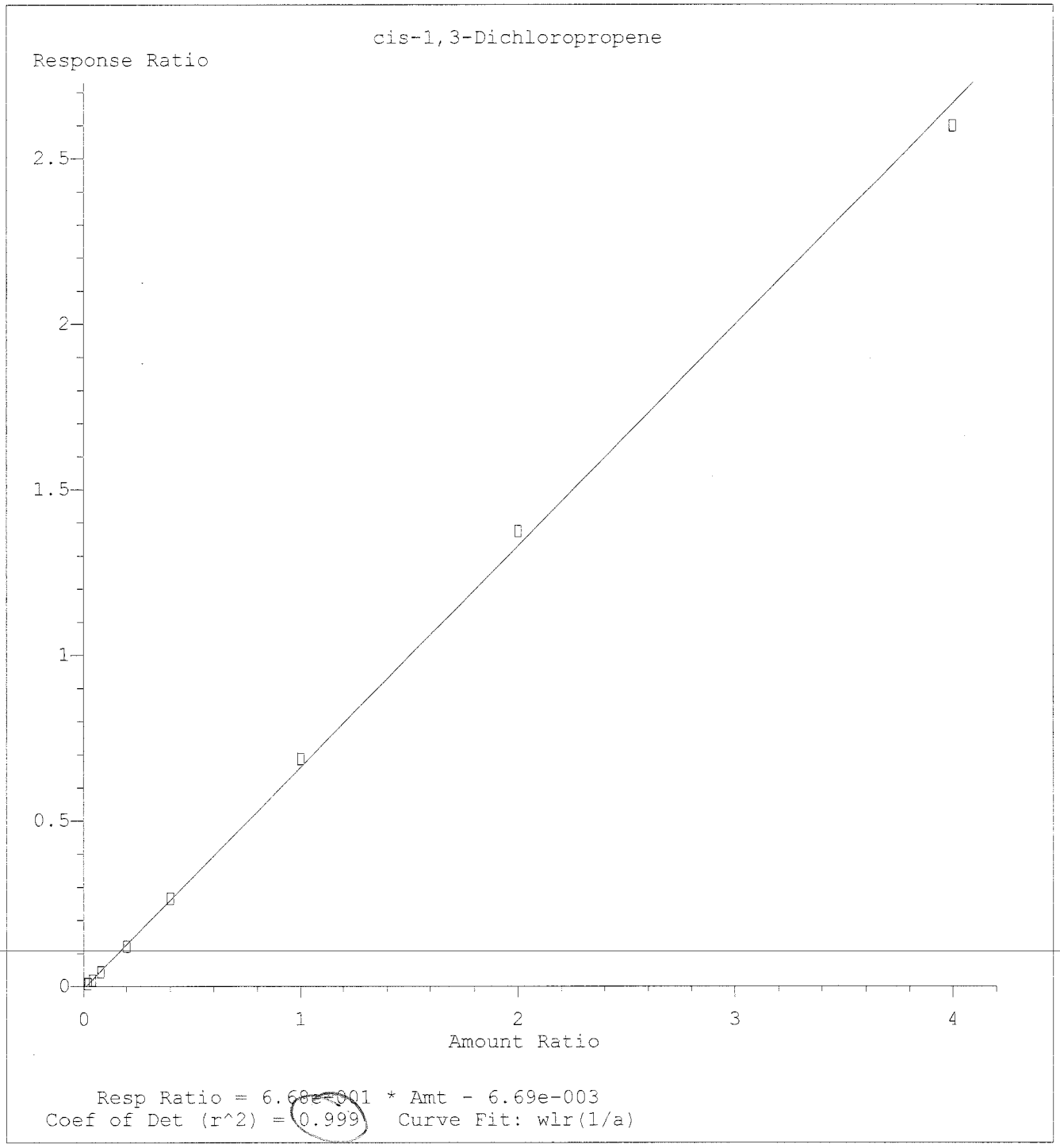
11/22/11



Method Name: C:\HPCHEM\1\GCMS9\METHODS\112111.M
Calibration Table Last Updated: Tue Nov 22 11:07:12 2011

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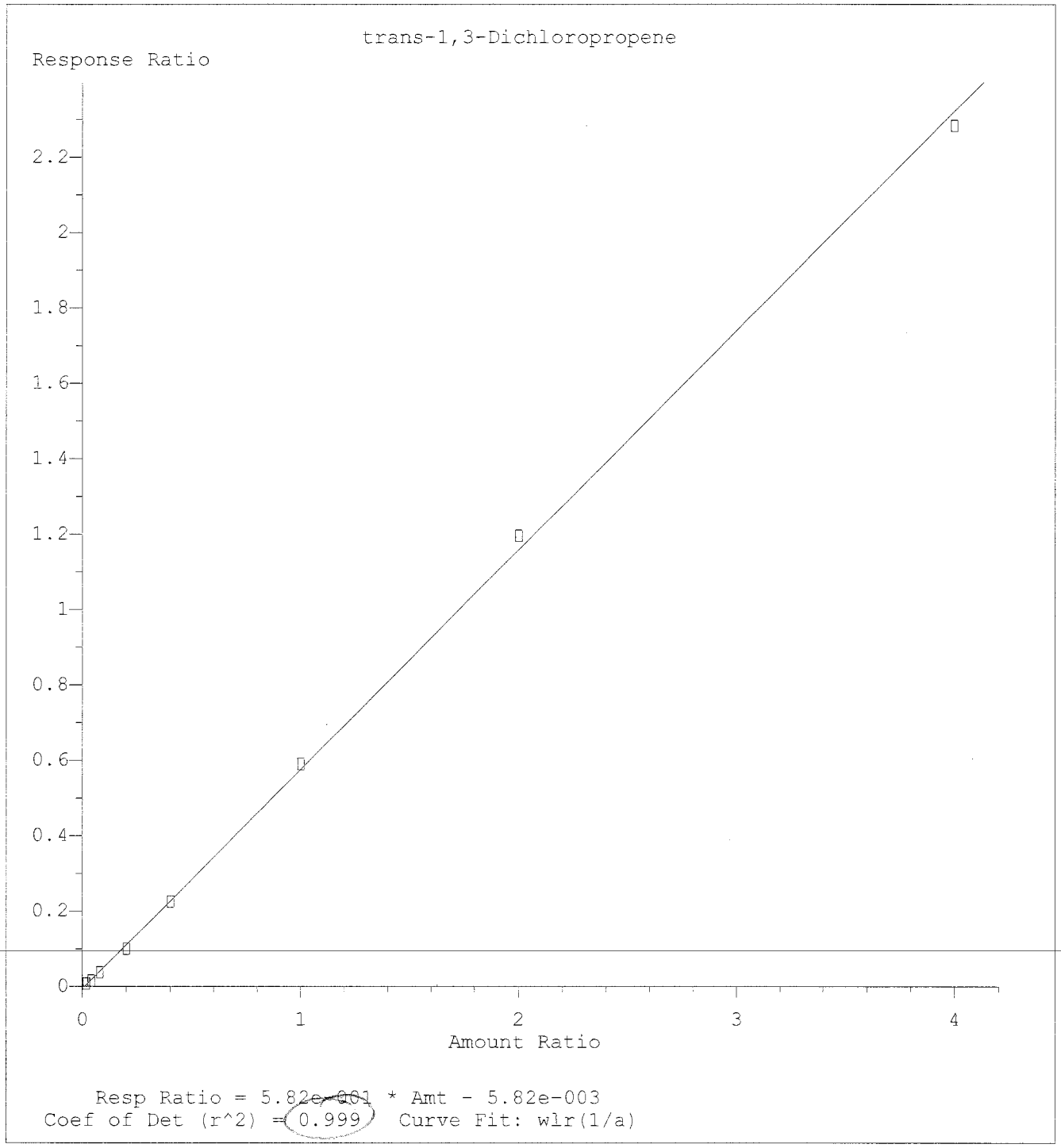
11/22/11



Method Name: C:\HPCHEM\1\GCMS9\METHODS\112111.M
Calibration Table Last Updated: Tue Nov 22 11:07:12 2011

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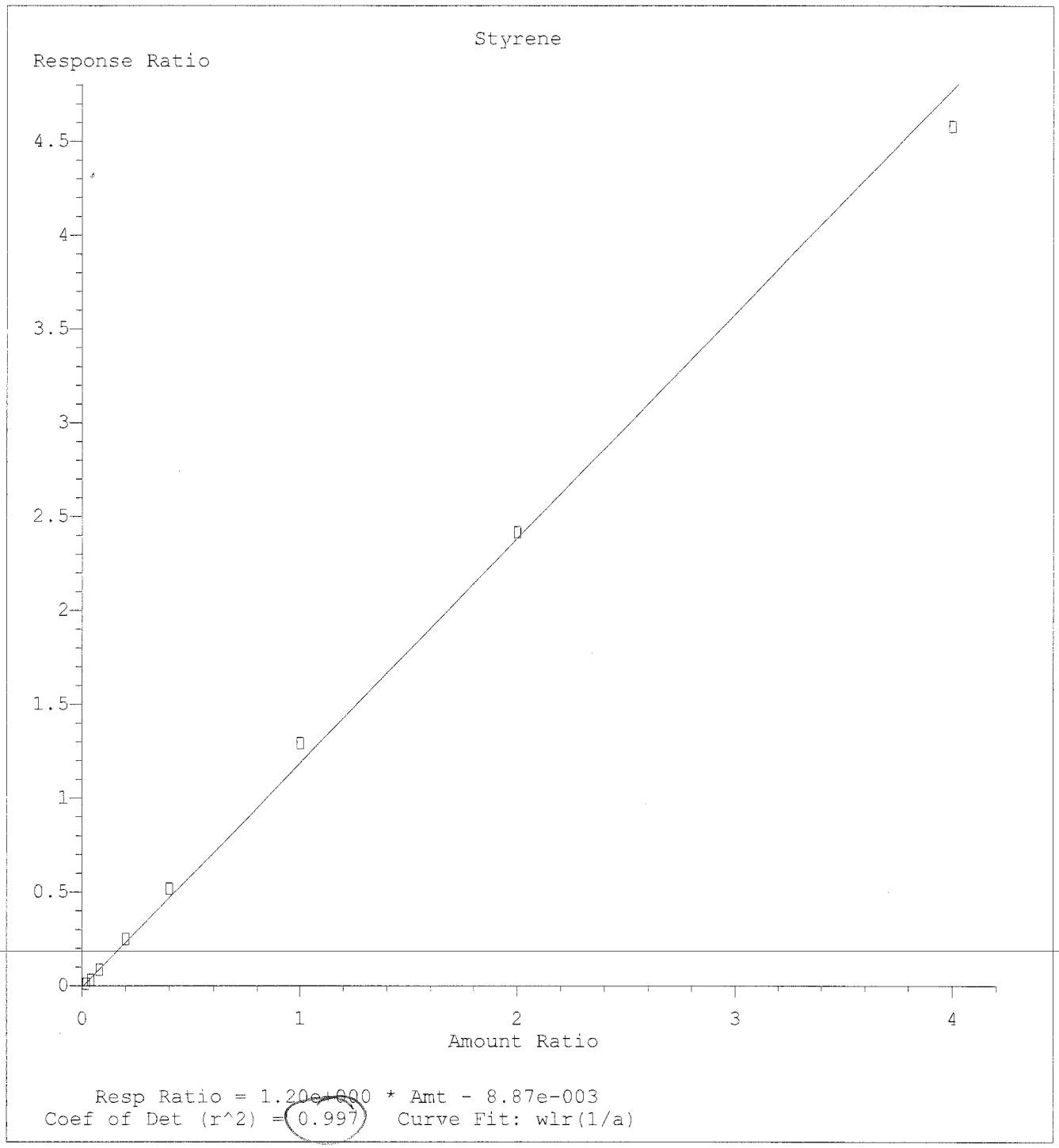
11/22/11



Method Name: C:\HPCHEM\1\GCMS9\METHODS\112111.M
Calibration Table Last Updated: Tue Nov 22 11:07:12 2011

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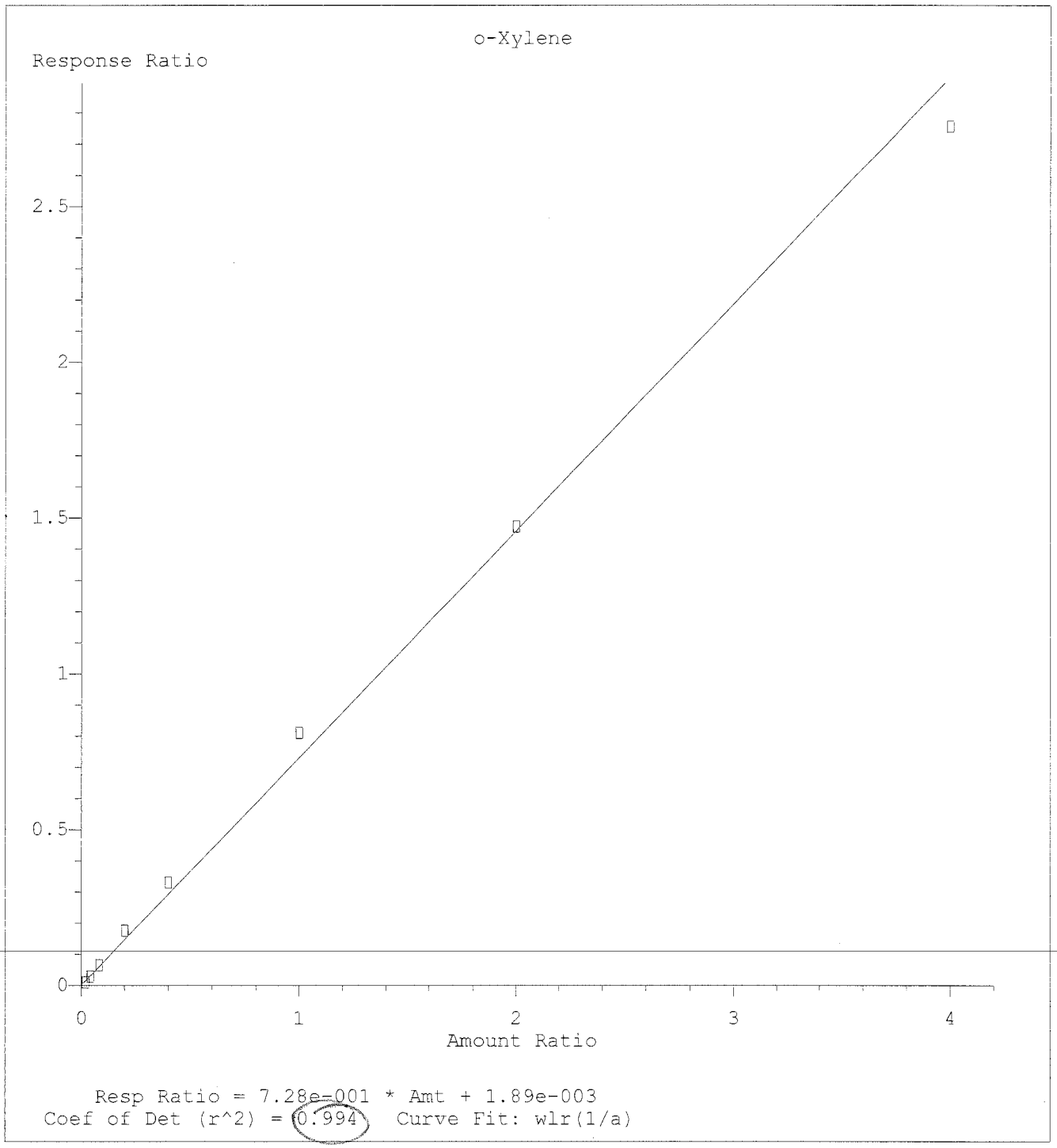

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Calibration Table Last Updated: Tue Nov 22 11:07:12 2011

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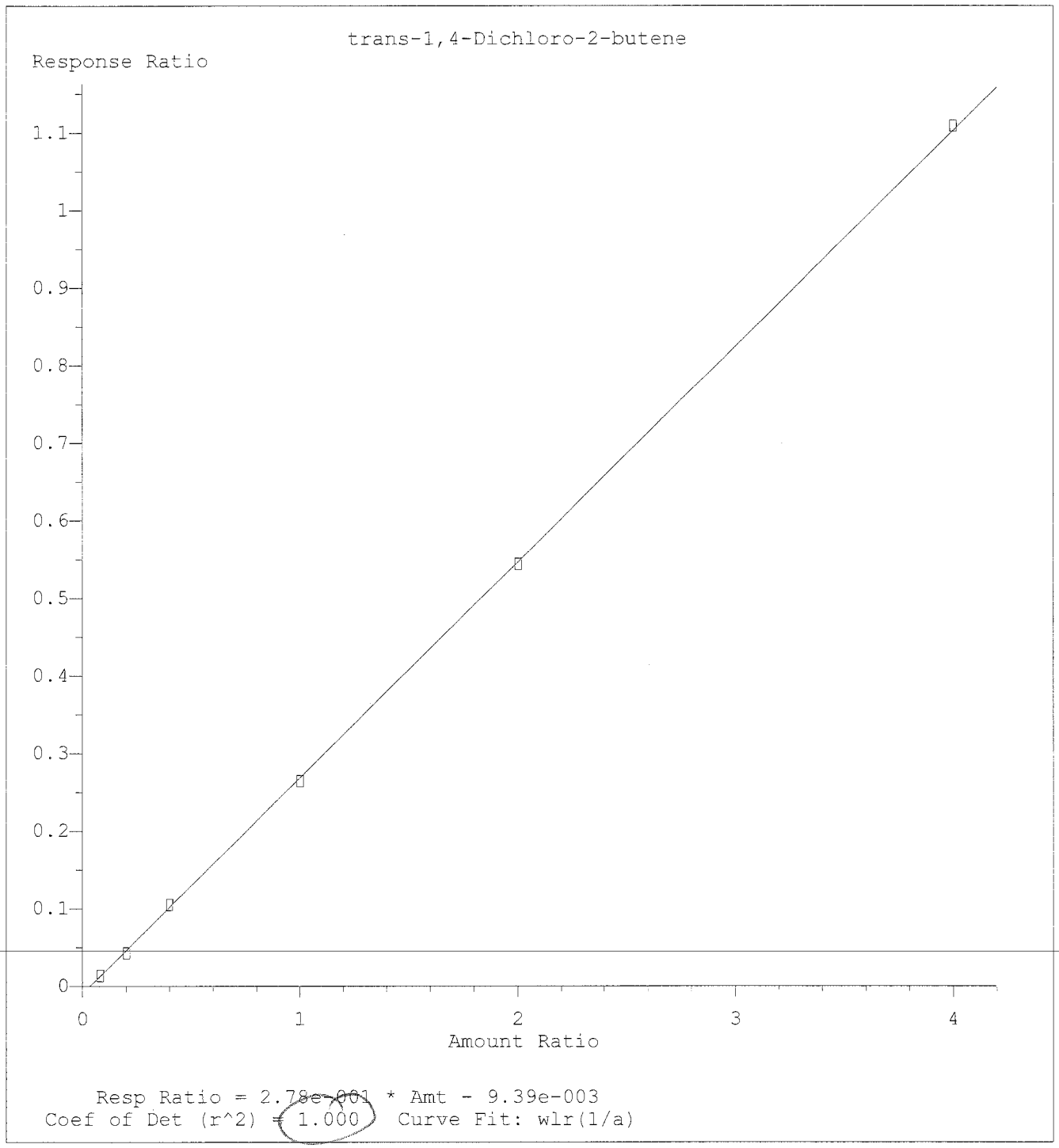

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Calibration Table Last Updated: Tue Nov 22 11:07:12 2011

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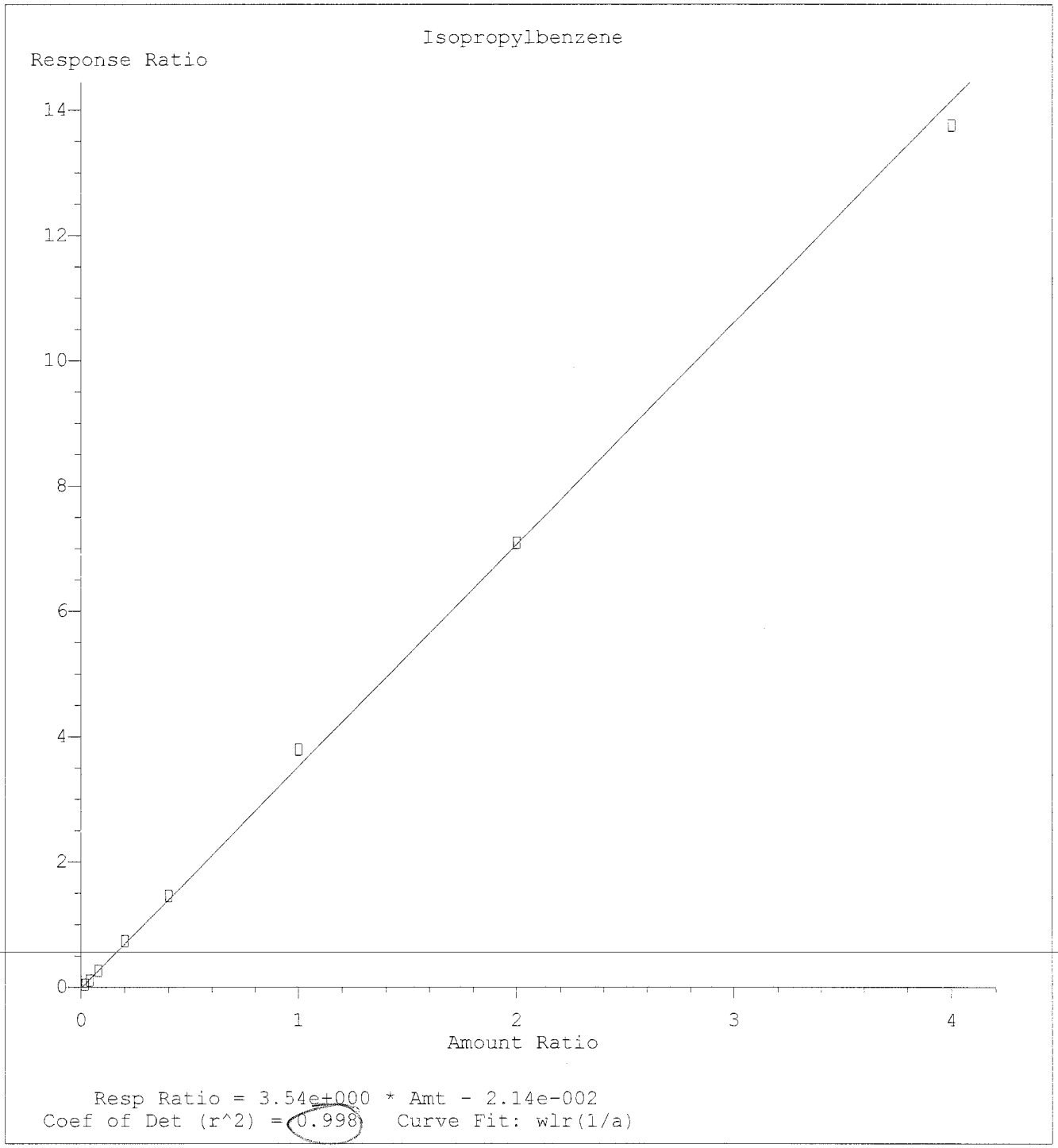

Method Name: C:\HPCHEM\1\GCMS9\METHODS\112111.M
Calibration Table Last Updated: Tue Nov 22 11:07:12 2011

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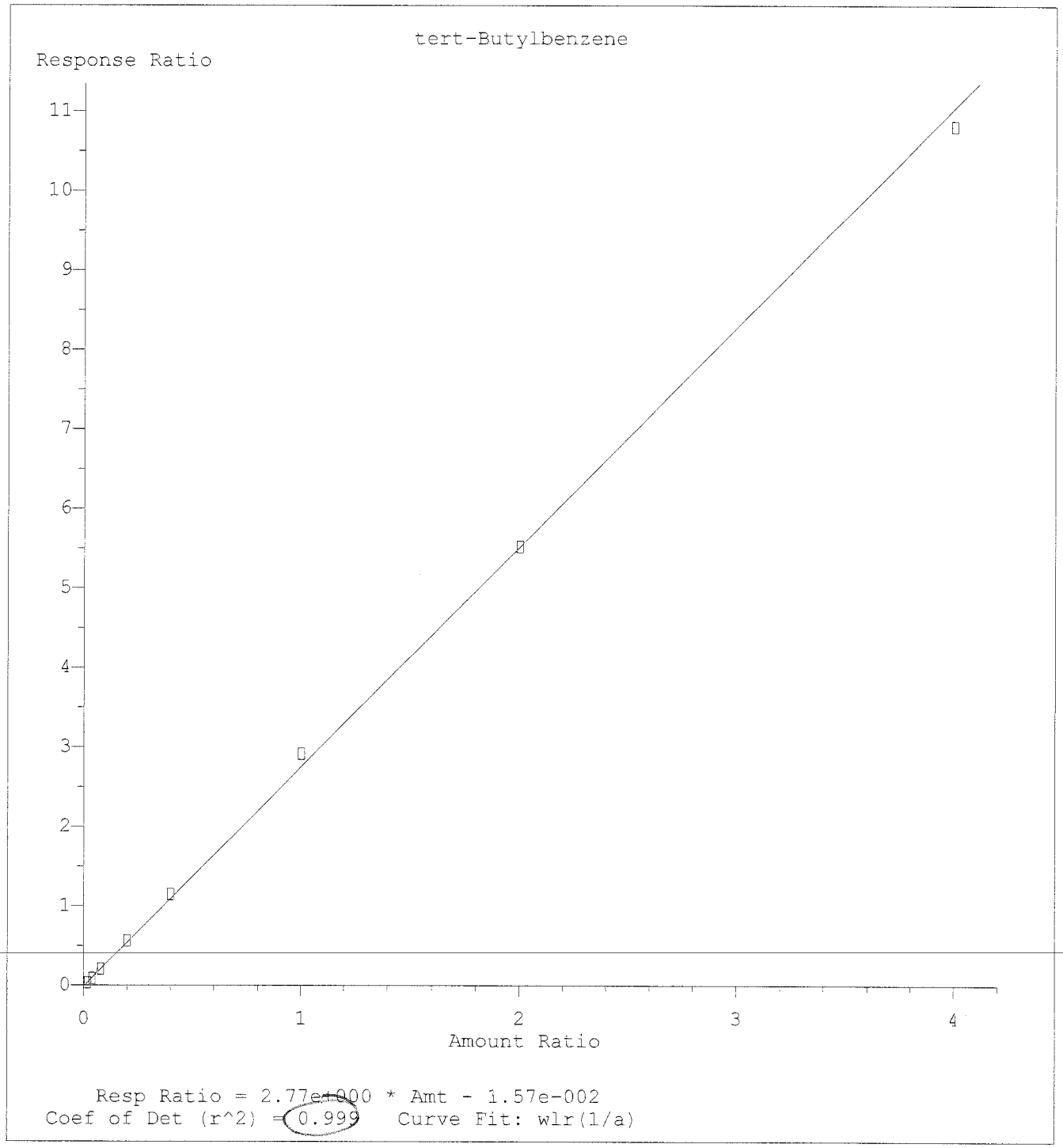

Method Name: C:\HPCHEM\1\GCMS9\METHODS\112111.M
Calibration Table Last Updated: Tue Nov 22 11:07:12 2011

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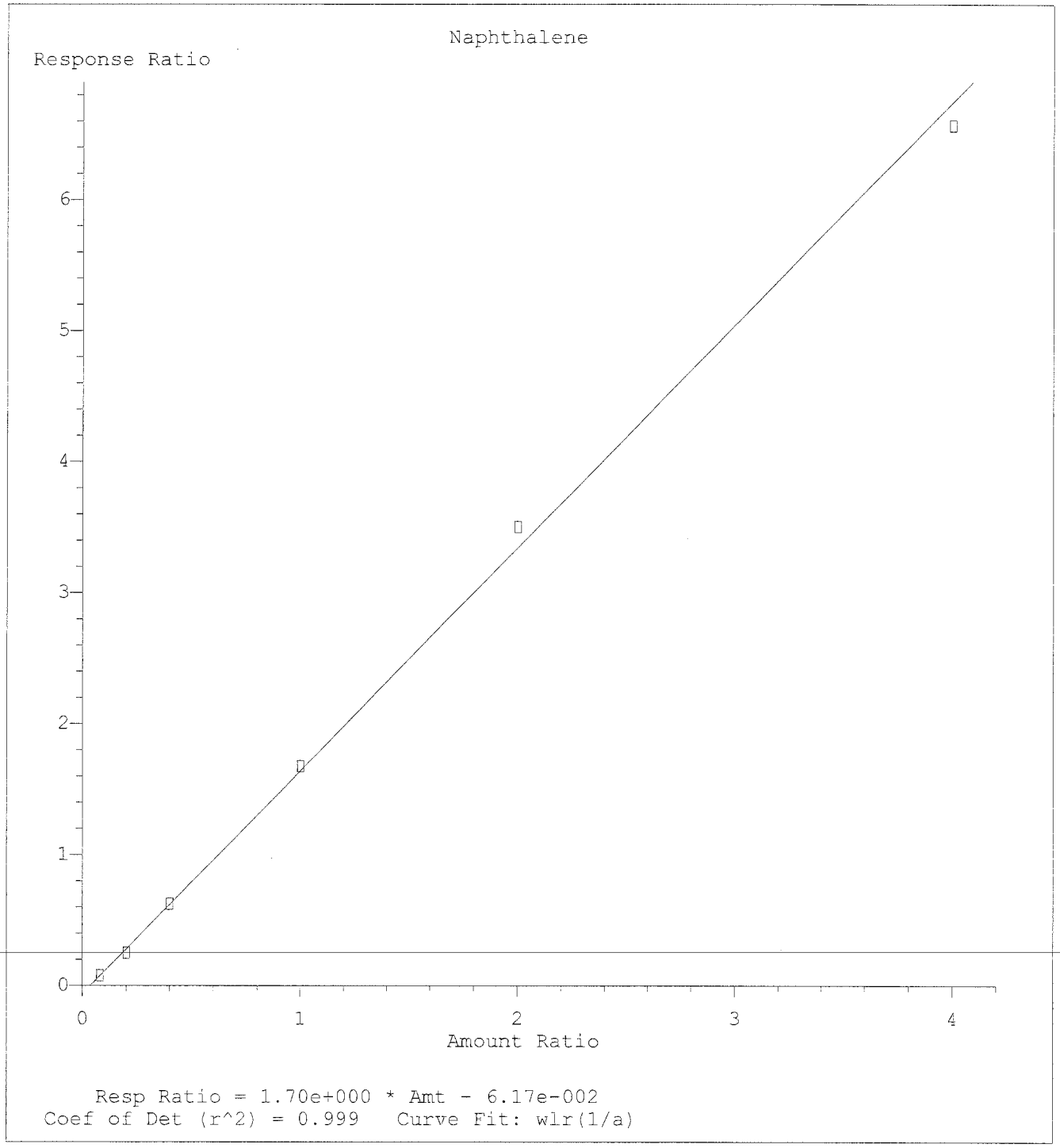

Method Name: C:\HPCHEM\1\GCMS9\METHODS\112111.M
Calibration Table Last Updated: Tue Nov 22 11:07:12 2011

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TestAmerica
Phoenix

GC/MS 09 DAILY LOG SUMMARY

DATE: 11/21/11 QC BATCH # (s) : NA

ANALYST: [illegible] SEQUENCE FILE: C:\GCMS9\DATA\ 112111.S

CALIBRATION METHOD(S): New Cal

POS #	FILENAME	SAMPLE ID.CLIENT	SAMPLE VOL 10 ml √ if OK	pH ≤ 2 √ if OK	EPA METHOD	MATRIX	COMMENTS
/	11 21 11 01	Tune	2uL	NA	8260/624 ~~524~~	NA	
2	02	25 ppb ICV/SS	✓			H2O	VC↑
3	03	20	✓				
4	04	25	✓				VC↑
5	05	25 ppb CCV	✓				
/	06	Tune	2uL			NA	
2	07	Blank	✓			H2O	Cleanout
3	08		✓				
4	09		✓				
5	10		✓				MB
6	11	0.5 ppb cal pt	✓				
7	12	1.0	✓				
8	13	2.0	✓				
9	14	5.0	✓				
10	15	10	✓				
11	16	25	✓				
12	17	50	✓				
13	18	100	✓				
14	19	Blank	✓				cleanout
15	20		✓				
16	21	25 ppb ICV/SS	✓				
17	22	20	✓				
18	23	Blank	✓				cleanout

[illegible] 11/22/11

STANDARD ID NUMBERS

ICV / H_2O LCS: PU07728, 06961

CCV/CALIBRATION STD: PU07078, 07051

IS/Surrogate: PU07118

BFB: PU06938

[illegible] 11/21/11

REQUIRED REVIEWS

25 ppb SS PREPARATION: 25uL ICV STDS → 50mL H2O

20 ⊥ PREPARATION: 20uL ⊥ → ⊥

ARCHON REVIEWED By/Date: [illegible] 11/22

SEQUENCE REVIEWED By/Date: ⊥

FINAL REVIEWER / Date: [illegible] 11/23/11

Injection Log

Directory: C:\HPCHEM\1\GCMS9\DATA\112111

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11211101.D	1.	TUNE		21 Nov 2011 09:45
2	2	11211102.D	1.	25 PPB ICV/SS		21 Nov 2011 10:15
3	3	11211103.D	1.	20 PPB ICV/SS		21 Nov 2011 10:47
4	4	11211104.D	1.	25 PPB ICV/SS		21 Nov 2011 11:19
5	5	11211105.D	1.	25 PPB CCV		21 Nov 2011 12:02
6	1	11211106.D	1.	TUNE		21 Nov 2011 12:44
7	2	11211107.D	1.	BLANK		21 Nov 2011 13:18
8	3	11211108.D	1.	BLANK		21 Nov 2011 14:22
9	4	11211109.D	1.	BLANK		21 Nov 2011 14:53
10	5	11211110.D	1.	BLANK		21 Nov 2011 15:25
11	6	11211111.D	1.	0.5 PPB CAL PT		21 Nov 2011 15:56
12	7	11211112.D	1.	1.0 PPB CAL PT		21 Nov 2011 16:28
13	8	11211113.D	1.	2.0 PPB CAL PT		21 Nov 2011 16:59
14	9	11211114.D	1.	5.0 PPB CAL PT		21 Nov 2011 17:31
15	10	11211115.D	1.	10.0 PPB CAL PT		21 Nov 2011 18:03
16	11	11211116.D	1.	25.0 PPB CAL PT		21 Nov 2011 18:35
17	12	11211117.D	1.	50.0 PPB CAL PT		21 Nov 2011 19:06
18	13	11211118.D	1.	100.0 PPB CAL PT		21 Nov 2011 19:38
19	14	11211119.D	1.	BLANK		21 Nov 2011 20:09
20	15	11211120.D	1.	BLANK		21 Nov 2011 20:40
21	16	11211121.D	1.	25 PPB ICV/SS		21 Nov 2011 21:12
22	17	11211122.D	1.	20 PPB ICV/SS		21 Nov 2011 21:43
23	18	11211123.D	1.	BLANK		21 Nov 2011 22:15

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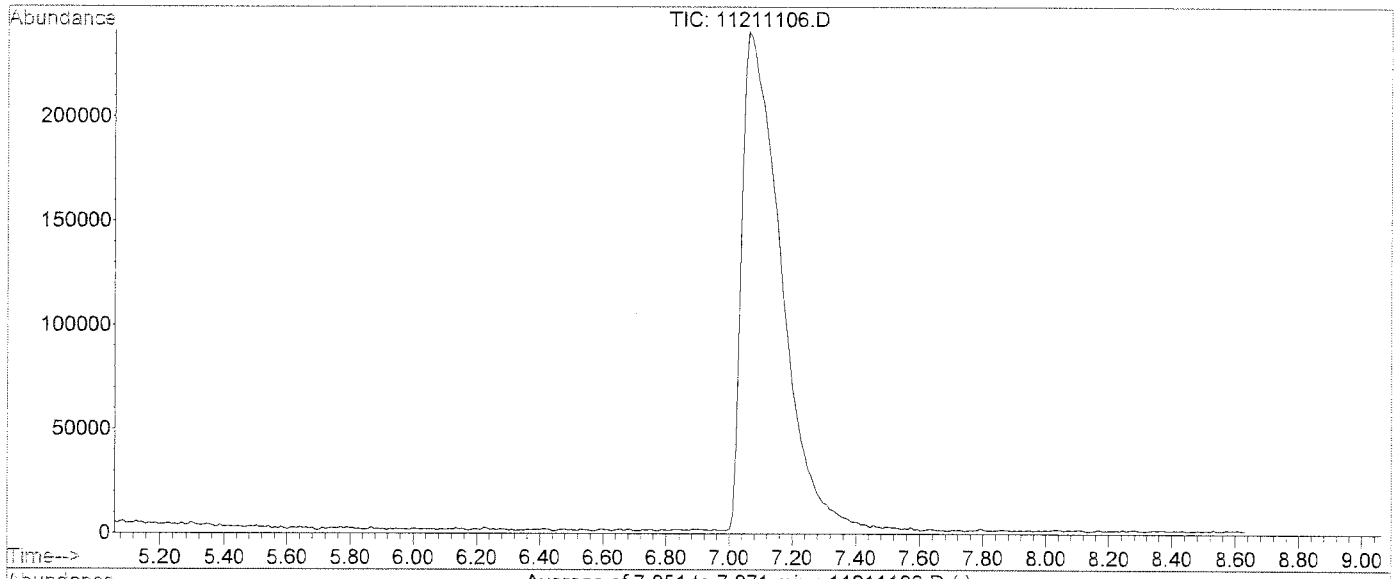
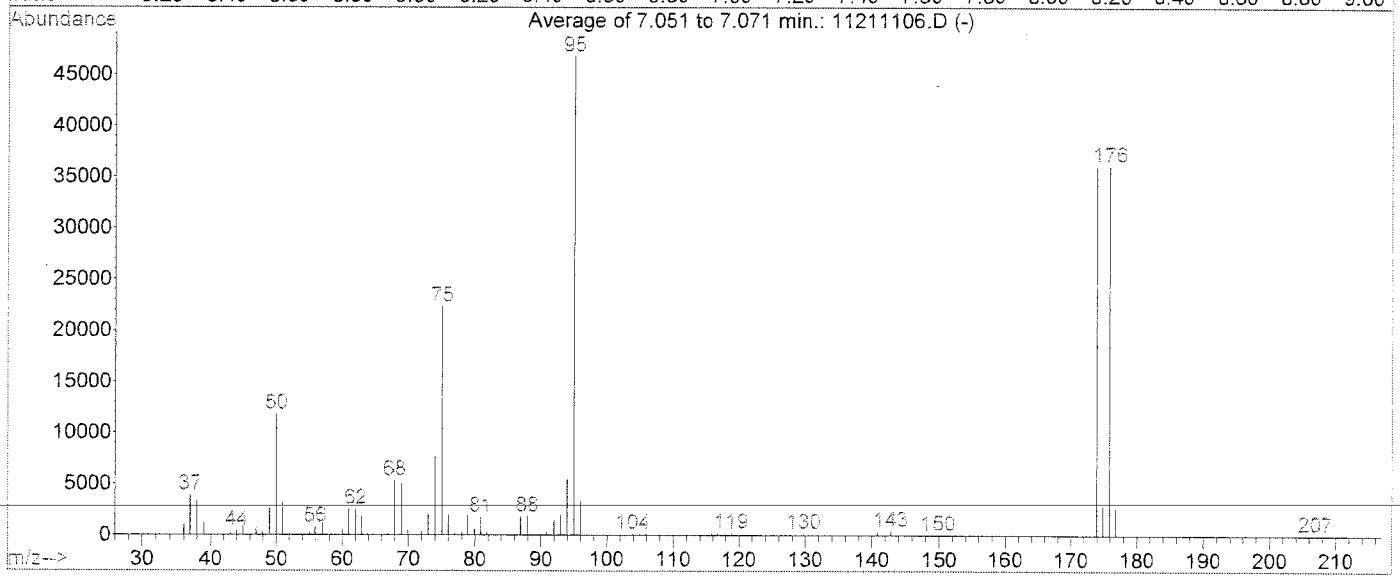
Method 8260

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211106.D Vial: 1
Acq On : 21 Nov 2011 12:44 pm Operator: KH
Sample : TUNE Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260





Spectrum Information: Average of 7.051 to 7.071 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.2	11802	PASS
75	95	30	60	47.7	22339	PASS
95	95	100	100	100.0	46784	PASS
96	95	5	9	7.1	3315	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	77.0	36019	PASS
175	174	5	9	7.9	2841	PASS
176	174	95	101	100.3	36112	PASS
177	176	5	9	7.3	2650	PASS

11211106.D 111911.M Tue Nov 22 10:27:05 2011

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Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211110.D Vial: 5
Acq On : 21 Nov 2011 3:25 pm Operator: KH
Sample : BLANK Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:27 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	42223	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	296439	25.00 ug/L	-0.02
37) 1,4-Difluorobenzene	11.82	114	468239	25.00 ug/L	-0.02
52) Chlorobenzene-d5	16.15	117	398221	25.00 ug/L	-0.02
65) 1,4-Dichlorobenzene-d4	19.58	152	193155	25.00 ug/L	-0.02
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	197807	26.28 ug/L	-0.02
Spiked Amount 25.000			Recovery =	105.12%	
50) Toluene-d8 (surr)	14.19	98	506914	24.95 ug/L	-0.02
Spiked Amount 25.000			Recovery =	99.80%	
64) 4-Bromofluorobenzene (surr	17.82	95	219196	24.70 ug/L	-0.02
Spiked Amount 25.000			Recovery =	98.80%	

Target Compounds					Qvalue
2) Ethanol	6.29	45	266	Below Cal	98
7) Vinyl Chloride	5.44	62	227	Below Cal #	42
13) Acetone	7.11	43	1476	Below Cal #	55
17) Methylene Chloride	7.89	84	1777	0.19 ug/L #	85
23) Vinyl Acetate	9.14	43	56	0.98 ug/L #	82
33) Tetrahydrofuran	10.48	72	443	1.19 ug/L #	59
36) (TAME) tert-Amyl methyl et	11.81	73	6809	1.58 ug/L #	39
47) 4-Methyl-2-pentanone (MIBK	13.31	43	83	0.71 ug/L #	43
70) Isopropylbenzene	17.82	105	406	0.23 ug/L #	51
75) 1,3,5-Trimethylbenzene	18.77	105	349	0.10 ug/L	87
76) tert-Butylbenzene	19.15	119	172	0.21 ug/L #	23
85) 1,2,4-Trichlorobenzene	22.37	180	401	0.45 ug/L #	81
86) Naphthalene	22.71	128	205	1.09 ug/L #	67

LOC

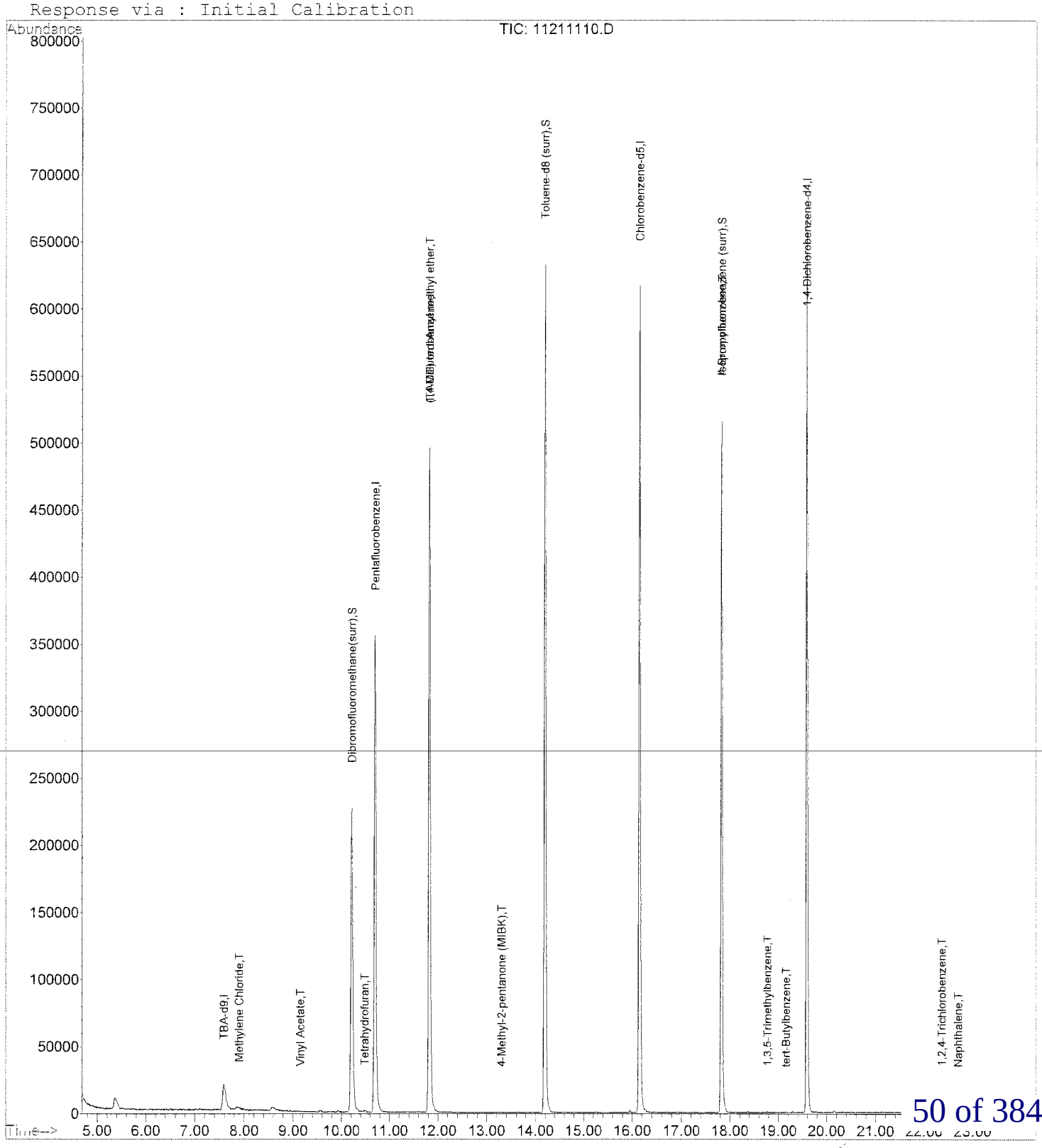
(#) = qualifier out of range (m) = manual integration
11211110.D 111911.M Tue Nov 22 10:27:40 2011

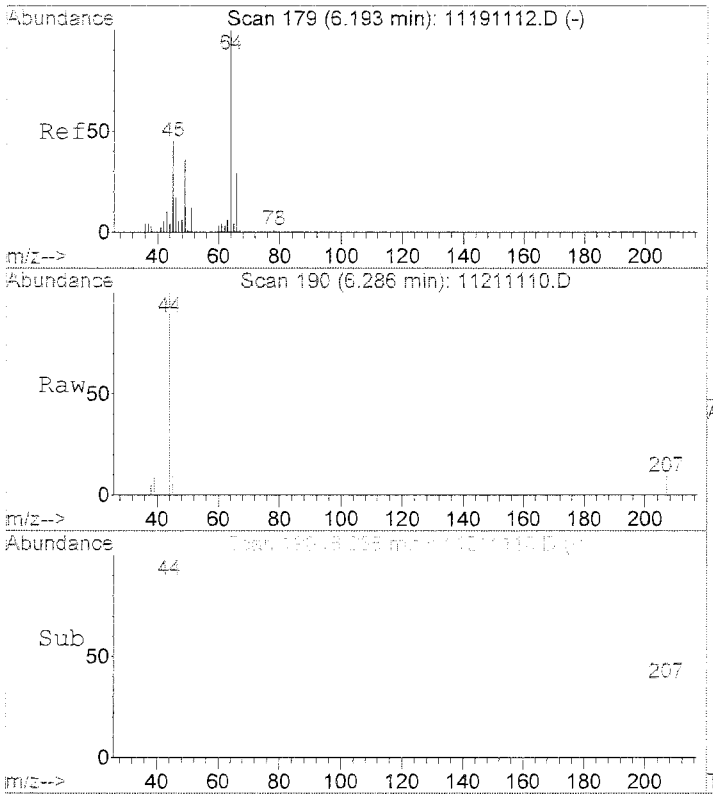
11/22/11

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211110.D Vial: 5
Acq On : 21 Nov 2011 3:25 pm Operator: KH
Sample : BLANK Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:27 2011 Quant Results File: 111911.RES

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration

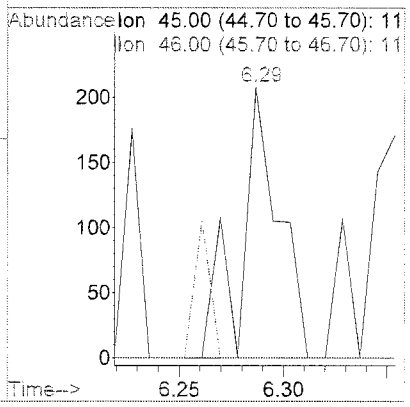


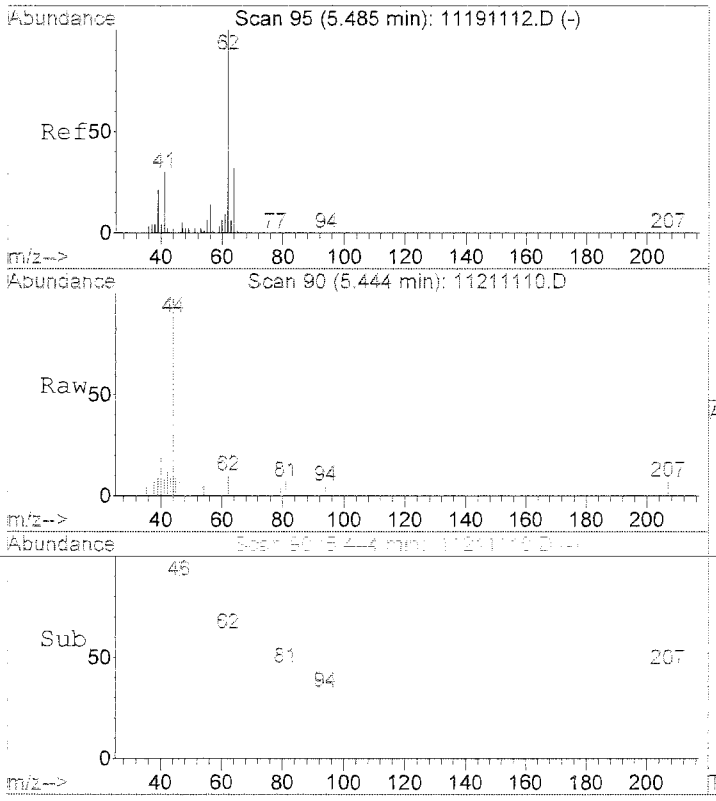


#2
Ethanol
Concen: Below Cal
RT: 6.29 min Scan# 190
Delta R.T. 0.09 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 45 Resp: 266

Ion	Ratio	Lower	Upper
45	100		
46	20.3	17.1	25.7

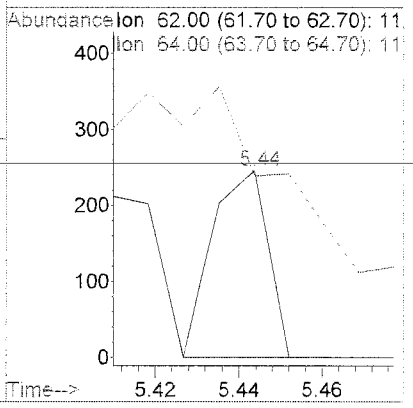


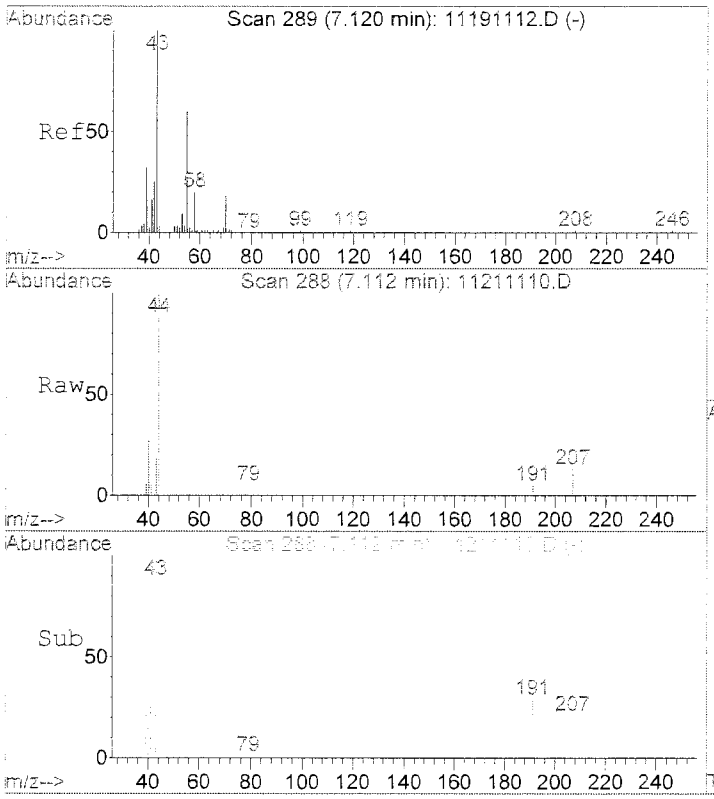


#7
Vinyl Chloride
Concen: Below Cal
RT: 5.44 min Scan# 90
Delta R.T. -0.04 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 62 Resp: 227

Ion	Ratio	Lower	Upper
62	100		
64	0.0	25.9	38.9#

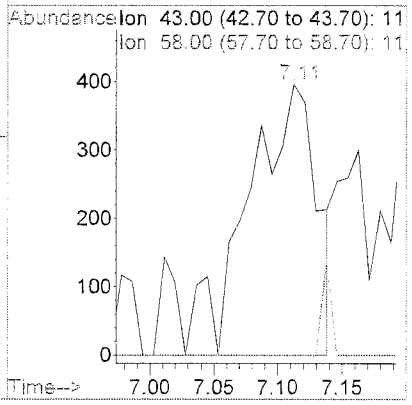


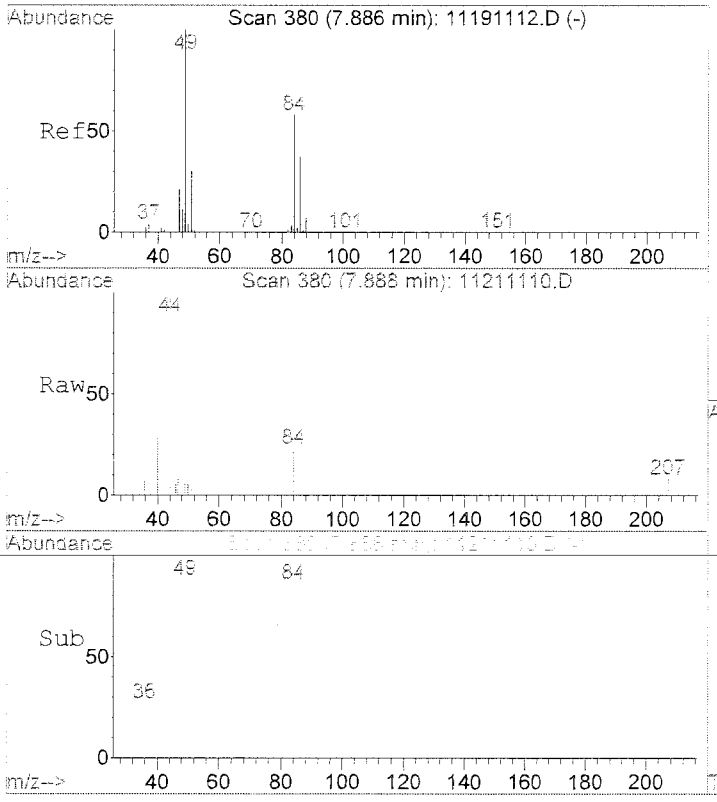


#13
Acetone
Concen: Below Cal
RT: 7.11 min Scan# 288
Delta R.T. -0.01 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 43 Resp: 1476

Ion	Ratio	Lower	Upper
43	100		
58	0.0	17.1	25.7#

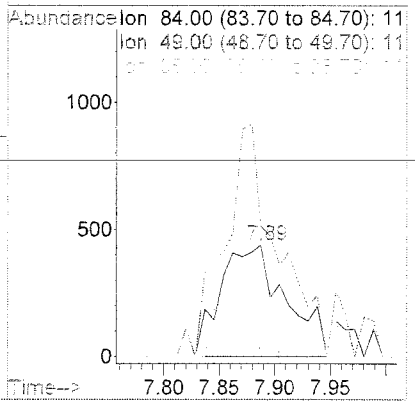


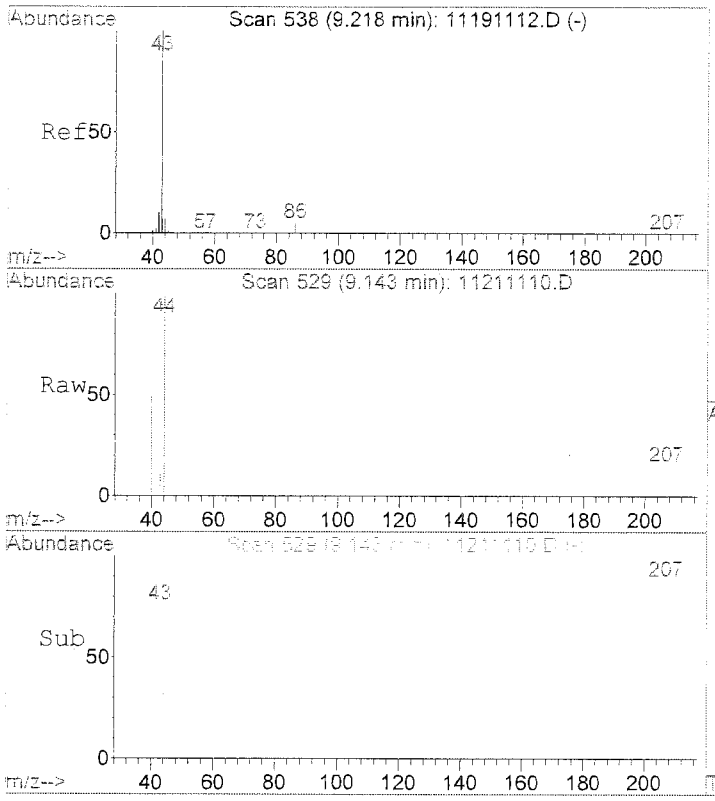


#17
Methylene Chloride
Concen: 0.19 ug/L
RT: 7.89 min Scan# 380
Delta R.T. 0.00 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 84 Resp: 1777

Ion	Ratio	Lower	Upper
84	100		
49	171.0	132.2	198.4
86	29.3	51.0	76.4#

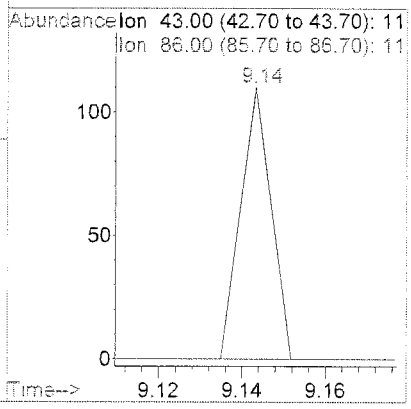


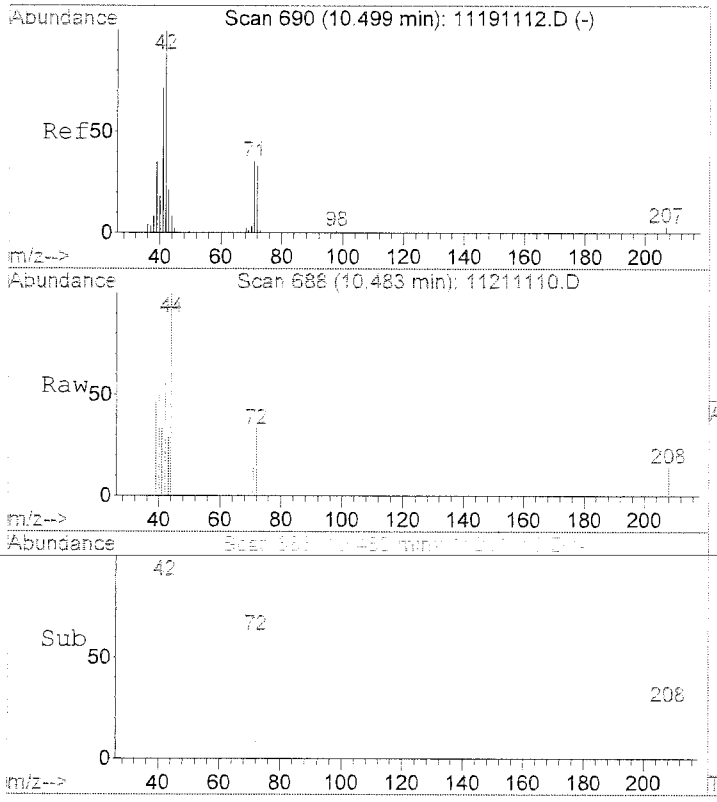


#23
Vinyl Acetate
Concen: 0.98 ug/L
RT: 9.14 min Scan# 529
Delta R.T. -0.07 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 43 Resp: 56

Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.0	7.4#

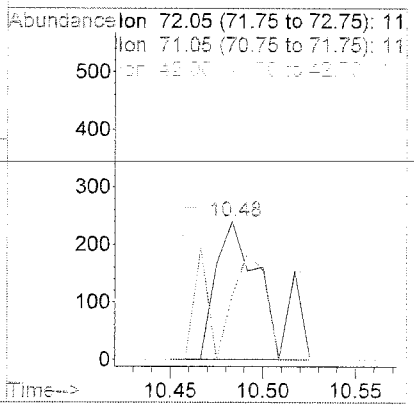


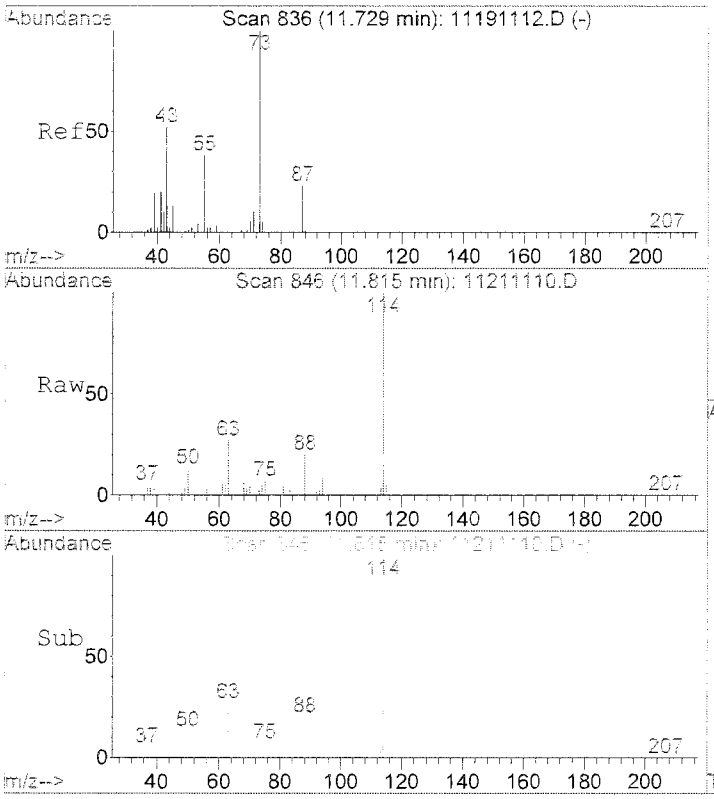


#33
Tetrahydrofuran
Concen: 1.19 ug/L
RT: 10.48 min Scan# 688
Delta R.T. -0.02 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 72 Resp: 443

Ion	Ratio	Lower	Upper
72	100		
71	51.2	84.7	124.7#
42	259.6	321.2	361.2#

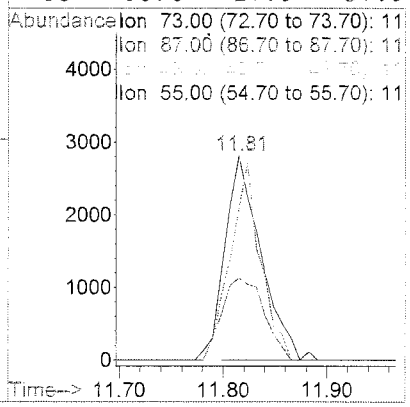


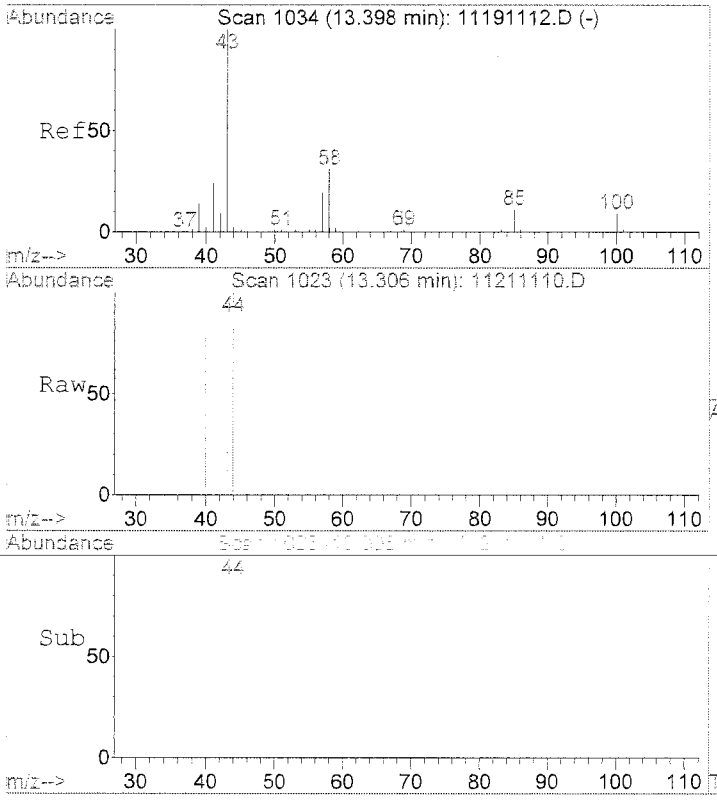


#36
(TAME) tert-Amyl methyl ether
Concen: 1.58 ug/L
RT: 11.81 min Scan# 846
Delta R.T. 0.09 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 73 Resp: 6809

Ion	Ratio	Lower	Upper
73	100		
87	80.2	2.5	42.5#
43	3.2	31.7	71.7#
55	46.6	17.9	57.9

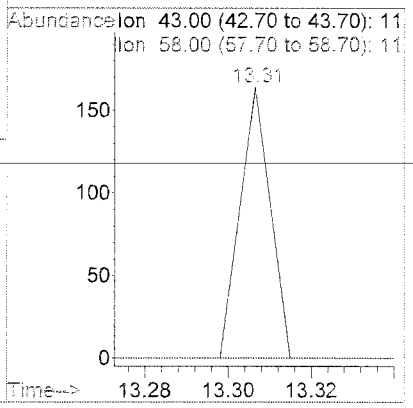


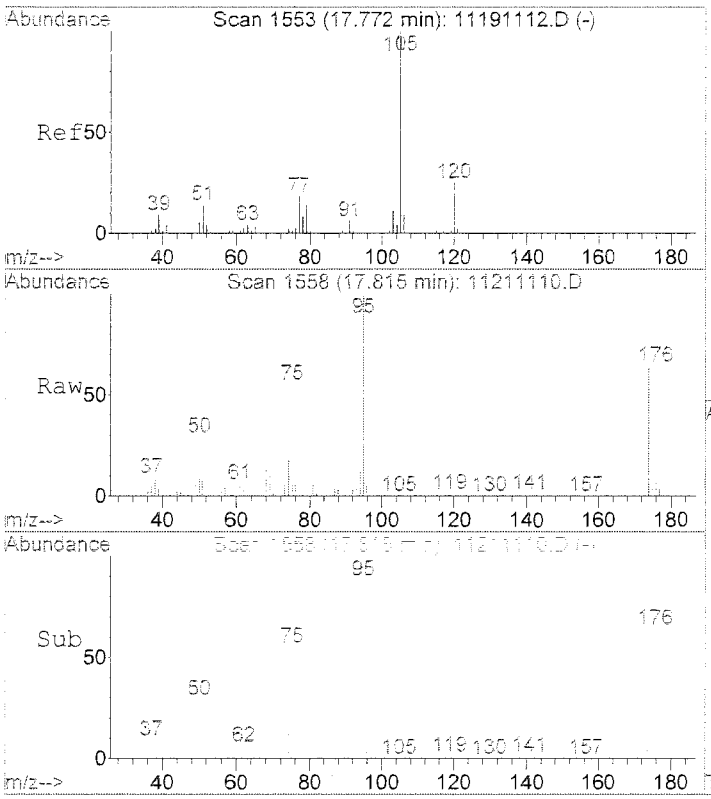


#47
4-Methyl-2-pentanone (MIBK)
Concen: 0.71 ug/L
RT: 13.31 min Scan# 1023
Delta R.T. -0.09 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 43 Resp: 83

Ion	Ratio	Lower	Upper
43	100		
58	0.0	25.0	37.6#

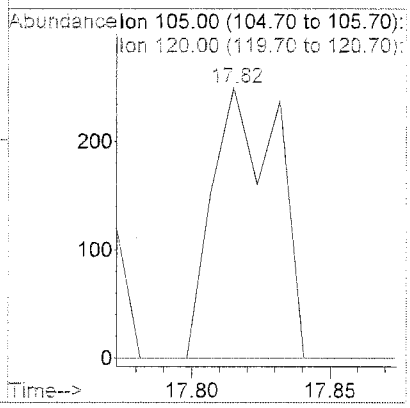


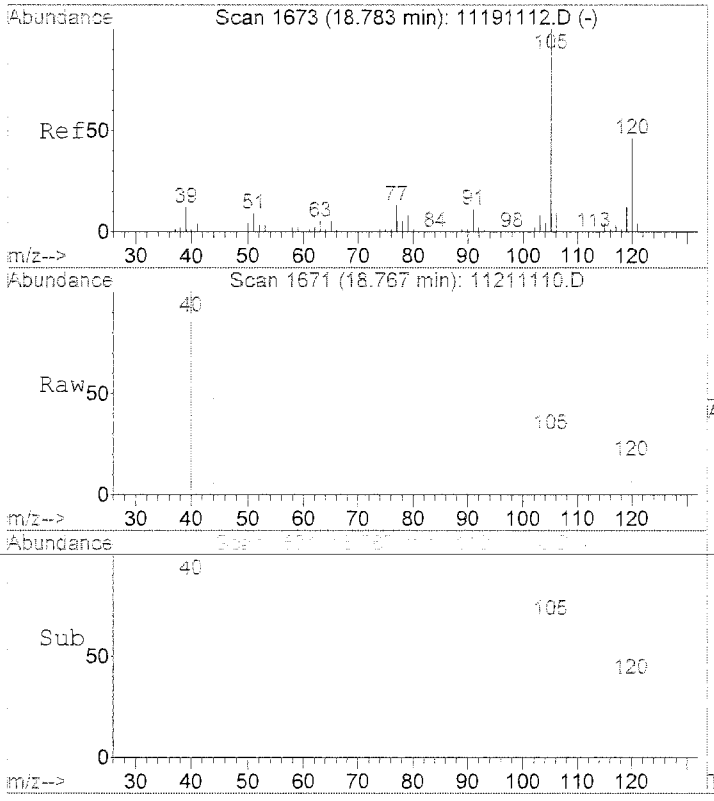


#70
Isopropylbenzene
Concen: 0.23 ug/L
RT: 17.82 min Scan# 1558
Delta R.T. 0.04 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion:105 Resp: 406

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.7	29.5#

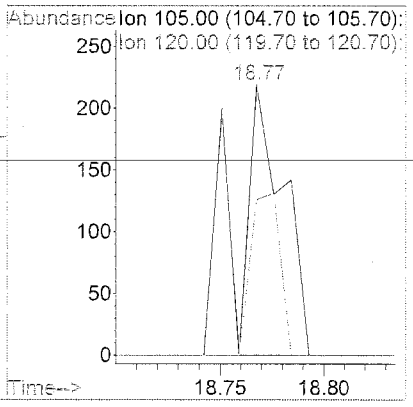


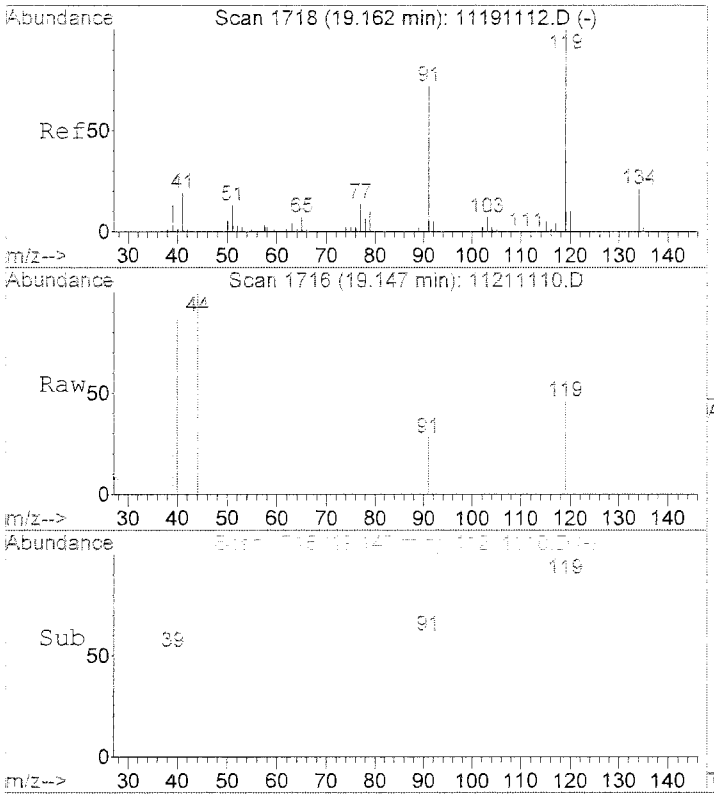


#75
1,3,5-Trimethylbenzene
Concen: 0.10 ug/L
RT: 18.77 min Scan# 1671
Delta R.T. -0.02 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion:105 Resp: 349

Ion	Ratio	Lower	Upper
105	100		
120	37.2	36.7	55.1

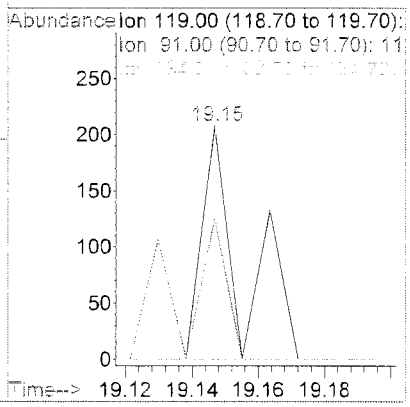


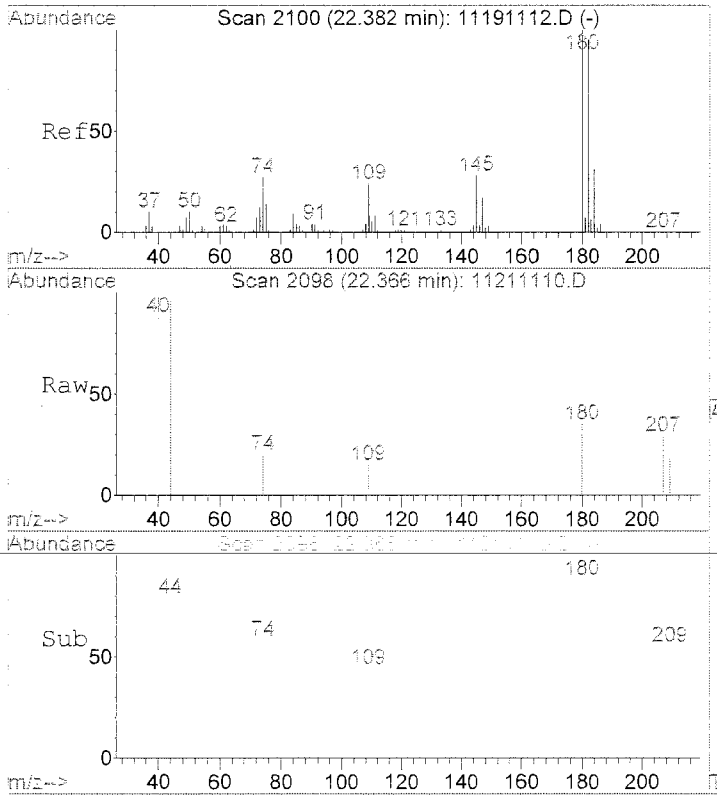


#76
tert-Butylbenzene
Concen: 0.21 ug/L
RT: 19.15 min Scan# 1716
Delta R.T. -0.02 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion:119 Resp: 172

Ion	Ratio	Lower	Upper
119	100		
91	0.0	57.7	86.5#
134	0.0	17.4	26.0#

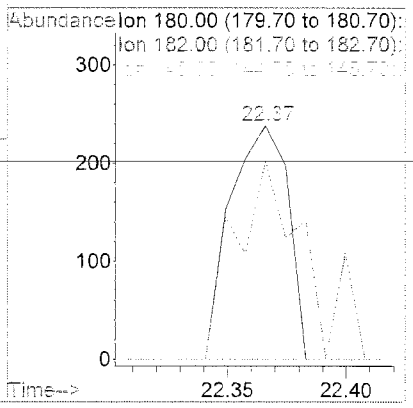


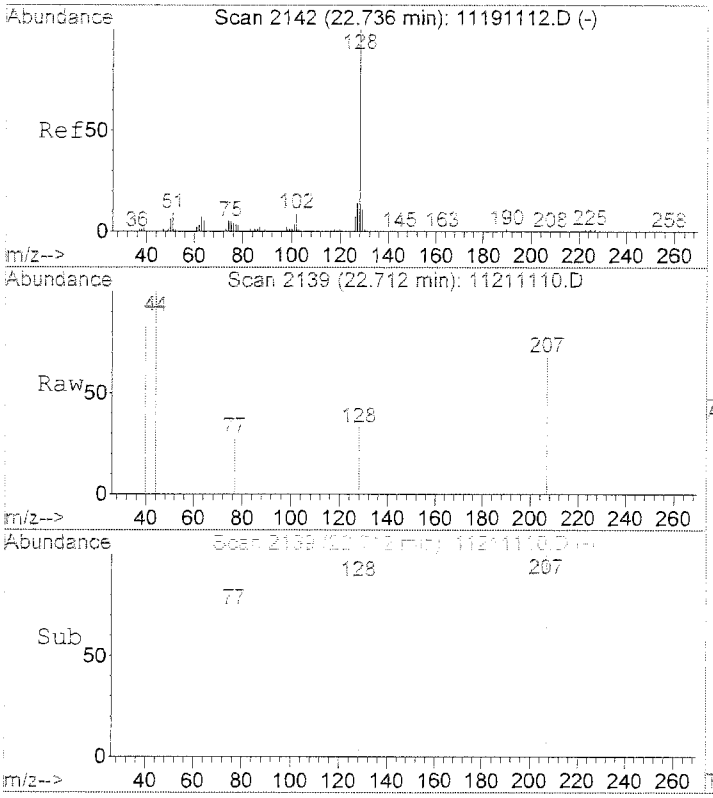


#85
1,2,4-Trichlorobenzene
Concen: 0.45 ug/L
RT: 22.37 min Scan# 2098
Delta R.T. -0.02 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion:180 Resp: 401

Ion	Ratio	Lower	Upper
180	100		
182	104.5	77.0	115.4
145	0.0	22.6	33.8#

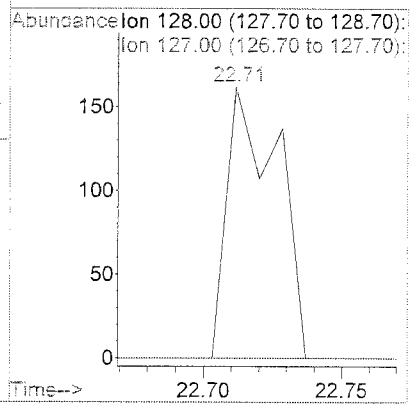




#86
Naphthalene
Concen: 1.09 ug/L
RT: 22.71 min Scan# 2139
Delta R.T. -0.02 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion:128 Resp: 205

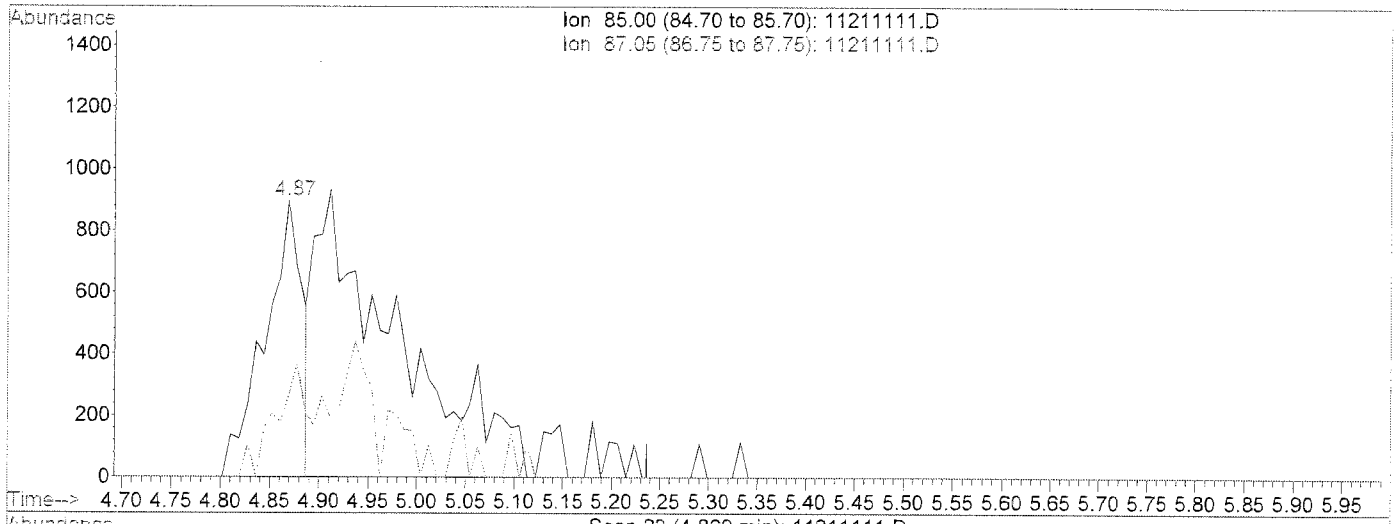
Ion	Ratio	Lower	Upper
128	100		
127	0.0	10.5	15.7#

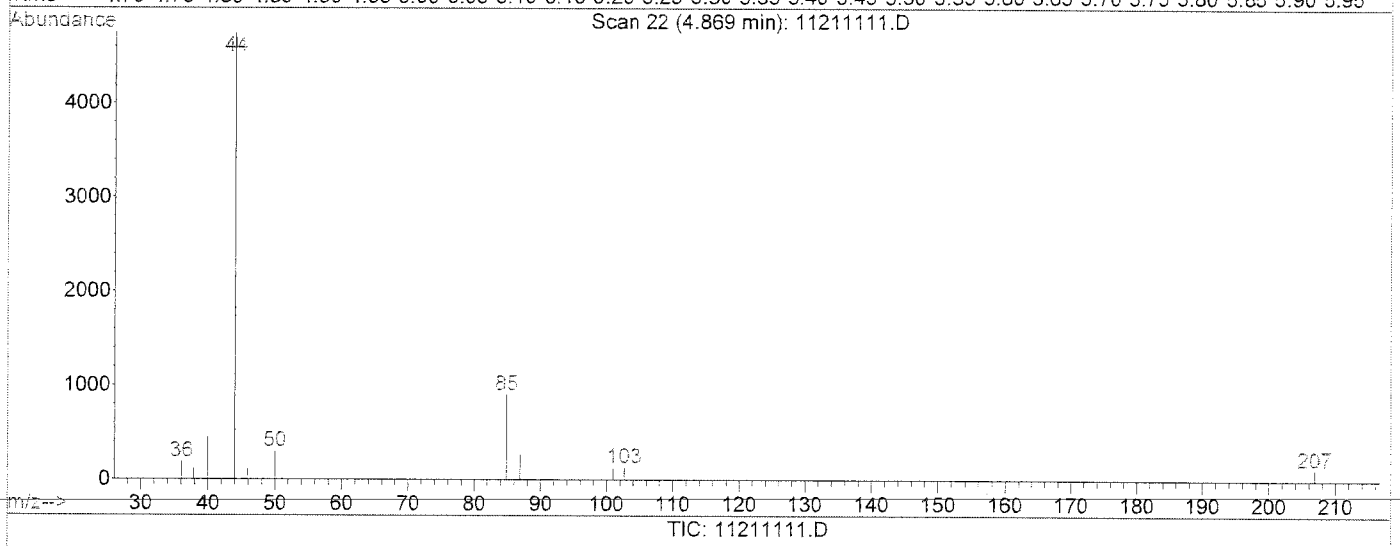


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:27 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





(5) Dichlorodifluoromethane (T)

4.87min 0.16ug/L

response 2366

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	35.33
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

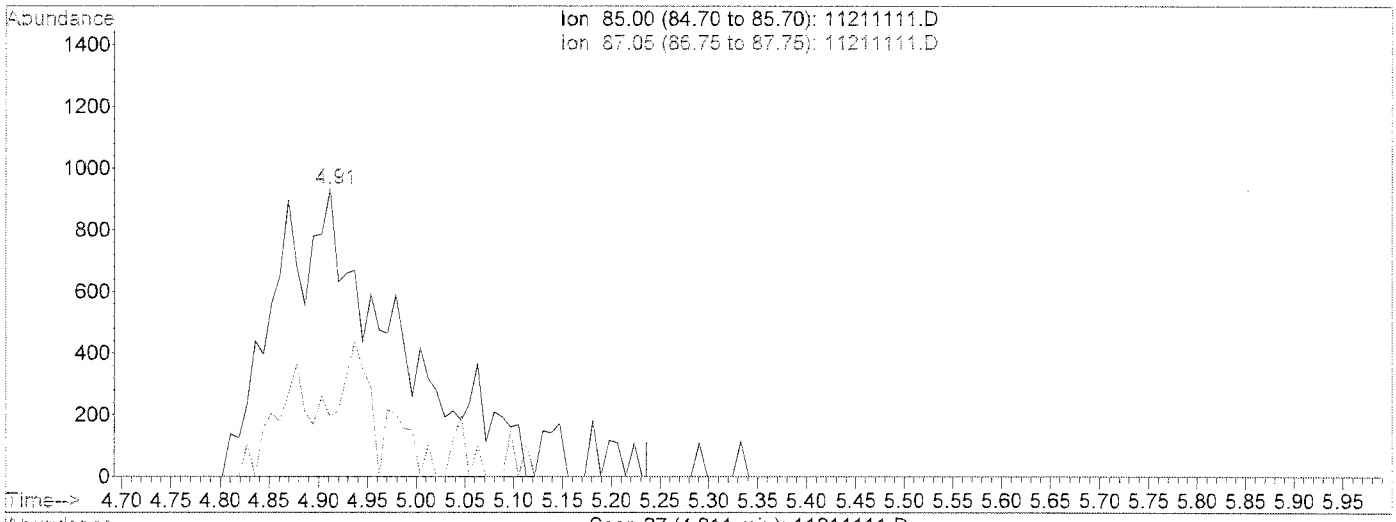
B
NIP
11/22/11

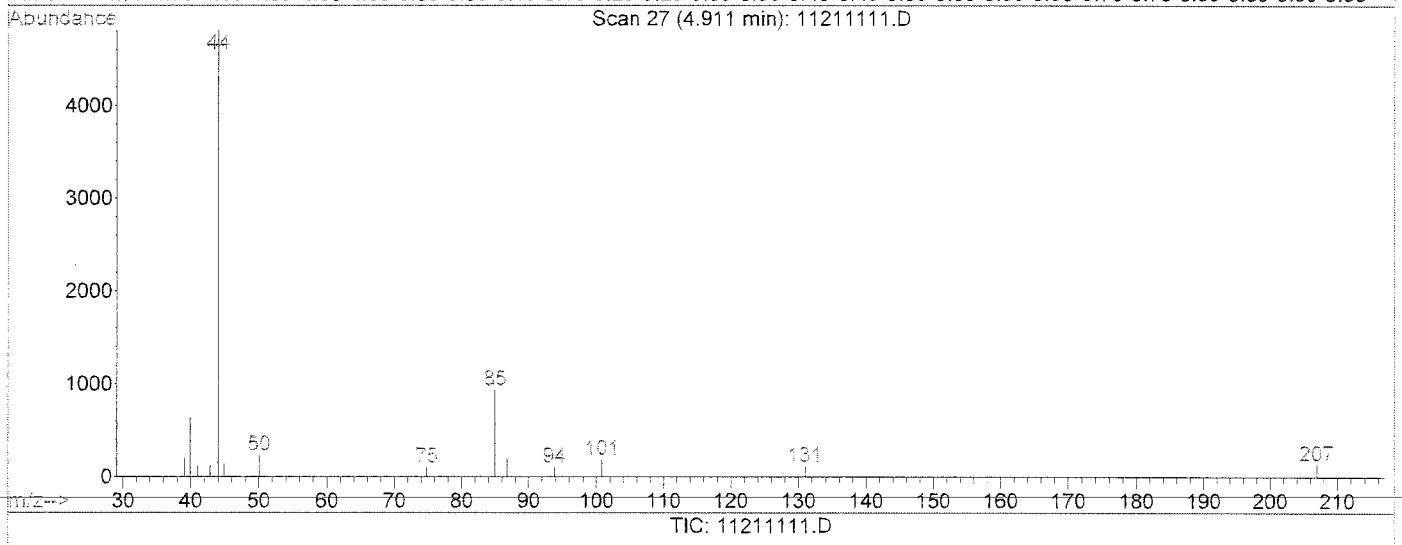
11211111.D 111911.M Tue Nov 22 10:28:03 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:28 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(5) Dichlorodifluoromethane (T)

4.91min 0.53ug/L m

response 7796

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	10.72#
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

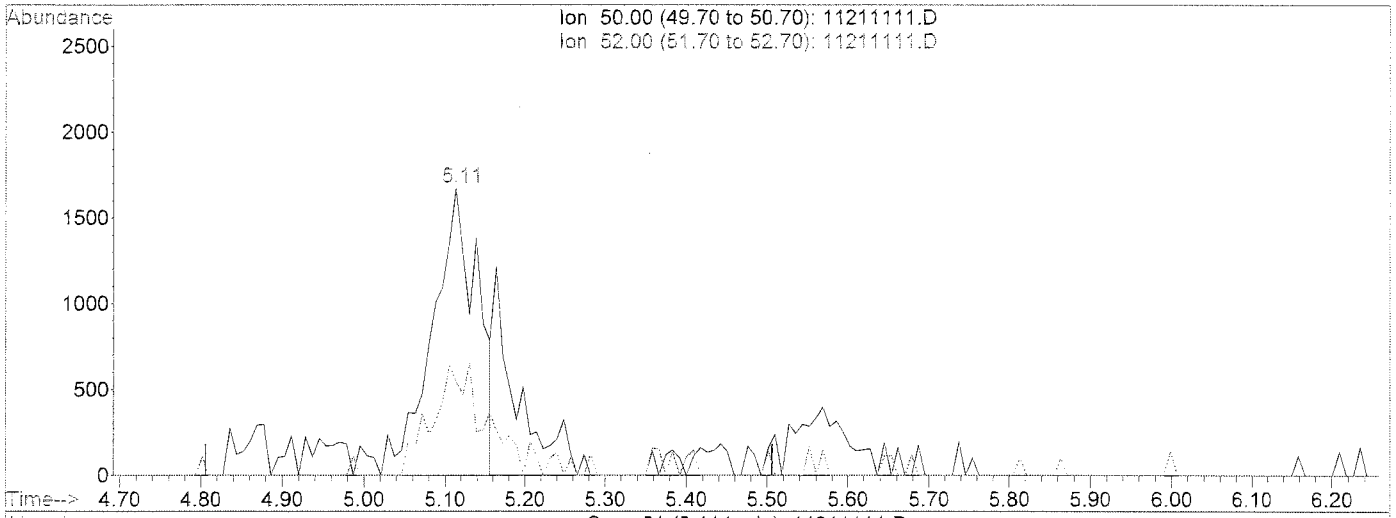
A
11/22/11

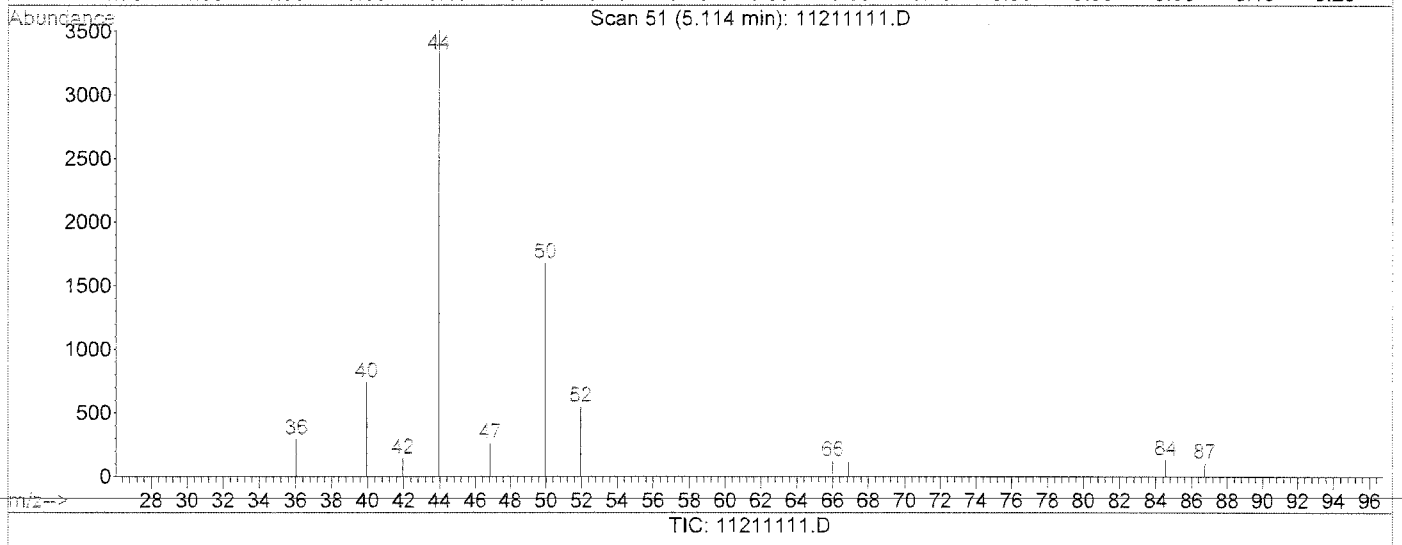
11211111.D 111911.M Tue Nov 22 10:28:08 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:28 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(6) Chloromethane (P)

5.11min 0.46ug/L

response 6513

Ion	Exp%	Act%
50.00	100	100
52.00	33.90	35.19
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

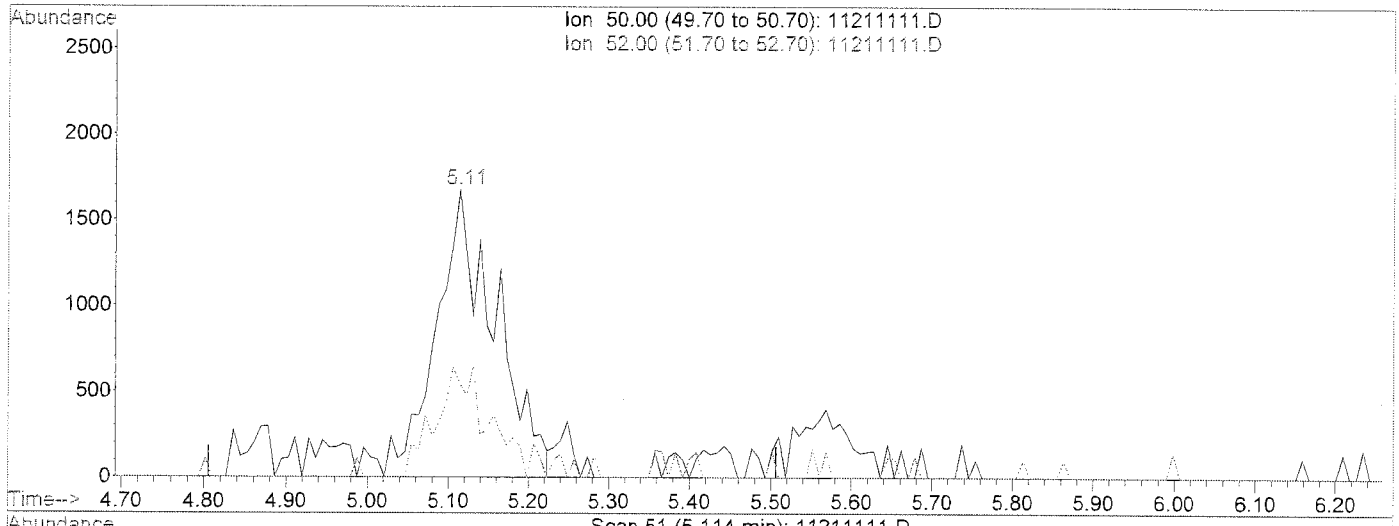
B
NIP
11/22/11

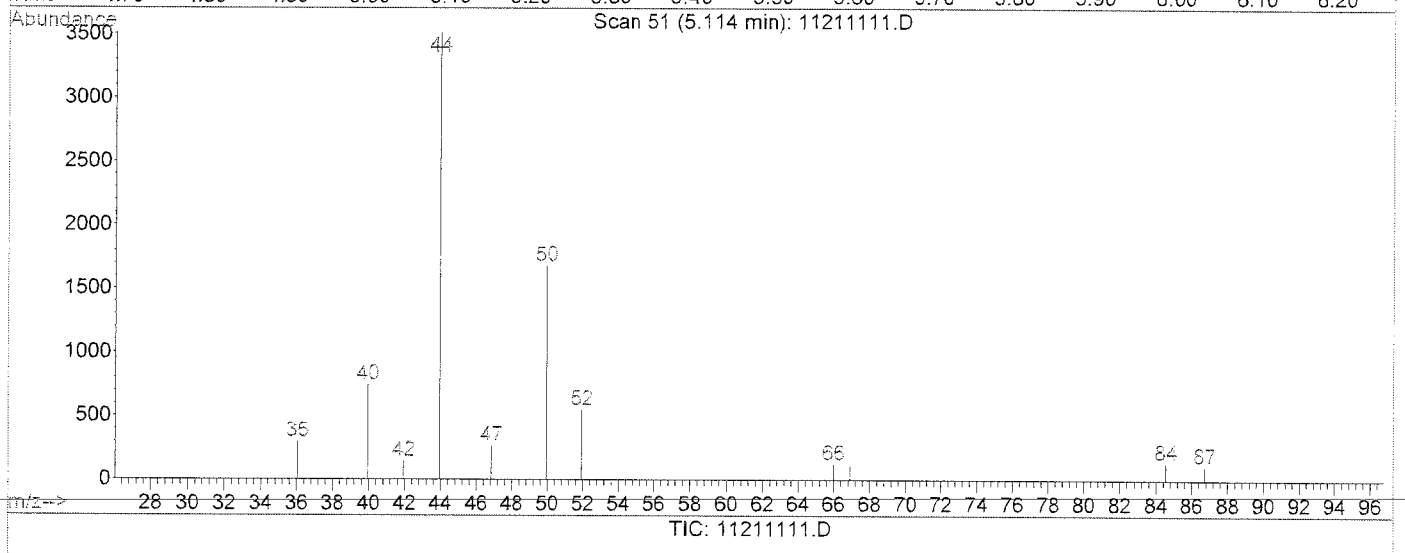
11211111.D 111911.M Tue Nov 22 10:28:13 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:28 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





(6) Chloromethane (P)

5.11min 0.61ug/L m

response 8486

Ion	Exp%	Act%
50.00	100	100
52.00	33.90	27.01
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

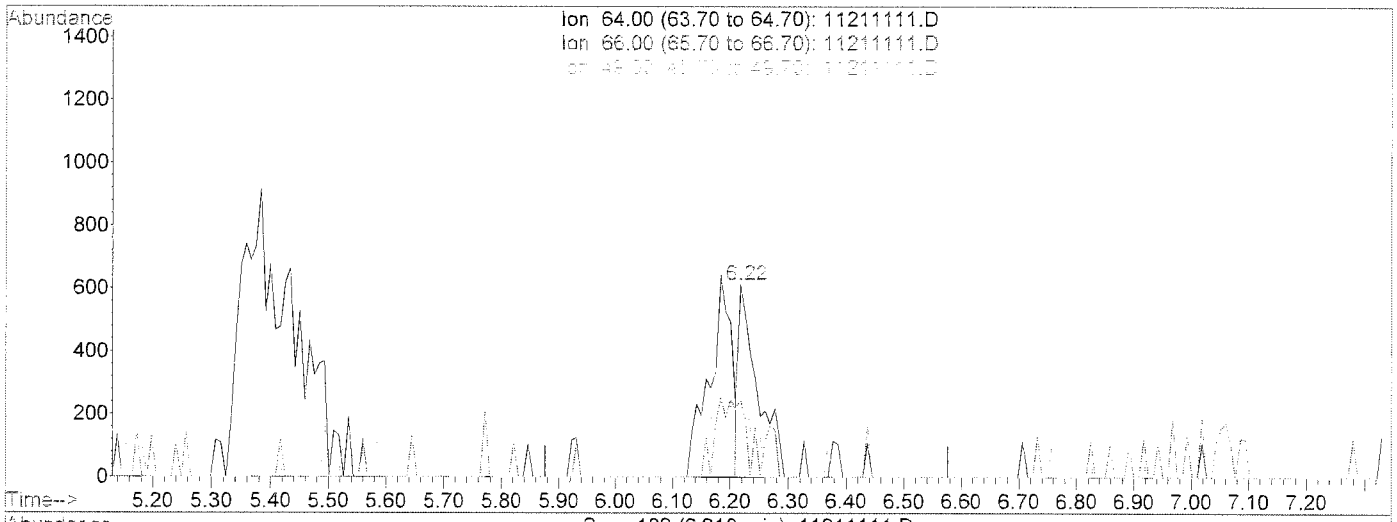
11/22/11

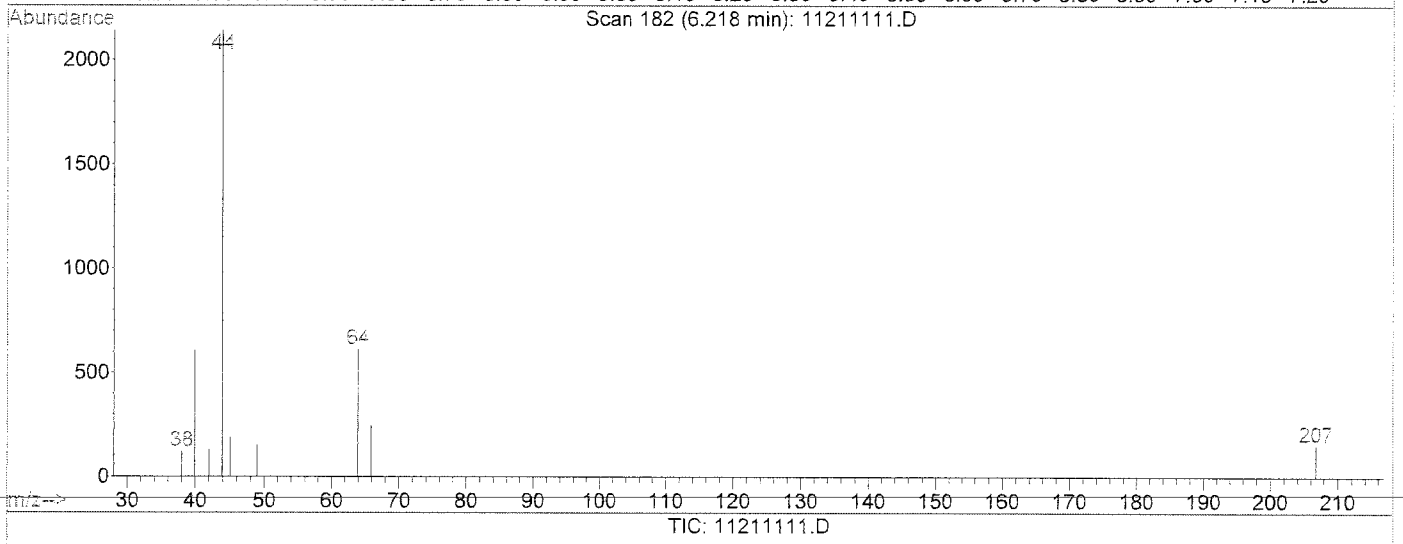
11211111.D 111911.M Tue Nov 22 10:28:24 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:28 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(10) Chloroethane (T)

6.22min 0.23ug/L

response 1384

Ion	Exp%	Act%
64.00	100	100
66.00	30.20	0.00#
49.00	33.80	0.00#
0.00	0.00	0.00

11/23/11

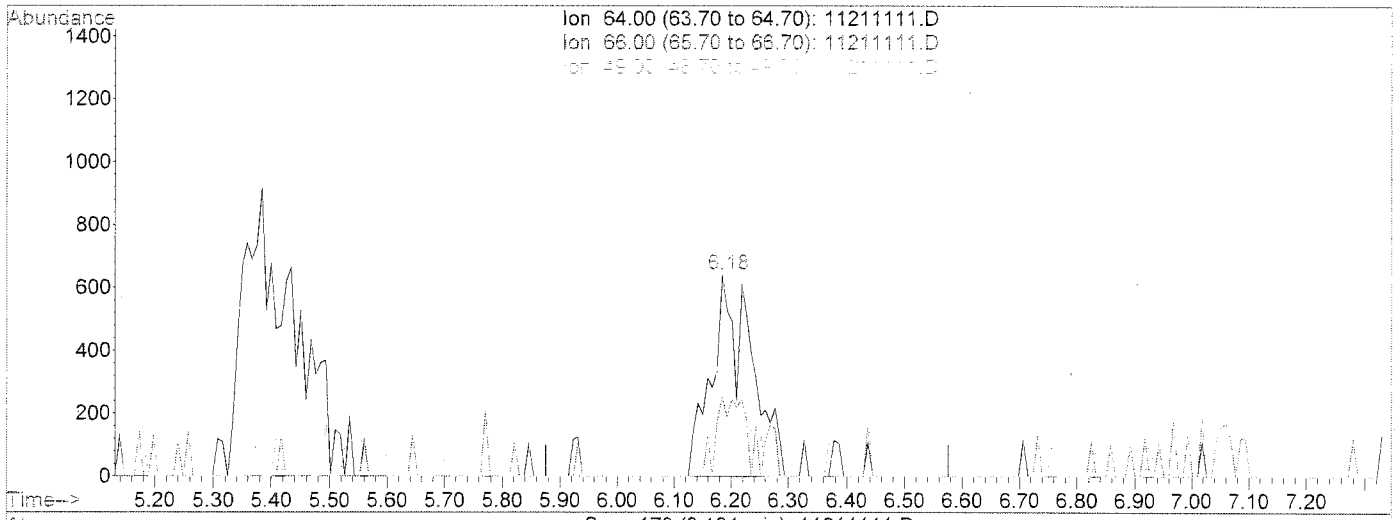
B
NIP
11/22/11

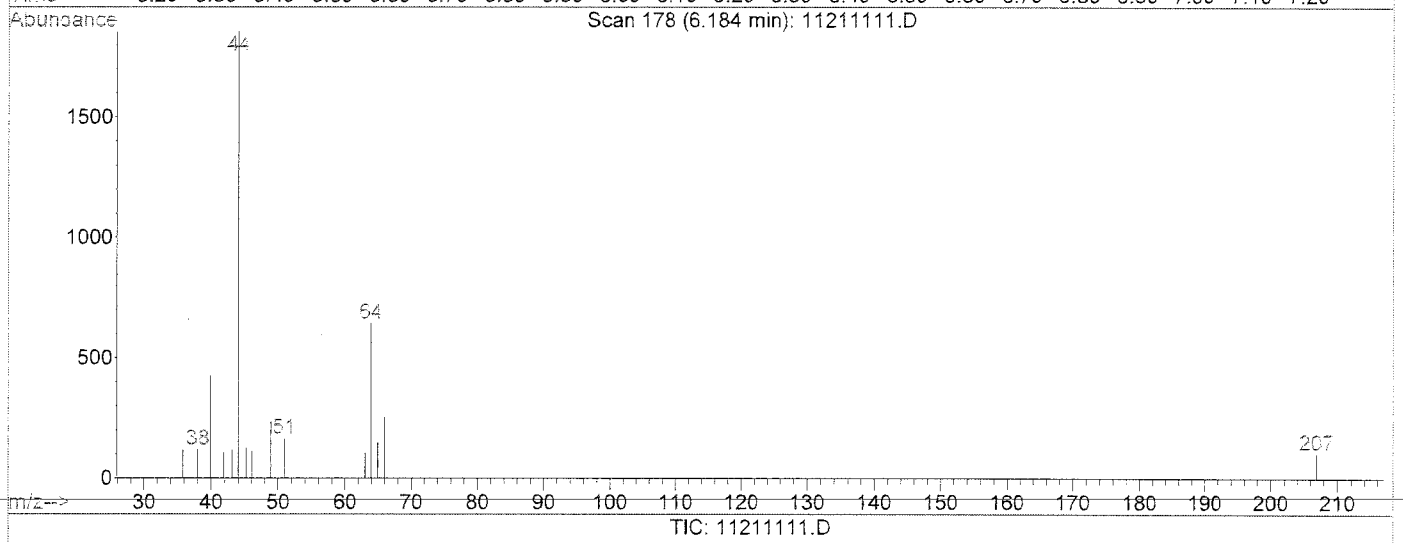
11211111.D 111911.M Tue Nov 22 10:28:40 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:28 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(10) Chloroethane (T)

6.18min 0.51ug/L m

response 3104

Ion	Exp%	Act%
64.00	100	100
66.00	30.20	0.00#
49.00	33.80	0.00#
0.00	0.00	0.00

11/23/11

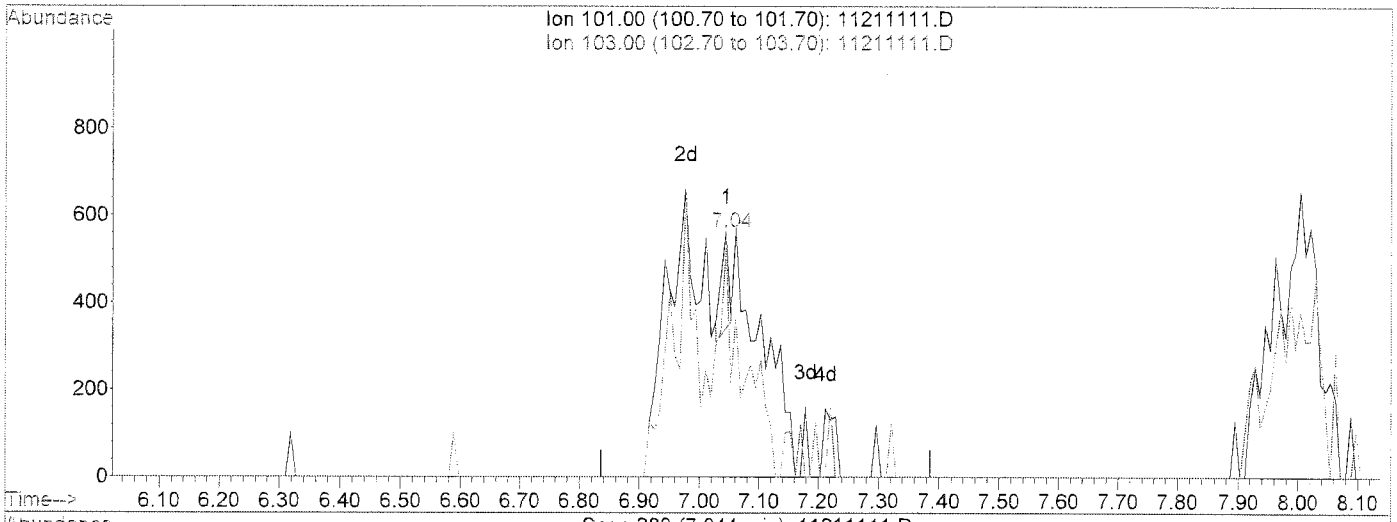
11/22/11

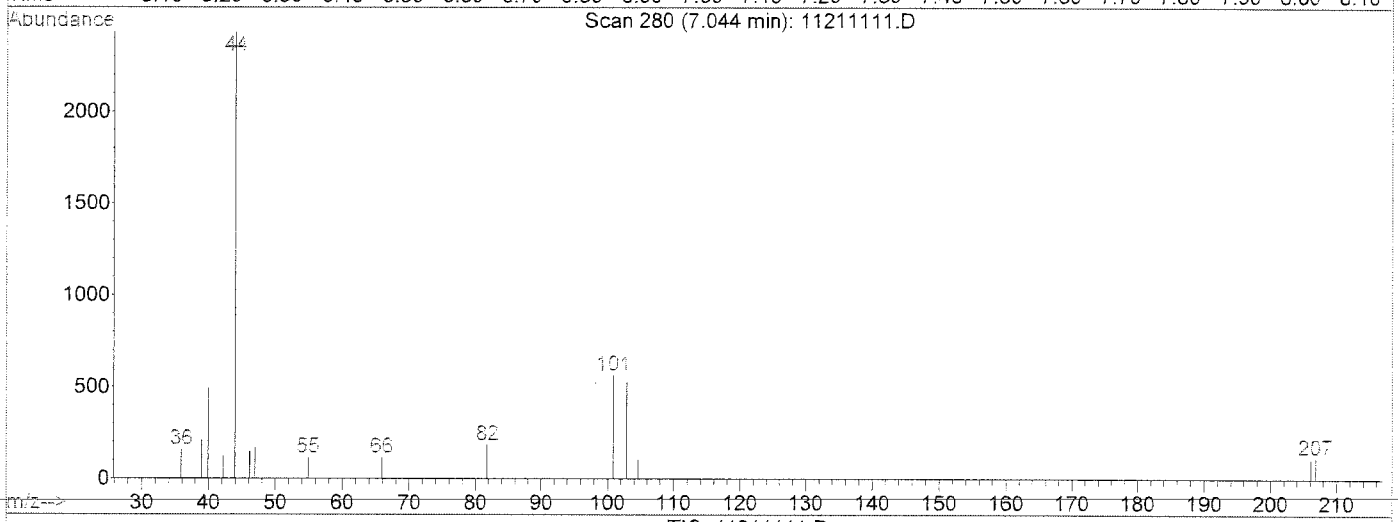
11211111.D 111911.M Tue Nov 22 10:28:45 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:28 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11

(12) Trichlorofluoromethane (T)

7.04min 0.02ug/L

response 199

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	151.94#
0.00	0.00	0.00
0.00	0.00	0.00

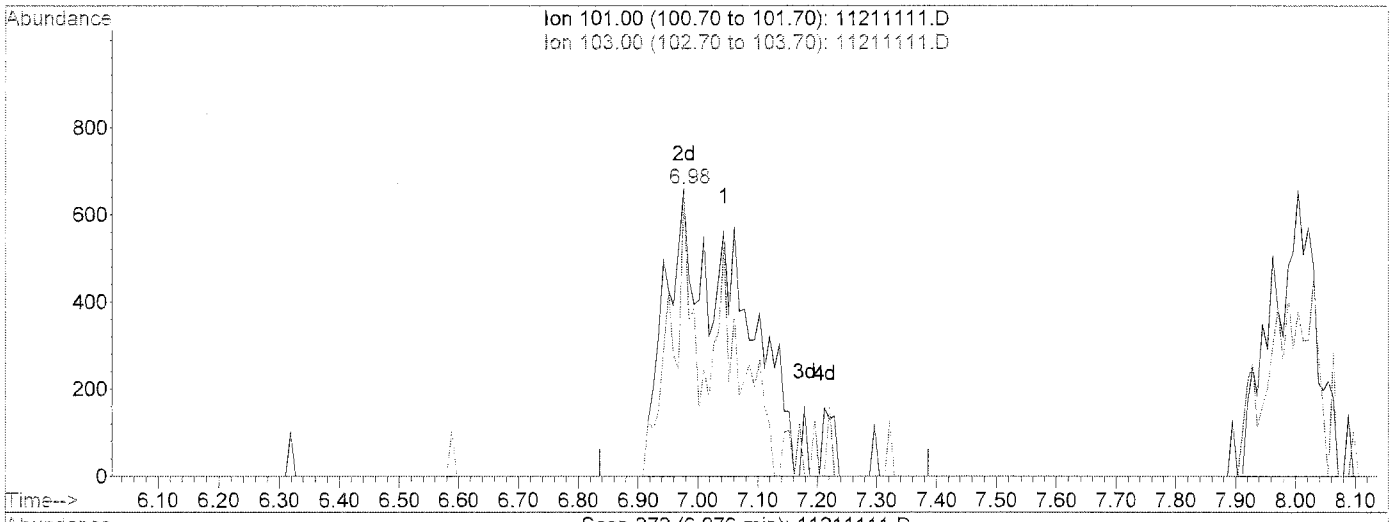
B
NIP
11/22/11

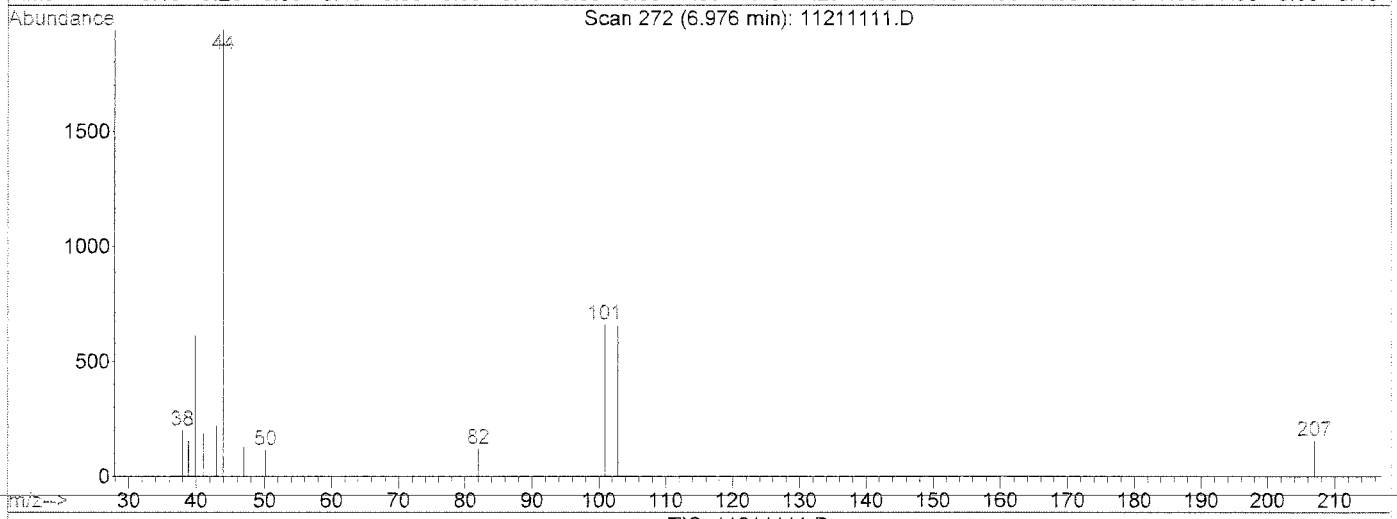
11211111.D 111911.M Tue Nov 22 10:28:52 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:28 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(12) Trichlorofluoromethane (T)

6.98min 0.52ug/L m

response 5445

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	99.09#
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

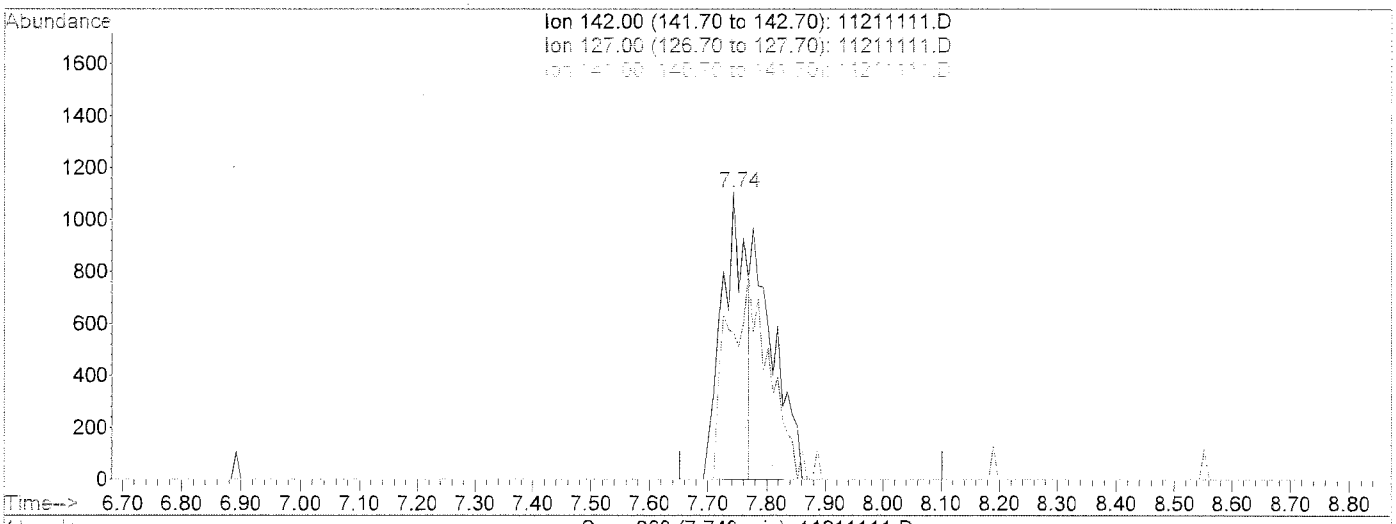
11/22/11

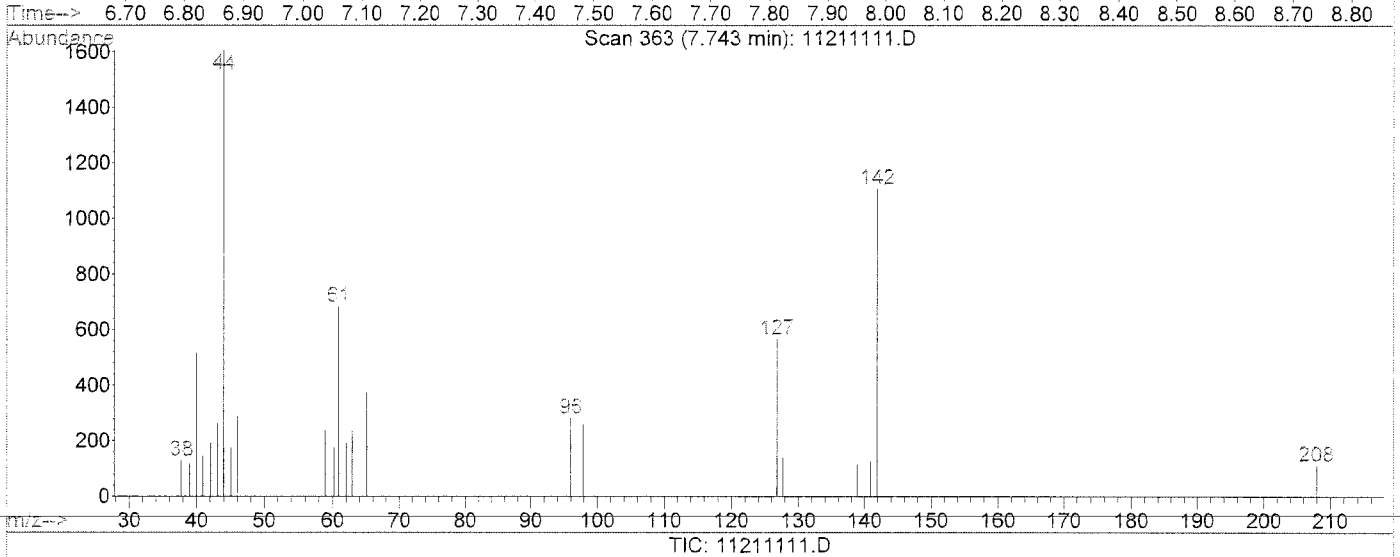
11211111.D 111911.M Tue Nov 22 10:28:57 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(15) Iodomethane (T)

7.74min 0.28ug/L

response 3069

Ion	Exp%	Act%
142.00	100	100
127.00	62.40	82.01#
141.00	14.30	18.57#
0.00	0.00	0.00

11/23/11

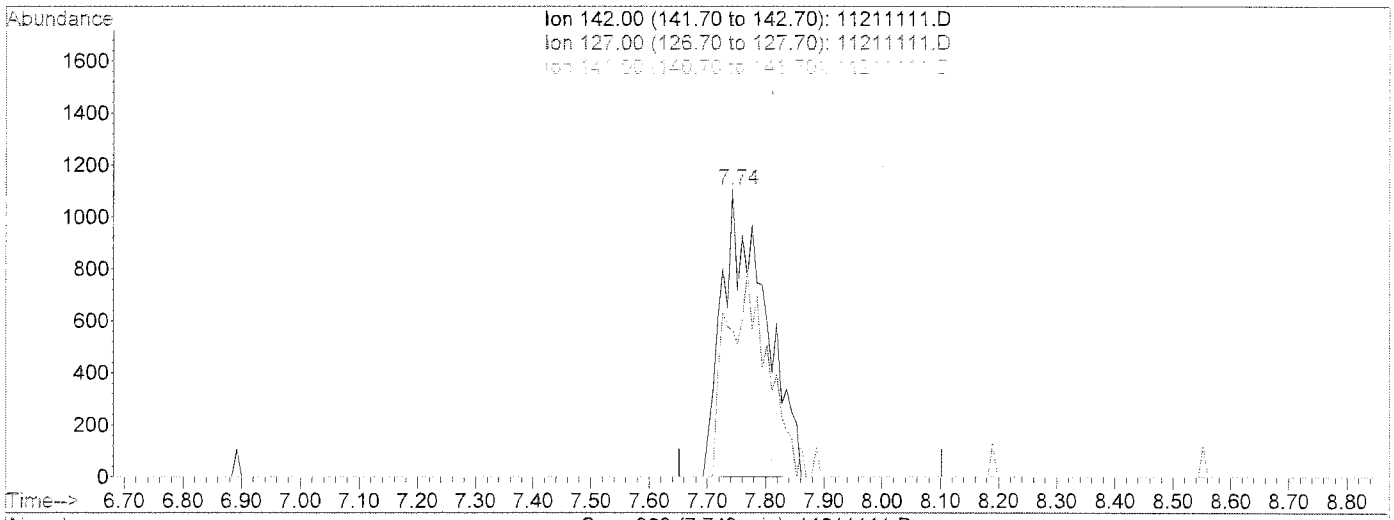
B
NIP
11/22/11

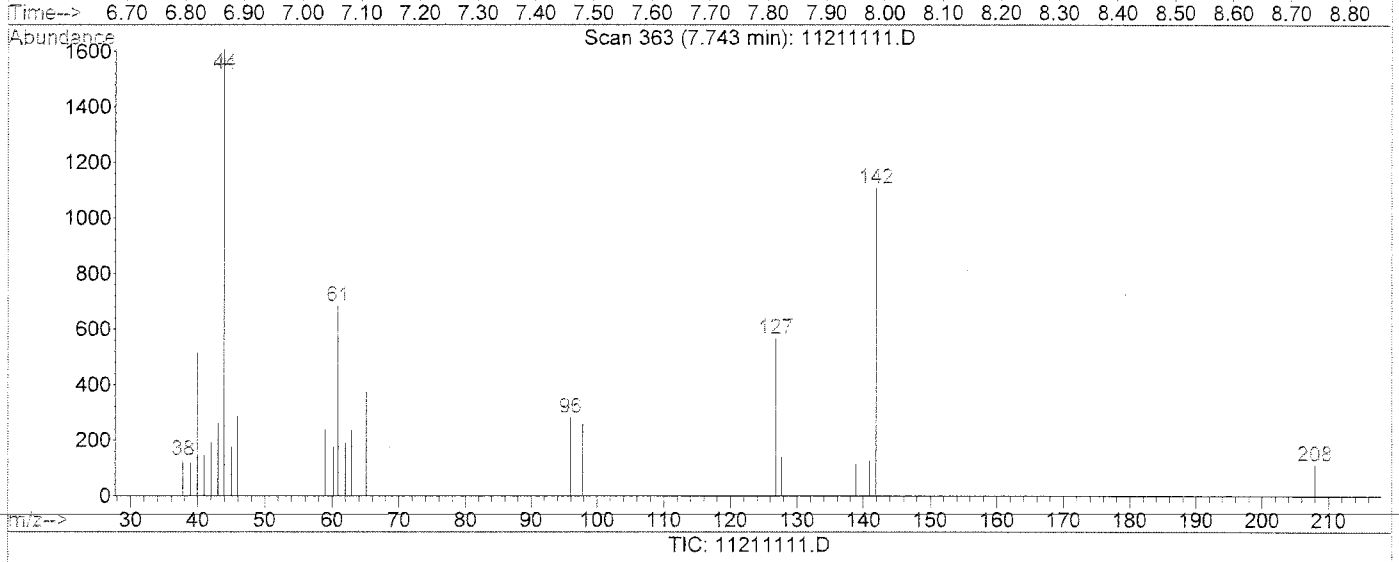
11211111.D 111911.M Tue Nov 22 10:29:05 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(15) Iodomethane (T)

7.74min 0.52ug/L m

response 5659

Ion	Exp%	Act%
142.00	100	100
127.00	62.40	44.48#
141.00	14.30	10.07#
0.00	0.00	0.00

11/23/11

A

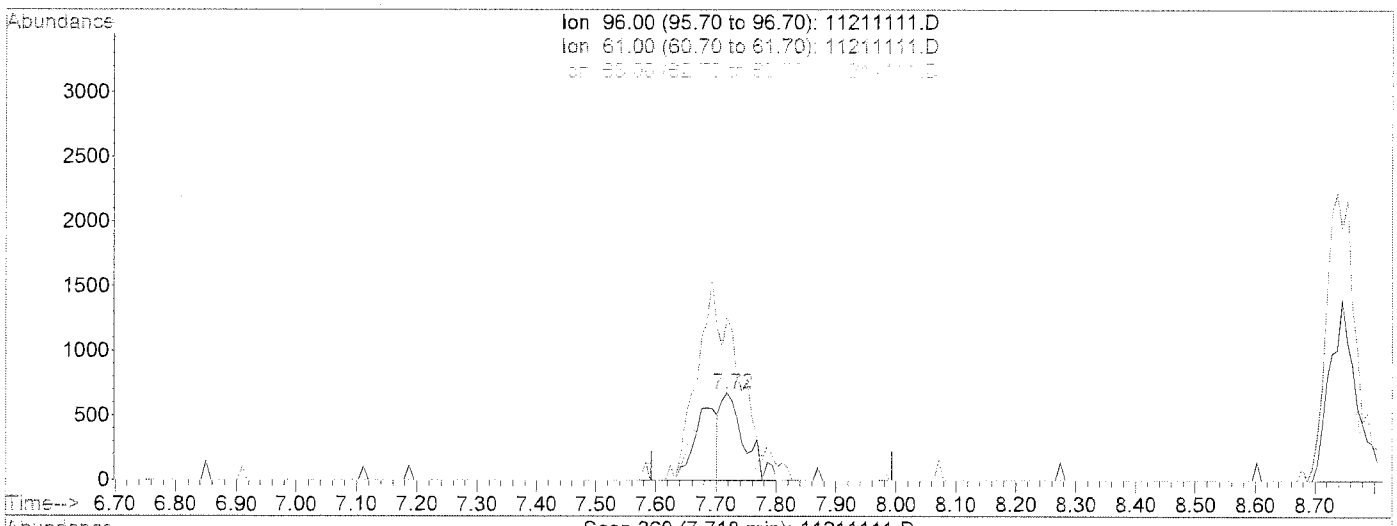
11/22/11

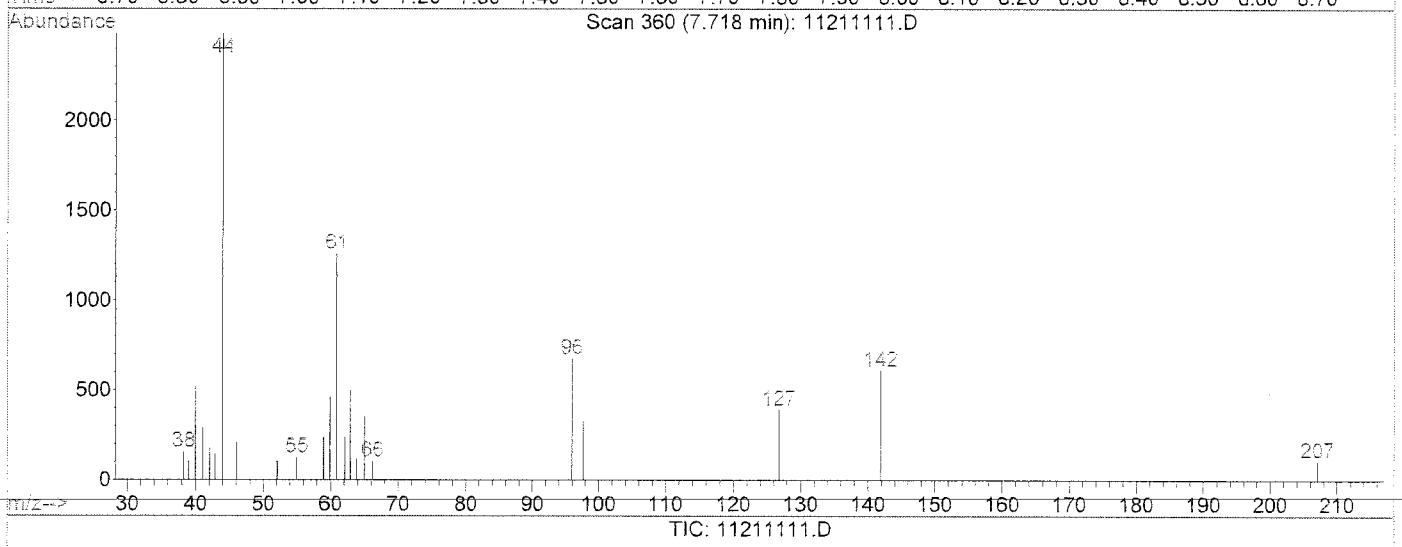
11211111.D 111911.M Tue Nov 22 10:29:10 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





(16) 1,1-Dichloroethene (T)

7.72min 0.29ug/L

response 1858

Ion	Exp%	Act%
96.00	100	100
61.00	211.80	0.00#
63.00	67.00	78.47
0.00	0.00	0.00

11/23/12

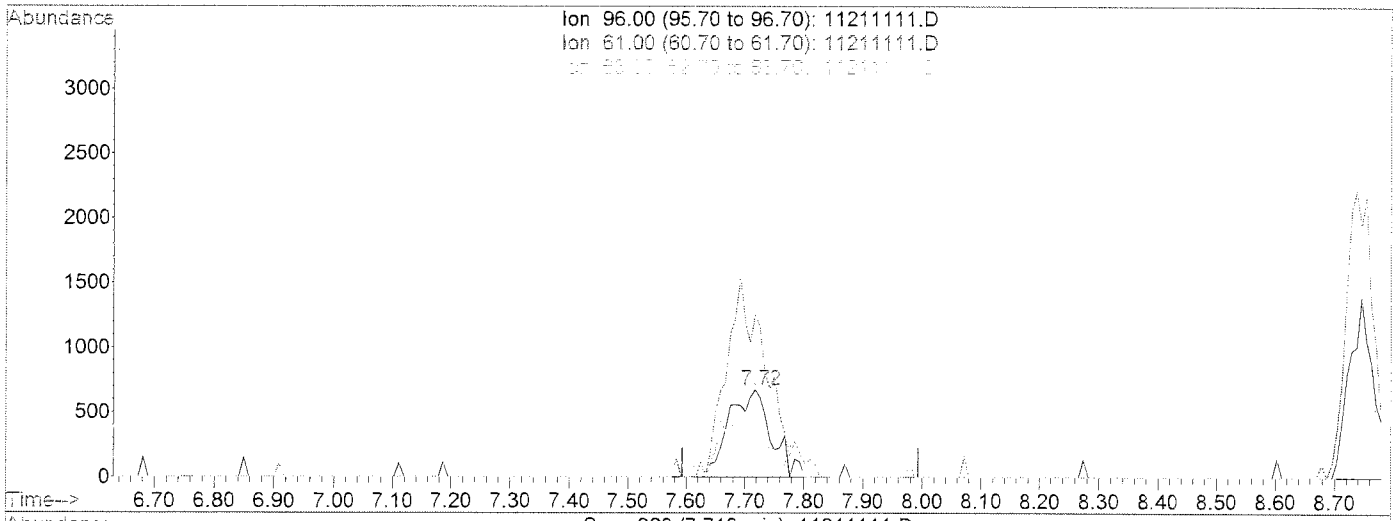
B MP

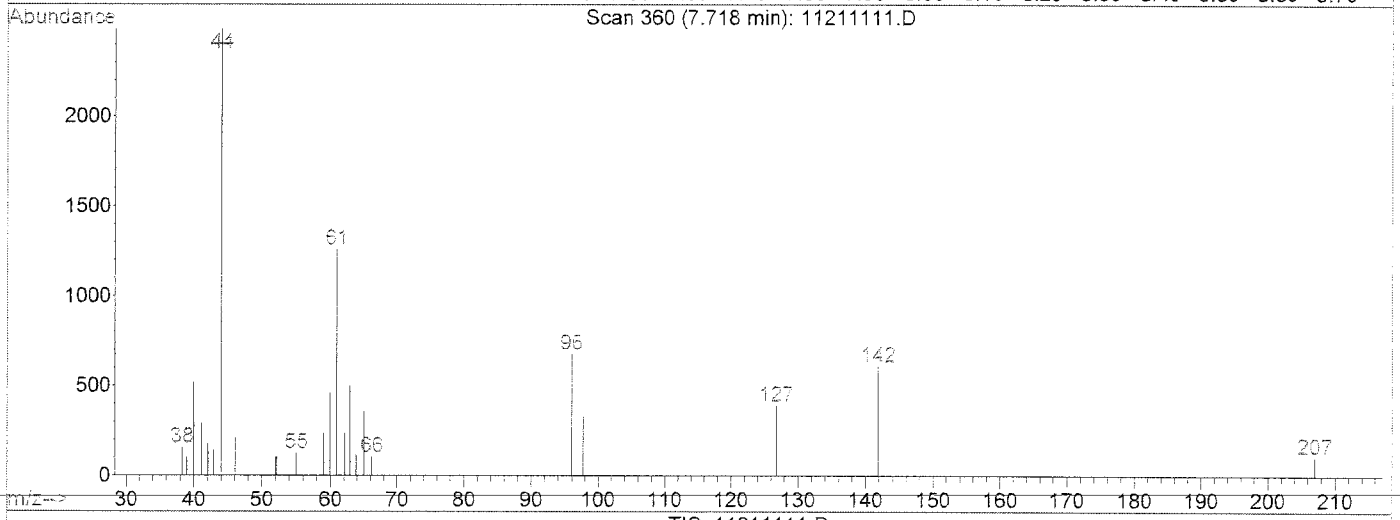
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11

(16) 1,1-Dichloroethene (T)

7.72min 0.50ug/L m

response 3236

Ion	Exp%	Act%
96.00	100	100
61.00	211.80	0.00#
63.00	67.00	45.06#
0.00	0.00	0.00

A

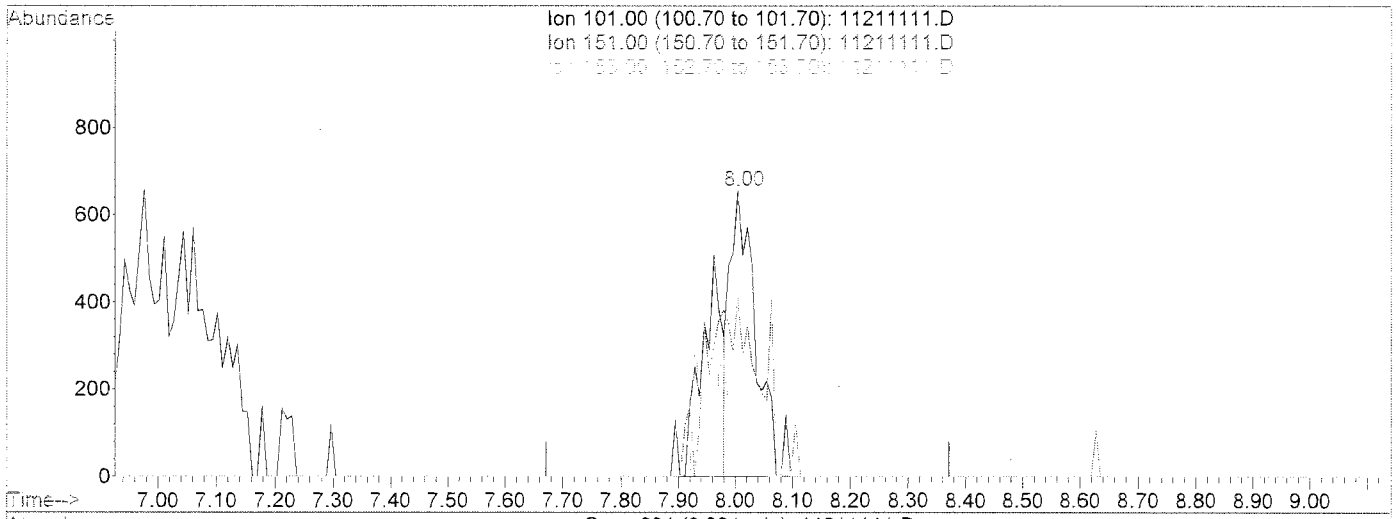
11/22/11

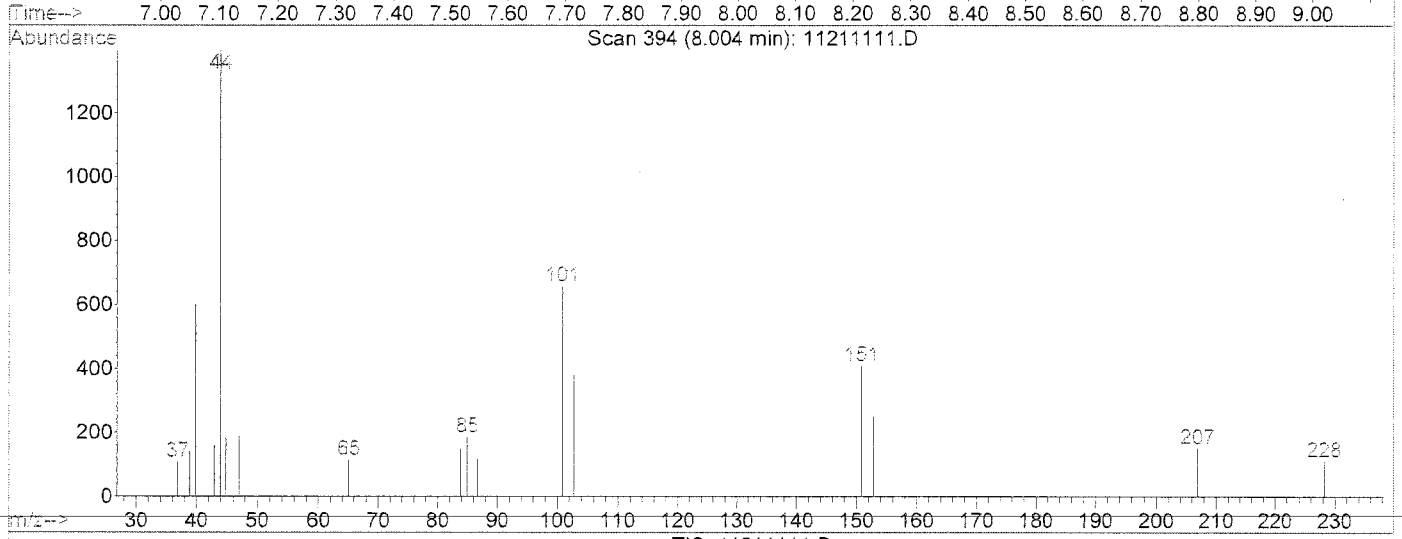
11211111.D 111911.M Tue Nov 22 10:29:32 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11

(18) Freon 113 (T)

8.00min 0.30ug/L

response 2035

Ion	Exp%	Act%
101.00	100	100
151.00	69.00	0.00#
153.00	43.10	36.02
0.00	0.00	0.00

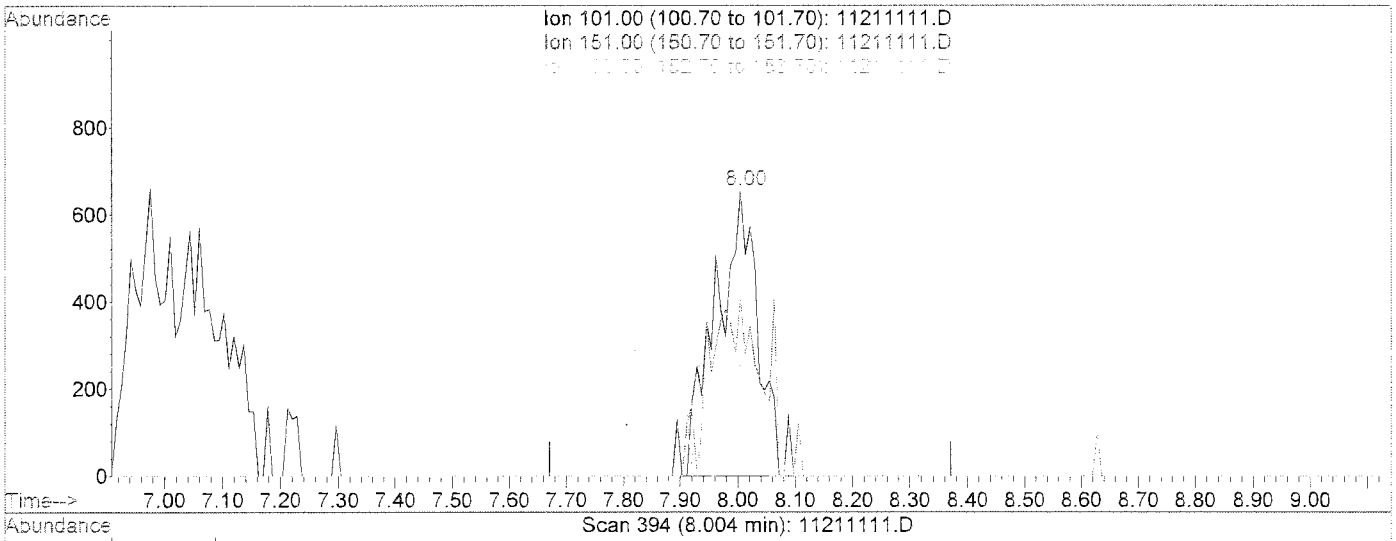
B
NIP
11/22/11

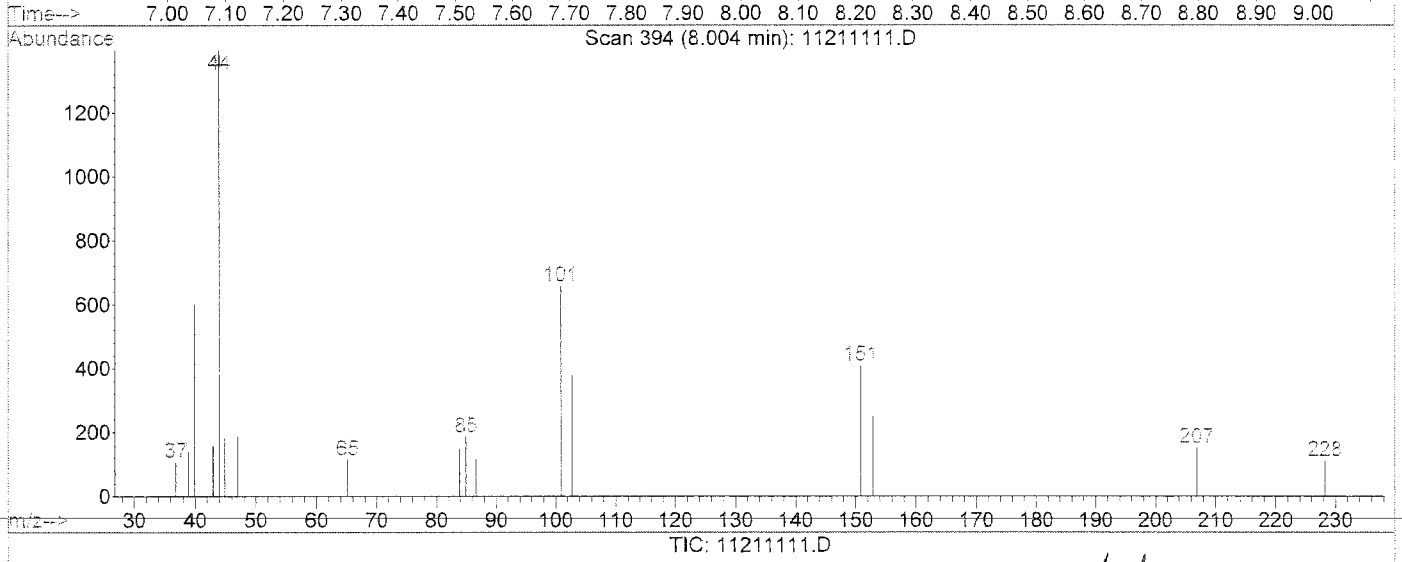
11211111.D 111911.M Tue Nov 22 10:29:40 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11

(18) Freon 113 (T)

8.00min 0.48ug/L m

response 3275

ion	Exp%	Act%
101.00	100	100
151.00	69.00	0.00#
153.00	43.10	22.38#
0.00	0.00	0.00

A

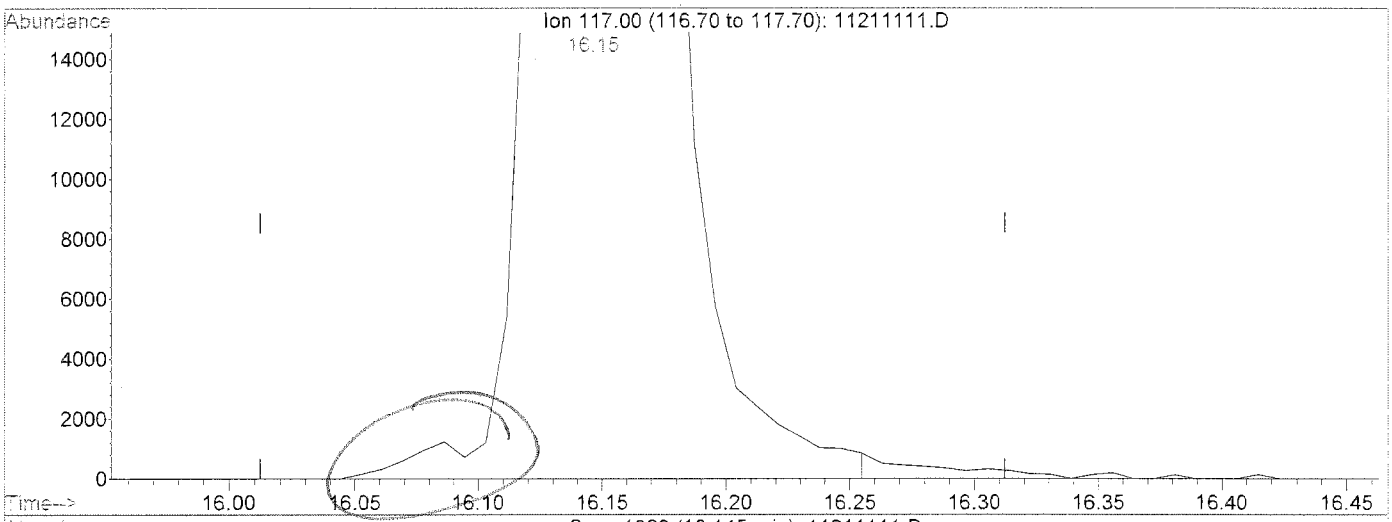
11/22/11

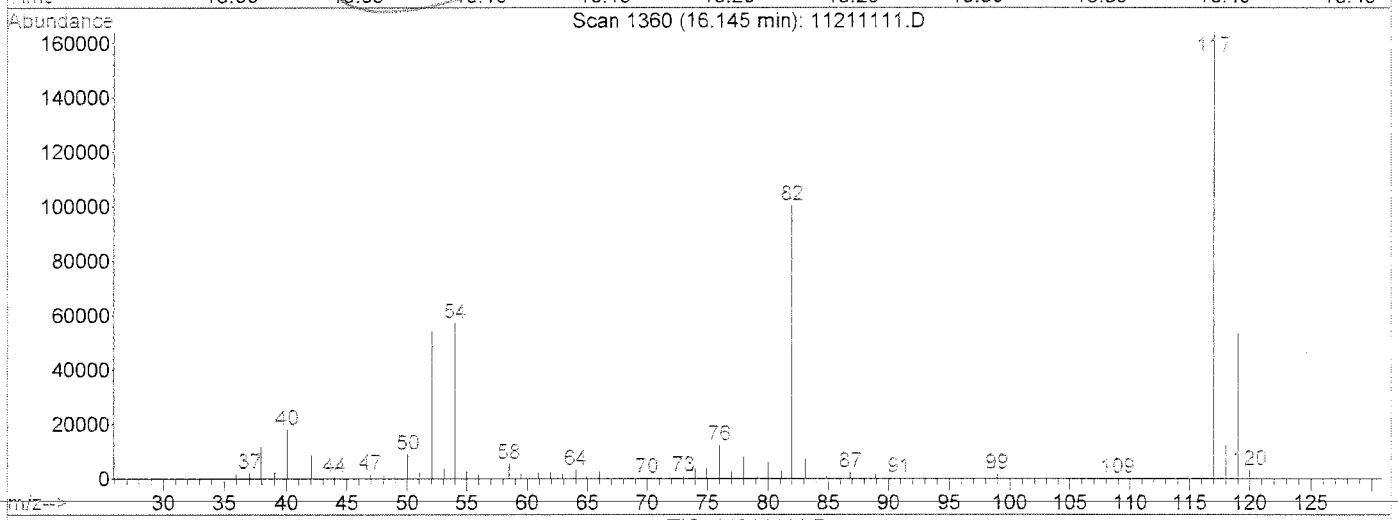
11211111.D 111911.M Tue Nov 22 10:29:52 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:30 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11

(52) Chlorobenzene-d5 (I)

16.15min 25.00ug/L

response 383862

Ion	Exp%	Act%
117.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

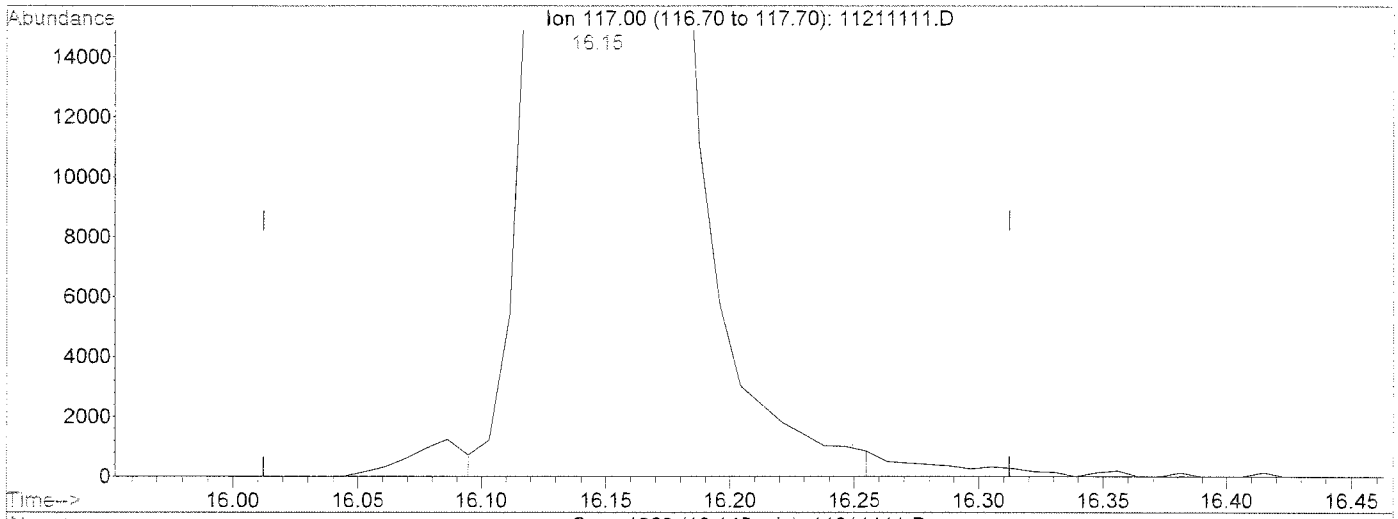
B
CE
11/22/11

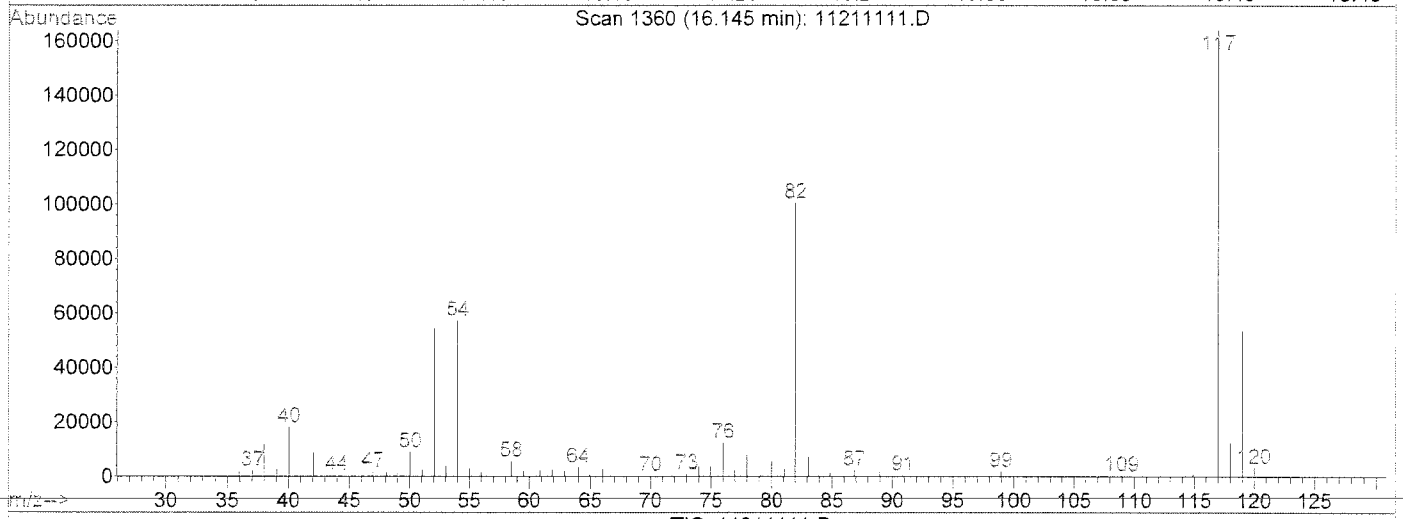
11211111.D 111911.M Tue Nov 22 10:30:42 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:30 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(52) Chlorobenzene-d5 (I)

16.15min 25.00ug/L m

response 381841

Ion	Exp%	Act%
117.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

A

11/22/11

11211111.D 111911.M Tue Nov 22 10:30:47 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:31 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	42297	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	271406	25.00 ug/L	-0.02
37) 1,4-Difluorobenzene	11.82	114	436375	25.00 ug/L	-0.02
52) Chlorobenzene-d5	16.15	117	381841m	25.00 ug/L	-0.02
65) 1,4-Dichlorobenzene-d4	19.59	152	193224	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	187055	27.14 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 108.56%	
50) Toluene-d8 (surr)	14.19	98	477149	25.20 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 100.80%	
64) 4-Bromofluorobenzene (surr	17.82	95	221796	26.06 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 104.24%	

Target Compounds					Qvalue
2) Ethanol	0.00	45	0	N.D. d	
3) tert-Butanol (TBA)	0.00	59	0	N.D. d	
5) Dichlorodifluoromethane	4.91	85	7796m	0.53 ug/L	
6) Chloromethane	5.11	50	8486m	0.61 ug/L	
7) Vinyl Chloride	5.44	62	6310	0.25 ug/L #	42
8) 1,3-Butadiene	5.57	54	3373	0.53 ug/L #	40
9) Bromomethane	6.00	94	4399	0.56 ug/L	95
10) Chloroethane	6.18	64	3104m	0.51 ug/L	
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	6.98	101	5445m	0.52 ug/L	
13) Acetone	0.00	43	0	N.D. d	
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.74	142	5659m	0.52 ug/L	
16) 1,1-Dichloroethene	7.72	96	3236m	0.50 ug/L	
17) Methylene Chloride	7.89	84	5515	0.65 ug/L	95
18) Freon 113	8.00	101	3275m	0.48 ug/L	
19) Carbon Disulfide	8.20	76	10411	0.57 ug/L #	77
~~20) trans-1,2-Dichloroethene~~	~~8.75~~	~~96~~	~~4266~~	~~0.54 ug/L~~	~~93~~
21) MTBE	8.88	73	4188	0.52 ug/L #	90
22) 1,1-Dichloroethane	9.07	63	8631	0.53 ug/L	92
23) Vinyl Acetate	0.00	43	0	N.D. d	
24) n-Hexane	9.55	86	609	0.49 ug/L #	62
25) 2-Butanone (MEK)	0.00	72	0	N.D. d	
26) Diisopropylether (DIPE)	9.59	45	11950	0.45 ug/L #	80
27) cis-1,2-Dichloroethene	9.80	96	3658	0.48 ug/L	93
28) Bromochloromethane	10.00	128	2060	0.55 ug/L	88
29) Chloroform	10.05	83	8683	0.53 ug/L	95
30) 2,2-Dichloropropane	10.15	77	3174	0.54 ug/L #	82
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	3689	0.82 ug/L	90
33) Tetrahydrofuran	0.00	72	0	N.D. d	
34) 1,2-Dichloroethane	10.89	62	6704	0.58 ug/L	97
35) 1,1,1-Trichloroethane	11.02	97	6673	0.55 ug/L	92
36) (TAME) tert-Amyl methyl et	11.71	73	2128	0.88 ug/L	80
38) 1,1-Dichloropropene	11.25	75	4894	0.52 ug/L #	87
39) Carbon Tetrachloride	11.49	117	6188	0.49 ug/L #	89
0) Benzene	11.54	78	13698	0.52 ug/L	97

(#) = qualifier out of range (m) = manual integration
11211111.D 111911.M Tue Nov 22 10:31:42 2011

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:31 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

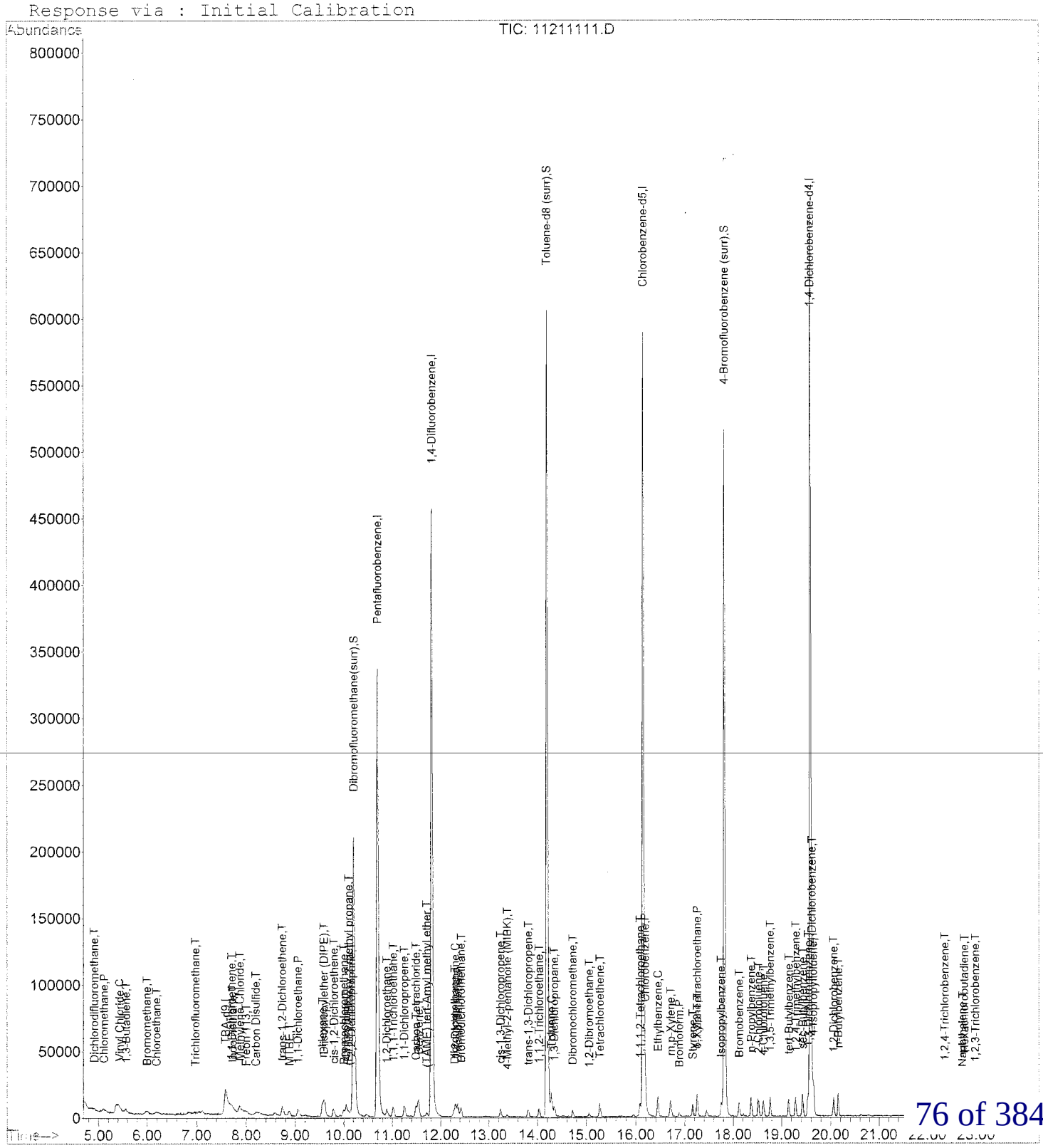
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Dibromomethane	12.28	93	2070	0.47 ug/L	94
42) 1,2-Dichloropropane	12.30	63	3764	0.51 ug/L #	81
43) Trichloroethene	12.37	95	3868	0.50 ug/L	98
44) Bromodichloromethane	12.42	83	5678	0.49 ug/L #	99
45) 2-Chloroethyl vinylether	0.00	63	0	N.D. d	
46) cis-1,3-Dichloropropene	13.25	75	3586	0.64 ug/L #	85
47) 4-Methyl-2-pentanone (MIBK	13.39	43	1390	0.99 ug/L #	76
48) trans-1,3-Dichloropropene	13.82	75	3425	0.70 ug/L	99
49) 1,1,2-Trichloroethane	14.03	97	2278	0.49 ug/L	95
51) Toluene	14.29	92	8059	0.52 ug/L	95
53) 1,3-Dichloropropane	14.35	76	3988	0.45 ug/L	100
54) 2-Hexanone	0.00	43	0	N.D. d	
55) Dibromochloromethane	14.72	129	3053	0.42 ug/L	96
56) 1,2-Dibromoethane	15.06	107	2004	0.41 ug/L	96
57) Tetrachloroethene	15.28	164	2745	0.48 ug/L	93
58) 1,1,1,2-Tetrachloroethane	16.08	131	3362	0.44 ug/L #	65
59) Chlorobenzene	16.20	112	9206	0.45 ug/L	91
60) Ethylbenzene	16.45	91	11445	0.38 ug/L	99
61) m,p-Xylene	16.71	106	4251	0.38 ug/L	88
62) Styrene	17.16	104	4870	0.51 ug/L #	97
63) o-Xylene	17.26	106	3908	0.31 ug/L #	78
66) Bromoform	16.89	173	1564	0.44 ug/L	91
67) 1,1,2,2-Tetrachloroethane	17.25	83	2334	0.30 ug/L	94
68) 1,2,3-Trichloropropane	0.00	110	0	N.D. d	
69) trans-1,4-Dichloro-2-buten	0.00	53	0	N.D. d	
70) Isopropylbenzene	17.76	105	8277	0.51 ug/L	100
71) Bromobenzene	18.12	156	2904	0.40 ug/L	84
72) n-Propylbenzene	18.37	91	12431	0.38 ug/L	100
73) 2-Chlorotoluene	18.52	91	8902	0.39 ug/L	96
74) 4-Chlorotoluene	18.62	91	9059	0.39 ug/L	97
75) 1,3,5-Trimethylbenzene	18.77	105	8873	0.42 ug/L	98
76) tert-Butylbenzene	19.15	119	6816	0.51 ug/L	96
77) 1,2,4-Trimethylbenzene	19.30	105	8952	0.40 ug/L	94
78) sec-Butylbenzene	19.43	105	12183	0.39 ug/L	95
79) 1,3-Dichlorobenzene	19.54	146	6769	0.44 ug/L	95
80) 1,4-Dichlorobenzene	19.63	146	7297	0.47 ug/L #	73
81) 4-Isopropyltoluene	19.65	119	12586	0.44 ug/L	95
82) 1,2-Dichlorobenzene	20.06	146	5664	0.43 ug/L	95
83) n-Butylbenzene	20.16	91	9955	0.39 ug/L	95
84) 1,2-Dibromo-3-chloropropan	0.00	75	0	N.D. d	
85) 1,2,4-Trichlorobenzene	22.36	180	3297	0.74 ug/L	95
86) Naphthalene	22.72	128	2592	1.26 ug/L	95
87) Hexachlorobutadiene	22.76	225	3816	0.58 ug/L #	88
88) 1,2,3-Trichlorobenzene	23.00	180	2809	0.38 ug/L	93

(#) = qualifier out of range (m) = manual integration
11211111.D 111911.M Tue Nov 22 10:31:42 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:31 2011 Quant Results File: 111911.RES

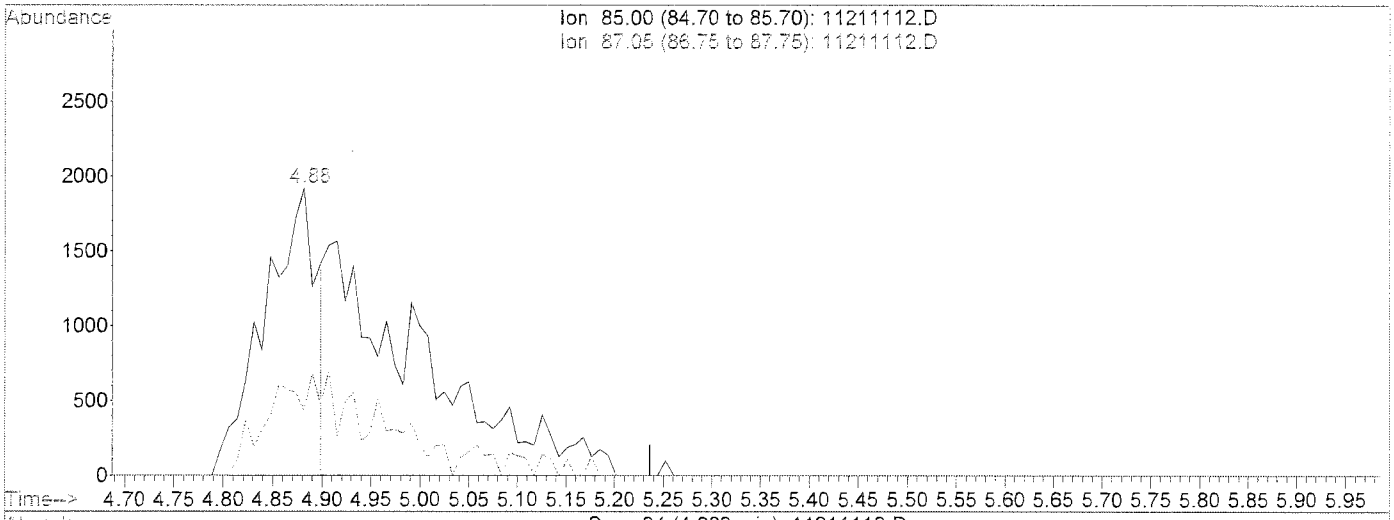
Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration

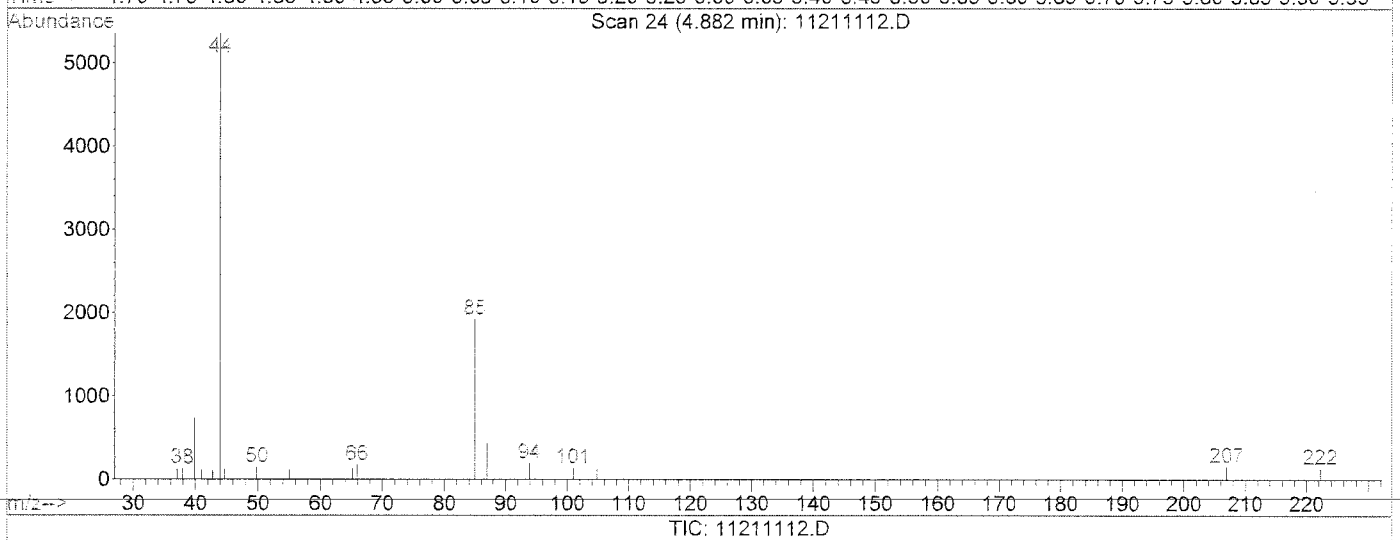


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:31 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

(5) Dichlorodifluoromethane (T)

4.88min 0.45ug/L

response 7017

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	25.52
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

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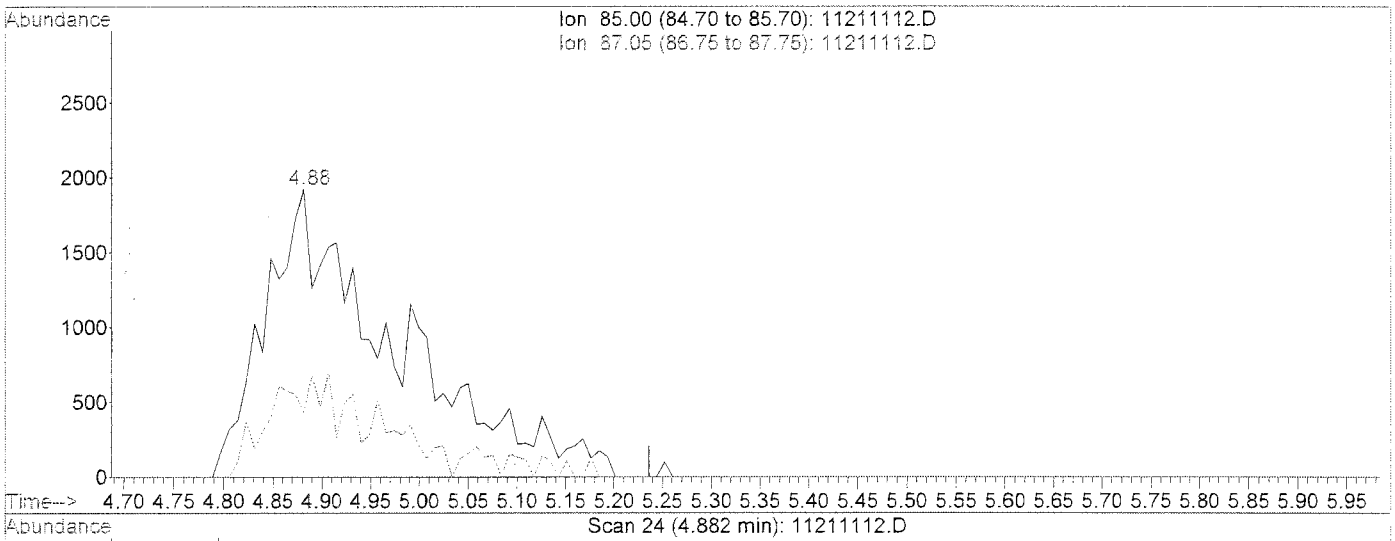
11/22/11

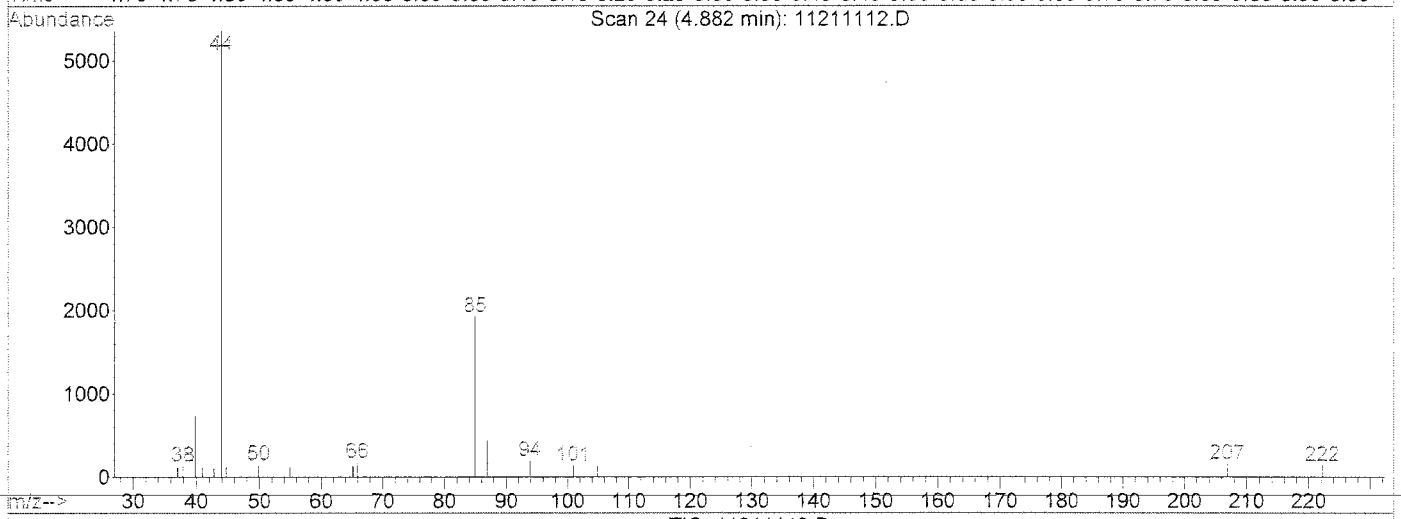
11211112.D 111911.M Tue Nov 22 10:32:02 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:32 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.88min 1.12ug/L m

response 17583

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	10.19#
0.00	0.00	0.00
0.00	0.00	0.00

A

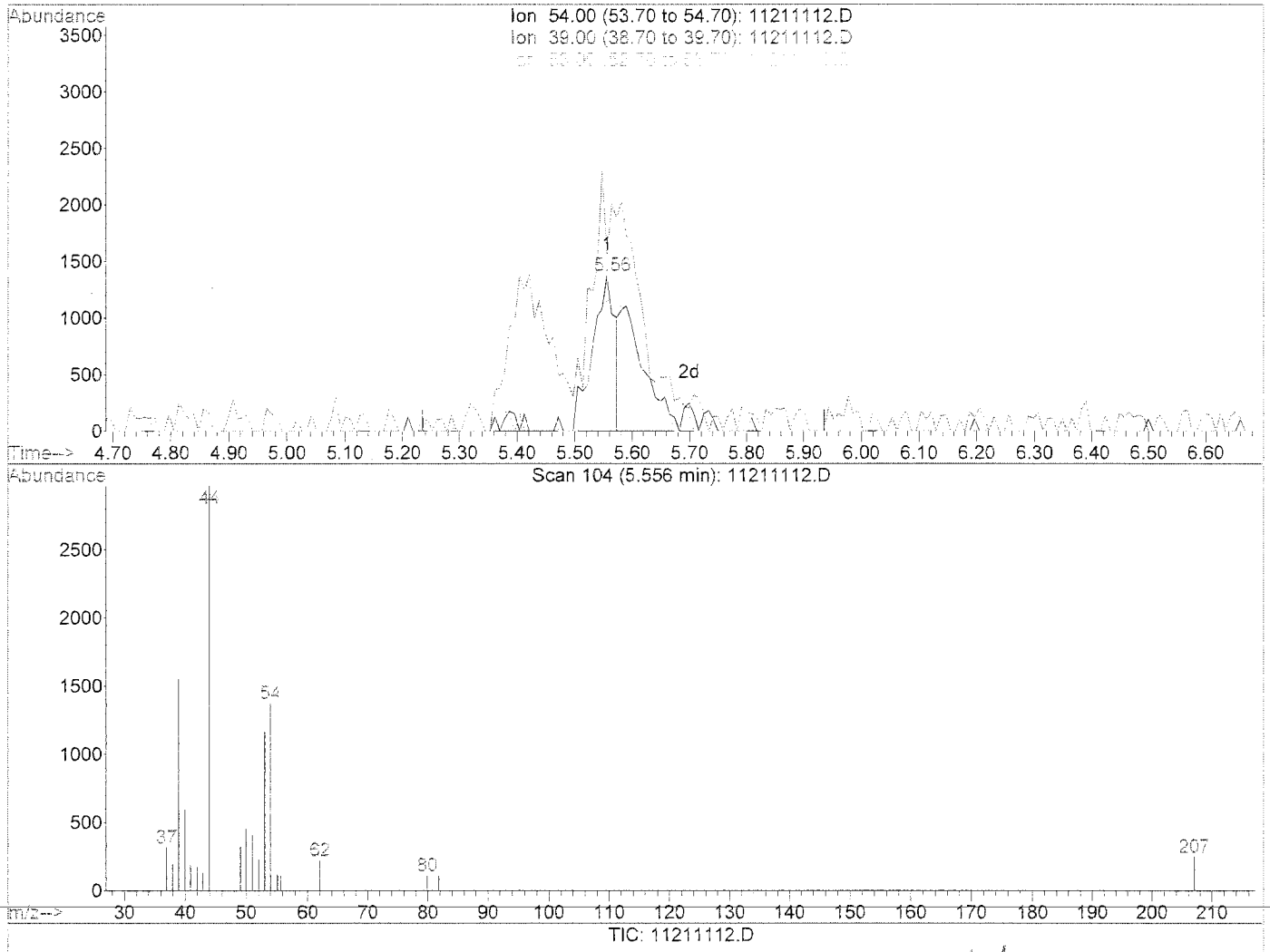
11/22/11

11211112.D 111911.M Tue Nov 22 10:32:07 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:32 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration



11/23/11

(8) 1,3-Butadiene (T)

5.56min 0.56ug/L

response 3739

Ion	Exp%	Act%
54.00	100	100
39.00	147.80	90.83#
53.00	76.00	159.08#
0.00	0.00	0.00

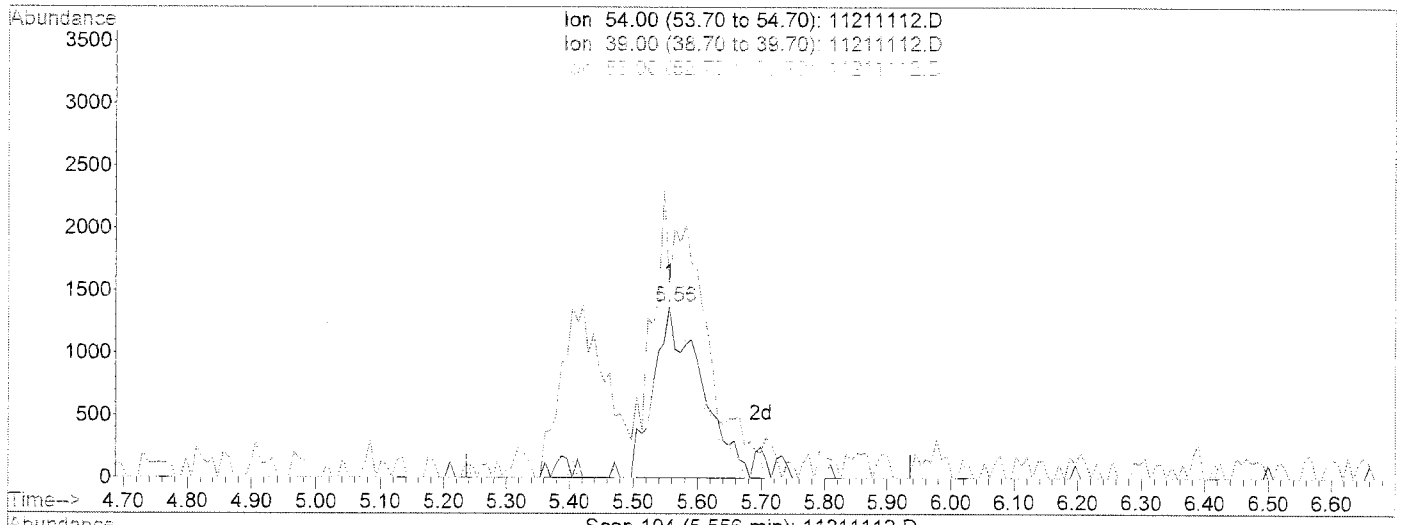
B
NIP
11/22/11

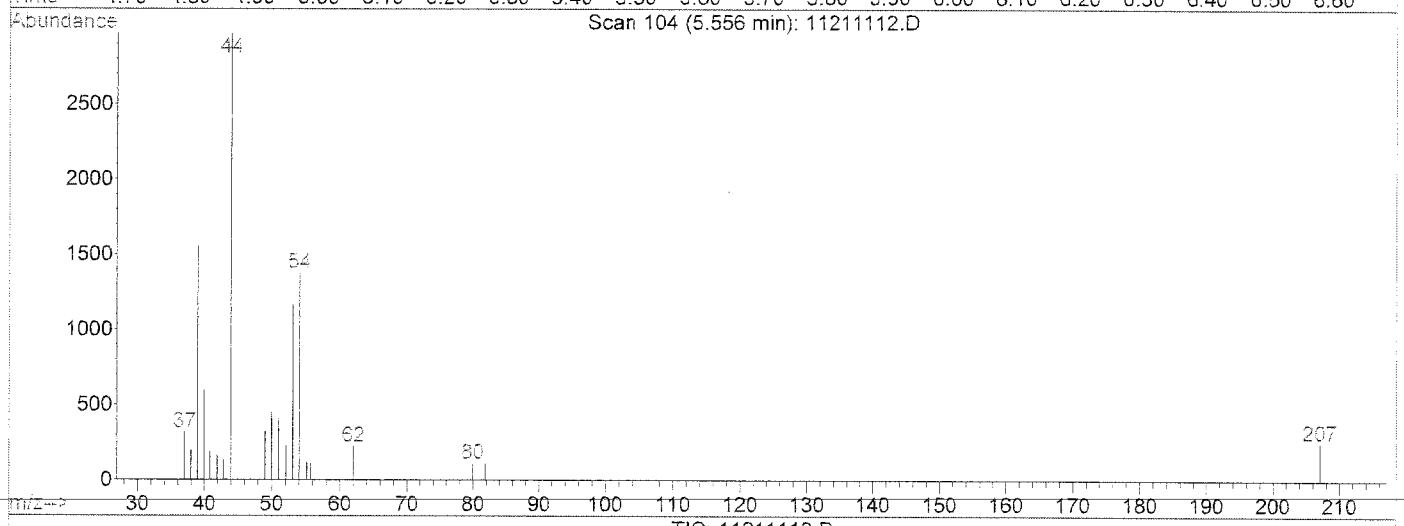
11211112.D 111911.M Tue Nov 22 10:32:13 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:32 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

(8) 1,3-Butadiene (T)

5.56min 1.06ug/L m

response 7069

Ion	Exp%	Act%
54.00	100	100
39.00	147.80	48.04#
53.00	76.00	84.14
0.00	0.00	0.00

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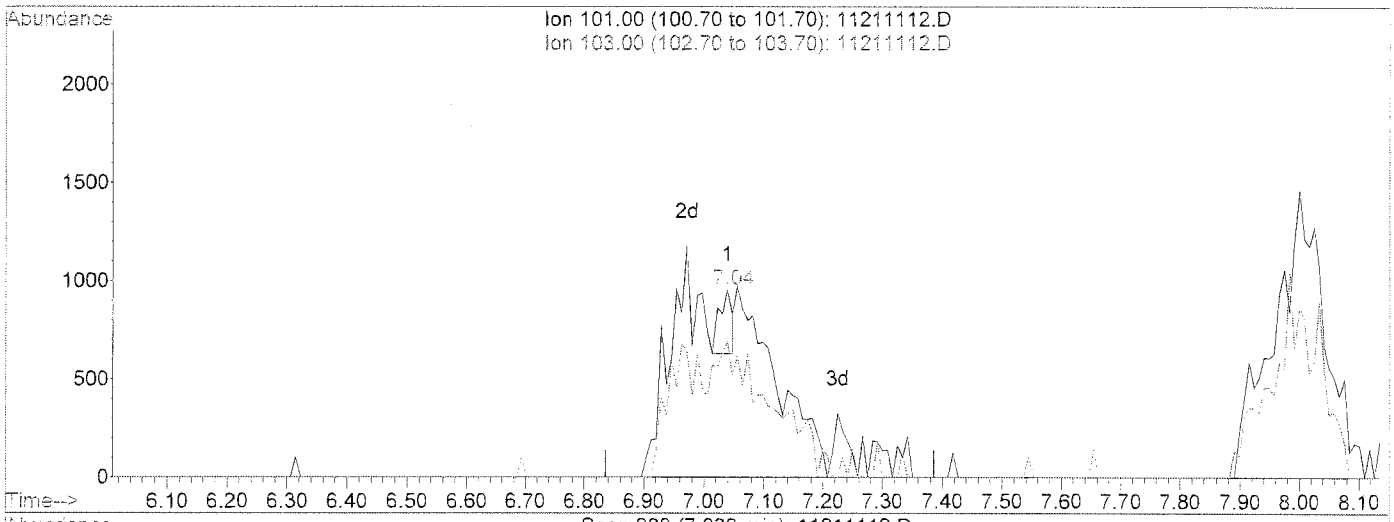
11/22/11

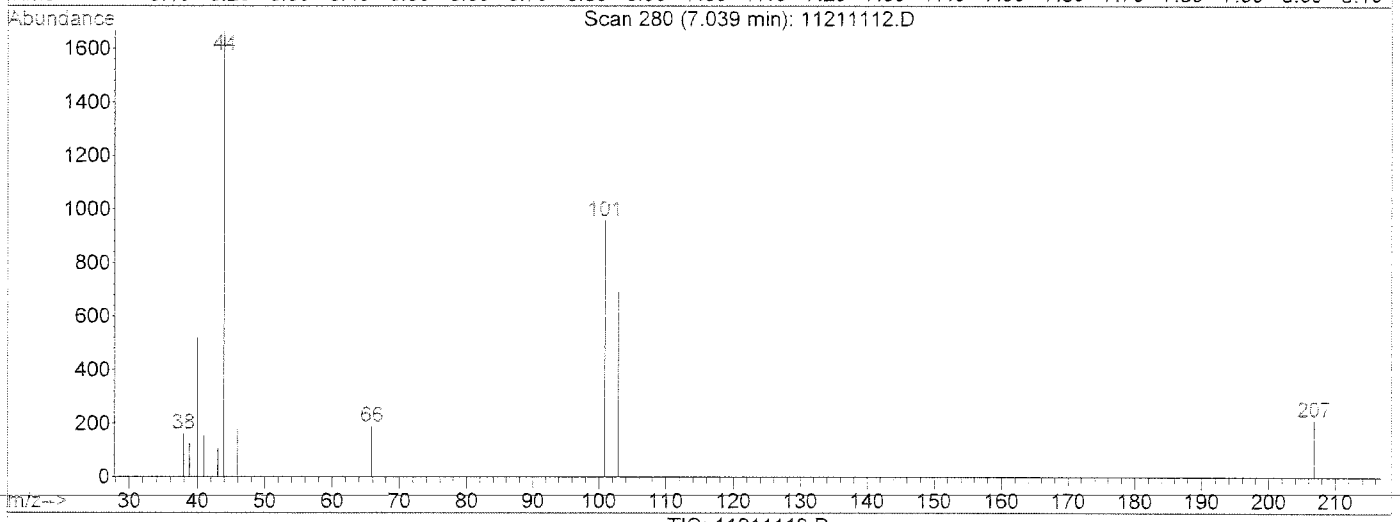
11211112.D 111911.M Tue Nov 22 10:32:18 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:32 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

(12) Trichlorofluoromethane (T)

7.04min 0.04ug/L

response 486

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	52.76
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11 ✗
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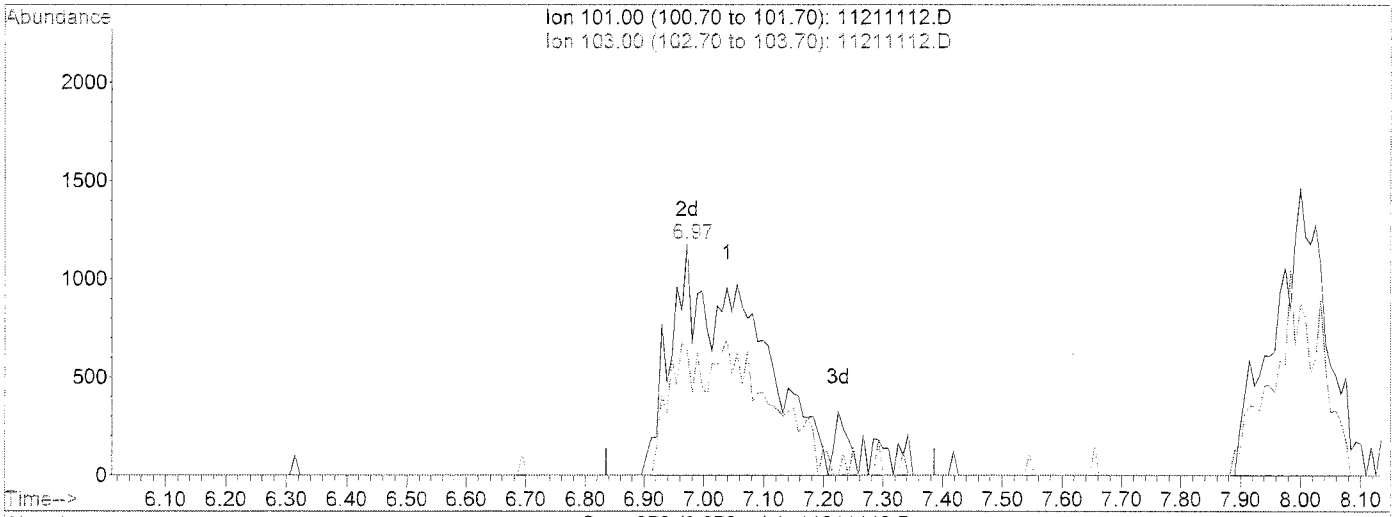
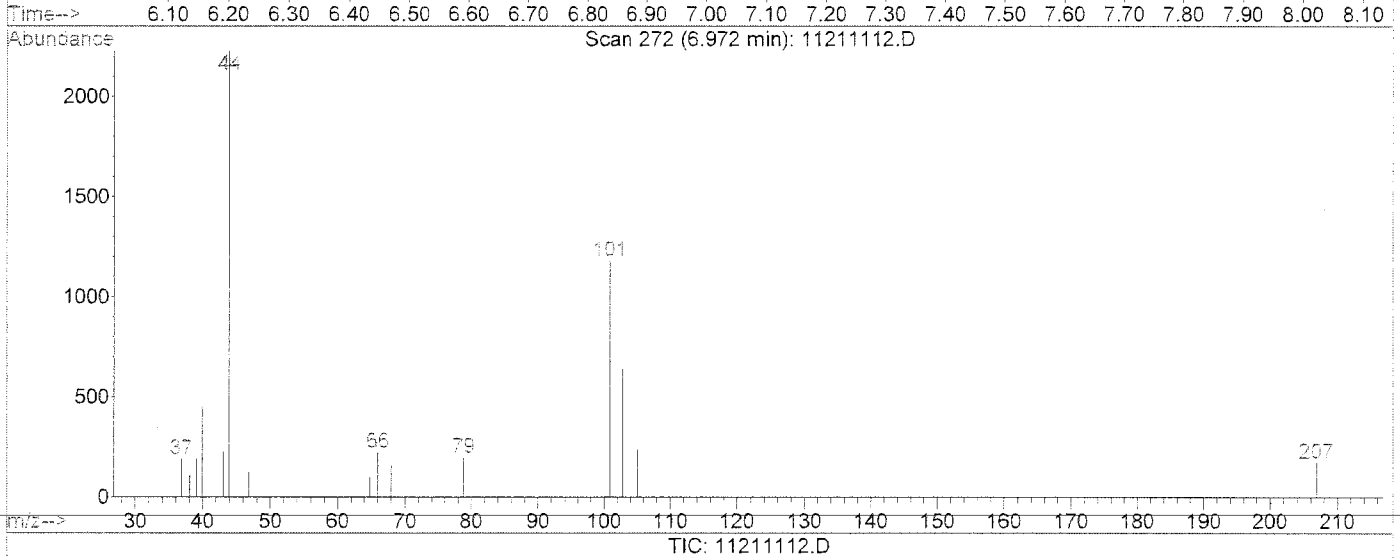
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:32 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

11/23/11 R

(12) Trichlorofluoromethane (T)

6.97min 0.99ug/L m

response 11101

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	54.41
0.00	0.00	0.00
0.00	0.00	0.00

A

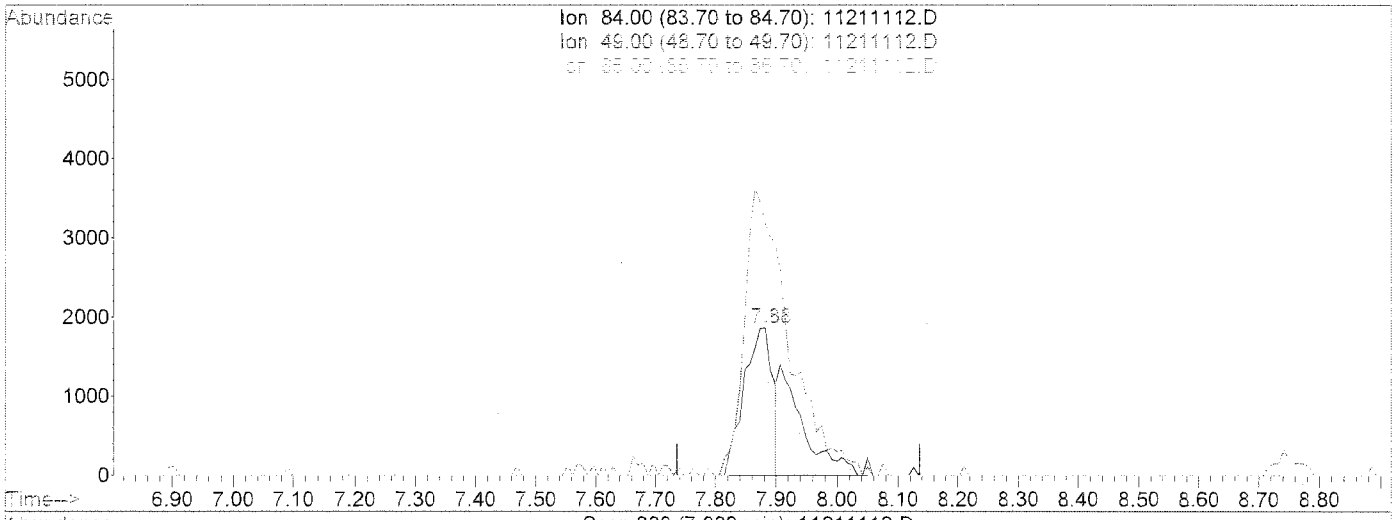
A 11/22/11

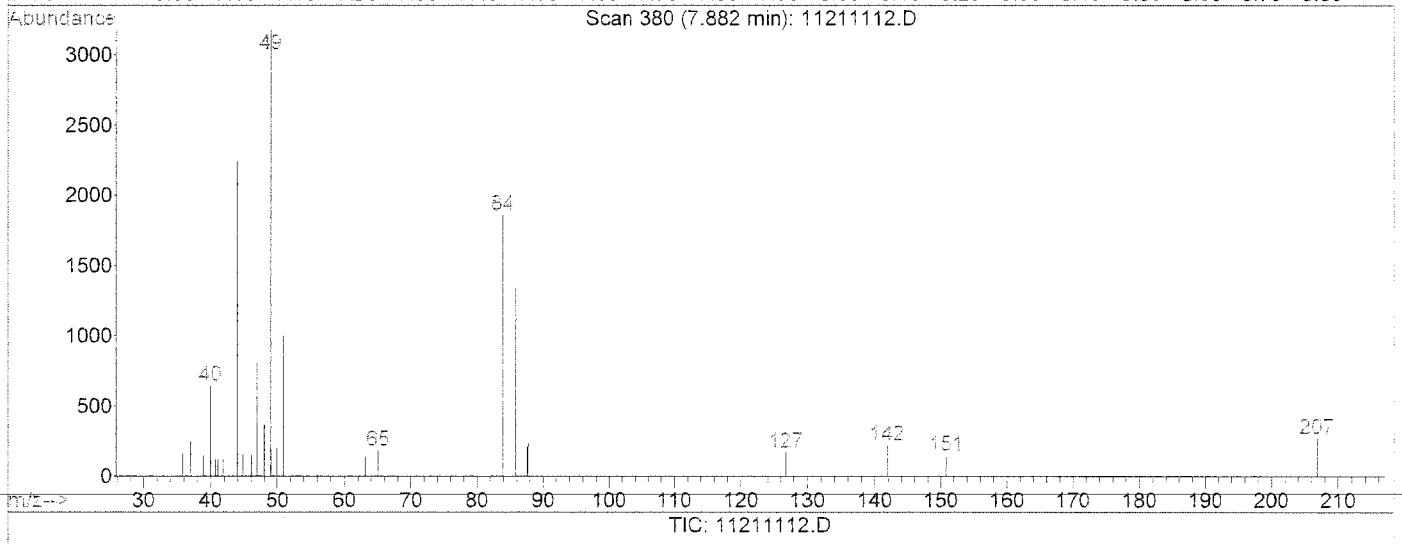
11211112.D 111911.M Tue Nov 22 10:32:31 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:32 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

(17) Methylene Chloride (T)

7.88min 0.68ug/L

response 6110

Ion	Exp%	Act%
84.00	100	100
49.00	165.30	306.07#
86.00	63.70	70.47
0.00	0.00	0.00

11/23/11

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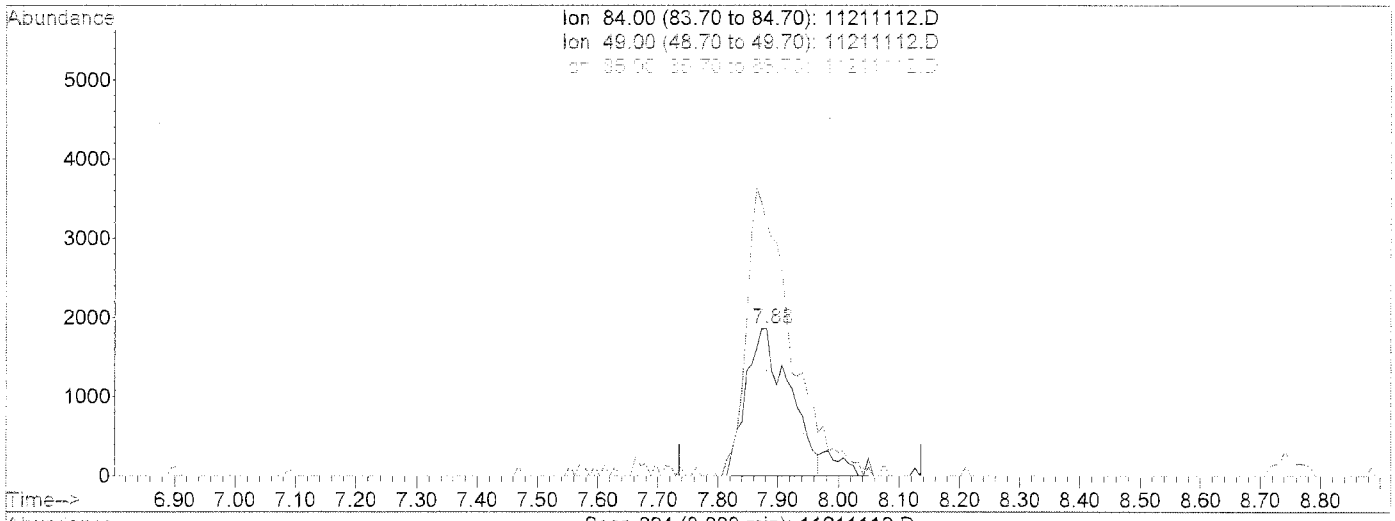
NIP
11/22/11

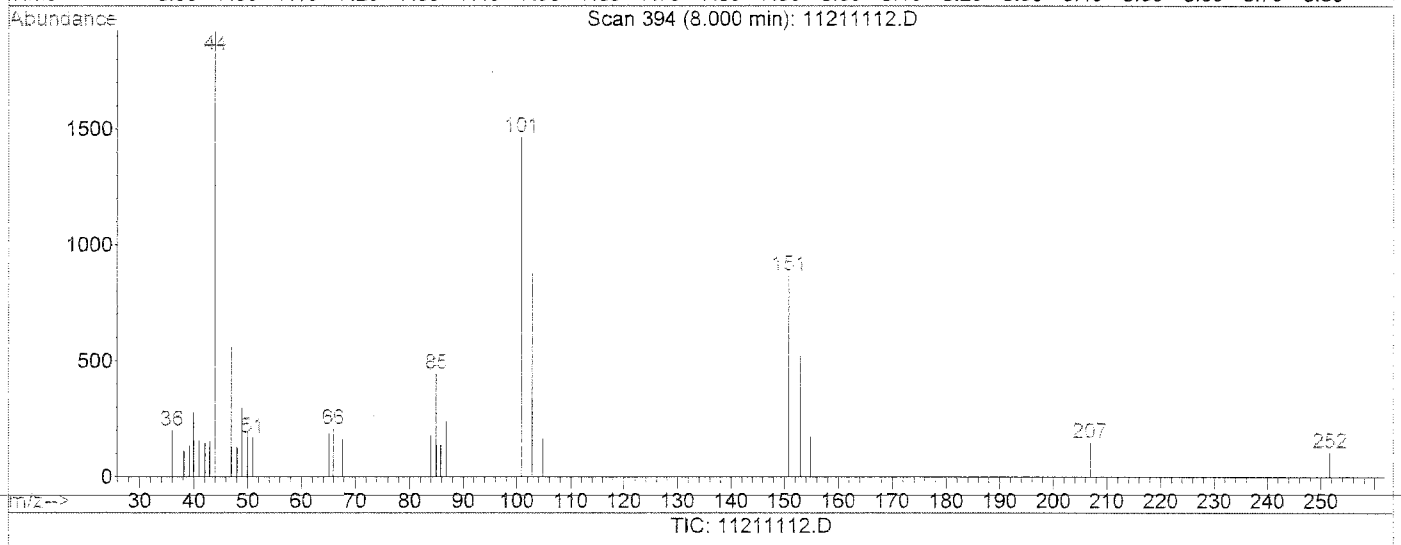
11211112.D 111911.M Tue Nov 22 10:32:45 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:32 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

(17) Methylene Chloride (T)

7.88min 1.04ug/L m

response 9342

Ion	Exp%	Act%
84.00	100	100
49.00	165.30	200.18#
86.00	63.70	46.09#
0.00	0.00	0.00

11/23/11

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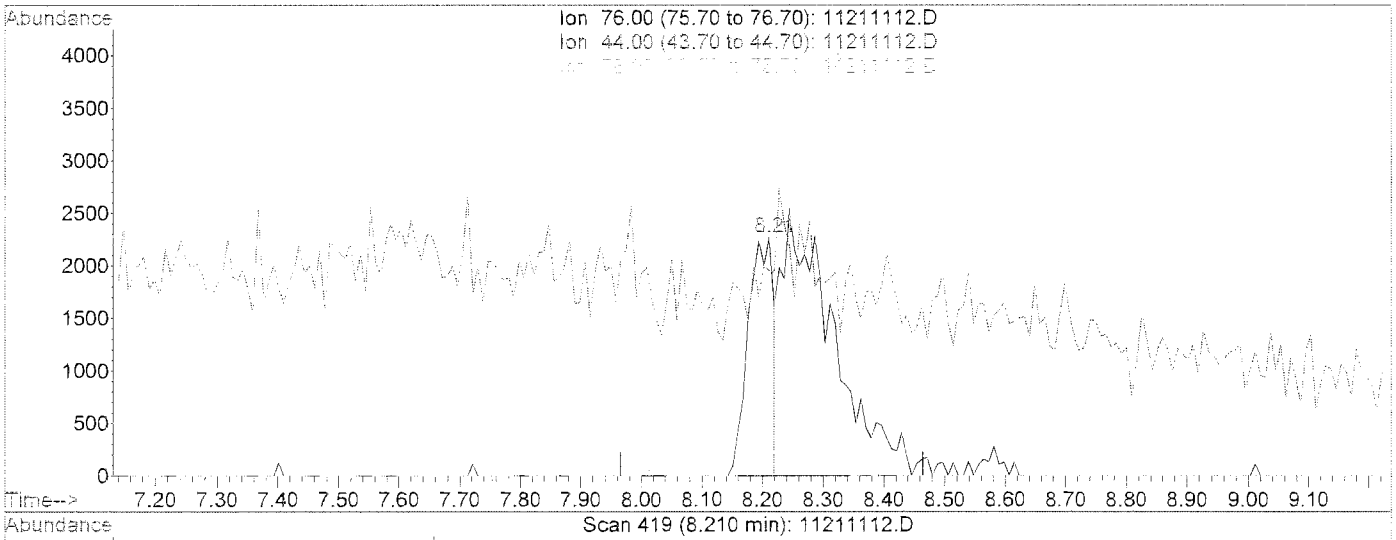
11/24/11

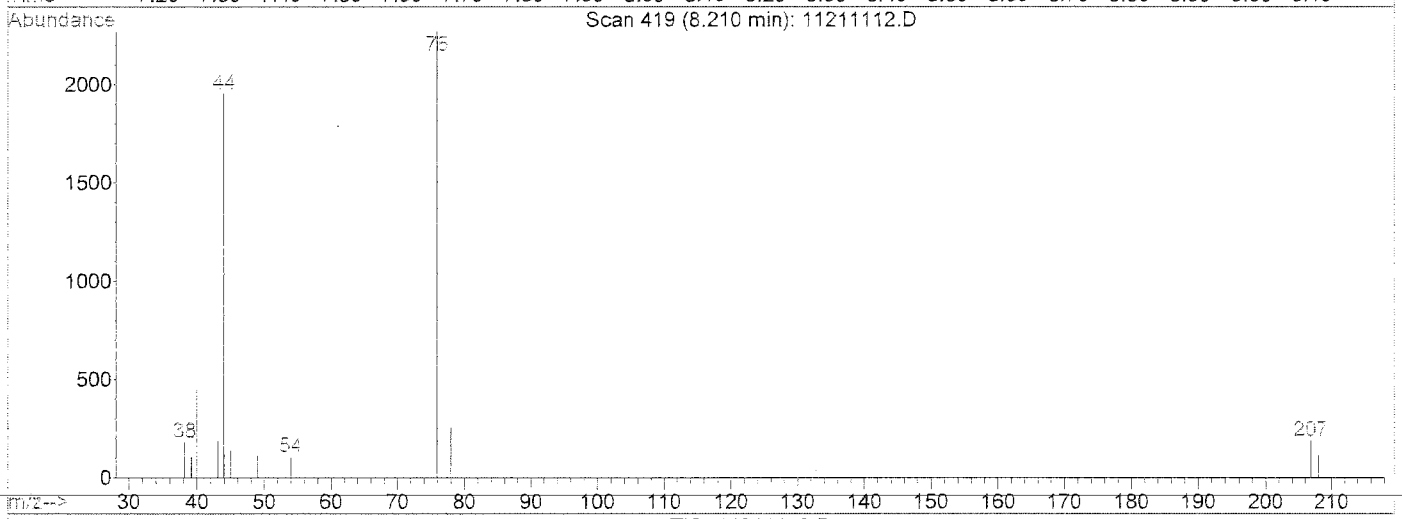
11211112.D 111911.M Tue Nov 22 10:33:05 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:32 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

11/23/11

(19) Carbon Disulfide (T)

8.21min 0.33ug/L

response 6475

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	0.00#
78.00	2.90	18.25#
0.00	0.00	0.00

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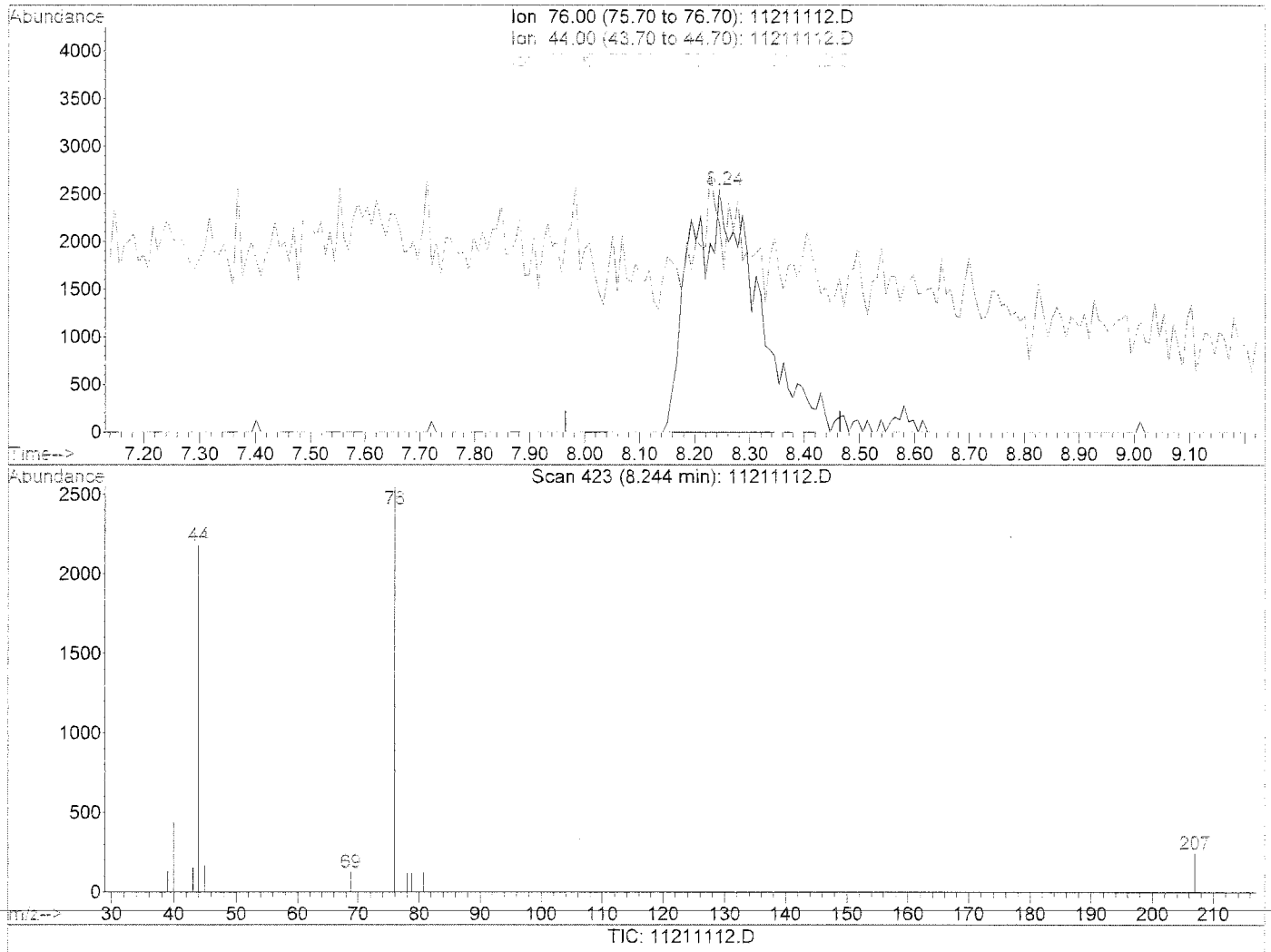
MP
11/22/11

11211112.D 111911.M Tue Nov 22 10:33:11 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:33 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration



(19) Carbon Disulfide (T)

8.24min 1.12ug/L m

response 21716

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	0.00#
78.00	2.90	5.44#
0.00	0.00	0.00

11/23/11 X

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11/22/11

11211112.D 111911.M Tue Nov 22 10:33:16 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:34 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/112

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	43236	200.00 ug/L	-0.01
4) Pentafluorobenzene	10.70	168	287098	25.00 ug/L	-0.02
37) 1,4-Difluorobenzene	11.82	114	469628	25.00 ug/L	-0.02
52) Chlorobenzene-d5	16.15	117	394639	25.00 ug/L	-0.01
65) 1,4-Dichlorobenzene-d4	19.59	152	207028	25.00 ug/L	-0.01
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	198228	27.19 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 108.76%	
50) Toluene-d8 (surr)	14.19	98	505932	24.82 ug/L	-0.01
Spiked Amount 25.000			Recovery	= 99.28%	
64) 4-Bromofluorobenzene (surr	17.82	95	229202	26.06 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 104.24%	

Target Compounds					Qvalue
2) Ethanol	0.00	45	0	N.D. d	
3) tert-Butanol (TBA)	0.00	59	0	N.D. d	
5) Dichlorodifluoromethane	4.88	85	17583m	1.12 ug/L	
6) Chloromethane	5.11	50	18737	1.26 ug/L	93
7) Vinyl Chloride	5.44	62	14213	1.02 ug/L #	77
8) 1,3-Butadiene	5.56	54	7069m	1.06 ug/L	
9) Bromomethane	5.99	94	9455	1.15 ug/L #	54
10) Chloroethane	6.20	64	7038	1.10 ug/L #	55
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	6.97	101	11101m	0.99 ug/L	
13) Acetone	0.00	43	0	N.D. d	
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.77	142	13436	1.16 ug/L #	30
16) 1,1-Dichloroethene	7.70	96	7325	1.07 ug/L	86
17) Methylene Chloride	7.88	84	9342m	1.04 ug/L	
18) Freon 113	8.00	101	8794	1.21 ug/L #	91
19) Carbon Disulfide	8.24	76	21716m	1.12 ug/L	
20) trans-1,2-Dichloroethene	8.74	96	9016	1.08 ug/L	92
21) MTBE	8.87	73	8691	1.02 ug/L	97
22) 1,1-Dichloroethane	9.06	63	19379	1.13 ug/L	97
23) Vinyl Acetate	9.20	43	4718	1.46 ug/L #	96
24) n-Hexane	9.56	86	1140	0.87 ug/L #	38
25) 2-Butanone (MEK)	0.00	72	0	N.D. d	
26) Diisopropylether (DIPE)	9.60	45	30616	1.10 ug/L	88
27) cis-1,2-Dichloroethene	9.79	96	9423	1.16 ug/L	93
28) Bromochloromethane	10.00	128	4354	1.10 ug/L	87
29) Chloroform	10.06	83	20762	1.19 ug/L	99
30) 2,2-Dichloropropane	10.17	77	6205	1.00 ug/L	86
31) (ETBE) 2-Ethoxy-2-methyl p	10.11	59	8189	1.22 ug/L #	75
33) Tetrahydrofuran	0.00	72	0	N.D. d	
34) 1,2-Dichloroethane	10.89	62	14279	1.18 ug/L	96
35) 1,1,1-Trichloroethane	11.02	97	14118	1.11 ug/L	95
36) (TAME) tert-Amyl methyl et	11.72	73	4413	1.23 ug/L	88
38) 1,1-Dichloropropene	11.25	75	9043	0.89 ug/L #	86
39) Carbon Tetrachloride	11.50	117	14726	1.08 ug/L	98
40) Benzene	11.55	78	28623	1.01 ug/L	99

(#) = qualifier out of range (m) = manual integration

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:34 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Dibromomethane	12.27	93	4489	0.95 ug/L	95
42) 1,2-Dichloropropane	12.31	63	8268	1.05 ug/L	90
43) Trichloroethene	12.36	95	9360	1.12 ug/L	90
44) Bromodichloromethane	12.42	83	13285	1.07 ug/L	98
45) 2-Chloroethyl vinylether	0.00	63	0	N.D. d	
46) cis-1,3-Dichloropropene	13.24	75	8482	1.04 ug/L	93
47) 4-Methyl-2-pentanone (MIBK	13.38	43	3365	1.38 ug/L #	86
48) trans-1,3-Dichloropropene	13.81	75	7527	1.09 ug/L	92
49) 1,1,2-Trichloroethane	14.03	97	5124	1.02 ug/L	96
51) Toluene	14.30	92	17622	1.06 ug/L	96
53) 1,3-Dichloropropane	14.35	76	9621	1.05 ug/L	96
54) 2-Hexanone	0.00	43	0	N.D. d	
55) Dibromochloromethane	14.72	129	6523	0.87 ug/L	89
56) 1,2-Dibromoethane	15.06	107	4531	0.89 ug/L	93
57) Tetrachloroethene	15.27	164	6137	1.03 ug/L	96
58) 1,1,1,2-Tetrachloroethane	16.08	131	8286	1.05 ug/L	94
59) Chlorobenzene	16.19	112	20884	0.99 ug/L #	76
60) Ethylbenzene	16.44	91	28280	0.92 ug/L	96
61) m,p-Xylene	16.71	106	9884	0.85 ug/L	91
62) Styrene	17.16	104	12809	0.91 ug/L	97
63) o-Xylene	17.26	106	11562	0.96 ug/L	96
66) Bromoform	16.90	173	3500	0.92 ug/L #	50
67) 1,1,2,2-Tetrachloroethane	17.25	83	5935	0.94 ug/L	90
68) 1,2,3-Trichloropropane	17.46	110	1611	0.96 ug/L #	86
69) trans-1,4-Dichloro-2-buten	17.46	53	1502	0.74 ug/L #	61
70) Isopropylbenzene	17.76	105	22551	0.96 ug/L	96
71) Bromobenzene	18.12	156	7226	0.93 ug/L	95
72) n-Propylbenzene	18.37	91	32444	0.92 ug/L	96
73) 2-Chlorotoluene	18.52	91	22224	0.91 ug/L	91
74) 4-Chlorotoluene	18.62	91	23227	0.93 ug/L	97
75) 1,3,5-Trimethylbenzene	18.77	105	24318	0.94 ug/L	96
76) tert-Butylbenzene	19.15	119	18362	0.98 ug/L	98
77) 1,2,4-Trimethylbenzene	19.29	105	24457	0.91 ug/L	98
78) sec-Butylbenzene	19.43	105	31393	0.94 ug/L	94
79) 1,3-Dichlorobenzene	19.54	146	14470	0.88 ug/L	93
80) 1,4-Dichlorobenzene	19.62	146	15987	0.96 ug/L #	86
81) 4-Isopropyltoluene	19.65	119	29013	0.94 ug/L	97
82) 1,2-Dichlorobenzene	20.06	146	12936	0.92 ug/L	99
83) n-Butylbenzene	20.15	91	24207	0.89 ug/L	97
84) 1,2-Dibromo-3-chloropropan	0.00	75	0	N.D. d	
85) 1,2,4-Trichlorobenzene	22.36	180	7478	1.10 ug/L	94
86) Naphthalene	22.71	128	5648	1.47 ug/L	97
87) Hexachlorobutadiene	22.76	225	6937	0.98 ug/L	97
88) 1,2,3-Trichlorobenzene	22.98	180	5597	0.72 ug/L	98

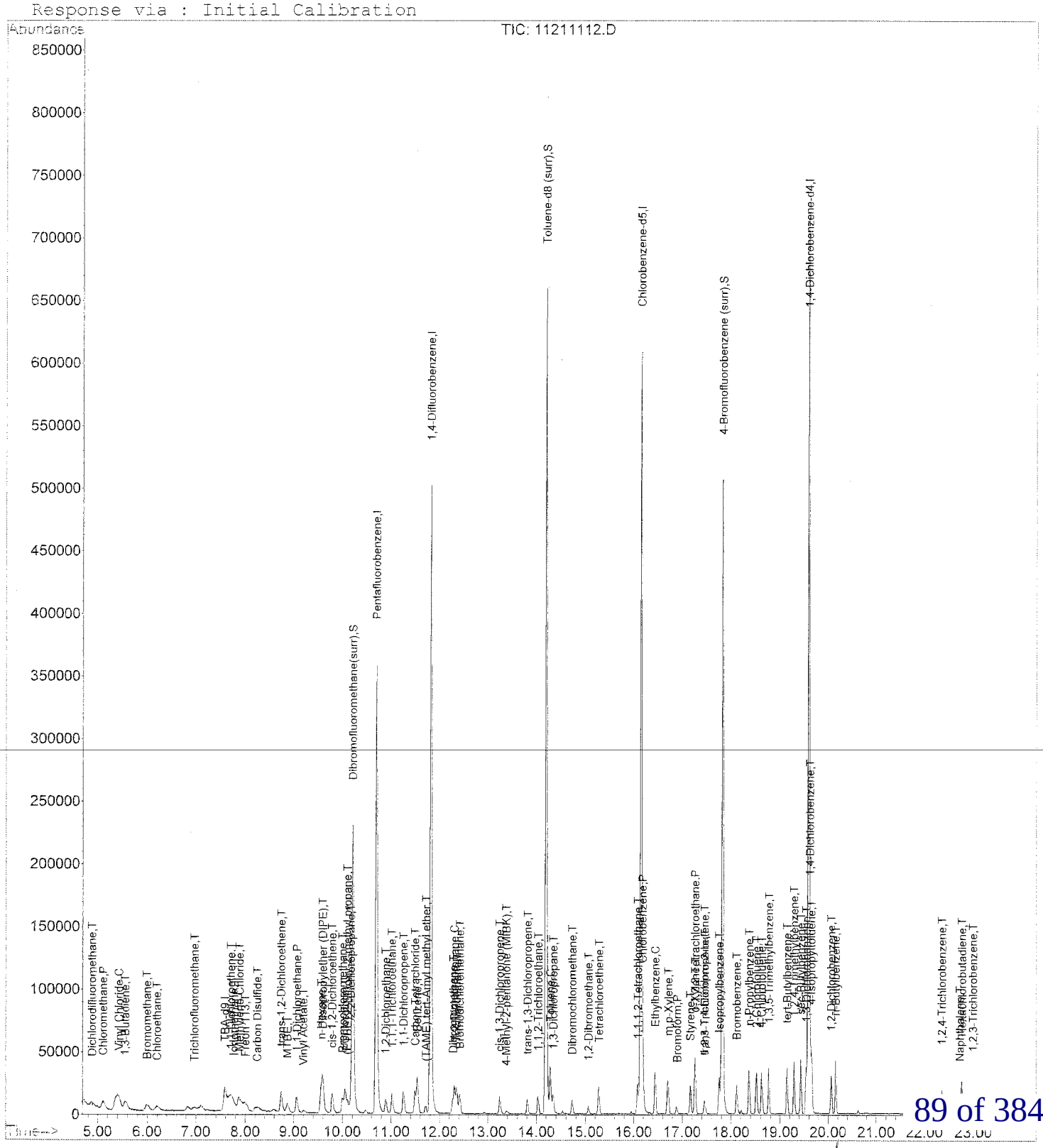
7

(#) = qualifier out of range (m) = manual integration
11211112.D 111911.M Tue Nov 22 10:34:46 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:34 2011 Quant Results File: 111911.RES

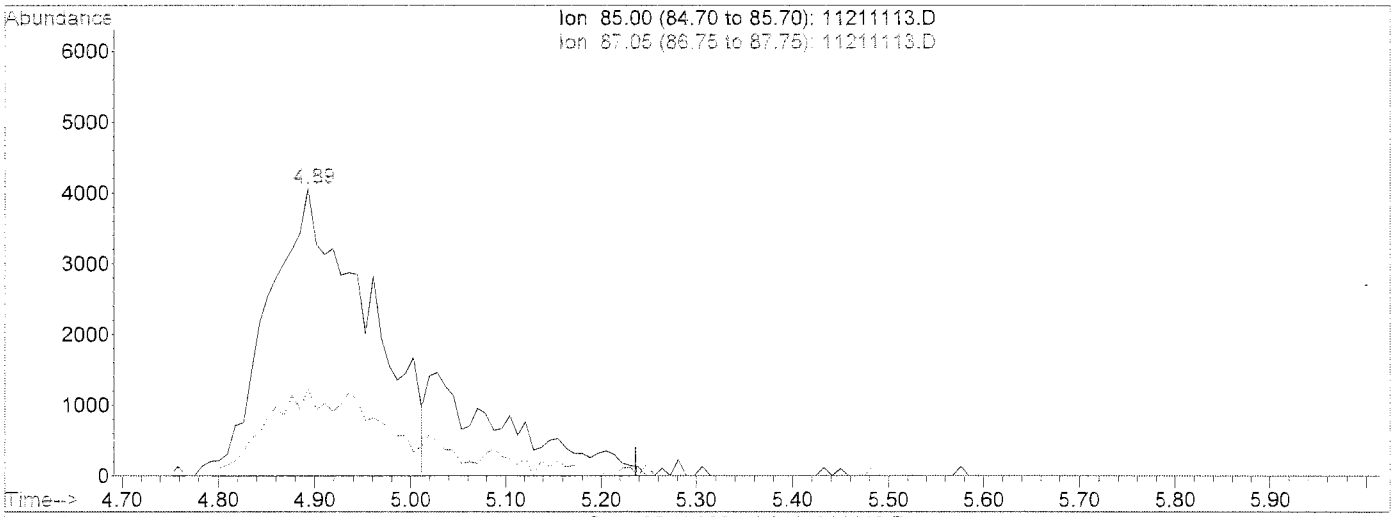
Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration

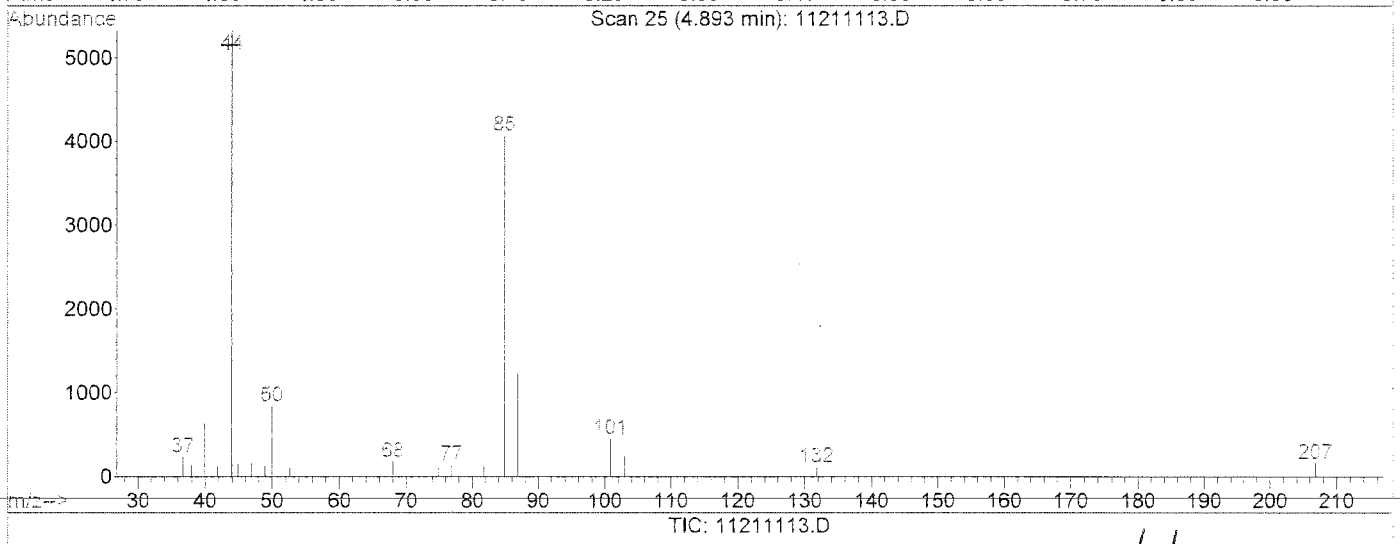


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:34 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.89min 1.89ug/L

response 28758

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	18.95
0.00	0.00	0.00
0.00	0.00	0.00

B
MP

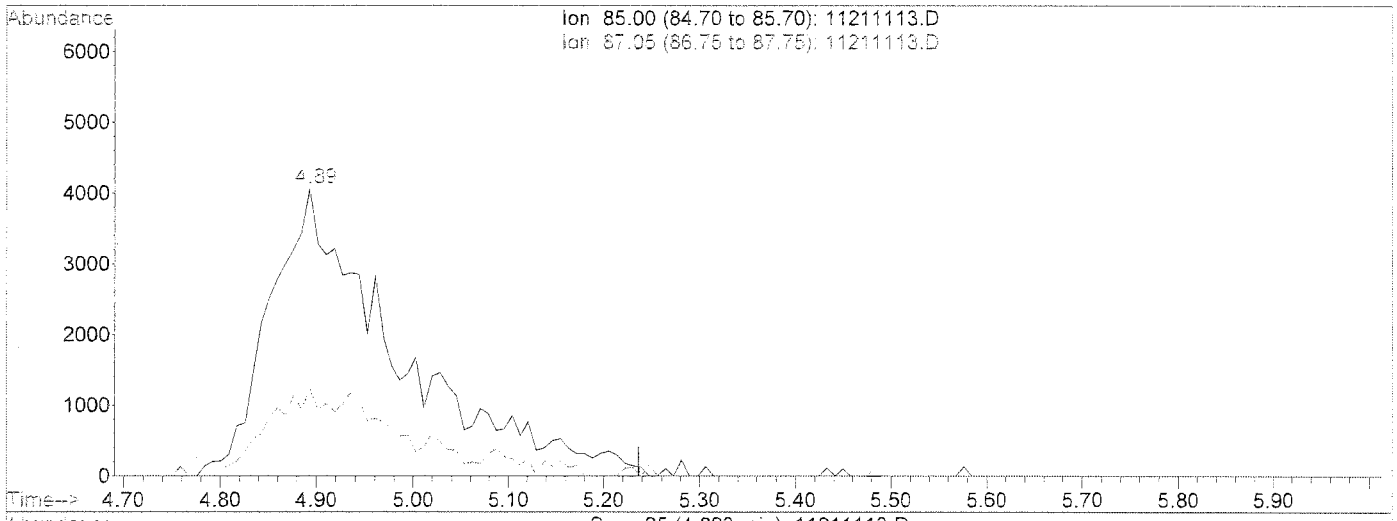
11/22/11

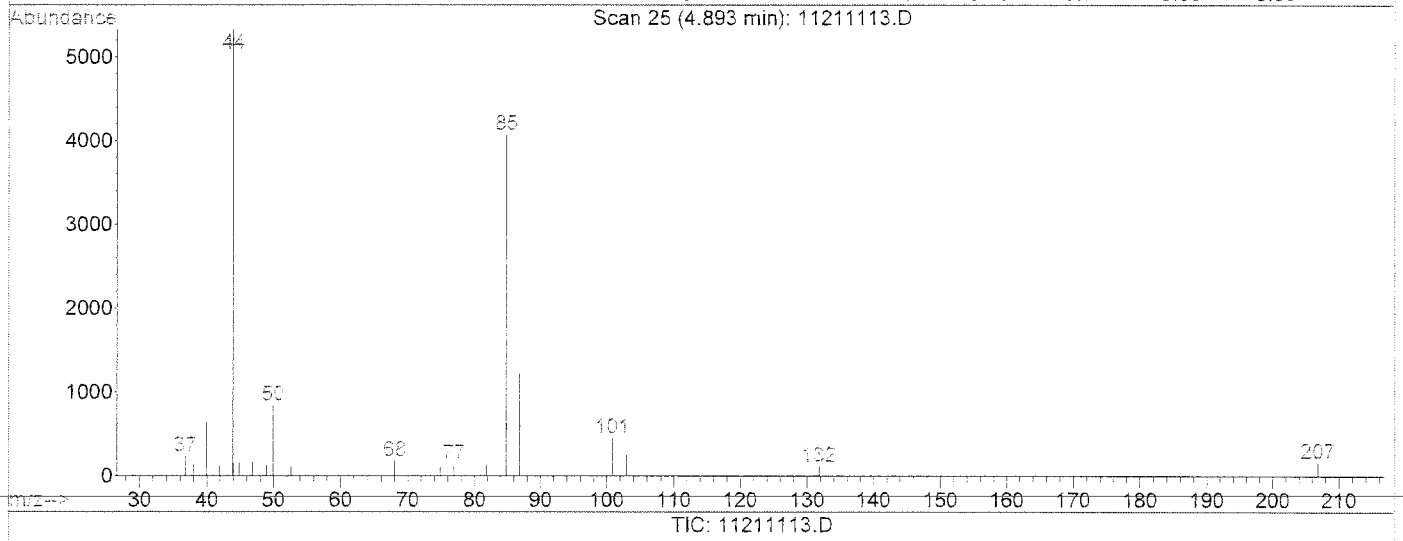
11211113.D 111911.M Tue Nov 22 10:35:01 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:35 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

(5) Dichlorodifluoromethane (T)

4.89min 2.43ug/L m

response 37084

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	14.70
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

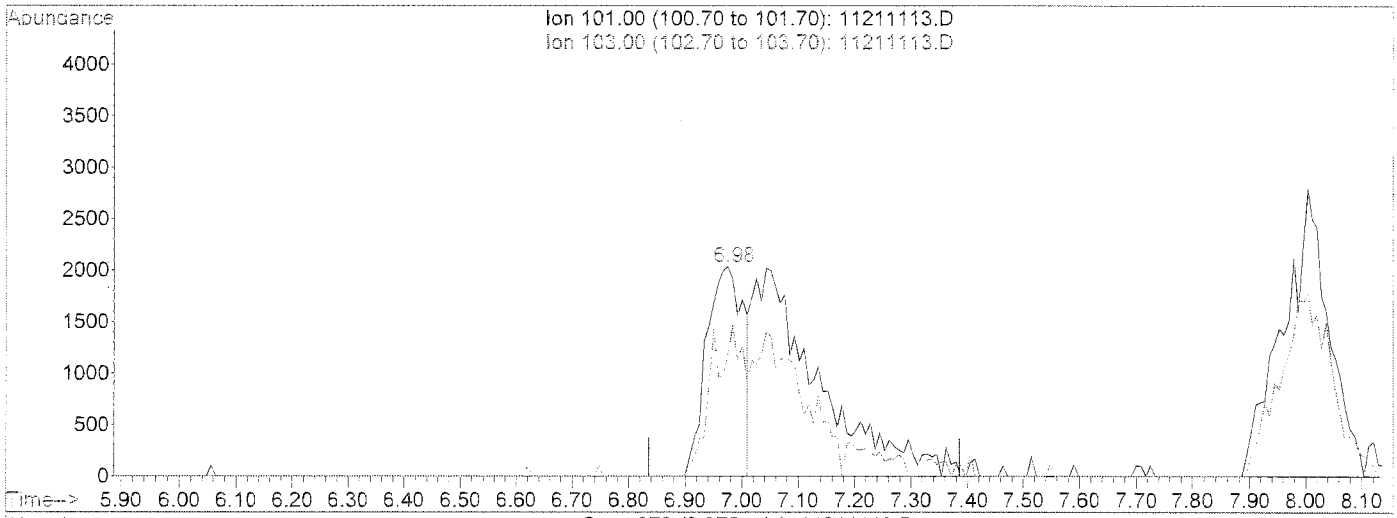
11/22/11

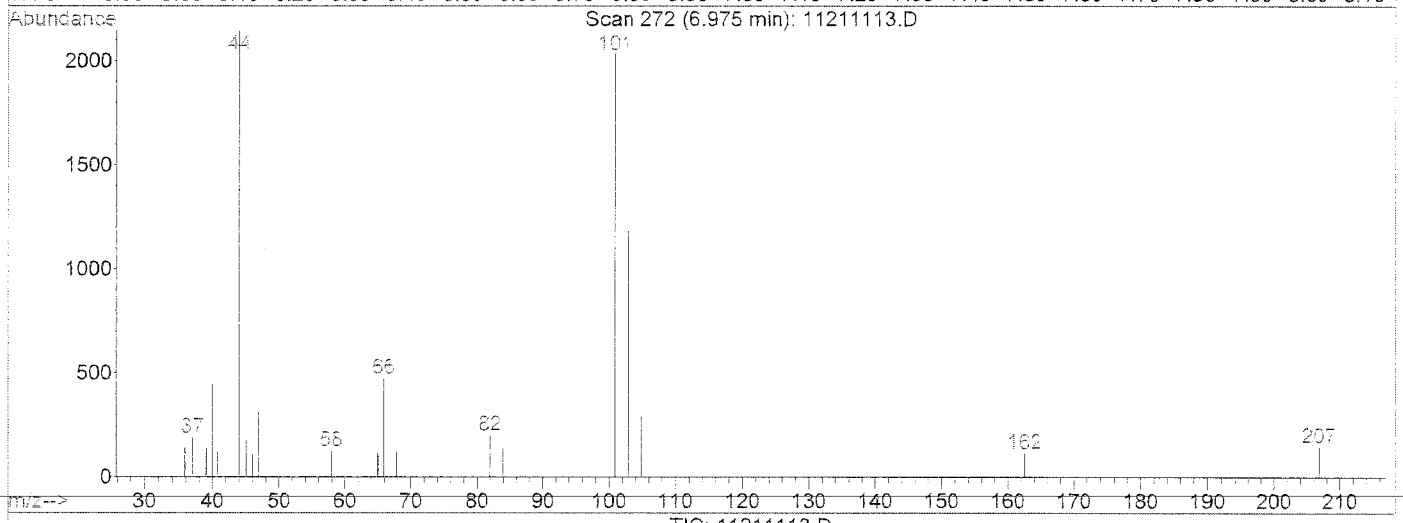
11211113.D 111911.M Tue Nov 22 10:35:08 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:37 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 10:56:49 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

11/23/11

B

NLP

11/22/11

(12) Trichlorofluoromethane (T)

6.98min 0.85ug/L

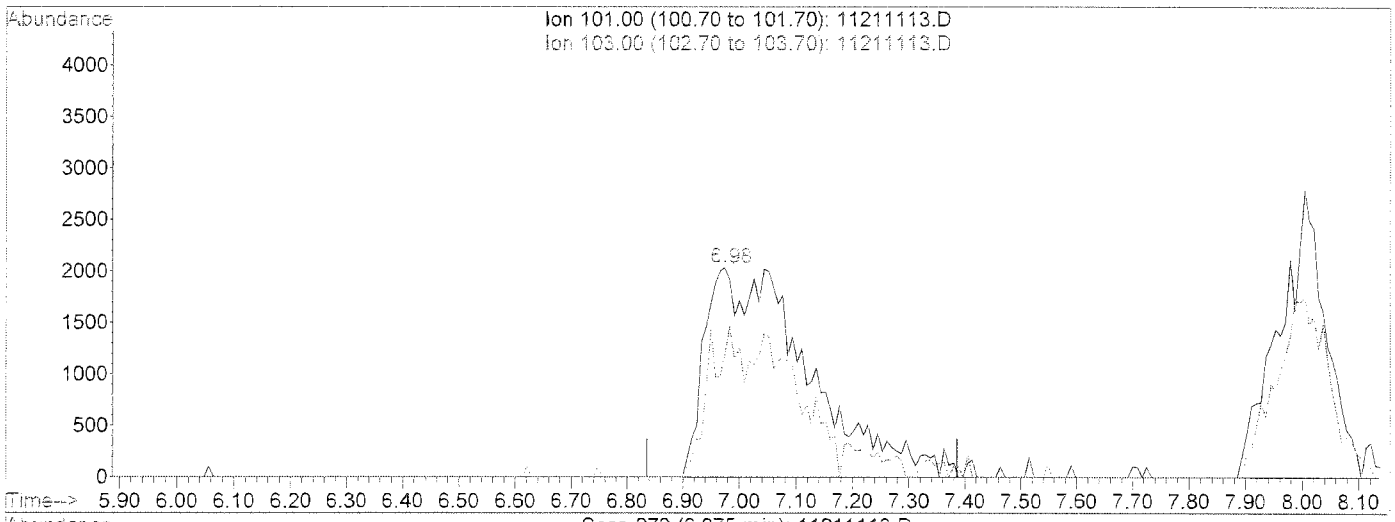
response 9208

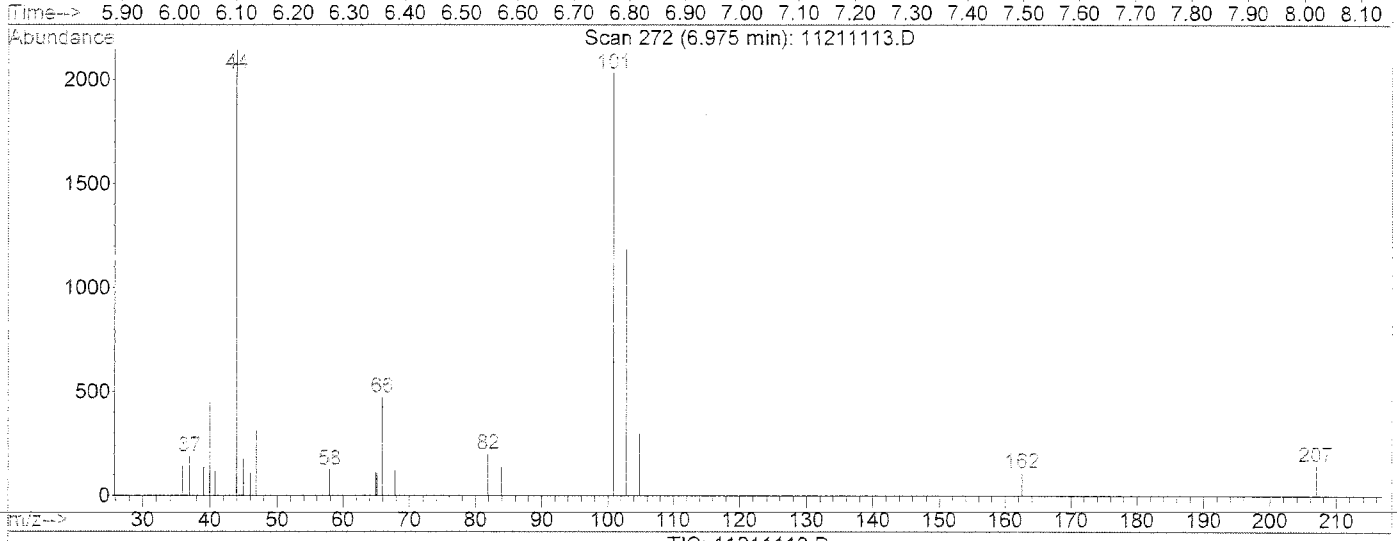
Ion	Exp%	Act%
101.00	100	100
103.00	62.80	58.24
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:59 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 10:56:49 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

11/23/11

(12) Trichlorofluoromethane (T)

6.98min 2.35ug/L m

response 25489

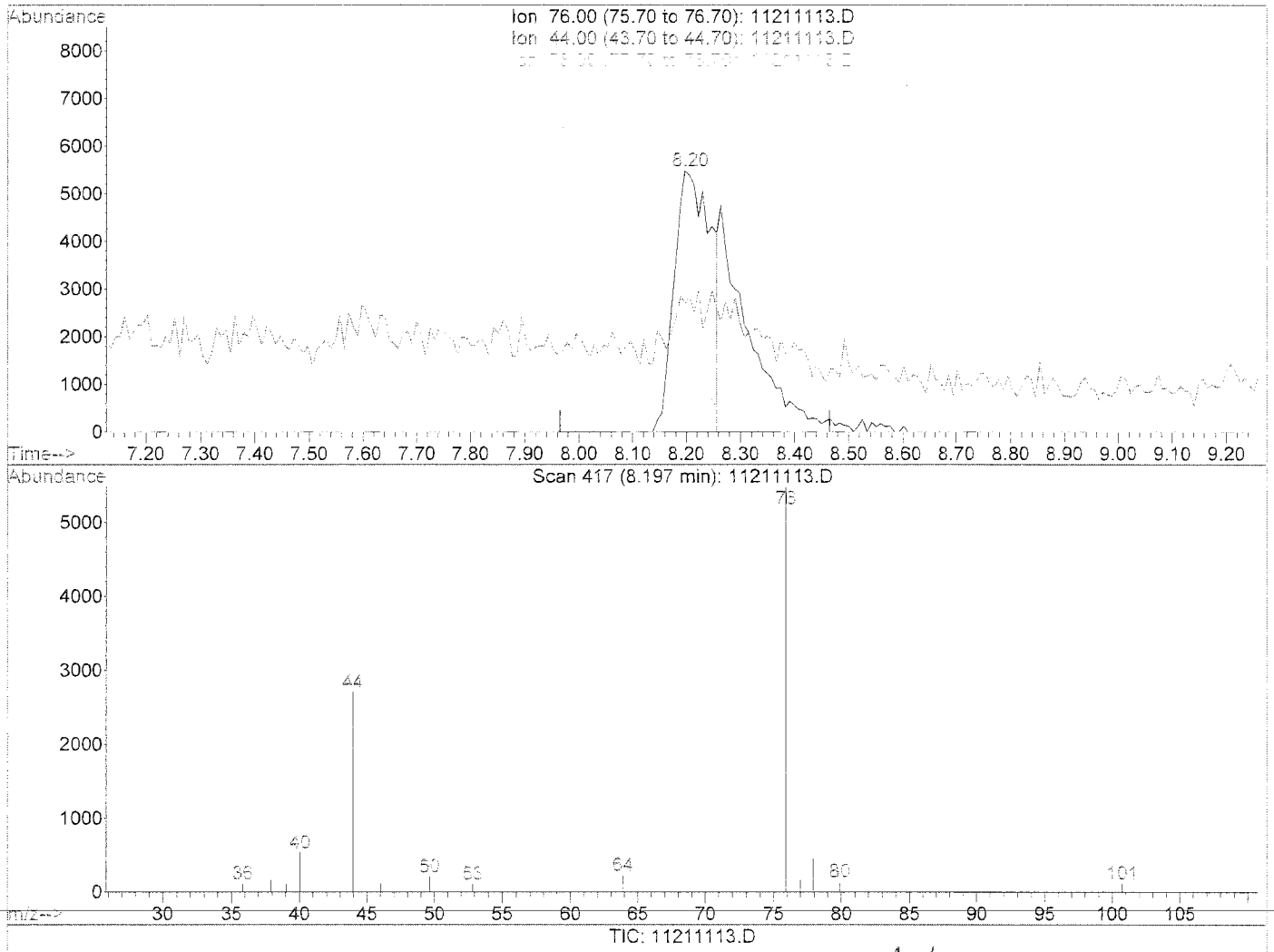
11/22/11

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	58.24
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KB
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:35 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration



11/23/11

(19) Carbon Disulfide (T)

8.20min 1.37ug/L

response 25859

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	13.67#
78.00	2.90	8.23#
0.00	0.00	0.00

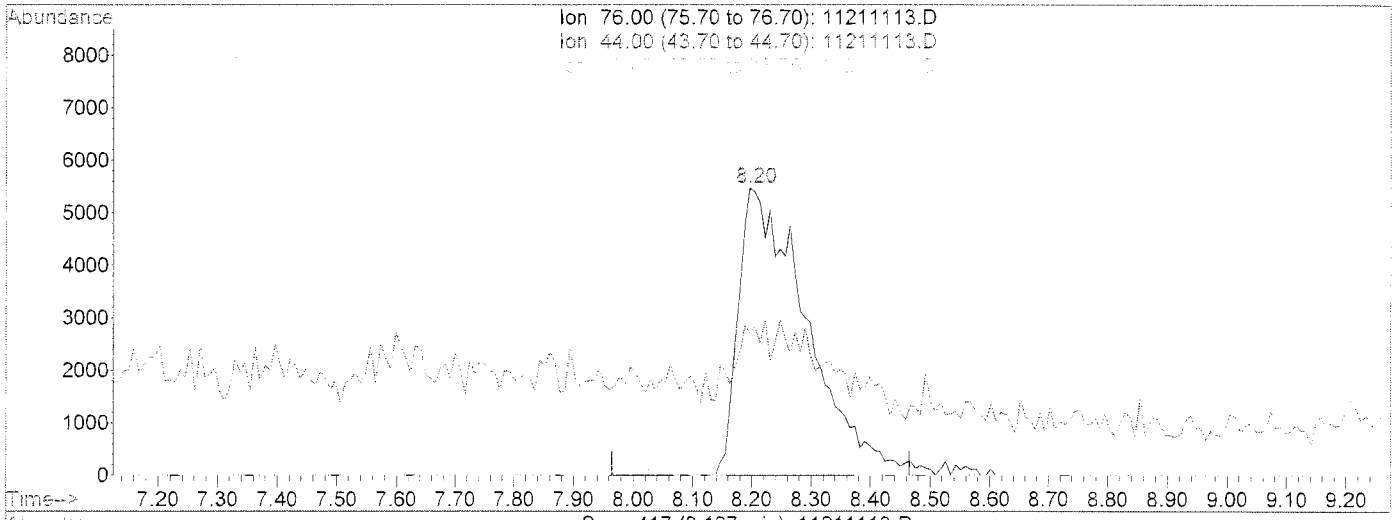
B
N.P
11/22/11

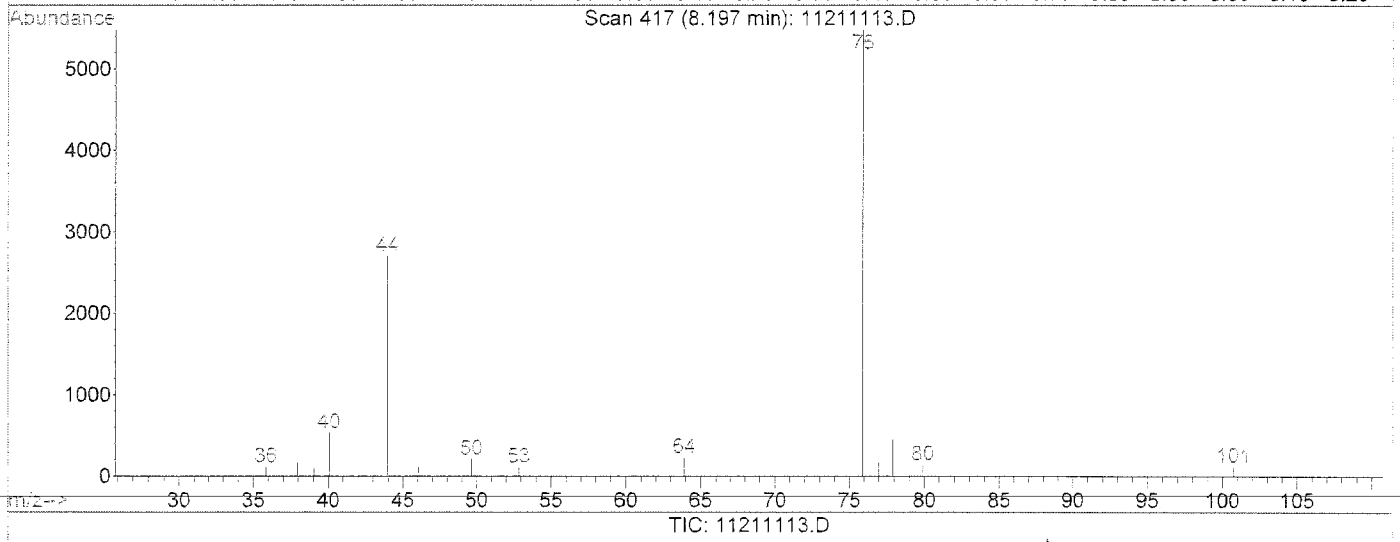
11211113.D 111911.M Tue Nov 22 10:35:43 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:35 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

(19) Carbon Disulfide (T)

8.20min 2.33ug/L m

response 43834

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	8.06
78.00	2.90	4.85#
0.00	0.00	0.00

11/23/11

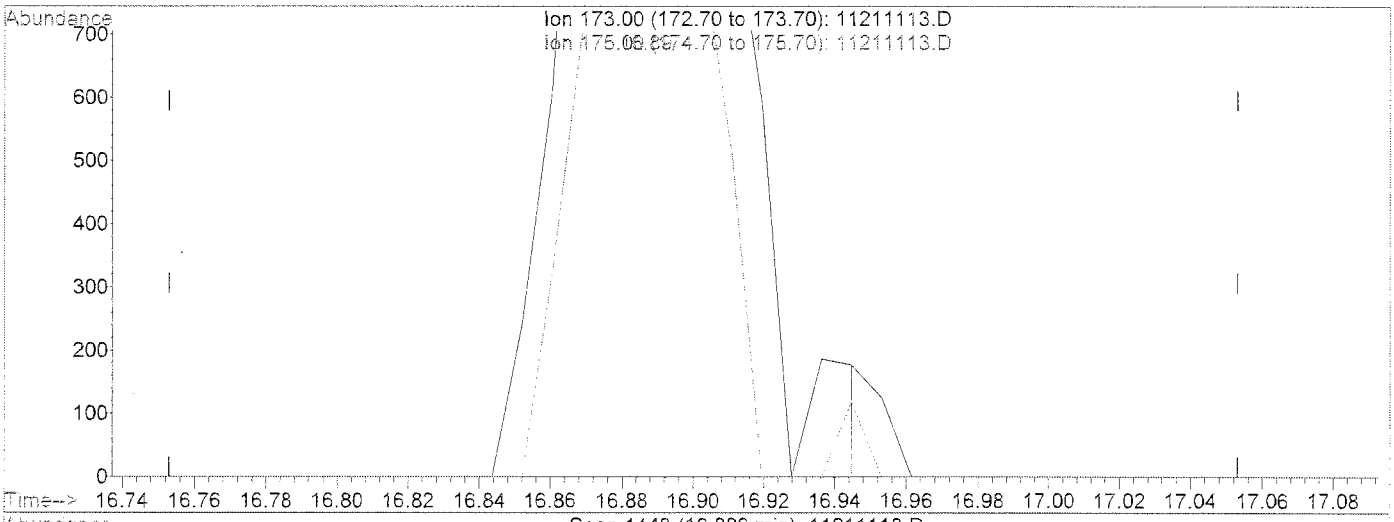
11/22/11

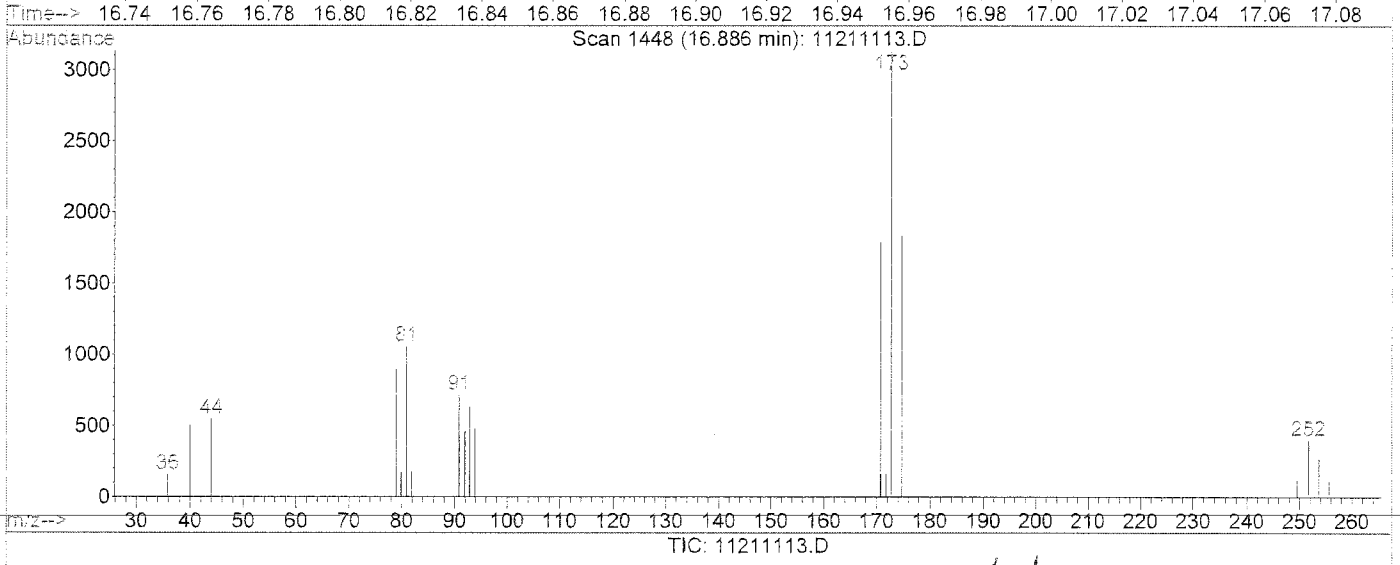
11211113.D 111911.M Tue Nov 22 10:35:49 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:35 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

(66) Bromoform (P)

16.89min 1.85ug/L

response 7224

Ion	Exp%	Act%
173.00	100	100
175.00	50.90	45.21
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

B

NIP

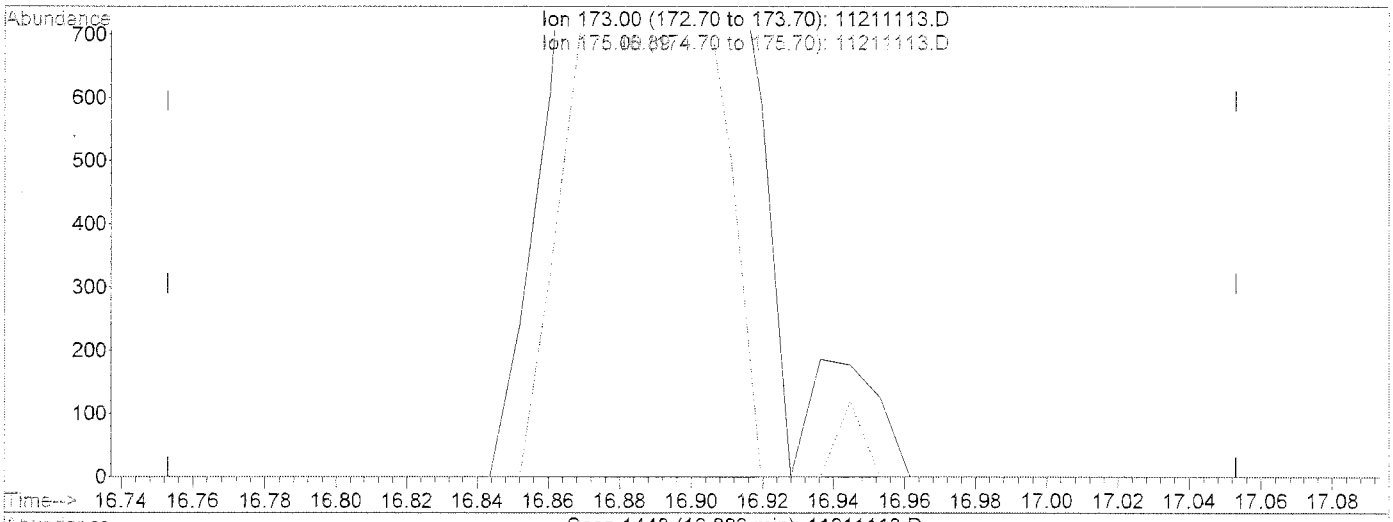
11/22/11

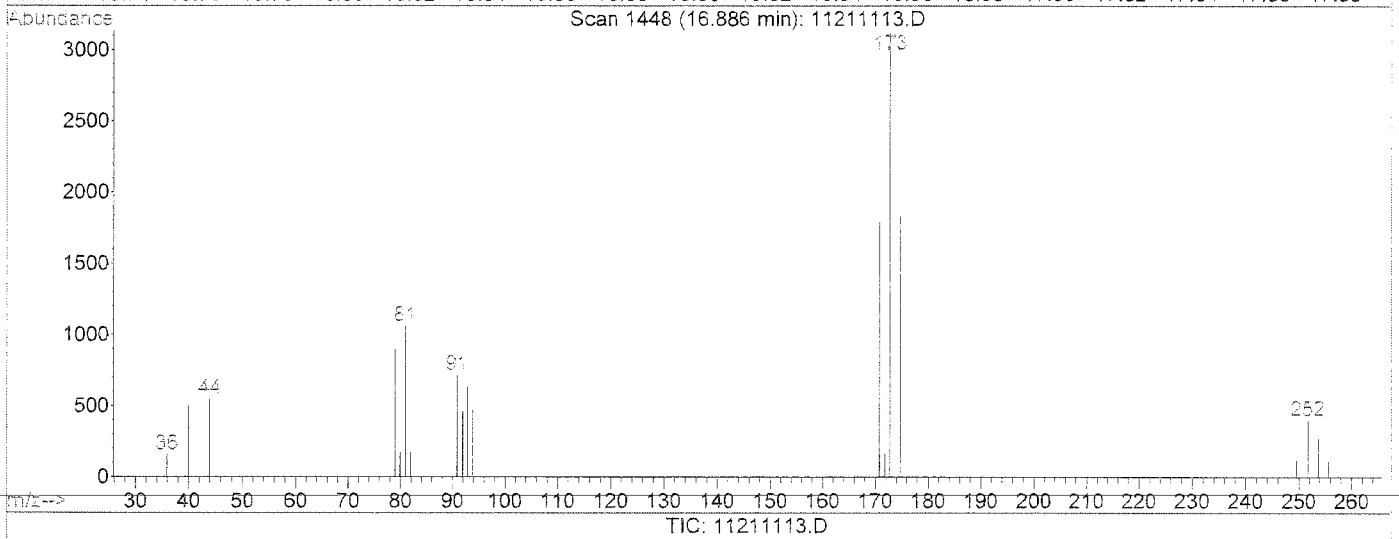
11211113.D 111911.M Tue Nov 22 10:37:02 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:37 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

(66) Bromoform (P)

16.89min 1.81ug/L m

response 7042

Ion	Exp%	Act%
173.00	100	100
175.00	50.90	46.38
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

11/22/11

11211113.D 111911.M Tue Nov 22 10:37:07 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:59 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	43094	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	278843	25.00 ug/L	-0.02
37) 1,4-Difluorobenzene	11.82	114	453067	25.00 ug/L	-0.02
52) Chlorobenzene-d5	16.14	117	388913	25.00 ug/L	-0.02
65) 1,4-Dichlorobenzene-d4	19.59	152	211675	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	190678	26.93 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 107.72%	
50) Toluene-d8 (surr)	14.20	98	497595	25.31 ug/L	0.00
Spiked Amount 25.000			Recovery	= 101.24%	
64) 4-Bromofluorobenzene (surr	17.82	95	234459	27.05 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 108.20%	

Target Compounds					Qvalue
2) Ethanol	0.00	45	0	N.D. d	
3) tert-Butanol (TBA)	7.70	59	7350	8.79 ug/L #	84
5) Dichlorodifluoromethane	4.89	85	37084m	2.43 ug/L	
6) Chloromethane	5.12	50	32674	2.27 ug/L	96
7) Vinyl Chloride	5.46	62	26218	2.34 ug/L	89
8) 1,3-Butadiene	5.57	54	14923	2.30 ug/L	98
9) Bromomethane	6.01	94	18283	2.28 ug/L	96
10) Chloroethane	6.20	64	13129	2.11 ug/L #	74
11) Acrolein	0.00	56	0	N.D.	
12) Trichlorofluoromethane	6.98	101	25489m	2.35 ug/L	
13) Acetone	7.13	43	9148	1.30 ug/L #	76
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.76	142	25253	2.24 ug/L #	89
16) 1,1-Dichloroethene	7.71	96	14460	2.18 ug/L #	83
17) Methylene Chloride	7.88	84	18709	2.14 ug/L	93
18) Freon 113	8.00	101	16026	2.27 ug/L #	79
19) Carbon Disulfide	8.20	76	43834m	2.33 ug/L	
20) trans-1,2-Dichloroethene	8.74	96	18153	2.24 ug/L	97
21) MTBE	8.87	73	19715	2.37 ug/L	100
22) 1,1-Dichloroethane	9.07	63	39550	2.37 ug/L	98
23) Vinyl Acetate	9.21	43	13374	2.39 ug/L	98
24) n-Hexane	9.55	86	2969	2.34 ug/L #	94
25) 2-Butanone (MEK)	9.60	72	951	2.21 ug/L #	17
26) Diisopropylether (DIPE)	9.60	45	65902	2.44 ug/L	94
27) cis-1,2-Dichloroethene	9.80	96	18485	2.34 ug/L	97
28) Bromochloromethane	10.00	128	8981	2.34 ug/L	95
29) Chloroform	10.05	83	42103	2.49 ug/L	97
30) 2,2-Dichloropropane	10.17	77	15895	2.63 ug/L #	56
31) (ETBE) 2-Ethoxy-2-methyl p	10.11	59	20327	2.41 ug/L #	83
33) Tetrahydrofuran	10.48	72	918	2.62 ug/L #	86
34) 1,2-Dichloroethane	10.89	62	30072	2.55 ug/L	95
35) 1,1,1-Trichloroethane	11.03	97	31116	2.51 ug/L	98
36) (TAME) tert-Amyl methyl et	11.73	73	10464	2.26 ug/L	87
38) 1,1-Dichloropropene	11.26	75	22792	2.33 ug/L	97
39) Carbon Tetrachloride	11.50	117	31306	2.38 ug/L	98
40) Benzene	11.55	78	60941	2.24 ug/L	97

(#) = qualifier out of range (m) = manual integration

11211113.D 112111.M Tue Nov 22 11:08:38 2011

11/24/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:59 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

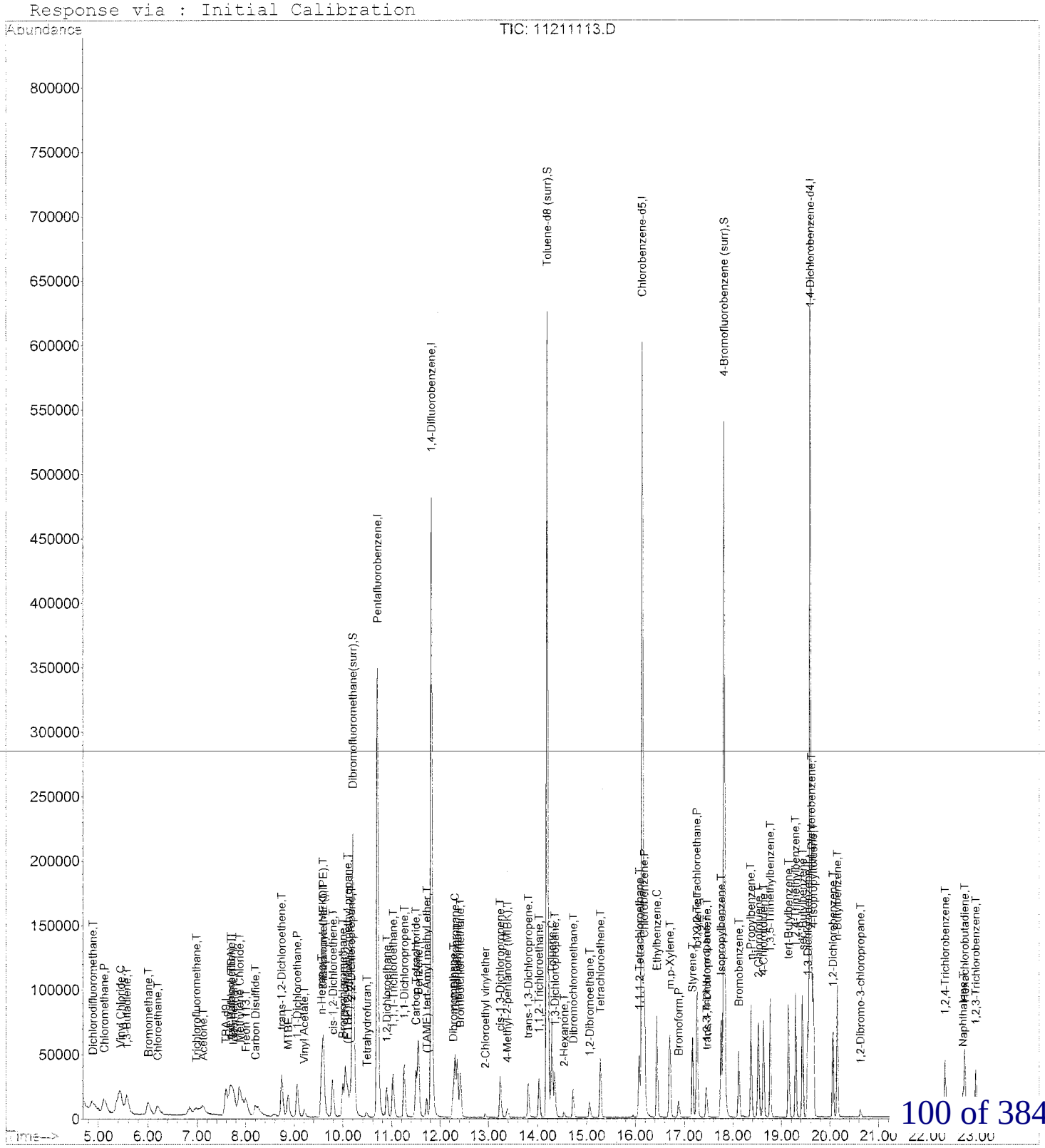
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	Dibromomethane	12.27	93	10810	2.38 ug/L		96
42)	1,2-Dichloropropane	12.32	63	16629	2.18 ug/L		89
43)	Trichloroethene	12.36	95	18814	2.33 ug/L		94
44)	Bromodichloromethane	12.42	83	28554	2.39 ug/L		96
45)	2-Chloroethyl vinylether	12.95	63	1390	2.60 ug/L		83
46)	cis-1,3-Dichloropropene	13.25	75	19605	2.07 ug/L		95
47)	4-Methyl-2-pentanone (MIBK	13.39	43	7584	2.30 ug/L		100
48)	trans-1,3-Dichloropropene	13.81	75	17214	2.13 ug/L		99
49)	1,1,2-Trichloroethane	14.04	97	11520	2.37 ug/L		97
51)	Toluene	14.29	92	35091	2.19 ug/L		98
53)	1,3-Dichloropropane	14.35	76	18281	2.03 ug/L		93
54)	2-Hexanone	14.53	43	4560	2.33 ug/L	#	91
55)	Dibromochloromethane	14.73	129	15147	2.05 ug/L		98
56)	1,2-Dibromoethane	15.07	107	11103	2.21 ug/L		97
57)	Tetrachloroethene	15.28	164	12518	2.14 ug/L		99
58)	1,1,1,2-Tetrachloroethane	16.09	131	15696	2.02 ug/L		94
59)	Chlorobenzene	16.19	112	43267	2.09 ug/L		91
60)	Ethylbenzene	16.45	91	62913	2.08 ug/L		98
61)	m,p-Xylene	16.71	106	23302	2.02 ug/L		95
62)	Styrene	17.16	104	33330	2.01 ug/L		97
63)	o-Xylene	17.26	106	25576	2.20 ug/L		95
66)	Bromoform	16.89	173	7042m	1.81 ug/L		
67)	1,1,2,2-Tetrachloroethane	17.25	83	12032	2.04 ug/L		99
68)	1,2,3-Trichloropropane	17.45	110	3293	1.93 ug/L		96
69)	trans-1,4-Dichloro-2-buten	17.48	53	2926	1.41 ug/L		90
70)	Isopropylbenzene	17.76	105	55813	2.02 ug/L		95
71)	Bromobenzene	18.12	156	15433	1.94 ug/L		91
72)	n-Propylbenzene	18.37	91	75261	2.08 ug/L		97
73)	2-Chlorotoluene	18.52	91	50077	2.01 ug/L		99
74)	4-Chlorotoluene	18.62	91	53279	2.09 ug/L		97
75)	1,3,5-Trimethylbenzene	18.77	105	57324	2.07 ug/L		99
76)	tert-Butylbenzene	19.14	119	43625	2.01 ug/L		96
77)	1,2,4-Trimethylbenzene	19.29	105	60800	2.11 ug/L		98
78)	sec-Butylbenzene	19.43	105	70673	2.06 ug/L		99
79)	1,3-Dichlorobenzene	19.54	146	33880	2.02 ug/L		99
80)	1,4-Dichlorobenzene	19.62	146	33094	1.93 ug/L	#	90
81)	4-Isopropyltoluene	19.66	119	65316	2.08 ug/L		98
82)	1,2-Dichlorobenzene	20.06	146	29033	2.02 ug/L		99
83)	n-Butylbenzene	20.16	91	59071	2.12 ug/L		97
84)	1,2-Dibromo-3-chloropropan	20.62	75	1755	1.80 ug/L		85
85)	1,2,4-Trichlorobenzene	22.36	180	17161	1.96 ug/L		98
86)	Naphthalene	22.72	128	16657	2.21 ug/L		98
87)	Hexachlorobutadiene	22.76	225	15878	2.19 ug/L		96
88)	1,2,3-Trichlorobenzene	22.99	180	14421	1.80 ug/L		98

(#) = qualifier out of range (m) = manual integration
11211113.D 112111.M Tue Nov 22 11:08:38 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:59 2011 Quant Results File: 111911.RES

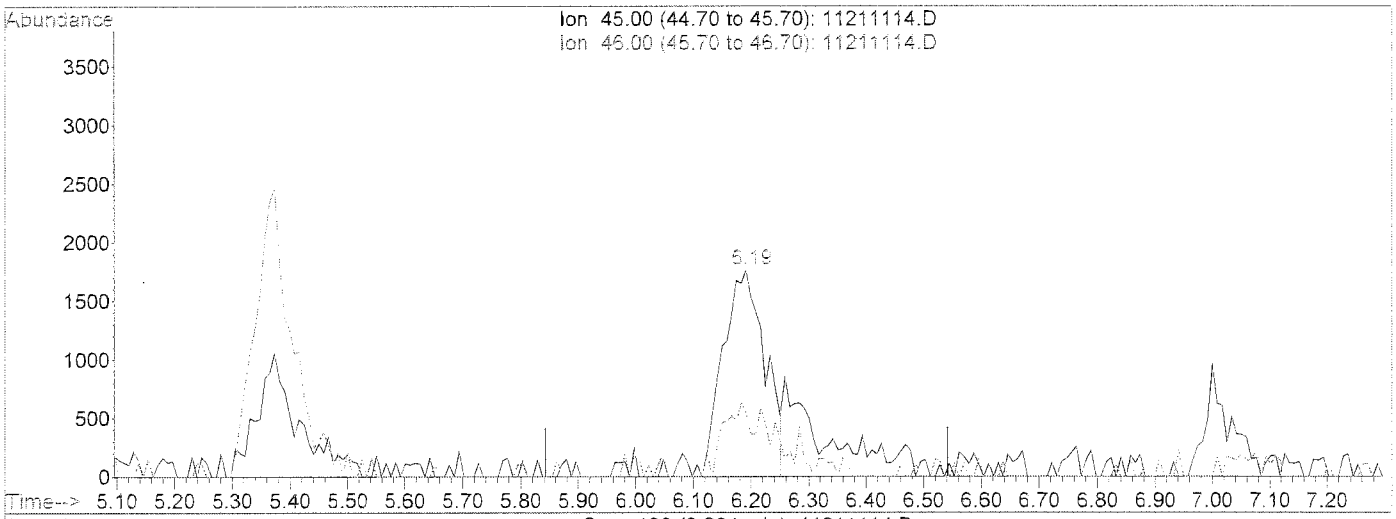
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

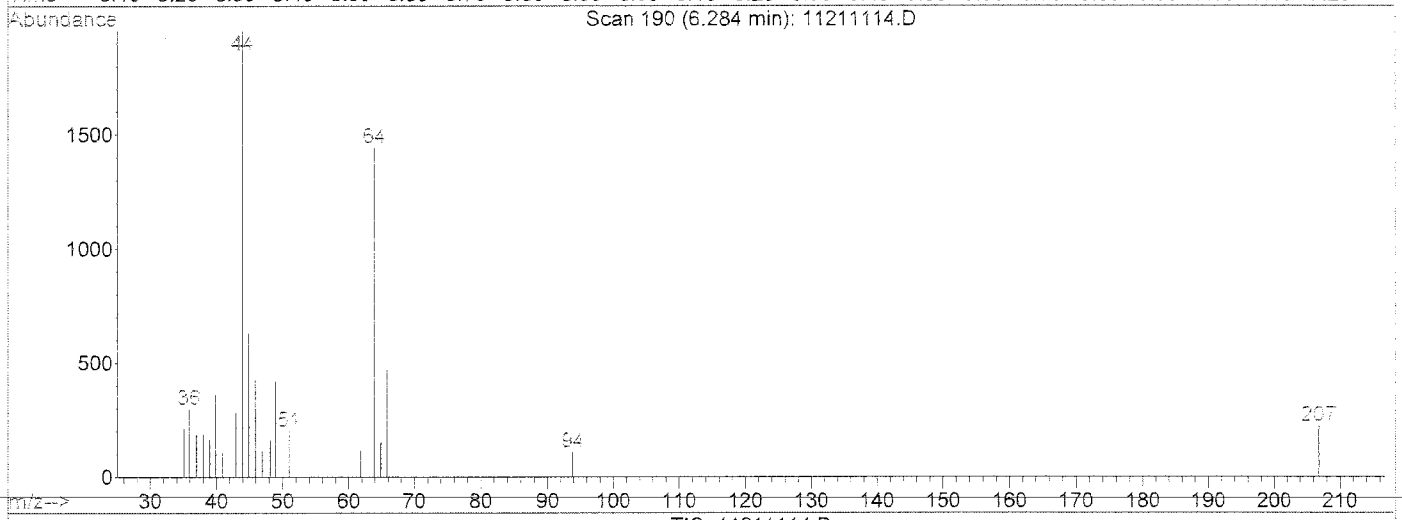


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:37 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(2) Ethanol (T)

6.19min 32.88ug/L

response 8943

Ion	Exp%	Act%
45.00	100	100
46.00	21.40	24.11
0.00	0.00	0.00
0.00	0.00	0.00

11/23/12

B

NIP

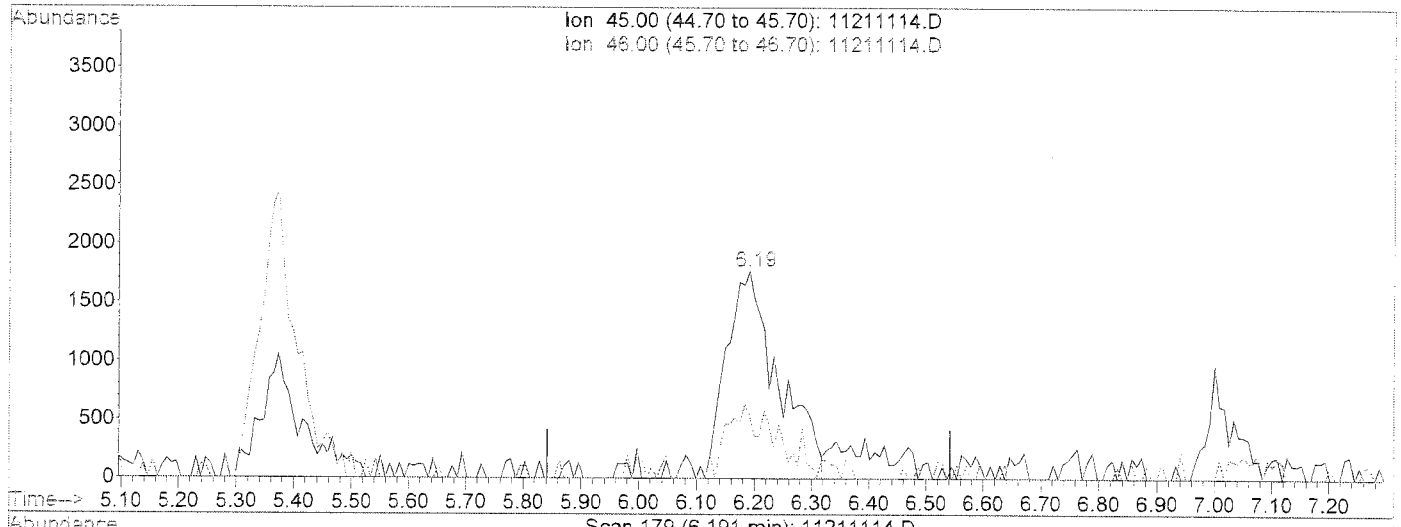
11/22/11

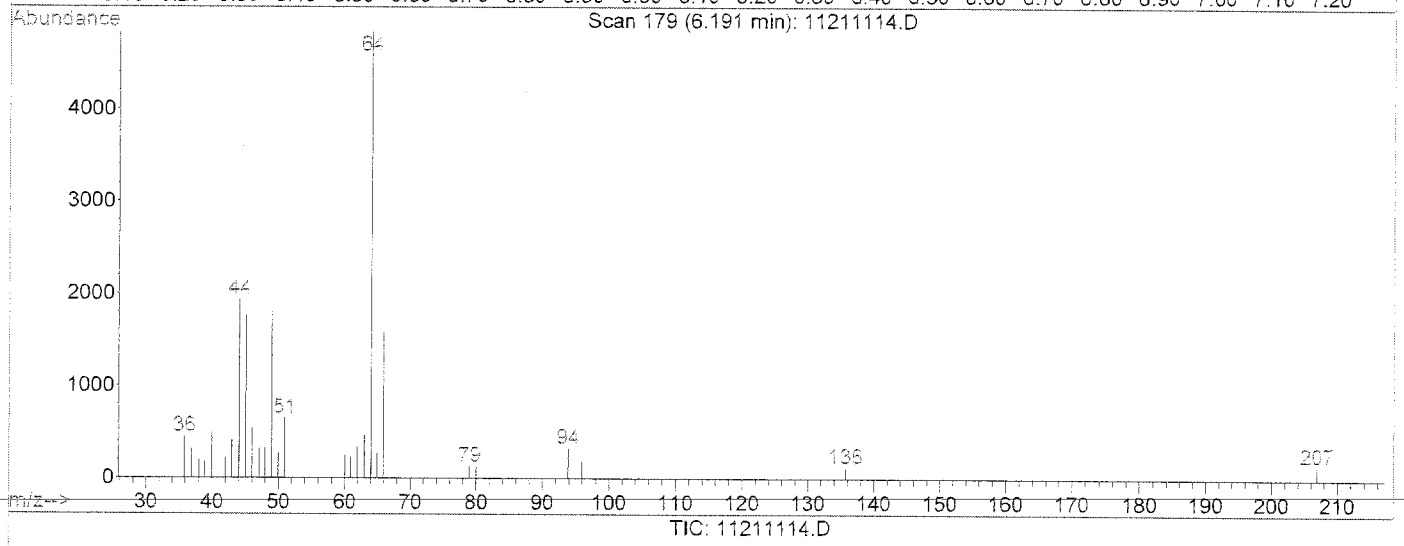
11211114.D 111911.M Tue Nov 22 10:37:57 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:38 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(2) Ethanol (T)

6.19min 41.09ug/L m

response 11047

Ion	Exp%	Act%
45.00	100	100
46.00	21.40	19.52
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

A

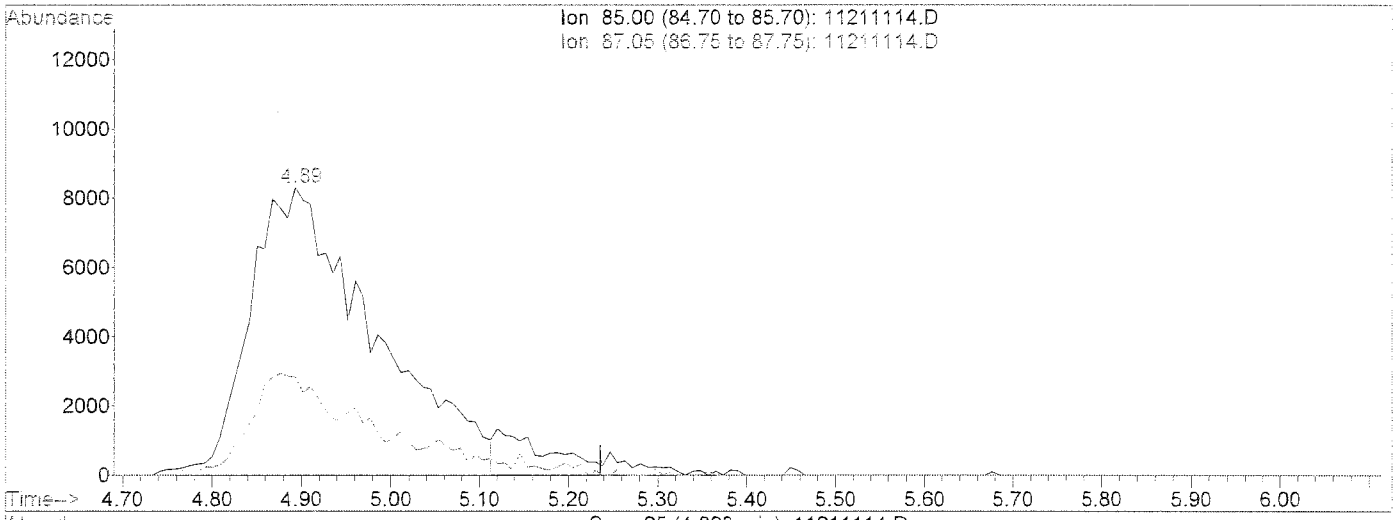
11/22/11

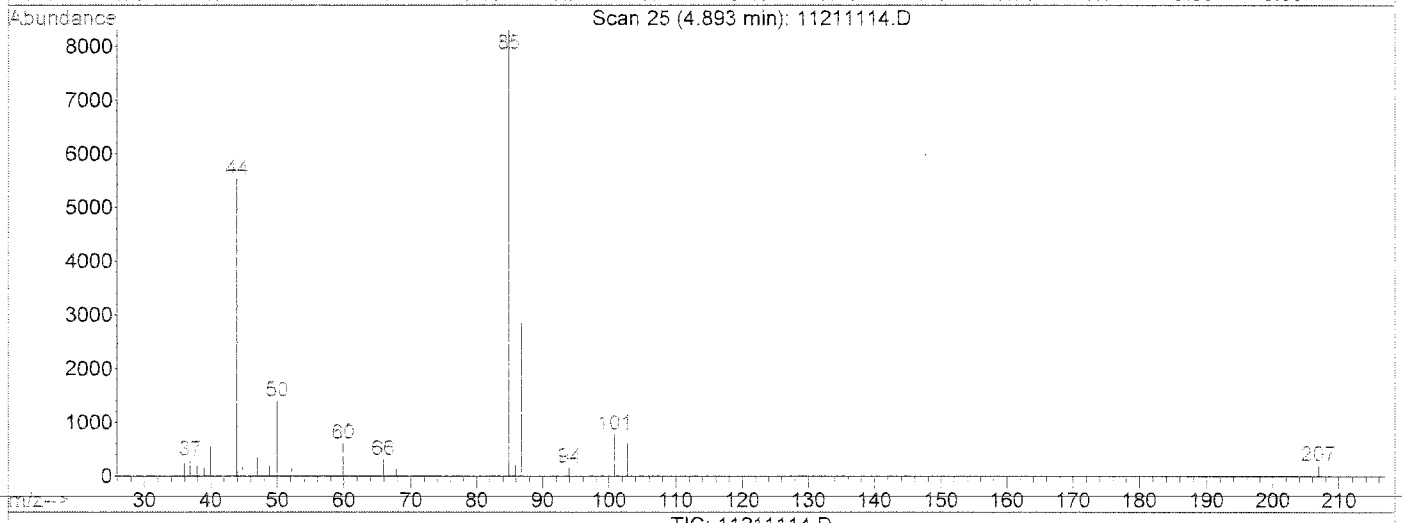
11211114.D 111911.M Tue Nov 22 10:38:06 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:38 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.89min 4.95ug/L

response 80016

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	20.97
0.00	0.00	0.00
0.00	0.00	0.00

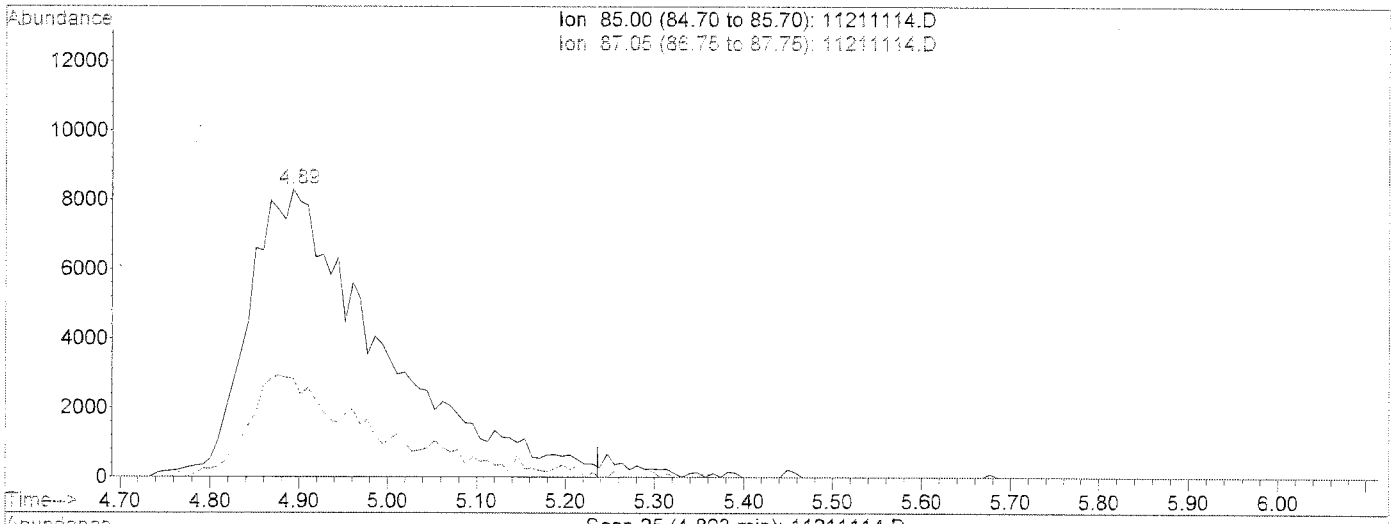
B
NP
11/22/11

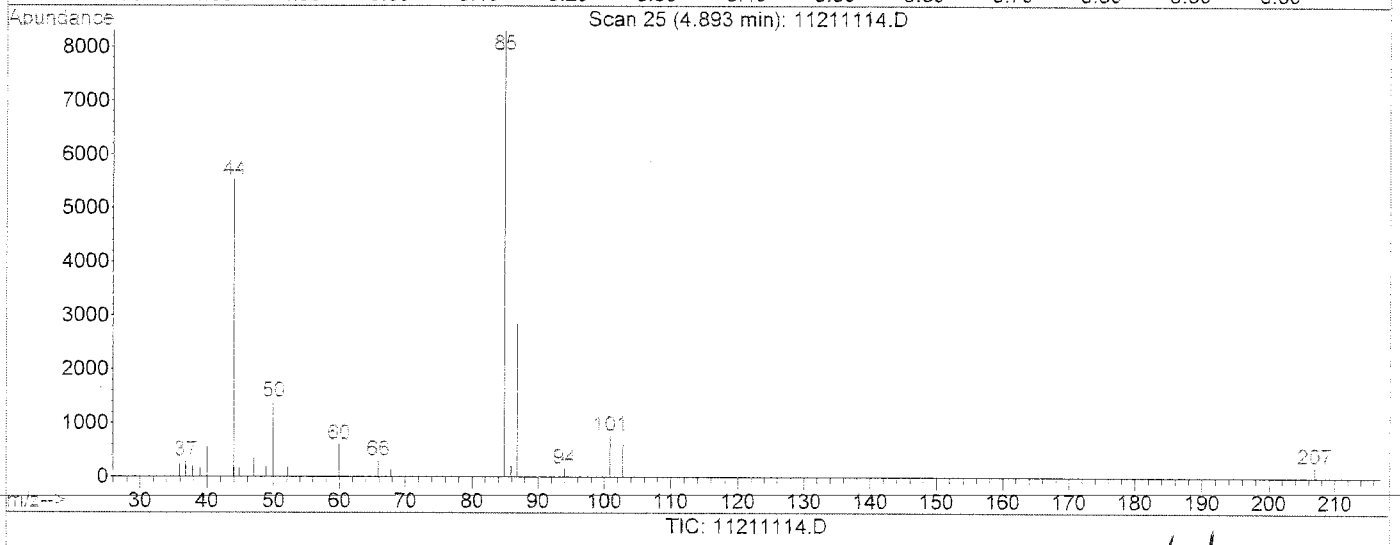
11211114.D 111911.M Tue Nov 22 10:38:11 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:38 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.89min 5.38ug/L m

response 87050

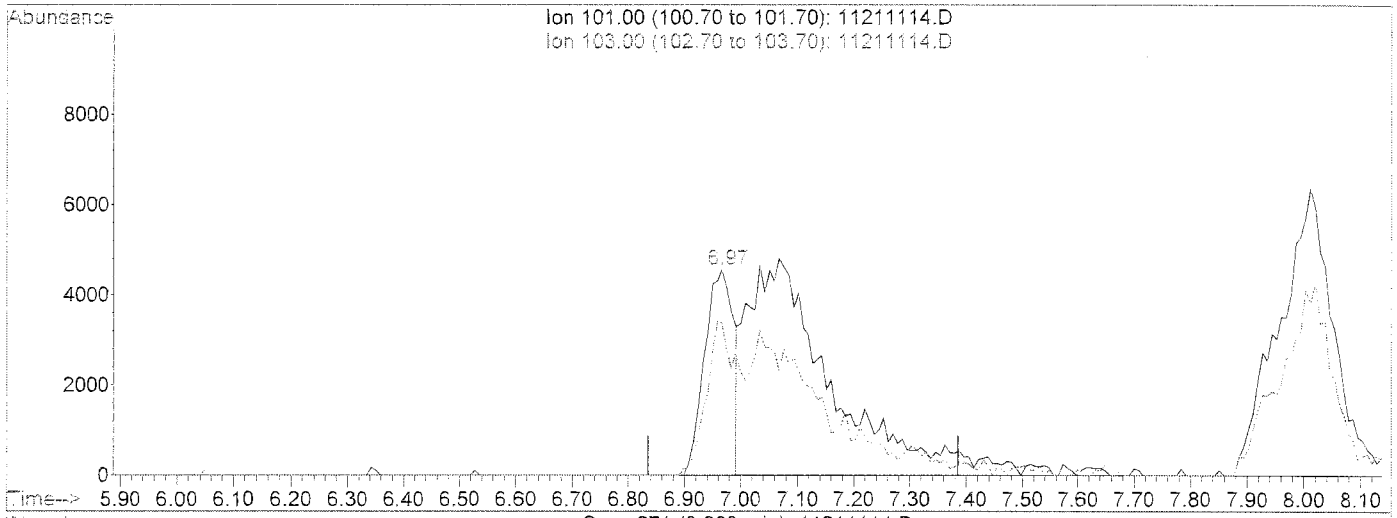
Ion	Exp%	Act%
85.00	100	100
87.05	32.10	19.27
0.00	0.00	0.00
0.00	0.00	0.00

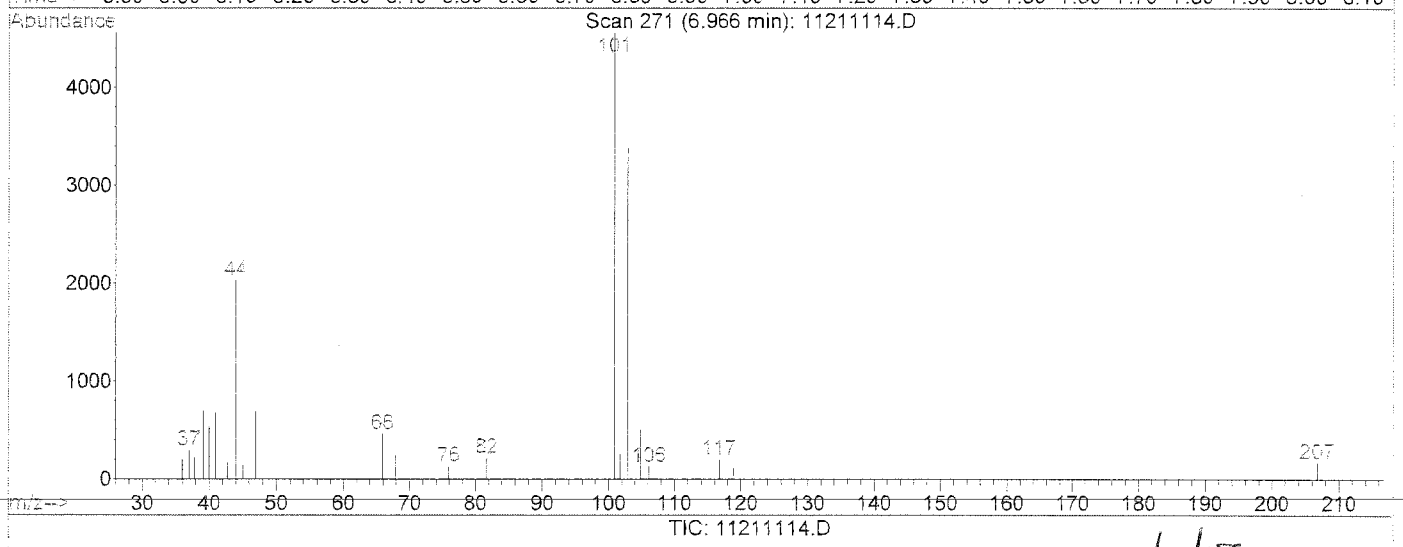
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:38 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

11/23/11

(12) Trichlorofluoromethane (T)

6.97min 1.43ug/L

response 16418

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	74.10
0.00	0.00	0.00
0.00	0.00	0.00

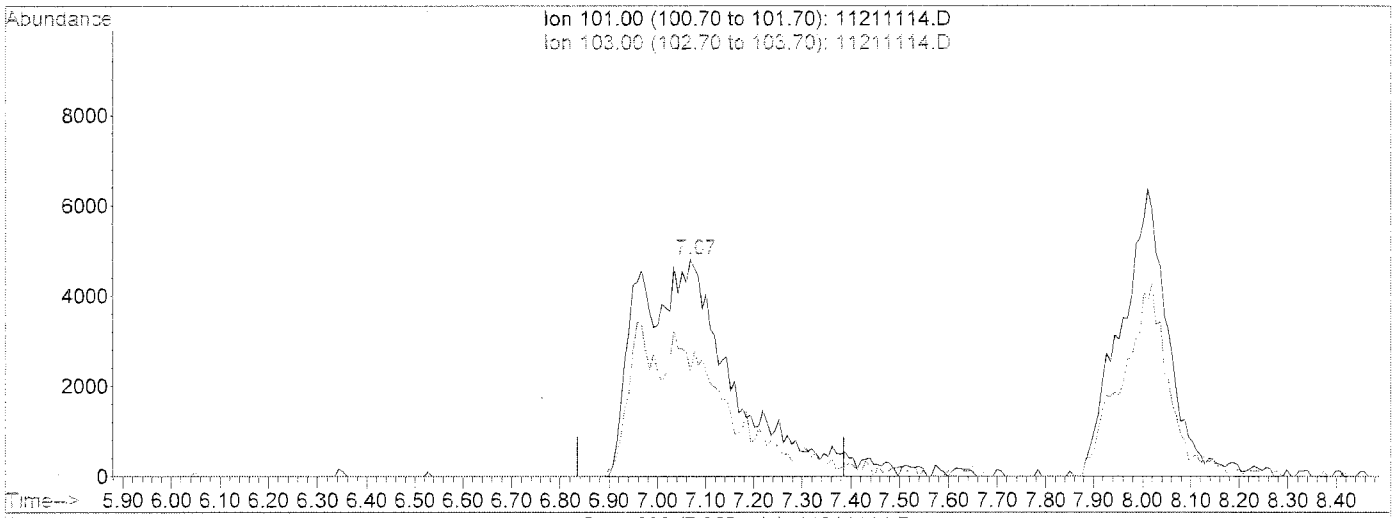
B
NID
11/22/11

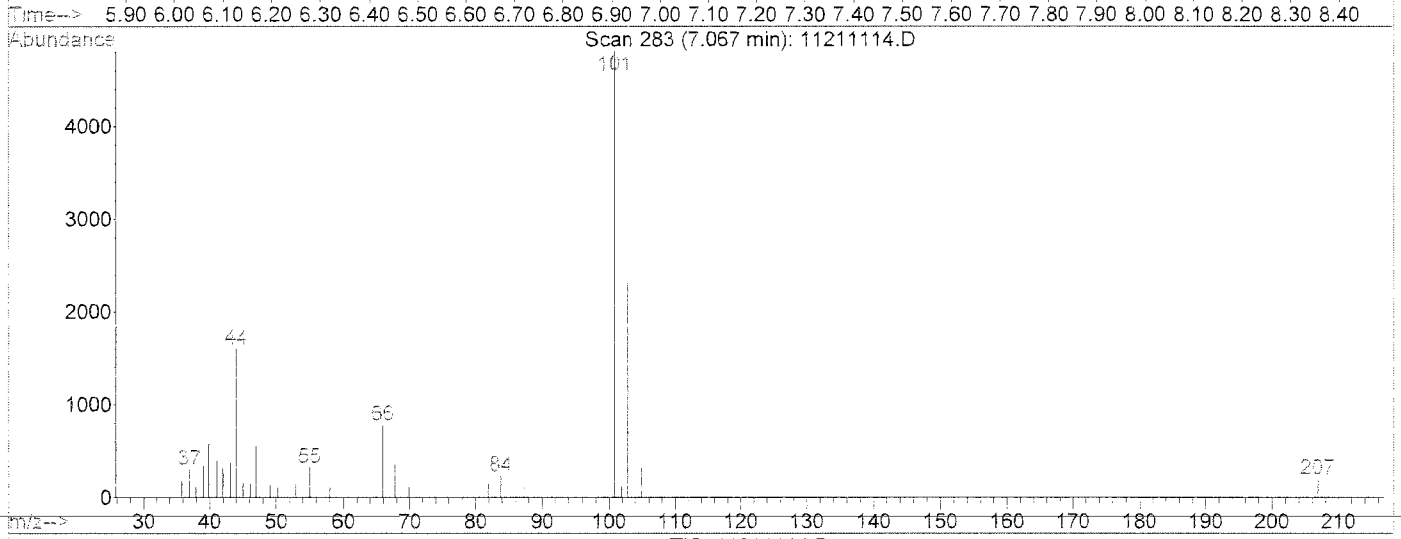
11211114.D 111911.M Tue Nov 22 10:38:25 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:38 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

11/23/11 R

(12) Trichlorofluoromethane (T)

7.07min 5.75ug/L m

response 66209

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	48.22#
0.00	0.00	0.00
0.00	0.00	0.00

A

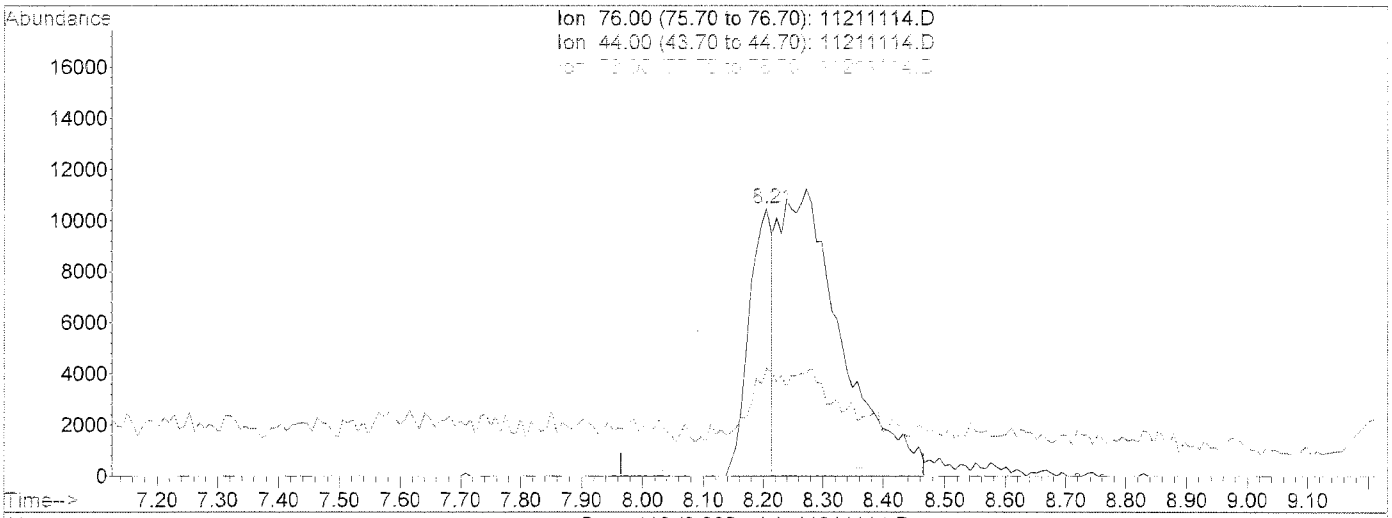
11/22/11

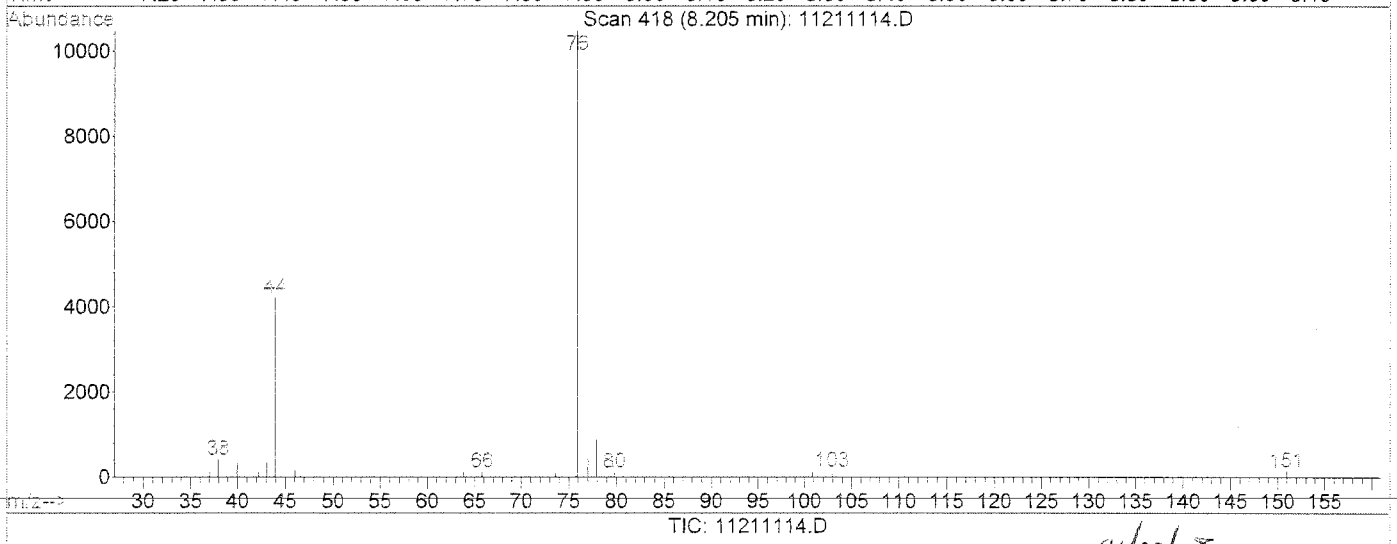
11211114.D 111911.M Tue Nov 22 10:38:41 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:38 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

11/23/11

(19) Carbon Disulfide (T)

8.21min 1.40ug/L

response 27998

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	33.78#
78.00	2.90	14.52#
0.00	0.00	0.00

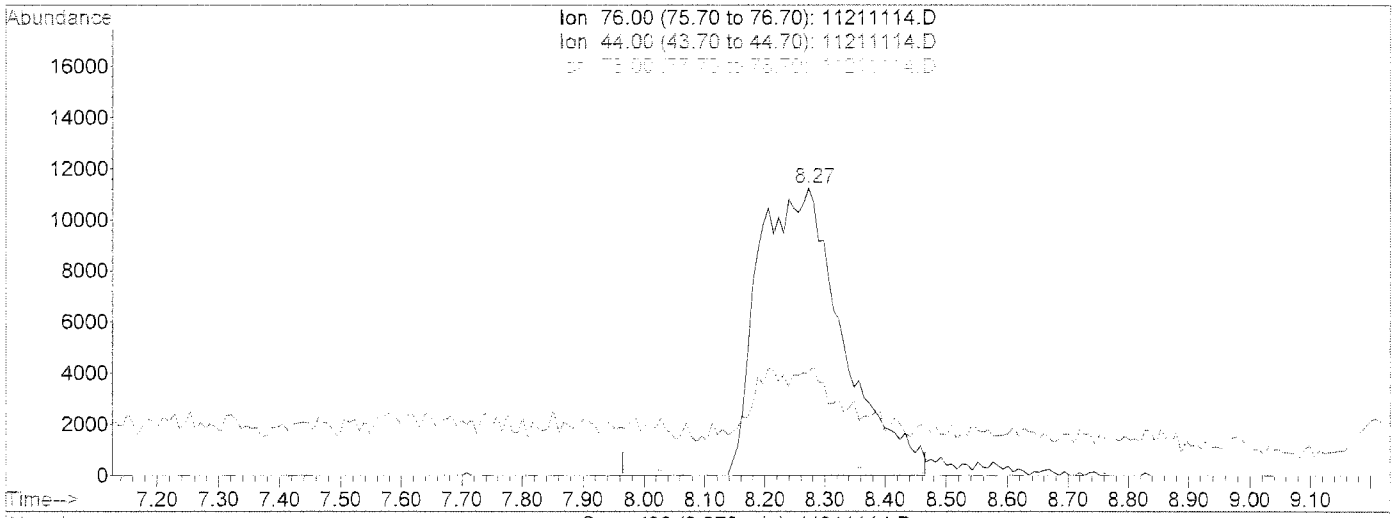
B
NP
11/22/11

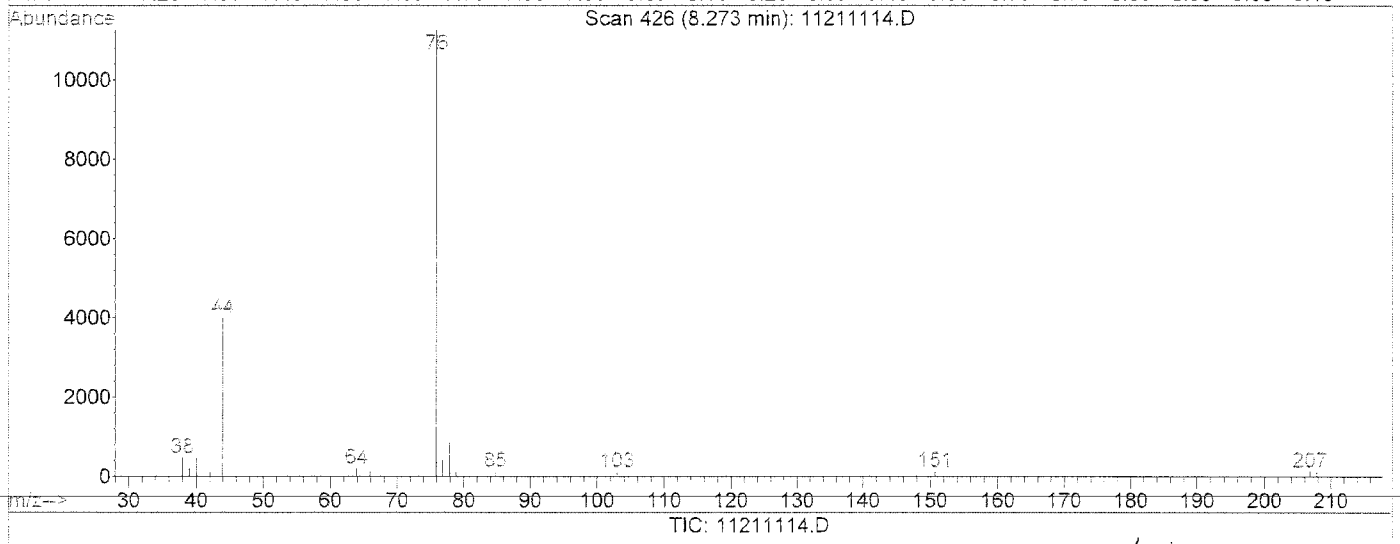
11211114.D 111911.M Tue Nov 22 10:39:01 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:39 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

11/23/11

(19) Carbon Disulfide (T)

8.27min 5.67ug/L m

response 113280

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	8.35
78.00	2.90	3.59#
0.00	0.00	0.00

A

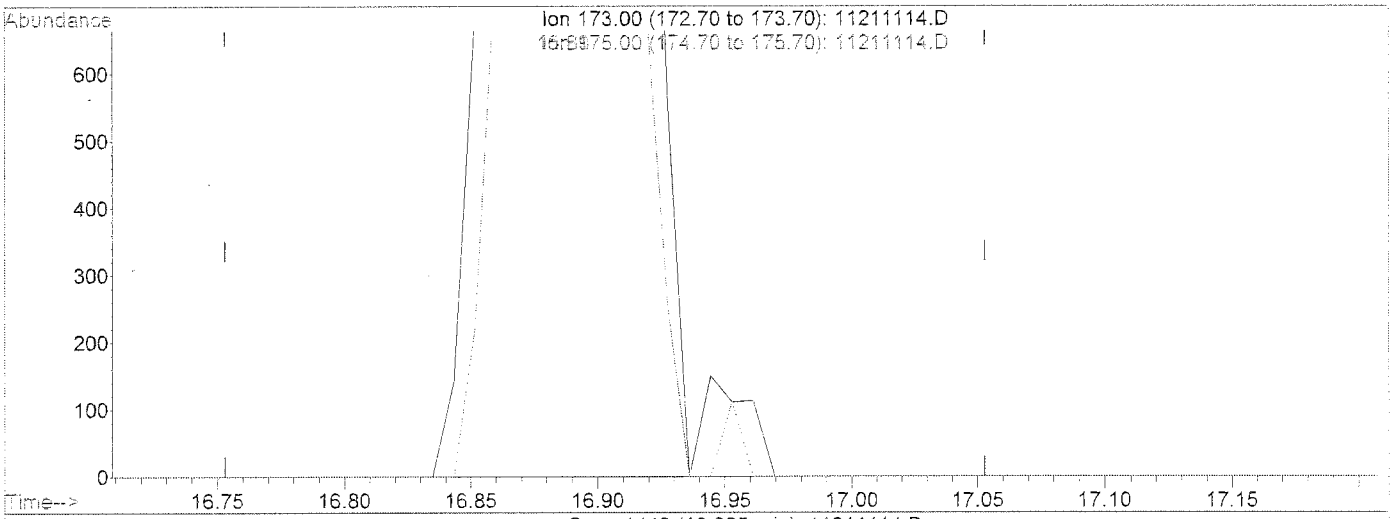
11/22/11

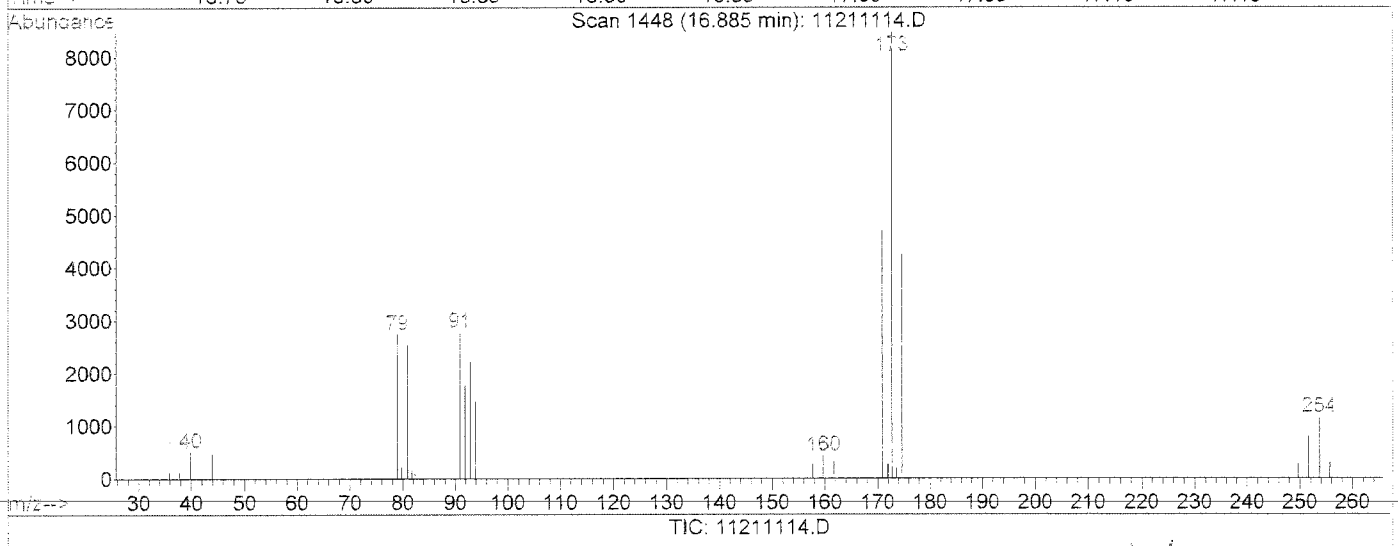
11211114.D 111911.M Tue Nov 22 10:39:15 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:39 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





(66) Bromoform (P)

16.89min 4.84ug/L

response 19765

Ion	Exp%	Act%
173.00	100	100
175.00	50.90	48.75
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

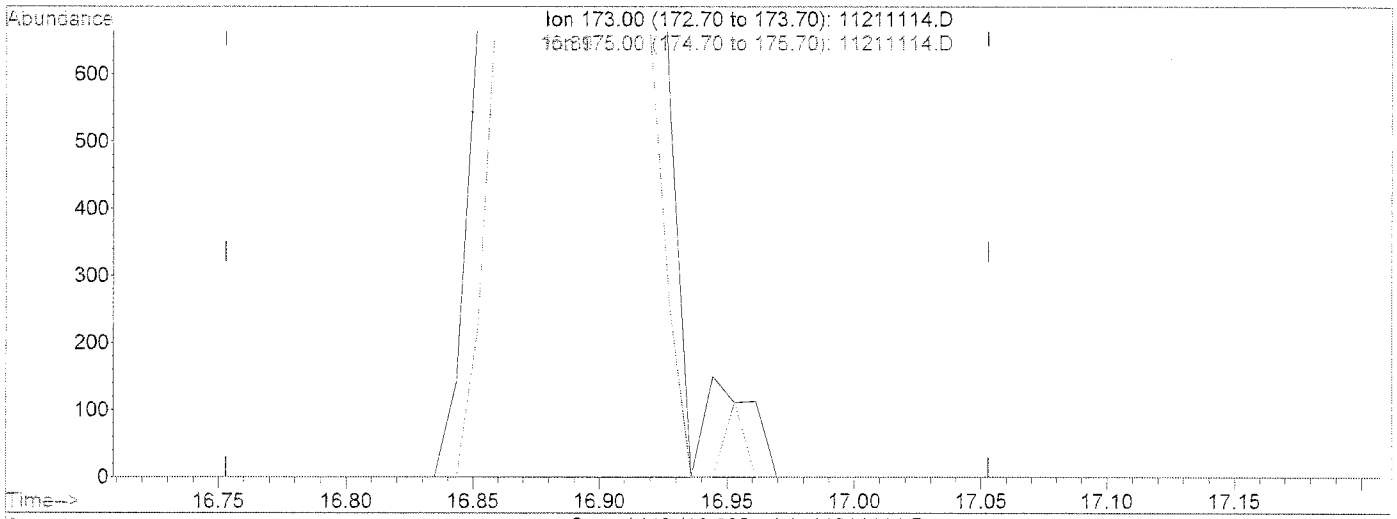
B
NIP
11/22/11

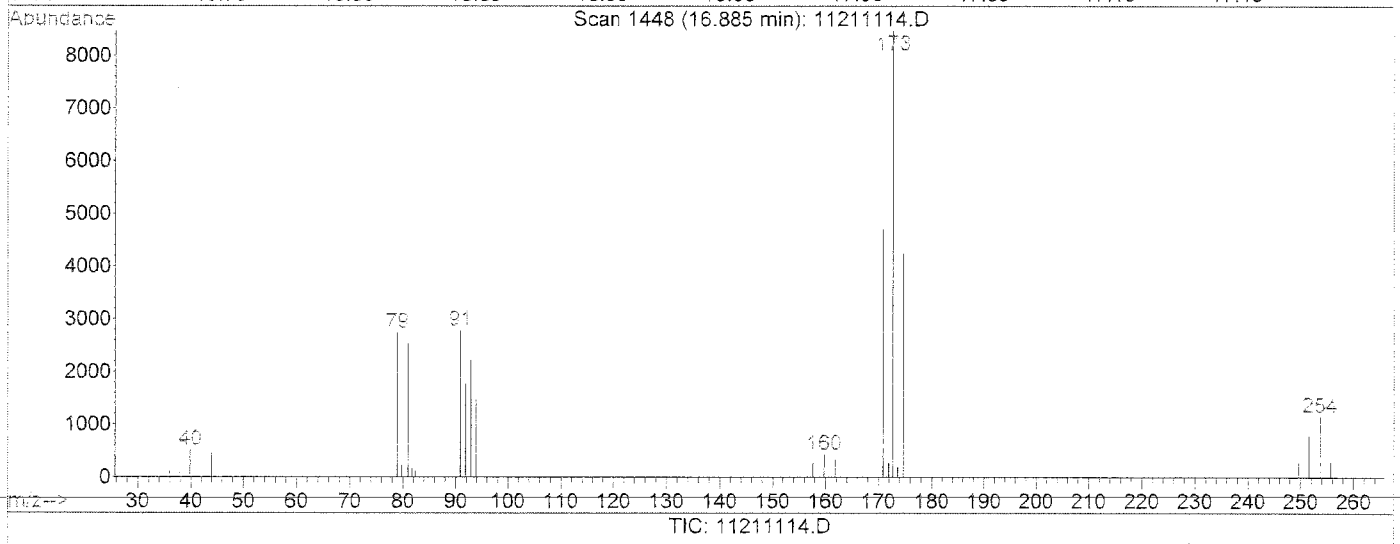
11211114.D 111911.M Tue Nov 22 10:40:43 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:40 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(66) Bromoform (P)

16.89min 4.79ug/L m

response 19576

Ion	Exp%	Act%
173.00	100	100
175.00	50.90	49.22
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

A

11/22/11

11211114.D 111911.M Tue Nov 22 10:40:48 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:40 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.60	65	43131	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	295971	25.00 ug/L	-0.02
37) 1,4-Difluorobenzene	11.82	114	480046	25.00 ug/L	-0.02
52) Chlorobenzene-d5	16.14	117	407131	25.00 ug/L	-0.02
65) 1,4-Dichlorobenzene-d4	19.59	152	221872	25.00 ug/L	-0.01
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	200313	26.65 ug/L	~~-0.02~~
Spiked Amount 25.000			Recovery	= 106.60%	
50) Toluene-d8 (surr)	14.20	98	526174	25.26 ug/L	-0.01
Spiked Amount 25.000			Recovery	= 101.04%	
64) 4-Bromofluorobenzene (surr	17.82	95	242824	26.76 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 107.04%	

Target Compounds					Qvalue
2) Ethanol	6.19	45	11047m	41.09 ug/L	
3) tert-Butanol (TBA)	7.70	59	18293	21.86 ug/L	98
5) Dichlorodifluoromethane	4.89	85	87050m	5.38 ug/L	
6) Chloromethane	5.14	50	82634	5.41 ug/L	99
7) Vinyl Chloride	5.45	62	63354	5.89 ug/L	99
8) 1,3-Butadiene	5.57	54	39218	5.69 ug/L	96
9) Bromomethane	6.01	94	46993	5.53 ug/L	99
10) Chloroethane	6.22	64	34921	5.29 ug/L	97
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	7.07	101	66209m	5.75 ug/L	
13) Acetone	7.12	43	18286	5.10 ug/L	98
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.79	142	68284	5.71 ug/L #	28
16) 1,1-Dichloroethene	7.72	96	39504	5.61 ug/L	97
17) Methylene Chloride	7.88	84	51366	5.53 ug/L	96
18) Freon 113	8.01	101	41842	5.58 ug/L	99
19) Carbon Disulfide	8.27	76	113280m	5.67 ug/L	
~~20) trans-1,2-Dichloroethene~~	~~8.74~~	~~96~~	~~50778~~	~~5.92 ug/L~~	~~100~~
21) MTBE	8.87	73	51373	5.82 ug/L	100
22) 1,1-Dichloroethane	9.06	63	106805	6.03 ug/L	99
23) Vinyl Acetate	9.20	43	34229	4.36 ug/L	98
24) n-Hexane	9.57	86	8528	6.33 ug/L #	94
25) 2-Butanone (MEK)	9.60	72	2879	6.30 ug/L #	78
26) Diisopropylether (DIPE)	9.60	45	180331	6.29 ug/L	98
27) cis-1,2-Dichloroethene	9.79	96	51761	6.18 ug/L	98
28) Bromochloromethane	10.00	128	23361	5.73 ug/L	93
29) Chloroform	10.05	83	105133	5.85 ug/L	99
30) 2,2-Dichloropropane	10.16	77	36144	5.64 ug/L	97
31) (ETBE) 2-Ethoxy-2-methyl p	10.11	59	54924	5.44 ug/L #	84
33) Tetrahydrofuran	10.50	72	1780	4.79 ug/L #	77
34) 1,2-Dichloroethane	10.89	62	76019	6.07 ug/L	98
35) 1,1,1-Trichloroethane	11.02	97	77017	5.86 ug/L	100
36) (TAME) tert-Amyl methyl et	11.72	73	27886	4.87 ug/L	93
38) 1,1-Dichloropropene	11.26	75	61789	5.95 ug/L	99
39) Carbon Tetrachloride	11.49	117	77238	5.54 ug/L	99
0) Benzene	11.54	78	160976	5.58 ug/L	100

(#) = qualifier out of range (m) = manual integration
11211114.D 111911.M Tue Nov 22 10:41:05 2011

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:40 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

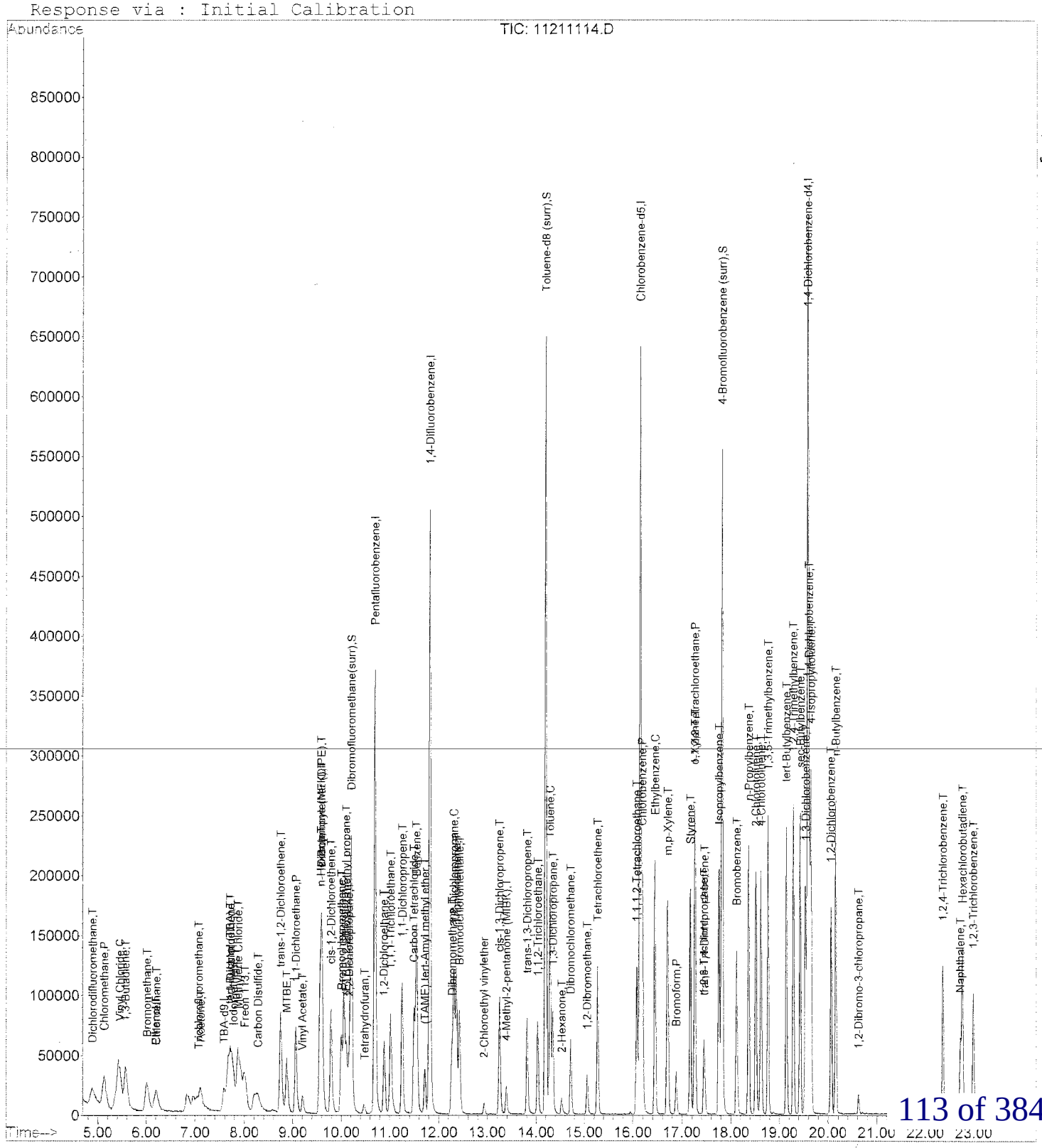
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Dibromomethane	12.27	93	26062	5.42 ug/L	100
42) 1,2-Dichloropropane	12.31	63	46530	5.75 ug/L	98
43) Trichloroethene	12.36	95	51068	5.96 ug/L	94
44) Bromodichloromethane	12.42	83	70164	5.54 ug/L	98
45) 2-Chloroethyl vinylether	12.94	63	4191	4.37 ug/L	97
46) cis-1,3-Dichloropropene	13.24	75	58023	5.23 ug/L	97
47) 4-Methyl-2-pentanone (MIBK	13.39	43	22908	5.28 ug/L	96
48) trans-1,3-Dichloropropene	13.81	75	48210	5.08 ug/L	97
49) 1,1,2-Trichloroethane	14.03	97	28642	5.57 ug/L	98
51) Toluene	14.29	92	95036	5.60 ug/L	99
53) 1,3-Dichloropropane	14.35	76	51350	5.43 ug/L	99
54) 2-Hexanone	14.53	43	14837	5.35 ug/L #	93
55) Dibromochloromethane	14.73	129	40917	5.29 ug/L	99
56) 1,2-Dibromoethane	15.07	107	27018	5.13 ug/L	96
57) Tetrachloroethene	15.28	164	32981	5.39 ug/L	98
58) 1,1,1,2-Tetrachloroethane	16.08	131	42831	5.27 ug/L	99
59) Chlorobenzene	16.19	112	113042	5.21 ug/L	95
60) Ethylbenzene	16.45	91	178903	5.64 ug/L	99
61) m,p-Xylene	16.71	106	67413	5.59 ug/L	95
62) Styrene	17.16	104	101736	5.39 ug/L	97
63) o-Xylene	17.26	106	71685	5.95 ug/L	99
66) Bromoform	16.89	173	19576m	4.79 ug/L	
67) 1,1,2,2-Tetrachloroethane	17.25	83	29766	5.07 ug/L	96
68) 1,2,3-Trichloropropane	17.45	110	8075	4.51 ug/L	93
69) trans-1,4-Dichloro-2-buten	17.47	53	9517	4.37 ug/L	96
70) Isopropylbenzene	17.76	105	163629	5.28 ug/L	100
71) Bromobenzene	18.12	156	42378	5.09 ug/L	96
72) n-Propylbenzene	18.37	91	210579	5.54 ug/L	99
73) 2-Chlorotoluene	18.51	91	141007	5.41 ug/L	98
74) 4-Chlorotoluene	18.62	91	145036	5.44 ug/L	98
75) 1,3,5-Trimethylbenzene	18.76	105	160277	5.38 ug/L	99
76) tert-Butylbenzene	19.14	119	124366	5.11 ug/L	97
77) 1,2,4-Trimethylbenzene	19.29	105	166262	5.40 ug/L	99
78) sec-Butylbenzene	19.43	105	200266	5.57 ug/L	97
79) 1,3-Dichlorobenzene	19.54	146	87894	4.99 ug/L	99
80) 1,4-Dichlorobenzene	19.62	146	86503	4.82 ug/L	97
81) 4-Isopropyltoluene	19.65	119	173653	5.27 ug/L	98
82) 1,2-Dichlorobenzene	20.06	146	75014	4.98 ug/L	98
83) n-Butylbenzene	20.16	91	160845	5.51 ug/L	99
84) 1,2-Dibromo-3-chloropropan	20.62	75	4814	4.70 ug/L #	84
85) 1,2,4-Trichlorobenzene	22.36	180	50698	4.77 ug/L	99
86) Naphthalene	22.72	128	55607	4.70 ug/L	98
87) Hexachlorobutadiene	22.76	225	39060	5.14 ug/L	98
88) 1,2,3-Trichlorobenzene	22.99	180	41206	4.92 ug/L	100

(#) = qualifier out of range (m) = manual integration
11211114.D 111911.M Tue Nov 22 10:41:05 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:40 2011 Quant Results File: 111911.RES

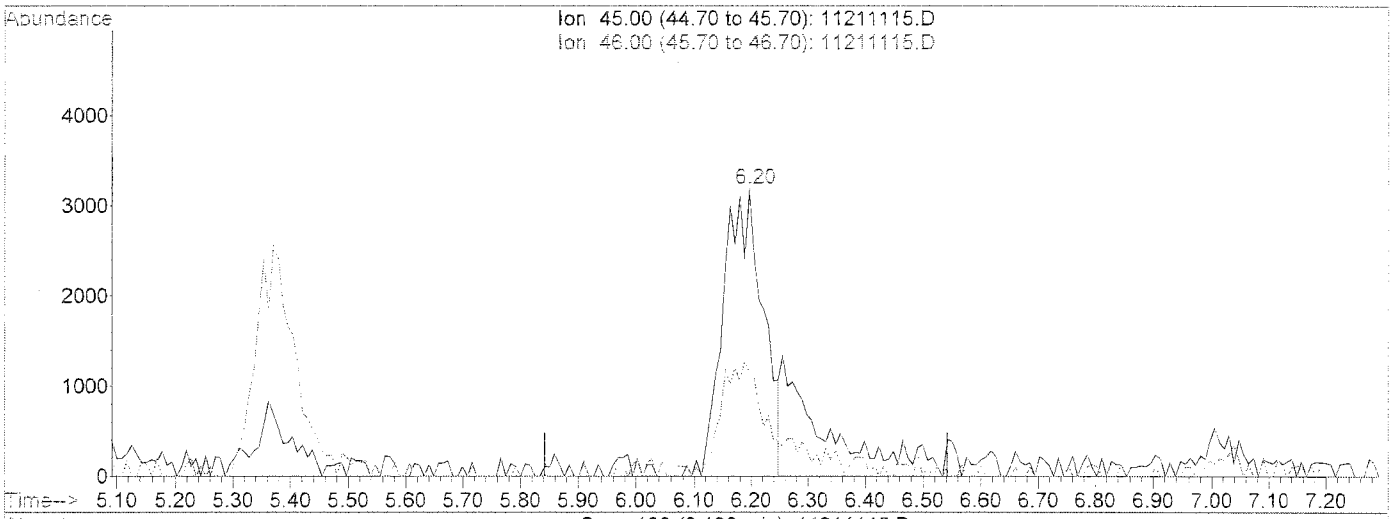
Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration

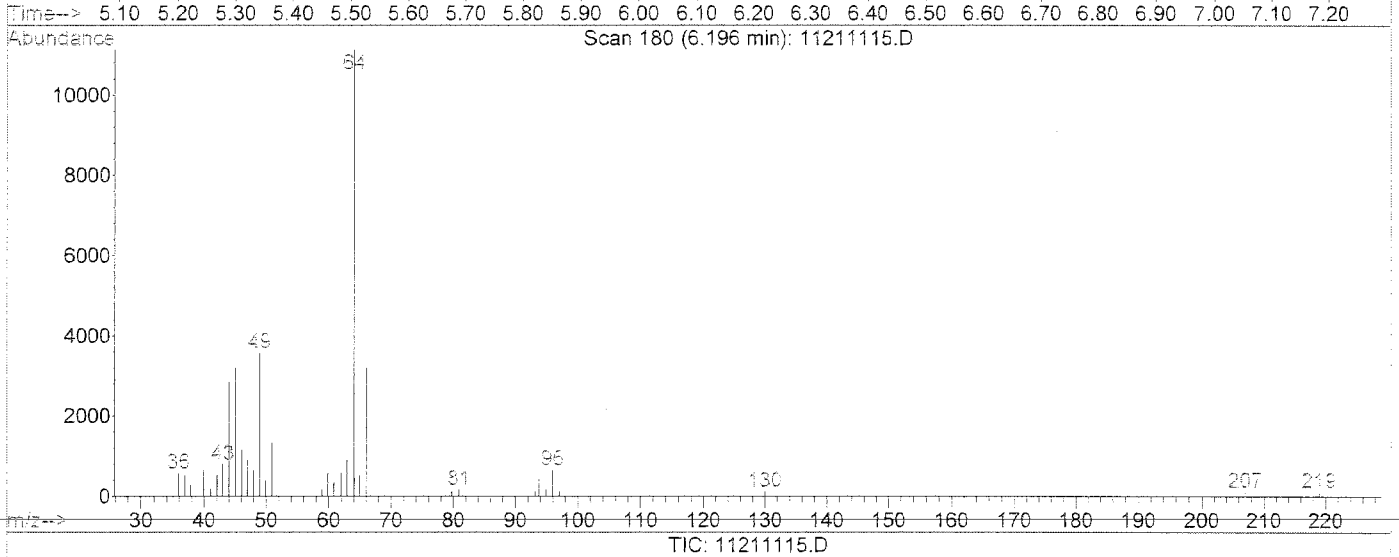


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:41 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

(2) Ethanol (T)

6.20min 49.77ug/L

response 15371

Ion	Exp%	Act%
45.00	100	100
46.00	21.40	42.09#
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

B

NIP

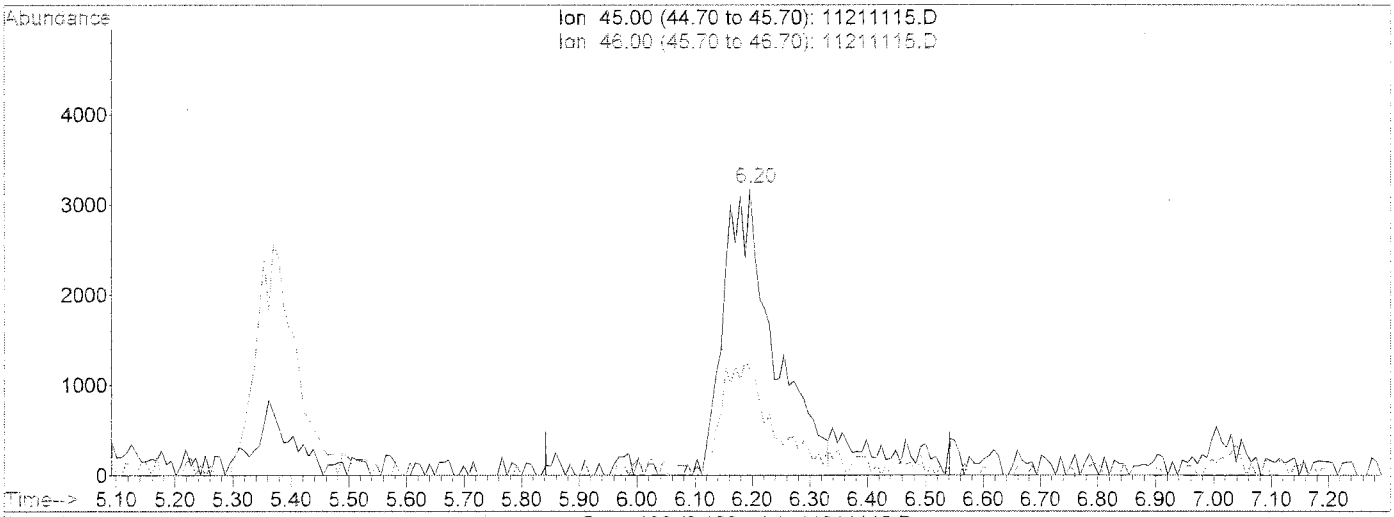
11/23/11

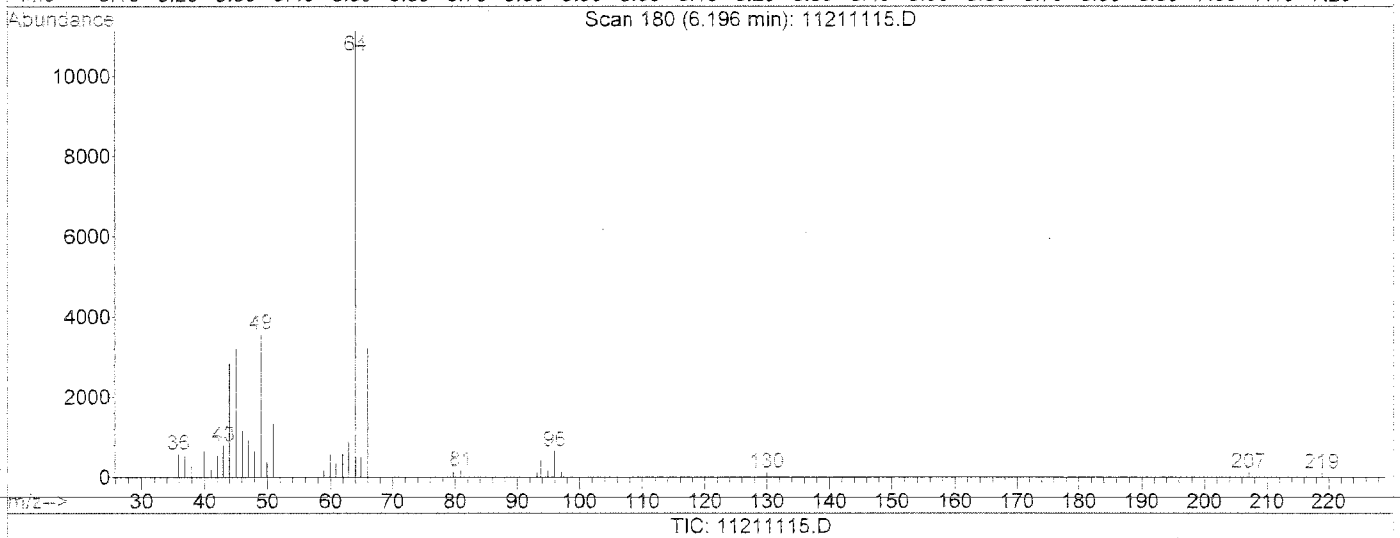
11211115.D 111911.M Tue Nov 22 10:41:42 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:42 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

11/23/11

(2) Ethanol (T)

6.20min 62.77ug/L m

response 19179

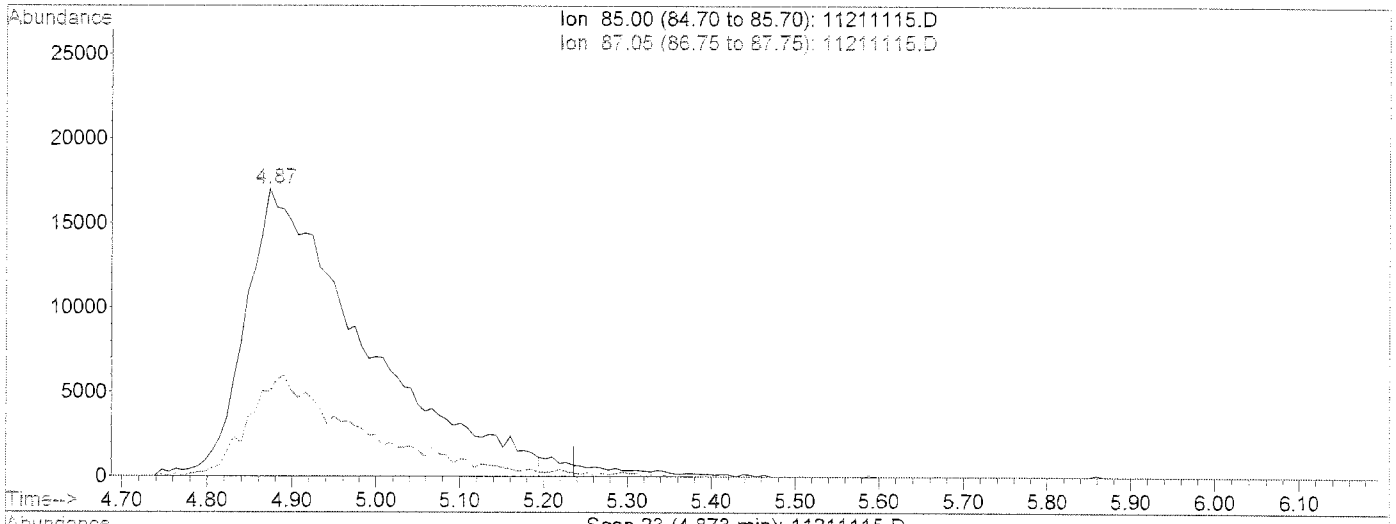
Ion	Exp%	Act%
45.00	100	100
46.00	21.40	33.73#
0.00	0.00	0.00
0.00	0.00	0.00

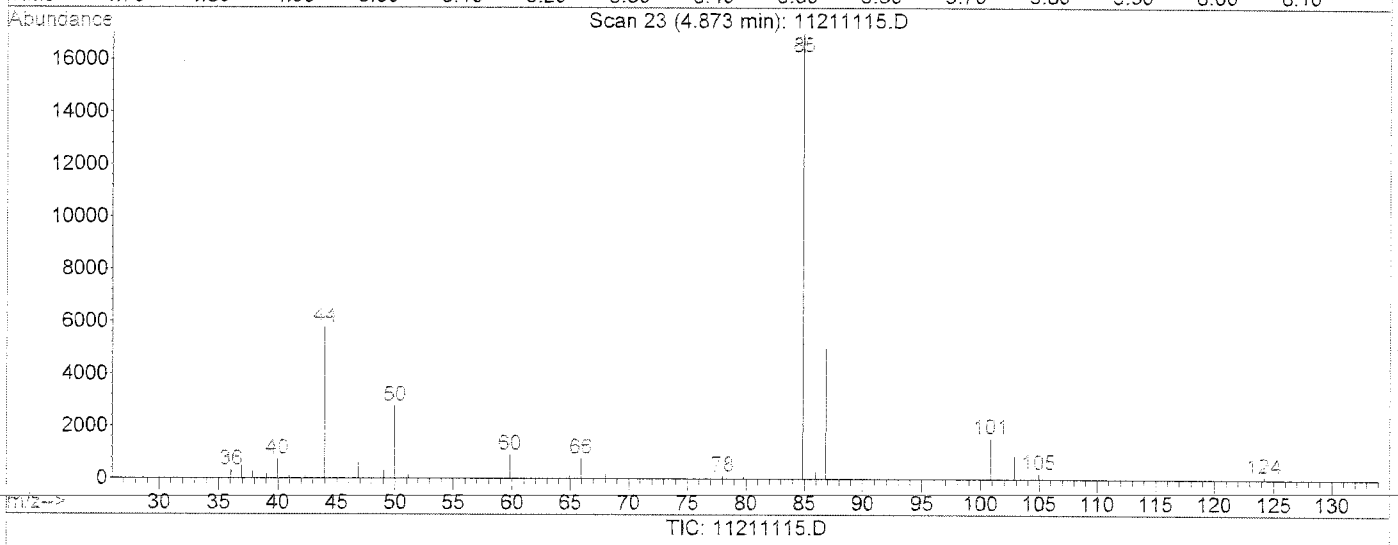
A
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:42 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

(5) Dichlorodifluoromethane (T)

4.87min 10.34ug/L

response 167263

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	28.88
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

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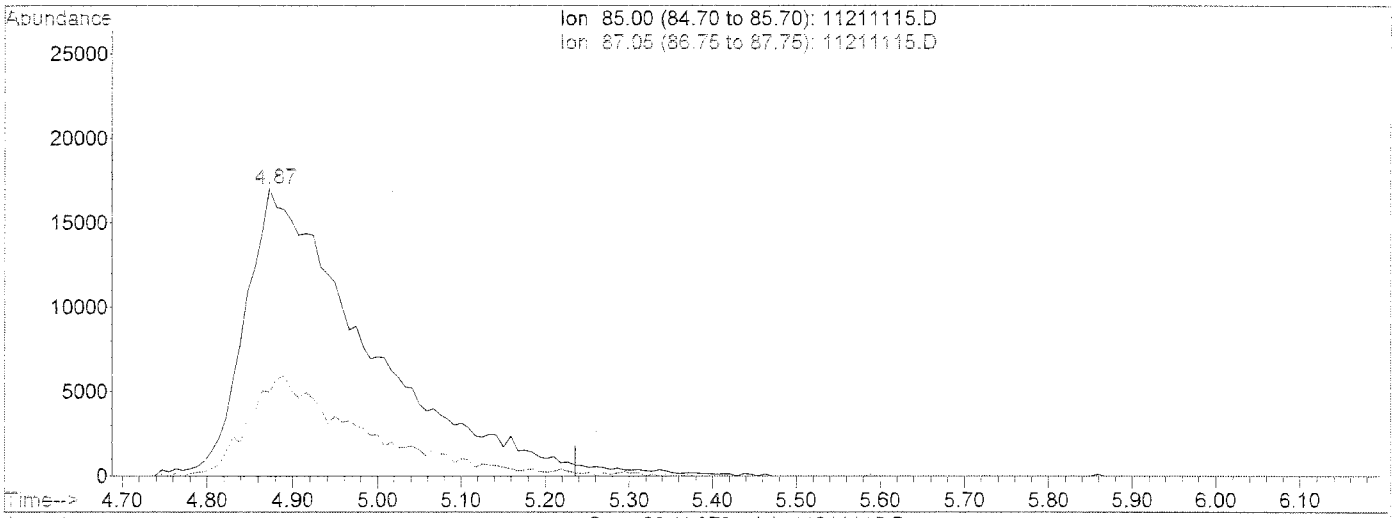
NIP
11/22/11

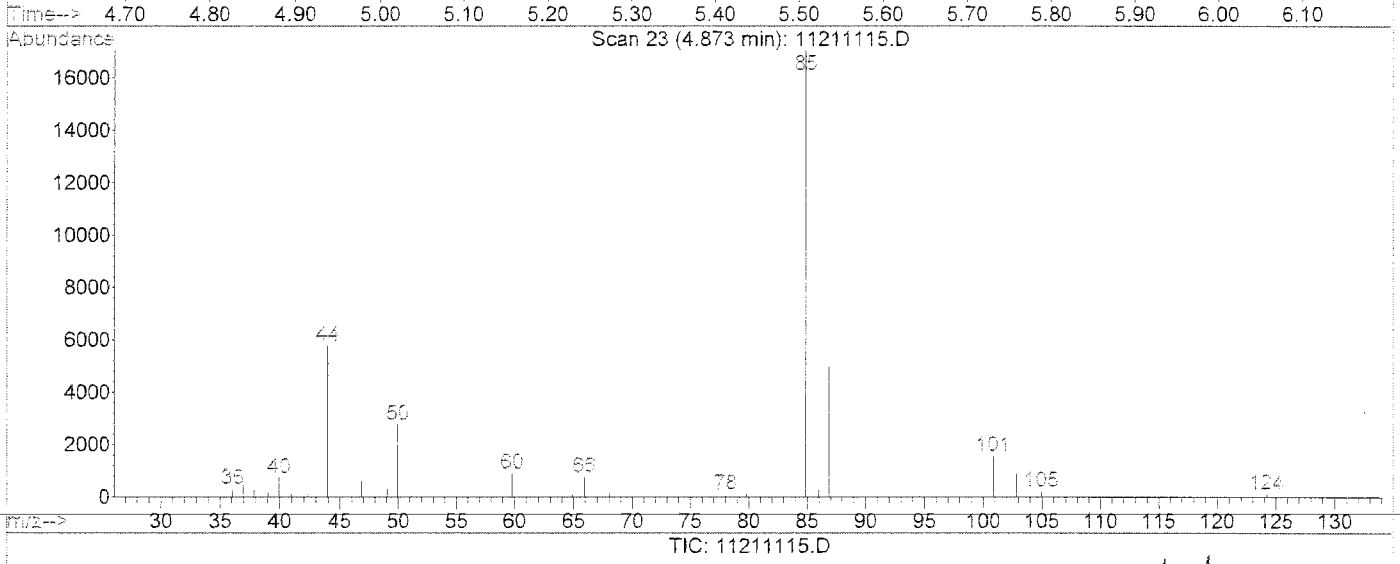
11211115.D 111911.M Tue Nov 22 10:42:23 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:42 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

11/23/11R

(5) Dichlorodifluoromethane (T)

4.87min 10.69ug/L m

response 172999

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	27.92
0.00	0.00	0.00
0.00	0.00	0.00

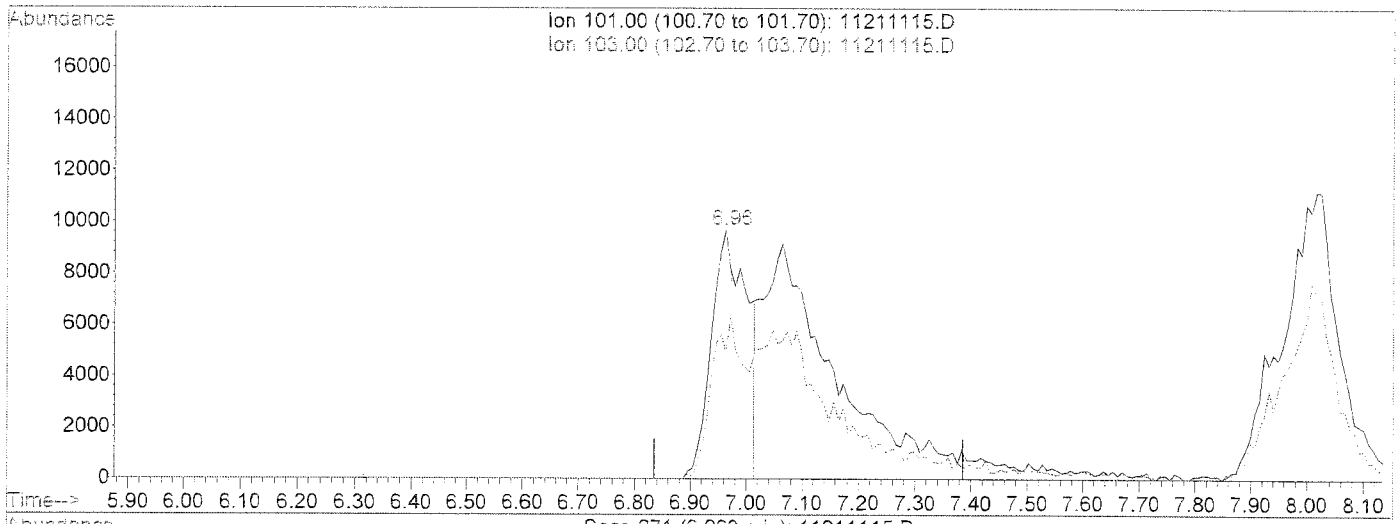
A
11/22/11

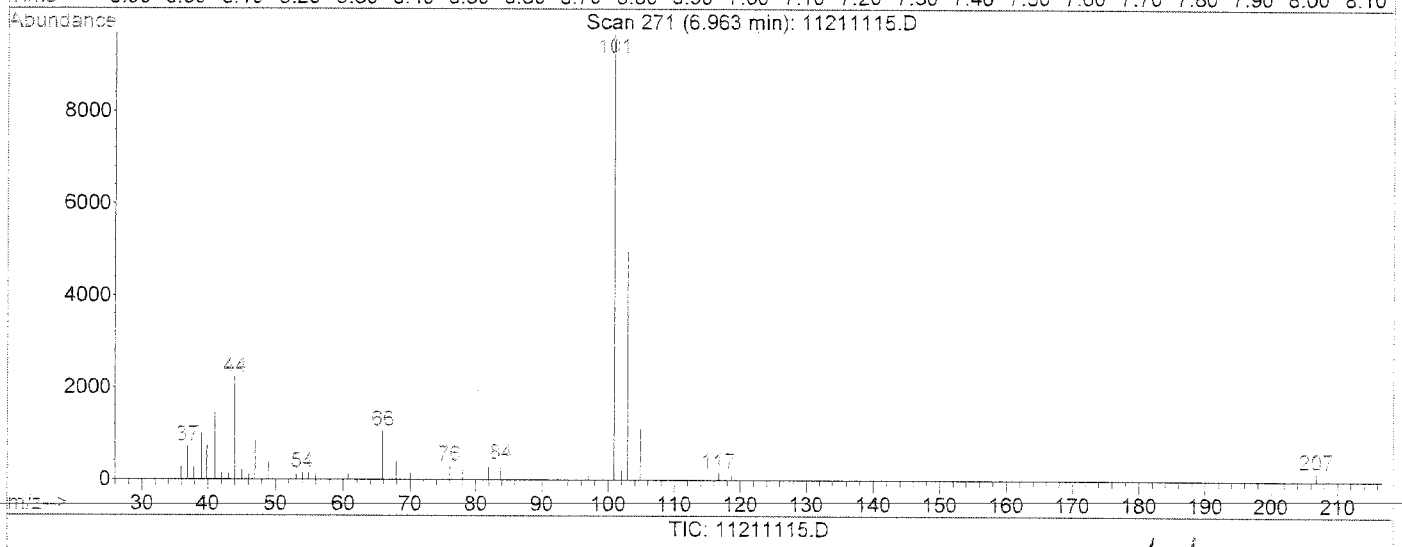
11211115.D 111911.M Tue Nov 22 10:42:32 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:42 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

11/23/11

(12) Trichlorofluoromethane (T)

6.96min 3.72ug/L

response 42822

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	51.06
0.00	0.00	0.00
0.00	0.00	0.00

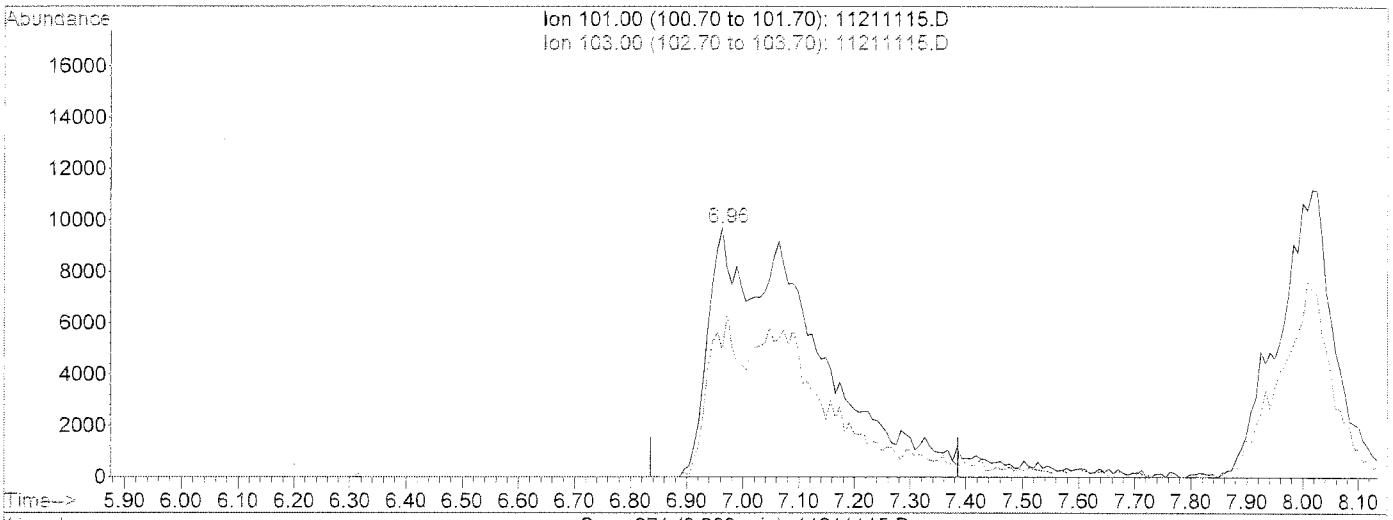
B
MP
11/22/11

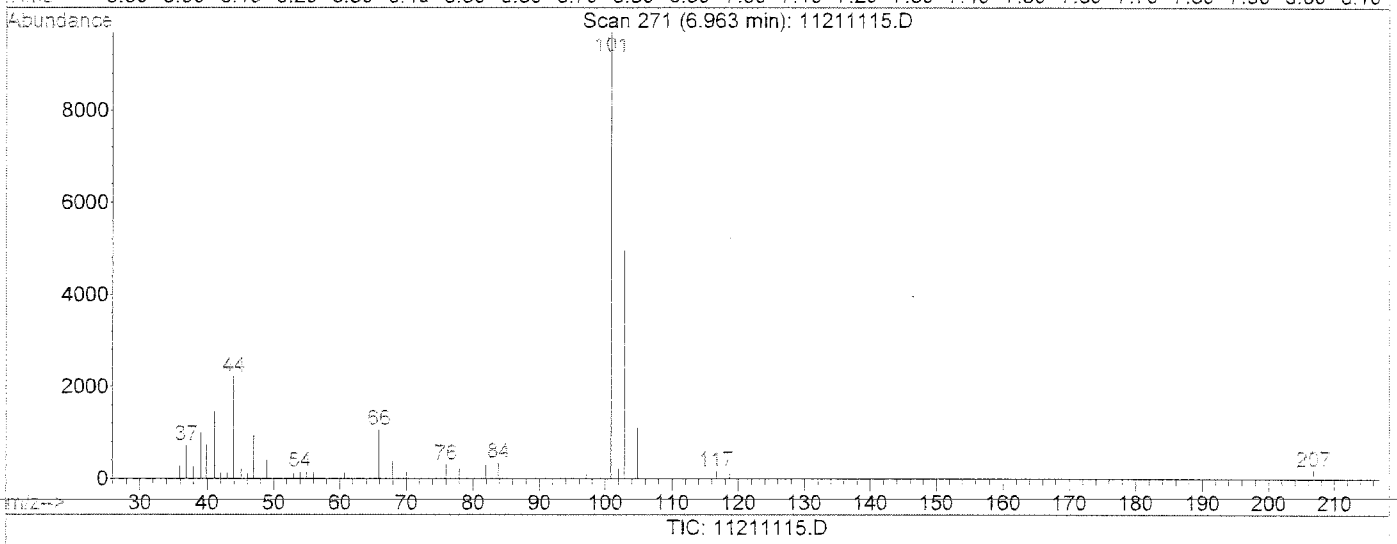
11211115.D 111911.M Tue Nov 22 10:42:41 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:42 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

(12) Trichlorofluoromethane (T)

6.96min 11.55ug/L m

response 132922

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	51.06
0.00	0.00	0.00
0.00	0.00	0.00

✓11/23/11 R

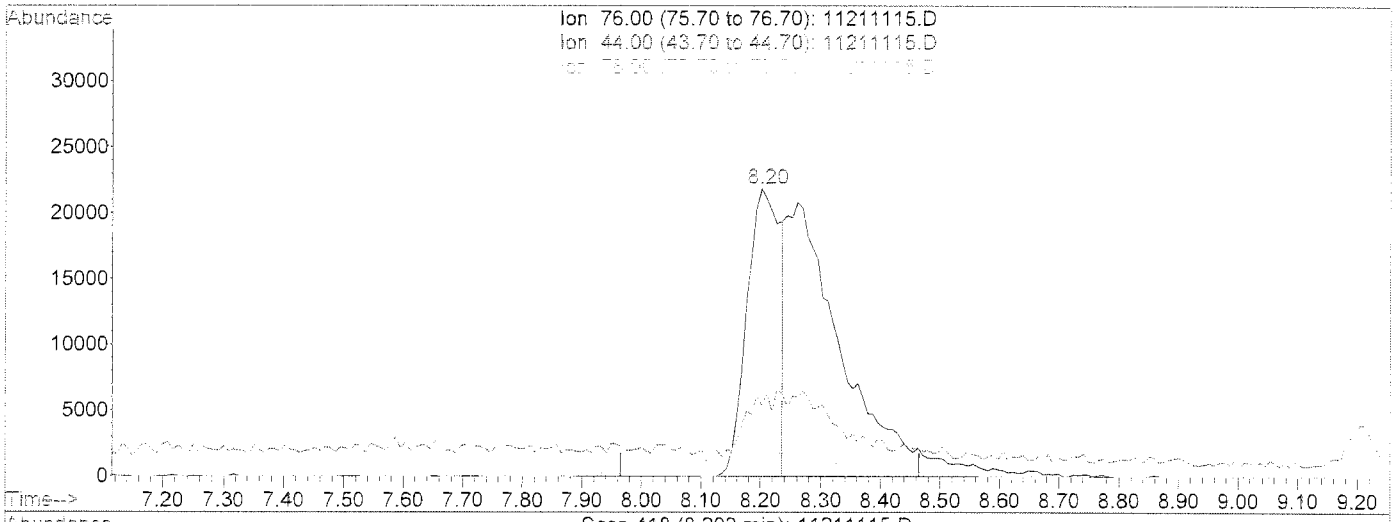
A
11/22/11

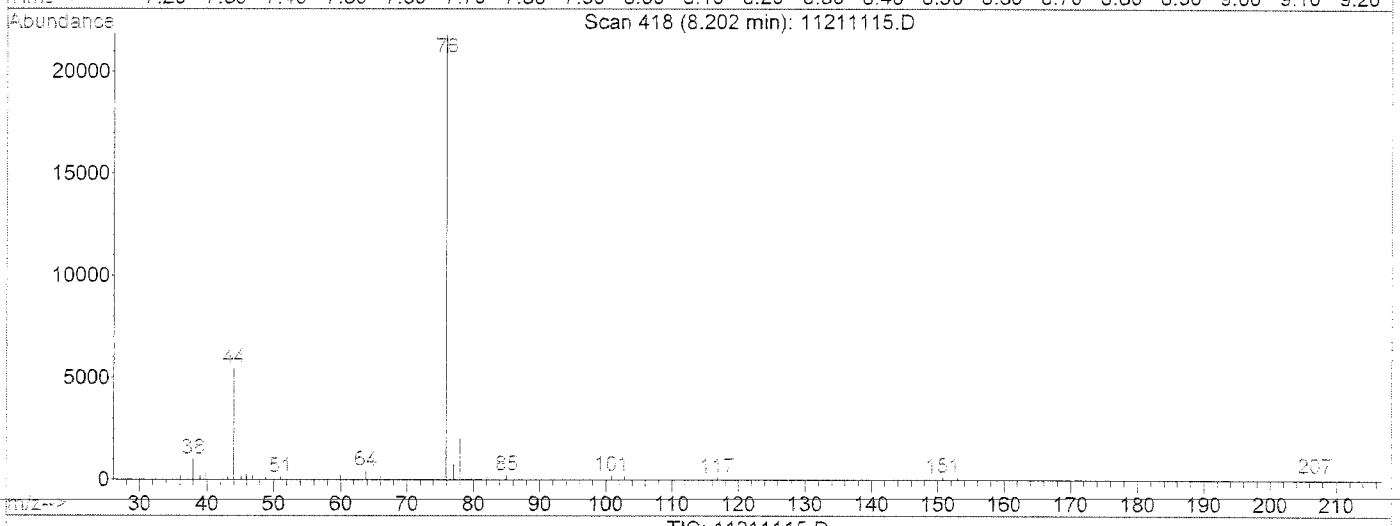
11211115.D 111911.M Tue Nov 22 10:42:54 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:43 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

11/23/11 X

(19) Carbon Disulfide (T)

8.20min 4.23ug/L

response 84564

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	20.08#
78.00	2.90	8.04#
0.00	0.00	0.00

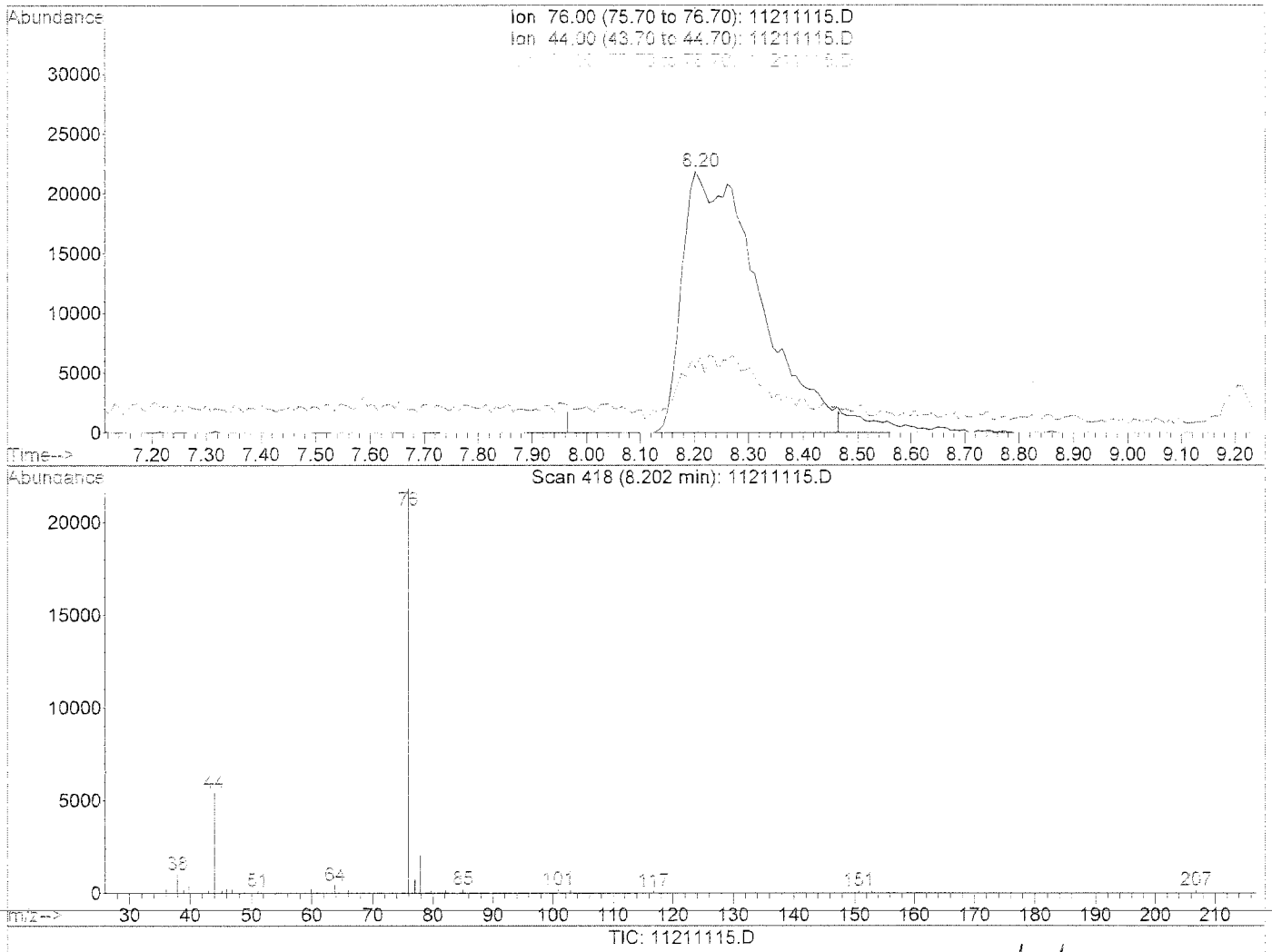
B
NIP
11/22/11

11211115.D 111911.M Tue Nov 22 10:43:21 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:43 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration



TIC: 11211115.D

11/23/11 R

(19) Carbon Disulfide (T)

8.20min 11.13ug/L m

response 222426

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	7.63
78.00	2.90	3.06
0.00	0.00	0.00

A

11/22/11

11211115.D 111911.M Tue Nov 22 10:43:35 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:43 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	50017	200.00 ug/L	-0.01
4) Pentafluorobenzene	10.70	168	296067	25.00 ug/L	-0.02
37) 1,4-Difluorobenzene	11.82	114	475247	25.00 ug/L	-0.02
52) Chlorobenzene-d5	16.15	117	413727	25.00 ug/L	-0.01
65) 1,4-Dichlorobenzene-d4	19.59	152	229393	25.00 ug/L	-0.01
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	198937	26.46 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 105.84%	
50) Toluene-d8 (surr)	14.19	98	518819	25.16 ug/L	-0.01
Spiked Amount 25.000			Recovery	= 100.64%	
64) 4-Bromofluorobenzene (surr	17.82	95	243287	26.38 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 105.52%	
Target Compounds					Qvalue
2) Ethanol	6.20	45	19179m	62.77 ug/L	
3) tert-Butanol (TBA)	7.70	59	39912	41.13 ug/L	98
5) Dichlorodifluoromethane	4.87	85	172999m	10.69 ug/L	
6) Chloromethane	5.14	50	177548	11.61 ug/L	98
7) Vinyl Chloride	5.47	62	123683	11.92 ug/L	99
8) 1,3-Butadiene	5.56	54	77569	11.24 ug/L	93
9) Bromomethane	6.02	94	90844	10.69 ug/L	98
10) Chloroethane	6.20	64	70135	10.61 ug/L	97
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	6.96	101	132922m	11.55 ug/L	
13) Acetone	7.12	43	34176	12.12 ug/L	93
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.76	142	135579	11.34 ug/L	99
16) 1,1-Dichloroethene	7.72	96	75593	10.74 ug/L	98
17) Methylene Chloride	7.87	84	94656	10.18 ug/L	96
18) Freon 113	8.02	101	79643	10.61 ug/L	99
19) Carbon Disulfide	8.20	76	222426m	11.13 ug/L	
20) trans-1,2-Dichloroethene	8.74	96	96973	11.29 ug/L	97
21) MTBE	8.87	73	118431	13.42 ug/L	100
22) 1,1-Dichloroethane	9.06	63	205267	11.59 ug/L	99
23) Vinyl Acetate	9.20	43	115927	12.14 ug/L	99
24) n-Hexane	9.56	86	15734	11.68 ug/L	97
25) 2-Butanone (MEK)	9.59	72	6240	13.65 ug/L #	79
26) Diisopropylether (DIPE)	9.59	45	360989	12.59 ug/L	99
27) cis-1,2-Dichloroethene	9.79	96	99064	11.81 ug/L	97
28) Bromochloromethane	10.00	128	46843	11.49 ug/L	99
29) Chloroform	10.06	83	203019	11.29 ug/L	100
30) 2,2-Dichloropropane	10.17	77	80846	12.60 ug/L	92
31) (ETBE) 2-Ethoxy-2-methyl p	10.11	59	126063	11.89 ug/L	99
33) Tetrahydrofuran	10.47	72	3686	9.91 ug/L #	92
34) 1,2-Dichloroethane	10.89	62	148724	11.88 ug/L	99
35) 1,1,1-Trichloroethane	11.03	97	152411	11.59 ug/L	99
36) (TAME) tert-Amyl methyl et	11.72	73	70803	11.56 ug/L	98
38) 1,1-Dichloropropene	11.25	75	121897	11.86 ug/L	99
39) Carbon Tetrachloride	11.49	117	148833	10.79 ug/L	99
40) Benzene	11.55	78	309896	10.85 ug/L	98

(#) = qualifier out of range (m) = manual integration

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:43 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

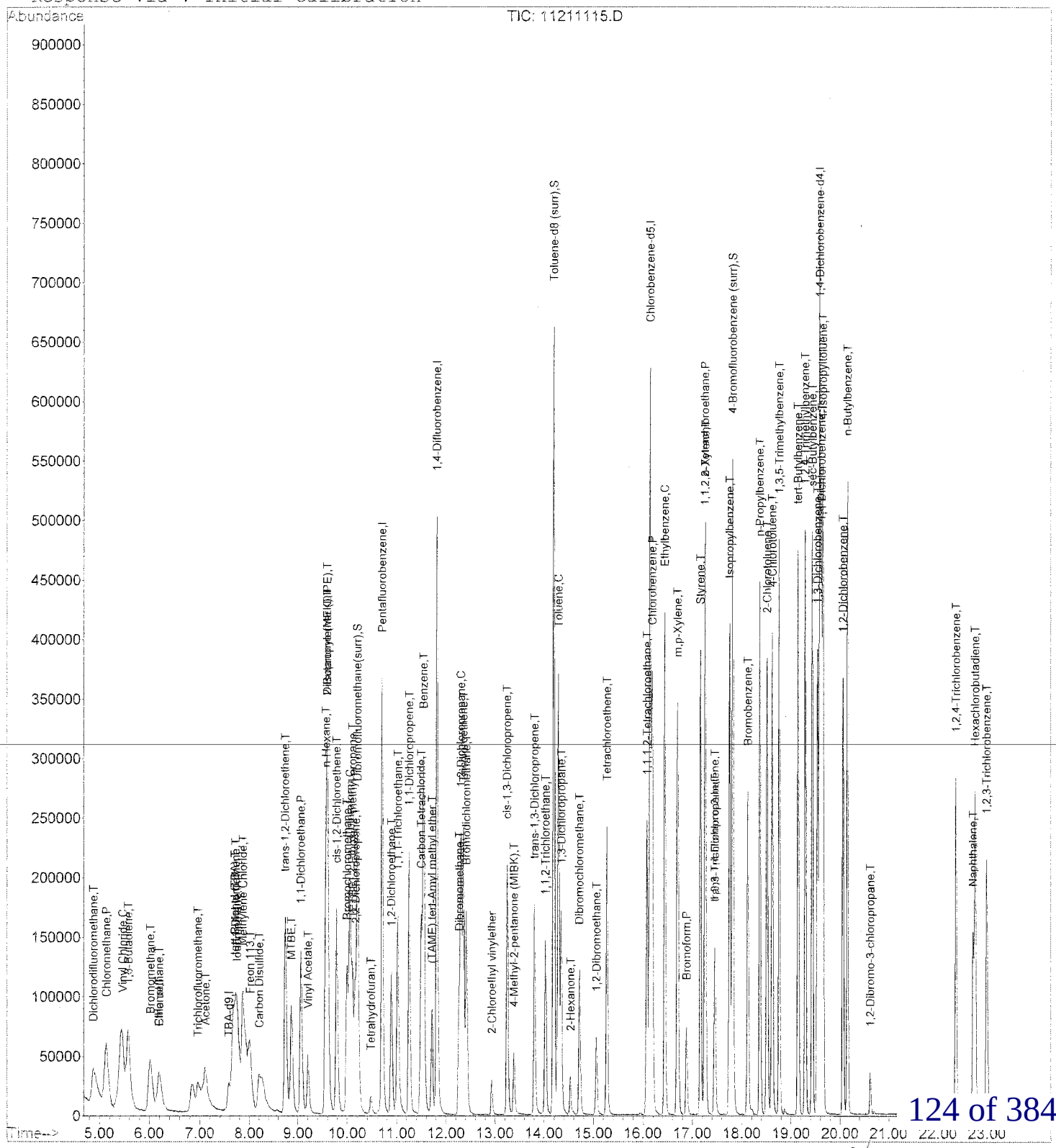
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Dibromomethane	12.26	93	50926	10.70 ug/L	98
42) 1,2-Dichloropropane	12.31	63	91433	11.42 ug/L	99
43) Trichloroethene	12.36	95	94538	11.14 ug/L	99
44) Bromodichloromethane	12.42	83	139260	11.11 ug/L	99
45) 2-Chloroethyl vinylether	12.94	63	12598	9.78 ug/L	98
46) cis-1,3-Dichloropropene	13.24	75	126128	11.13 ug/L	97
47) 4-Methyl-2-pentanone (MIBK	13.38	43	52991	11.41 ug/L	94
48) trans-1,3-Dichloropropene	13.81	75	107176	10.99 ug/L	96
49) 1,1,2-Trichloroethane	14.03	97	56367	11.06 ug/L	97
51) Toluene	14.29	92	183923	10.96 ug/L	99
53) 1,3-Dichloropropane	14.35	76	103926	10.82 ug/L	97
54) 2-Hexanone	14.53	43	31519	10.19 ug/L	100
55) Dibromochloromethane	14.72	129	83894	10.68 ug/L	98
56) 1,2-Dibromoethane	15.05	107	58406	10.91 ug/L	97
57) Tetrachloroethene	15.27	164	65761	10.57 ug/L	99
58) 1,1,1,2-Tetrachloroethane	16.08	131	83310	10.08 ug/L	97
59) Chlorobenzene	16.19	112	219797	9.96 ug/L	97
60) Ethylbenzene	16.44	91	357392	11.09 ug/L	99
61) m,p-Xylene	16.71	106	136348	11.12 ug/L	98
62) Styrene	17.16	104	214395	10.91 ug/L	99
63) o-Xylene	17.26	106	136830	11.21 ug/L	97
66) Bromoform	16.88	173	42785	10.13 ug/L	99
67) 1,1,2,2-Tetrachloroethane	17.24	83	58304	9.83 ug/L	98
68) 1,2,3-Trichloropropane	17.45	110	18126	9.79 ug/L	99
69) trans-1,4-Dichloro-2-buten	17.46	53	24145	10.72 ug/L	96
70) Isopropylbenzene	17.76	105	334680	10.24 ug/L	98
71) Bromobenzene	18.12	156	89480	10.40 ug/L	98
72) n-Propylbenzene	18.37	91	419102	10.67 ug/L	99
73) 2-Chlorotoluene	18.52	91	277503	10.29 ug/L	99
74) 4-Chlorotoluene	18.62	91	290282	10.53 ug/L	98
75) 1,3,5-Trimethylbenzene	18.76	105	325606	10.48 ug/L	99
76) tert-Butylbenzene	19.14	119	263318	10.26 ug/L	100
77) 1,2,4-Trimethylbenzene	19.29	105	333690	10.42 ug/L	99
78) sec-Butylbenzene	19.43	105	391783	10.53 ug/L	99
79) 1,3-Dichlorobenzene	19.54	146	175458	9.64 ug/L	99
80) 1,4-Dichlorobenzene	19.62	146	177574	9.58 ug/L	99
81) 4-Isopropyltoluene	19.65	119	343296	10.07 ug/L	99
82) 1,2-Dichlorobenzene	20.06	146	157562	10.12 ug/L	99
83) n-Butylbenzene	20.15	91	318425	10.56 ug/L	99
84) 1,2-Dibromo-3-chloropropan	20.62	75	10665	10.07 ug/L	95
85) 1,2,4-Trichlorobenzene	22.36	180	110567	9.61 ug/L	99
86) Naphthalene	22.71	128	143293	10.12 ug/L	99
87) Hexachlorobutadiene	22.76	225	76799	9.77 ug/L	98
88) 1,2,3-Trichlorobenzene	22.99	180	91443	10.55 ug/L	99

(#) = qualifier out of range (m) = manual integration
11211115.D 111911.M Tue Nov 22 10:44:59 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:43 2011 Quant Results File: 111911.RES

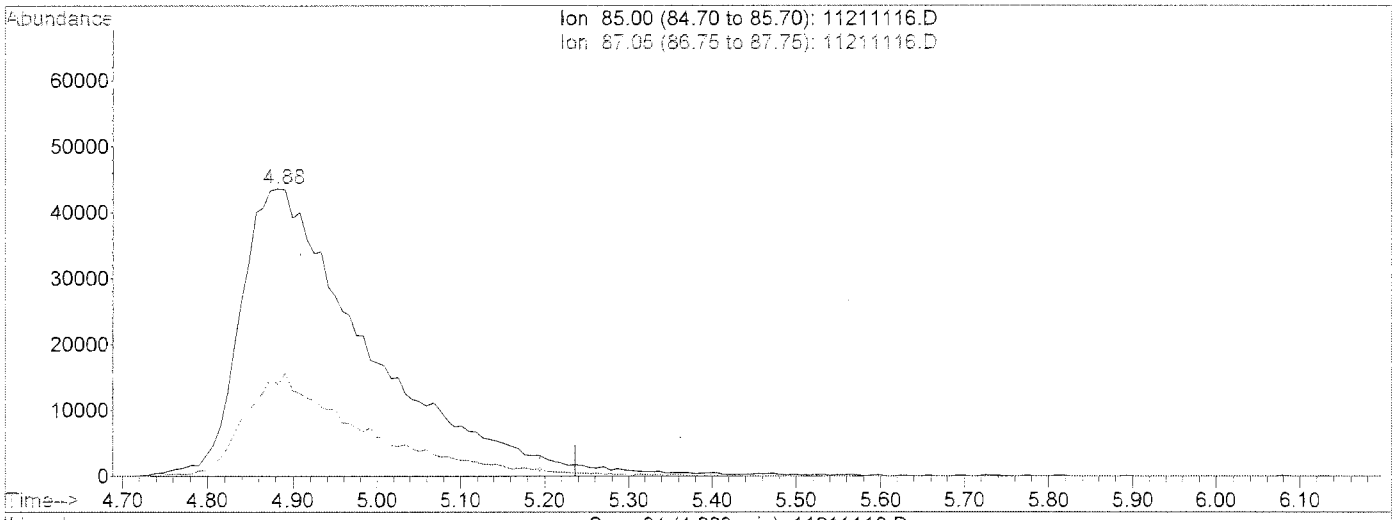
Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration

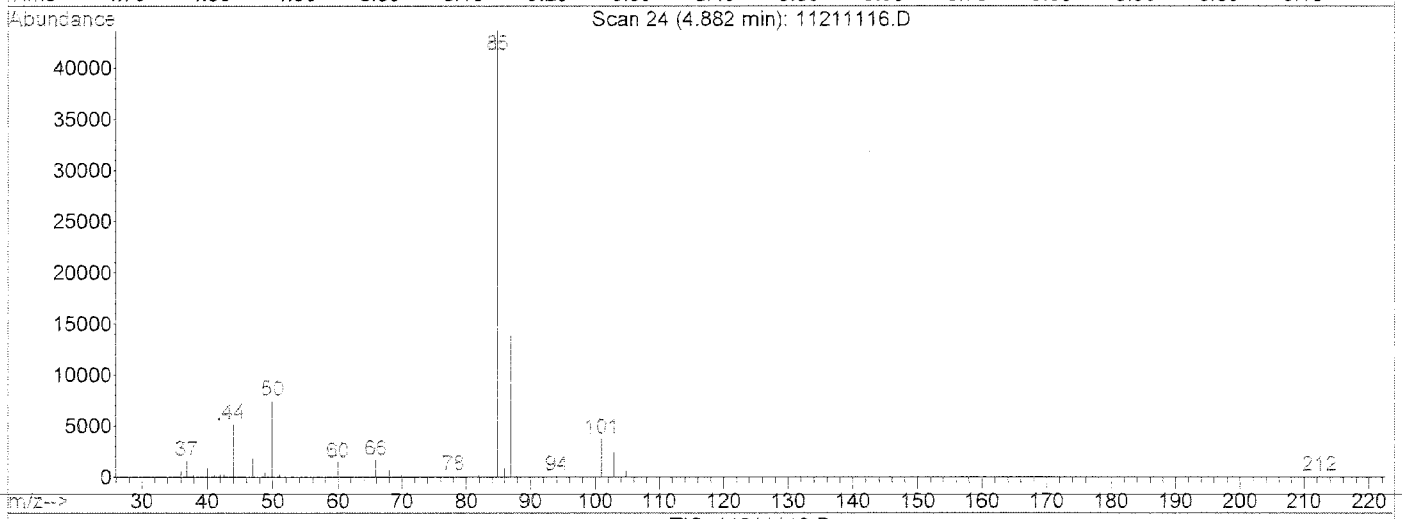


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:45 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211116.D

(5) Dichlorodifluoromethane (T)

4.88min 27.02ug/L

response 446433

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	33.05
0.00	0.00	0.00
0.00	0.00	0.00

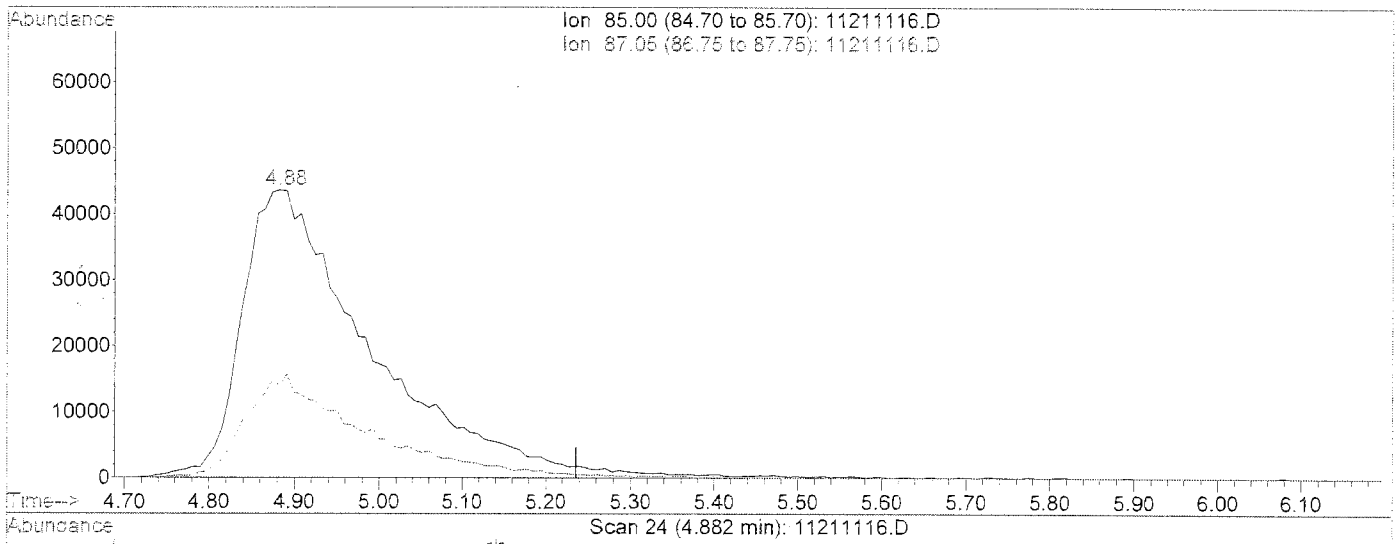
11/23/11R
B
NIP
11/22/11

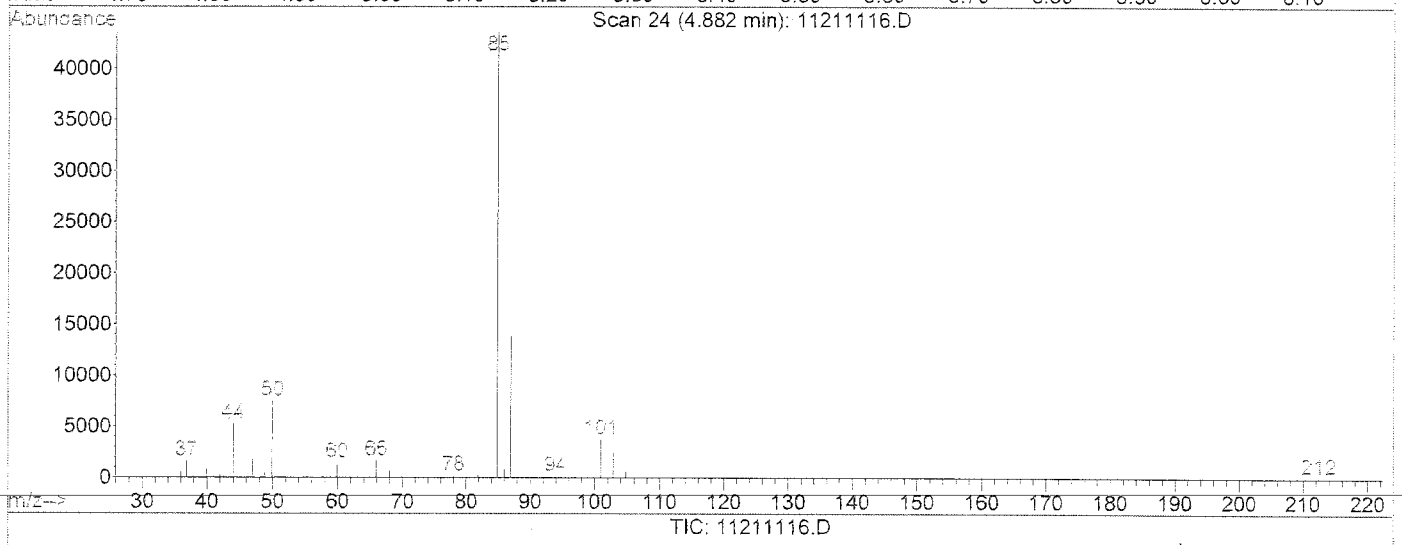
11211116.D 111911.M Tue Nov 22 10:45:13 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:45 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211116.D

(5) Dichlorodifluoromethane (T)

4.88min 27.99ug/L m

response 462397

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	31.91
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

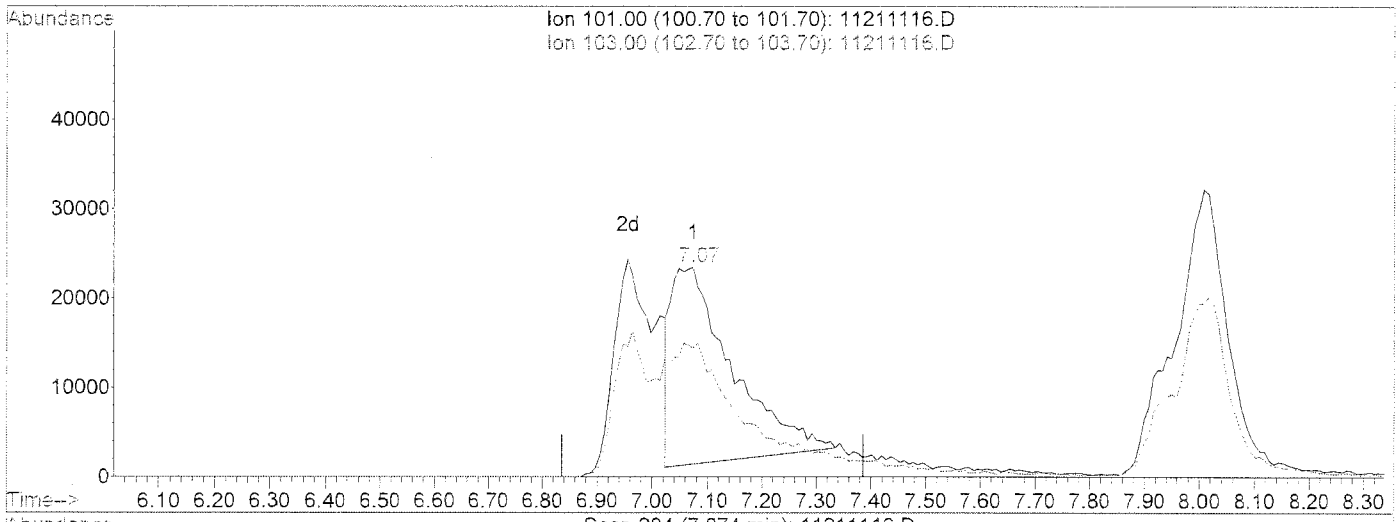
A 11/22/11

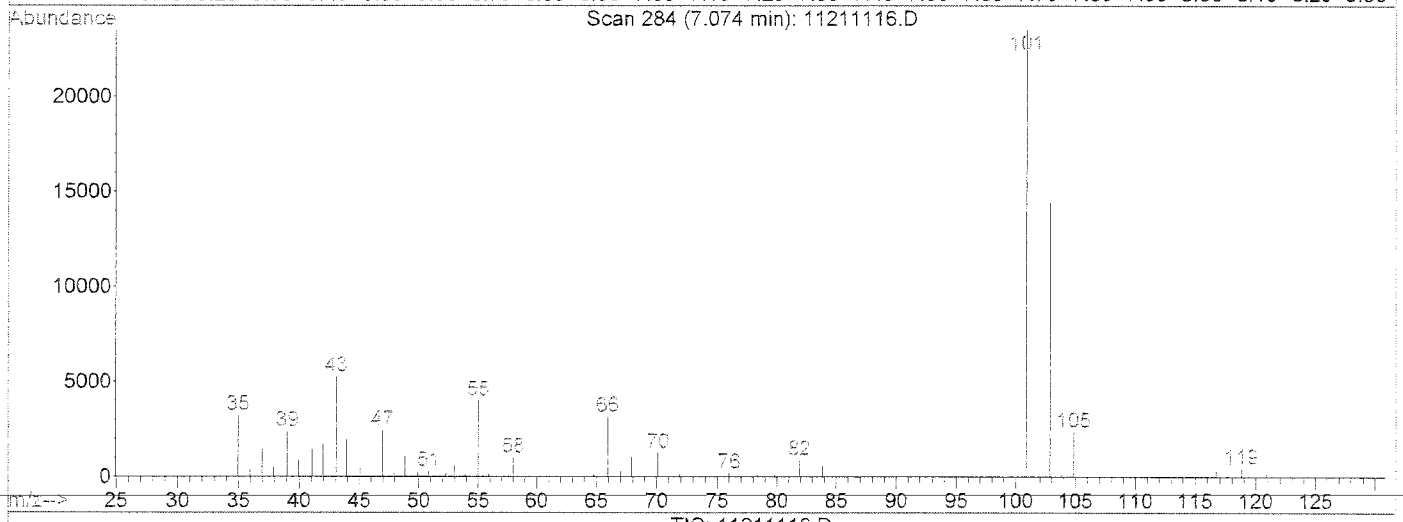
11211116.D 111911.M Tue Nov 22 10:45:35 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:45 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211116.D

11/23/11

(12) Trichlorofluoromethane (T)

7.07min 14.56ug/L

response 171185

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	60.56
0.00	0.00	0.00
0.00	0.00	0.00

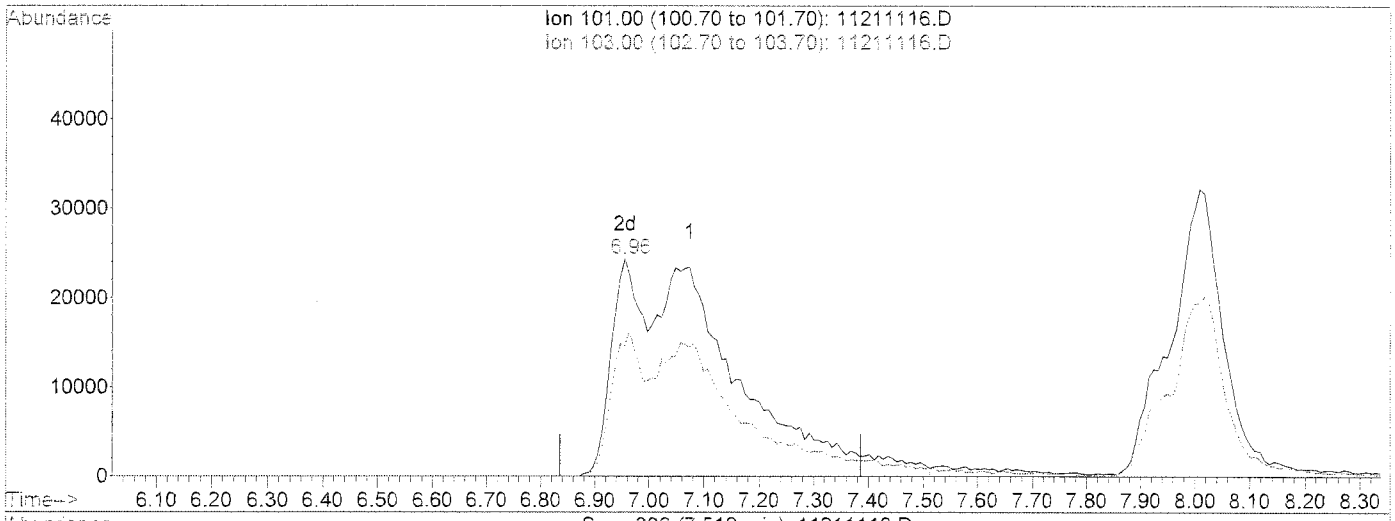
B
NIP
11/22/11

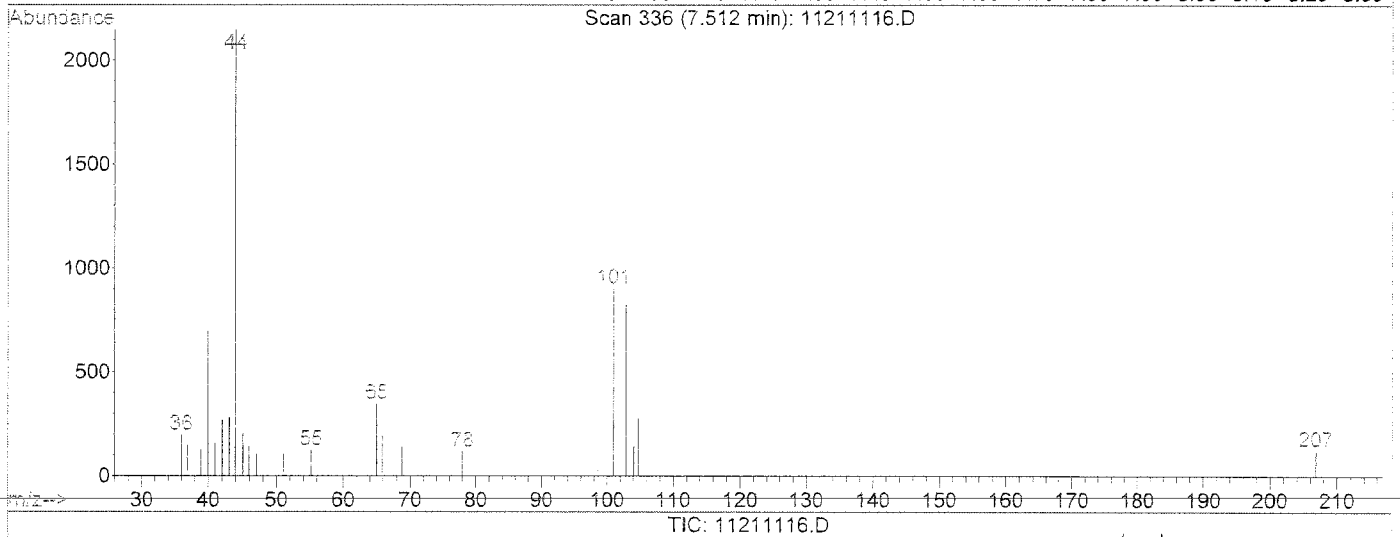
11211116.D 111911.M Tue Nov 22 10:45:48 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:46 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211116.D

11/23/11

(12) Trichlorofluoromethane (T)

6.96min 30.45ug/L m

response 357960

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	60.05
0.00	0.00	0.00
0.00	0.00	0.00

A

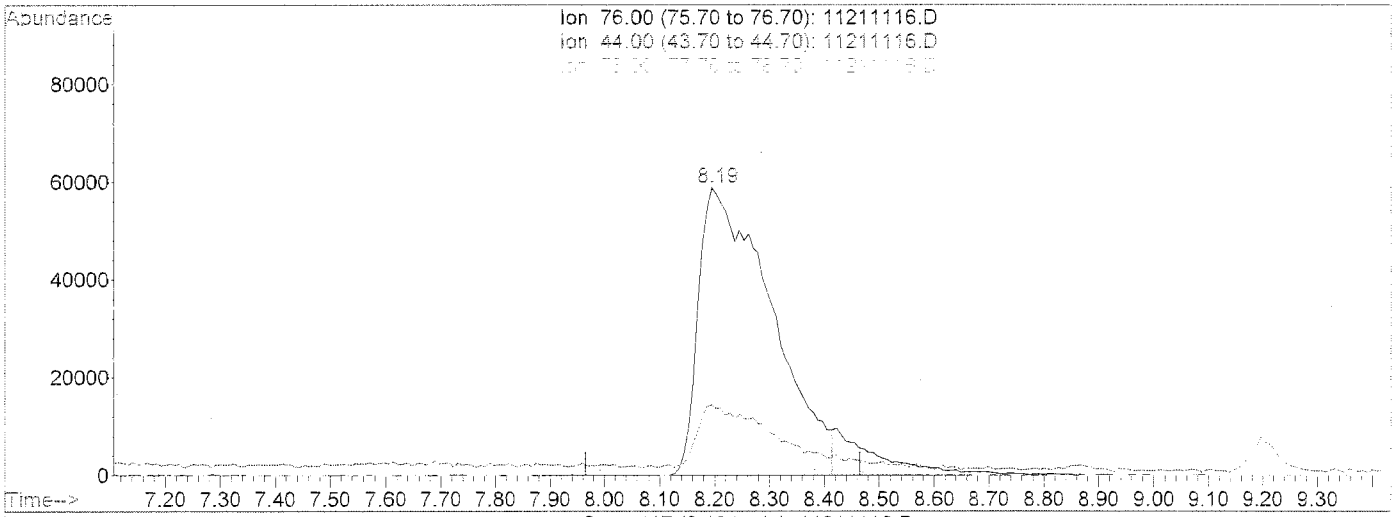
11/22/11

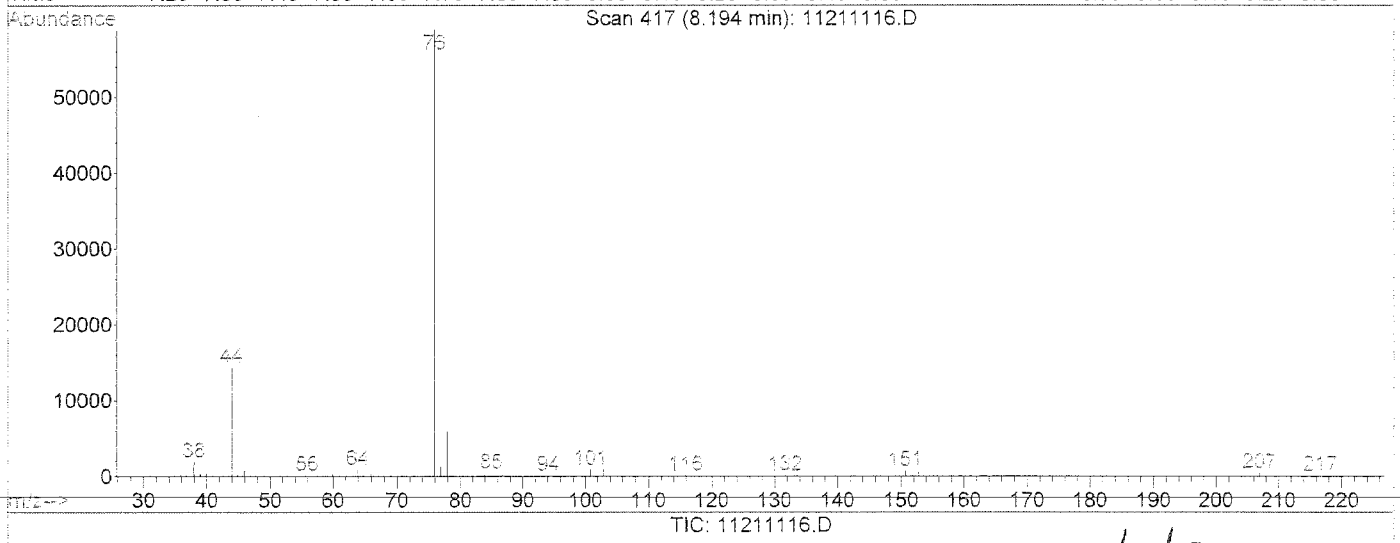
11211116.D 111911.M Tue Nov 22 10:46:11 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:46 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





11/23/11

(19) Carbon Disulfide (T)

8.19min 26.59ug/L

response 542675

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	21.40#
78.00	2.90	4.32#
0.00	0.00	0.00

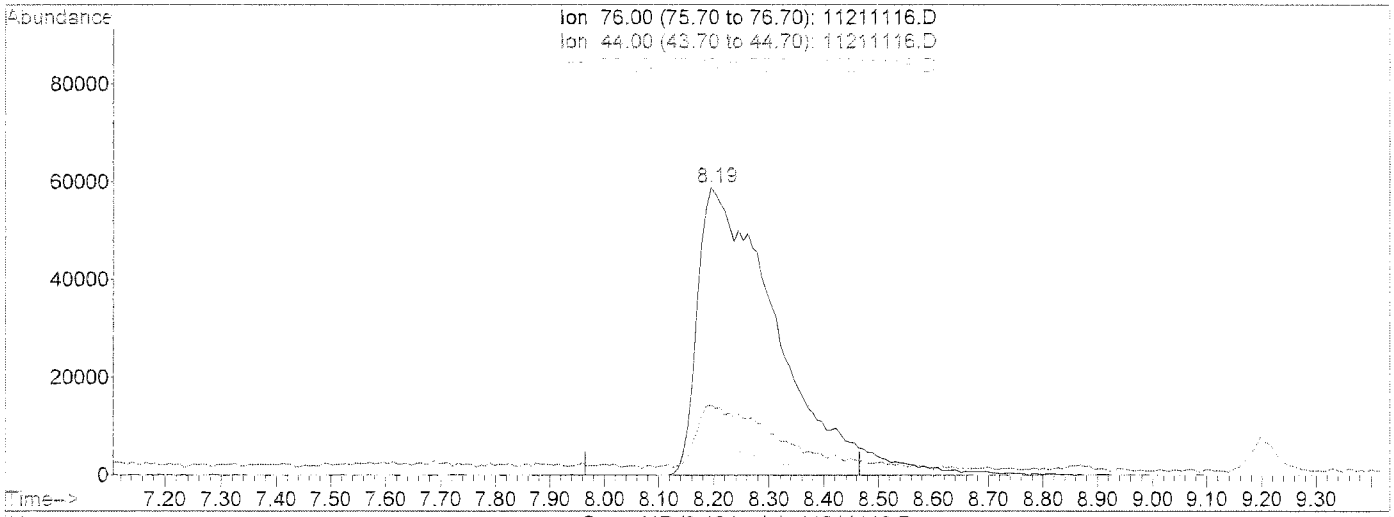
B
NIP
11/22/11

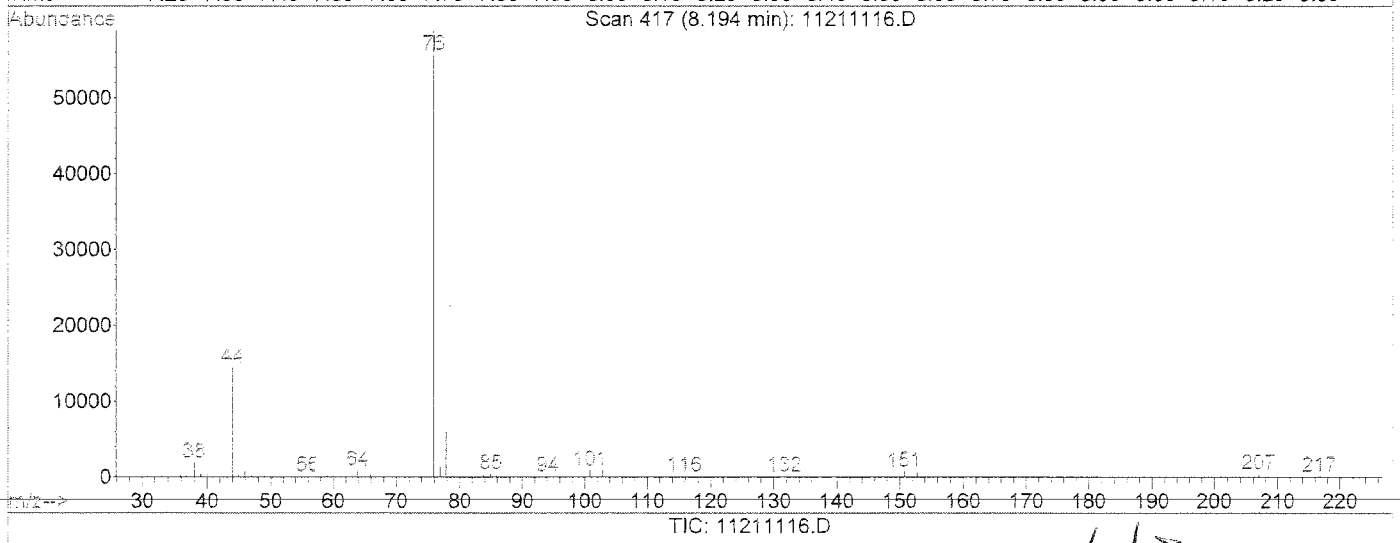
11211116.D 111911.M Tue Nov 22 10:46:22 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:46 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





11/23/11

(19) Carbon Disulfide (T)

8.19min 29.19ug/L m

response 595721

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	19.49#
78.00	2.90	3.93#
0.00	0.00	0.00

A

11/22/11

11211116.D 111911.M Tue Nov 22 10:46:35 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:46 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	48124	200.00 ug/L	-0.01
4) Pentafluorobenzene	10.70	168	302344	25.00 ug/L	-0.02
37) 1,4-Difluorobenzene	11.82	114	483112	25.00 ug/L	-0.02
52) Chlorobenzene-d5	16.14	117	429428	25.00 ug/L	-0.02
65) 1,4-Dichlorobenzene-d4	19.59	152	231815	25.00 ug/L	-0.01
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	194275	25.30 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 101.20%	
50) Toluene-d8 (surr)	14.19	98	534748	25.51 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 102.04%	
64) 4-Bromofluorobenzene (surr	17.82	95	247406	25.85 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 103.40%	
Target Compounds					Qvalue
2) Ethanol	6.17	45	53663	194.44 ug/L #	71
3) tert-Butanol (TBA)	7.70	59	94420	101.14 ug/L	99
5) Dichlorodifluoromethane	4.88	85	462397m	27.99 ug/L	
6) Chloromethane	5.14	50	398891	25.55 ug/L	98
7) Vinyl Chloride	5.48	62	308330	29.74 ug/L	98
8) 1,3-Butadiene	5.57	54	191415	27.17 ug/L	99
9) Bromomethane	6.03	94	225200	25.95 ug/L	99
10) Chloroethane	6.21	64	179206	26.56 ug/L	98
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	6.96	101	357960m	30.45 ug/L	
13) Acetone	7.11	43	75838	29.84 ug/L	98
14) Acrylonitrile	7.65	53	19162	No Calib	
15) Iodomethane	7.79	142	348368	28.54 ug/L	99
16) 1,1-Dichloroethene	7.72	96	197982	27.53 ug/L	100
17) Methylene Chloride	7.86	84	233736	24.61 ug/L	99
18) Freon 113	8.01	101	213148	27.80 ug/L	98
19) Carbon Disulfide	8.19	76	595721m	29.19 ug/L	
20) trans-1,2-Dichloroethene	8.73	96	252504	28.79 ug/L	100
21) MTBE	8.87	73	297444	33.01 ug/L	99
22) 1,1-Dichloroethane	9.05	63	508418	28.10 ug/L	99
23) Vinyl Acetate	9.21	43	316311	29.23 ug/L	99
24) n-Hexane	9.55	86	45073	32.76 ug/L	96
25) 2-Butanone (MEK)	9.59	72	14583	31.24 ug/L #	98
26) Diisopropylether (DIPE)	9.59	45	878603	30.00 ug/L	100
27) cis-1,2-Dichloroethene	9.79	96	253322	29.58 ug/L	98
28) Bromochloromethane	10.00	128	113750	27.32 ug/L	98
29) Chloroform	10.05	83	497742	27.10 ug/L	99
30) 2,2-Dichloropropane	10.16	77	206041	31.45 ug/L #	59
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	324773	29.30 ug/L #	85
33) Tetrahydrofuran	10.47	72	11119	29.28 ug/L #	80
34) 1,2-Dichloroethane	10.88	62	360773	28.21 ug/L	99
35) 1,1,1-Trichloroethane	11.02	97	400591	29.83 ug/L	99
36) (TAME) tert-Amyl methyl et	11.71	73	183519	28.54 ug/L	99
38) 1,1-Dichloropropene	11.25	75	336359	32.20 ug/L	98
39) Carbon Tetrachloride	11.49	117	392235	27.96 ug/L	98
40) Benzene	11.54	78	800239	27.57 ug/L	99

(#) = qualifier out of range (m) = manual integration
11211116.D 111911.M Tue Nov 22 10:47:10 2011

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:46 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

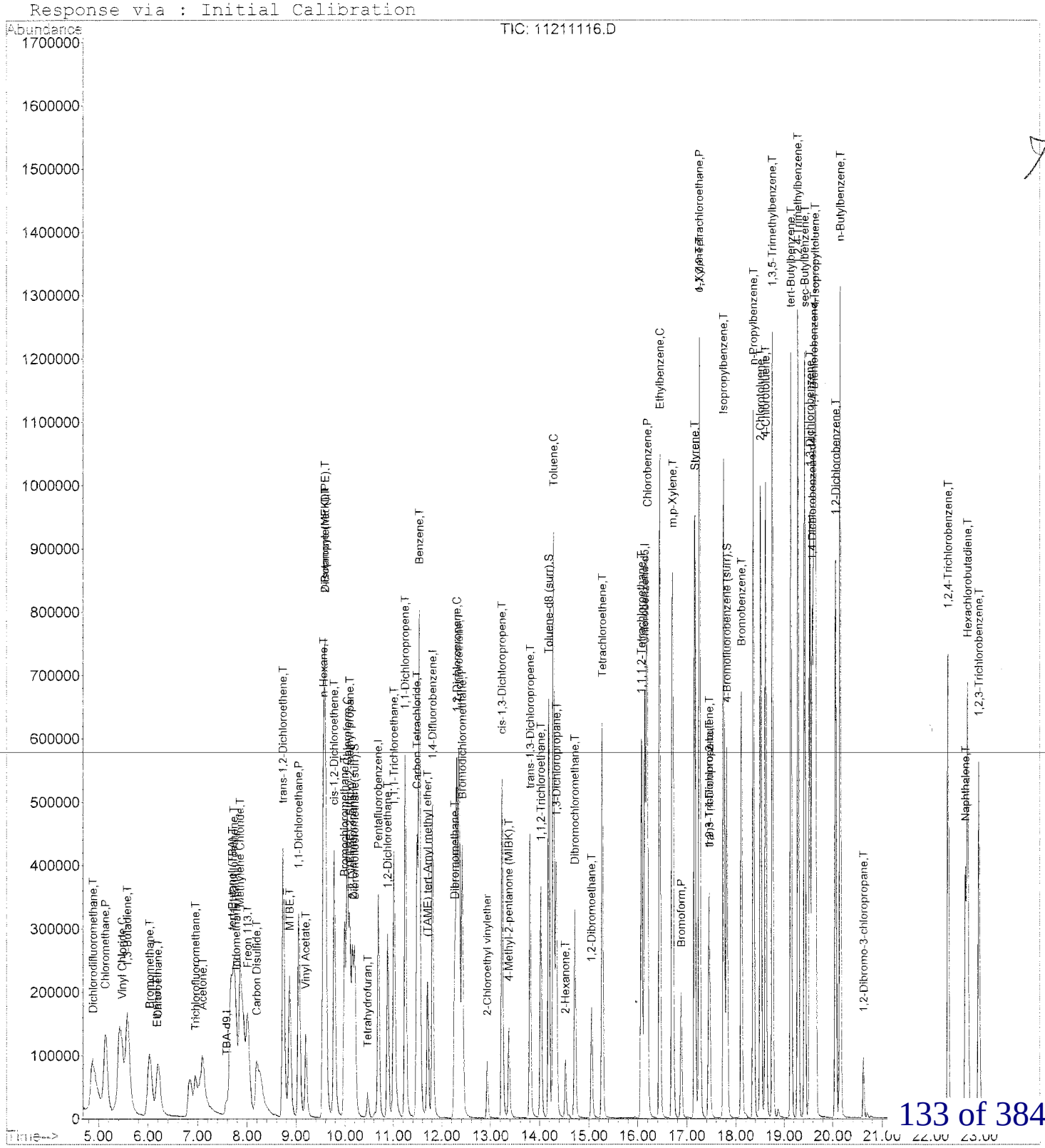
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Dibromomethane	12.26	93	128218	26.51 ug/L	99
42) 1,2-Dichloropropane	12.31	63	224233	27.55 ug/L	99
43) Trichloroethene	12.35	95	240729	27.91 ug/L	99
44) Bromodichloromethane	12.42	83	348747	27.38 ug/L	98
45) 2-Chloroethyl vinylether	12.93	63	41688	26.62 ug/L	100
46) cis-1,3-Dichloropropene	13.24	75	331777	28.31 ug/L	98
47) 4-Methyl-2-pentanone (MIBK	13.38	43	137180	28.00 ug/L	98
48) trans-1,3-Dichloropropene	13.81	75	285295	28.24 ug/L	98
49) 1,1,2-Trichloroethane	14.03	97	138242	26.69 ug/L	99
51) Toluene	14.29	92	468965	27.48 ug/L	99
53) 1,3-Dichloropropane	14.34	76	252858	25.37 ug/L	99
54) 2-Hexanone	14.52	43	87275	25.68 ug/L	97
55) Dibromochloromethane	14.72	129	212455	26.05 ug/L	100
56) 1,2-Dibromoethane	15.05	107	148687	26.76 ug/L	98
57) Tetrachloroethene	15.27	164	173503	26.86 ug/L	99
58) 1,1,1,2-Tetrachloroethane	16.08	131	216889	25.28 ug/L	99
59) Chlorobenzene	16.19	112	569855	24.88 ug/L	99
60) Ethylbenzene	16.44	91	928292	27.75 ug/L	100
61) m,p-Xylene	16.71	106	355011	27.90 ug/L	98
62) Styrene	17.16	104	554812	26.85 ug/L	99
63) o-Xylene	17.26	106	348205	27.52 ug/L	99
66) Bromoform	16.88	173	114077	26.73 ug/L	96
67) 1,1,2,2-Tetrachloroethane	17.25	83	141596	24.48 ug/L	98
68) 1,2,3-Trichloropropane	17.45	110	43875	23.45 ug/L	99
69) trans-1,4-Dichloro-2-buten	17.46	53	61313	26.94 ug/L	99
70) Isopropylbenzene	17.76	105	879686	26.28 ug/L	98
71) Bromobenzene	18.12	156	224800	25.86 ug/L	99
72) n-Propylbenzene	18.37	91	1089998	27.46 ug/L	99
73) 2-Chlorotoluene	18.51	91	705252	25.89 ug/L	100
74) 4-Chlorotoluene	18.62	91	728766	26.15 ug/L	99
75) 1,3,5-Trimethylbenzene	18.76	105	828969	26.28 ug/L	99
76) tert-Butylbenzene	19.14	119	675949	25.74 ug/L	98
77) 1,2,4-Trimethylbenzene	19.28	105	850189	26.17 ug/L	99
78) sec-Butylbenzene	19.43	105	1005884	26.76 ug/L	100
79) 1,3-Dichlorobenzene	19.54	146	445409	24.22 ug/L	99
80) 1,4-Dichlorobenzene	19.62	146	433015	23.11 ug/L	99
81) 4-Isopropyltoluene	19.65	119	891950	25.89 ug/L	99
82) 1,2-Dichlorobenzene	20.06	146	397383	25.25 ug/L	99
83) n-Butylbenzene	20.15	91	819599	26.89 ug/L	99
84) 1,2-Dibromo-3-chloropropan	20.62	75	26839	25.08 ug/L	94
85) 1,2,4-Trichlorobenzene	22.36	180	303093	25.36 ug/L	100
86) Naphthalene	22.71	128	388434	25.35 ug/L	100
87) Hexachlorobutadiene	22.76	225	204648	25.76 ug/L	98
88) 1,2,3-Trichlorobenzene	22.98	180	242633	27.70 ug/L	99

(#) = qualifier out of range (m) = manual integration
11211116.D 111911.M Tue Nov 22 10:47:10 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:46 2011 Quant Results File: 111911.RES

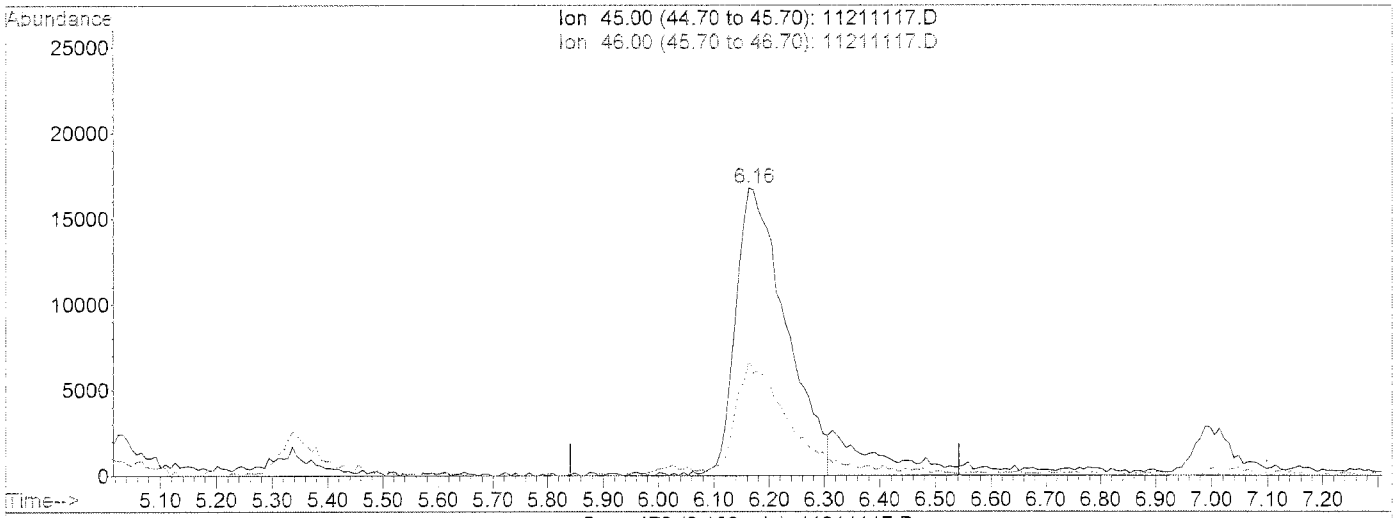
Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration

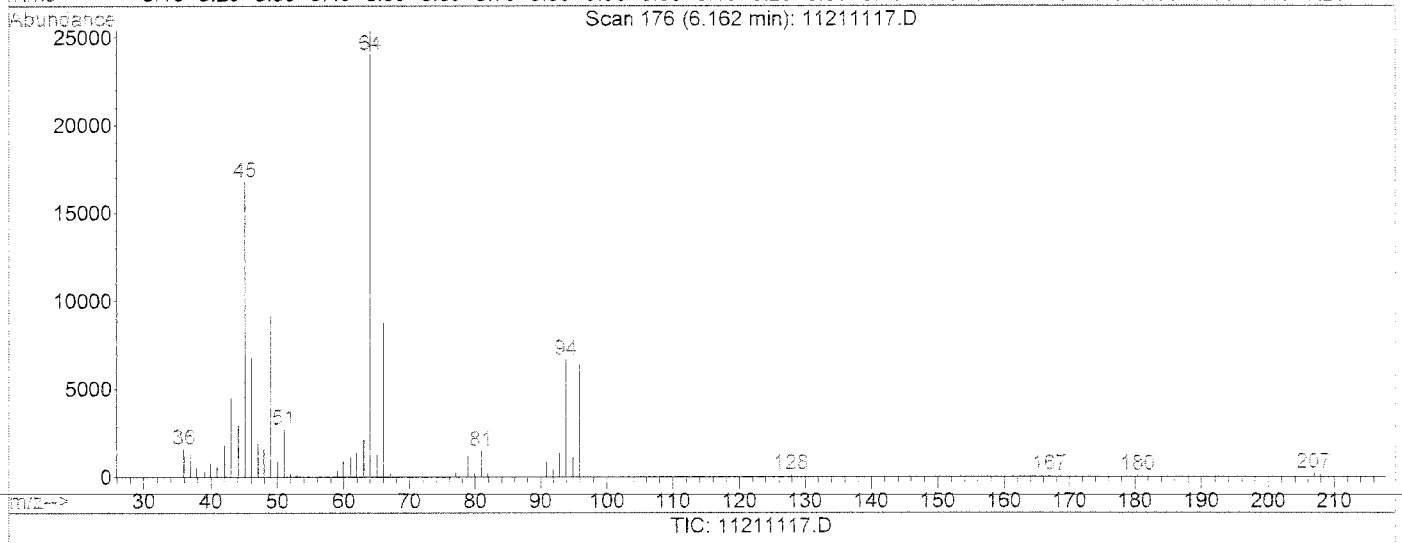


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:48 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

11/23/11

(2) Ethanol (T)

6.16min 352.57ug/L

response 106718

Ion	Exp%	Act%
45.00	100	100
46.00	21.40	39.10#
0.00	0.00	0.00
0.00	0.00	0.00

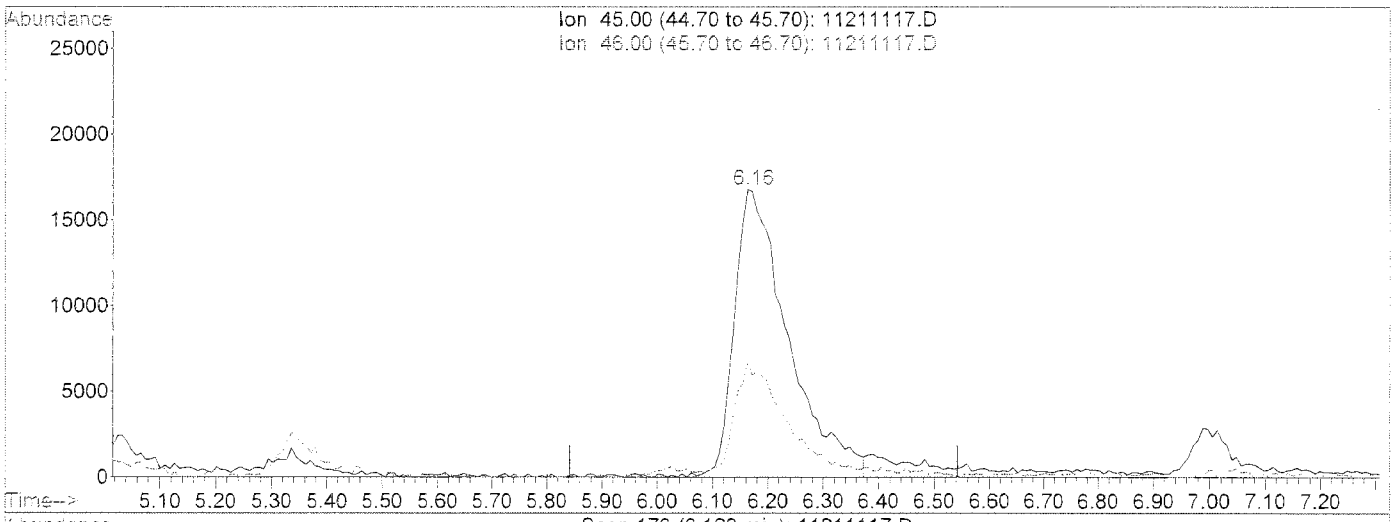
B
MP
11/22/11

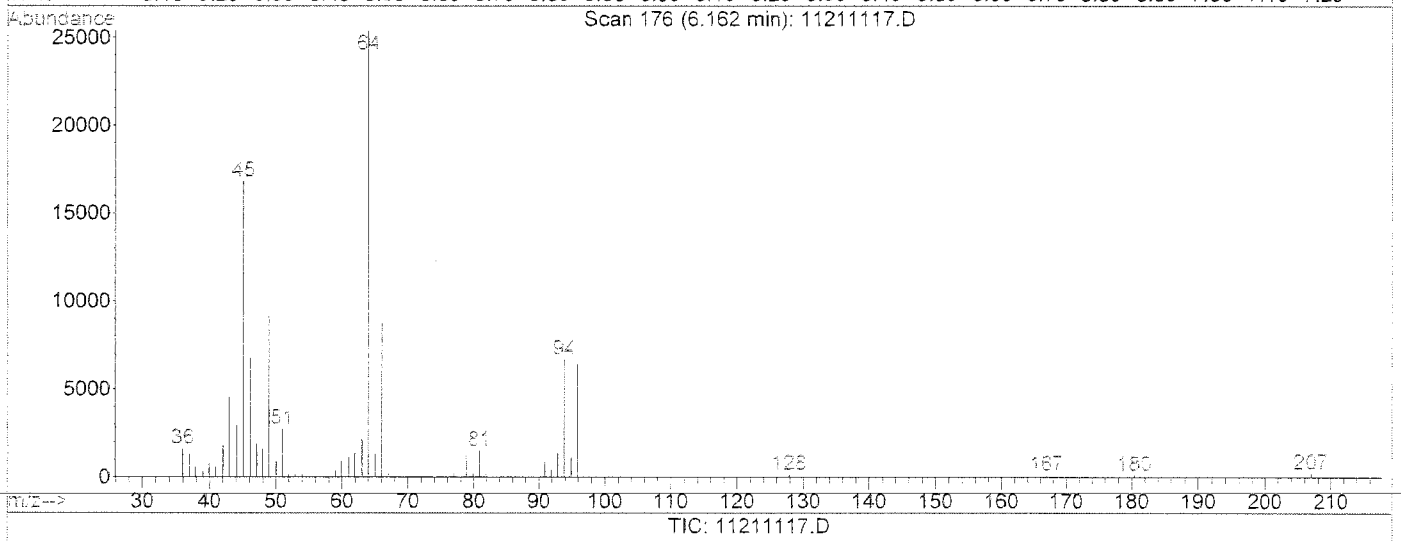
11211117.D 111911.M Tue Nov 22 10:53:50 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:54 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

11/23/11

(2) Ethanol (T)

6.16min 379.34ug/L m

response 113596

Ion	Exp%	Act%
45.00	100	100
46.00	21.40	36.73#
0.00	0.00	0.00
0.00	0.00	0.00

A

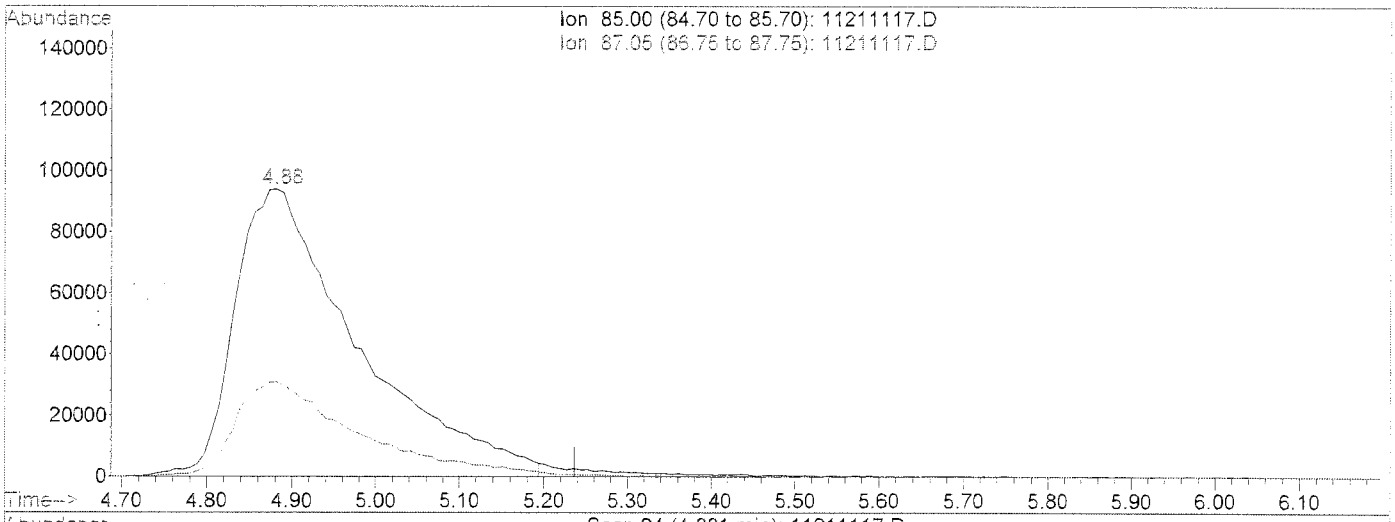
11211117.D 111911.M Tue Nov 22 10:54:45 2011

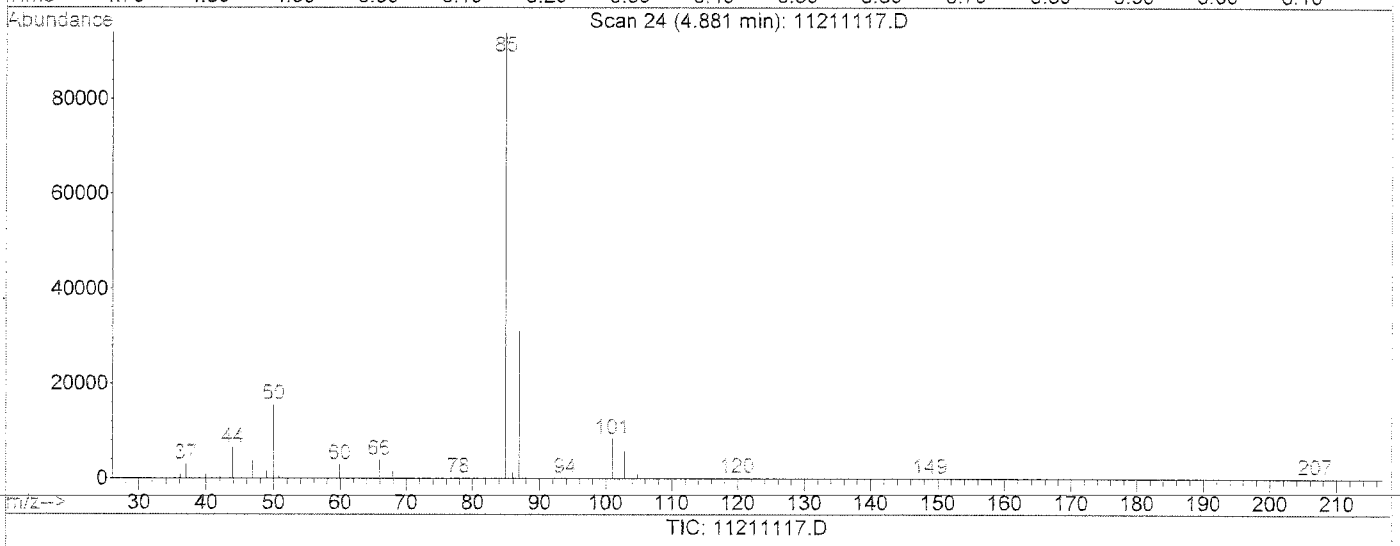
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:47 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

(5) Dichlorodifluoromethane (T)

4.88min 52.77ug/L

response 946768

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	32.74
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

B
NP

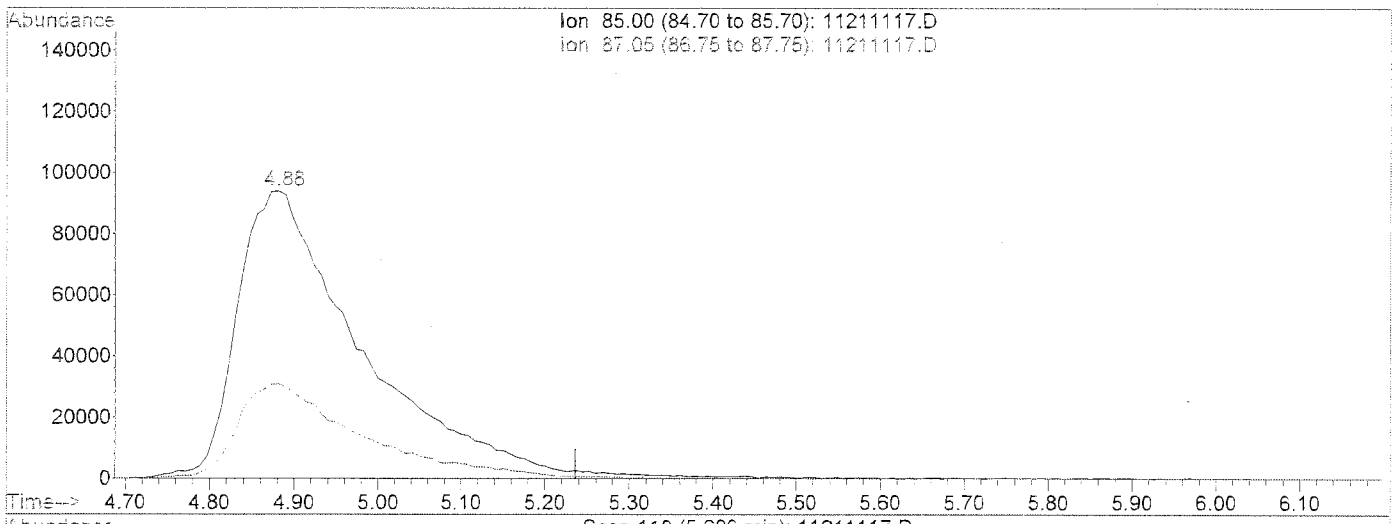
11/22/11

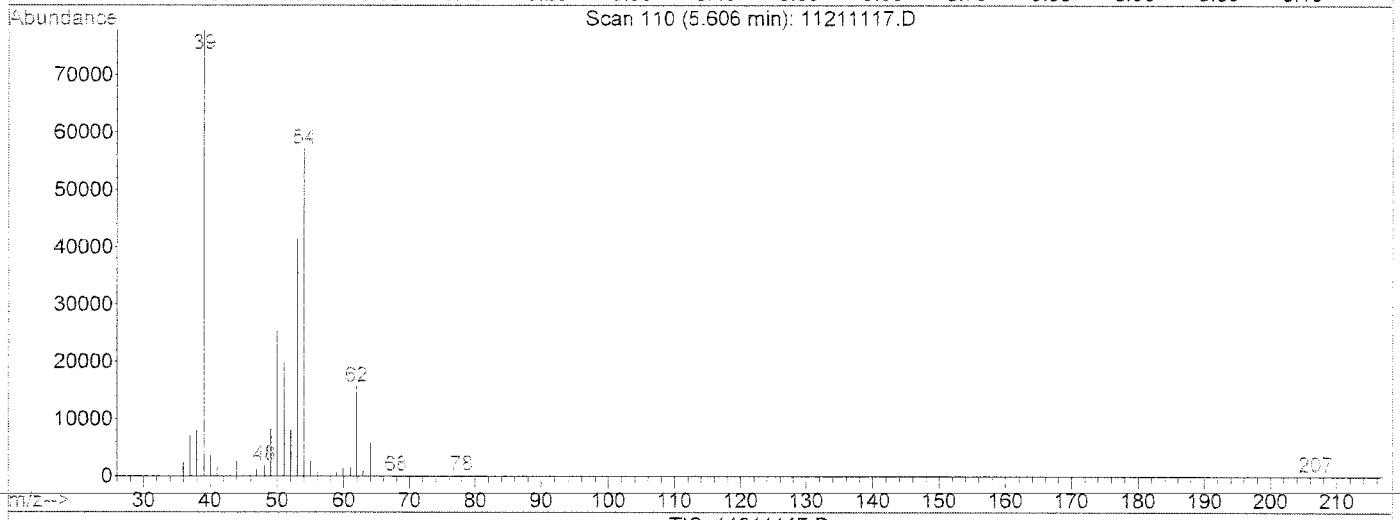
11211117.D 111911.M Tue Nov 22 10:47:28 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:47 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.88min 54.15ug/L m

response 971536

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	31.90
0.00	0.00	0.00
0.00	0.00	0.00

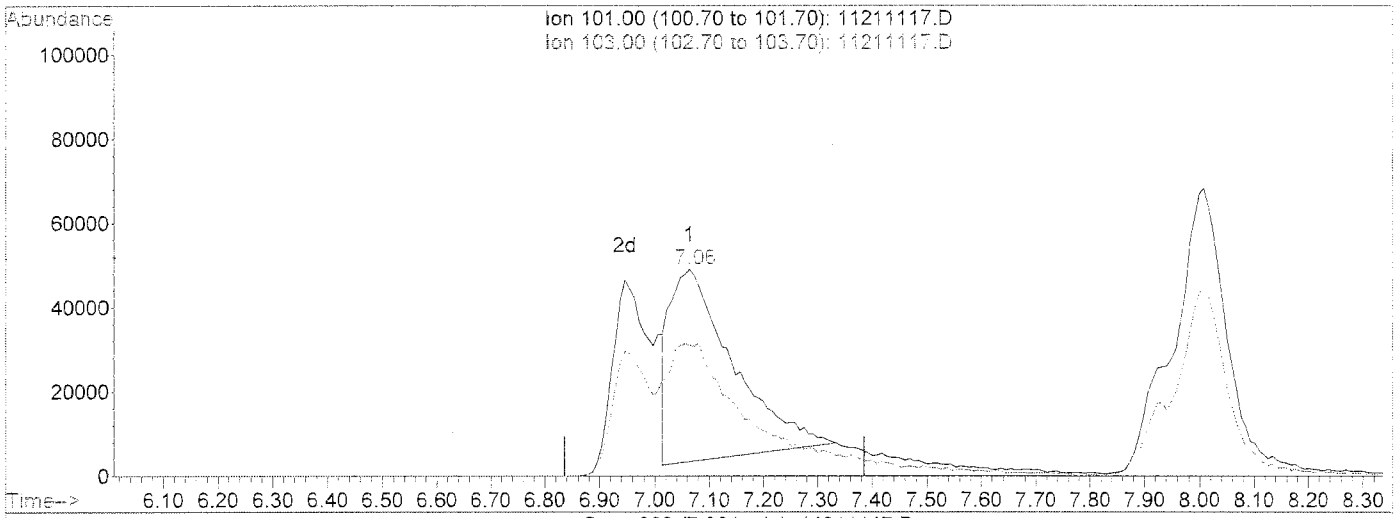
11/22/11

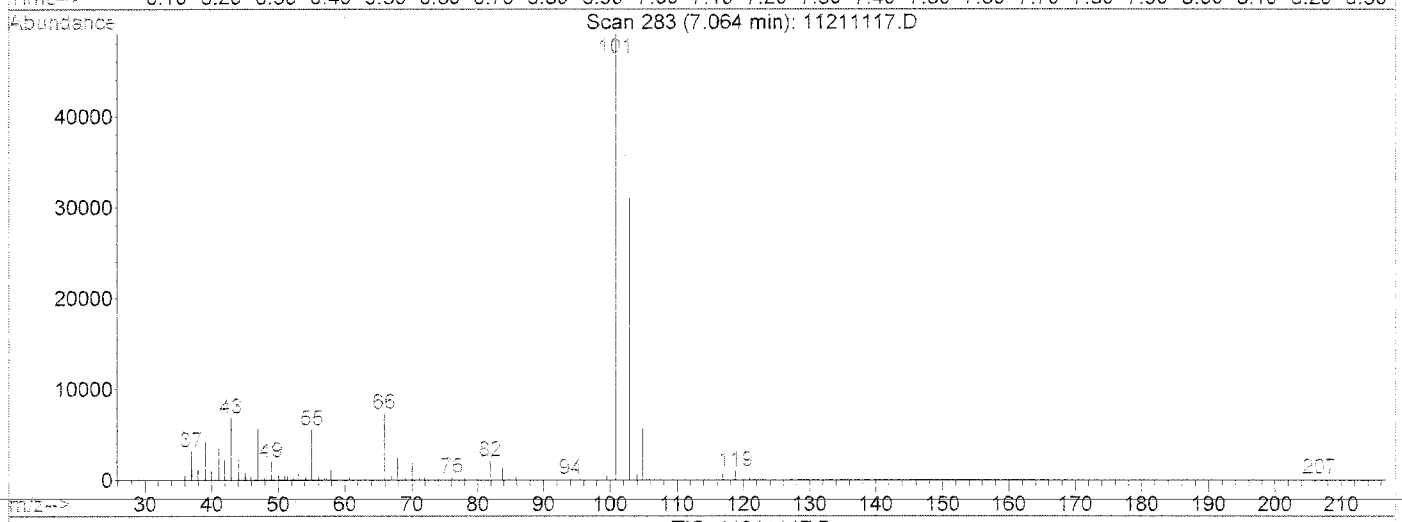
11211117.D 111911.M Tue Nov 22 10:47:44 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:47 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

11/23/11

(12) Trichlorofluoromethane (T)

7.06min 28.93ug/L

response 369350

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	63.55
0.00	0.00	0.00
0.00	0.00	0.00

B

NP

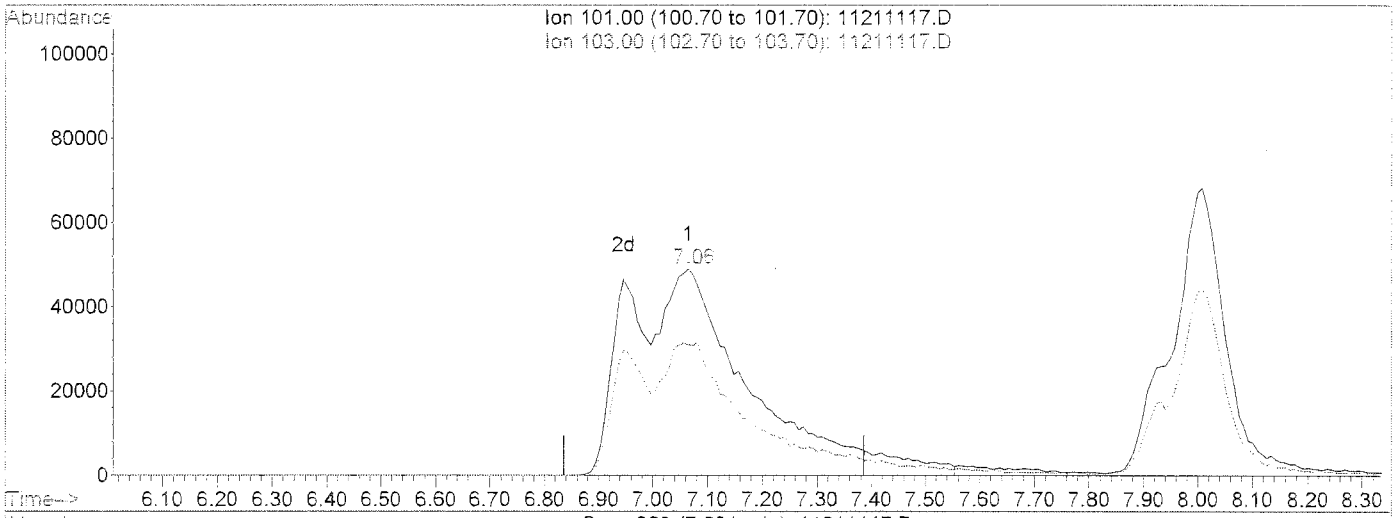
11/22/11

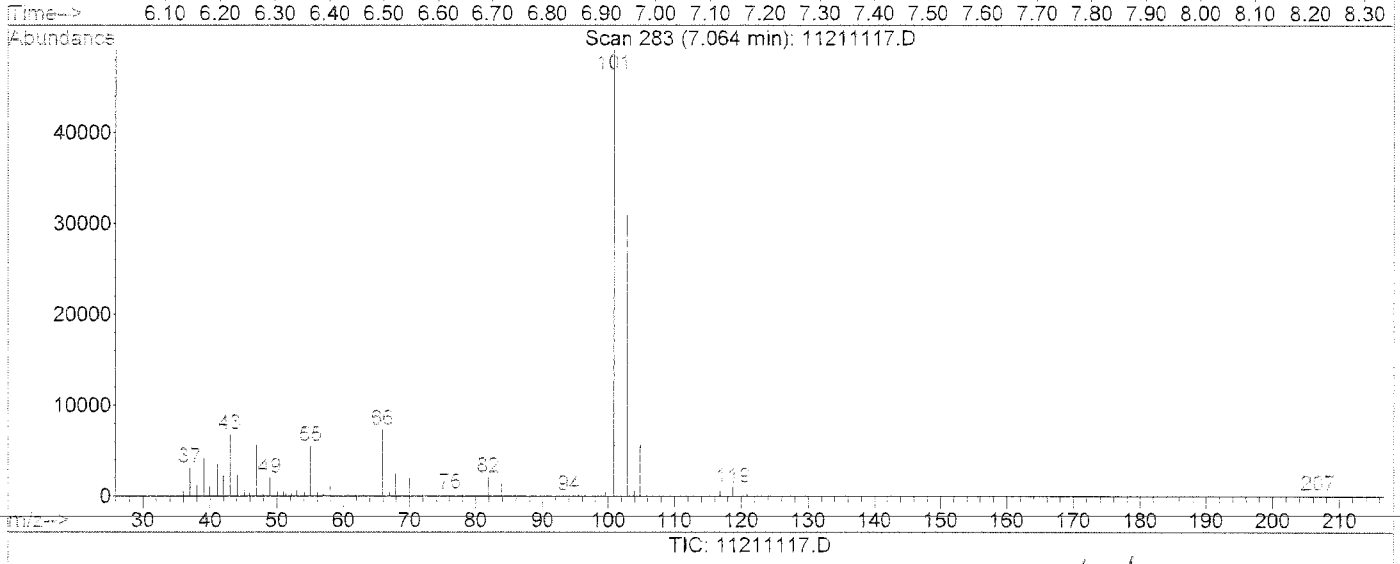
11211117.D 111911.M Tue Nov 22 10:47:53 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:48 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

11/23/11

(12) Trichlorofluoromethane (T)

7.06min 59.53ug/L m

response 759915

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	63.07
0.00	0.00	0.00
0.00	0.00	0.00

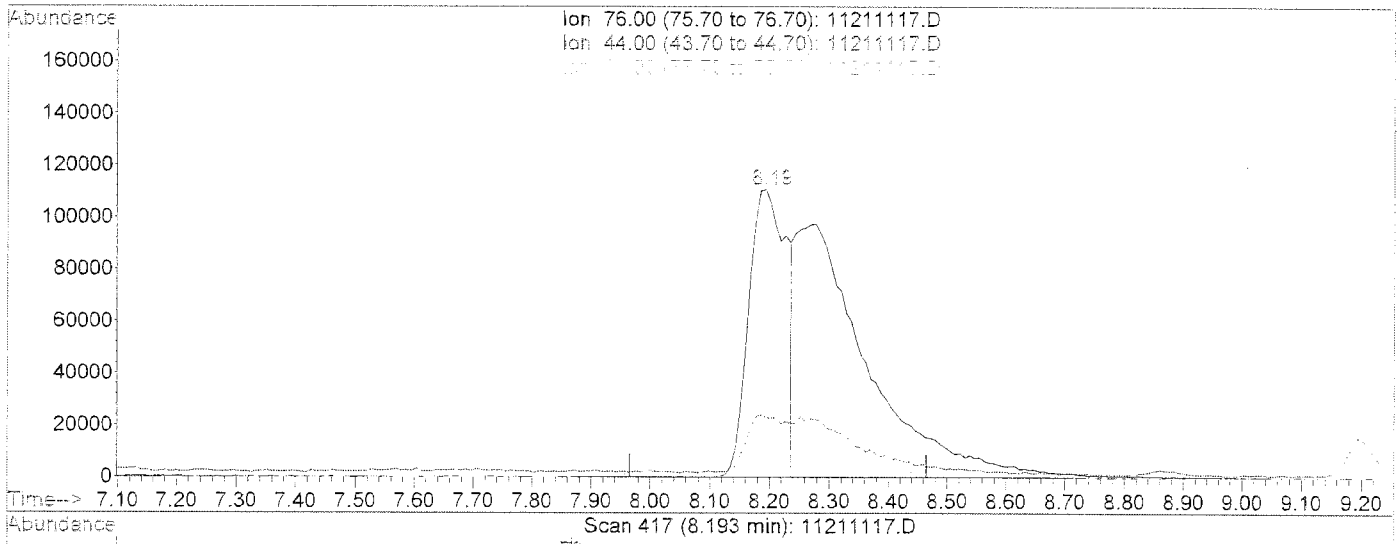
11/22/11

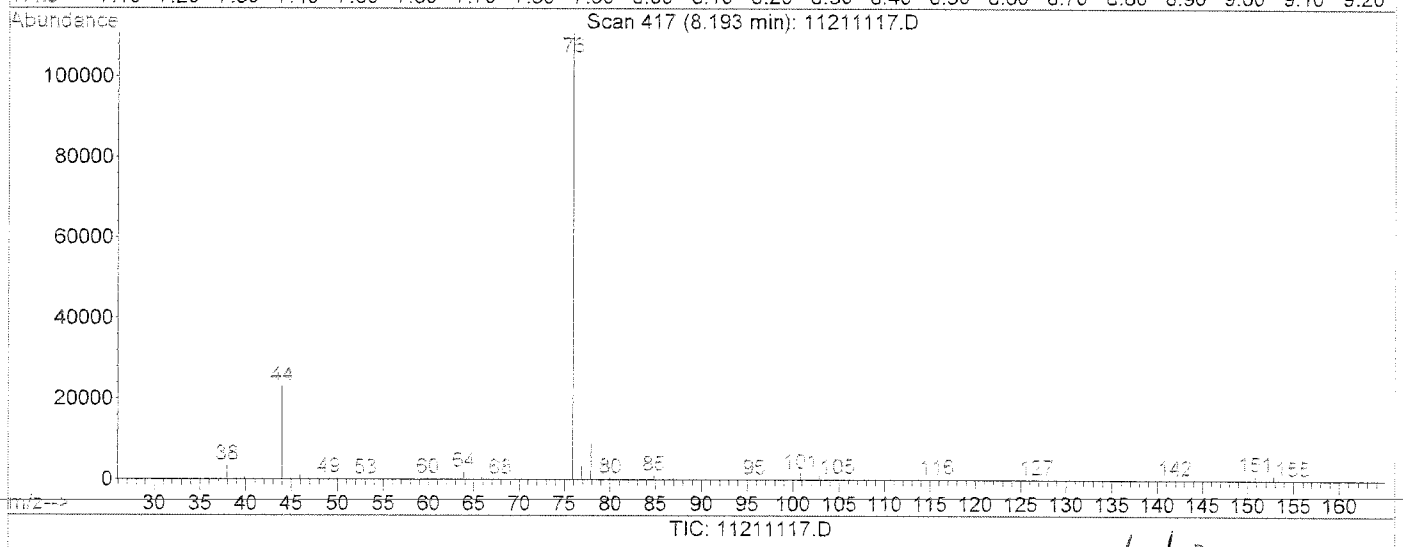
11211117.D 111911.M Tue Nov 22 10:48:21 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:48 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





11/23/11

(19) Carbon Disulfide (T)

8.19min 22.02ug/L

response 488105

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	20.78#
78.00	2.90	8.02#
0.00	0.00	0.00

B

NIP

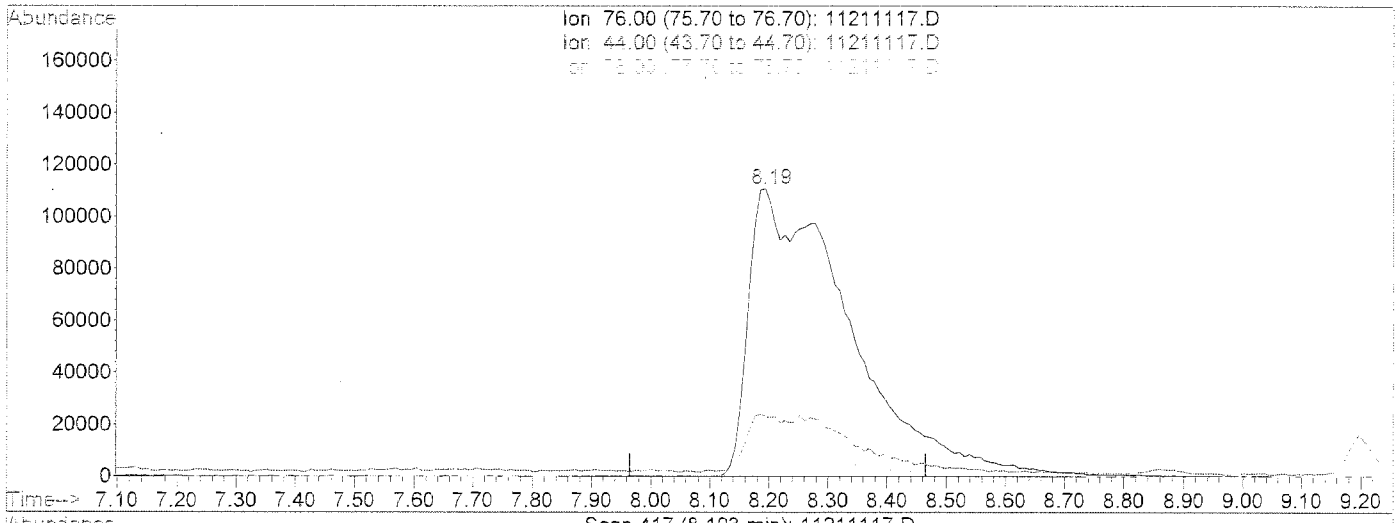
11/22/11

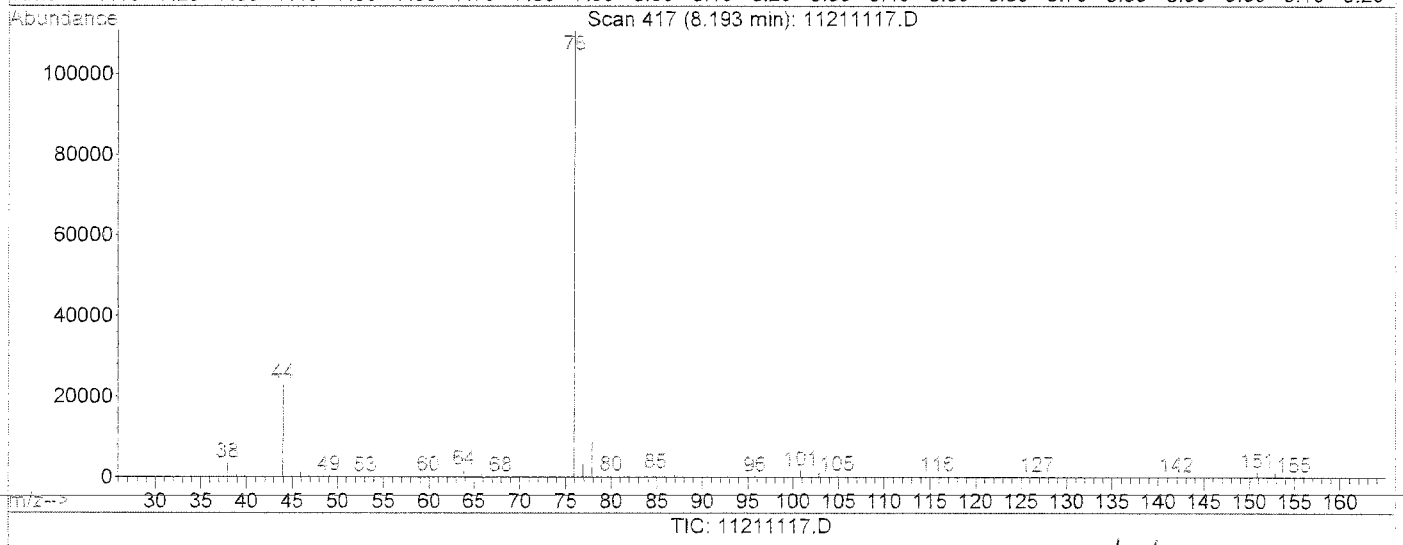
11211117.D 111911.M Tue Nov 22 10:48:30 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:48 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

11/23/11

(19) Carbon Disulfide (T)

8.19min 59.55ug/L m

response 1320037

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	7.69
78.00	2.90	2.97
0.00	0.00	0.00

11/22/11

11211117.D 111911.M Tue Nov 22 10:50:13 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KB
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:54 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	56207	200.00 ug/L	-0.01
4) Pentafluorobenzene	10.70	168	328361	25.00 ug/L	-0.02
37) 1,4-Difluorobenzene	11.81	114	533859	25.00 ug/L	-0.03
52) Chlorobenzene-d5	16.14	117	490659	25.00 ug/L	-0.02
65) 1,4-Dichlorobenzene-d4	19.59	152	253788	25.00 ug/L	-0.01
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.20	113	210588	25.25 ug/L	-0.03
Spiked Amount 25.000			Recovery	= 101.00%	
50) Toluene-d8 (surr)	14.19	98	587269	25.35 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 101.40%	
64) 4-Bromofluorobenzene (surr	17.82	95	269434	24.64 ug/L	-0.02
Spiked Amount 25.000			Recovery	= 98.56%	
Target Compounds					Qvalue
2) Ethanol	6.16	45	113596m	379.34 ug/L	
3) tert-Butanol (TBA)	7.69	59	221178	202.84 ug/L	98
5) Dichlorodifluoromethane	4.88	85	971536m	54.15 ug/L	
6) Chloromethane	5.14	50	779271	45.96 ug/L	99
7) Vinyl Chloride	5.48	62	635951	56.87 ug/L	99
8) 1,3-Butadiene	5.58	54	407733	53.29 ug/L	96
9) Bromomethane	6.04	94	463833	49.21 ug/L	100
10) Chloroethane	6.20	64	382040	52.13 ug/L	98
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	7.06	101	759915m	59.53 ug/L	
13) Acetone	7.11	43	151901	57.56 ug/L	96
14) Acrylonitrile	7.65	53	41269	No Calib	
15) Iodomethane	7.78	142	758533	57.22 ug/L	98
16) 1,1-Dichloroethene	7.74	96	428083	54.81 ug/L	99
17) Methylene Chloride	7.86	84	491722	47.68 ug/L	99
18) Freon 113	8.01	101	457604	54.96 ug/L	97
19) Carbon Disulfide	8.19	76	1320037m	59.55 ug/L	
20) trans-1,2-Dichloroethene	8.73	96	526933	55.33 ug/L	100
21) MTBE	8.87	73	672828	68.76 ug/L	100
22) 1,1-Dichloroethane	9.05	63	1047639	53.32 ug/L	100
23) Vinyl Acetate	9.20	43	790325	60.30 ug/L	100
24) n-Hexane	9.55	86	91423	61.18 ug/L	97
25) 2-Butanone (MEK)	9.58	72	30076	59.33 ug/L #	97
26) Diisopropylether (DIPE)	9.59	45	1861584	58.53 ug/L	98
27) cis-1,2-Dichloroethene	9.78	96	531046	57.11 ug/L	99
28) Bromochloromethane	9.99	128	233574	51.66 ug/L	98
29) Chloroform	10.05	83	1012770	50.77 ug/L	99
30) 2,2-Dichloropropane	10.16	77	433614	60.93 ug/L #	63
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	736556	60.69 ug/L #	84
33) Tetrahydrofuran	10.48	72	26678	64.68 ug/L #	80
34) 1,2-Dichloroethane	10.88	62	755814	54.42 ug/L	99
35) 1,1,1-Trichloroethane	11.02	97	834160	57.20 ug/L	98
36) (TAME) tert-Amyl methyl et	11.71	73	424650	60.22 ug/L	97
38) 1,1-Dichloropropene	11.24	75	693757	60.09 ug/L	99
39) Carbon Tetrachloride	11.49	117	817768	52.76 ug/L	99
40) Benzene	11.54	78	1665217	51.91 ug/L	100

(#) = qualifier out of range (m) = manual integration

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:54 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

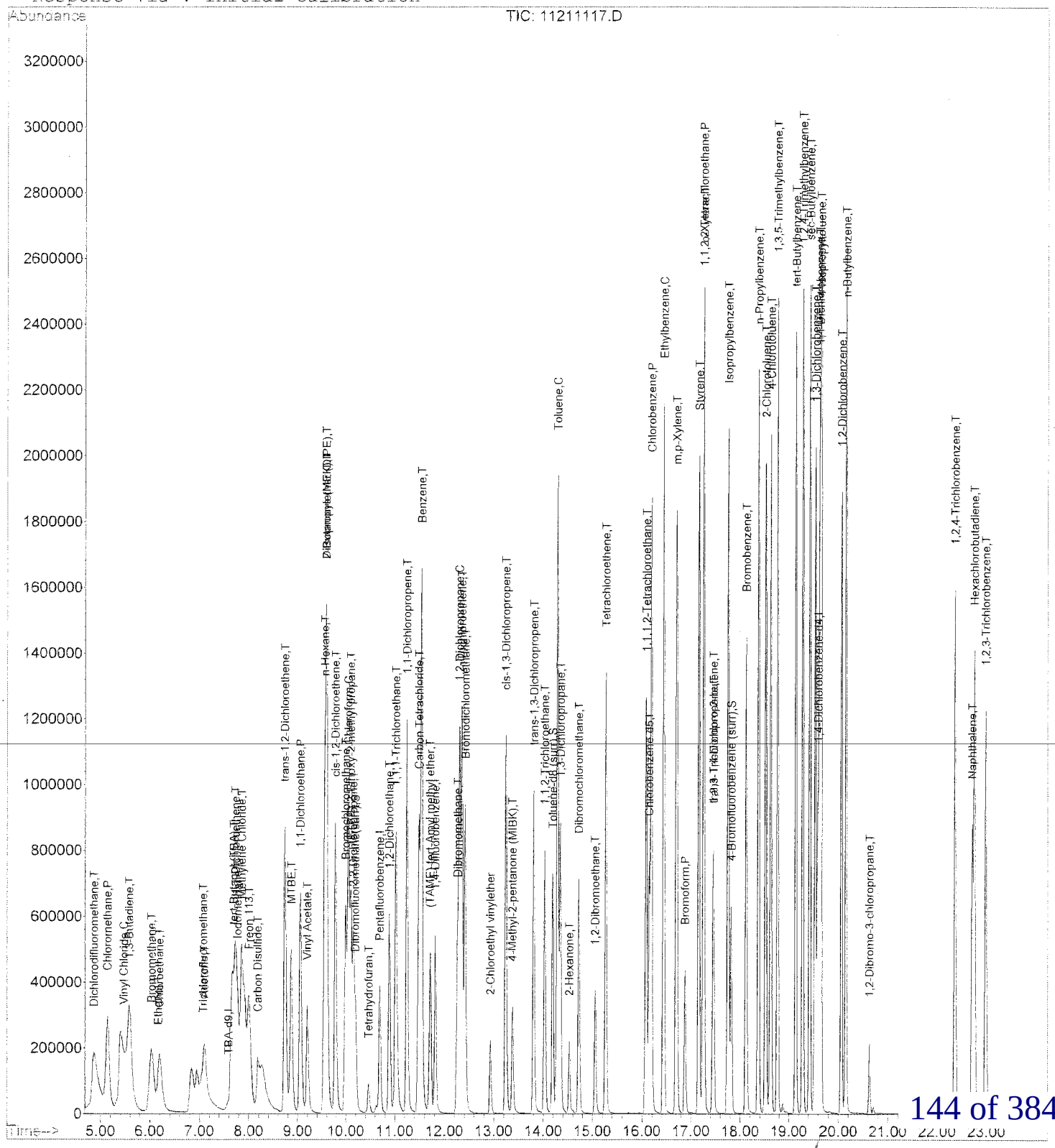
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Dibromomethane	12.26	93	272364	50.96 ug/L	100
42)	1,2-Dichloropropane	12.30	63	470948	52.37 ug/L	100
43)	Trichloroethene	12.35	95	507043	53.20 ug/L	99
44)	Bromodichloromethane	12.42	83	751223	53.37 ug/L	99
45)	2-Chloroethyl vinylether	12.93	63	108278	55.18 ug/L	100
46)	cis-1,3-Dichloropropene	13.24	75	733668	56.35 ug/L	100
47)	4-Methyl-2-pentanone (MIBK	13.38	43	313277	57.13 ug/L	98
48)	trans-1,3-Dichloropropene	13.81	75	638607	56.87 ug/L	99
49)	1,1,2-Trichloroethane	14.03	97	304252	53.16 ug/L	100
51)	Toluene	14.29	92	999141	52.98 ug/L	99
53)	1,3-Dichloropropane	14.35	76	549411	48.25 ug/L	100
54)	2-Hexanone	14.52	43	209391	52.92 ug/L	97
55)	Dibromochloromethane	14.72	129	475479	51.02 ug/L	100
56)	1,2-Dibromoethane	15.05	107	331453	52.21 ug/L	99
57)	Tetrachloroethene	15.27	164	375581	50.89 ug/L	99
58)	1,1,1,2-Tetrachloroethane	16.08	131	476085	48.57 ug/L	99
59)	Chlorobenzene	16.19	112	1204898	46.05 ug/L	100
60)	Ethylbenzene	16.44	91	1943641	50.84 ug/L	99
61)	m,p-Xylene	16.71	106	757113	52.08 ug/L	99
62)	Styrene	17.16	104	1185703	50.00 ug/L	99
63)	o-Xylene	17.26	106	722259	49.99 ug/L	99
66)	Bromoform	16.88	173	255616	54.70 ug/L	98
67)	1,1,2,2-Tetrachloroethane	17.24	83	289410	47.79 ug/L	100
68)	1,2,3-Trichloropropane	17.45	110	98669	48.16 ug/L	99
69)	trans-1,4-Dichloro-2-buten	17.46	53	138128	55.44 ug/L	98
70)	Isopropylbenzene	17.76	105	1800083	48.94 ug/L	99
71)	Bromobenzene	18.12	156	477270	50.14 ug/L	100
72)	n-Propylbenzene	18.37	91	2222537	51.14 ug/L	99
73)	2-Chlorotoluene	18.52	91	1446970	48.52 ug/L	99
74)	4-Chlorotoluene	18.62	91	1493648	48.96 ug/L	99
75)	1,3,5-Trimethylbenzene	18.76	105	1698269	49.11 ug/L	99
76)	tert-Butylbenzene	19.14	119	1401208	48.56 ug/L	99
77)	1,2,4-Trimethylbenzene	19.29	105	1731792	48.63 ug/L	99
78)	sec-Butylbenzene	19.43	105	2052353	49.88 ug/L	100
79)	1,3-Dichlorobenzene	19.54	146	930005	46.19 ug/L	98
80)	1,4-Dichlorobenzene	19.62	146	911528	44.44 ug/L	99
81)	4-Isopropyltoluene	19.65	119	1798459	47.68 ug/L	100
82)	1,2-Dichlorobenzene	20.06	146	841079	48.81 ug/L	99
83)	n-Butylbenzene	20.15	91	1642368	49.21 ug/L	99
84)	1,2-Dibromo-3-chloropropan	20.62	75	59393	50.69 ug/L	99
85)	1,2,4-Trichlorobenzene	22.36	180	665974	50.47 ug/L	99
86)	Naphthalene	22.71	128	888325	51.78 ug/L	100
87)	Hexachlorobutadiene	22.76	225	423031	48.65 ug/L	99
88)	1,2,3-Trichlorobenzene	22.98	180	536606	55.96 ug/L	99

(#) = qualifier out of range (m) = manual integration
11211117.D 111911.M Tue Nov 22 10:54:50 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:54 2011 Quant Results File: 111911.RES

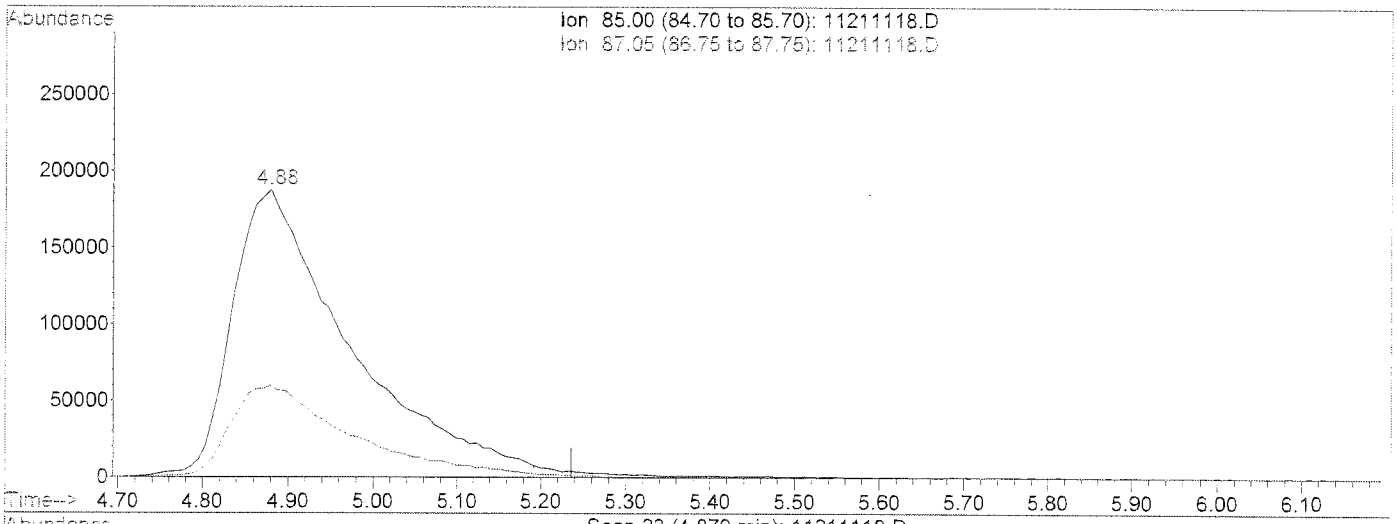
Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration

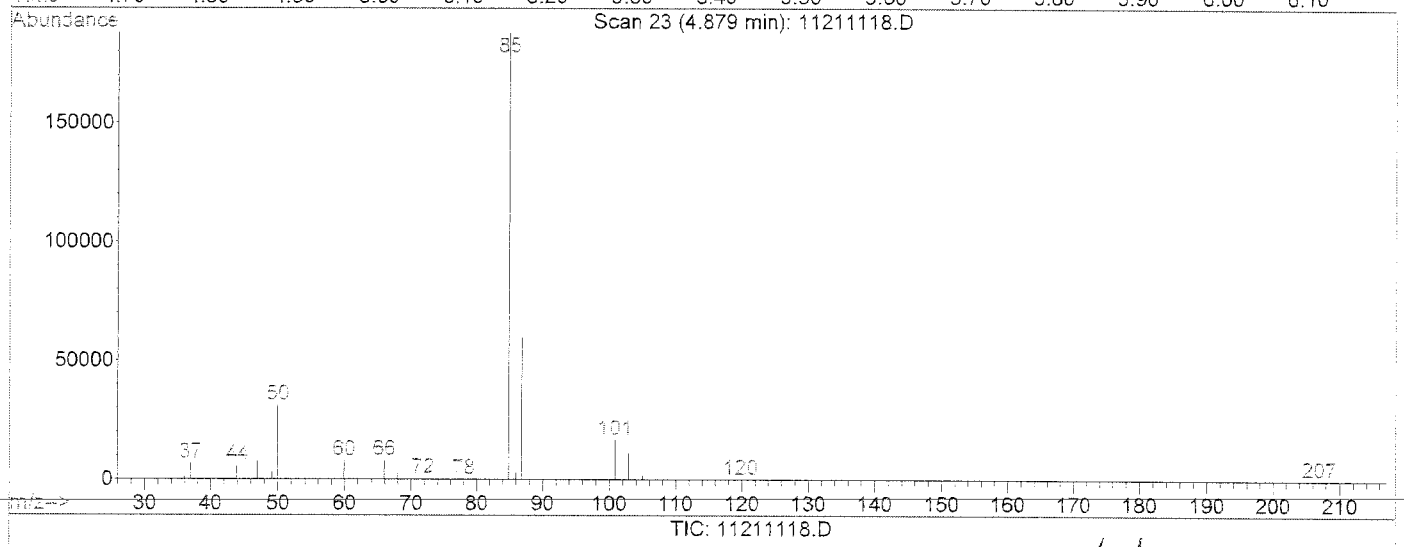


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:50 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





11/23/11

(5) Dichlorodifluoromethane (T)

4.88min 92.92ug/L

response 1786629

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	32.66
0.00	0.00	0.00
0.00	0.00	0.00

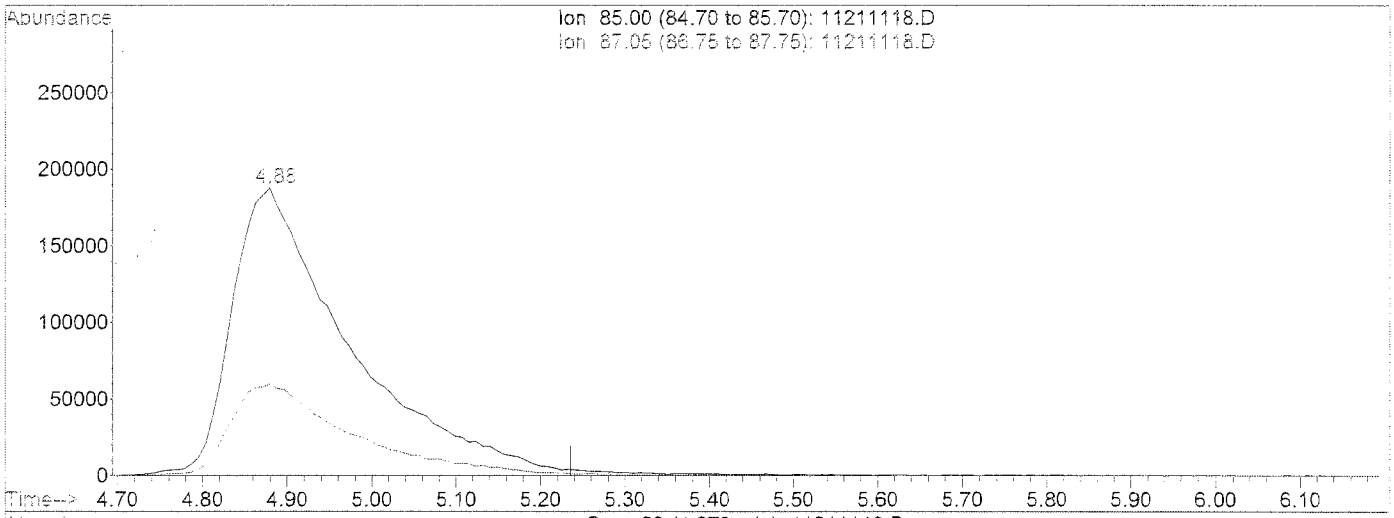
B
NIP
11/22/11

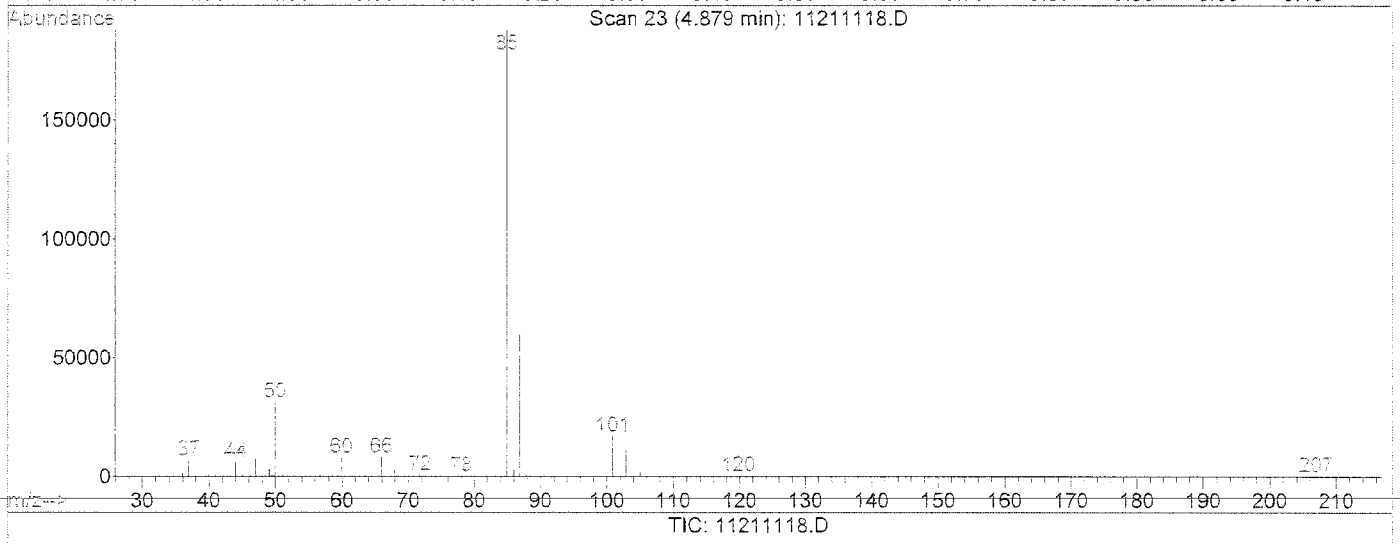
11211118.D 111911.M Tue Nov 22 10:51:12 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:51 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211118.D

(5) Dichlorodifluoromethane (T)

4.88min 95.23ug/L m

response 1831049

Ion	Exp%	Act%
85.00	100	100
87.05	32.10	31.87
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

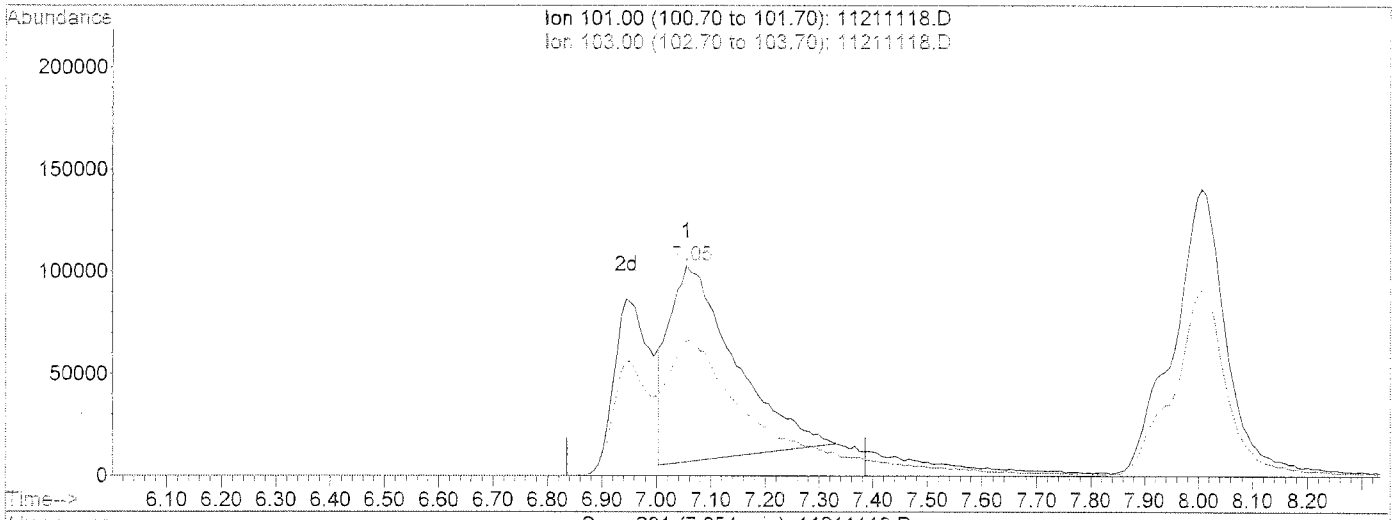
11/22/11

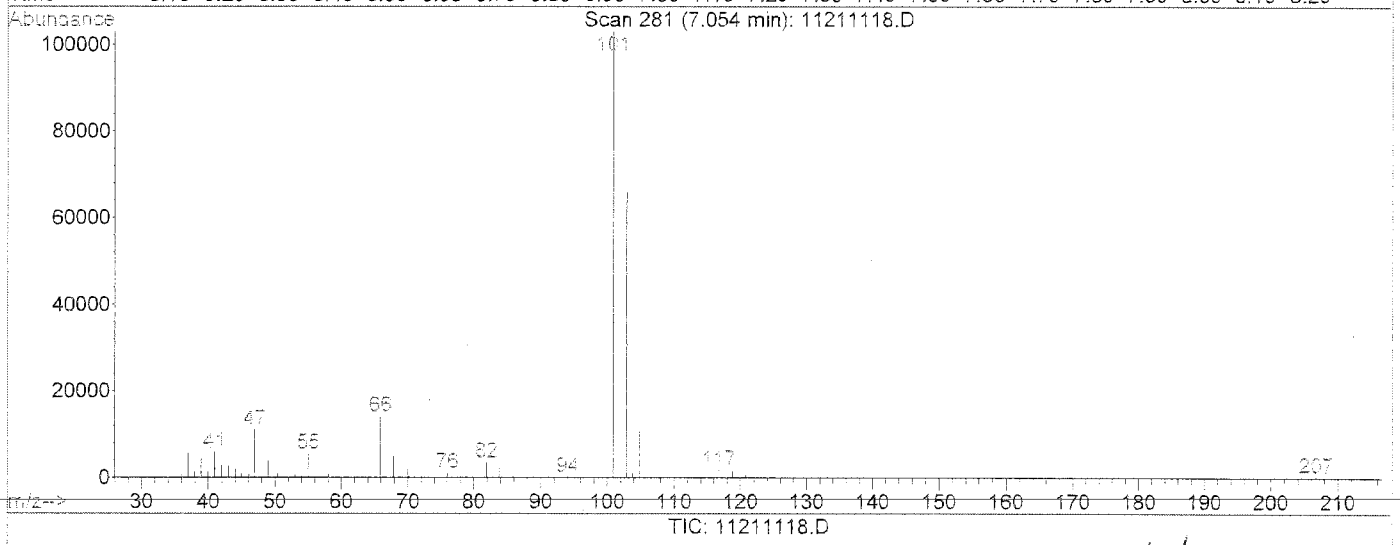
11211118.D 111911.M Tue Nov 22 10:51:36 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:51 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211118.D

11/23/11

(12) Trichlorofluoromethane (T)

7.05min 59.47ug/L

response 813591

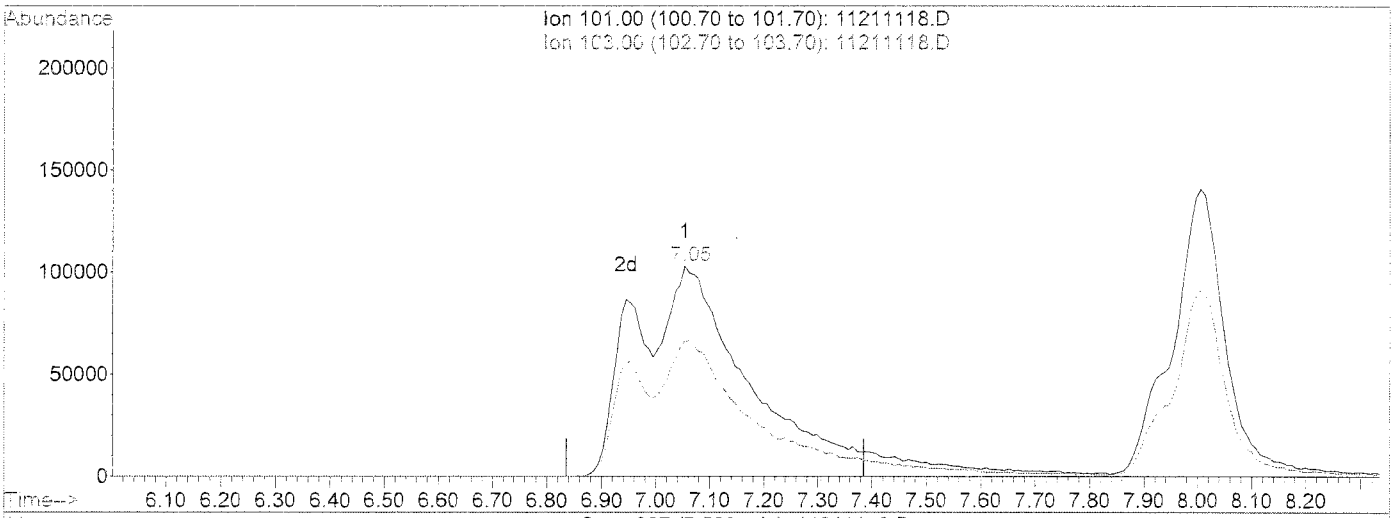
Ion	Exp%	Act%
101.00	100	100
103.00	62.80	63.22
0.00	0.00	0.00
0.00	0.00	0.00

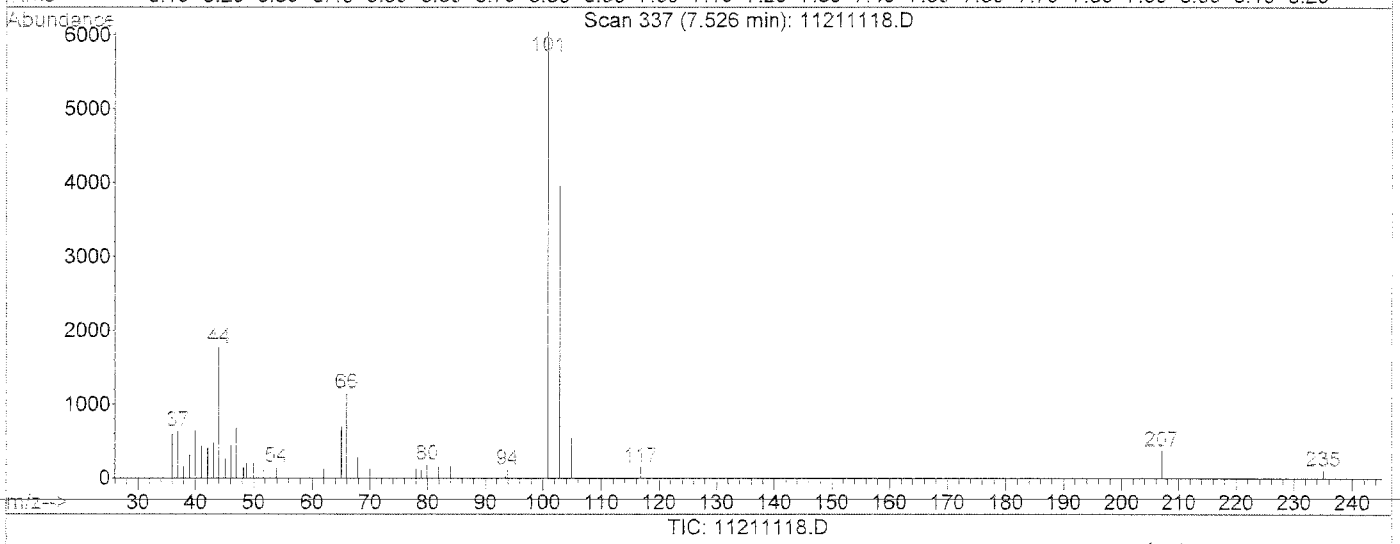
B
NIP
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:51 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





11/23/11

(12) Trichlorofluoromethane (T)

7.05min 114.24ug/L m

response 1562807

Ion	Exp%	Act%
101.00	100	100
103.00	62.80	64.10
0.00	0.00	0.00
0.00	0.00	0.00

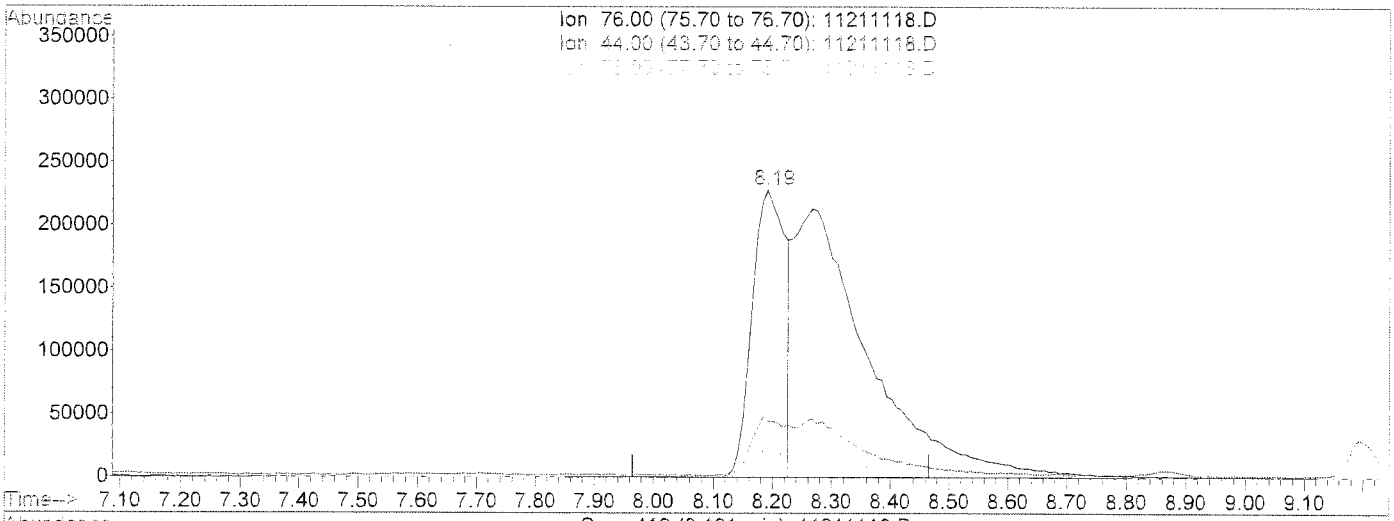
A
11/23/11

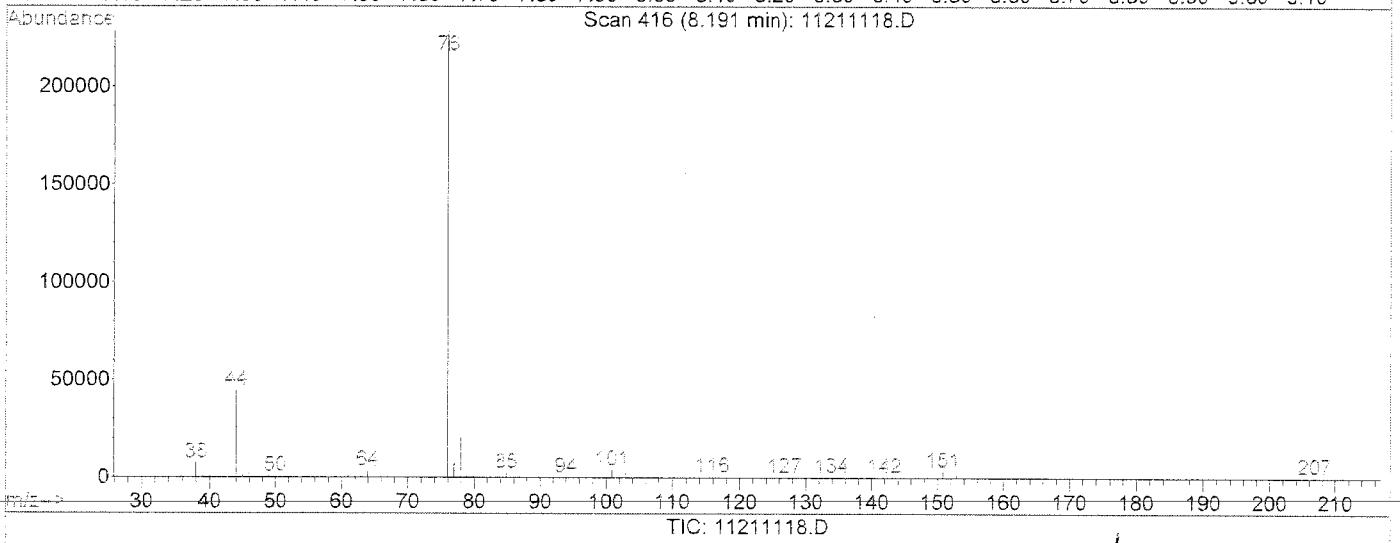
11211118.D 111911.M Tue Nov 22 10:52:18 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:52 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





TIC: 11211118.D

11/23/12

B
NIP
11/24/11

(19) Carbon Disulfide (T)

8.19min 37.37ug/L

response 887676

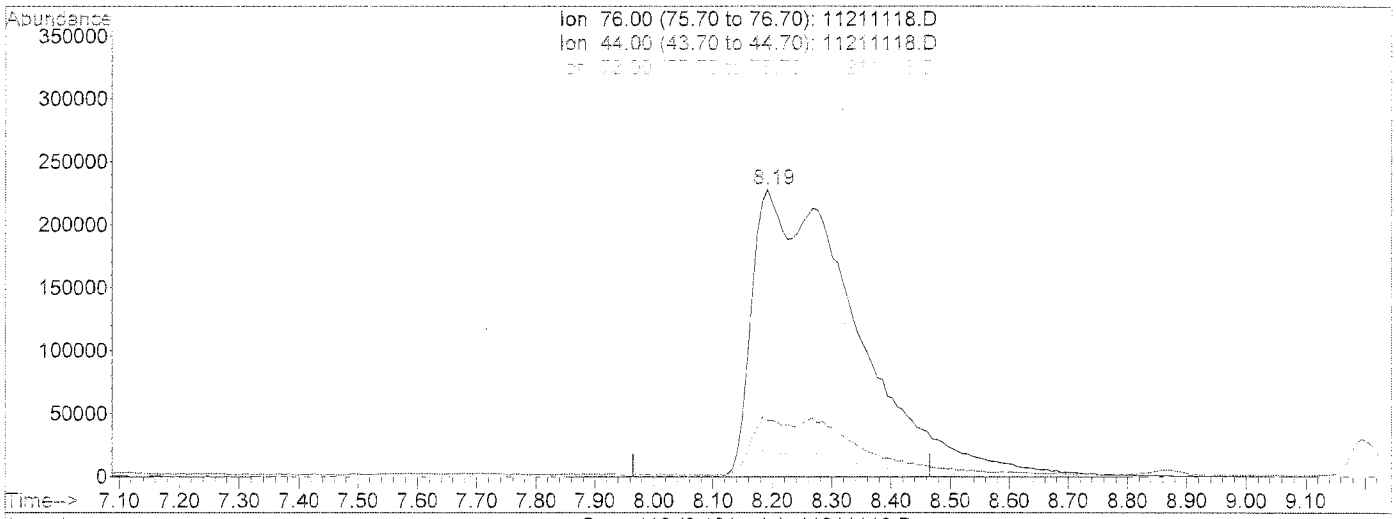
Ion	Exp%	Act%
76.00	100	100
44.00	9.10	24.58#
78.00	2.90	9.95#
0.00	0.00	0.00

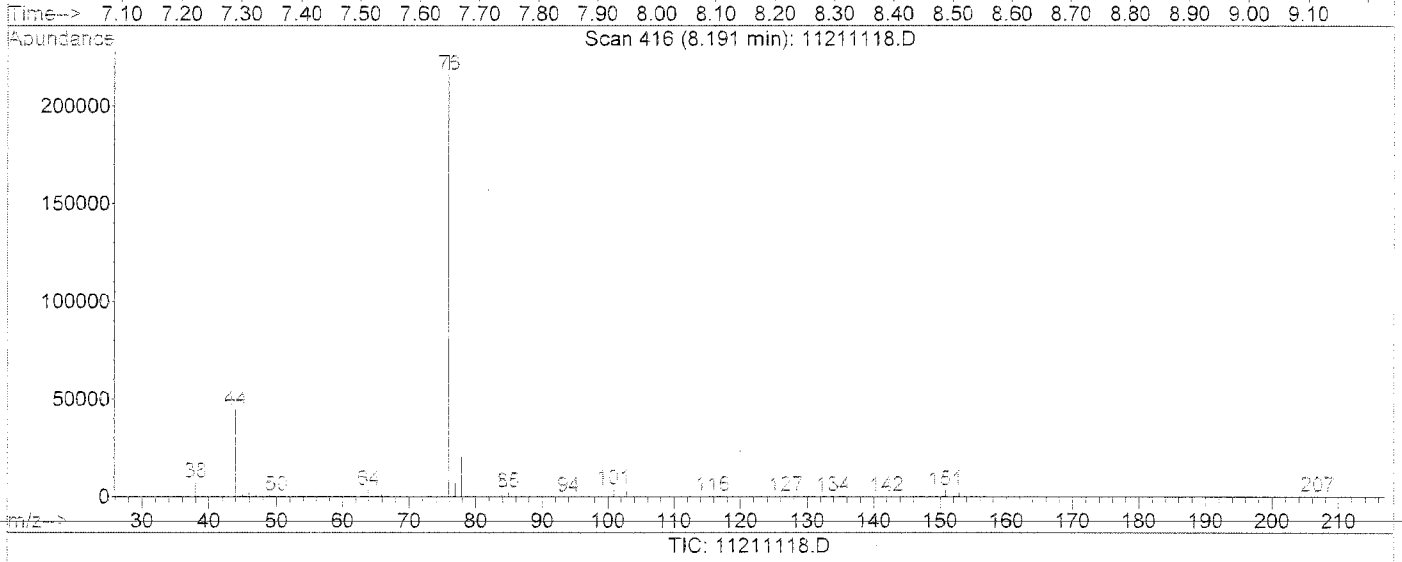
11211118.D 111911.M Tue Nov 22 10:52:33 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:52 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Multiple Level Calibration





(19) Carbon Disulfide (T)

8.19min 117.50ug/L m

response 2791522

Ion	Exp%	Act%
76.00	100	100
44.00	9.10	7.82
78.00	2.90	3.16
0.00	0.00	0.00

11/23/11
A
11/22/11

11211118.D 111911.M Tue Nov 22 10:52:58 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:52 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.58	65	65273	200.00 ug/L	-0.02
4) Pentafluorobenzene	10.69	168	351889	25.00 ug/L	-0.02
37) 1,4-Difluorobenzene	11.82	114	558739	25.00 ug/L	-0.02
52) Chlorobenzene-d5	16.15	117	495566	25.00 ug/L	-0.02
65) 1,4-Dichlorobenzene-d4	19.59	152	247770	25.00 ug/L	-0.02
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	217417	24.33 ug/L	-0.02
Spiked Amount 25.000			Recovery =	97.32%	
50) Toluene-d8 (surr)	14.19	98	609096	25.12 ug/L	-0.02
Spiked Amount 25.000			Recovery =	100.48%	
64) 4-Bromofluorobenzene (surr	17.82	95	262687	23.78 ug/L	-0.02
Spiked Amount 25.000			Recovery =	95.12%	

Target Compounds					Qvalue
2) Ethanol	6.18	45	229272	785.46 ug/L #	67
3) tert-Butanol (TBA)	7.69	59	480312	379.32 ug/L	99
5) Dichlorodifluoromethane	4.88	85	1831049m	95.23 ug/L	
6) Chloromethane	5.15	50	1542726	84.91 ug/L	100
7) Vinyl Chloride	5.49	62	1192623	99.85 ug/L	99
8) 1,3-Butadiene	5.59	54	768960	93.78 ug/L	96
9) Bromomethane	6.05	94	967189	95.75 ug/L	99
10) Chloroethane	6.20	64	800572	101.94 ug/L	98
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	7.05	101	1562807m	114.24 ug/L	
13) Acetone	7.11	43	306315	110.94 ug/L	100
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.78	142	1684251	118.55 ug/L	95
16) 1,1-Dichloroethene	7.74	96	914441	109.26 ug/L	98
17) Methylene Chloride	7.86	84	1083456	98.03 ug/L	98
18) Freon 113	8.01	101	942757	105.66 ug/L	96
19) Carbon Disulfide	8.19	76	2791522m	117.50 ug/L	
~~20) trans-1,2-Dichloroethene~~	~~8.73~~	~~96~~	~~1043954~~	~~102.28 ug/L~~	~~99~~
21) MTBE	8.87	73	1457716	139.01 ug/L	99
22) 1,1-Dichloroethane	9.05	63	2179757	103.52 ug/L	99
23) Vinyl Acetate	9.20	43	1827502	112.59 ug/L	100
24) n-Hexane	9.55	86	180769	112.88 ug/L	95
25) 2-Butanone (MEK)	9.59	72	58200	107.12 ug/L #	98
26) Diisopropylether (DIPE)	9.59	45	3733907	109.54 ug/L	97
27) cis-1,2-Dichloroethene	9.78	96	1081354	108.51 ug/L	99
28) Bromochloromethane	9.99	128	491582	101.46 ug/L	94
29) Chloroform	10.05	83	2047134	95.77 ug/L	100
30) 2,2-Dichloropropane	10.16	77	947157	124.20 ug/L #	66
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	1601833	122.69 ug/L	96
33) Tetrahydrofuran	10.48	72	52476	118.73 ug/L #	89
34) 1,2-Dichloroethane	10.89	62	1508039	101.32 ug/L	99
35) 1,1,1-Trichloroethane	11.01	97	1643424	105.16 ug/L	98
36) (TAME) tert-Amyl methyl et	11.71	73	949631	125.09 ug/L	95
38) 1,1-Dichloropropene	11.25	75	1380352	114.25 ug/L	99
39) Carbon Tetrachloride	11.49	117	1602862	98.81 ug/L	99
40) Benzene	11.54	78	3283790	97.81 ug/L	99

(#) = qualifier out of range (m) = manual integration
11211118.D 111911.M Tue Nov 22 10:53:37 2011

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:52 2011 Quant Results File: 111911.RES

Quant Method : C:\HPCHEM\1...\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

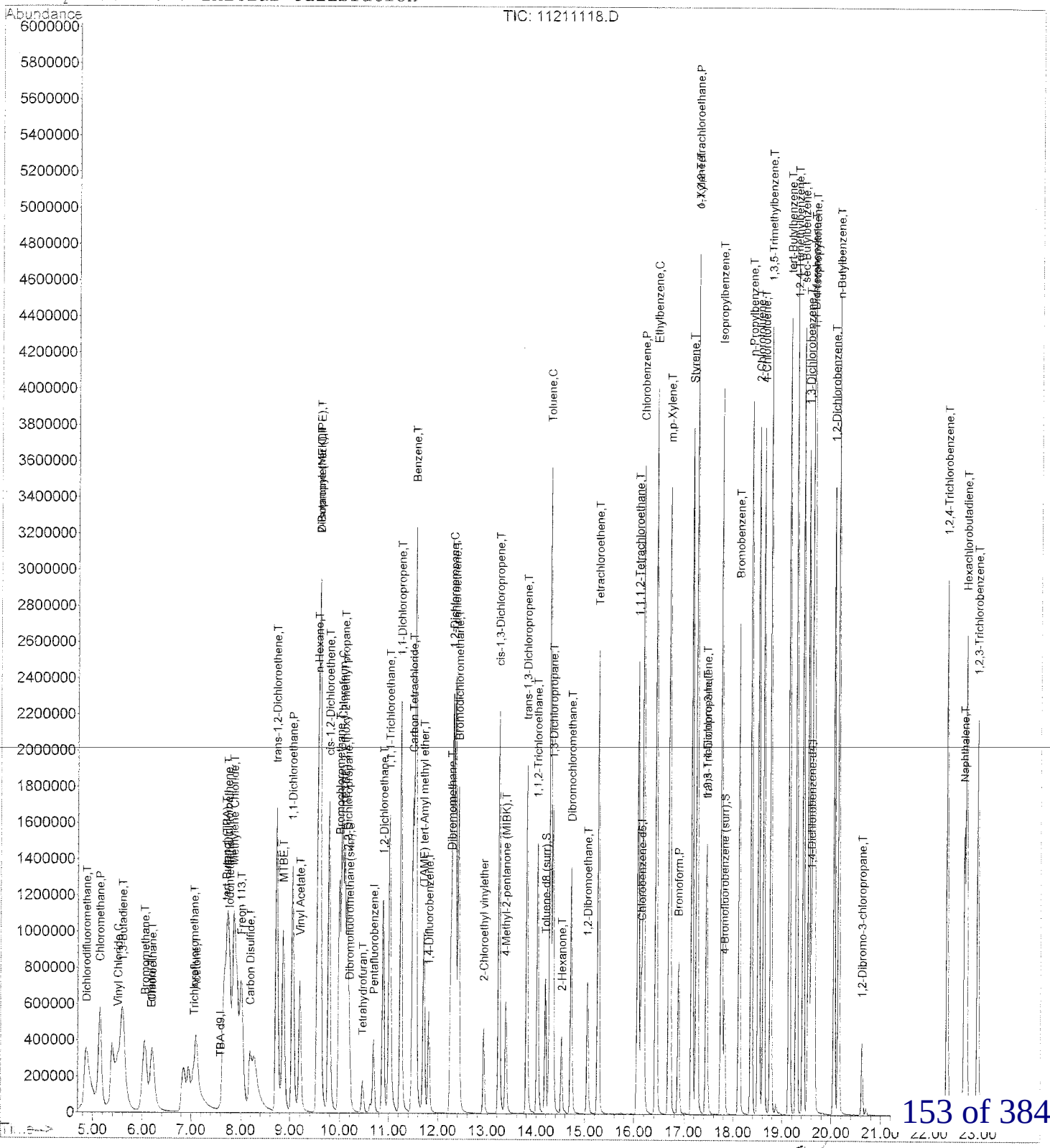
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Dibromomethane	12.26	93	542737	97.03 ug/L	98
42)	1,2-Dichloropropane	12.30	63	920357	97.79 ug/L	99
43)	Trichloroethene	12.35	95	999395	100.19 ug/L	100
44)	Bromodichloromethane	12.41	83	1488800	101.06 ug/L	100
45)	2-Chloroethyl vinylether	12.93	63	235144	99.39 ug/L	98
46)	cis-1,3-Dichloropropene	13.24	75	1451685	106.26 ug/L	99
47)	4-Methyl-2-pentanone (MIBK	13.38	43	630203	109.17 ug/L	99
48)	trans-1,3-Dichloropropene	13.80	75	1276081	108.28 ug/L	99
49)	1,1,2-Trichloroethane	14.02	97	596420	99.57 ug/L	98
51)	Toluene	14.28	92	1922514	97.41 ug/L	100
53)	1,3-Dichloropropane	14.34	76	1049120	91.22 ug/L	100
54)	2-Hexanone	14.53	43	416095	103.25 ug/L	95
55)	Dibromochloromethane	14.72	129	956437	101.61 ug/L	99
56)	1,2-Dibromoethane	15.05	107	666585	103.95 ug/L	100
57)	Tetrachloroethene	15.27	164	739494	99.21 ug/L	99
58)	1,1,1,2-Tetrachloroethane	16.08	131	949736	95.94 ug/L	99
59)	Chlorobenzene	16.19	112	2342719	88.64 ug/L	99
60)	Ethylbenzene	16.44	91	3650387	94.54 ug/L	98
61)	m,p-Xylene	16.70	106	1470750	100.16 ug/L	97
62)	Styrene	17.16	104	2269154	94.51 ug/L	99
63)	o-Xylene	17.26	106	1366378	93.67 ug/L	98
66)	Bromoform	16.88	173	520331	114.05 ug/L	98
67)	1,1,2,2-Tetrachloroethane	17.25	83	522706	97.29 ug/L	100
68)	1,2,3-Trichloropropane	17.44	110	188131	94.06 ug/L	99
69)	trans-1,4-Dichloro-2-buten	17.46	53	274619	112.90 ug/L	97
70)	Isopropylbenzene	17.76	105	3408505	94.72 ug/L	100
71)	Bromobenzene	18.12	156	922230	99.24 ug/L	97
72)	n-Propylbenzene	18.37	91	4114524	96.98 ug/L	98
73)	2-Chlorotoluene	18.52	91	2735231	93.94 ug/L	98
74)	4-Chlorotoluene	18.62	91	2753981	92.47 ug/L	98
75)	1,3,5-Trimethylbenzene	18.77	105	3161889	93.58 ug/L	98
76)	tert-Butylbenzene	19.15	119	2678868	94.91 ug/L	98
77)	1,2,4-Trimethylbenzene	19.29	105	3249565	93.41 ug/L	98
78)	sec-Butylbenzene	19.43	105	3727332	92.79 ug/L	98
79)	1,3-Dichlorobenzene	19.53	146	1767538	89.92 ug/L	99
80)	1,4-Dichlorobenzene	19.62	146	1708172	85.31 ug/L	98
81)	4-Isopropyltoluene	19.65	119	3291519	89.38 ug/L	99
82)	1,2-Dichlorobenzene	20.06	146	1553994	92.37 ug/L	99
83)	n-Butylbenzene	20.15	91	2929234	89.91 ug/L	97
84)	1,2-Dibromo-3-chloropropan	20.62	75	113323	99.08 ug/L	98
85)	1,2,4-Trichlorobenzene	22.36	180	1248089	96.51 ug/L	98
86)	Naphthalene	22.71	128	1627071	96.22 ug/L	100
87)	Hexachlorobutadiene	22.75	225	818568	96.42 ug/L	99
88)	1,2,3-Trichlorobenzene	22.99	180	998328	106.63 ug/L	100

(#) = qualifier out of range (m) = manual integration
11211118.D 111911.M Tue Nov 22 10:53:37 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 10:52 2011 Quant Results File: 111911.RES

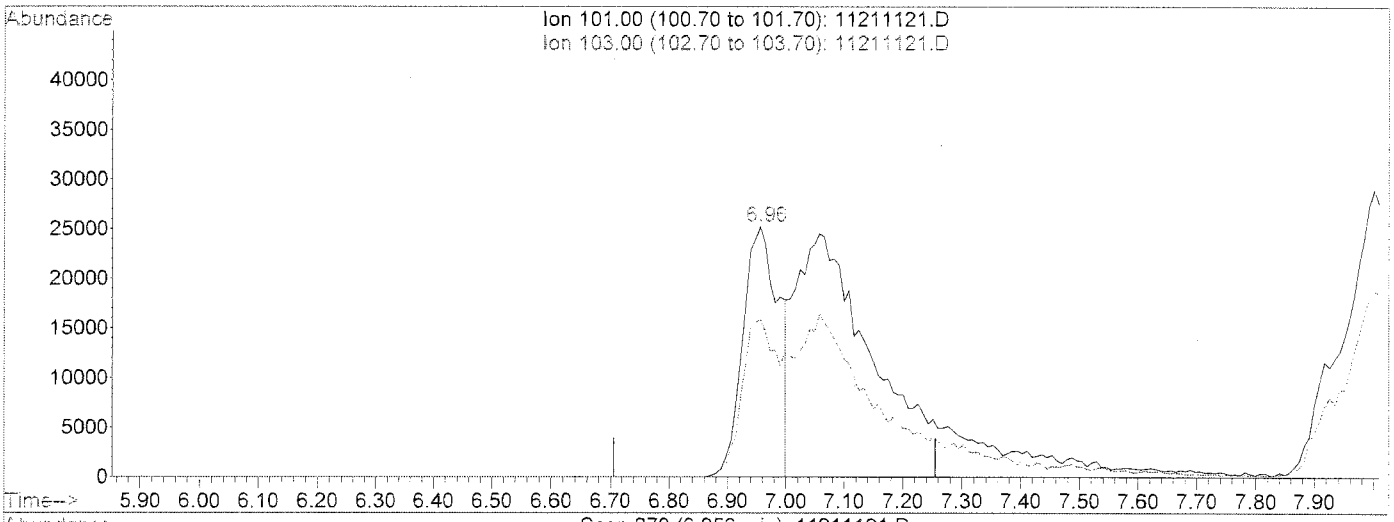
Method : C:\HPCHEM\1\GCMS9\METHODS\111911.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Mon Nov 21 09:09:15 2011
Response via : Initial Calibration

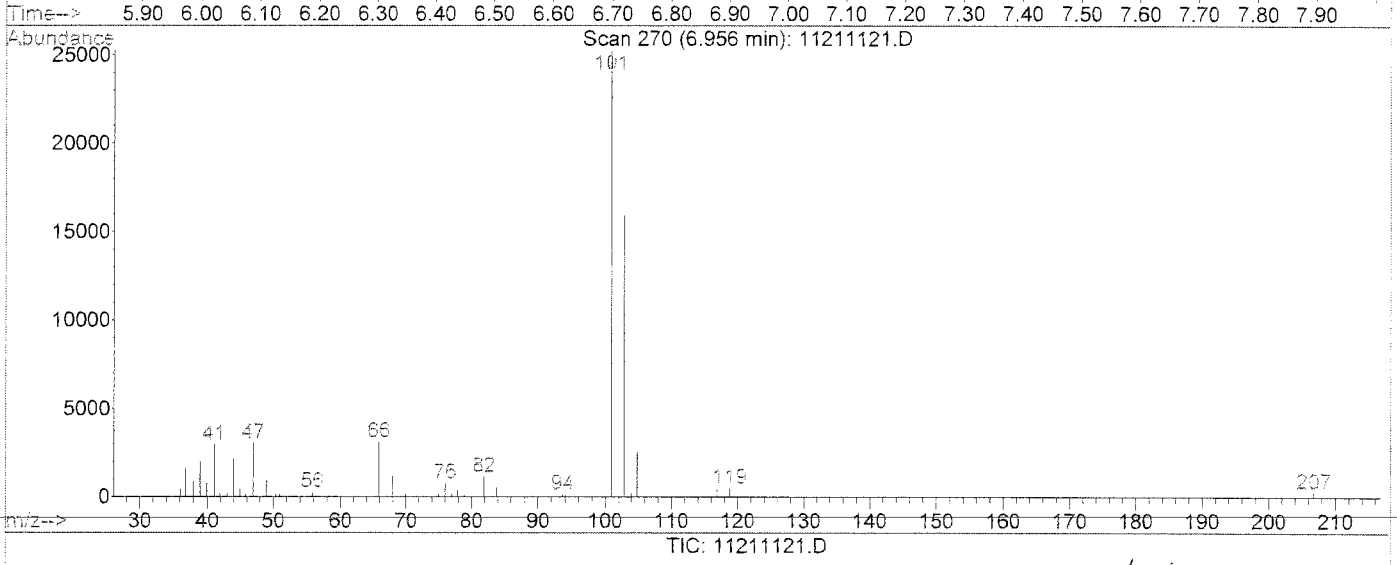


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211121.D Vial: 16
Acq On : 21 Nov 2011 9:12 pm Operator: KH
Sample : 25 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:04 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211121.D

(12) Trichlorofluoromethane (T)

6.96min 8.09ug/L

response 107406

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	62.91
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

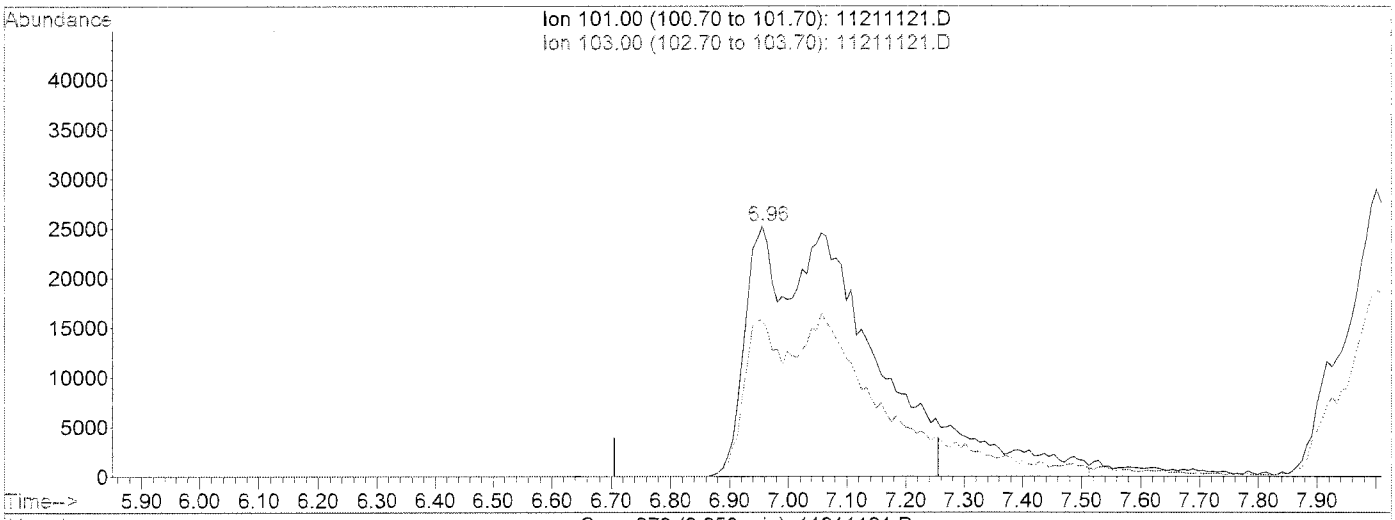
B NP 11/24/11

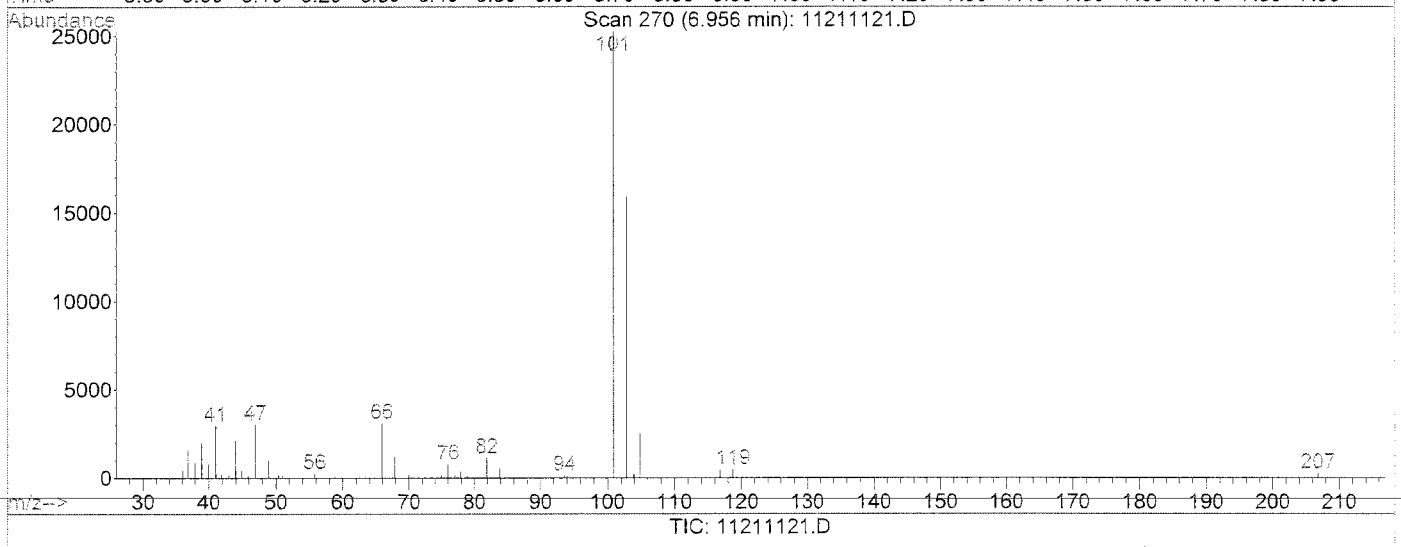
11211121.D 112111.M Tue Nov 22 12:04:50 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211121.D Vial: 16
Acq On : 21 Nov 2011 9:12 pm Operator: KH
Sample : 25 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:04 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211121.D

(12) Trichlorofluoromethane (T)

6.96min 28.04ug/L m

response 372238

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	62.91
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

A

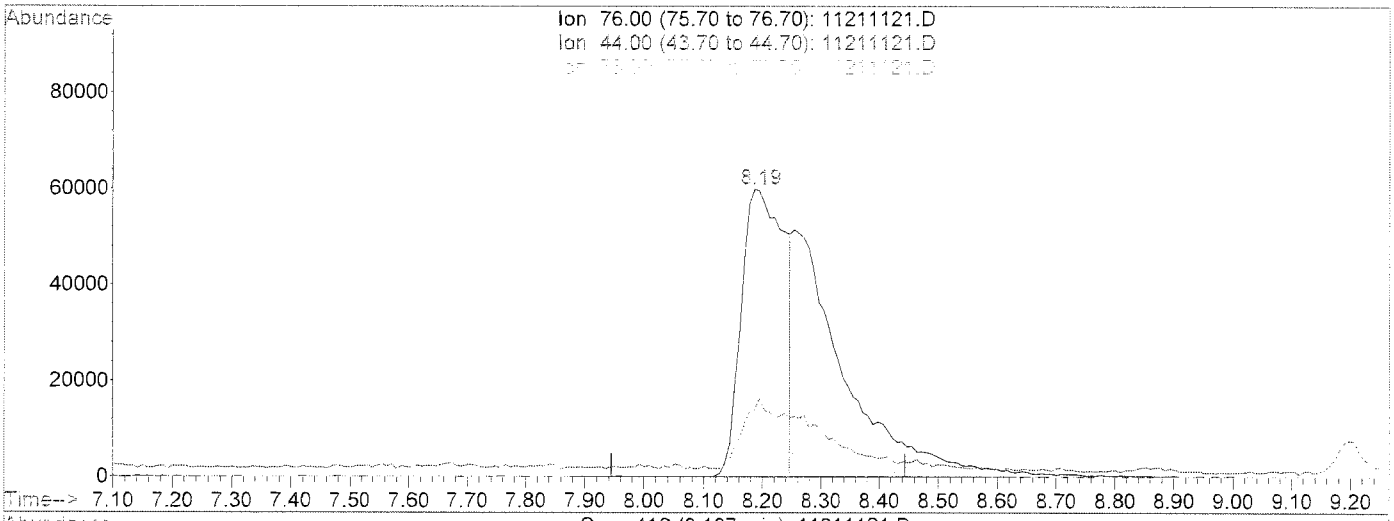
11/22/11

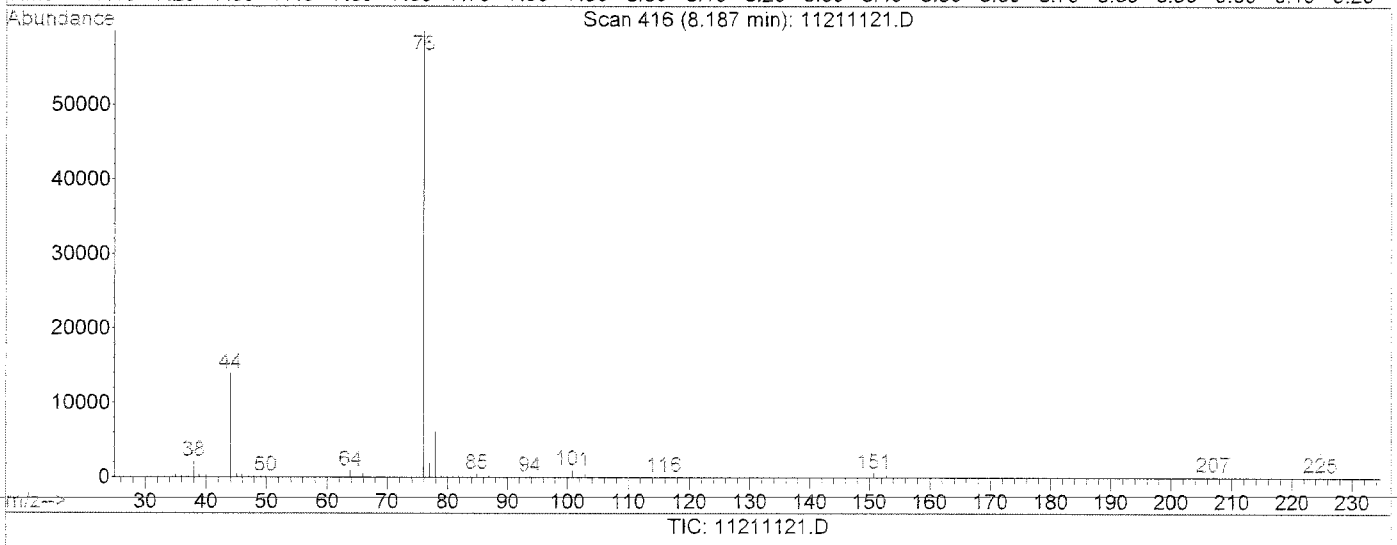
11211121.D 112111.M Tue Nov 22 12:04:58 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211121.D Vial: 16
Acq On : 21 Nov 2011 9:12 pm Operator: KH
Sample : 25 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:04 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





(19) Carbon Disulfide (T)

8.19min 12.97ug/L

response 303735

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	16.01
78.00	3.90	5.69#
0.00	0.00	0.00

11/23/11

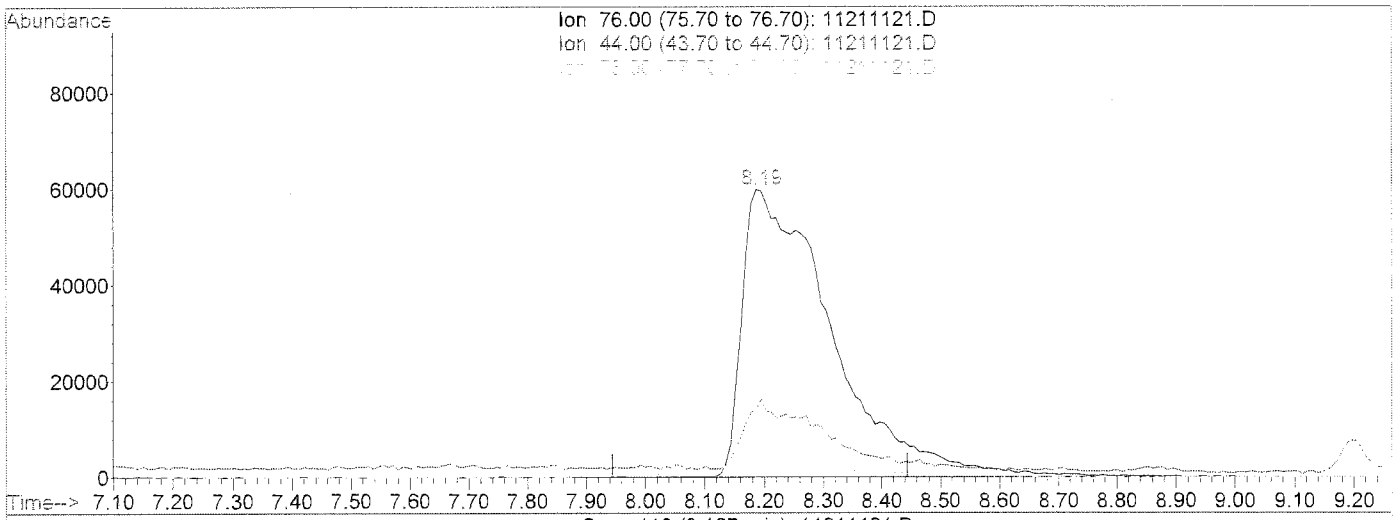
B
NP
11/22/11

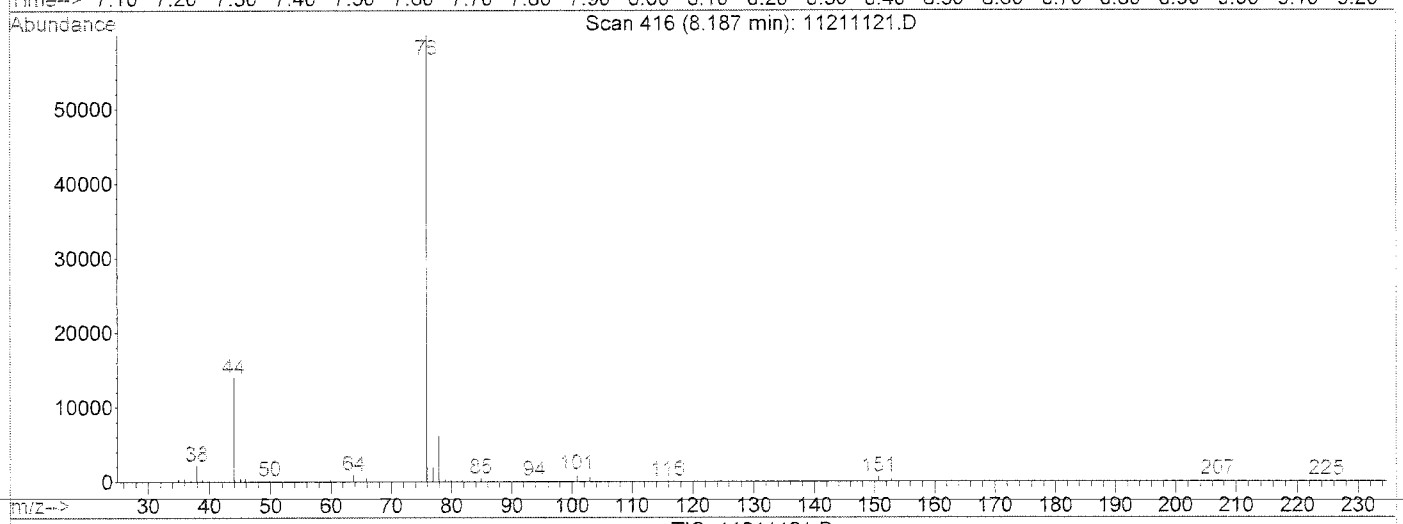
11211121.D 112111.M Tue Nov 22 12:05:06 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211121.D Vial: 16
Acq On : 21 Nov 2011 9:12 pm Operator: KH
Sample : 25 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:05 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211121.D

11/23/11

(19) Carbon Disulfide (T)

8.19min 26.68ug/L m

response 624723

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	7.78#
78.00	3.90	2.76#
0.00	0.00	0.00

11/22/11

11211121.D 112111.M Tue Nov 22 12:05:21 2011

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211121.D Vial: 16
Acq On : 21 Nov 2011 9:12 pm Operator: KH
Sample : 25 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration

11/23/11

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	TBA-d9	1.000	1.000	0.0	101	-0.02
2	T	Ethanol	0.839	0.748	10.8	84	0.00
3	T	tert-Butanol (TBA)	3.204	3.186	0.6	102	-0.02
4	I	Pentafluorobenzene	1.000	1.000	0.0	100	0.00
5	T	Dichlorodifluoromethane	1.484	1.266	14.7	83	0.00
6	P	Chloromethane	1.395	1.226	12.1	93	0.00
7	C	Vinyl Chloride	1.066	1.028	3.6	101	-0.02
8	T	1,3-Butadiene	0.628	0.837	-33.3#	132	0.00
9	T	Bromomethane	0.769	0.697	9.4	93	0.00
10	T	Chloroethane	0.587	0.585	0.3	98	0.00
11		Acrolein	0.000	0.001	0.0	0#	-0.03
12	T	Trichlorofluoromethane	1.101	1.234	-12.1	104	0.00
13	T	Acetone	0.259	0.241	6.9	96	0.00
14		Acrylonitrile	0.000	0.069	0.0	0#	0.00
15	T	Iodomethane	1.143	1.335	-16.8	116	-0.02
16	T	1,1-Dichloroethene	0.643	0.625	2.8	95	0.00
17	T	Methylene Chloride	0.828	0.738	10.9	95	0.00
18	T	Freon 113	0.692	0.656	5.2	93	0.00
19	T	Carbon Disulfide	1.941	2.072	-6.7	105	0.00
20	T	trans-1,2-Dichloroethene	0.805	0.843	-4.7	101	0.00
21	T	MTBE	0.915	0.983	-7.4	100	0.00
22	P	1,1-Dichloroethane	1.677	1.630	2.8	97	0.00
23	T	Vinyl Acetate	0.874	1.163	-33.1#	111	0.00
24	T	n-Hexane	0.130	0.125	3.8	84	0.00
25	T	2-Butanone (MEK)	0.047	0.044	6.4	91	0.00
26	T	Diisopropylether (DIPE)	2.789	3.029	-8.6	104	0.00
27	T	cis-1,2-Dichloroethene	0.806	0.835	-3.6	99	0.00
28	T	Bromochloromethane	0.379	0.378	0.3	100	0.00
29	C	Chloroform	1.679	1.610	4.1	98	0.00
30	T	2,2-Dichloropropane	0.643	0.618	3.9	90	0.00
31	T	(ETBE) 2-Ethoxy-2-methyl pr	1.040	1.014	2.5	94	0.00
32	S	Dibromofluoromethane(surr)	0.664	0.654	1.5	102	0.00
33	T	Tetrahydrofuran	0.036	0.035	2.8	96	0.00
34	T	1,2-Dichloroethane	1.223	1.197	2.1	100	0.00
35	T	1,1,1-Trichloroethane	1.276	1.284	-0.6	97	0.00
36	T	(TAME) tert-Amyl methyl eth	0.599	0.617	-3.0	101	0.00
37	I	1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
38	T	1,1-Dichloropropene	0.615	0.703	-14.3	101	0.00
39	T	Carbon Tetrachloride	0.780	0.791	-1.4	97	0.00
40	T	Benzene	1.596	1.679	-5.2	101	0.00
41	T	Dibromomethane	0.260	0.268	-3.1	101	0.00
42	C	1,2-Dichloropropane	0.452	0.472	-4.4	102	0.00
43	T	Trichloroethene	0.489	0.496	-1.4	99	0.00
44	T	Bromodichloromethane	0.713	0.725	-1.7	100	0.00
45		2-Chloroethyl vinylether	0.074	0.105	-41.9#	122	0.00
46	T	cis-1,3-Dichloropropene	0.587	0.701	-19.4	102	0.00
47	T	4-Methyl-2-pentanone (MIBK)	0.264	0.299	-13.3	105	0.00
48	'	trans-1,3-Dichloropropene	0.512	0.604	-18.0	102	0.00

(#) = Out of Range

11/22/11

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211121.D Vial: 16
Acq On : 21 Nov 2011 9:12 pm Operator: KH
Sample : 25 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,1,2-Trichloroethane	0.286	0.295	-3.1	103	0.00
50	S	Toluene-d8 (surr)	1.094	1.110	-1.5	100	0.00
51	C	Toluene	0.944	0.996	-5.5	102	0.00
52	I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
53	T	1,3-Dichloropropane	0.582	0.584	-0.3	99	0.00
54	T	2-Hexanone	0.191	0.228	-19.4	112	0.00
55	T	Dibromochloromethane	0.471	0.499	-5.9	100	0.00
56	T	1,2-Dibromoethane	0.326	0.361	-10.7	104	0.00
57	T	Tetrachloroethene	0.389	0.410	-5.4	101	0.00
58	T	1,1,1,2-Tetrachloroethane	0.496	0.523	-5.4	103	0.00
59	P	Chlorobenzene	1.297	1.337	-3.1	100	0.00
60	C	Ethylbenzene	1.957	2.262	-15.6	104	0.00
61	T	m,p-Xylene	0.740	0.836	-13.0	101	0.00
62	T	Styrene	1.089	1.348	-23.8	104	0.00
63	T	o-Xylene	0.751	0.835	-11.2	103	0.00
64	S	4-Bromofluorobenzene (surr)	0.576	0.578	-0.3	100	0.00
65	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00
66	P	Bromoform	0.459	0.516	-12.4	102	0.00
67	P	1,1,2,2-Tetrachloroethane	0.631	0.657	-4.1	105	0.00
68	T	1,2,3-Trichloropropane	0.192	0.211	-9.9	109	0.00
69	T	trans-1,4-Dichloro-2-butene	0.244	0.223	8.6	82	0.00
70	T	Isopropylbenzene	3.285	4.317	-31.4#	111	0.00
71	T	Bromobenzene	0.913	1.026	-12.4	103	0.00
72	T	n-Propylbenzene	4.266	5.099	-19.5	106	0.00
73	T	2-Chlorotoluene	2.850	3.235	-13.5	104	0.00
74	T	4-Chlorotoluene	2.949	3.329	-12.9	103	0.00
75	T	1,3,5-Trimethylbenzene	3.236	3.781	-16.8	103	0.00
76	T	tert-Butylbenzene	2.576	3.135	-21.7	105	0.00
77	T	1,2,4-Trimethylbenzene	3.325	3.838	-15.4	102	0.00
78	T	sec-Butylbenzene	4.005	4.518	-12.8	102	0.00
79	T	1,3-Dichlorobenzene	1.866	1.998	-7.1	102	0.00
80	T	1,4-Dichlorobenzene	1.881	1.970	-4.7	103	0.00
81	T	4-Isopropyltoluene	3.623	3.985	-10.0	101	0.00
82	T	1,2-Dichlorobenzene	1.636	1.794	-9.7	102	0.00
83	T	n-Butylbenzene	3.226	3.672	-13.8	101	0.00
84	T	1,2-Dibromo-3-chloropropane	0.113	0.123	-8.8	103	0.00
85	T	1,2,4-Trichlorobenzene	1.163	1.375	-18.2	103	0.00
86	T	Naphthalene	1.478	1.795	-21.4	105	0.00
87	T	Hexachlorobutadiene	0.878	0.945	-7.6	105	0.00
88	T	1,2,3-Trichlorobenzene	0.938	1.093	-16.5	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
11211121.D 112111.M Tue Nov 22 12:06:00 2011

8260 CCV/ICV Custom Report

Data File Name	11211121.D
Data File Path	C:\HPCHEM\1\GCMS9\DATA\112111\
Operator	KH
Date Acquired	11/21/2011 9:12
Acq. Method File	8260C
Sample Name	25 PPB ICV/SS
Instrument Name	GCMS9

11/23/11

Name	Target Response	ICAL Response	Low	High	T/F
TBA-d9	48447	48124	24062	96248	TRUE
Pentafluorobenzene	301553	302344	151172	604688	TRUE
1,4-Difluorobenzene	482139	483112	241556	966224	TRUE
Chlorobenzene-d5	427804	429428	214714	858856	TRUE
1,4-Dichlorobenzene-d4	226383	231815	115907.5	463630	TRUE

Name	Amount	Spike Level	%REC.	Low	High	T/F
Ethanol	222.96	250	89%	36%	150%	TRUE
tert-Butanol (TBA)	124.26	125	99%	70%	134%	TRUE
Dichlorodifluoromethane	21.34	25	85%	60%	140%	TRUE
Chloromethane	21.97	25	88%	48%	144%	TRUE
Vinyl Chloride	24.11	25	96%	80%	120%	TRUE
1,3-Butadiene	33.31	25	133%	50%	141%	TRUE
Bromomethane	22.67	25	91%	40%	144%	TRUE
Chloroethane	24.90	25	100%	60%	132%	TRUE
Acrolein	0.00	25	0%	80%	120%	FALSE NO CAL
Trichlorofluoromethane	28.04	25	112%	68%	136%	TRUE
Acetone	23.26	25	93%	12%	150%	TRUE
Acrylonitrile	0.00	25	0%	80%	120%	FALSE NO CAL
Iodomethane	29.19	25	117%	40%	150%	TRUE
1,1-Dichloroethene	24.29	25	97%	80%	120%	TRUE
Methylene Chloride	22.27	25	89%	68%	128%	TRUE
Freon 113	23.70	25	95%	76%	124%	TRUE
Carbon Disulfide	26.68	25	107%	64%	136%	TRUE
trans-1,2-Dichloroethene	26.17	25	105%	76%	120%	TRUE
MTBE	26.84	25	107%	64%	140%	TRUE
1,1-Dichloroethane	24.30	25	97%	72%	124%	TRUE
Vinyl Acetate	24.49	25	98%	48%	150%	TRUE
n-Hexane	24.09	25	96%	56%	150%	TRUE
2-Butanone (MEK)	23.61	25	94%	44%	150%	TRUE
Diisopropylether (DIPE)	27.16	25	109%	72%	132%	TRUE
cis-1,2-Dichloroethene	25.90	25	104%	72%	128%	TRUE
Bromochloromethane	24.90	25	100%	72%	132%	TRUE
Chloroform	23.97	25	96%	80%	120%	TRUE
2,2-Dichloropropane	24.03	25	96%	64%	140%	TRUE
(ETBE) 2-Ethoxy-2-methyl propane	24.39	25	98%	72%	140%	TRUE
Dibromofluoromethane(surr)	24.61	25	98%	80%	120%	TRUE
Tetrahydrofuran	24.54	25	98%	64%	139%	TRUE
1,2-Dichloroethane	24.48	25	98%	68%	136%	TRUE

1,1,1-Trichloroethane	25.16	25	101%	72%	132%	TRUE
(TAME) tert-Amyl methyl ether	25.75	25	103%	68%	140%	TRUE
1,1-Dichloropropene	28.57	25	114%	76%	128%	TRUE
Carbon Tetrachloride	25.36	25	101%	72%	136%	TRUE
Benzene	26.31	25	105%	76%	120%	TRUE
Dibromomethane	25.81	25	103%	72%	132%	TRUE
1,2-Dichloropropane	26.15	25	105%	80%	120%	TRUE
Trichloroethene	25.39	25	102%	80%	120%	TRUE
Bromodichloromethane	25.45	25	102%	76%	128%	TRUE
2-Chloroethyl vinylether	27.31	25	109%	10%	150%	TRUE
cis-1,3-Dichloropropene	26.50	25	106%	76%	136%	TRUE
4-Methyl-2-pentanone (MIBK)	28.25	25	113%	60%	144%	TRUE
trans-1,3-Dichloropropene	26.18	25	105%	68%	140%	TRUE
1,1,2-Trichloroethane	25.86	25	103%	72%	132%	TRUE
Toluene-d8 (surr)	25.36	25	101%	80%	120%	TRUE
Toluene	26.36	25	105%	80%	120%	TRUE
1,3-Dichloropropane	25.11	25	100%	80%	124%	TRUE
2-Hexanone	29.87	25	119%	52%	150%	TRUE
Dibromochloromethane	26.44	25	106%	80%	128%	TRUE
1,2-Dibromoethane	27.62	25	110%	80%	128%	TRUE
Tetrachloroethene	26.37	25	105%	76%	128%	TRUE
1,1,1,2-Tetrachloroethane	26.37	25	105%	76%	124%	TRUE
Chlorobenzene	25.78	25	103%	80%	120%	TRUE
Ethylbenzene	28.91	25	116%	80%	120%	TRUE
m,p-Xylene	28.22	25	113%	80%	120%	TRUE
Styrene	28.37	25	113%	84%	124%	TRUE
o-Xylene	28.58	25	114%	72%	128%	TRUE
4-Bromofluorobenzene (surr)	25.12	25	100%	80%	120%	TRUE
Bromoform	28.09	25	112%	68%	132%	TRUE
1,1,2,2-Tetrachloroethane	26.05	25	104%	68%	132%	TRUE
1,2,3-Trichloropropane	27.52	25	110%	76%	128%	TRUE
trans-1,4-Dichloro-2-butene	20.91	25	84%	48%	138%	TRUE
Isopropylbenzene	30.61	25	122%	76%	132%	TRUE
Bromobenzene	28.08	25	112%	76%	128%	TRUE
n-Propylbenzene	29.88	25	120%	76%	132%	TRUE
2-Chlorotoluene	28.38	25	114%	80%	124%	TRUE
4-Chlorotoluene	28.22	25	113%	80%	124%	TRUE
1,3,5-Trimethylbenzene	29.21	25	117%	80%	128%	TRUE
tert-Butylbenzene	28.47	25	114%	76%	132%	TRUE
1,2,4-Trimethylbenzene	28.86	25	115%	80%	128%	TRUE
sec-Butylbenzene	28.20	25	113%	80%	128%	TRUE
1,3-Dichlorobenzene	26.77	25	107%	80%	124%	TRUE
1,4-Dichlorobenzene	26.19	25	105%	76%	120%	TRUE
4-Isopropyltoluene	27.50	25	110%	80%	128%	TRUE
1,2-Dichlorobenzene	27.42	25	110%	80%	124%	TRUE
n-Butylbenzene	28.45	25	114%	76%	132%	TRUE
1,2-Dibromo-3-chloropropane	27.20	25	109%	64%	128%	TRUE
1,2,4-Trichlorobenzene	29.54	25	118%	76%	128%	TRUE
Naphthalene	27.28	25	109%	68%	136%	TRUE
Hexachlorobutadiene	26.92	25	108%	76%	132%	TRUE
1,2,3-Trichlorobenzene	29.14	25	117%	72%	128%	TRUE

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211121.D Vial: 16
Acq On : 21 Nov 2011 9:12 pm Operator: KH
Sample : 25 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:05 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.57	65	48447	200.00 ug/L	-0.02
4) Pentafluorobenzene	10.69	168	301553	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.81	114	482139	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.14	117	427804	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.58	152	226383	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.20	113	197213	24.61 ug/L	0.00
Spiked Amount 25.000			Recovery = 98.44%		
50) Toluene-d8 (surr)	14.19	98	535101	25.36 ug/L	0.00
Spiked Amount 25.000			Recovery = 101.44%		
64) 4-Bromofluorobenzene (surr	17.81	95	247375	25.12 ug/L	0.00
Spiked Amount 25.000			Recovery = 100.48%		
Target Compounds					Qvalue
2) Ethanol	6.16	45	45306	222.96 ug/L	98
3) tert-Butanol (TBA)	7.68	59	96456	124.26 ug/L	100
5) Dichlorodifluoromethane	4.87	85	381911	21.34 ug/L	99
6) Chloromethane	5.14	50	369588	21.97 ug/L	98
7) Vinyl Chloride	5.46	62	309887	24.11 ug/L	100
8) 1,3-Butadiene	5.57	54	252330	33.31 ug/L	98
9) Bromomethane	6.02	94	210313	22.67 ug/L	98
10) Chloroethane	6.21	64	176387	24.90 ug/L	98
11) Acrolein	6.96	56	325	No Calib #	
12) Trichlorofluoromethane	6.96	101	372238m	28.04 ug/L	
13) Acetone	7.10	43	72789	23.26 ug/L	100
14) Acrylonitrile	7.64	53	20679	No Calib	
15) Iodomethane	7.77	142	402511	29.19 ug/L	100
16) 1,1-Dichloroethene	7.72	96	188371	24.29 ug/L	97
17) Methylene Chloride	7.86	84	222531	22.27 ug/L	99
18) Freon 113	8.00	101	197919	23.70 ug/L	98
19) Carbon Disulfide	8.19	76	624723m	26.68 ug/L	
20) trans-1,2-Dichloroethene	8.73	96	254139	26.17 ug/L	100
21) MTBE	8.86	73	296382	26.84 ug/L	98
22) 1,1-Dichloroethane	9.05	63	491498	24.30 ug/L	99
23) Vinyl Acetate	9.20	43	350810	24.49 ug/L	99
24) n-Hexane	9.54	86	37707	24.09 ug/L	96
25) 2-Butanone (MEK)	9.59	72	13258	23.61 ug/L #	79
26) Diisopropylether (DIPE)	9.59	45	913506	27.16 ug/L	95
27) cis-1,2-Dichloroethene	9.78	96	251785	25.90 ug/L	100
28) Bromochloromethane	9.99	128	113839	24.90 ug/L	97
29) Chloroform	10.04	83	485384	23.97 ug/L	99
30) 2,2-Dichloropropane	10.15	77	186430	24.03 ug/L	100
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	305811	24.39 ug/L	99
33) Tetrahydrofuran	10.47	72	10705	24.54 ug/L #	78
34) 1,2-Dichloroethane	10.88	62	361010	24.48 ug/L	99
35) 1,1,1-Trichloroethane	11.01	97	387059	25.16 ug/L	99
36) (TAME) tert-Amyl methyl et	11.70	73	186195	25.75 ug/L	98
38) 1,1-Dichloropropene	11.25	75	338865	28.57 ug/L	99
39) Carbon Tetrachloride	11.48	117	381383	25.36 ug/L	100
0) Benzene	11.53	78	809745	26.31 ug/L	99

(#) = qualifier out of range (m) = manual integration

11211121.D 112111.M Tue Nov 22 12:06:46 2011

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211121.D Vial: 16
Acq On : 21 Nov 2011 9:12 pm Operator: KH
Sample : 25 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:05 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

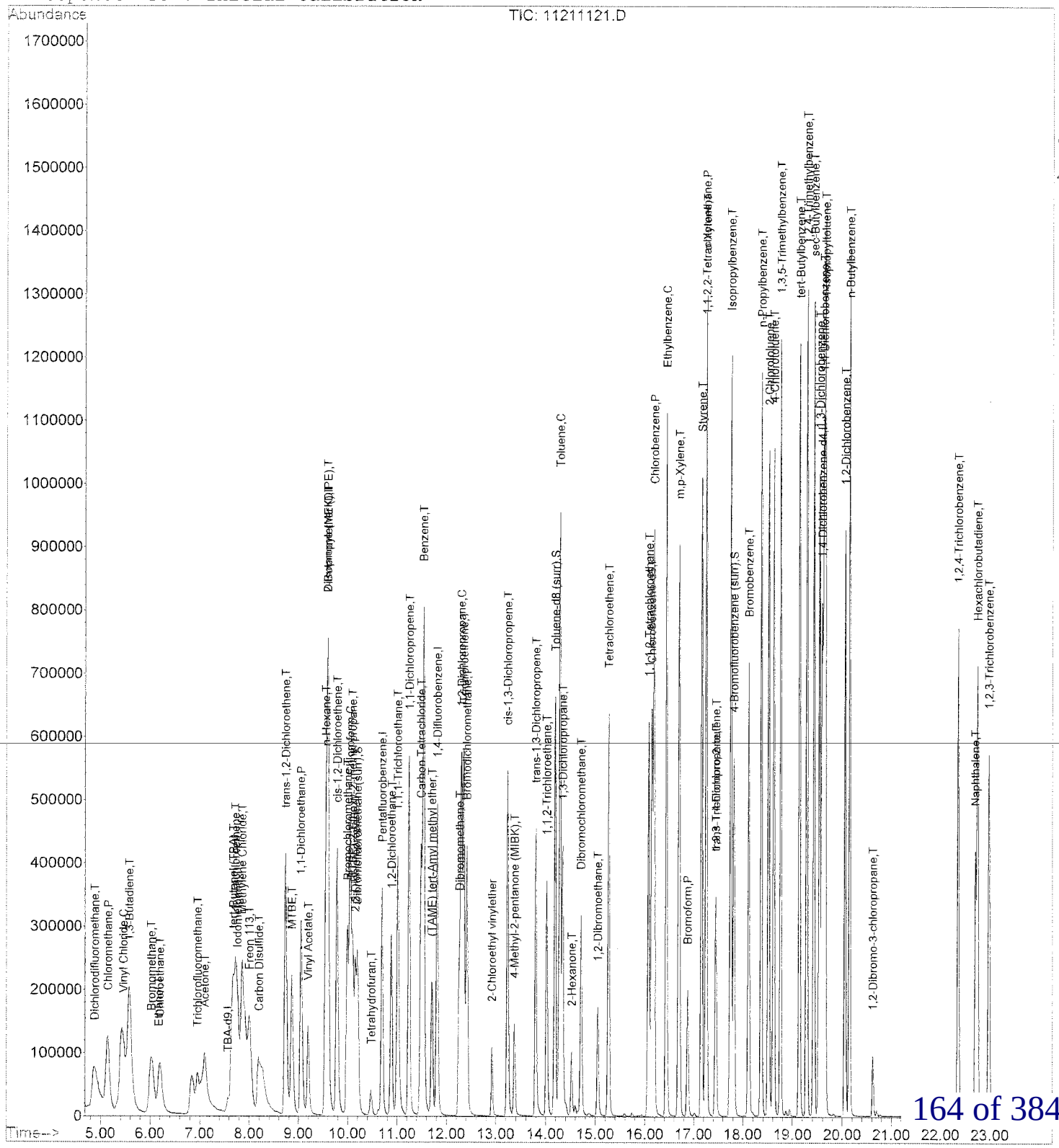
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Dibromomethane	12.26	93	129253	25.81 ug/L	98
42)	1,2-Dichloropropane	12.30	63	227712	26.15 ug/L	99
43)	Trichloroethene	12.35	95	239317	25.39 ug/L	99
44)	Bromodichloromethane	12.41	83	349767	25.45 ug/L	97
45)	2-Chloroethyl vinylether	12.92	63	50731	27.31 ug/L	99
46)	cis-1,3-Dichloropropene	13.23	75	338052	26.50 ug/L	99
47)	4-Methyl-2-pentanone (MIBK	13.37	43	144009	28.25 ug/L	98
48)	trans-1,3-Dichloropropene	13.80	75	291017	26.18 ug/L	99
49)	1,1,2-Trichloroethane	14.02	97	142425	25.86 ug/L	99
51)	Toluene	14.28	92	480091	26.36 ug/L	100
53)	1,3-Dichloropropane	14.34	76	250032	25.11 ug/L	99
54)	2-Hexanone	14.52	43	97592	29.87 ug/L	98
55)	Dibromochloromethane	14.72	129	213264	26.44 ug/L	99
56)	1,2-Dibromoethane	15.05	107	154262	27.62 ug/L	99
57)	Tetrachloroethene	15.27	164	175556	26.37 ug/L	97
58)	1,1,1,2-Tetrachloroethane	16.07	131	223836	26.37 ug/L	98
59)	Chlorobenzene	16.18	112	571959	25.78 ug/L	99
60)	Ethylbenzene	16.44	91	967844	28.91 ug/L	100
61)	m,p-Xylene	16.70	106	357615	28.22 ug/L	100
62)	Styrene	17.15	104	576883	28.37 ug/L	99
63)	o-Xylene	17.25	106	357005	28.58 ug/L	99
66)	Bromoform	16.88	173	116731	28.09 ug/L	98
67)	1,1,2,2-Tetrachloroethane	17.24	83	148790	26.05 ug/L	96
68)	1,2,3-Trichloropropane	17.44	110	47782	27.52 ug/L	96
69)	trans-1,4-Dichloro-2-buten	17.46	53	50517	20.91 ug/L	99
70)	Isopropylbenzene	17.75	105	977362	30.61 ug/L	100
71)	Bromobenzene	18.11	156	232230	28.08 ug/L	100
72)	n-Propylbenzene	18.36	91	1154299	29.88 ug/L	99
73)	2-Chlorotoluene	18.51	91	732447	28.38 ug/L	99
74)	4-Chlorotoluene	18.61	91	753741	28.22 ug/L	100
75)	1,3,5-Trimethylbenzene	18.75	105	856027	29.21 ug/L	100
76)	tert-Butylbenzene	19.14	119	709624	28.47 ug/L	99
77)	1,2,4-Trimethylbenzene	19.29	105	868898	28.86 ug/L	100
78)	sec-Butylbenzene	19.42	105	1022752	28.20 ug/L	99
79)	1,3-Dichlorobenzene	19.53	146	452384	26.77 ug/L	99
80)	1,4-Dichlorobenzene	19.61	146	446022	26.19 ug/L	99
81)	4-Isopropyltoluene	19.65	119	902156	27.50 ug/L	99
82)	1,2-Dichlorobenzene	20.05	146	406190	27.42 ug/L	99
83)	n-Butylbenzene	20.15	91	831233	28.45 ug/L	99
84)	1,2-Dibromo-3-chloropropan	20.62	75	27734	27.20 ug/L	96
85)	1,2,4-Trichlorobenzene	22.35	180	311205	29.54 ug/L	99
86)	Naphthalene	22.71	128	406305	27.28 ug/L	99
87)	Hexachlorobutadiene	22.75	225	213945	26.92 ug/L	99
88)	1,2,3-Trichlorobenzene	22.99	180	247456	29.14 ug/L	99

(#) = qualifier out of range (m) = manual integration
11211121.D 112111.M Tue Nov 22 12:06:47 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211121.D Vial: 16
Acq On : 21 Nov 2011 9:12 pm Operator: KH
Sample : 25 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:05 2011 Quant Results File: 112111.RES

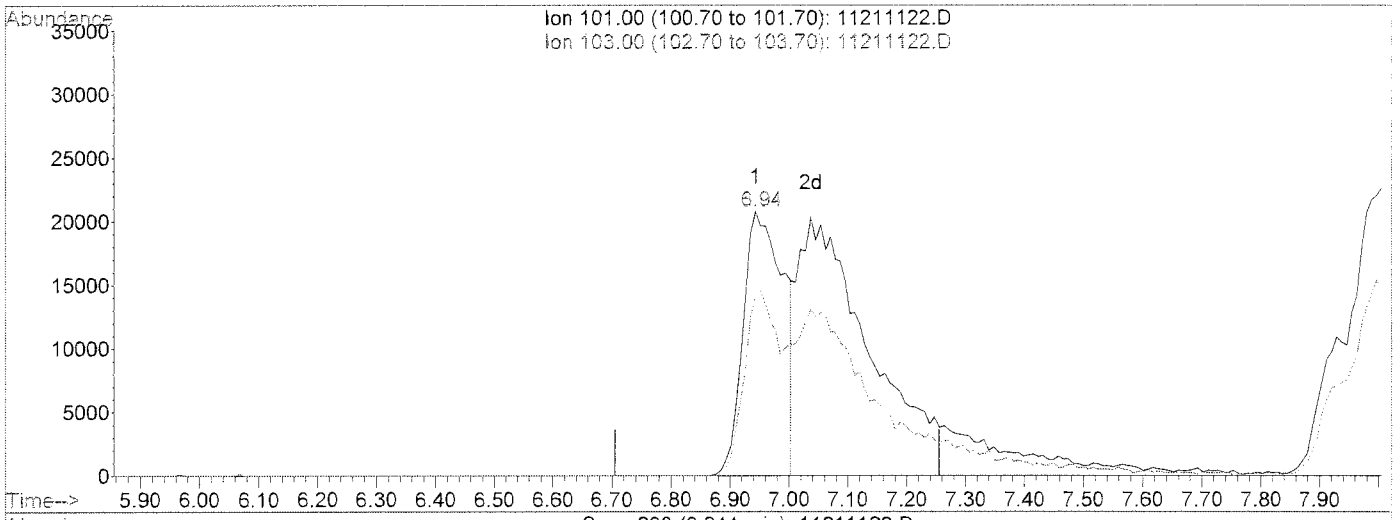
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

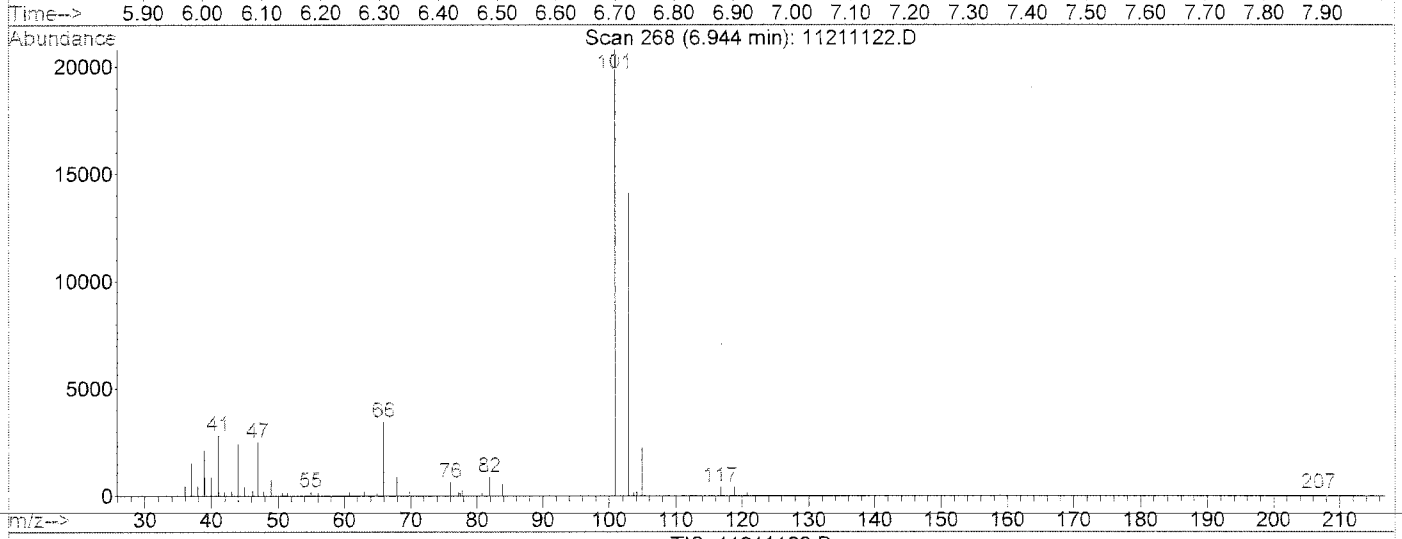


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211122.D Vial: 17
Acq On : 21 Nov 2011 9:43 pm Operator: KH
Sample : 20 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:21 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211122.D

(12) Trichlorofluoromethane (T)

6.94min 7.28ug/L

response 98248

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	68.56
0.00	0.00	0.00
0.00	0.00	0.00

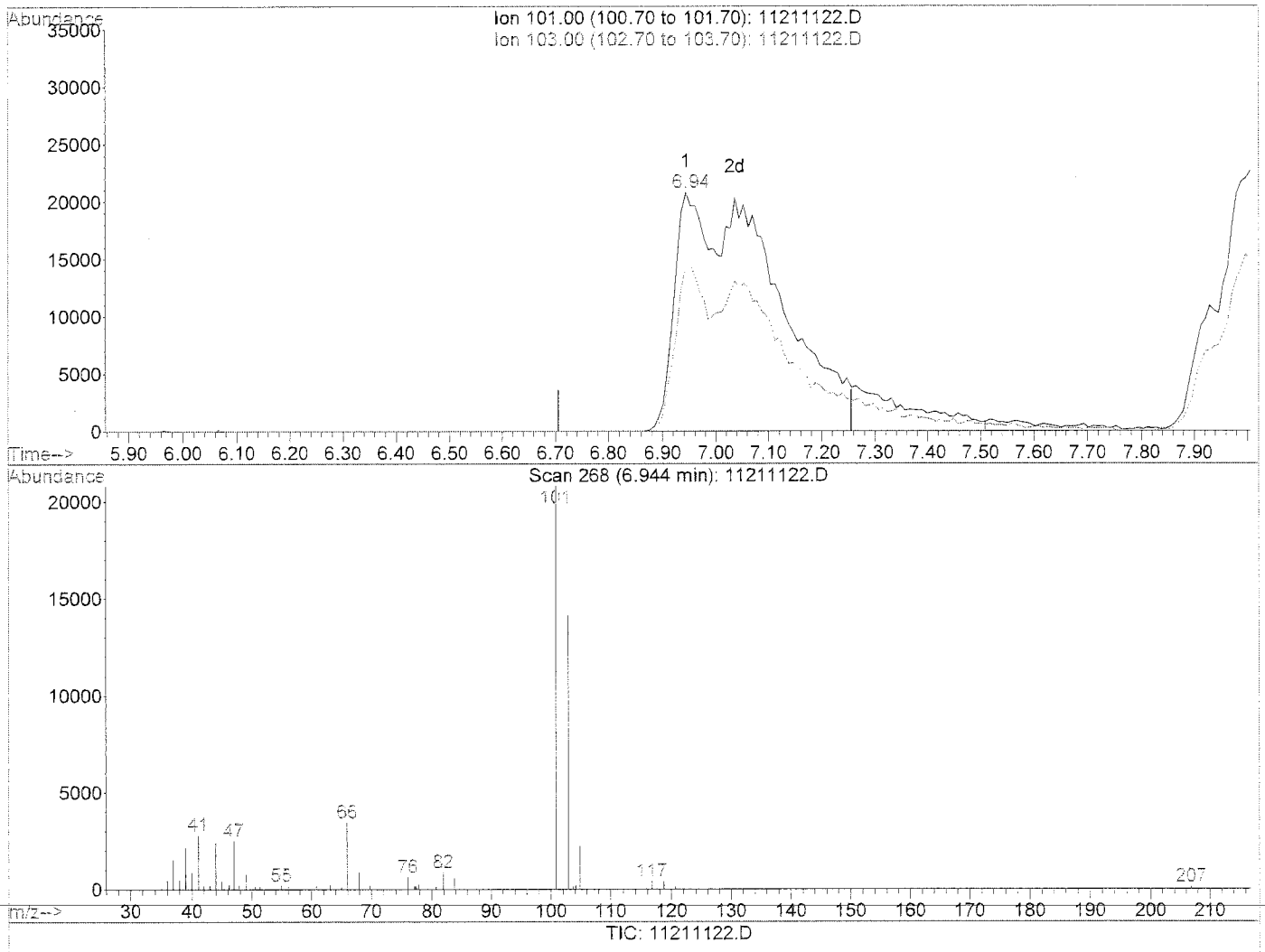
11/23/11

NIP
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211122.D Vial: 17
Acq On : 21 Nov 2011 9:43 pm Operator: KH
Sample : 20 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:21 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration



(12) Trichlorofluoromethane (T)

6.94min 22.13ug/L m

response 298636

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	67.87
0.00	0.00	0.00
0.00	0.00	0.00

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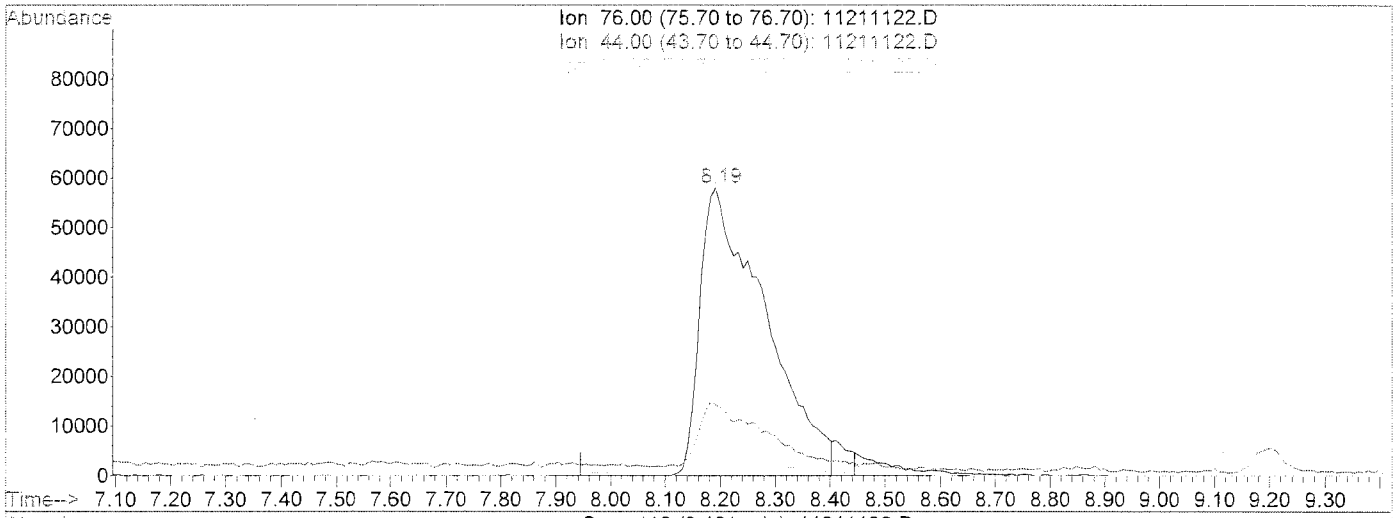
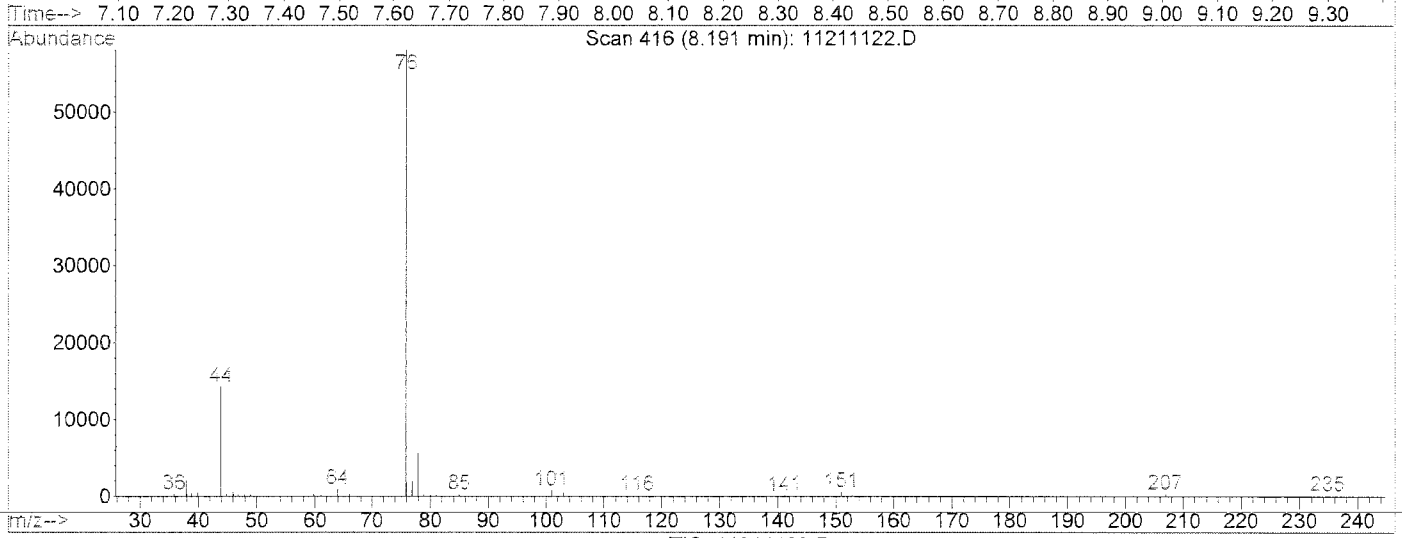
11211122.D 112111.M Tue Nov 22 12:21:53 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211122.D Vial: 17
Acq On : 21 Nov 2011 9:43 pm Operator: KH
Sample : 20 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:21 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211122.D

11/23/11

(19) Carbon Disulfide (T)

8.19min 19.99ug/L

response 475811

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	21.54
78.00	3.90	4.22
0.00	0.00	0.00

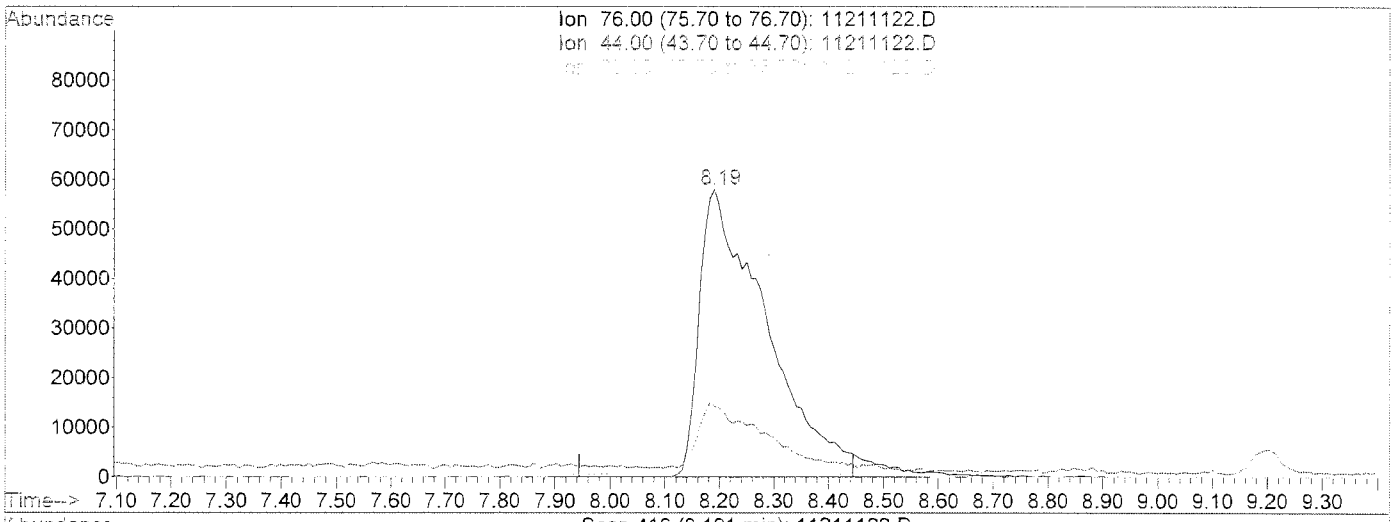
B
MP
11/22/11

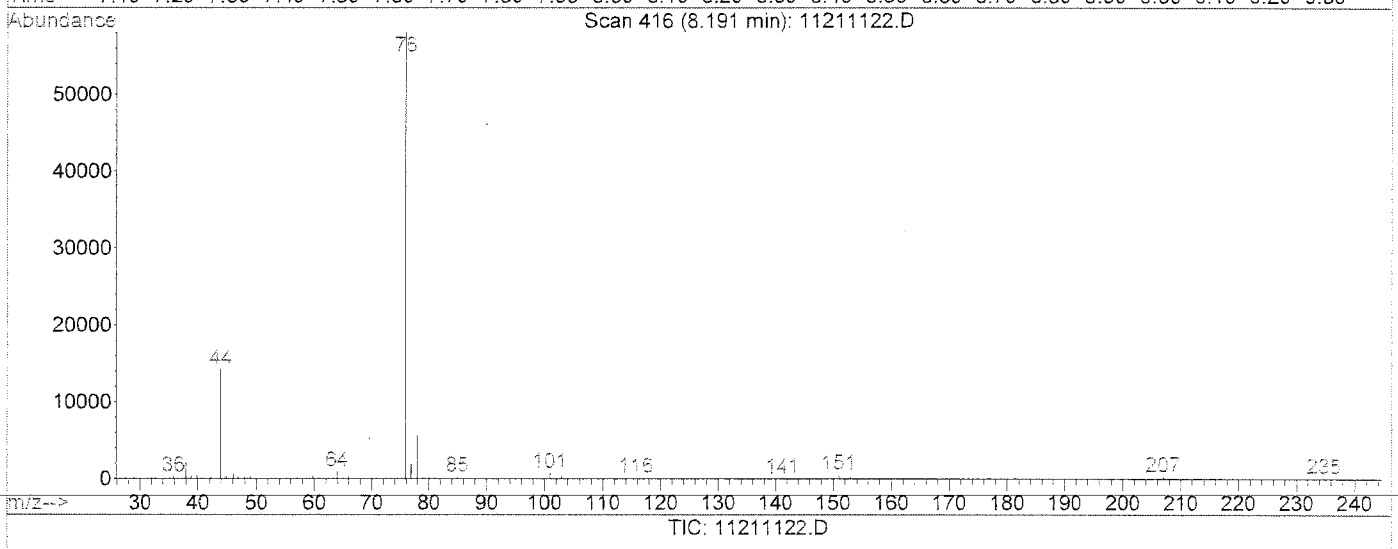
11211122.D 112111.M Tue Nov 22 12:22:28 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211122.D Vial: 17
Acq On : 21 Nov 2011 9:43 pm Operator: KH
Sample : 20 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:22 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211122.D

(19) Carbon Disulfide (T)

8.19min 21.46ug/L m

response 510918

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	20.06
78.00	3.90	3.93
0.00	0.00	0.00

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11211122.D 112111.M Tue Nov 22 12:22:40 2011

624 CCV/ICV Custom Report

Data File Name	11211122.D
Data File Path	C:\HPCHEM\1\GCMS9\DATA\112111\
Operator	KH
Date Acquired	11/21/2011 9:43
Acq. Method File	8260C
Sample Name	20 PPB ICV/SS
Instrument Name	GCMS9

11/23/11

Name	Target Response	ICAL Response	Low	High	T/F
TBA-d9	108956	110195	55097.5	220390	TRUE
Pentafluorobenzene	543582	543057	271528.5	1086114	TRUE
1,4-Difluorobenzene	908524	902453	451226.5	1804906	TRUE
Chlorobenzene-d5	812386	810477	405238.5	1620954	TRUE
1,4-Dichlorobenzene-d4	226987	231815	115907.5	463630	TRUE

Name	Amount	Spike Level	%REC.	Low	High	T/F
Ethanol	222.69	200	111	36	150	TRUE
tert-Butanol (TBA)	104.48	100	104	70	134	TRUE
Dichlorodifluoromethane	17.09	20	85	60	140	TRUE
Chloromethane	19.03	20	95	0	204	TRUE
Vinyl Chloride	20.60	20	103	4	196	TRUE
1,3-Butadiene	28.36	20	142	50	141	FALSE NT
Bromomethane	19.43	20	97	14	186	TRUE
Chloroethane	20.86	20	104	38	162	TRUE
Acrolein	0.00	20	0	80	120	FALSE
Trichlorofluoromethane	22.13	20	111	48	152	TRUE NO CAL
Acetone	18.90	20	94	12	150	TRUE
Acrylonitrile	0.00	20	0	80	120	FALSE NO CAL
Iodomethane	23.63	20	118	40	150	TRUE
1,1-Dichloroethene	19.05	20	95	50	150	TRUE
Methylene Chloride	17.88	20	89	60	140	TRUE
Freon 113	18.82	20	94	76	124	TRUE
Carbon Disulfide	21.46	20	107	64	136	TRUE
trans-1,2-Dichloroethene	20.19	20	101	70	130	TRUE
MTBE	21.57	20	108	64	140	TRUE
1,1-Dichloroethane	18.88	20	94	72	128	TRUE
Vinyl Acetate	18.81	20	94	48	150	TRUE
n-Hexane	18.68	20	93	56	150	TRUE
2-Butanone (MEK)	22.00	20	110	44	150	TRUE
Diisopropylether (DIPE)	21.49	20	107	72	132	TRUE
cis-1,2-Dichloroethene	20.34	20	102	72	128	TRUE
Bromochloromethane	19.65	20	98	72	132	TRUE
Chloroform	18.66	20	93	68	132	TRUE
2,2-Dichloropropane	17.03	20	85	64	140	TRUE
(ETBE) 2-Ethoxy-2-methyl propane	18.78	20	94	72	140	TRUE
Dibromofluoromethane(surr)	24.04	25	96	80	120	TRUE
Tetrahydrofuran	21.25	20	106	64	139	TRUE
1,2-Dichloroethane	19.42	20	97	68	132	TRUE
1,1,1-Trichloroethane	19.27	20	96	75	125	TRUE

11/24/11

(TAME) tert-Amyl methyl ether	18.87	20	94	68	140	TRUE
1,1-Dichloropropene	22.78	20	114	76	128	TRUE
Carbon Tetrachloride	19.97	20	100	73	127	TRUE
Benzene	21.12	20	106	64	136	TRUE
Dibromomethane	21.23	20	106	72	132	TRUE
1,2-Dichloropropane	21.02	20	105	34	166	TRUE
Trichloroethene	20.27	20	101	66	133	TRUE
Bromodichloromethane	20.33	20	102	66	134	TRUE
2-Chloroethyl vinylether	22.01	20	110	0	224	TRUE
cis-1,3-Dichloropropene	21.48	20	107	24	176	TRUE
4-Methyl-2-pentanone (MIBK)	23.40	20	117	60	144	TRUE
trans-1,3-Dichloropropene	20.76	20	104	50	150	TRUE
1,1,2-Trichloroethane	21.71	20	109	71	129	TRUE
Toluene-d8 (surr)	25.62	25	102	80	120	TRUE
Toluene	21.58	20	108	74	126	TRUE
1,3-Dichloropropane	20.93	20	105	80	124	TRUE
2-Hexanone	23.53	20	118	52	150	TRUE
Dibromochloromethane	20.98	20	105	68	132	TRUE
1,2-Dibromoethane	21.77	20	109	80	128	TRUE
Tetrachloroethene	20.39	20	102	74	126	TRUE
1,1,1,2-Tetrachloroethane	20.97	20	105	76	124	TRUE
Chlorobenzene	20.25	20	101	66	134	TRUE
Ethylbenzene	22.49	20	112	59	141	TRUE
m,p-Xylene	22.51	20	113	80	120	TRUE
Styrene	22.35	20	112	84	124	TRUE
o-Xylene	22.53	20	113	72	128	TRUE
4-Bromofluorobenzene (surr)	24.81	25	99	80	120	TRUE
Bromoform	22.03	20	110	71	129	TRUE
1,1,2,2-Tetrachloroethane	21.50	20	108	61	140	TRUE
1,2,3-Trichloropropane	21.92	20	110	76	128	TRUE
trans-1,4-Dichloro-2-butene	16.00	20	80	48	138	TRUE
Isopropylbenzene	23.94	20	120	76	132	TRUE
Bromobenzene	21.64	20	108	76	128	TRUE
n-Propylbenzene	23.39	20	117	76	132	TRUE
2-Chlorotoluene	21.88	20	109	80	124	TRUE
4-Chlorotoluene	22.01	20	110	80	124	TRUE
1,3,5-Trimethylbenzene	22.66	20	113	80	128	TRUE
tert-Butylbenzene	22.06	20	110	76	132	TRUE
1,2,4-Trimethylbenzene	22.68	20	113	80	128	TRUE
sec-Butylbenzene	22.09	20	110	80	128	TRUE
1,3-Dichlorobenzene	21.30	20	107	73	127	TRUE
1,4-Dichlorobenzene	20.60	20	103	63	137	TRUE
4-Isopropyltoluene	21.53	20	108	80	128	TRUE
1,2-Dichlorobenzene	21.52	20	108	63	137	TRUE
n-Butylbenzene	22.20	20	111	76	132	TRUE
1,2-Dibromo-3-chloropropane	23.05	20	115	64	128	TRUE
1,2,4-Trichlorobenzene	24.31	20	122	76	128	TRUE
Naphthalene	23.03	20	115	68	136	TRUE
Hexachlorobutadiene	20.80	20	104	76	132	TRUE
1,2,3-Trichlorobenzene	24.64	20	123	72	128	TRUE

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211122.D Vial: 17
Acq On : 21 Nov 2011 9:43 pm Operator: KH
Sample : 20 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:22 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.58	65	48348	200.00 ug/L	0.00
4) Pentafluorobenzene	10.69	168	306557	25.00 ug/L	-0.01
37) 1,4-Difluorobenzene	11.81	114	475316	25.00 ug/L	-0.01
52) Chlorobenzene-d5	16.14	117	429920	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.58	152	226987	25.00 ug/L	-0.01
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.20	113	195804	24.04 ug/L	-0.01
Spiked Amount 25.000			Recovery = 96.16%		
50) Toluene-d8 (surr)	14.18	98	533056	25.62 ug/L	0.00
Spiked Amount 25.000			Recovery = 102.48%		
64) 4-Bromofluorobenzene (surr	17.82	95	245533	24.81 ug/L	0.00
Spiked Amount 25.000			Recovery = 99.24%		
Target Compounds					Qvalue
2) Ethanol	6.17	45	45160	222.69 ug/L	98
3) tert-Butanol (TBA)	7.69	59	80938	104.48 ug/L	98
5) Dichlorodifluoromethane	4.87	85	310907	17.09 ug/L	99
6) Chloromethane	5.13	50	325392	19.03 ug/L	97
7) Vinyl Chloride	5.46	62	269138	20.60 ug/L	98
8) 1,3-Butadiene	5.58	54	218389	28.36 ug/L	95
9) Bromomethane	6.01	94	183218	19.43 ug/L	97
10) Chloroethane	6.19	64	150214	20.86 ug/L	99
11) Acrolein	6.94	56	241	No Calib #	
12) Trichlorofluoromethane	6.94	101	298636m	22.13 ug/L	
13) Acetone	7.10	43	60114	18.90 ug/L	97
14) Acrylonitrile	7.64	53	17225	No Calib	
15) Iodomethane	7.76	142	331293	23.63 ug/L	99
16) 1,1-Dichloroethene	7.70	96	150173	19.05 ug/L	96
17) Methylene Chloride	7.86	84	181637	17.88 ug/L	98
18) Freon 113	8.01	101	159733	18.82 ug/L	100
19) Carbon Disulfide	8.19	76	510918m	21.46 ug/L	
20) trans-1,2-Dichloroethene	8.73	96	199334	20.19 ug/L	99
21) MTBE	8.87	73	242121	21.57 ug/L	98
22) 1,1-Dichloroethane	9.05	63	388101	18.88 ug/L	99
23) Vinyl Acetate	9.19	43	270015	18.81 ug/L	100
24) n-Hexane	9.55	86	29722	18.68 ug/L	95
25) 2-Butanone (MEK)	9.58	72	12560	22.00 ug/L #	66
26) Diisopropylether (DIPE)	9.59	45	734830	21.49 ug/L	95
27) cis-1,2-Dichloroethene	9.78	96	201012	20.34 ug/L	100
28) Bromochloromethane	9.99	128	91338	19.65 ug/L	99
29) Chloroform	10.04	83	383967	18.66 ug/L	99
30) 2,2-Dichloropropane	10.15	77	134302	17.03 ug/L	96
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	239439	18.78 ug/L #	86
33) Tetrahydrofuran	10.47	72	9427	21.25 ug/L #	90
34) 1,2-Dichloroethane	10.88	62	291216	19.42 ug/L	99
35) 1,1,1-Trichloroethane	11.01	97	301391	19.27 ug/L	99
36) (TAME) tert-Amyl methyl et	11.71	73	138690	18.87 ug/L	99
38) 1,1-Dichloropropene	11.24	75	266309	22.78 ug/L	99
39) Carbon Tetrachloride	11.49	117	296076	19.97 ug/L	99
0) Benzene	11.54	78	640707	21.12 ug/L	100

(#) = qualifier out of range (m) = manual integration

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211122.D Vial: 17
Acq On : 21 Nov 2011 9:43 pm Operator: KH
Sample : 20 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:22 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

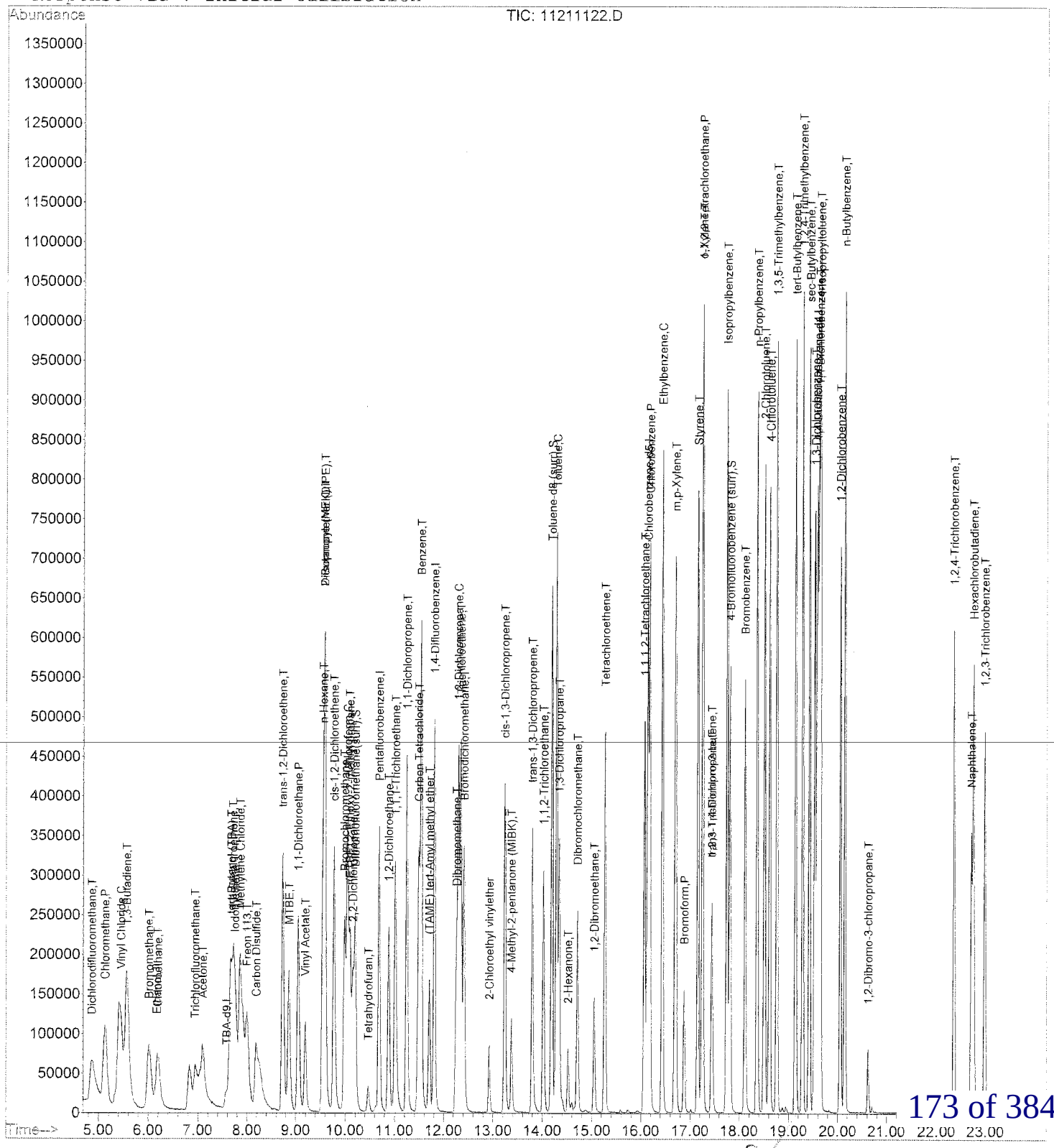
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Dibromomethane	12.25	93	104781	21.23 ug/L	99
42)	1,2-Dichloropropane	12.30	63	180453	21.02 ug/L	100
43)	Trichloroethene	12.35	95	188354	20.27 ug/L	99
44)	Bromodichloromethane	12.41	83	275442	20.33 ug/L	98
45)	2-Chloroethyl vinylether	12.93	63	39526	22.01 ug/L	98
46)	cis-1,3-Dichloropropene	13.24	75	269517	21.48 ug/L	98
47)	4-Methyl-2-pentanone (MIBK	13.37	43	117574	23.40 ug/L	97
48)	trans-1,3-Dichloropropene	13.80	75	226999	20.76 ug/L	99
49)	1,1,2-Trichloroethane	14.02	97	117881	21.71 ug/L	98
51)	Toluene	14.28	92	387421	21.58 ug/L	97
53)	1,3-Dichloropropane	14.33	76	209501	20.93 ug/L	99
54)	2-Hexanone	14.52	43	77275	23.53 ug/L	96
55)	Dibromochloromethane	14.71	129	170091	20.98 ug/L	100
56)	1,2-Dibromoethane	15.05	107	122207	21.77 ug/L	97
57)	Tetrachloroethene	15.27	164	136456	20.39 ug/L	100
58)	1,1,1,2-Tetrachloroethane	16.07	131	178893	20.97 ug/L	98
59)	Chlorobenzene	16.18	112	451432	20.25 ug/L	100
60)	Ethylbenzene	16.44	91	756655	22.49 ug/L	100
61)	m,p-Xylene	16.69	106	286631	22.51 ug/L	97
62)	Styrene	17.15	104	455939	22.35 ug/L	99
63)	o-Xylene	17.26	106	282979	22.53 ug/L	99
66)	Bromoform	16.88	173	91784	22.03 ug/L	99
67)	1,1,2,2-Tetrachloroethane	17.24	83	123129	21.50 ug/L	99
68)	1,2,3-Trichloropropane	17.44	110	38156	21.92 ug/L	99
69)	trans-1,4-Dichloro-2-buten	17.45	53	38266	16.00 ug/L	99
70)	Isopropylbenzene	17.75	105	765347	23.94 ug/L	100
71)	Bromobenzene	18.12	156	179454	21.64 ug/L	99
72)	n-Propylbenzene	18.36	91	905829	23.39 ug/L	100
73)	2-Chlorotoluene	18.51	91	566034	21.88 ug/L	99
74)	4-Chlorotoluene	18.62	91	589338	22.01 ug/L	99
75)	1,3,5-Trimethylbenzene	18.76	105	665841	22.66 ug/L	100
76)	tert-Butylbenzene	19.14	119	550489	22.06 ug/L	100
77)	1,2,4-Trimethylbenzene	19.28	105	684594	22.68 ug/L	100
78)	sec-Butylbenzene	19.42	105	803388	22.09 ug/L	99
79)	1,3-Dichlorobenzene	19.53	146	360935	21.30 ug/L	99
80)	1,4-Dichlorobenzene	19.62	146	351690	20.60 ug/L	99
81)	4-Isopropyltoluene	19.64	119	708284	21.53 ug/L	100
82)	1,2-Dichlorobenzene	20.06	146	319625	21.52 ug/L	100
83)	n-Butylbenzene	20.14	91	650211	22.20 ug/L	100
84)	1,2-Dibromo-3-chloropropan	20.62	75	23565	23.05 ug/L	99
85)	1,2,4-Trichlorobenzene	22.36	180	256778	24.31 ug/L	98
86)	Naphthalene	22.71	128	341778	23.03 ug/L	99
87)	Hexachlorobutadiene	22.75	225	165731	20.80 ug/L	99
88)	1,2,3-Trichlorobenzene	22.98	180	209805	24.64 ug/L	98

(#) = qualifier out of range (m) = manual integration
11211122.D 112111.M Tue Nov 22 12:26:17 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211122.D Vial: 17
Acq On : 21 Nov 2011 9:43 pm Operator: KH
Sample : 20 PPB ICV/SS Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 12:22 2011 Quant Results File: 112111.RES

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211110.D Vial: 5
Acq On : 21 Nov 2011 3:25 pm Operator: KH
Sample : BLANK Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:19 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) TBA-d9	7.59	65	42223	200.00	ug/L	0.00
4) Pentafluorobenzene	10.70	168	296439	25.00	ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	468239	25.00	ug/L	0.00
52) Chlorobenzene-d5	16.15	117	398221	25.00	ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.58	152	193155	25.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(surr)	10.21	113	197807	25.11	ug/L	0.00
Spiked Amount 25.000			Recovery = 100.44%			
50) Toluene-d8 (surr)	14.19	98	507261	24.75	ug/L	0.00
Spiked Amount 25.000			Recovery = 99.00%			
64) 4-Bromofluorobenzene (surr	17.82	95	218807	23.87	ug/L	0.00
Spiked Amount 25.000			Recovery = 95.48%			

Target Compounds						Qvalue
2) Ethanol	6.19	45	205	1.16	ug/L # VOL	40
13) Acetone	7.11	43	1476	0.48	ug/L #	56
17) Methylene Chloride	7.89	84	1777	0.18	ug/L #	85
23) Vinyl Acetate	9.14	43	56	1.12	ug/L # NSM	82
33) Tetrahydrofuran	10.48	72	443	1.03	ug/L # VOL	76
36) (TAME) tert-Amyl methyl et	11.81	73	6809	0.96	ug/L #	38
70) Isopropylbenzene	17.82	105	406	0.17	ug/L #	52
76) tert-Butylbenzene	19.15	119	172	0.15	ug/L #	22
86) Naphthalene	22.71	128	205	0.92	ug/L #	67

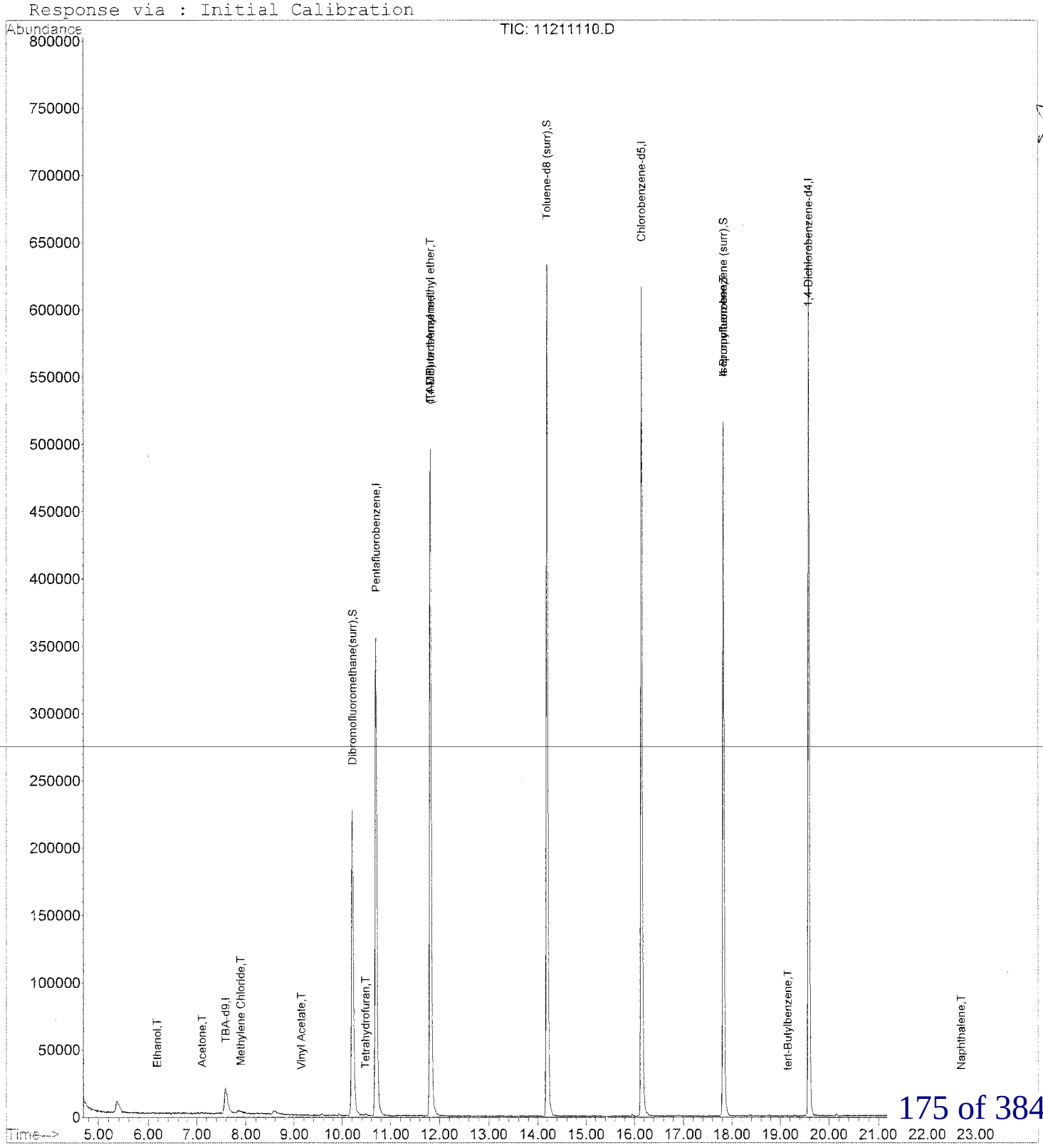
(#) = qualifier out of range (m) = manual integration
11211110.D 112111.M Tue Nov 22 14:20:09 2011

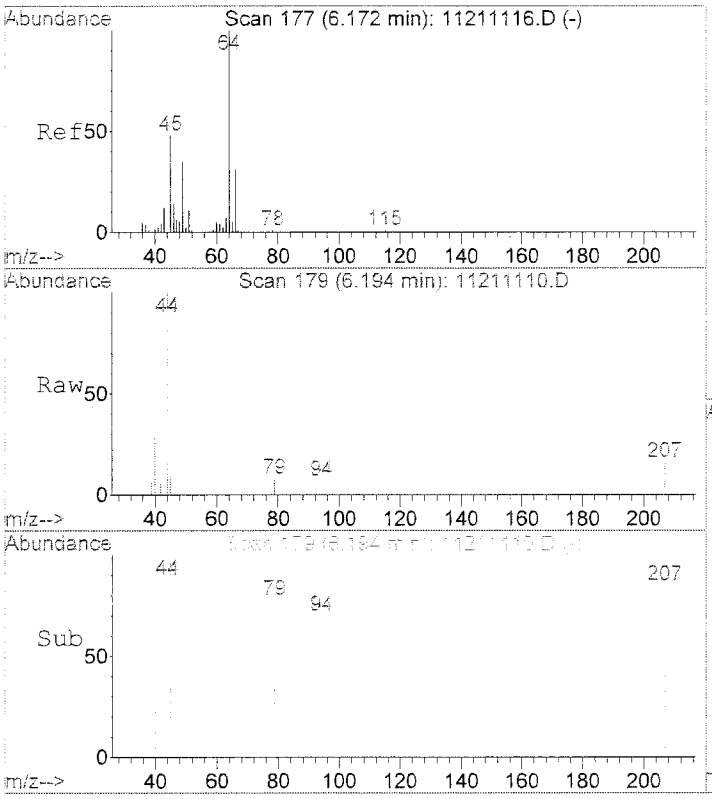
11/22/11

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211110.D Vial: 5
Acq On : 21 Nov 2011 3:25 pm Operator: KH
Sample : BLANK Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:19 2011 Quant Results File: 112111.RES

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

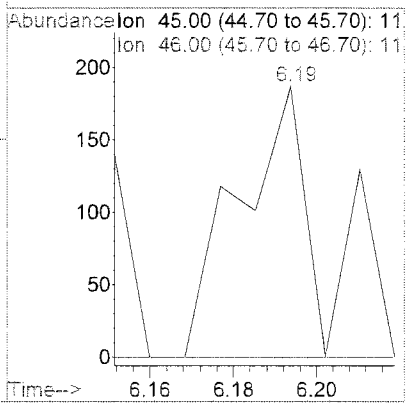


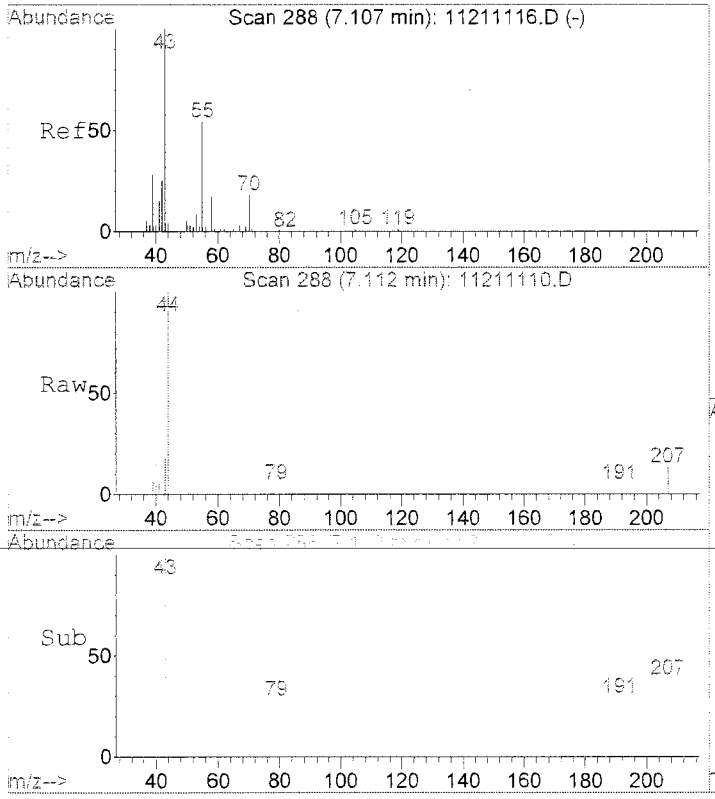


#2
Ethanol
Concen: 1.16 ug/L
RT: 6.19 min Scan# 179
Delta R.T. 0.02 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 45 Resp: 205

Ion	Ratio	Lower	Upper
45	100		
46	0.0	28.2	42.2#

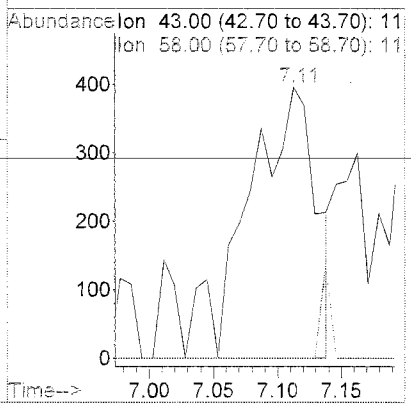


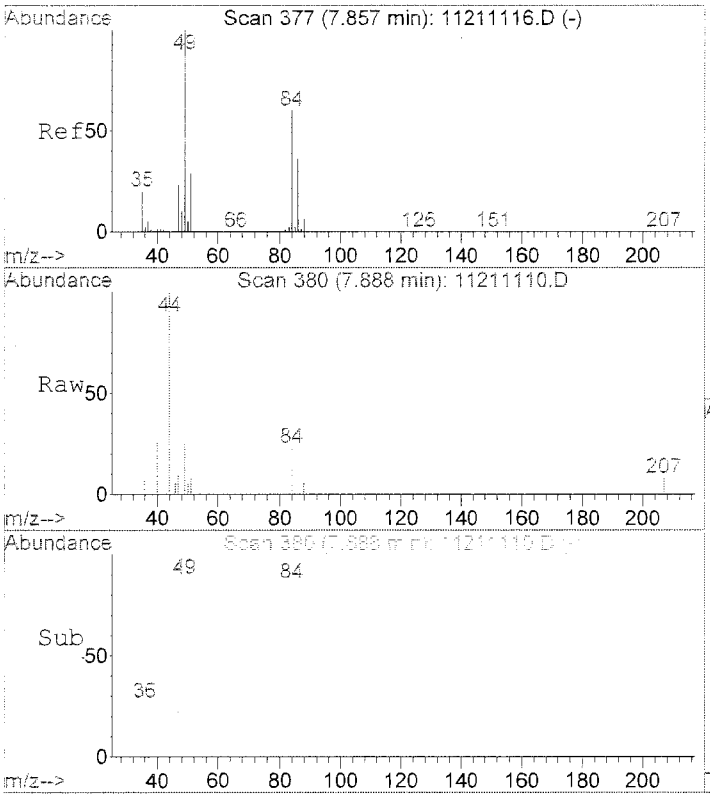


#13
Acetone
Concen: 0.48 ug/L
RT: 7.11 min Scan# 288
Delta R.T. 0.01 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 43 Resp: 1476

Ion	Ratio	Lower	Upper
43	100		
58	0.0	16.4	24.6#

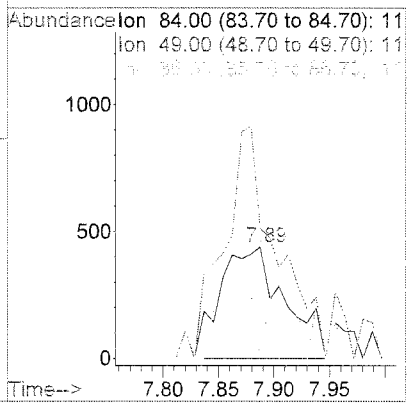


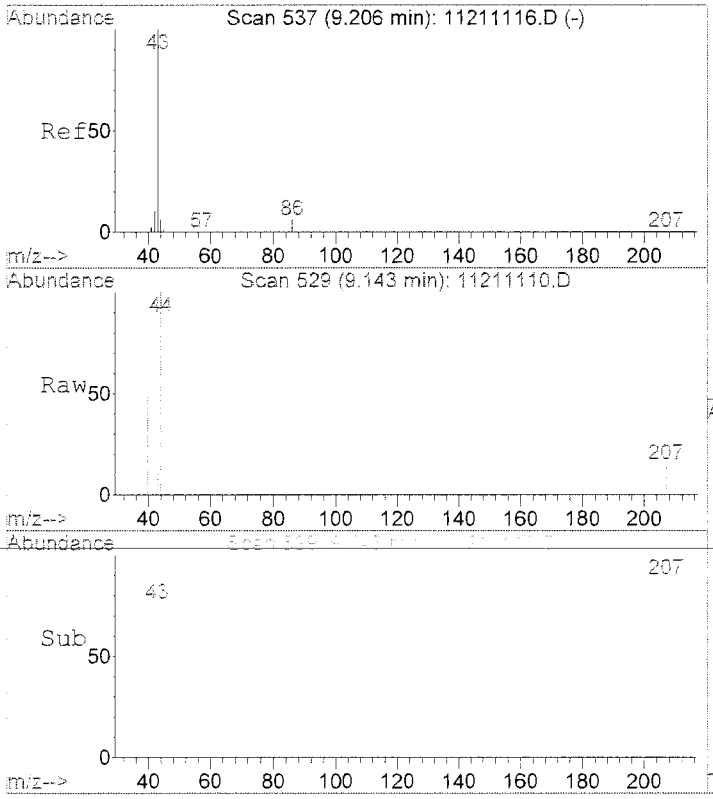


#17
Methylene Chloride
Concen: 0.18 ug/L
RT: 7.89 min Scan# 380
Delta R.T. 0.03 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 84 Resp: 1777

Ion	Ratio	Lower	Upper
84	100		
49	171.0	133.1	199.7
86	29.3	51.0	76.4#

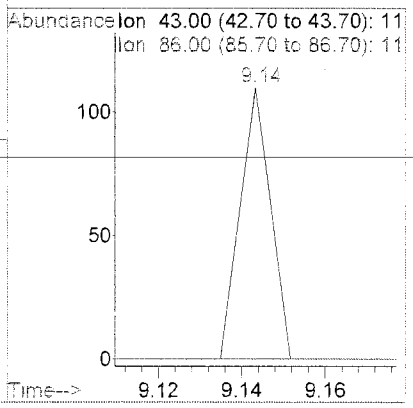




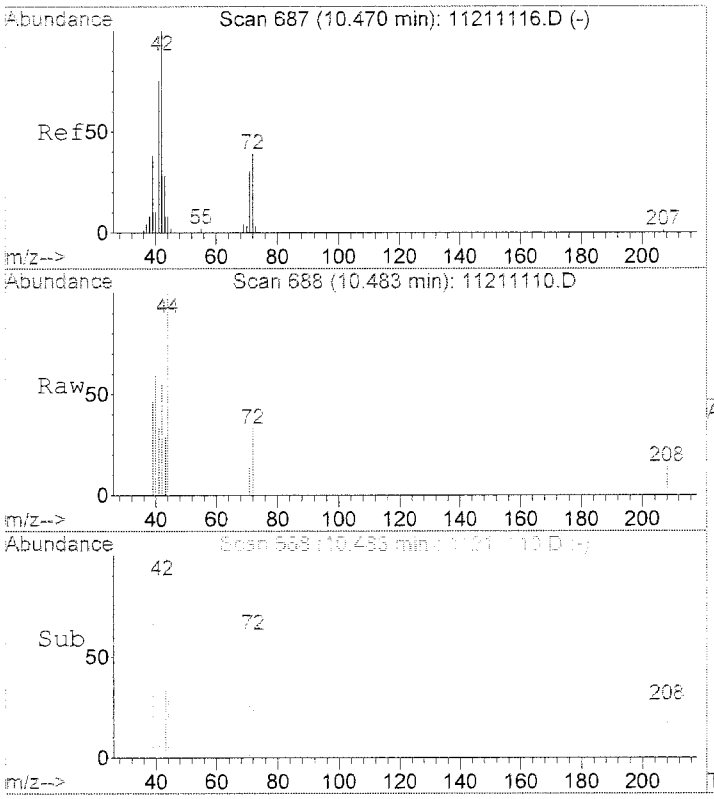
#23
Vinyl Acetate
Concen: 1.12 ug/L
RT: 9.14 min Scan# 529
Delta R.T. -0.06 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 43 Resp: 56

Ion	Ratio	Lower	Upper
43	100		
86	0.0	4.7	7.1#



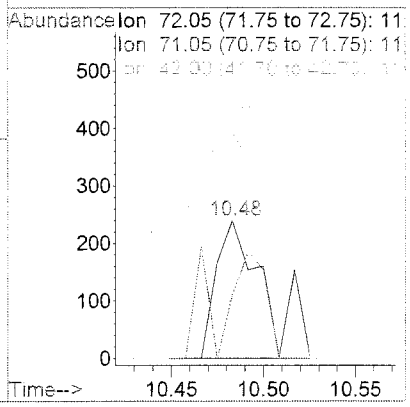
NSM

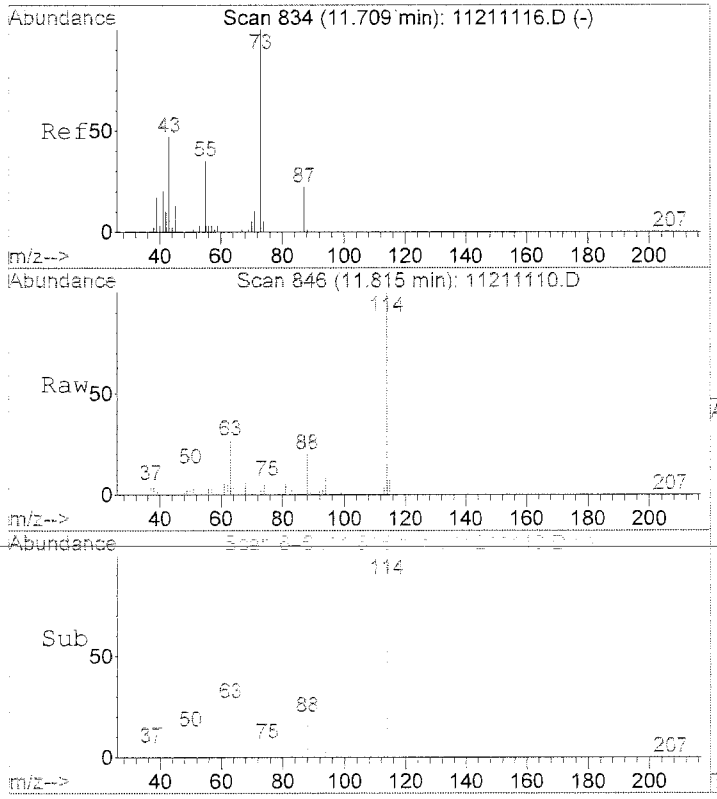


#33
Tetrahydrofuran
Concen: 1.03 ug/L
RT: 10.48 min Scan# 688
Delta R.T. 0.01 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 72 Resp: 443

Ion	Ratio	Lower	Upper
72	100		
71	51.2	68.4	108.4#
42	259.6	276.4	316.4#

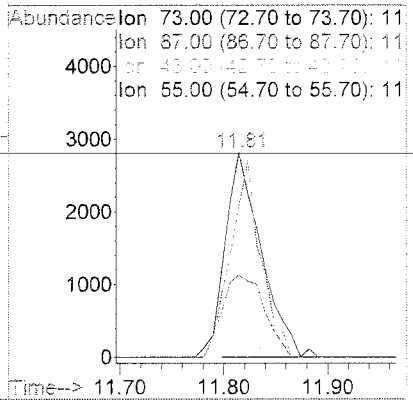


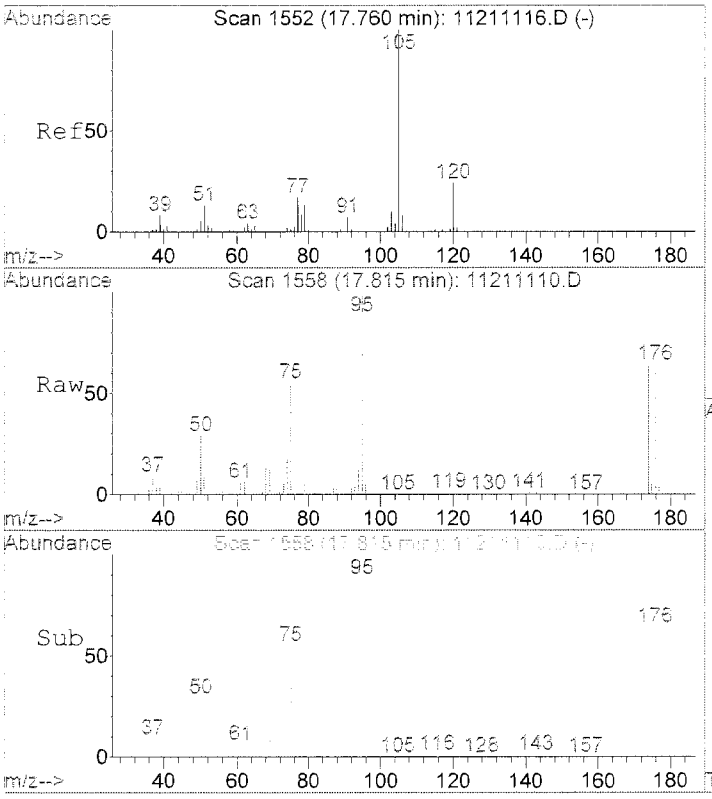


#36
(TAME) tert-Amyl methyl ether
Concen: 0.96 ug/L
RT: 11.81 min Scan# 846
Delta R.T. 0.11 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion: 73 Resp: 6809

Ion	Ratio	Lower	Upper
73	100		
87	80.2	2.5	42.5#
43	3.2	31.5	71.5#
55	46.6	16.7	56.7

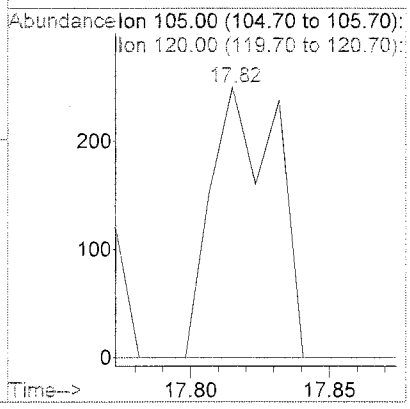


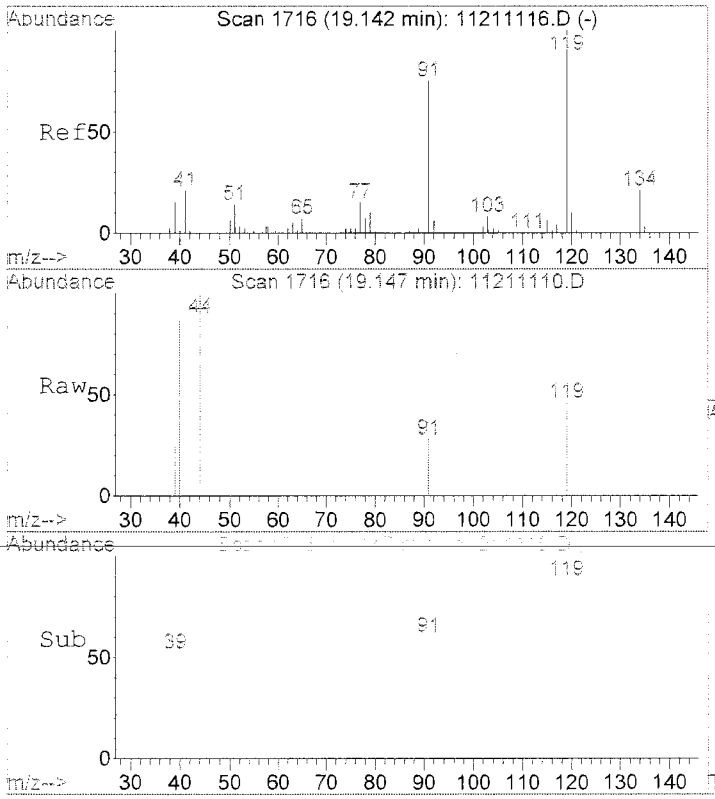


#70
Isopropylbenzene
Concen: 0.17 ug/L
RT: 17.82 min Scan# 1558
Delta R.T. 0.06 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion:105 Resp: 406

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.0	28.6#

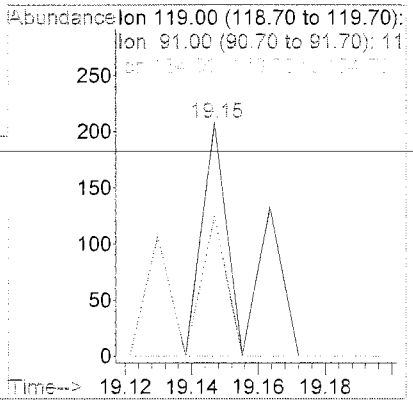


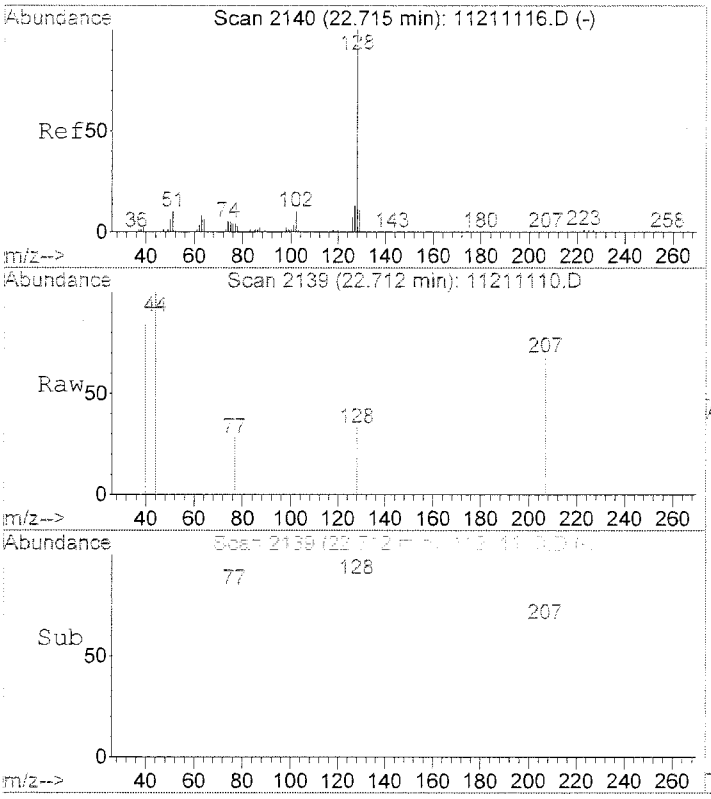


#76
tert-Butylbenzene
Concen: 0.15 ug/L
RT: 19.15 min Scan# 1716
Delta R.T. 0.01 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion:119 Resp: 172

Ion	Ratio	Lower	Upper
119	100		
91	0.0	59.3	88.9#
134	0.0	17.4	26.0#

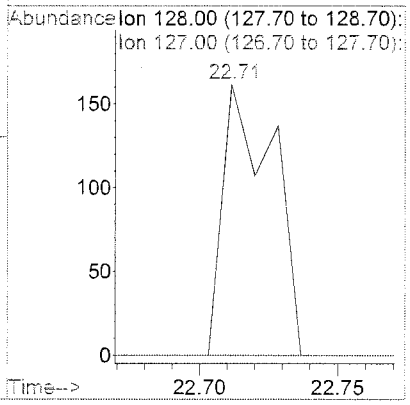




#86
Naphthalene
Concen: 0.92 ug/L
RT: 22.71 min Scan# 2139
Delta R.T. -0.00 min
Lab File: 11211110.D
Acq: 21 Nov 2011 3:25 pm

Tgt Ion:128 Resp: 205

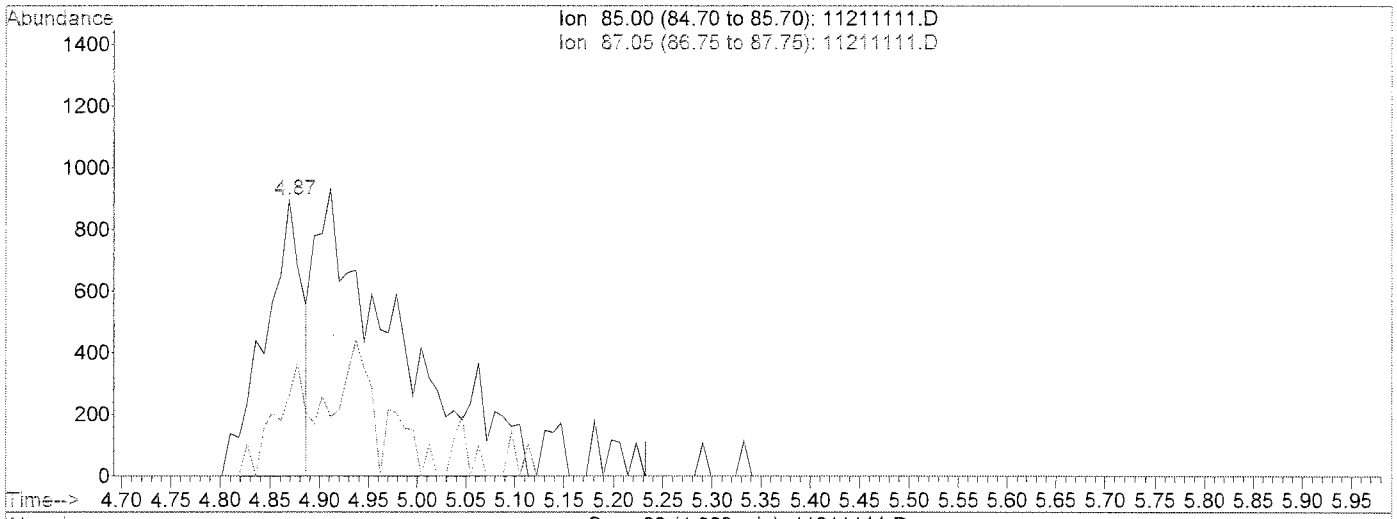
Ion	Ratio	Lower	Upper
128	100		
127	0.0	10.5	15.7#

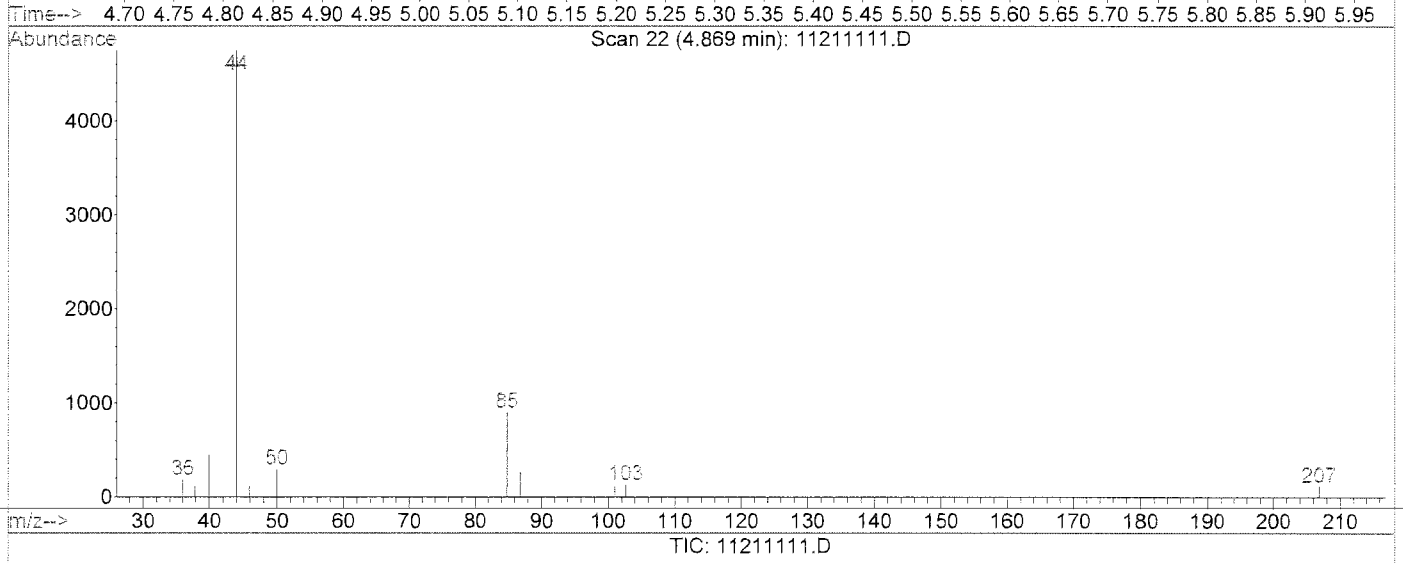


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:25 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(5) Dichlorodifluoromethane (T)

4.87min 0.15ug/L

response 2366

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	35.33
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

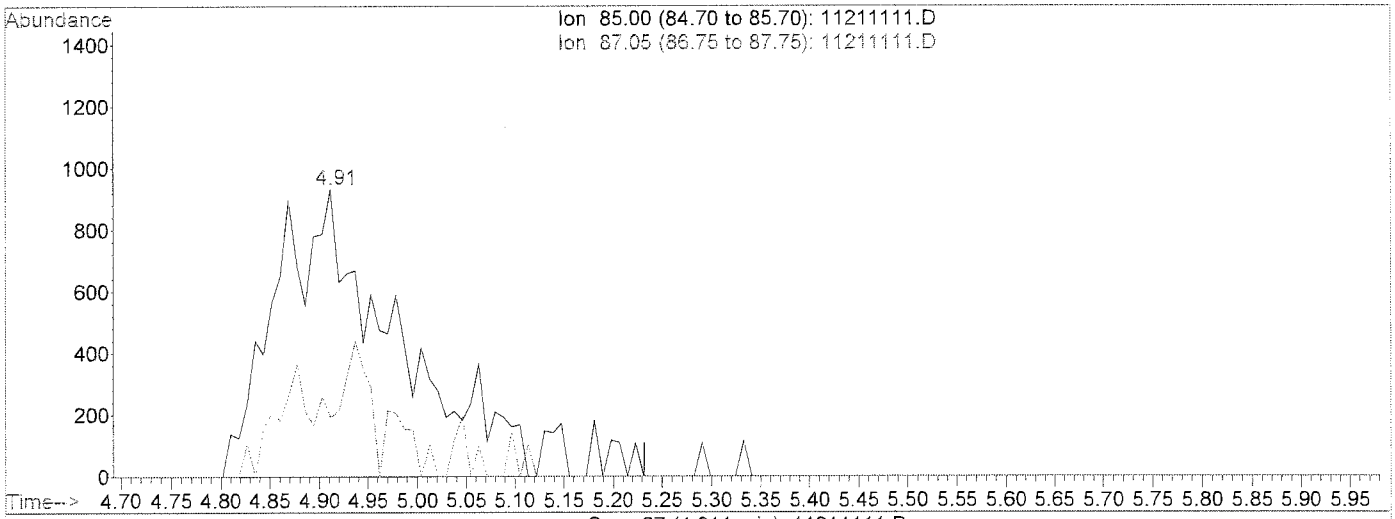
B
NIP
11/22/11

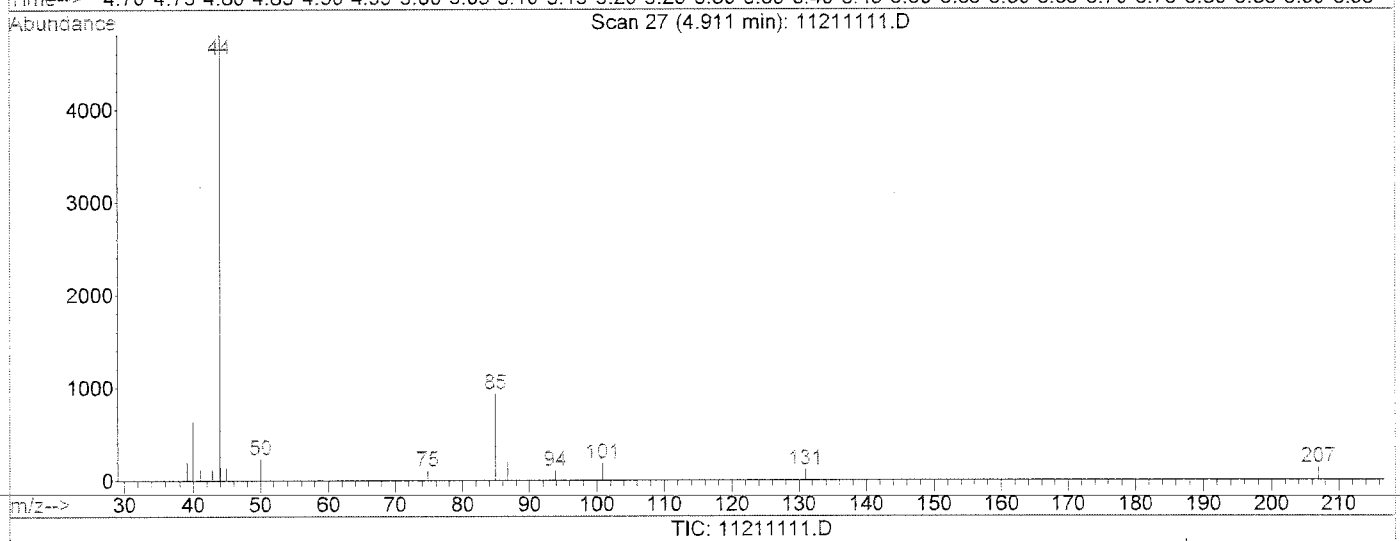
11211111.D 112111.M Tue Nov 22 14:25:43 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:25 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.91min 0.48ug/L m

response 7796

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	10.72#
0.00	0.00	0.00
0.00	0.00	0.00

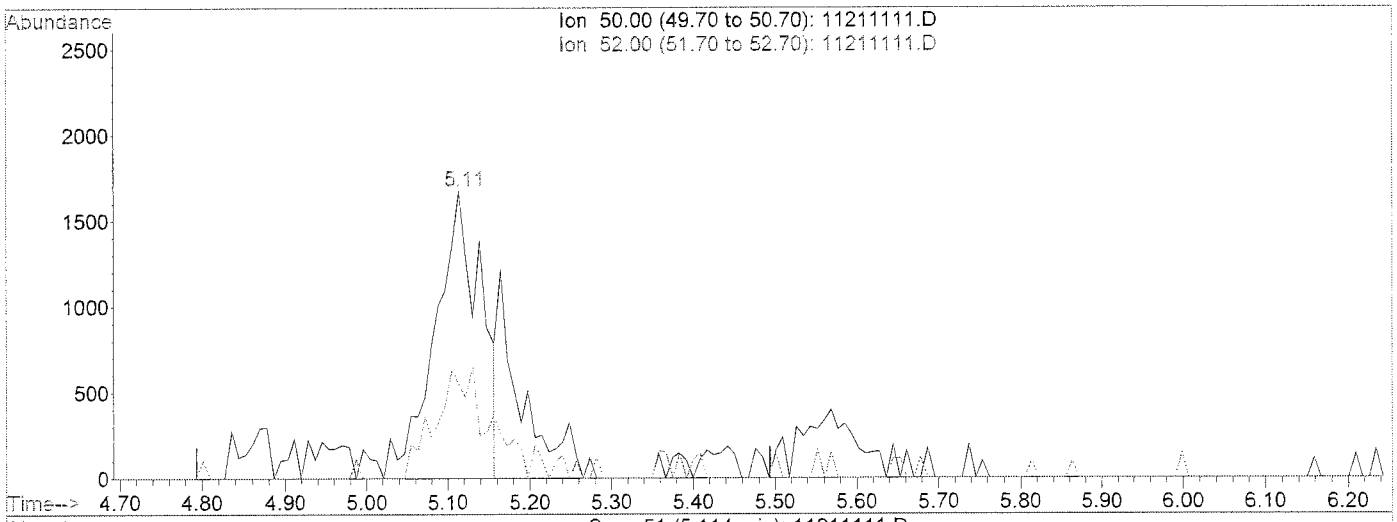
11/22/11

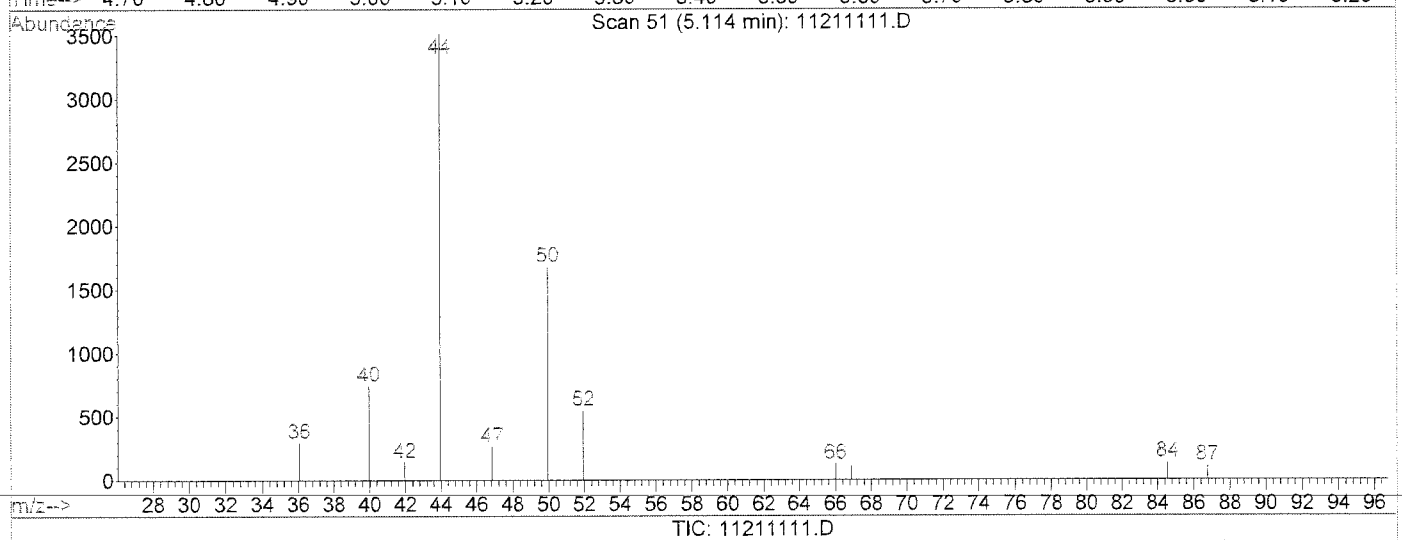
11211111.D 112111.M Tue Nov 22 14:25:58 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:25 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(6) Chloromethane (P)

5.11min 0.43ug/L

response 6513

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	35.19
0.00	0.00	0.00
0.00	0.00	0.00

11/22/11

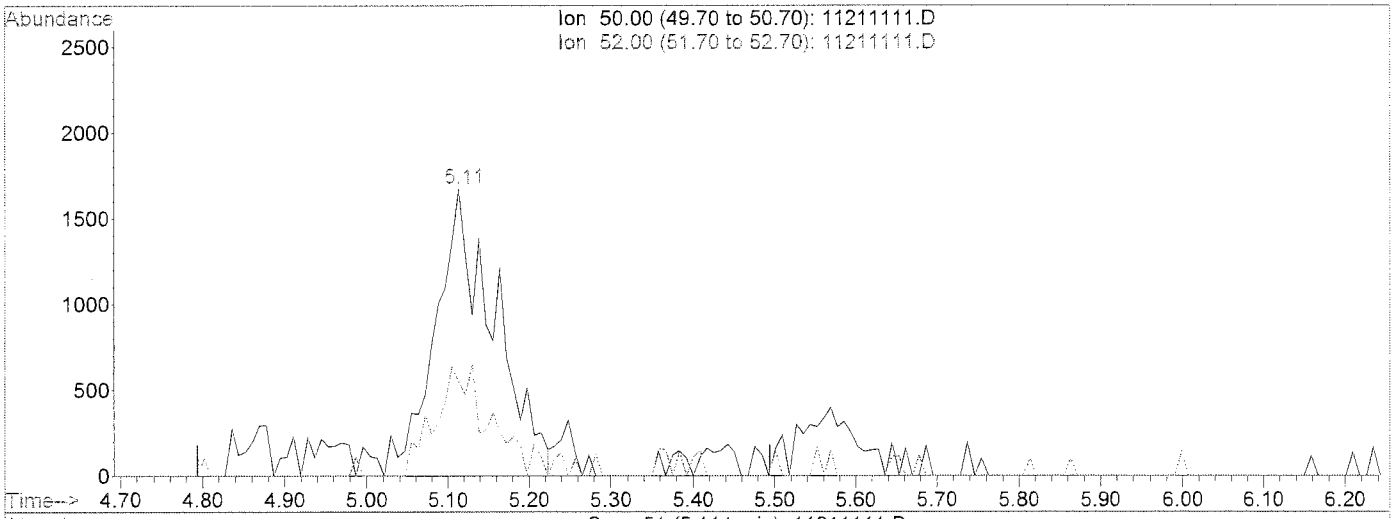
B
NP
11/22/11

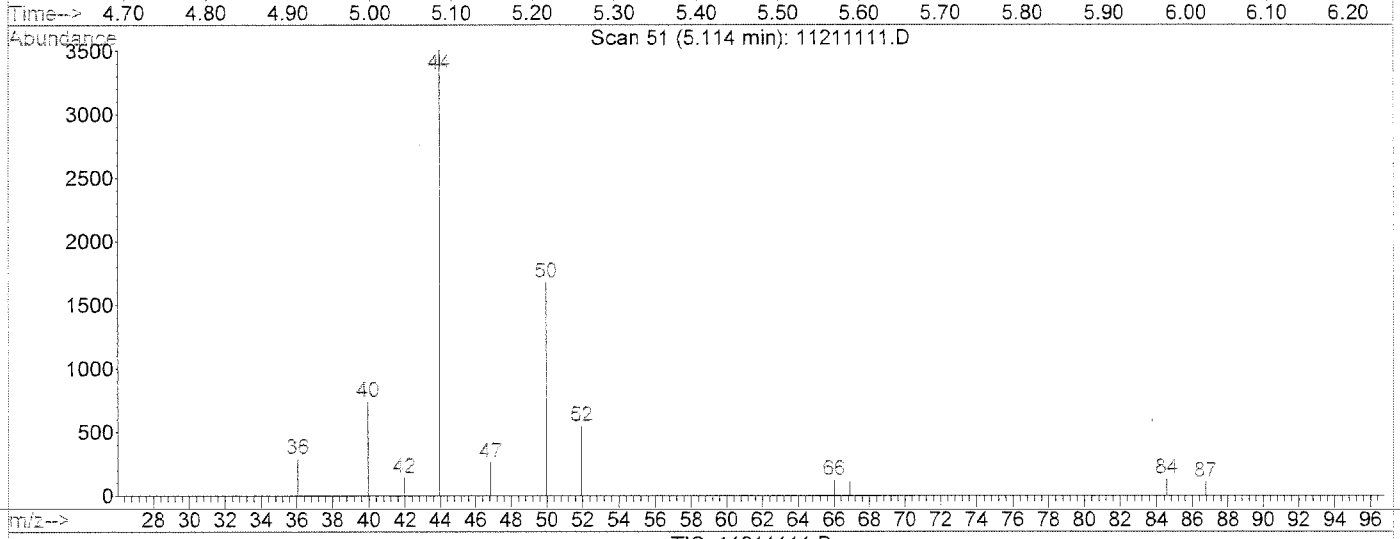
11211111.D 112111.M Tue Nov 22 14:26:10 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:26 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(6) Chloromethane (P)

5.11min 0.56ug/L m

response 8486

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	27.01
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

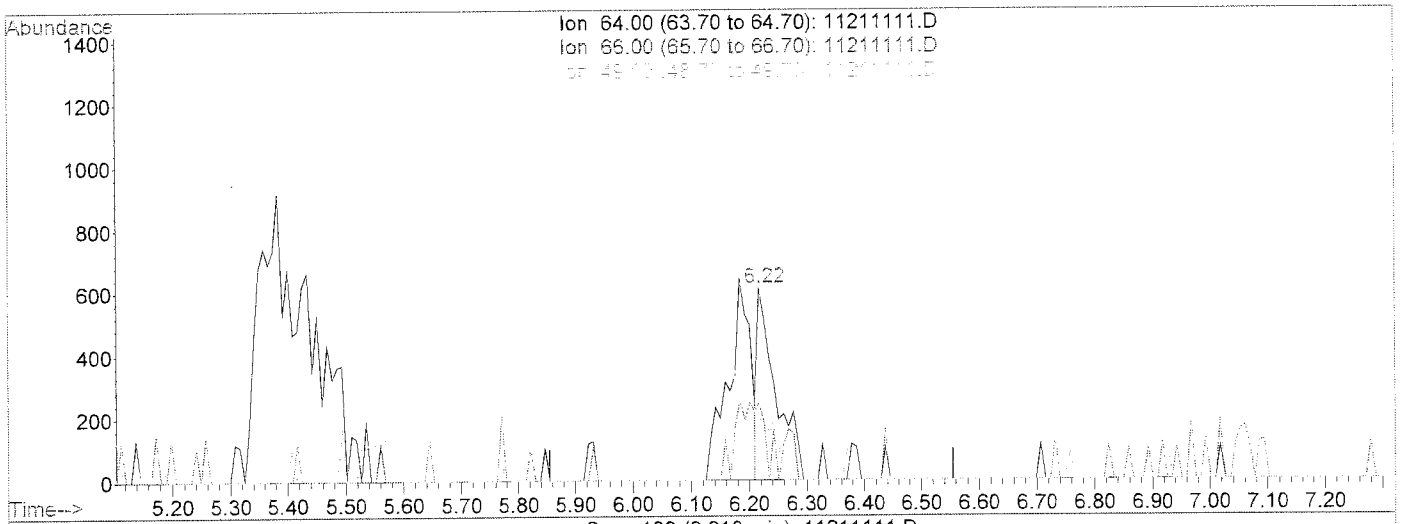
11/22/11

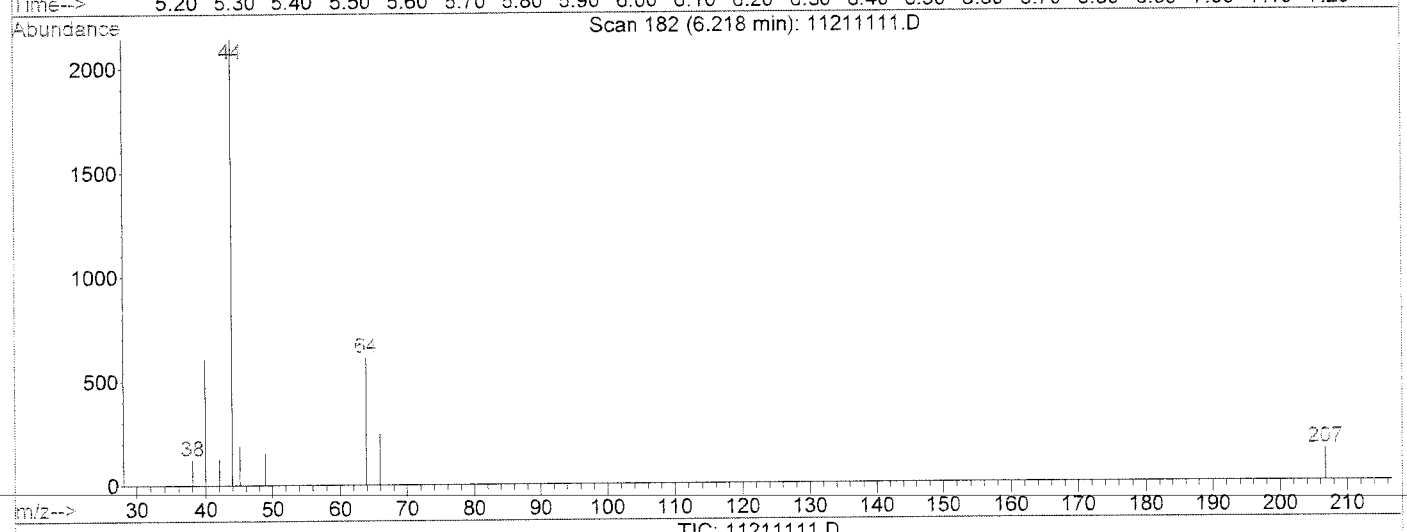
11211111.D 112111.M Tue Nov 22 14:26:27 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:26 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11

(10) Chloroethane (T)

6.22min 0.22ug/L

response 1384

Ion	Exp%	Act%
64.00	100	100
66.00	31.30	0.00#
49.00	34.60	0.00#
0.00	0.00	0.00

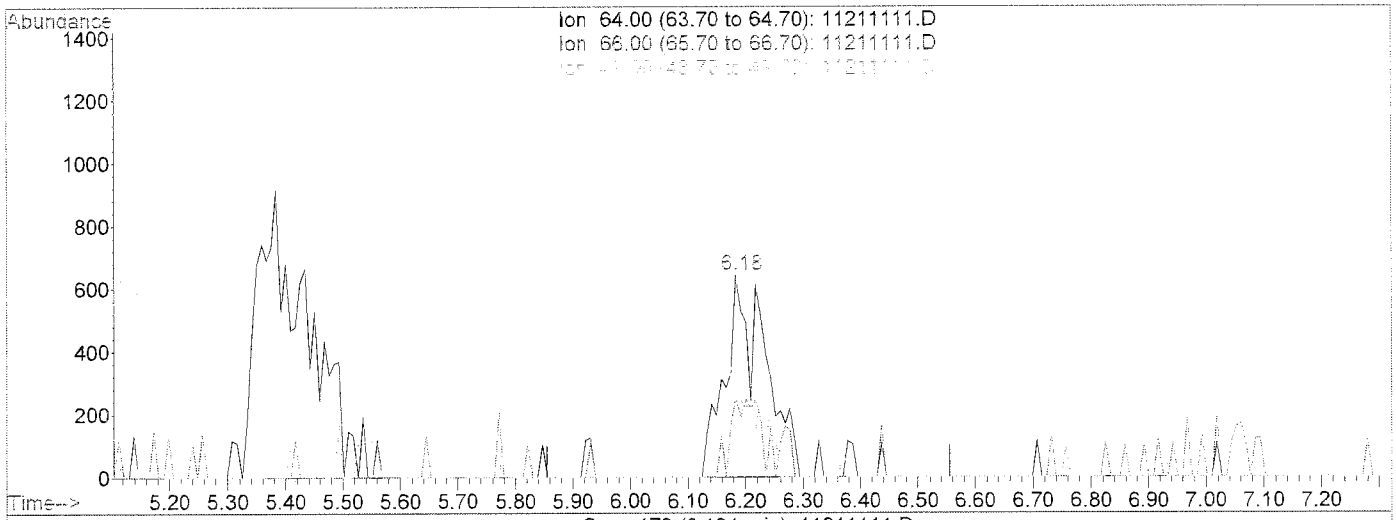
B
NP
11/22/11

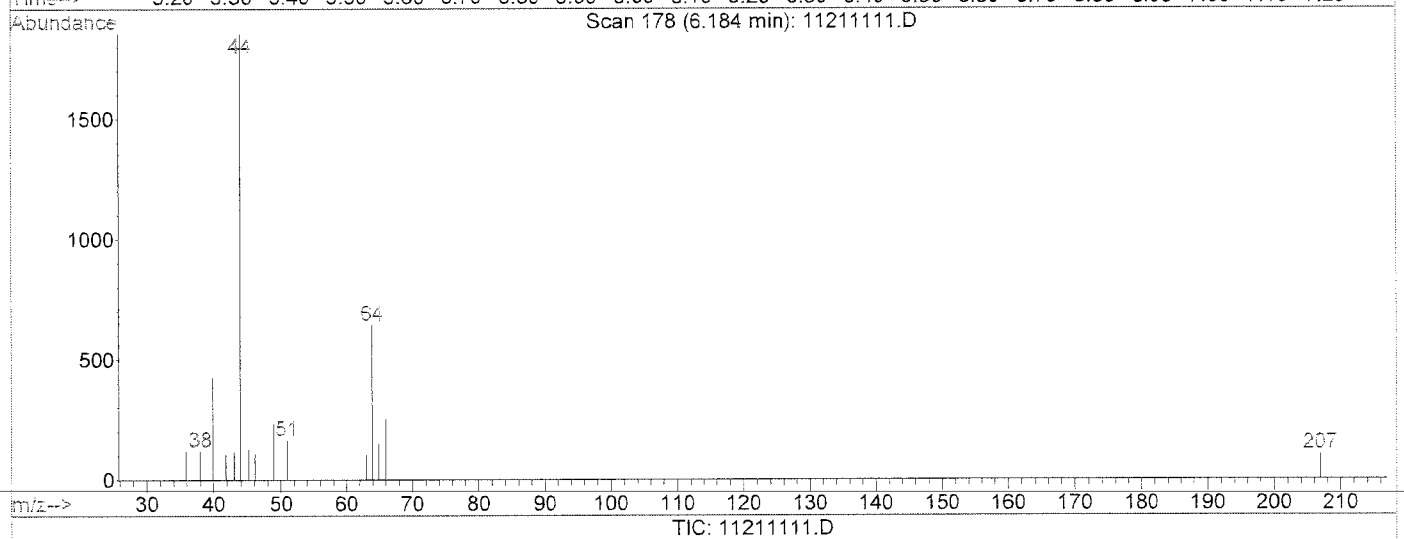
11211111.D 112111.M Tue Nov 22 14:27:49 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:27 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(10) Chloroethane (T)

6.18min 0.49ug/L m

response 3104

Ion	Exp%	Act%
64.00	100	100
66.00	31.30	0.00#
49.00	34.60	0.00#
0.00	0.00	0.00

11/23/11

A

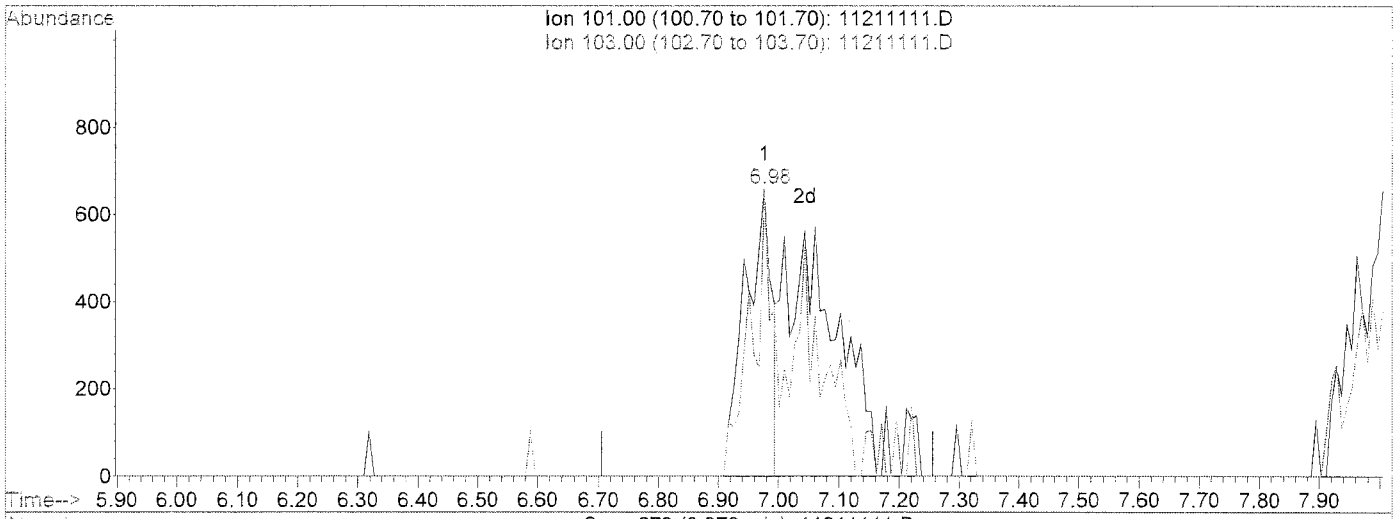
11/22/11

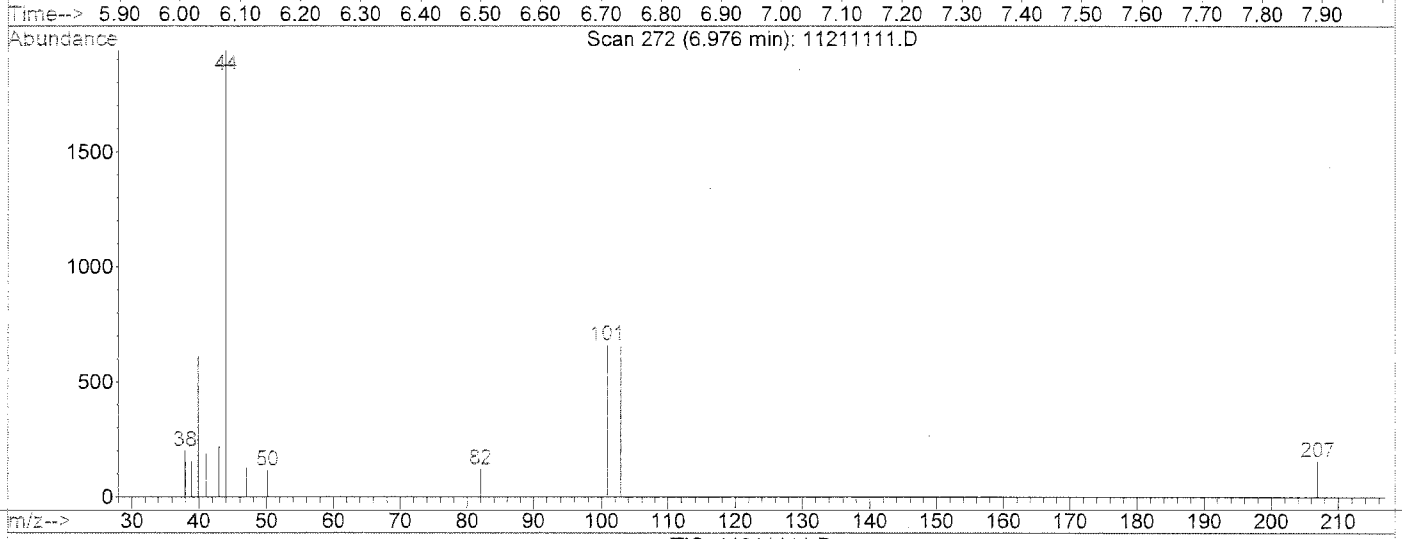
11211111.D 112111.M Tue Nov 22 14:27:55 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:27 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(12) Trichlorofluoromethane (T)

6.98min 0.17ug/L

response 2023

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	99.09#
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11 DX

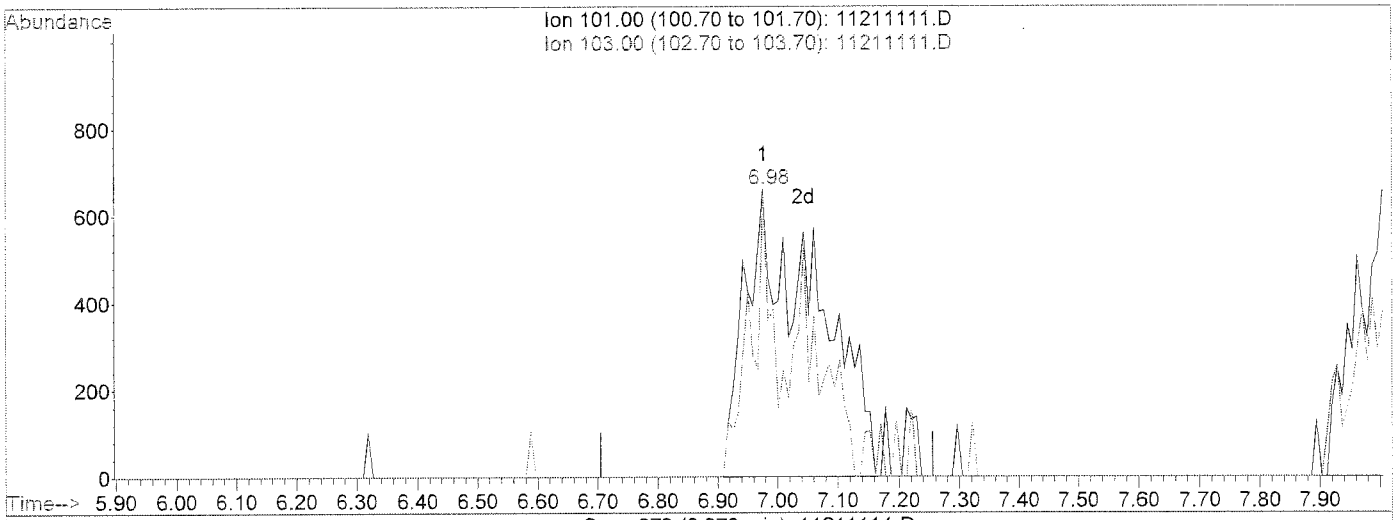
B
NIP
11/22/11

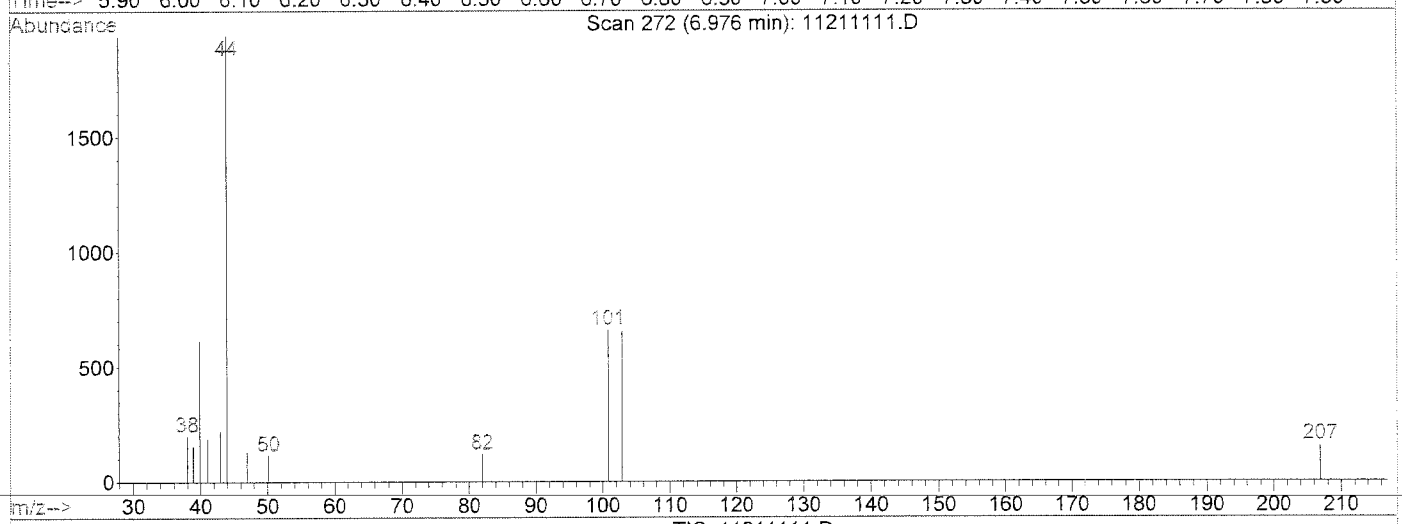
11211111.D 112111.M Tue Nov 22 14:28:45 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:28 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11

(12) Trichlorofluoromethane (T)

6.98min 0.46ug/L m

response 5445

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	99.09#
0.00	0.00	0.00
0.00	0.00	0.00

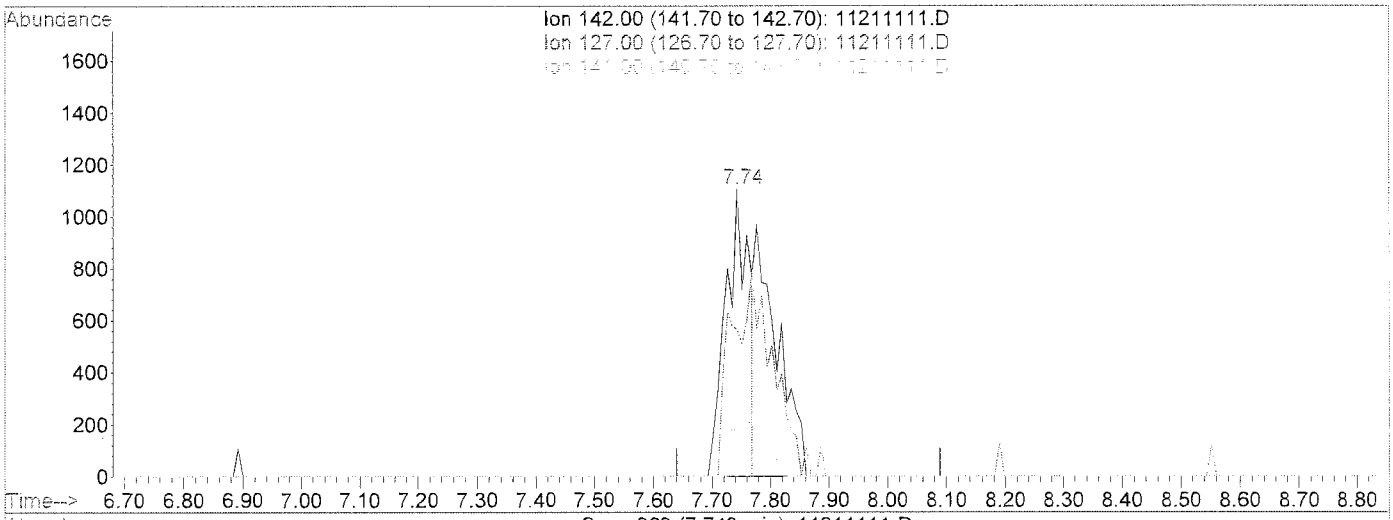
11/22/11

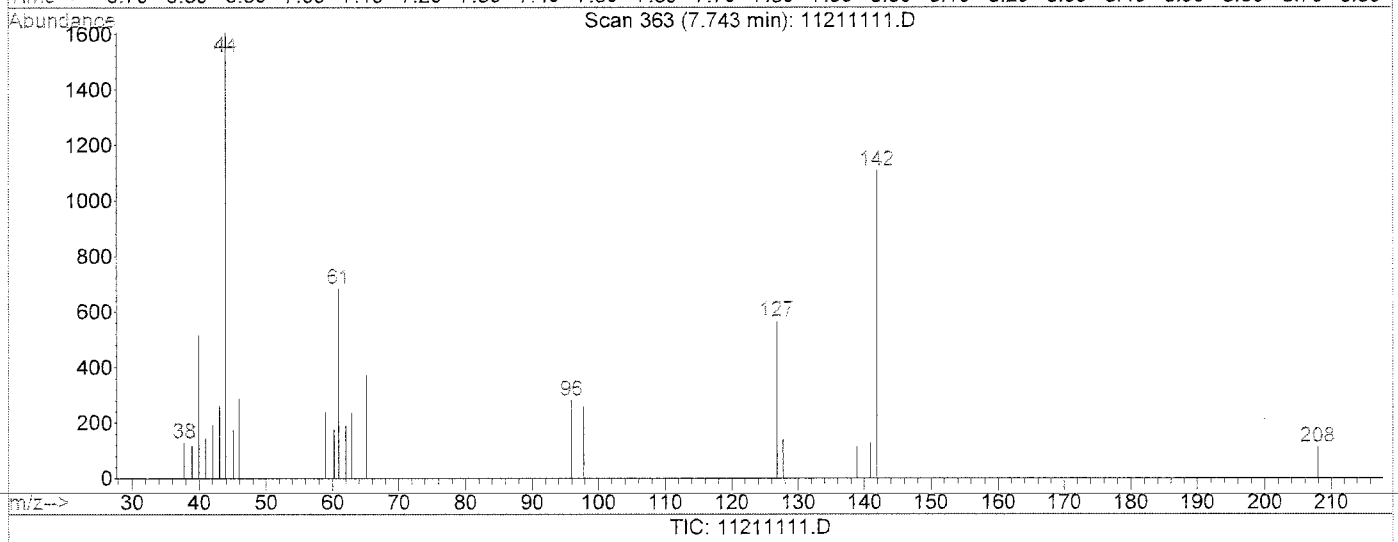
11211111.D 112111.M Tue Nov 22 14:28:53 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11 R

(15) Iodomethane (T)

7.74min 0.25ug/L

response 3069

Ion	Exp%	Act%
142.00	100	100
127.00	62.00	82.01#
141.00	14.80	18.57#
0.00	0.00	0.00

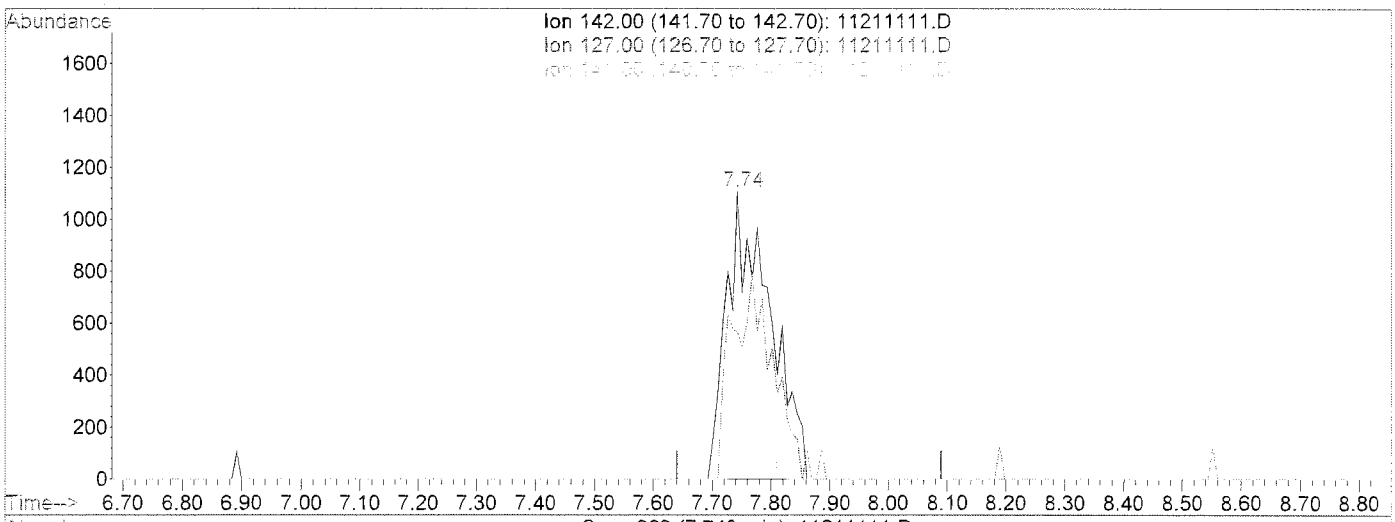
B
MP
11/22/11

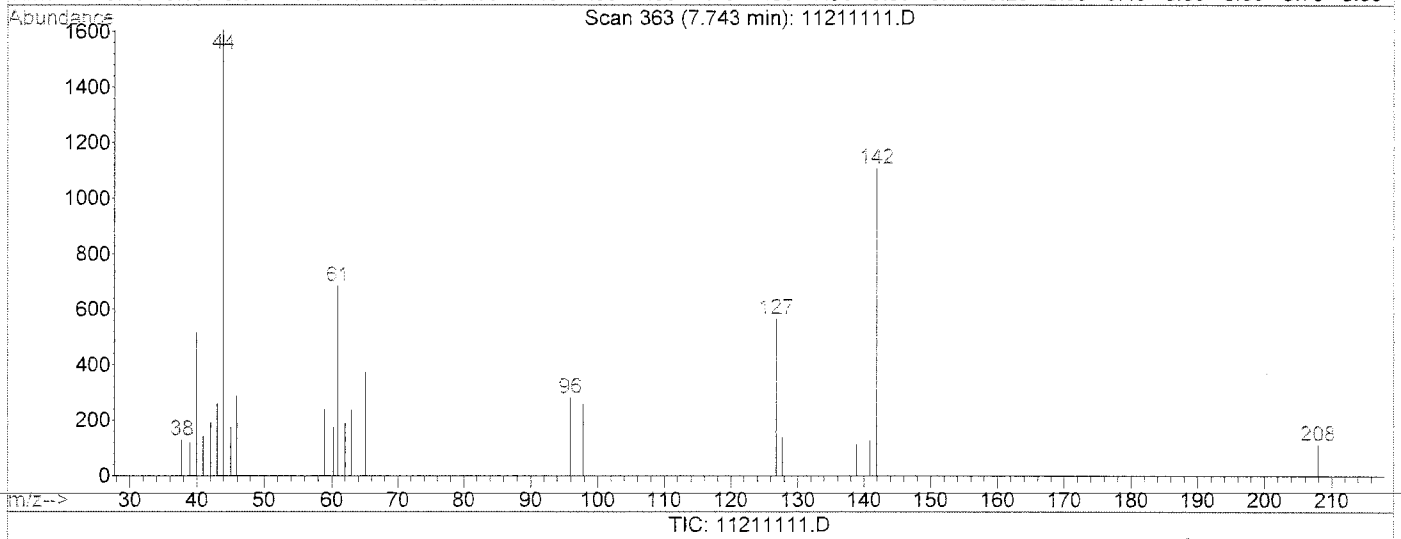
11211111.D 112111.M Tue Nov 22 14:29:19 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(15) Iodomethane (T)

7.74min 0.46ug/L m

response 5659

Ion	Exp%	Act%
142.00	100	100
127.00	62.00	44.48#
141.00	14.80	10.07#
0.00	0.00	0.00

11/23/11

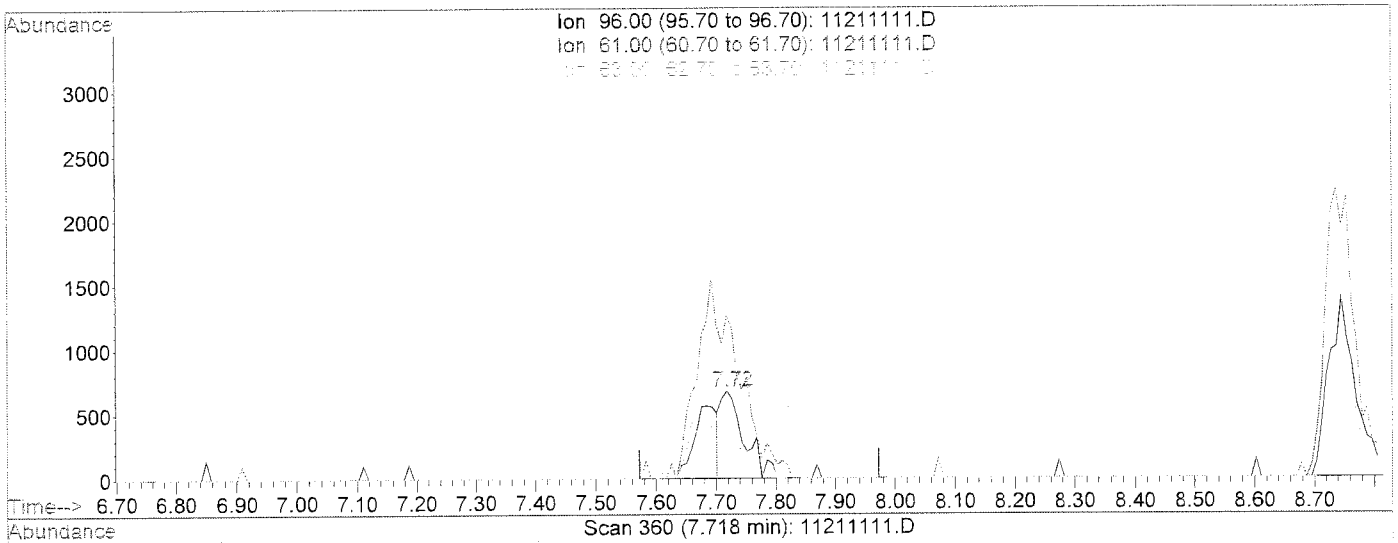
11/22/11

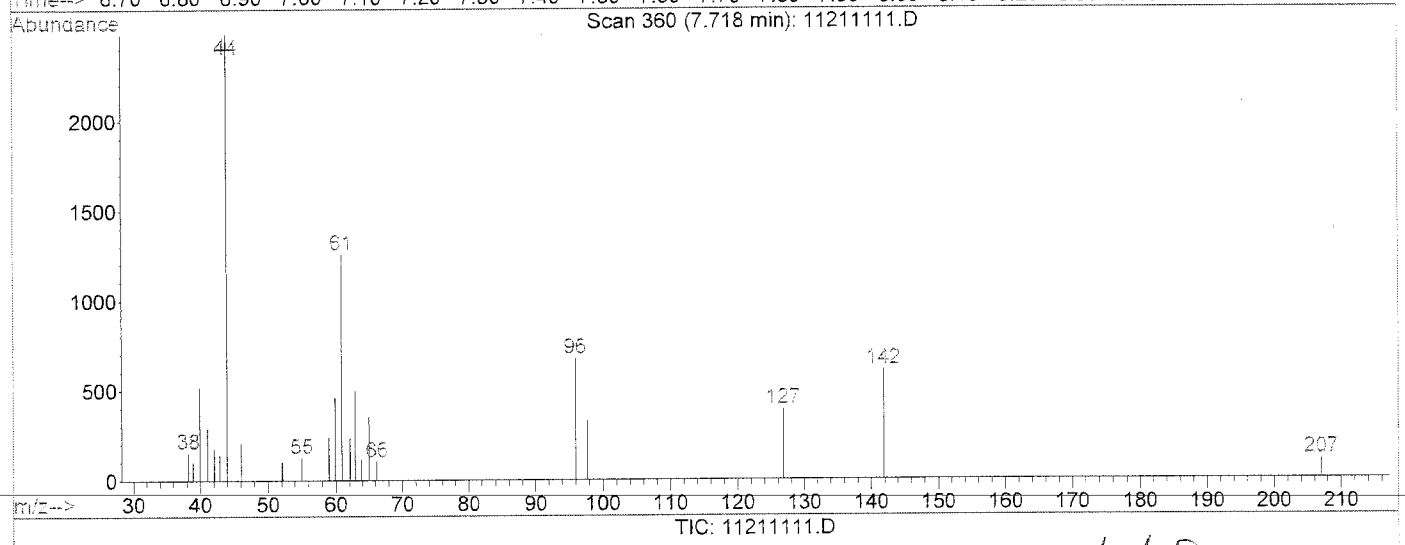
11211111.D 112111.M Tue Nov 22 14:29:24 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

✓11/23/11 R

(16) 1,1-Dichloroethene (T)

7.72min 0.27ug/L

response 1858

Ion	Exp%	Act%
96.00	100	100
61.00	211.50	0.00#
63.00	67.70	78.47
0.00	0.00	0.00

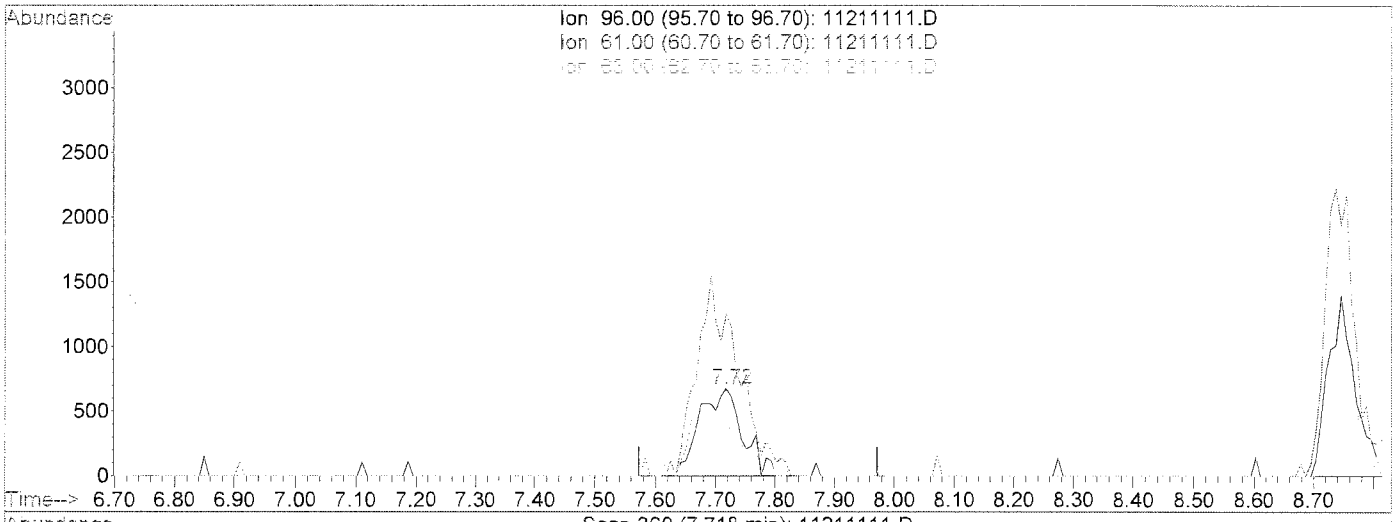
B
NIP
11/22/11

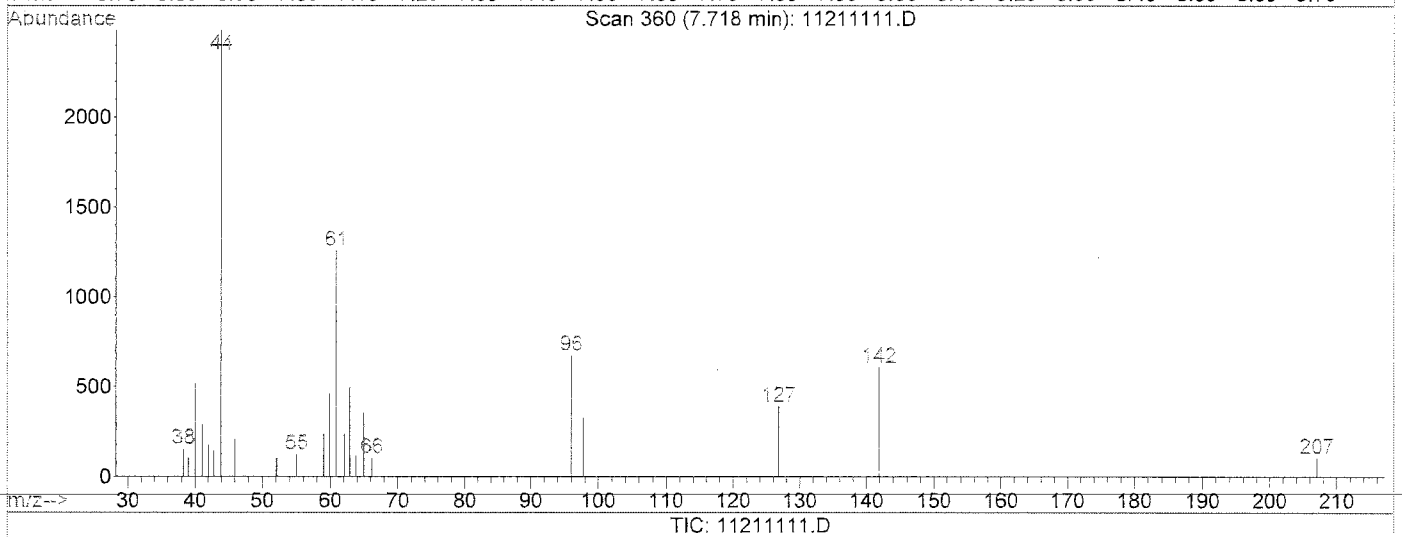
11211111.D 112111.M Tue Nov 22 14:29:28 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(16) 1,1-Dichloroethene (T)

7.72min 0.46ug/L m

response 3236

Ion	Exp%	Act%
96.00	100	100
61.00	211.50	0.00#
63.00	67.70	45.06#
0.00	0.00	0.00

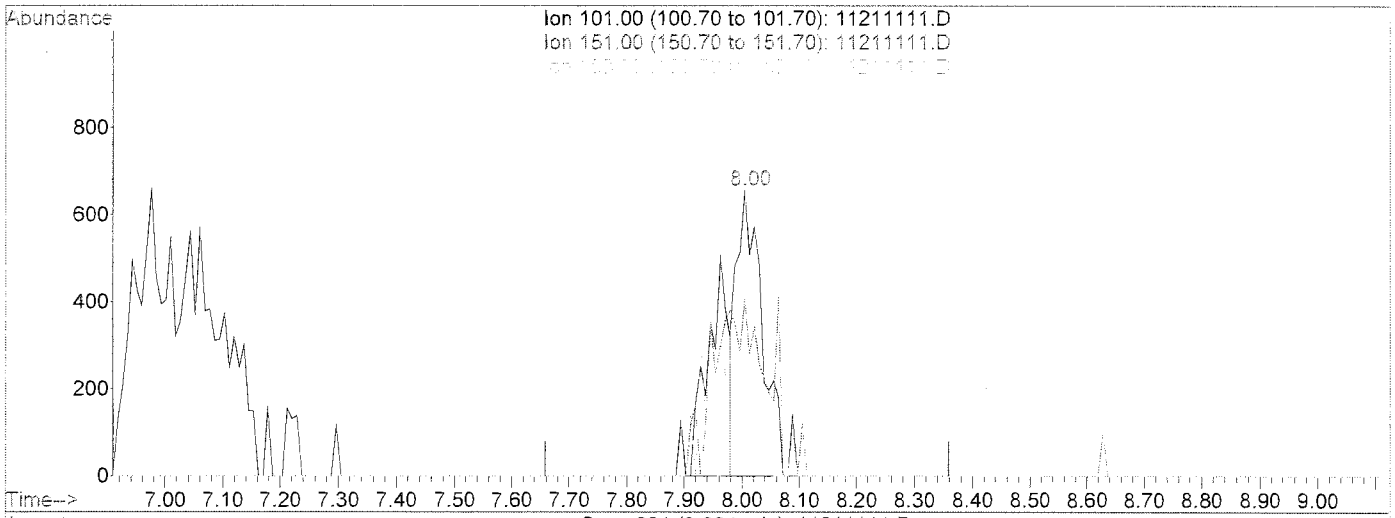
11/23/11

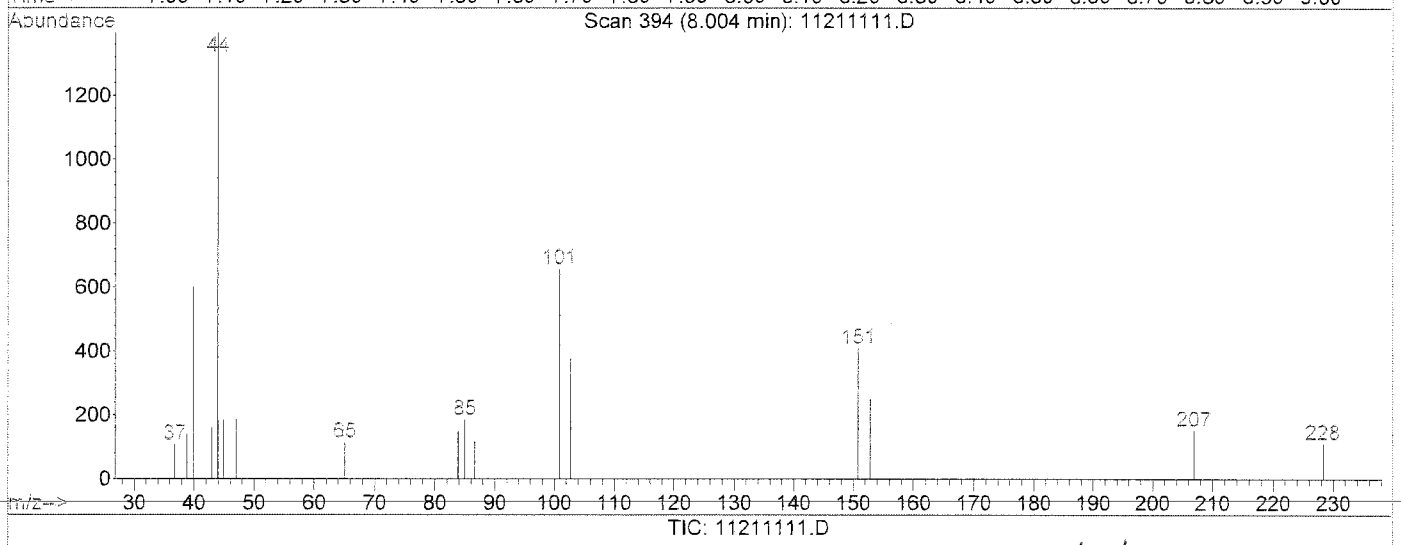
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:29 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11 R

(18) Freon 113 (T)

8.00min 0.27ug/L

response 2035

Ion	Exp%	Act%
101.00	100	100
151.00	69.90	0.00#
153.00	45.70	36.02#
0.00	0.00	0.00

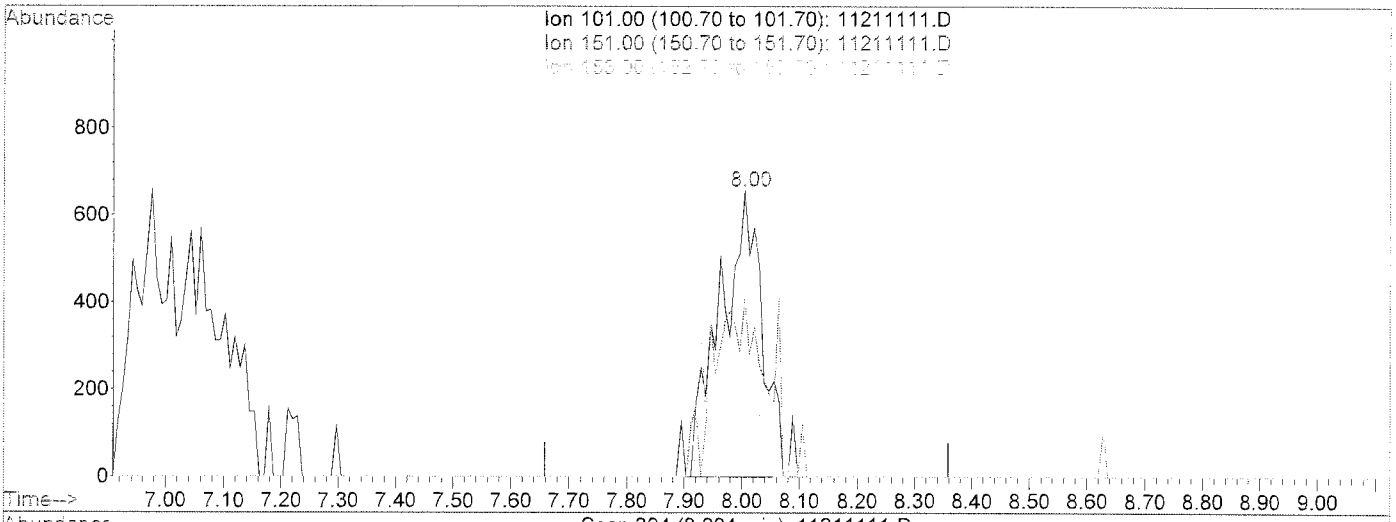
B
NIP
11/22/11

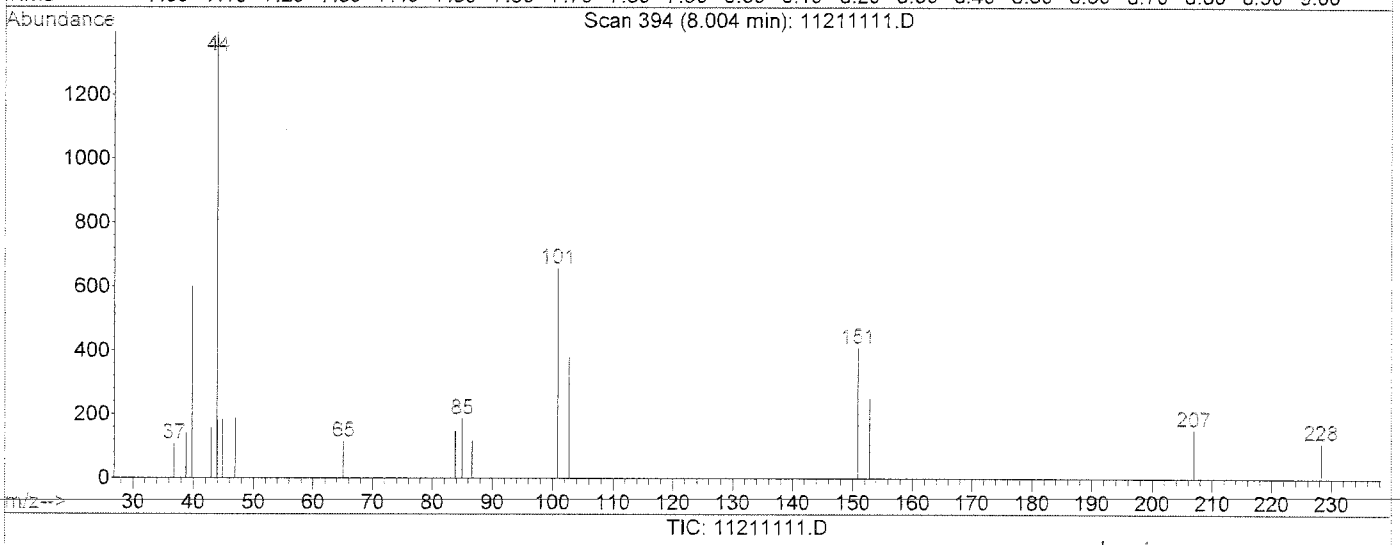
11211111.D 112111.M Tue Nov 22 14:30:26 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:30 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

11/23/11

(18) Freon 113 (T)

8.00min 0.44ug/L m

response 3275

Ion	Exp%	Act%
101.00	100	100
151.00	69.90	0.00#
153.00	45.70	22.38#
0.00	0.00	0.00

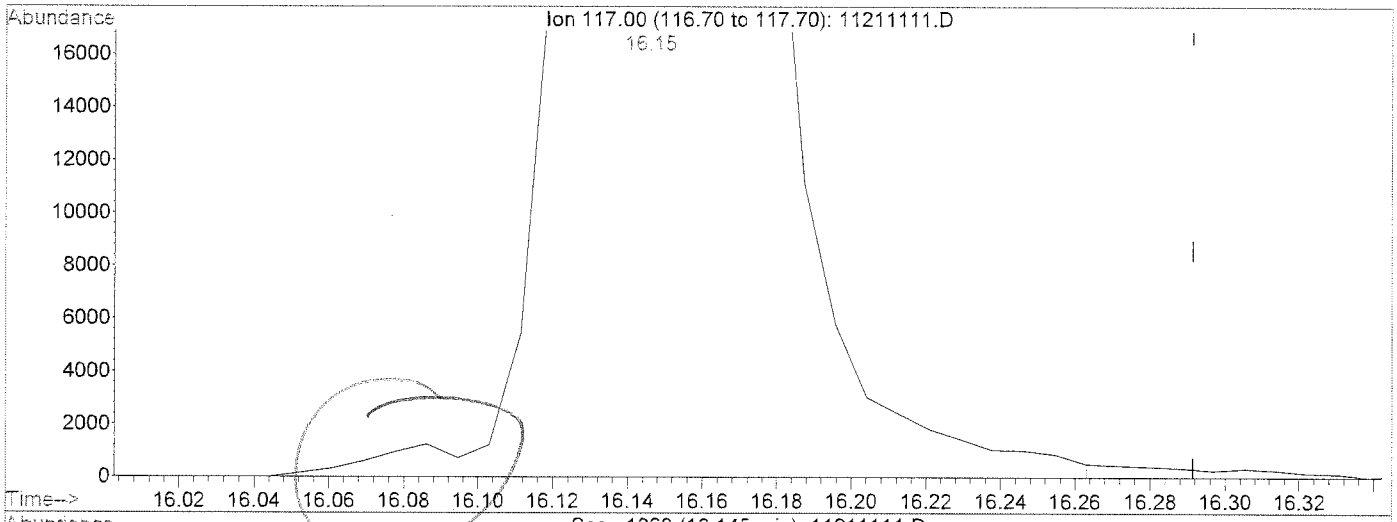
11/22/11

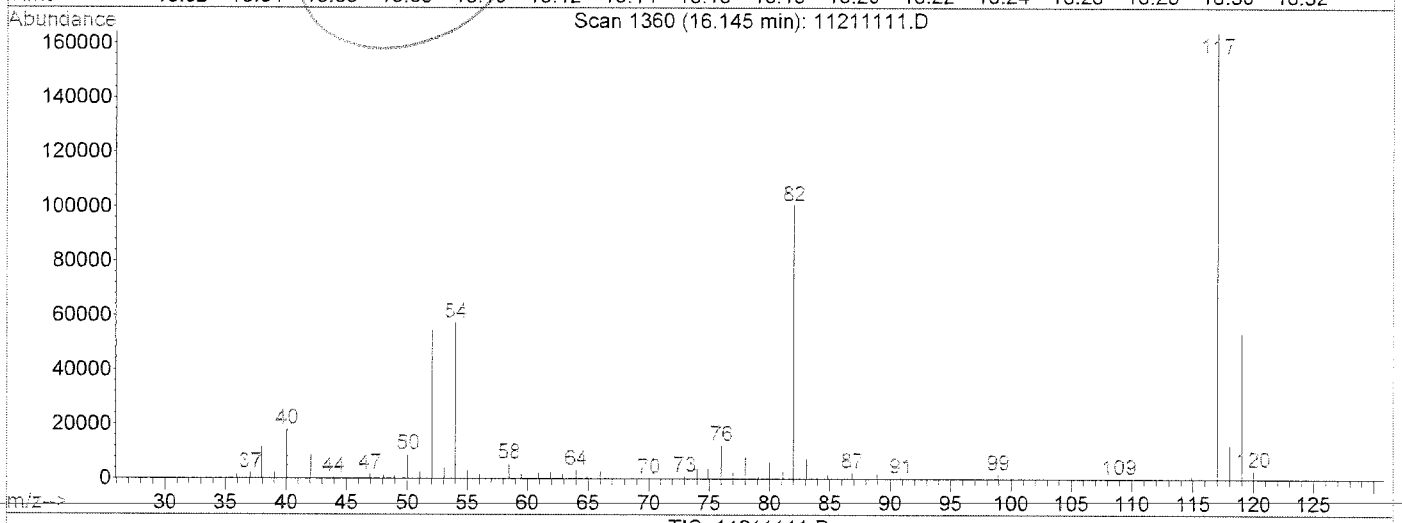
11211111.D 112111.M Tue Nov 22 14:30:35 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:31 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211111.D

(52) Chlorobenzene-d5 (I)

16.15min 25.00ug/L

response 384125

Ion	Exp%	Act%
117.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11 8

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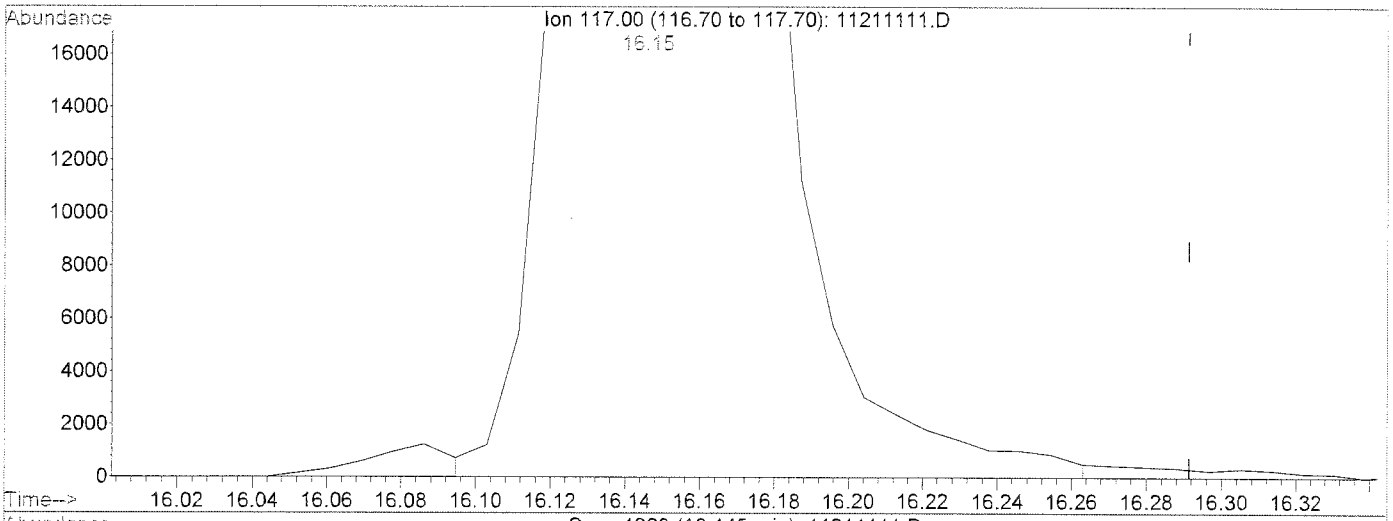
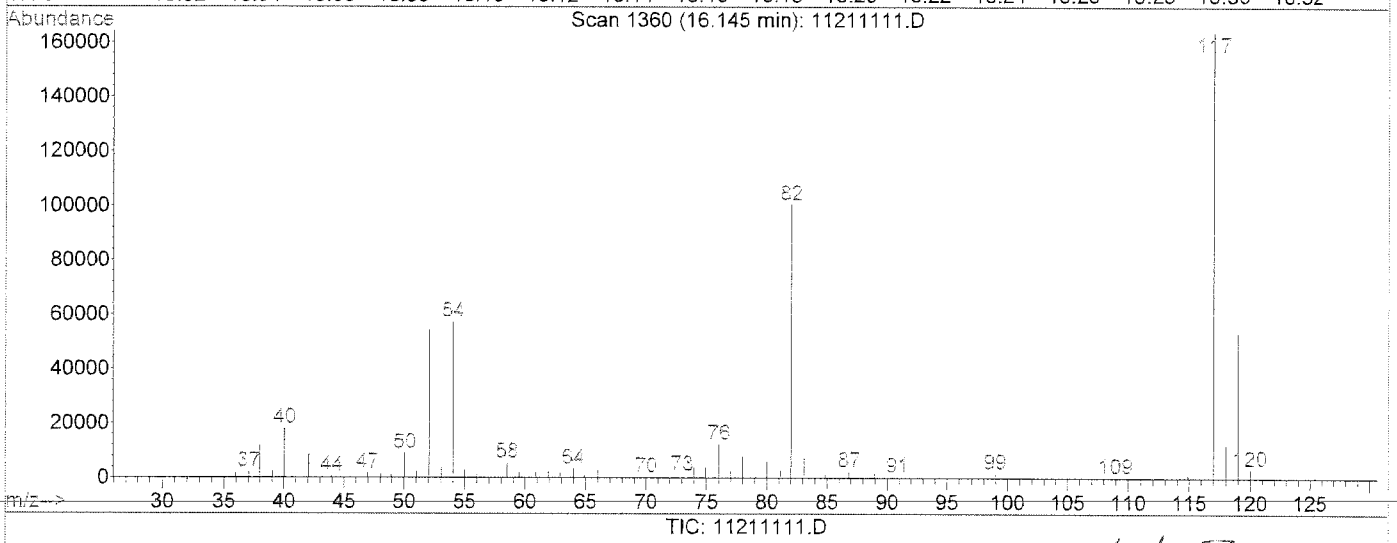
11211111.D 112111.M Tue Nov 22 14:31:51 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:31 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





✓ 11/23/11

(52) Chlorobenzene-d5 (I)

16.15min 25.00ug/L m

response 382109

Ion	Exp%	Act%
117.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

11/22/11

11211111.D 112111.M Tue Nov 22 14:32:02 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:32 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	42297	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	271406	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	436375	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.15	117	382109m	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	193224	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	187055	25.94 ug/L	0.00
Spiked Amount 25.000			Recovery	= 103.76%	
50) Toluene-d8 (surr)	14.19	98	477509	25.00 ug/L	0.00
Spiked Amount 25.000			Recovery	= 100.00%	
64) 4-Bromofluorobenzene (surr	17.82	95	221695	25.20 ug/L	0.00
Spiked Amount 25.000			Recovery	= 100.80%	

Target Compounds					Qvalue
2) Ethanol	0.00	45	0	N.D. d	
3) tert-Butanol (TBA)	0.00	59	0	N.D. d	
5) Dichlorodifluoromethane	4.91	85	7796m	0.48 ug/L	
6) Chloromethane	5.11	50	8486m	0.56 ug/L	
7) Vinyl Chloride	5.44	62	6310	0.55 ug/L #	41
8) 1,3-Butadiene	5.57	54	3373	0.49 ug/L #	41
9) Bromomethane	6.00	94	4399	0.53 ug/L	96
10) Chloroethane	6.18	64	3104m	0.49 ug/L	
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	6.98	101	5445m	0.46 ug/L	
13) Acetone	0.00	43	0	N.D. d	
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.74	142	5659m	0.46 ug/L	
16) 1,1-Dichloroethene	7.72	96	3236m	0.46 ug/L	
17) Methylene Chloride	7.89	84	5515	0.61 ug/L	95
18) Freon 113	8.00	101	3275m	0.44 ug/L	
19) Carbon Disulfide	8.20	76	10411	0.49 ug/L #	98
~~20) trans-1,2-Dichloroethene~~	~~8.75~~	~~96~~	~~4266~~	~~0.49 ug/L~~	~~93~~
21) MTBE	8.88	73	4188	0.42 ug/L	92
22) 1,1-Dichloroethane	9.07	63	8631	0.47 ug/L	93
23) Vinyl Acetate	0.00	43	0	N.D. d	
24) n-Hexane	9.55	86	609	0.43 ug/L #	58
25) 2-Butanone (MEK)	0.00	72	0	N.D. d	
26) Diisopropylether (DIPE)	9.59	45	11950	0.39 ug/L #	81
27) cis-1,2-Dichloroethene	9.80	96	3658	0.42 ug/L	94
28) Bromochloromethane	10.00	128	2060	0.50 ug/L	86
29) Chloroform	10.05	83	8683	0.48 ug/L	96
30) 2,2-Dichloropropane	10.15	77	3174	0.45 ug/L #	74
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	3689	0.33 ug/L # NT	75
33) Tetrahydrofuran	0.00	72	0	N.D. d	
34) 1,2-Dichloroethane	10.89	62	6704	0.51 ug/L	97
35) 1,1,1-Trichloroethane	11.02	97	6673	0.48 ug/L	91
36) (TAME) tert-Amyl methyl et	11.71	73	2128	0.33 ug/L NT	79
38) 1,1-Dichloropropene	11.25	75	4894	0.46 ug/L #	86
39) Carbon Tetrachloride	11.49	117	6188	0.45 ug/L #	91
0) Benzene	11.54	78	13698	0.49 ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:32 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

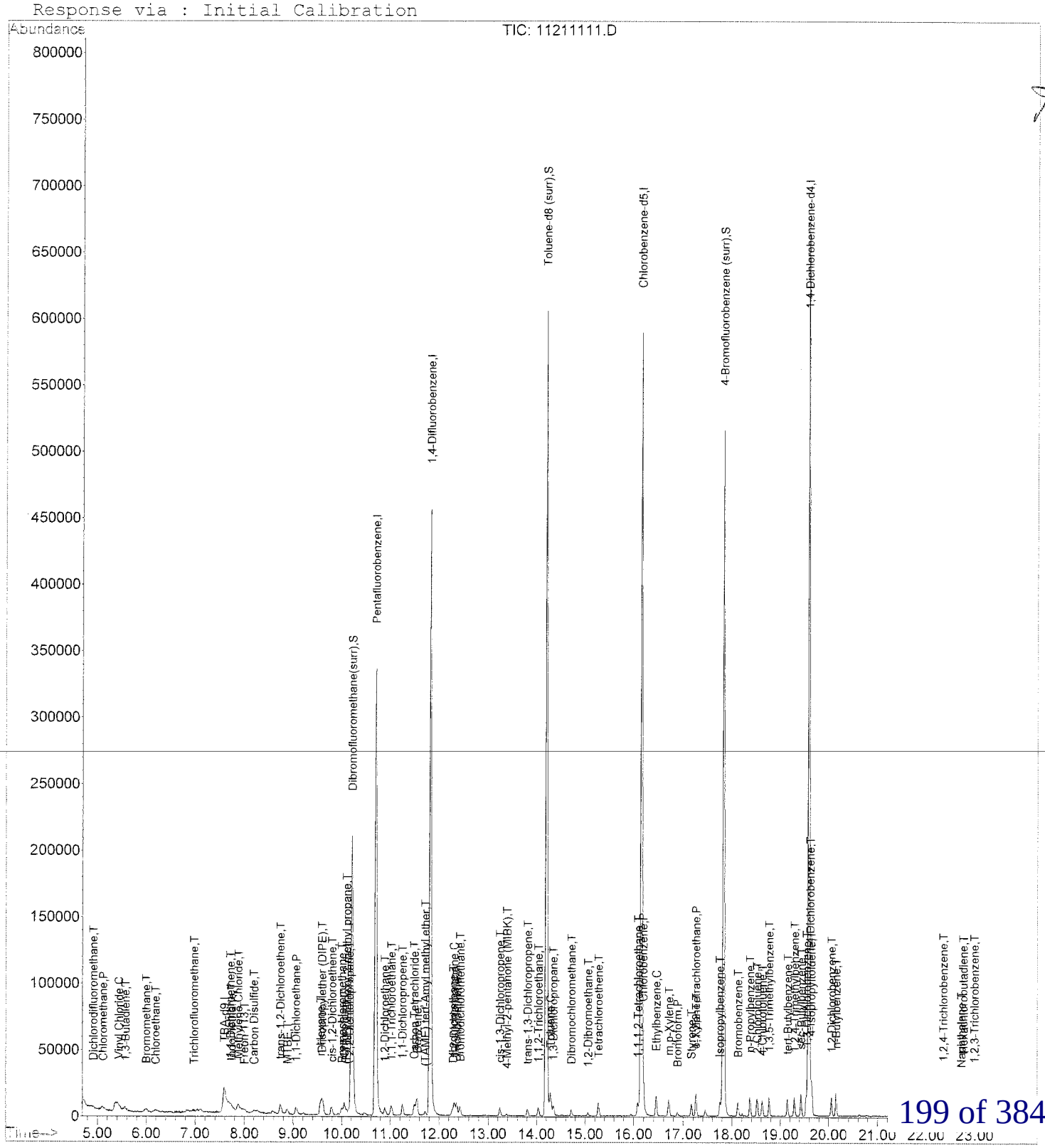
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Dibromomethane	12.28	93	2070	0.46 ug/L	95
42) 1,2-Dichloropropane	12.30	63	3764	0.48 ug/L #	82
43) Trichloroethene	12.37	95	3868	0.45 ug/L	98
44) Bromodichloromethane	12.42	83	5678	0.46 ug/L #	97
45) 2-Chloroethyl vinylether	0.00	63	0	N.D. d	
46) cis-1,3-Dichloropropene	13.25	75	3586	0.56 ug/L	87
47) 4-Methyl-2-pentanone (MIBK	13.39	43	1390	0.30 ug/L # NT	78
48) trans-1,3-Dichloropropene	13.82	75	3425	0.59 ug/L	96
49) 1,1,2-Trichloroethane	14.03	97	2278	0.46 ug/L	95
51) Toluene	14.29	92	8059	0.49 ug/L	95
53) 1,3-Dichloropropane	14.35	76	3988	0.45 ug/L	99
54) 2-Hexanone	0.00	43	0	N.D. d	
55) Dibromochloromethane	14.72	129	3053	0.42 ug/L	97
56) 1,2-Dibromoethane	15.06	107	2004	0.40 ug/L	94
57) Tetrachloroethene	15.28	164	2745	0.46 ug/L	92
58) 1,1,1,2-Tetrachloroethane	16.08	131	3362	0.44 ug/L #	67
59) Chlorobenzene	16.20	112	9206	0.46 ug/L	92
60) Ethylbenzene	16.45	91	11445	0.38 ug/L	99
61) m,p-Xylene	16.71	106	4251	0.38 ug/L	89
62) Styrene	17.16	104	4870	0.45 ug/L	97
63) o-Xylene	17.26	106	3908	0.29 ug/L #	79
66) Bromoform	16.89	173	1564	0.44 ug/L	95
67) 1,1,2,2-Tetrachloroethane	17.25	83	2334	0.48 ug/L	92
68) 1,2,3-Trichloropropane	0.00	110	0	N.D. d	
69) trans-1,4-Dichloro-2-buten	0.00	53	0	N.D. d	
70) Isopropylbenzene	17.76	105	8277	0.45 ug/L	99
71) Bromobenzene	18.12	156	2904	0.41 ug/L	84
72) n-Propylbenzene	18.37	91	12431	0.38 ug/L	99
73) 2-Chlorotoluene	18.52	91	8902	0.40 ug/L	97
74) 4-Chlorotoluene	18.62	91	9059	0.40 ug/L	98
75) 1,3,5-Trimethylbenzene	18.77	105	8873	0.35 ug/L	98
76) tert-Butylbenzene	19.15	119	6816	0.46 ug/L	95
77) 1,2,4-Trimethylbenzene	19.30	105	8952	0.35 ug/L	95
78) sec-Butylbenzene	19.43	105	12183	0.39 ug/L	94
79) 1,3-Dichlorobenzene	19.54	146	6769	0.47 ug/L	95
80) 1,4-Dichlorobenzene	19.63	146	7297	0.50 ug/L #	72
81) 4-Isopropyltoluene	19.65	119	12586	0.45 ug/L	95
82) 1,2-Dichlorobenzene	20.06	146	5664	0.45 ug/L	94
83) n-Butylbenzene	20.16	91	9955	0.40 ug/L	94
84) 1,2-Dibromo-3-chloropropan	0.00	75	0	N.D. d	
85) 1,2,4-Trichlorobenzene	22.36	180	3297	0.37 ug/L NT	95
86) Naphthalene	22.72	128	2592	1.10 ug/L	95
87) Hexachlorobutadiene	22.76	225	3816	0.56 ug/L	90
88) 1,2,3-Trichlorobenzene	23.00	180	2809	0.39 ug/L NT	93

(#) = qualifier out of range (m) = manual integration
11211111.D 112111.M Tue Nov 22 14:33:01 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211111.D Vial: 6
Acq On : 21 Nov 2011 3:56 pm Operator: KH
Sample : 0.5 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:32 2011 Quant Results File: 112111.RES

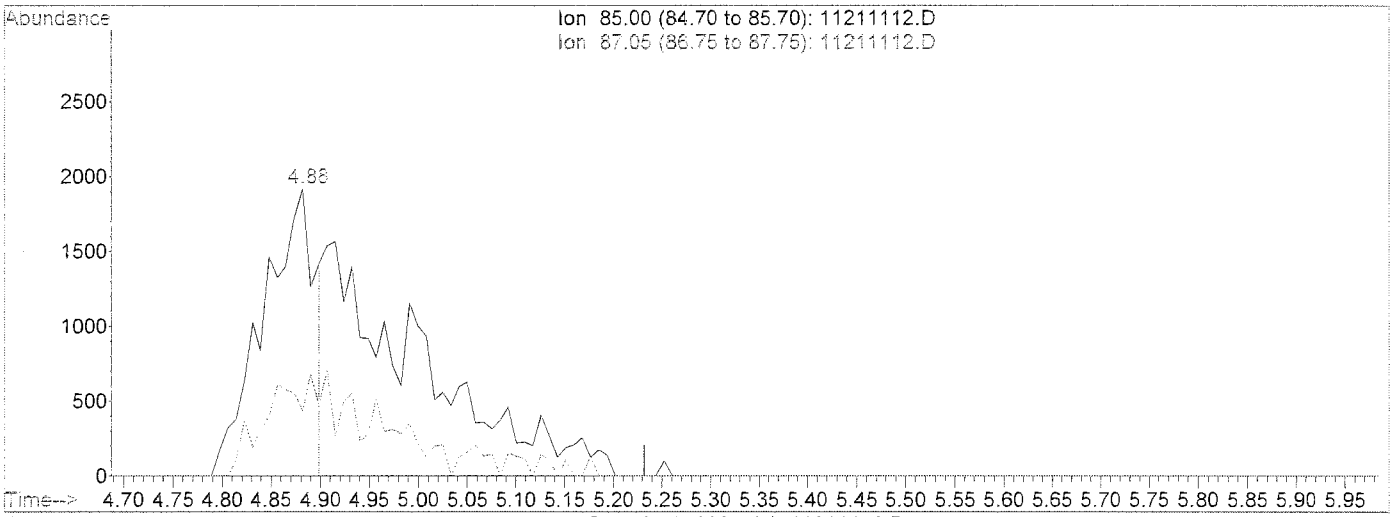
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

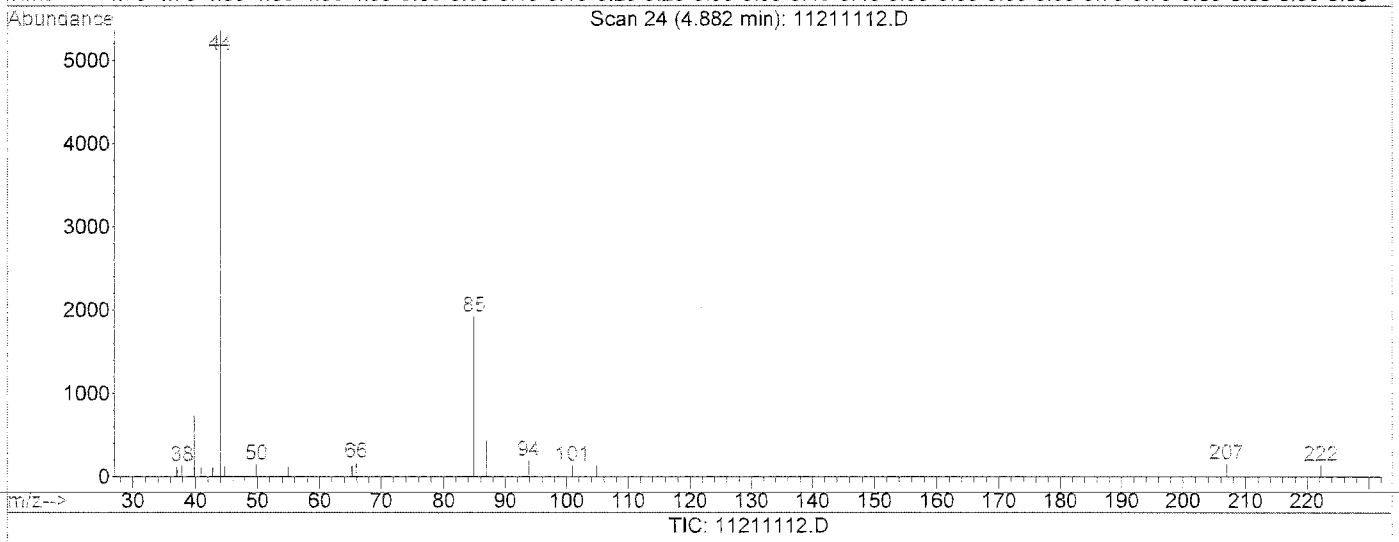


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:33 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

(5) Dichlorodifluoromethane (T)

4.88min 0.41ug/L

response 7017

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	25.52
0.00	0.00	0.00
0.00	0.00	0.00

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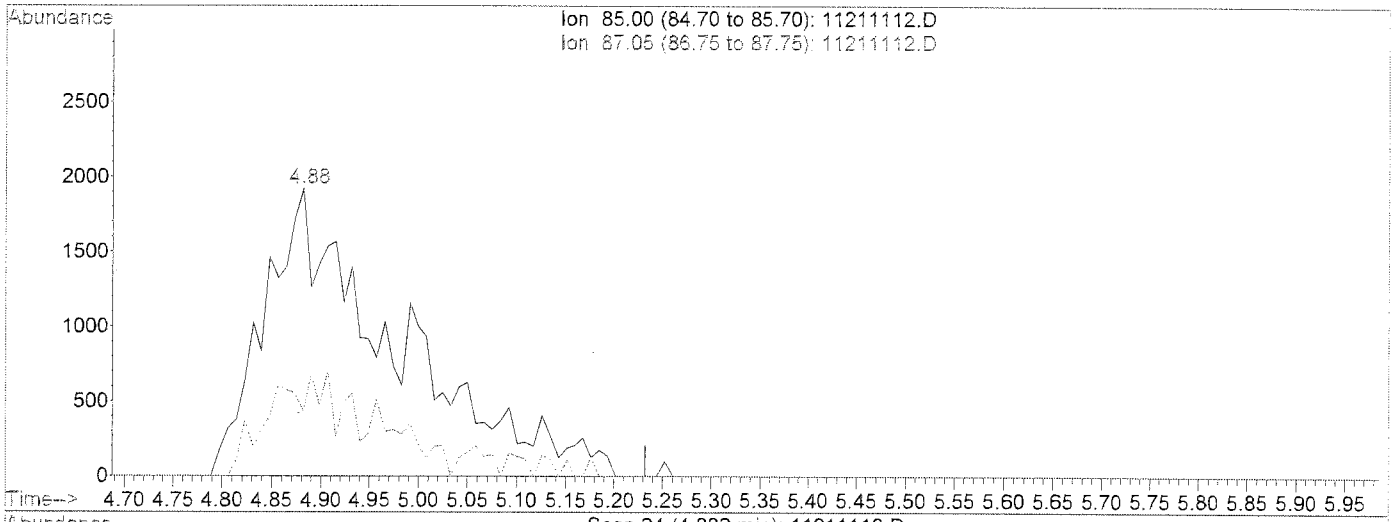
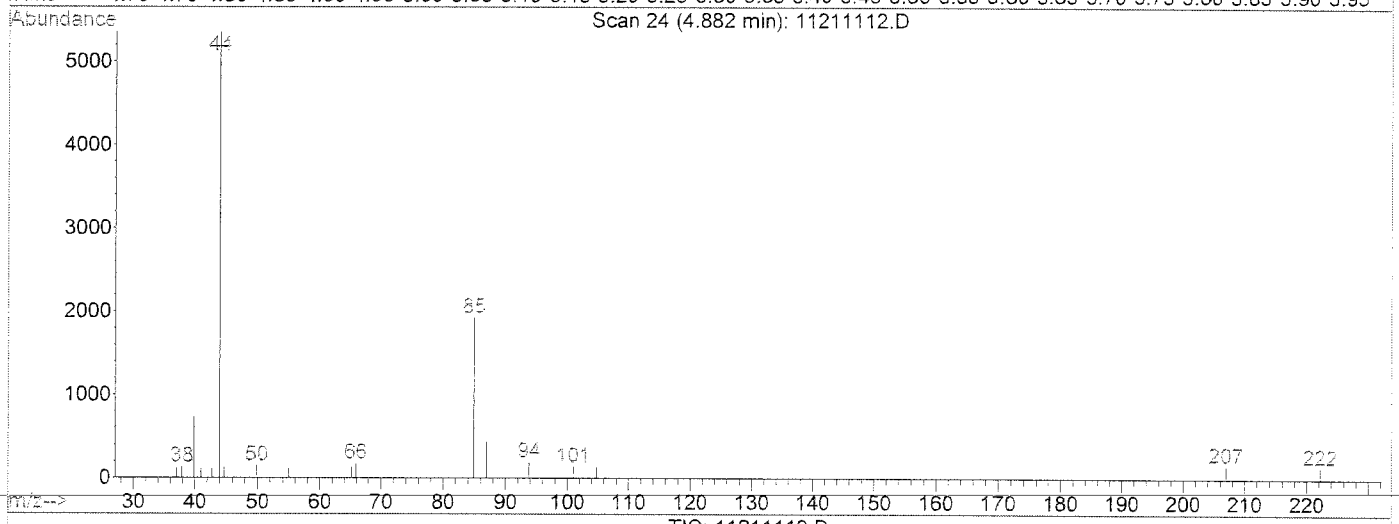
11211112.D 112111.M Tue Nov 22 14:33:36 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:33 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.88min 1.03ug/L m

response 17584

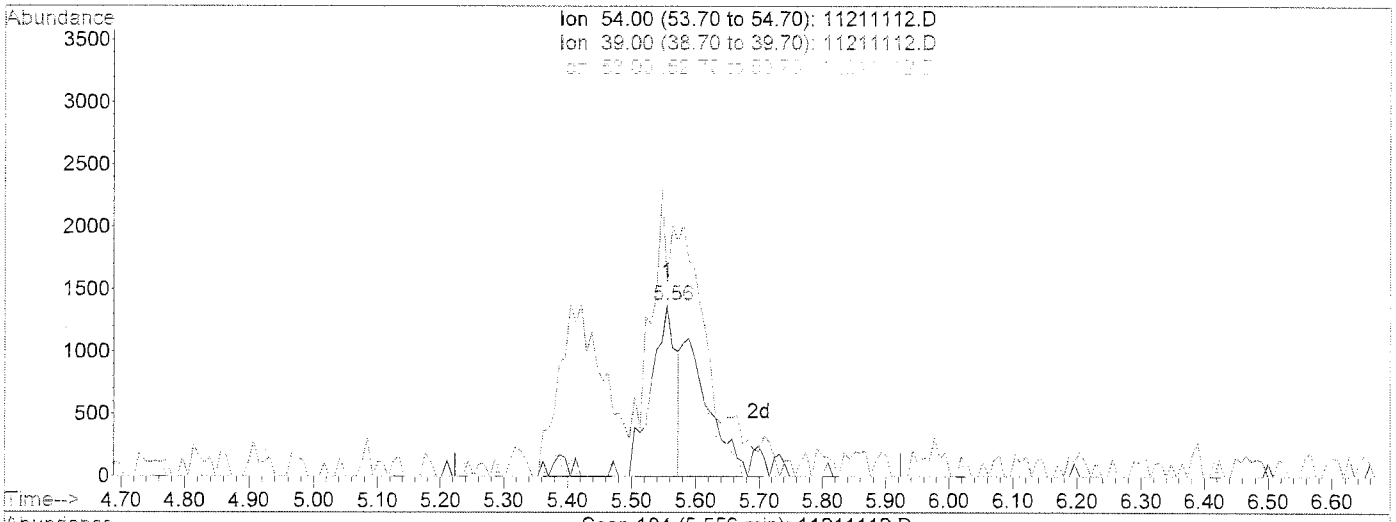
Ion	Exp%	Act%
85.00	100	100
87.05	31.90	10.19#
0.00	0.00	0.00
0.00	0.00	0.00

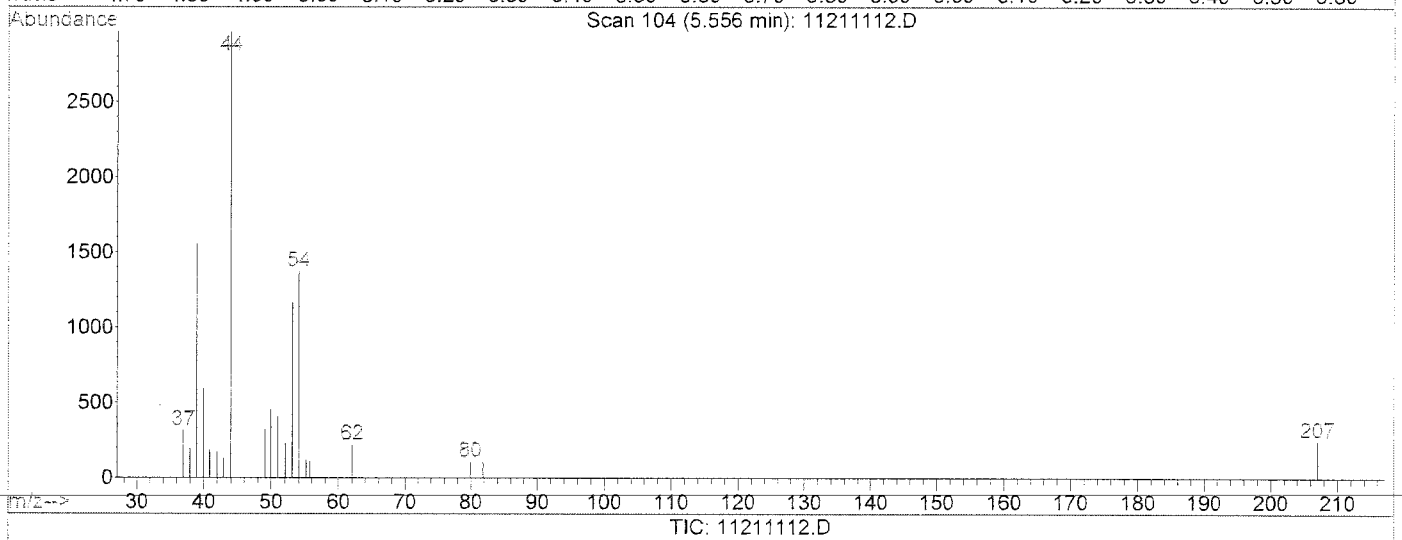
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:33 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

(8) 1,3-Butadiene (T)

5.56min 0.52ug/L

response 3739

Ion	Exp%	Act%
54.00	100	100
39.00	147.70	90.83#
53.00	73.60	159.08#
0.00	0.00	0.00

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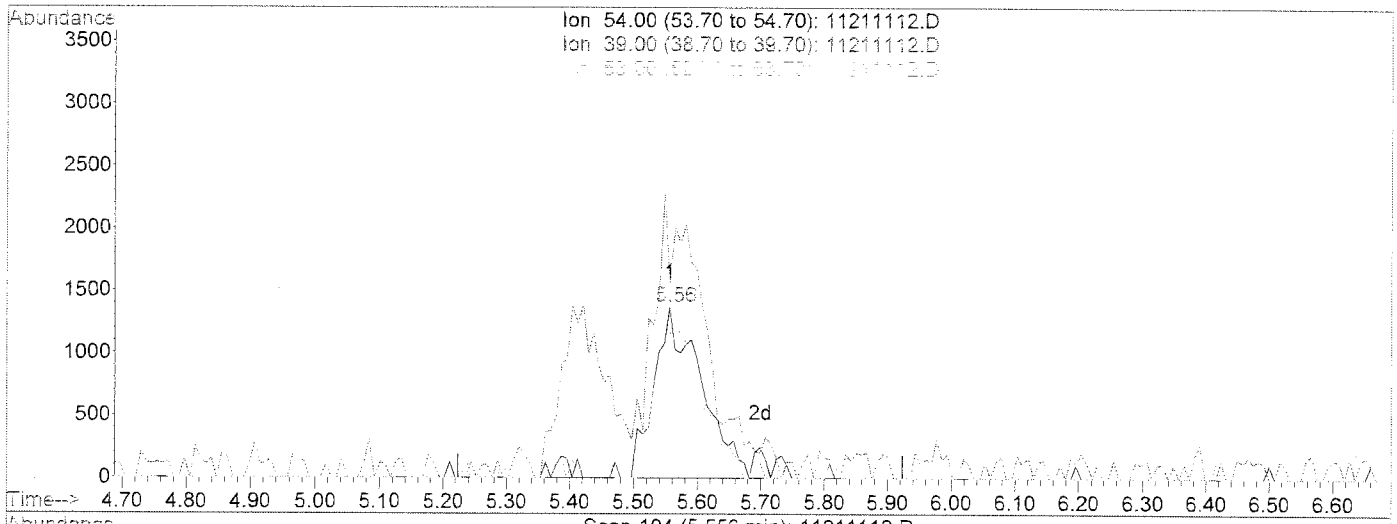
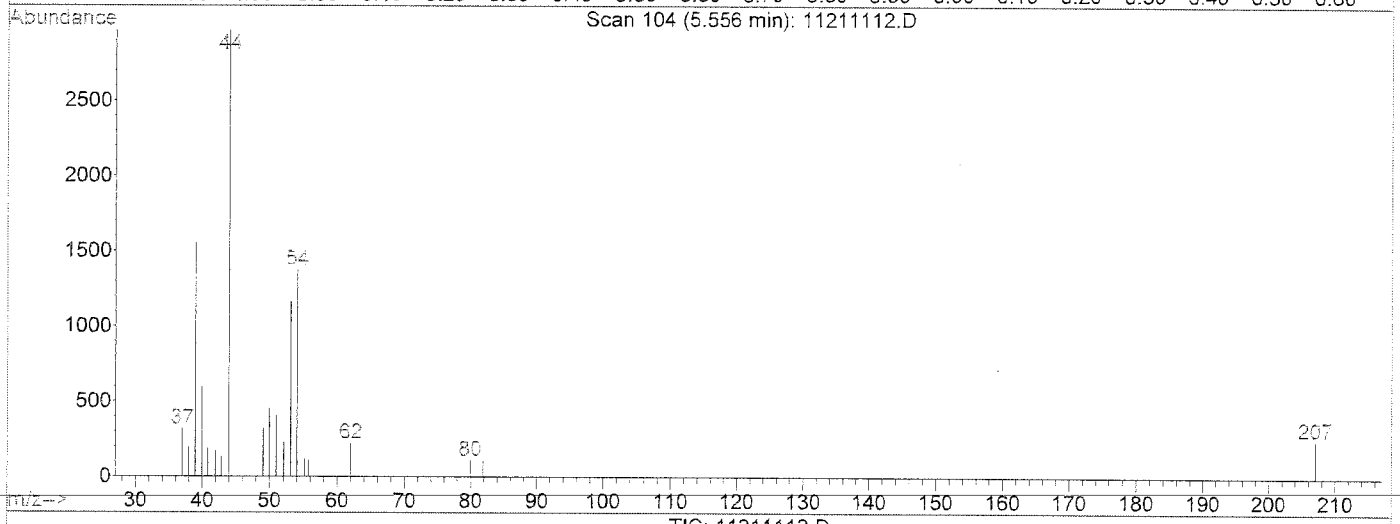
11211112.D 112111.M Tue Nov 22 14:33:58 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:34 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

11/23/11

(8) 1,3-Butadiene (T)

5.56min 0.98ug/L m

response 7069

Ion	Exp%	Act%
54.00	100	100
39.00	147.70	48.04#
53.00	73.60	84.14
0.00	0.00	0.00

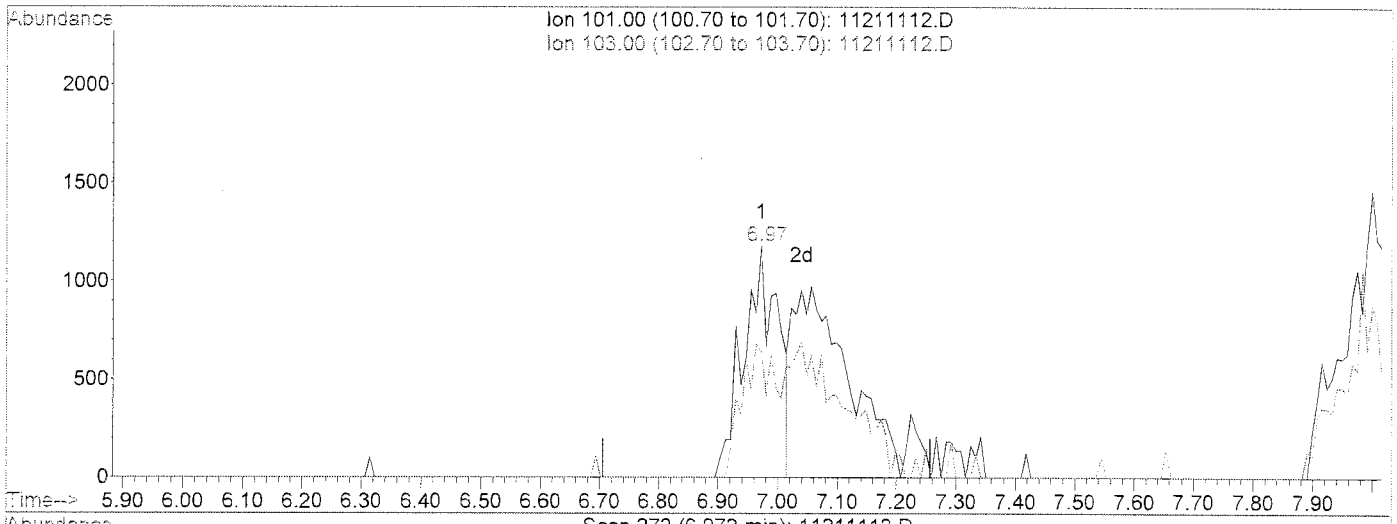
11/22/11

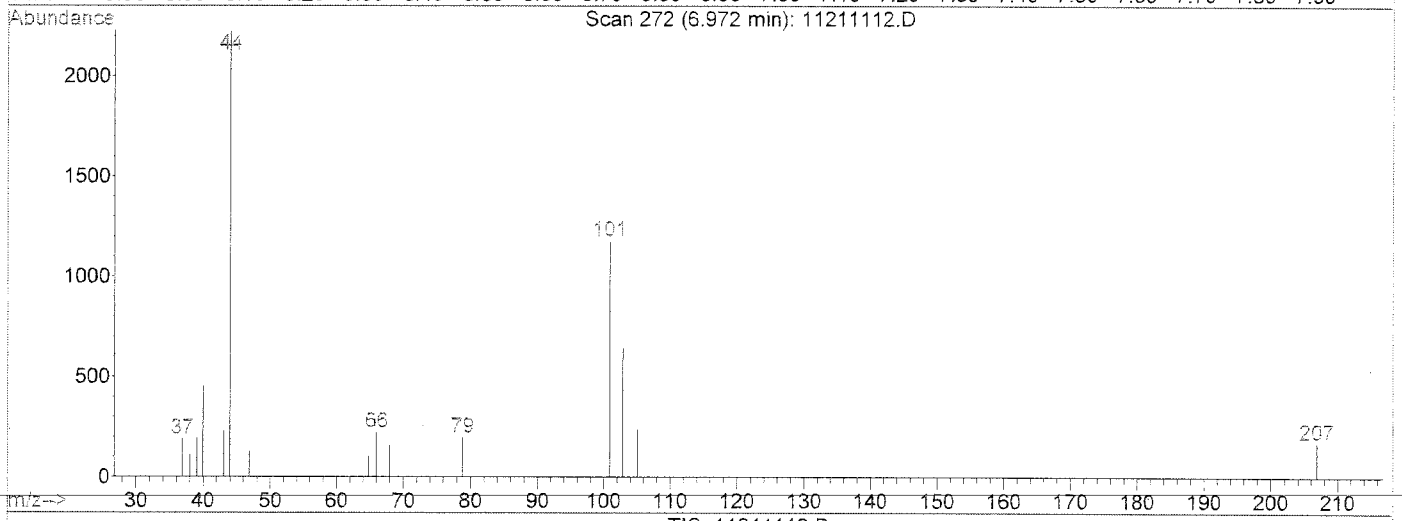
11211112.D 112111.M Tue Nov 22 14:34:03 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:34 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

11/23/11

(12) Trichlorofluoromethane (T)

6.97min 0.37ug/L

response 4659

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	54.41
0.00	0.00	0.00
0.00	0.00	0.00

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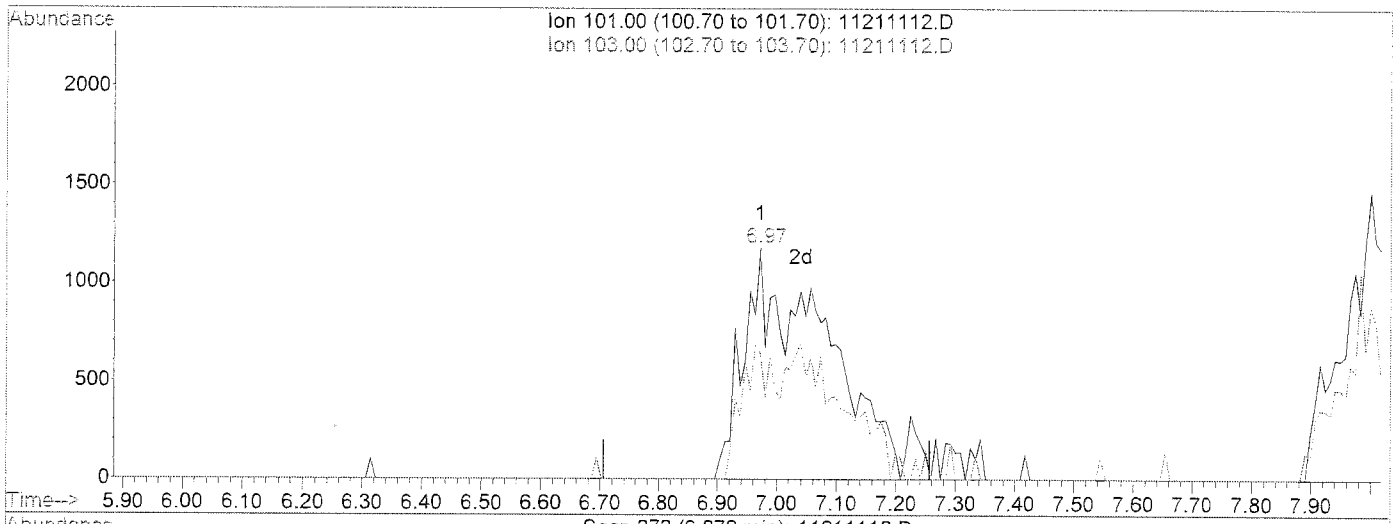
NIP
11/22/11

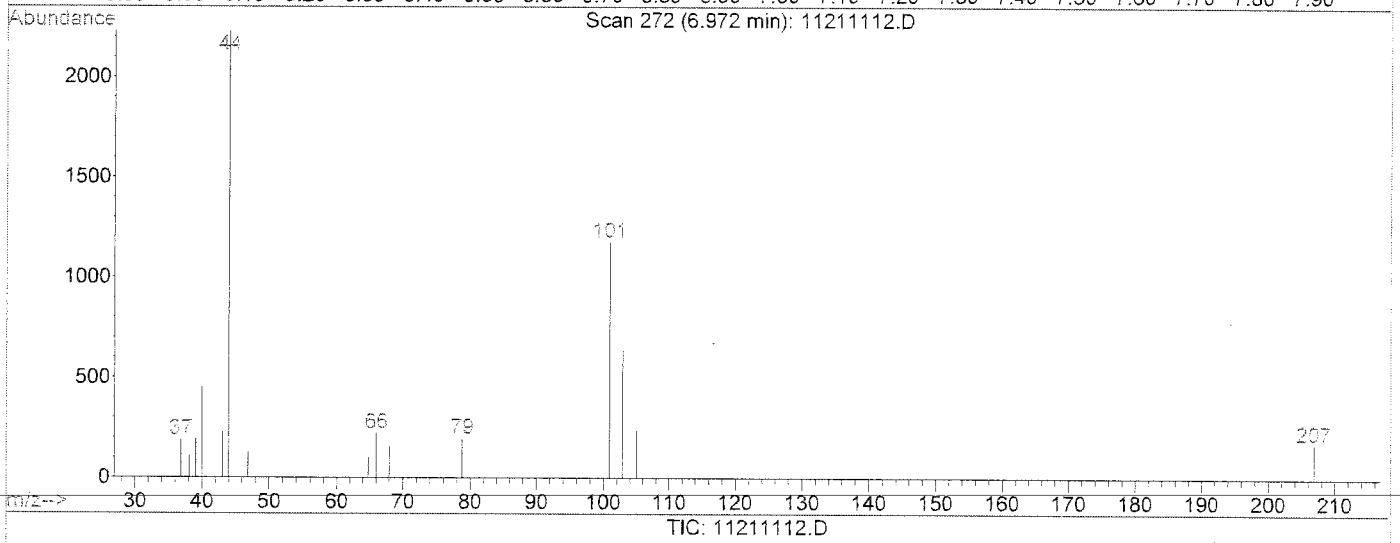
11211112.D 112111.M Tue Nov 22 14:34:21 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:34 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

(12) Trichlorofluoromethane (T)

6.97min 0.88ug/L m

response 11101

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	54.41
0.00	0.00	0.00
0.00	0.00	0.00

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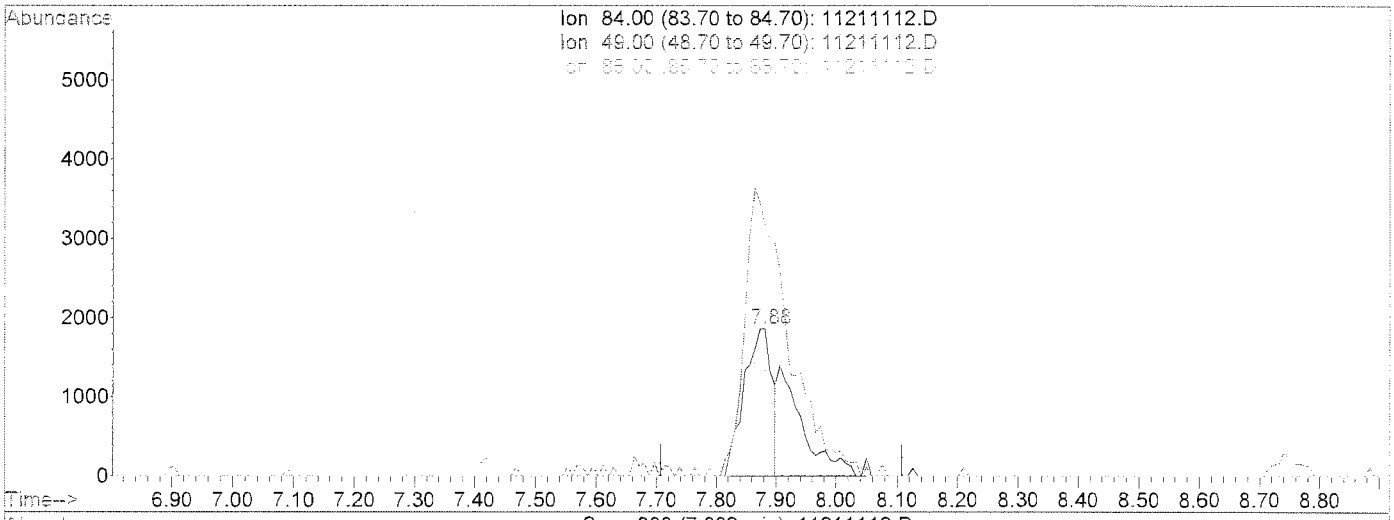
11/22/11

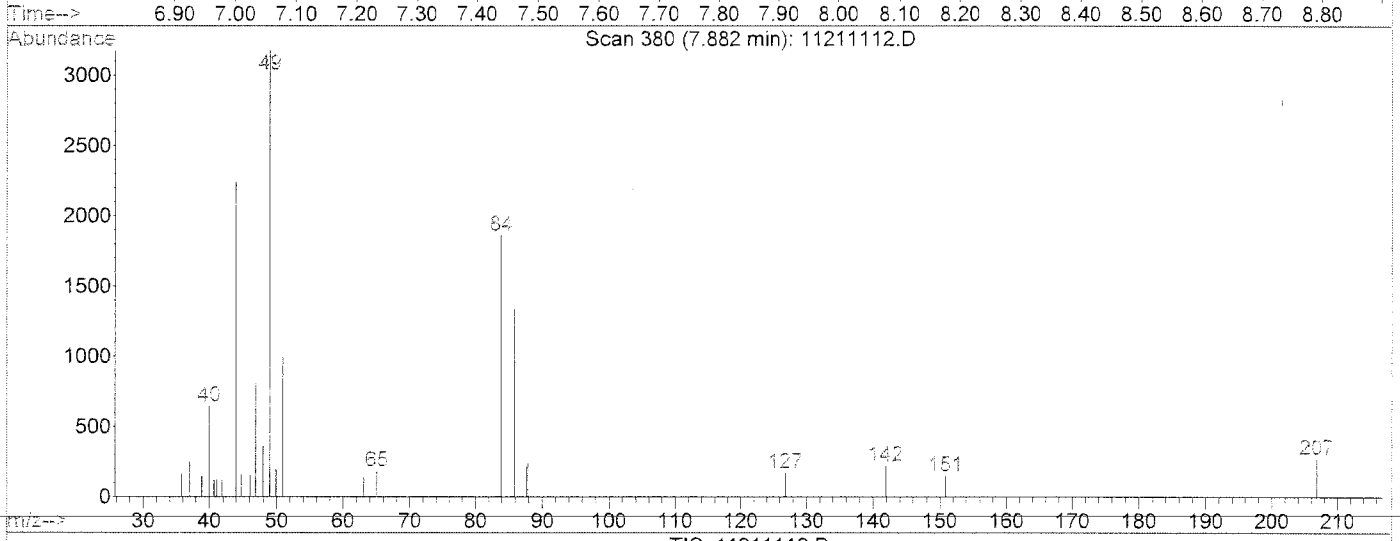
11211112.D 112111.M Tue Nov 22 14:34:26 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:34 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

✓ 11/23/11

(17) Methylene Chloride (T)

7.88min 0.64ug/L

response 6110

Ion	Exp%	Act%
84.00	100	100
49.00	166.40	306.07#
86.00	63.70	70.47
0.00	0.00	0.00

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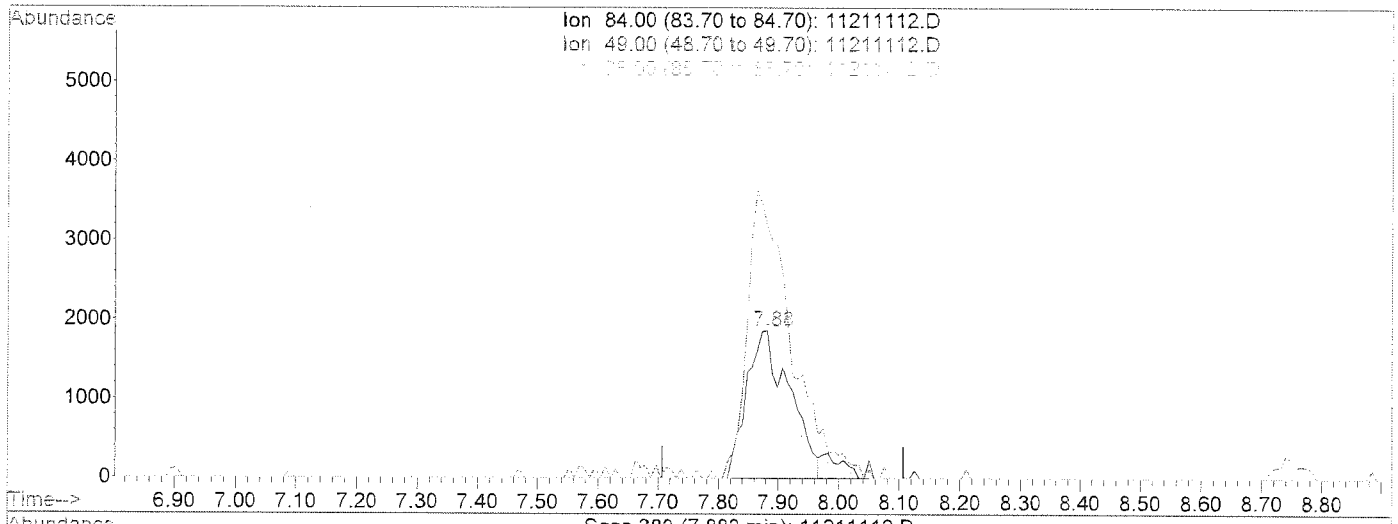
NIP
11/22/11

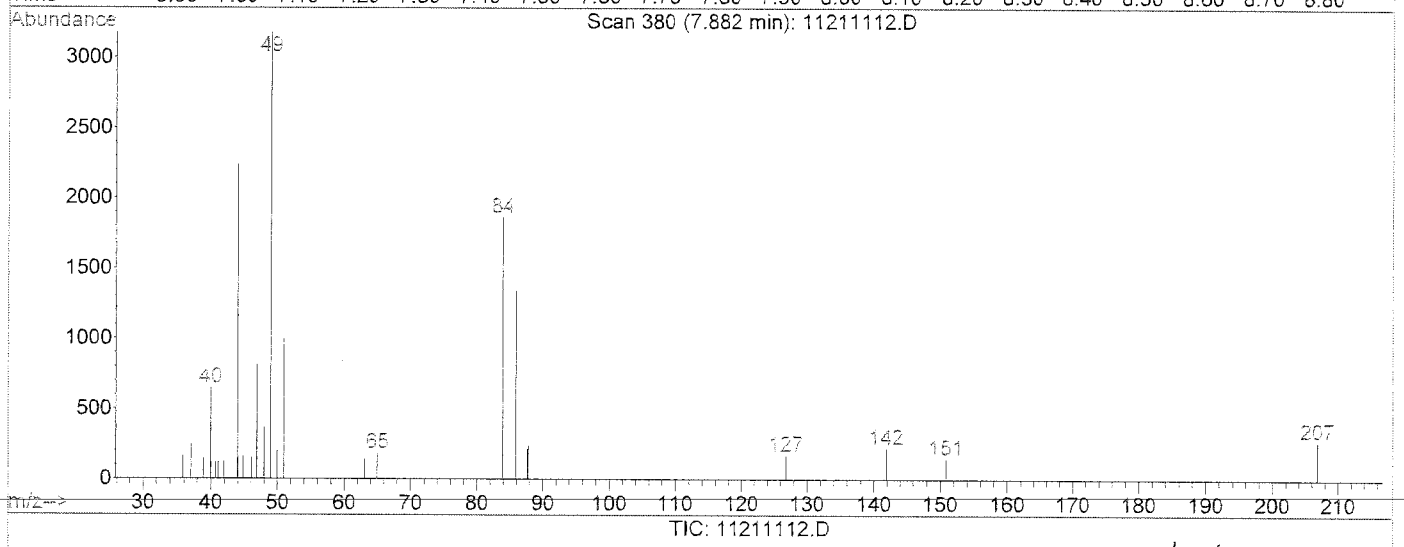
11211112.D 112111.M Tue Nov 22 14:34:50 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:35 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

11/23/11

(17) Methylene Chloride (T)

7.88min 0.98ug/L m

response 9343

Ion	Exp%	Act%
84.00	100	100
49.00	166.40	200.16#
86.00	63.70	46.09#
0.00	0.00	0.00

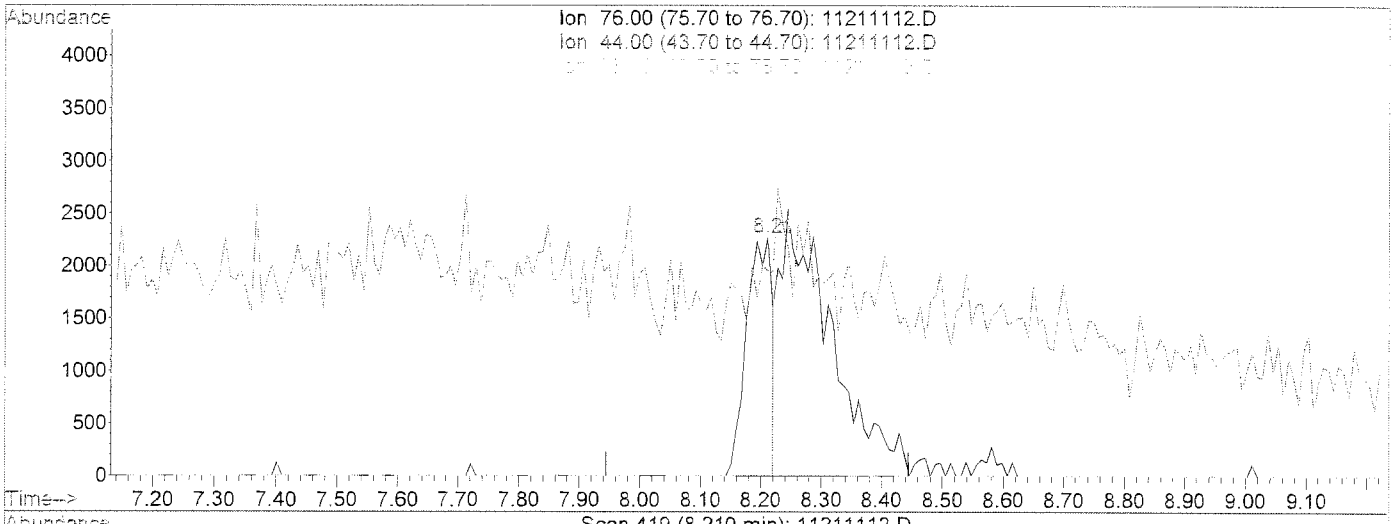
11/22/11

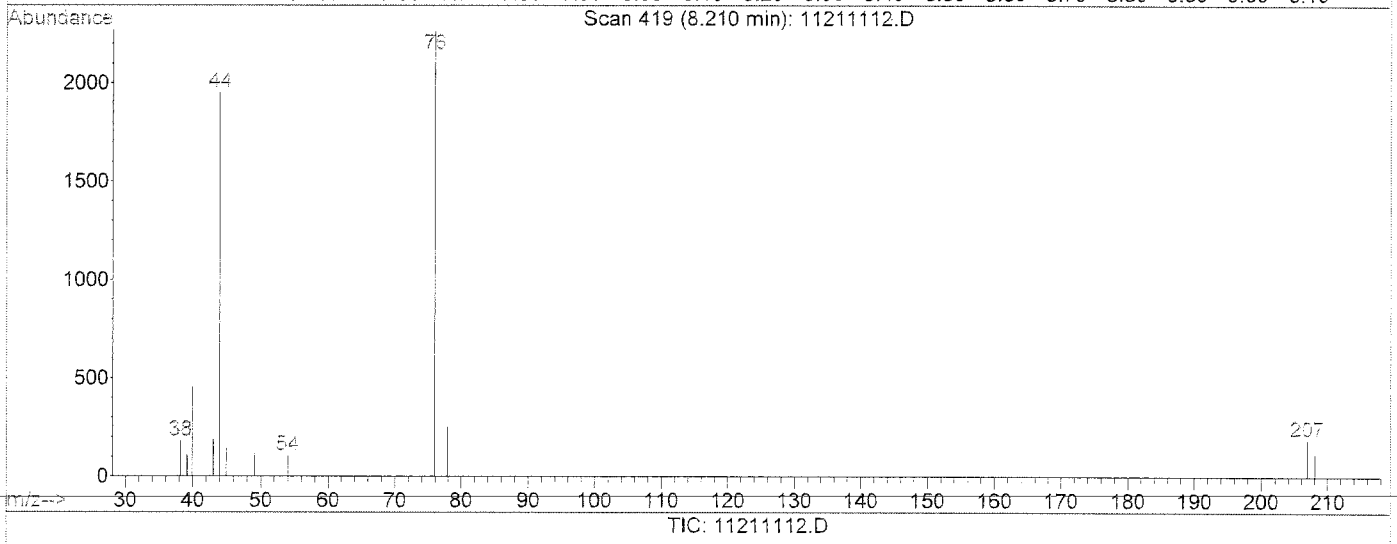
11211112.D 112111.M Tue Nov 22 14:35:02 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:35 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





(19) Carbon Disulfide (T)

8.21min 0.29ug/L

response 6475

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	0.00#
78.00	3.90	18.25#
0.00	0.00	0.00

✓11/23/11

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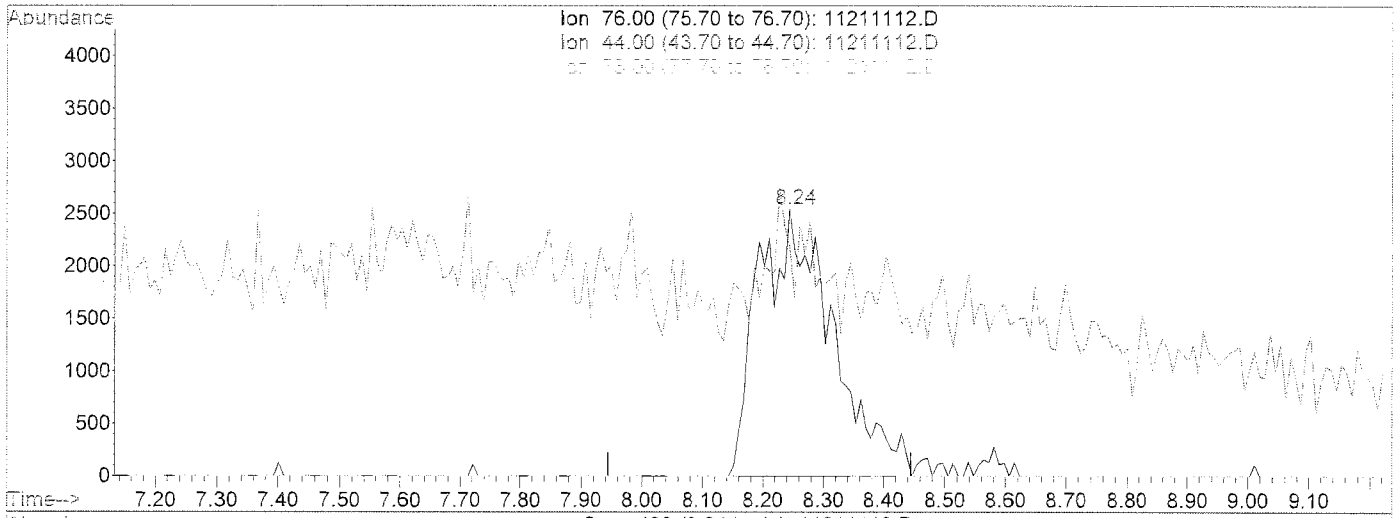
11/22/11

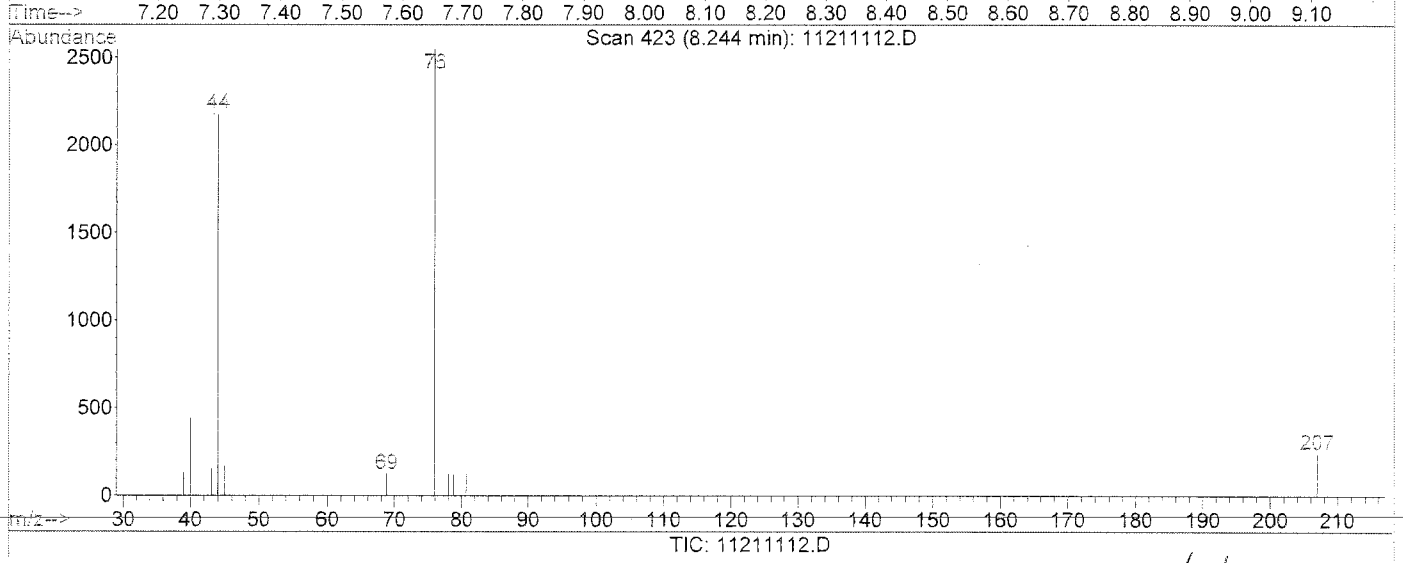
11211112.D 112111.M Tue Nov 22 14:35:25 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:35 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211112.D

(19) Carbon Disulfide (T)

8.24min 0.97ug/L m

response 21717

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	0.00#
78.00	3.90	5.44#
0.00	0.00	0.00

11/23/11

A

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:36 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	43236	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	287098	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	469628	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.15	117	396512	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	207028	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	198228	25.99 ug/L	0.00
Spiked Amount 25.000			Recovery	= 103.96%	
50) Toluene-d8 (surr)	14.19	98	506251	24.63 ug/L	0.00
Spiked Amount 25.000			Recovery	= 98.52%	
64) 4-Bromofluorobenzene (surr	17.82	95	229202	25.11 ug/L	0.00
Spiked Amount 25.000			Recovery	= 100.44%	

Target Compounds					Qvalue
2) Ethanol	0.00	45	0	N.D. d	
3) tert-Butanol (TBA)	0.00	59	0	N.D. d	
5) Dichlorodifluoromethane	4.88	85	17584m	1.03 ug/L	
6) Chloromethane	5.11	50	18737	1.17 ug/L	94
7) Vinyl Chloride	5.44	62	14213	1.16 ug/L #	75
8) 1,3-Butadiene	5.56	54	7069m	0.98 ug/L	
9) Bromomethane	5.99	94	9455	1.07 ug/L #	55
10) Chloroethane	6.20	64	7038	1.04 ug/L #	54
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	6.97	101	11101m	0.88 ug/L	
13) Acetone	0.00	43	0	N.D. d	
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.77	142	13436	1.02 ug/L #	30
16) 1,1-Dichloroethene	7.70	96	7325	0.99 ug/L	86
17) Methylene Chloride	7.88	84	9343m	0.98 ug/L	
18) Freon 113	8.00	101	8794	1.11 ug/L #	89
19) Carbon Disulfide	8.24	76	21717m	0.97 ug/L	
~~20) trans-1,2-Dichloroethene~~	~~8.74~~	~~96~~	~~9016~~	~~0.98 ug/L~~	~~92~~
21) MTBE	8.87	73	8691	0.83 ug/L	98
22) 1,1-Dichloroethane	9.06	63	19379	1.01 ug/L	98
23) Vinyl Acetate	9.20	43	4718	1.45 ug/L	97
24) n-Hexane	9.56	86	1140	0.76 ug/L #>20	33
25) 2-Butanone (MEK)	0.00	72	0	N.D. d	
26) Diisopropylether (DIPE)	9.60	45	30616	0.96 ug/L	89
27) cis-1,2-Dichloroethene	9.79	96	9423	1.02 ug/L	91
28) Bromochloromethane	10.00	128	4354	1.00 ug/L	89
29) Chloroform	10.06	83	20762	1.08 ug/L	98
30) 2,2-Dichloropropane	10.17	77	6205	0.84 ug/L #	76
31) (ETBE) 2-Ethoxy-2-methyl p	10.11	59	8189	0.69 ug/L #M	87
33) Tetrahydrofuran	0.00	72	0	N.D. d	
34) 1,2-Dichloroethane	10.89	62	14279	1.02 ug/L	97
35) 1,1,1-Trichloroethane	11.02	97	14118	0.96 ug/L	94
36) (TAME) tert-Amyl methyl et	11.72	73	4413	0.64 ug/L NT	87
38) 1,1-Dichloropropene	11.25	75	9043	0.78 ug/L #>20	84
39) Carbon Tetrachloride	11.50	117	14726	1.01 ug/L	98
0) Benzene	11.55	78	28623	0.95 ug/L	100

(#) = qualifier out of range (m) = manual integration
11211112.D 112111.M Tue Nov 22 14:36:52 2011

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:36 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

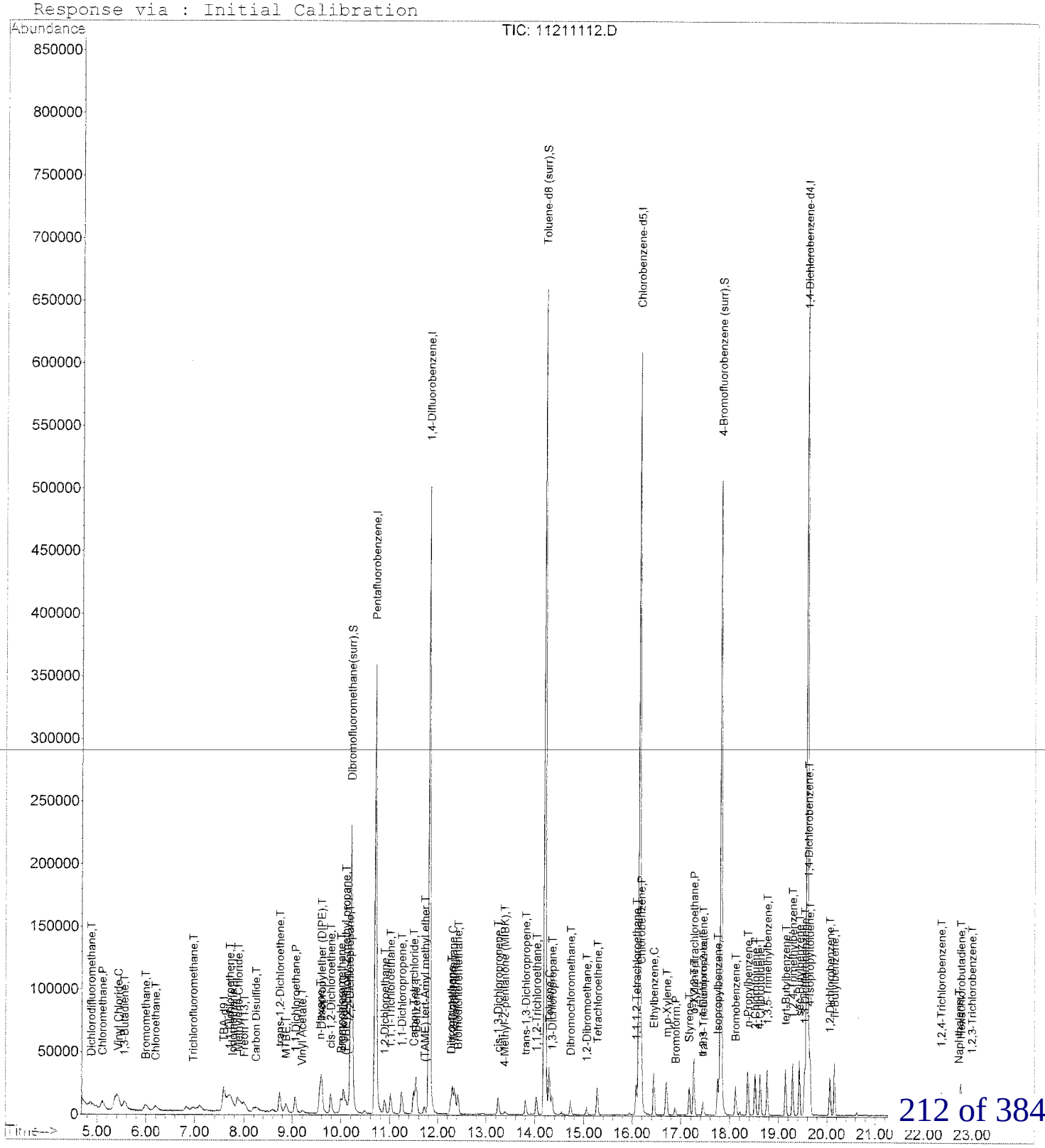
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Dibromomethane	12.27	93	4489	0.92 ug/L	94
42)	1,2-Dichloropropane	12.31	63	8268	0.97 ug/L	91
43)	Trichloroethene	12.36	95	9360	1.02 ug/L	91
44)	Bromodichloromethane	12.42	83	13285	0.99 ug/L	96
45)	2-Chloroethyl vinylether	0.00	63	0	N.D. d	
46)	cis-1,3-Dichloropropene	13.24	75	8482	0.93 ug/L	95
47)	4-Methyl-2-pentanone (MIBK	13.38	43	3365	0.68 ug/L # NT	88
48)	trans-1,3-Dichloropropene	13.81	75	7527	0.94 ug/L	93
49)	1,1,2-Trichloroethane	14.03	97	5124	0.96 ug/L	97
51)	Toluene	14.30	92	17622	0.99 ug/L	96
53)	1,3-Dichloropropane	14.35	76	9621	1.04 ug/L	95
54)	2-Hexanone	0.00	43	0	N.D. d	
55)	Dibromochloromethane	14.72	129	6523	0.87 ug/L	90
56)	1,2-Dibromoethane	15.06	107	4531	0.88 ug/L	91
57)	Tetrachloroethene	15.27	164	6137	0.99 ug/L	96
58)	1,1,1,2-Tetrachloroethane	16.08	131	8286	1.05 ug/L	93
59)	Chlorobenzene	16.19	112	20884	1.02 ug/L #	77
60)	Ethylbenzene	16.44	91	28280	0.91 ug/L	96
61)	m,p-Xylene	16.71	106	9884	0.84 ug/L	93
62)	Styrene	17.16	104	12809	0.86 ug/L	98
63)	o-Xylene	17.26	106	11562	0.94 ug/L	96
66)	Bromoform	16.90	173	3500	0.92 ug/L #	52
67)	1,1,2,2-Tetrachloroethane	17.25	83	5935	1.14 ug/L	92
68)	1,2,3-Trichloropropane	17.46	110	1611	1.01 ug/L # ✓	86
69)	trans-1,4-Dichloro-2-buten	17.46	53	1502	1.50 ug/L # NT	62
70)	Isopropylbenzene	17.76	105	22551	0.92 ug/L	98
71)	Bromobenzene	18.12	156	7226	0.96 ug/L	96
72)	n-Propylbenzene	18.37	91	32444	0.92 ug/L	97
73)	2-Chlorotoluene	18.52	91	22224	0.94 ug/L	90
74)	4-Chlorotoluene	18.62	91	23227	0.95 ug/L	97
75)	1,3,5-Trimethylbenzene	18.77	105	24318	0.91 ug/L	96
76)	tert-Butylbenzene	19.15	119	18362	0.94 ug/L	96
77)	1,2,4-Trimethylbenzene	19.29	105	24457	0.89 ug/L	99
78)	sec-Butylbenzene	19.43	105	31393	0.95 ug/L	94
79)	1,3-Dichlorobenzene	19.54	146	14470	0.94 ug/L	92
80)	1,4-Dichlorobenzene	19.62	146	15987	1.03 ug/L #	85
81)	4-Isopropyltoluene	19.65	119	29013	0.97 ug/L	98
82)	1,2-Dichlorobenzene	20.06	146	12936	0.95 ug/L	98
83)	n-Butylbenzene	20.15	91	24207	0.91 ug/L	96
84)	1,2-Dibromo-3-chloropropan	0.00	75	0	N.D. d	
85)	1,2,4-Trichlorobenzene	22.36	180	7478	0.78 ug/L ✓	94
86)	Naphthalene	22.71	128	5648	1.31 ug/L NT	97
87)	Hexachlorobutadiene	22.76	225	6937	0.95 ug/L	98
88)	1,2,3-Trichlorobenzene	22.98	180	5597	0.72 ug/L ✓	98

(#) = qualifier out of range (m) = manual integration
11211112.D 112111.M Tue Nov 22 14:36:52 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211112.D Vial: 7
Acq On : 21 Nov 2011 4:28 pm Operator: KH
Sample : 1.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:36 2011 Quant Results File: 112111.RES

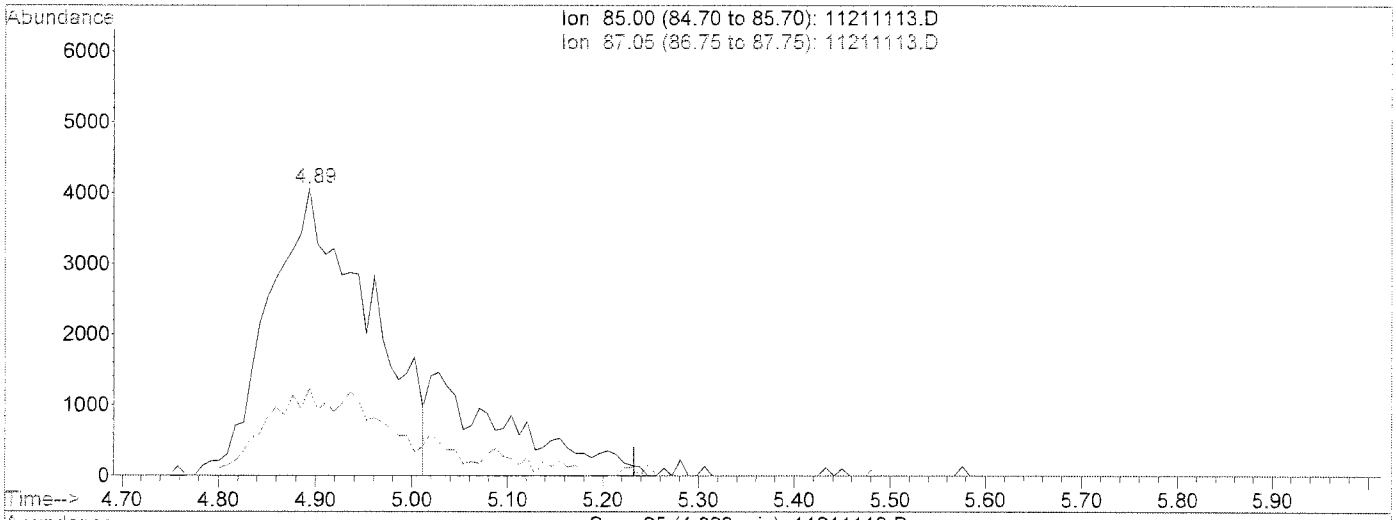
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

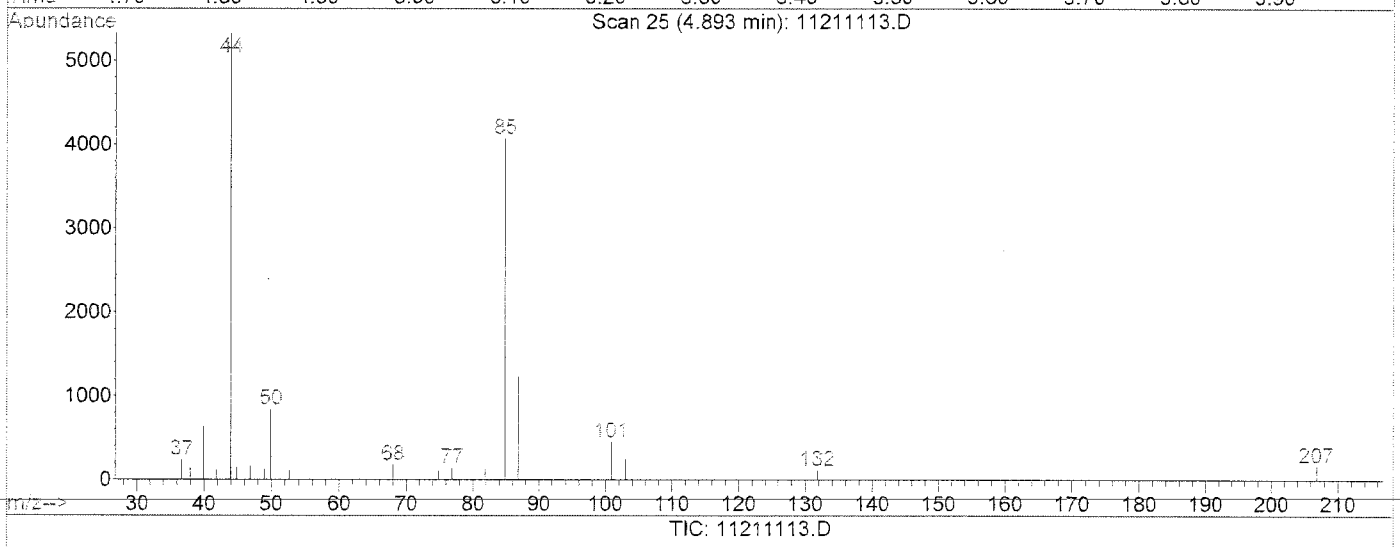


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:37 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

(5) Dichlorodifluoromethane (T)

4.89min 1.74ug/L

response 28758

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	18.95
0.00	0.00	0.00
0.00	0.00	0.00

11/22/11

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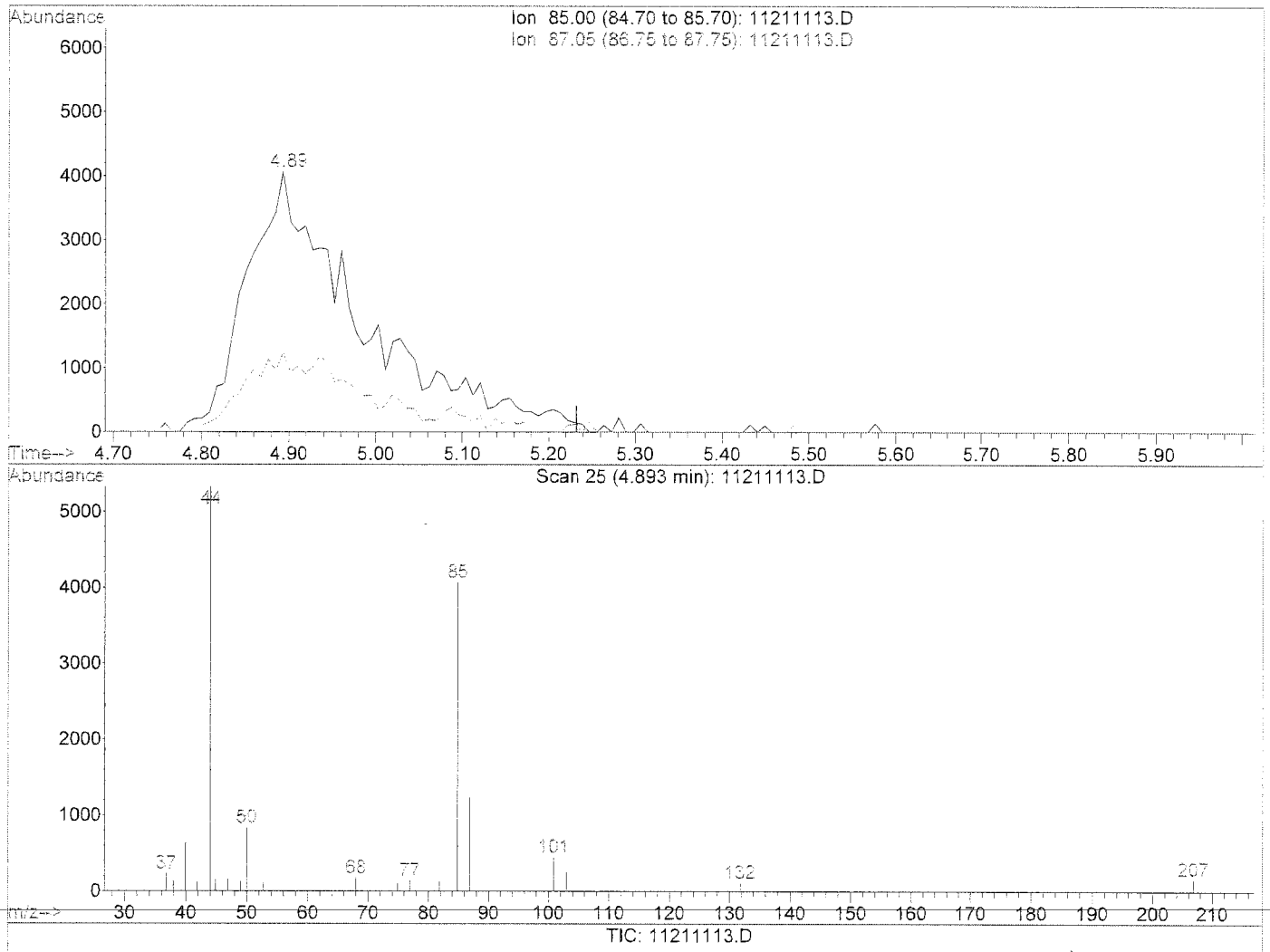
11211113.D 112111.M Tue Nov 22 14:38:59 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:39 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration



TIC: 11211113.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.89min 2.24ug/L m

response 37084

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	14.70
0.00	0.00	0.00
0.00	0.00	0.00

A

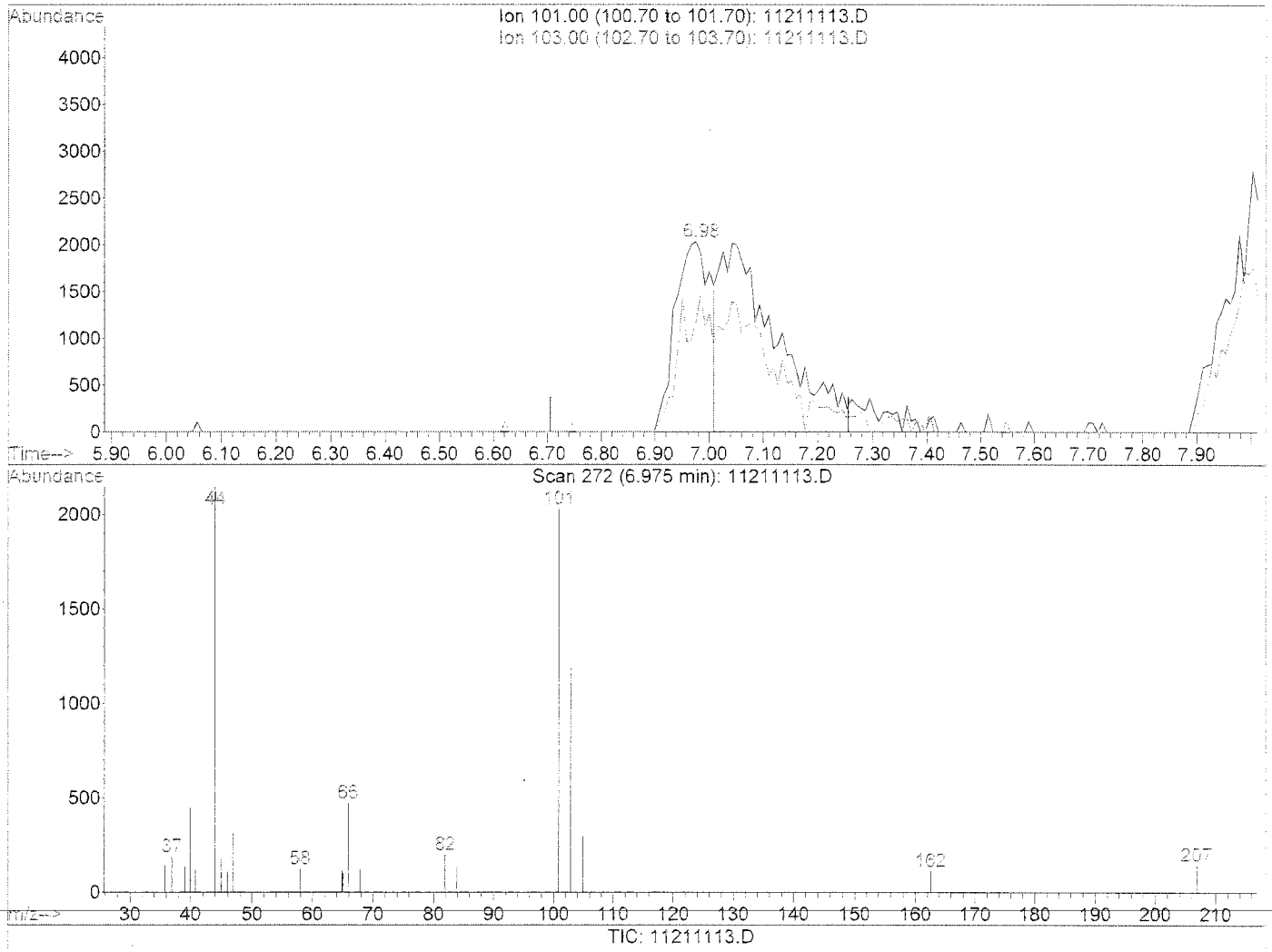
11/22/11

11211113.D 112111.M Tue Nov 22 14:39:06 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:40 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration



TIC: 11211113.D

(12) Trichlorofluoromethane (T)

6.98min 0.75ug/L

response 9208

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	58.24
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

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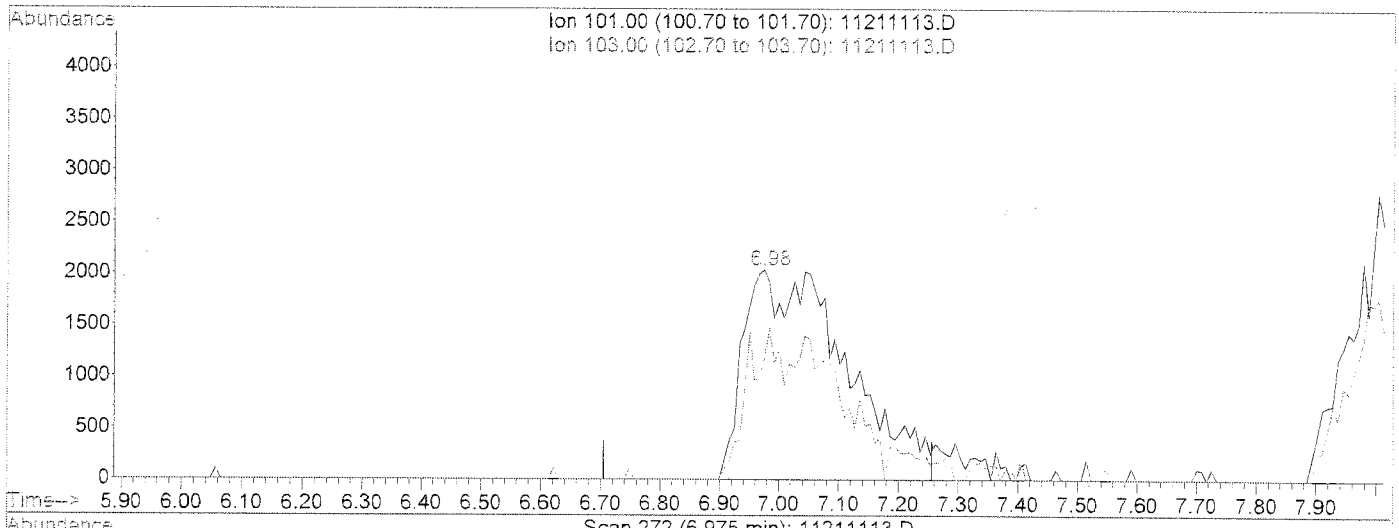
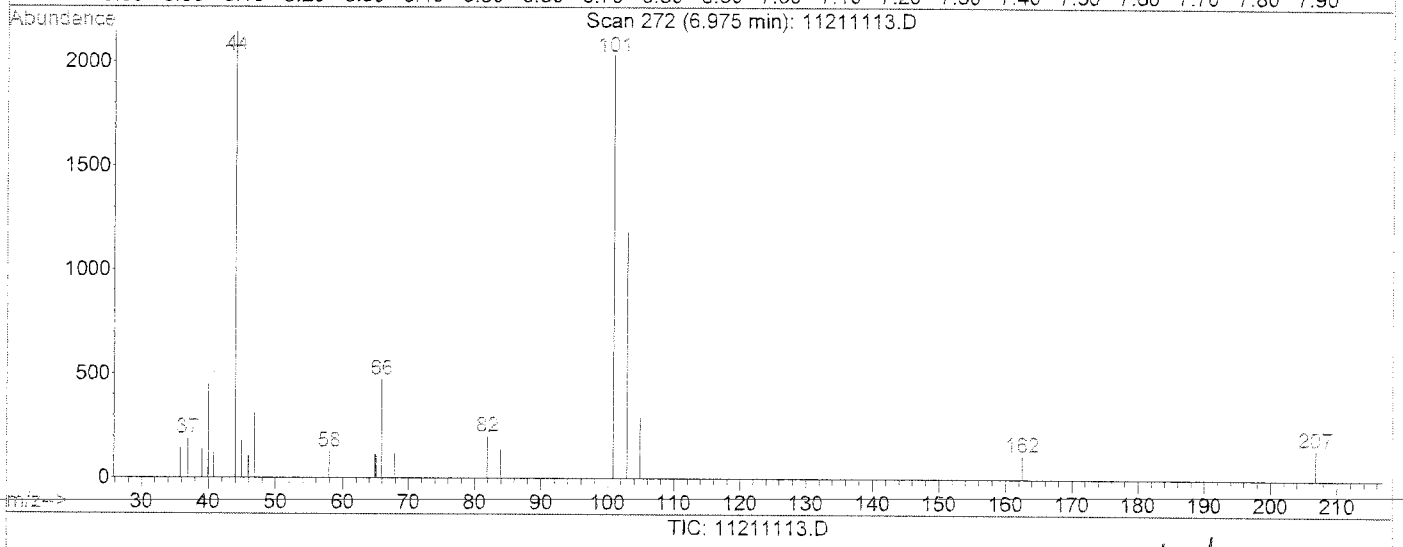
11211113.D 112111.M Tue Nov 22 15:57:05 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:57 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

(12) Trichlorofluoromethane (T)

6.98min 2.08ug/L m

response 25489

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	58.24
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

A

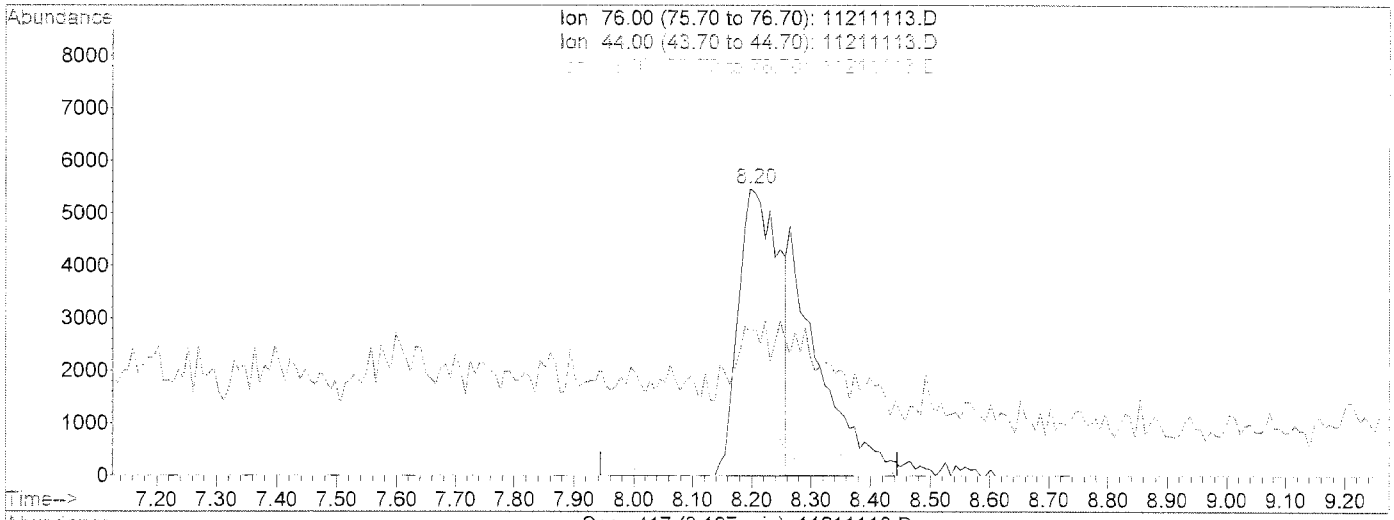
11/24/11

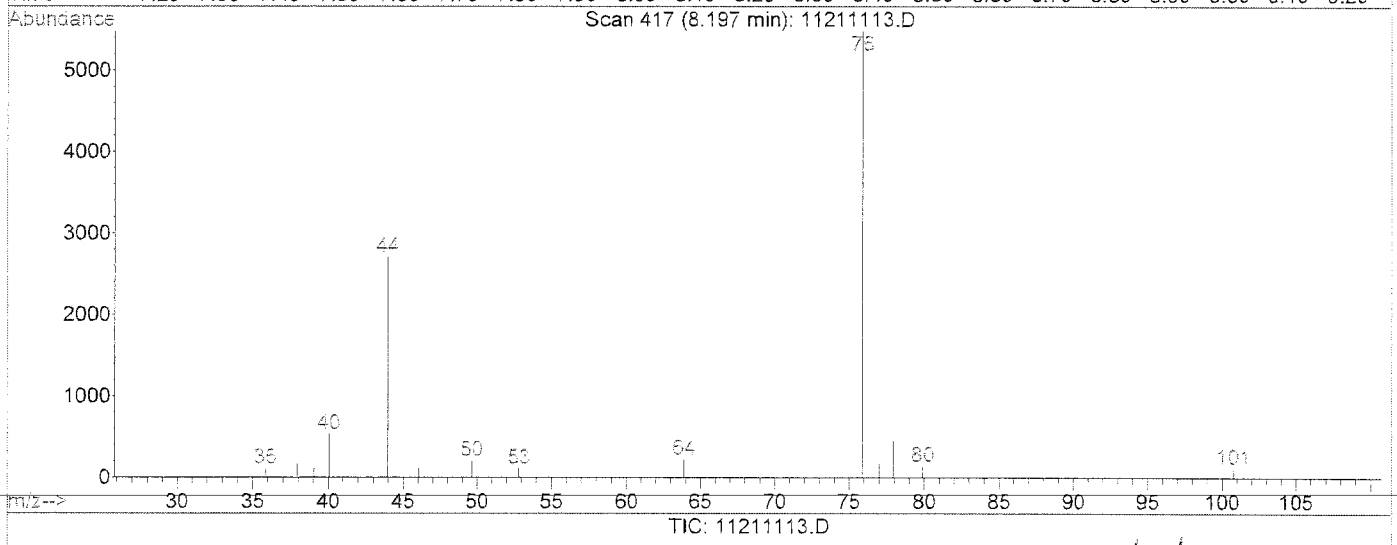
11211113.D 112111.M Tue Nov 22 15:57:16 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:39 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

(19) Carbon Disulfide (T)

8.20min 1.19ug/L

response 25859

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	13.67#
78.00	3.90	8.23#
0.00	0.00	0.00

✓ 11/23/11

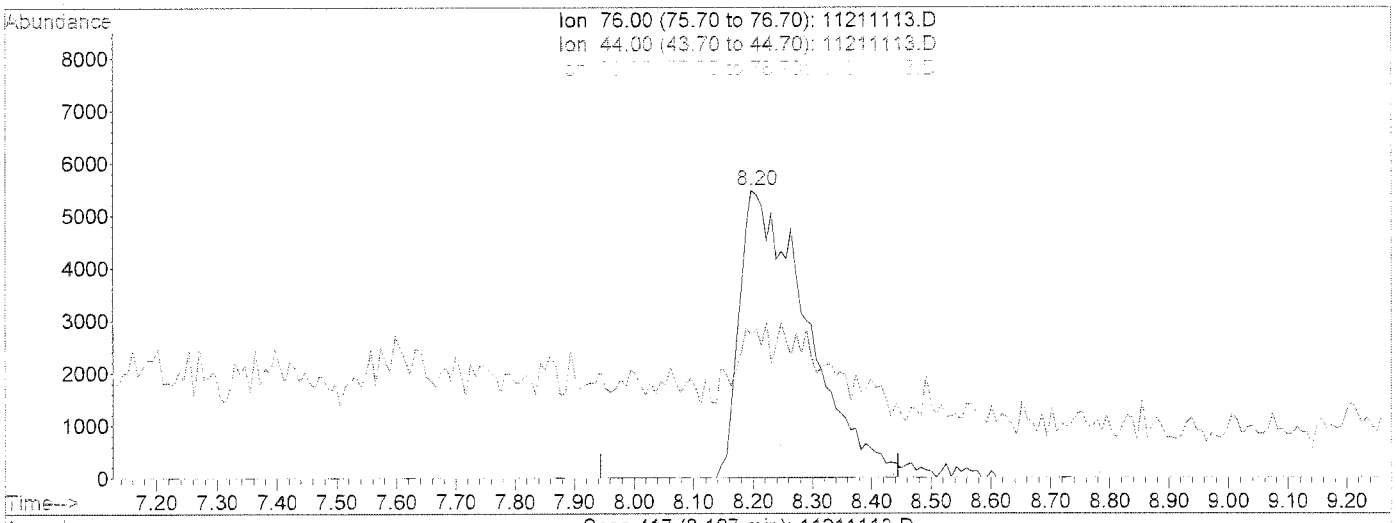
B
MP
11/22/11

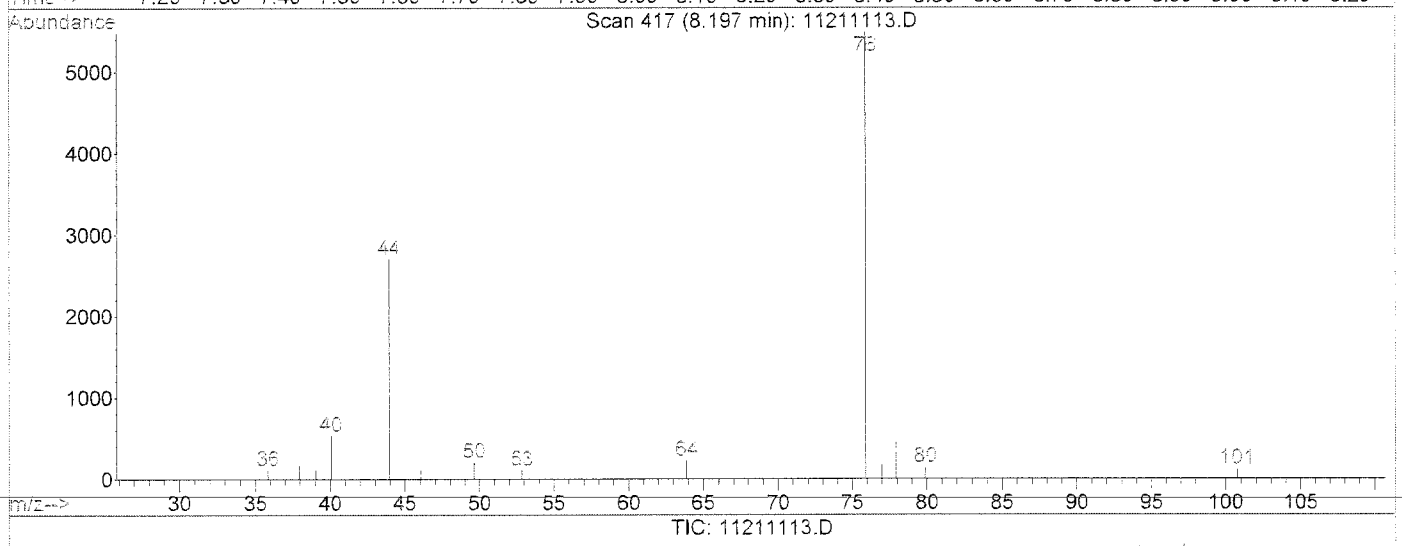
11211113.D 112111.M Tue Nov 22 14:39:53 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:39 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

11/23/11

(19) Carbon Disulfide (T)

8.20min 2.02ug/L m

response 43834

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	8.06#
78.00	3.90	4.85#
0.00	0.00	0.00

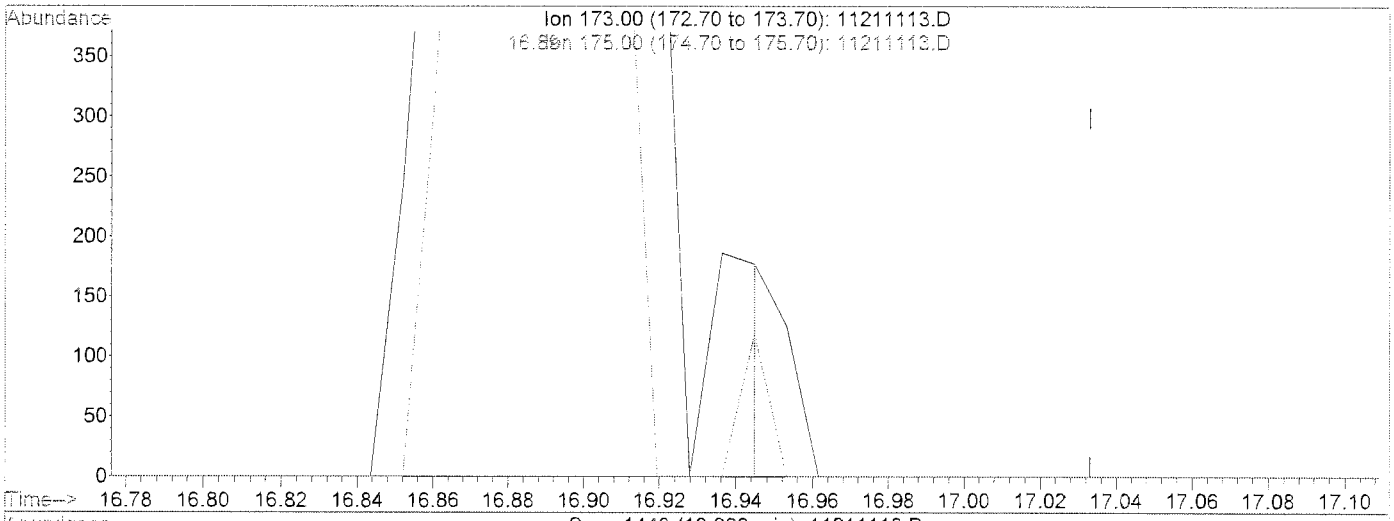
A
11/22/11

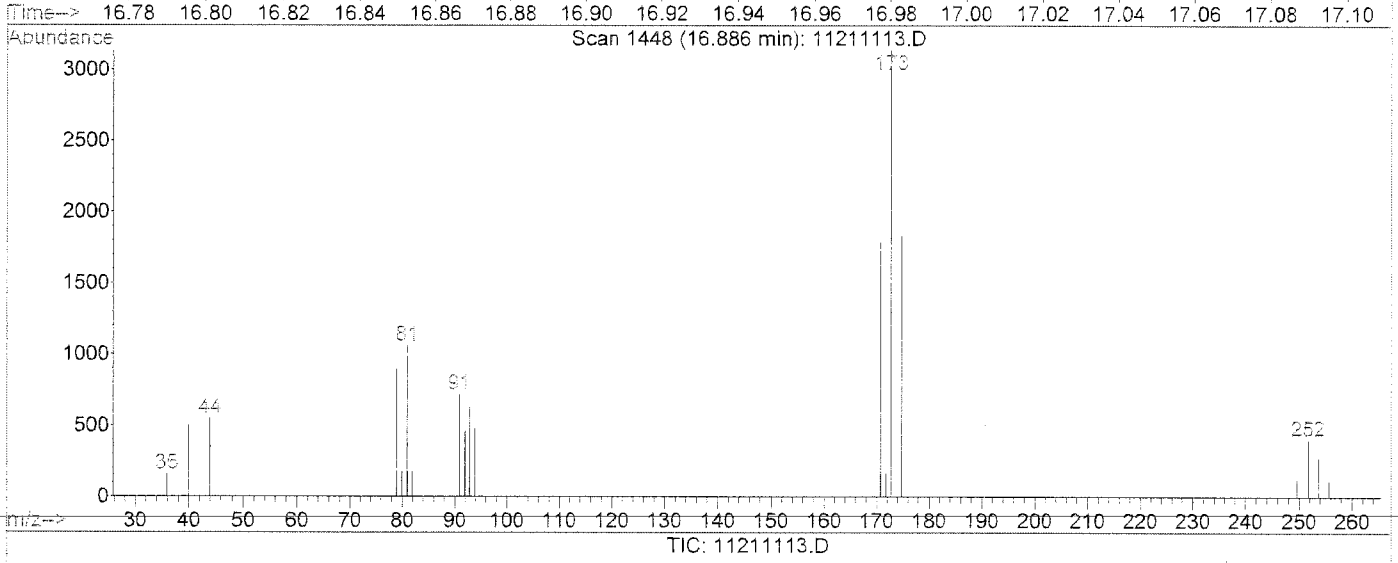
11211113.D 112111.M Tue Nov 22 14:39:59 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:39 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211113.D

(66) Bromoform (P)

16.89min 1.86ug/L

response 7224

Ion	Exp%	Act%
173.00	100	100
175.00	48.10	45.21
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

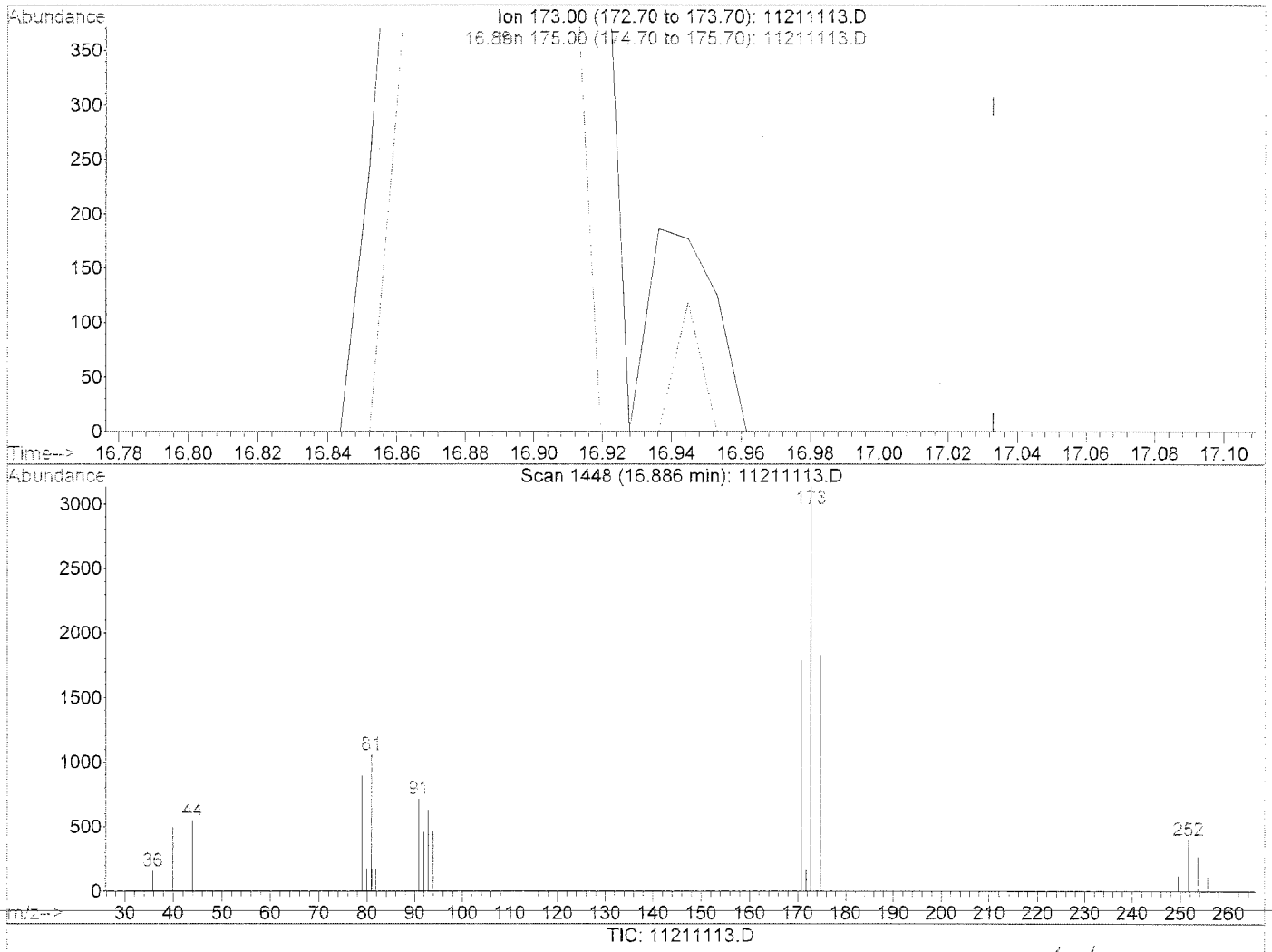
B
MP
11/22/11

11211113.D 112111.M Tue Nov 22 14:40:48 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:40 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration



✓11/23/11

(66) Bromoform (P)

16.89min 1.81ug/L m

response 7042

Ion	Exp%	Act%
173.00	100	100
175.00	48.10	46.38
0.00	0.00	0.00
0.00	0.00	0.00

11/22/11

11211113.D 112111.M Tue Nov 22 14:40:53 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:57 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	43094	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	278843	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	453067	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.14	117	388913	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	211668	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	190678	25.74 ug/L	0.00
Spiked Amount 25.000			Recovery	= 102.96%	
50) Toluene-d8 (surr)	14.20	98	497986	25.11 ug/L	0.01
Spiked Amount 25.000			Recovery	= 100.44%	
64) 4-Bromofluorobenzene (surr	17.82	95	234452	26.19 ug/L	0.00
Spiked Amount 25.000			Recovery	= 104.76%	

Target Compounds					Qvalue
2) Ethanol	0.00	45	0	N.D. d	
3) tert-Butanol (TBA)	7.70	59	7350	10.65 ug/L # ✓	84
5) Dichlorodifluoromethane	4.89	85	37084m	2.24 ug/L	
6) Chloromethane	5.12	50	32674	2.10 ug/L	95
7) Vinyl Chloride	5.46	62	26218	2.21 ug/L #	88
8) 1,3-Butadiene	5.57	54	14923	2.13 ug/L	99
9) Bromomethane	6.01	94	18283	2.13 ug/L	97
10) Chloroethane	6.20	64	13129	2.00 ug/L #	73
11) Acrolein	0.00	56	0	N.D.	
12) Trichlorofluoromethane	6.98	101	25489m	2.08 ug/L	
13) Acetone	7.13	43	9148	3.16 ug/L # NT	77
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.76	142	25253	1.98 ug/L #	89
16) 1,1-Dichloroethene	7.71	96	14460	2.02 ug/L #	83
17) Methylene Chloride	7.88	84	18709	2.02 ug/L	94
18) Freon 113	8.00	101	16026	2.08 ug/L #	77
19) Carbon Disulfide	8.20	76	43834m	2.02 ug/L	
~~20) trans-1,2-Dichloroethene~~	~~8.74~~	~~96~~	~~18153~~	~~2.02 ug/L~~	~~97~~
21) MTBE	8.87	73	19715	1.93 ug/L	98
22) 1,1-Dichloroethane	9.07	63	39550	2.11 ug/L	98
23) Vinyl Acetate	9.21	43	13374	2.08 ug/L	99
24) n-Hexane	9.55	86	2969	2.05 ug/L #	89
25) 2-Butanone (MEK)	9.60	72	951	1.83 ug/L # ✓	15
26) Diisopropylether (DIPE)	9.60	45	65902	2.12 ug/L	94
27) cis-1,2-Dichloroethene	9.80	96	18485	2.06 ug/L	96
28) Bromochloromethane	10.00	128	8981	2.12 ug/L	95
29) Chloroform	10.05	83	42103	2.25 ug/L	97
30) 2,2-Dichloropropane	10.17	77	15895	2.22 ug/L	98
31) (ETBE) 2-Ethoxy-2-methyl p	10.11	59	20327	1.75 ug/L ✓	96
33) Tetrahydrofuran	10.48	72	918	2.28 ug/L # ✓	62
34) 1,2-Dichloroethane	10.89	62	30072	2.20 ug/L	96
35) 1,1,1-Trichloroethane	11.03	97	31116	2.19 ug/L	97
36) (TAME) tert-Amyl methyl et	11.73	73	10464	1.57 ug/L NT	86
38) 1,1-Dichloropropene	11.26	75	22792	2.05 ug/L	99
39) Carbon Tetrachloride	11.50	117	31306	2.22 ug/L	97
40) Benzene	11.55	78	60941	2.11 ug/L	98

(#) = qualifier out of range (m) = manual integration
11211113.D 112111.M Tue Nov 22 15:57:21 2011

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:57 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

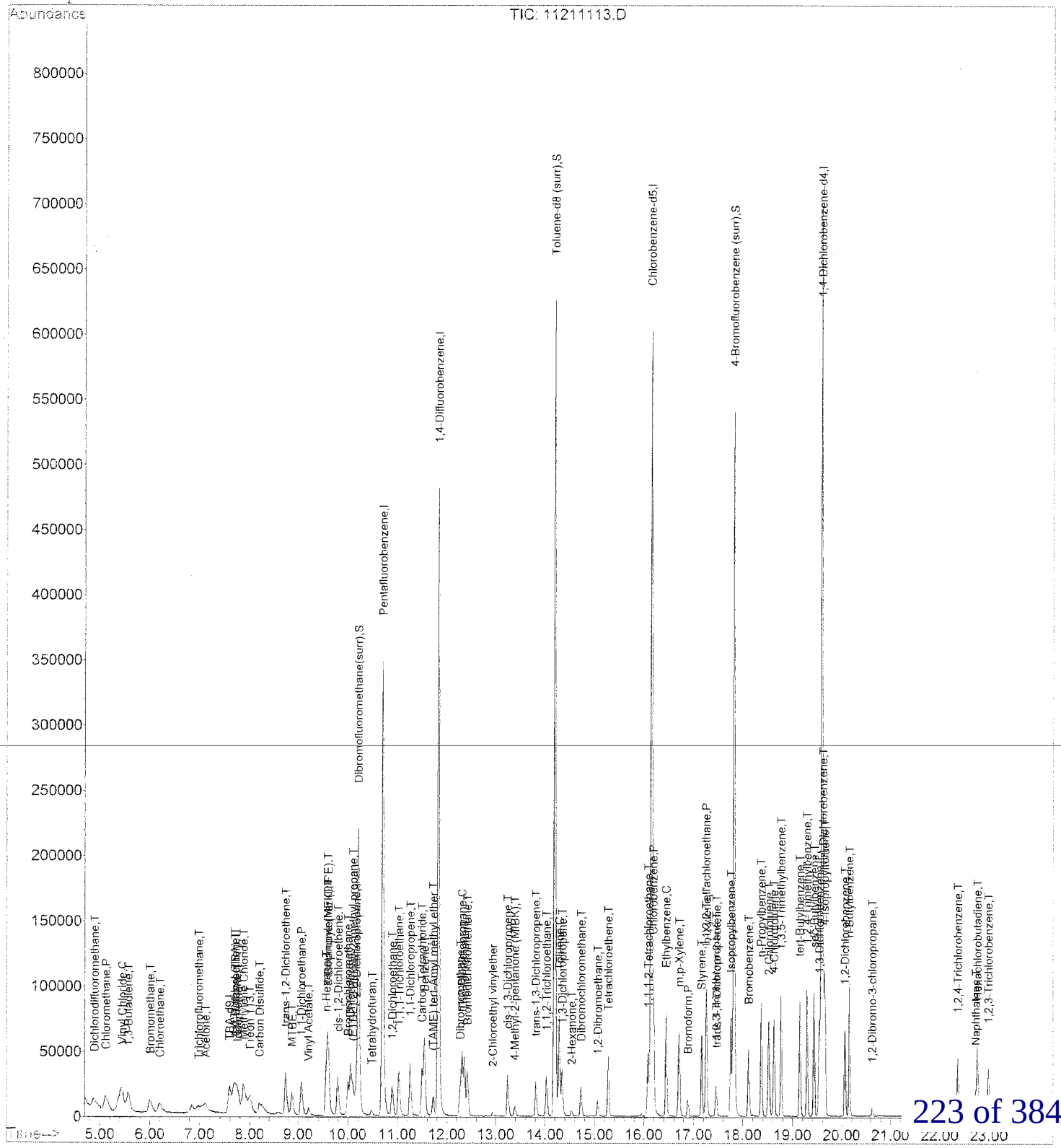
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Dibromomethane	12.27	93	10810	2.30 ug/L	96
42) 1,2-Dichloropropane	12.32	63	16629	2.03 ug/L	90
43) Trichloroethene	12.36	95	18814	2.12 ug/L	95
44) Bromodichloromethane	12.42	83	28554	2.21 ug/L	99
45) 2-Chloroethyl vinylether	12.95	63	1390	2.76 ug/L	83
46) cis-1,3-Dichloropropene	13.25	75	19605	1.87 ug/L	97
47) 4-Methyl-2-pentanone (MIBK	13.39	43	7584	1.58 ug/L	97
48) trans-1,3-Dichloropropene	13.81	75	17214	1.88 ug/L	99
49) 1,1,2-Trichloroethane	14.04	97	11520	2.23 ug/L	97
51) Toluene	14.29	92	35091	2.05 ug/L	99
53) 1,3-Dichloropropane	14.35	76	18281	2.02 ug/L	94
54) 2-Hexanone	14.53	43	4560	1.54 ug/L #	89
55) Dibromochloromethane	14.73	129	15148	2.07 ug/L	98
56) 1,2-Dibromoethane	15.07	107	11103	2.19 ug/L	99
57) Tetrachloroethene	15.28	164	12518	2.07 ug/L	99
58) 1,1,1,2-Tetrachloroethane	16.09	131	15696	2.03 ug/L	95
59) Chlorobenzene	16.19	112	43267	2.15 ug/L	91
60) Ethylbenzene	16.45	91	62913	2.07 ug/L	98
61) m,p-Xylene	16.71	106	23302	2.02 ug/L	97
62) Styrene	17.16	104	33330	1.98 ug/L	97
63) o-Xylene	17.26	106	25576	2.19 ug/L	96
66) Bromoform	16.89	173	7042m	1.81 ug/L	
67) 1,1,2,2-Tetrachloroethane	17.25	83	12032	2.25 ug/L	97
68) 1,2,3-Trichloropropane	17.45	110	3293	2.03 ug/L	97
69) trans-1,4-Dichloro-2-buten	17.48	53	2926	2.09 ug/L	91
70) Isopropylbenzene	17.76	105	55816	2.01 ug/L	96
71) Bromobenzene	18.12	156	15433	2.00 ug/L	91
72) n-Propylbenzene	18.37	91	75261	2.08 ug/L	98
73) 2-Chlorotoluene	18.52	91	50077	2.08 ug/L	100
74) 4-Chlorotoluene	18.62	91	53279	2.13 ug/L	97
75) 1,3,5-Trimethylbenzene	18.77	105	57324	2.09 ug/L	100
76) tert-Butylbenzene	19.14	119	43625	2.00 ug/L	98
77) 1,2,4-Trimethylbenzene	19.29	105	60800	2.16 ug/L	99
78) sec-Butylbenzene	19.43	105	70673	2.08 ug/L	99
79) 1,3-Dichlorobenzene	19.54	146	33880	2.14 ug/L	99
80) 1,4-Dichlorobenzene	19.62	146	33094	2.08 ug/L #	89
81) 4-Isopropyltoluene	19.66	119	65316	2.13 ug/L	98
82) 1,2-Dichlorobenzene	20.06	146	29033	2.10 ug/L	99
83) n-Butylbenzene	20.16	91	59071	2.16 ug/L	96
84) 1,2-Dibromo-3-chloropropan	20.62	75	1755	1.84 ug/L	91
85) 1,2,4-Trichlorobenzene	22.36	180	17161	1.74 ug/L	98
86) Naphthalene	22.72	128	16657	2.06 ug/L	98
87) Hexachlorobutadiene	22.76	225	15878	2.14 ug/L	96
88) 1,2,3-Trichlorobenzene	22.99	180	14421	1.82 ug/L	98

(#) = qualifier out of range (m) = manual integration
11211113.D 112111.M Tue Nov 22 15:57:21 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211113.D Vial: 8
Acq On : 21 Nov 2011 4:59 pm Operator: KH
Sample : 2.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:57 2011 Quant Results File: 112111.RES

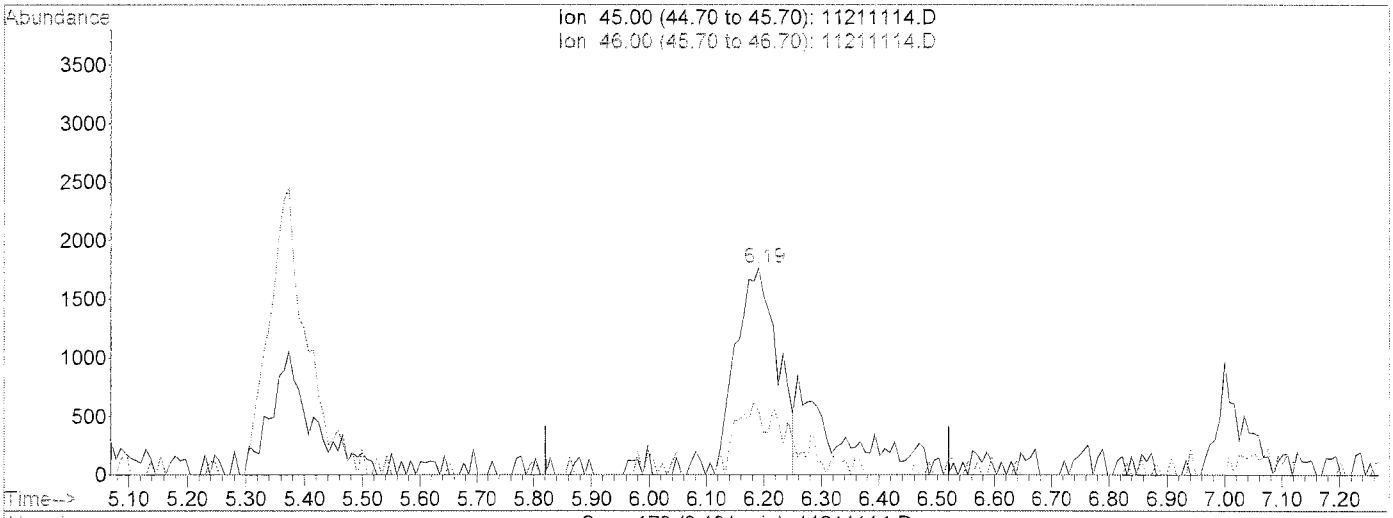
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

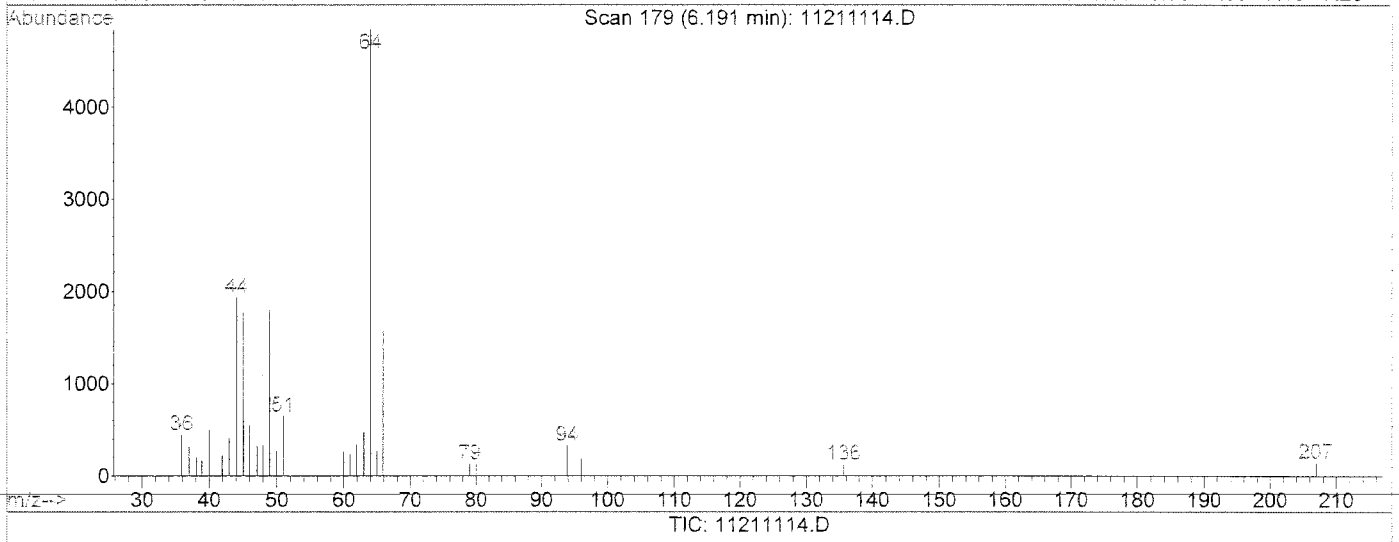


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:41 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(2) Ethanol (T)

6.19min 49.43ug/L

response 8943

Ion	Exp%	Act%
45.00	100	100
46.00	35.20	24.11#
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

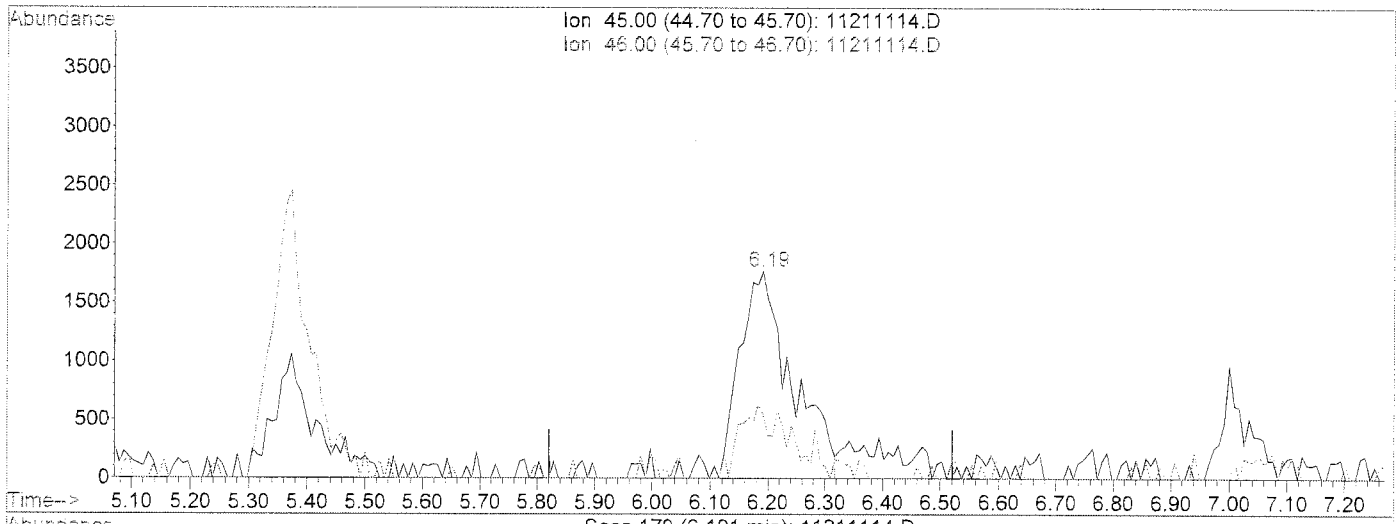
B NIP 11/22/11

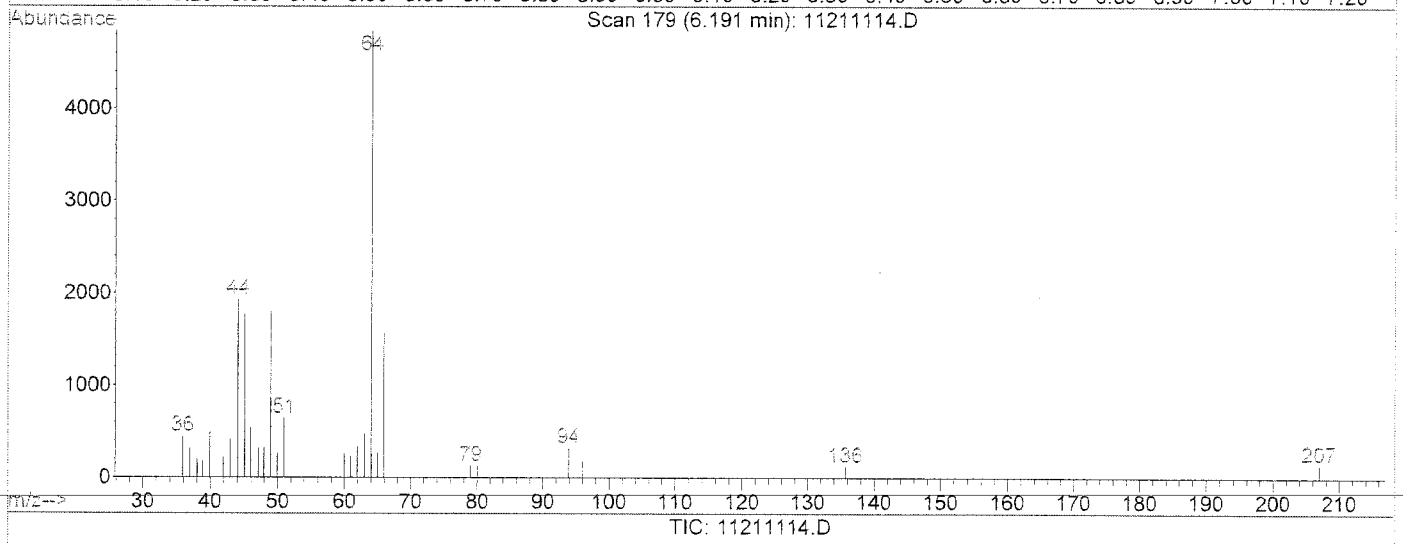
11211114.D 112111.M Tue Nov 22 14:41:37 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:41 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(2) Ethanol (T)

6.19min 61.06ug/L m

response 11047

Ion	Exp%	Act%
45.00	100	100
46.00	35.20	19.52#
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

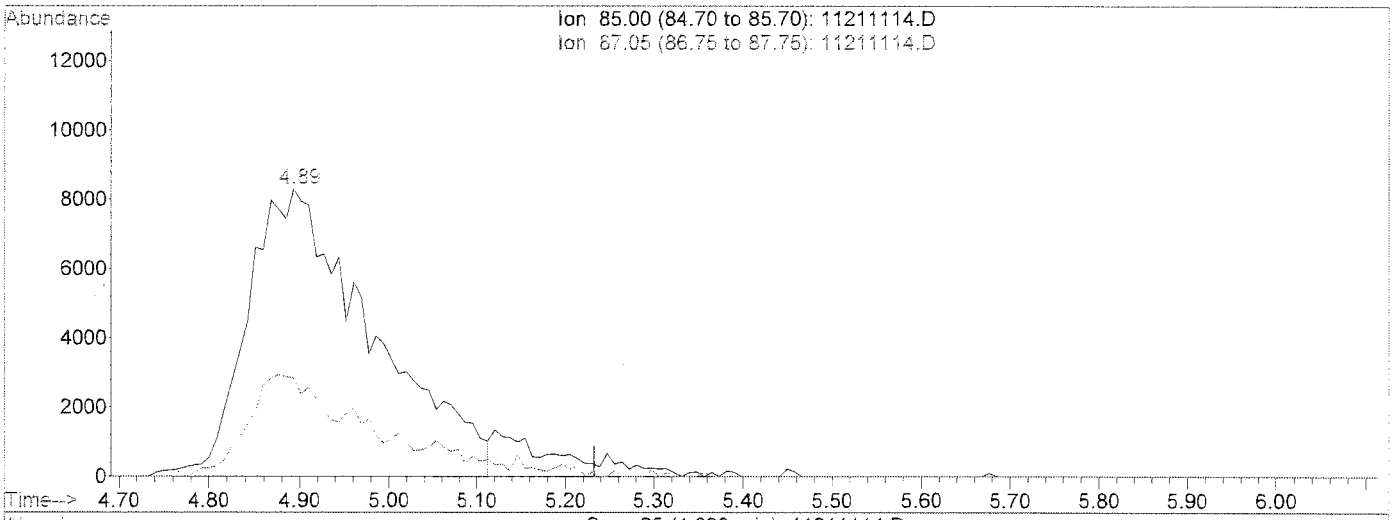
11/22/11

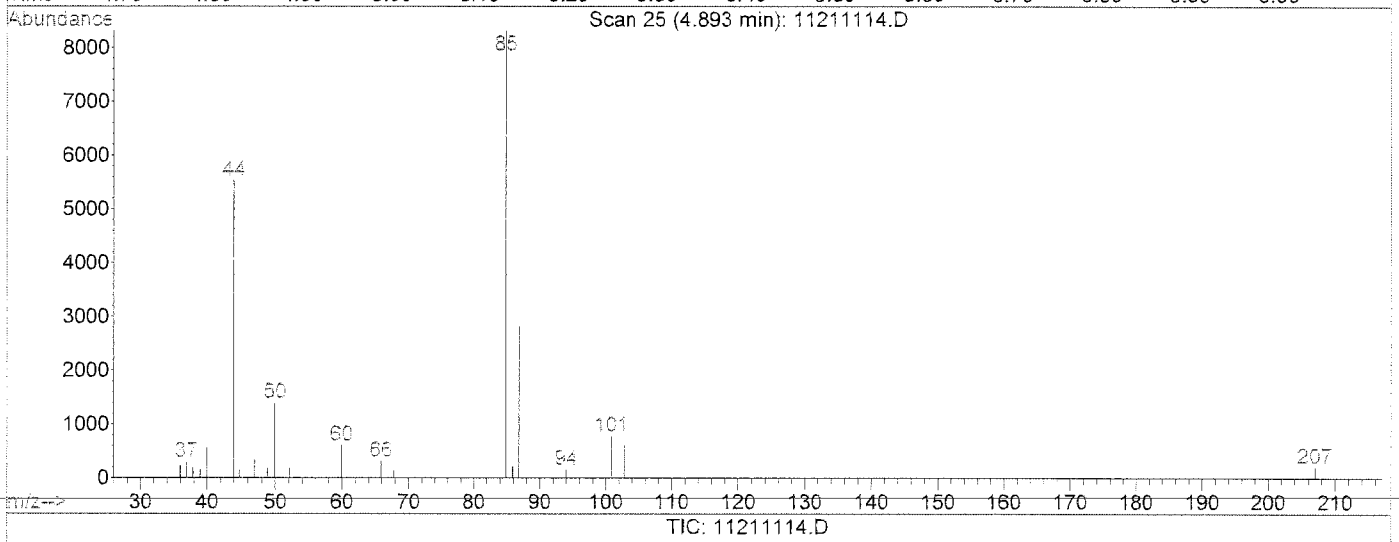
11211114.D 112111.M Tue Nov 22 14:41:47 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 14:41 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(5) Dichlorodifluoromethane (T)

4.89min 4.55ug/L

response 80016

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	20.97
0.00	0.00	0.00
0.00	0.00	0.00

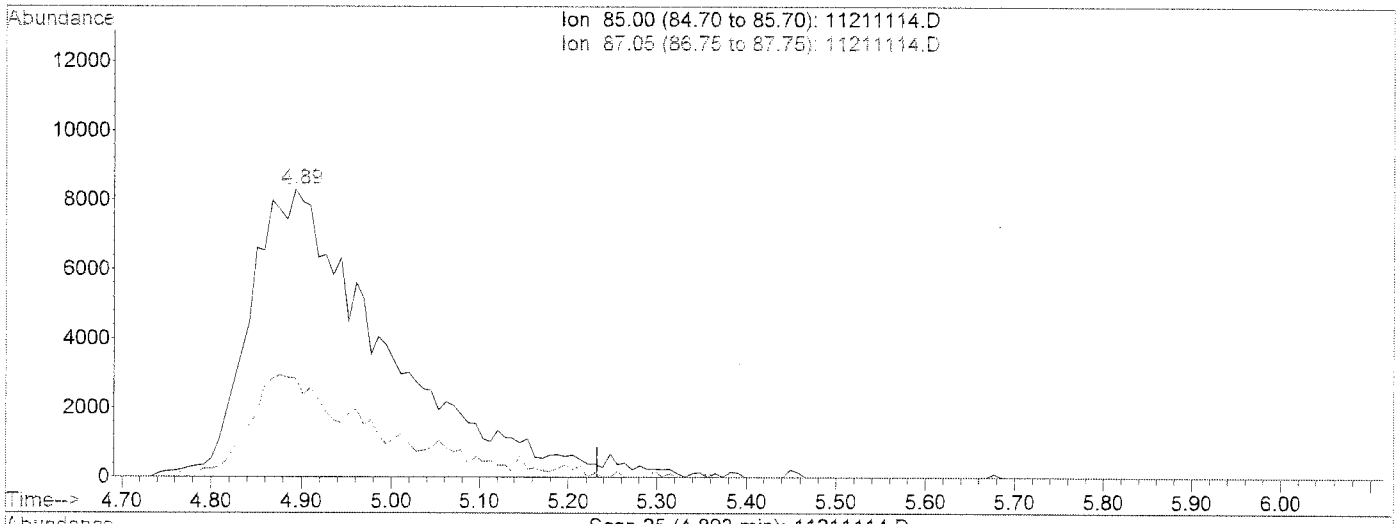
11/23/11
B
NIP
11/24/11

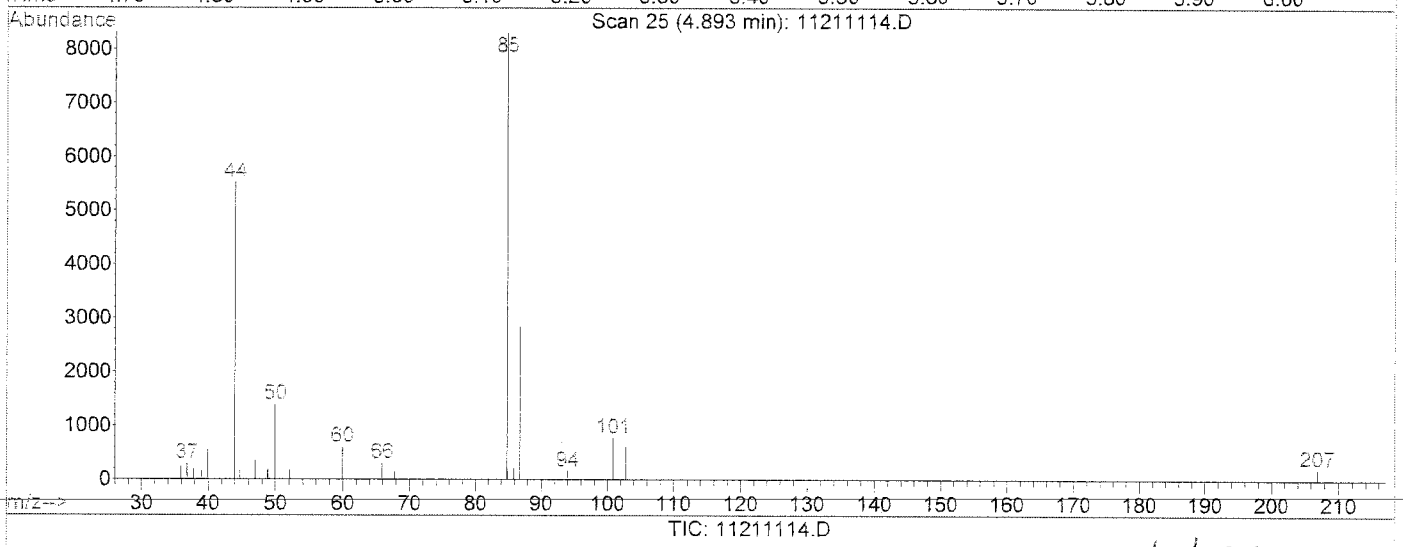
11211114.D 112111.M Tue Nov 22 15:21:49 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:21 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(5) Dichlorodifluoromethane (T)

4.89min 4.96ug/L m

response 87051

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	19.27
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

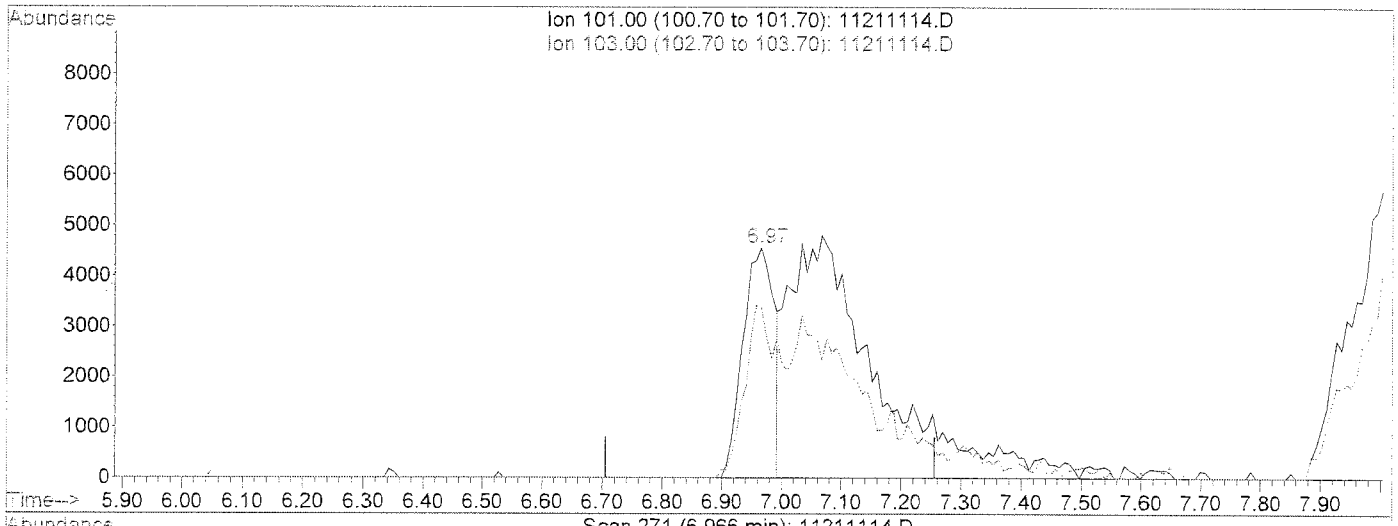
A

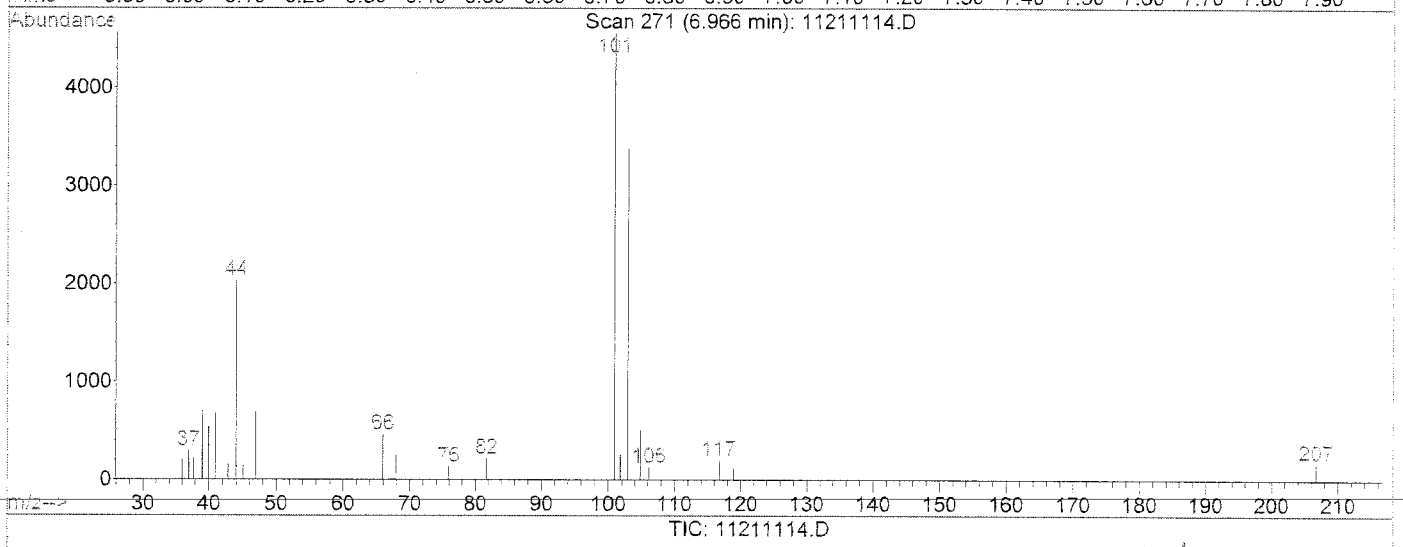
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:22 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

11/23/11

(12) Trichlorofluoromethane (T)

6.97min 1.26ug/L

response 16418

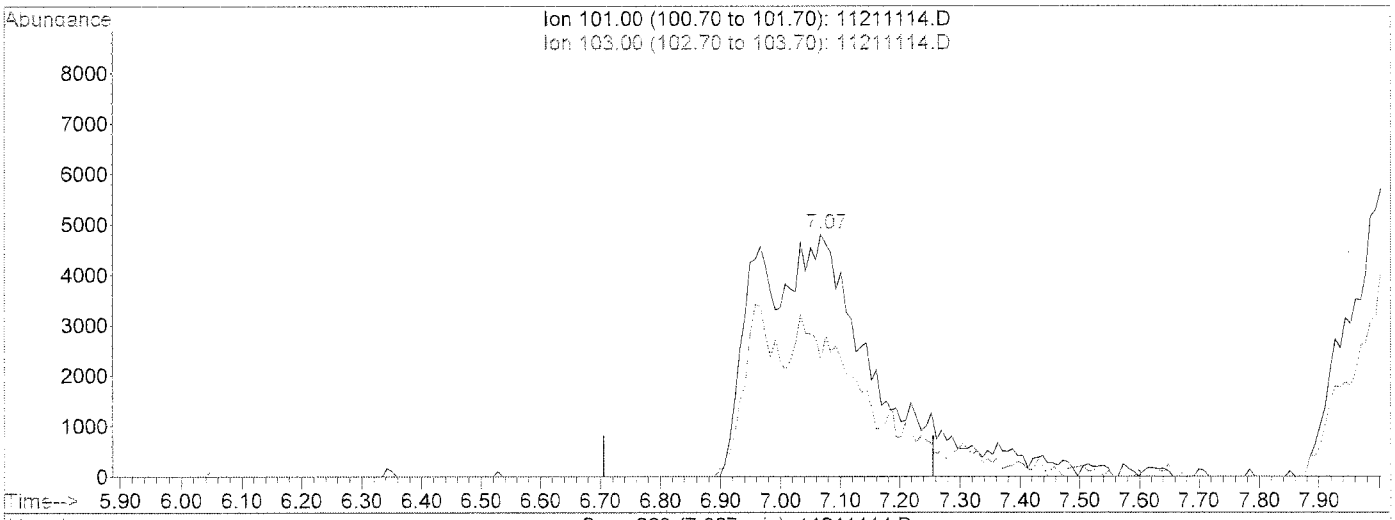
Ion	Exp%	Act%
101.00	100	100
103.00	60.10	74.10#
0.00	0.00	0.00
0.00	0.00	0.00

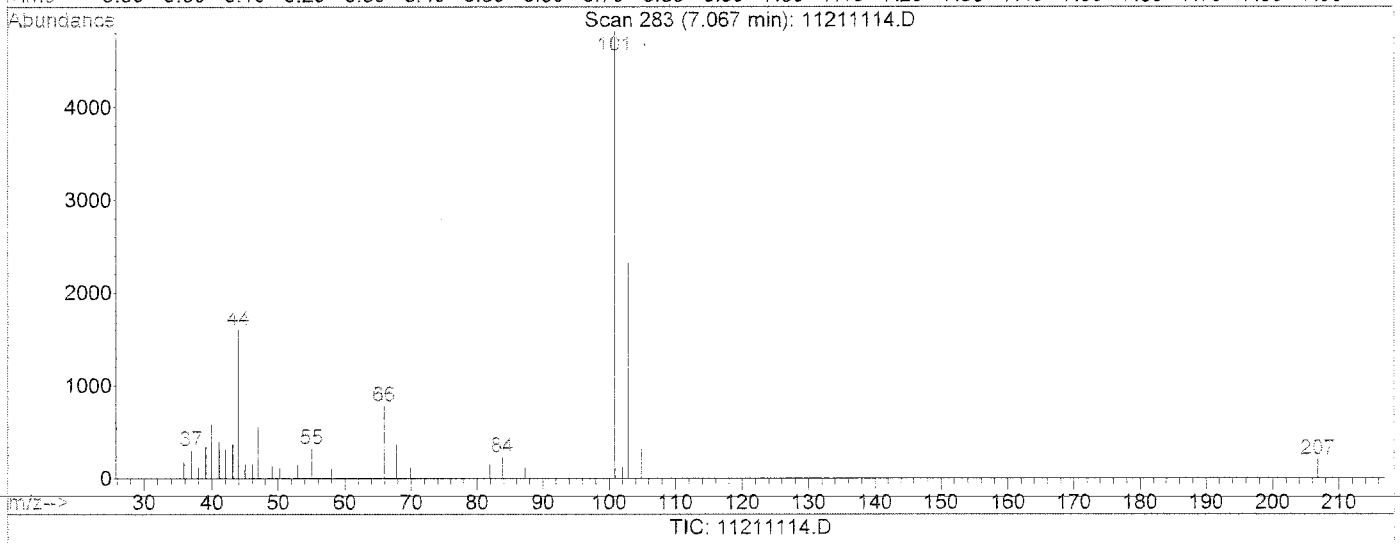
B
NIP
11/22/11

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:22 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(12) Trichlorofluoromethane (T)

7.07min 5.08ug/L m

response 66208

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	48.22
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

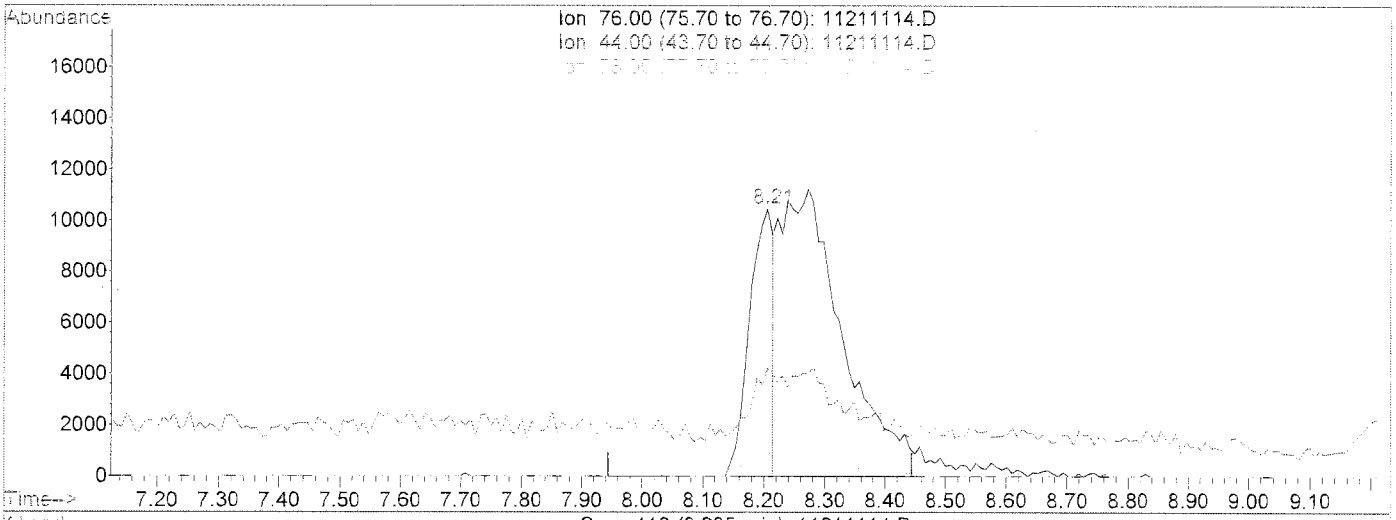
11/22/11

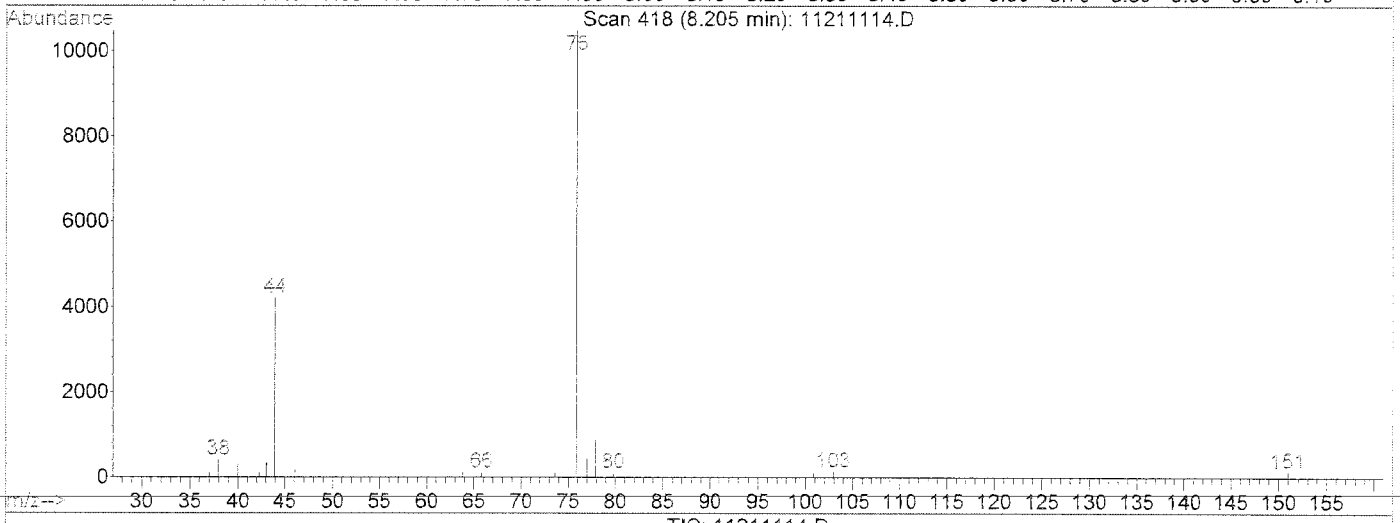
11211114.D 112111.M Tue Nov 22 15:22:21 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:22 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

11/23/11

(19) Carbon Disulfide (T)

8.21min 1.22ug/L

response 27998

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	33.78#
78.00	3.90	14.52#
0.00	0.00	0.00

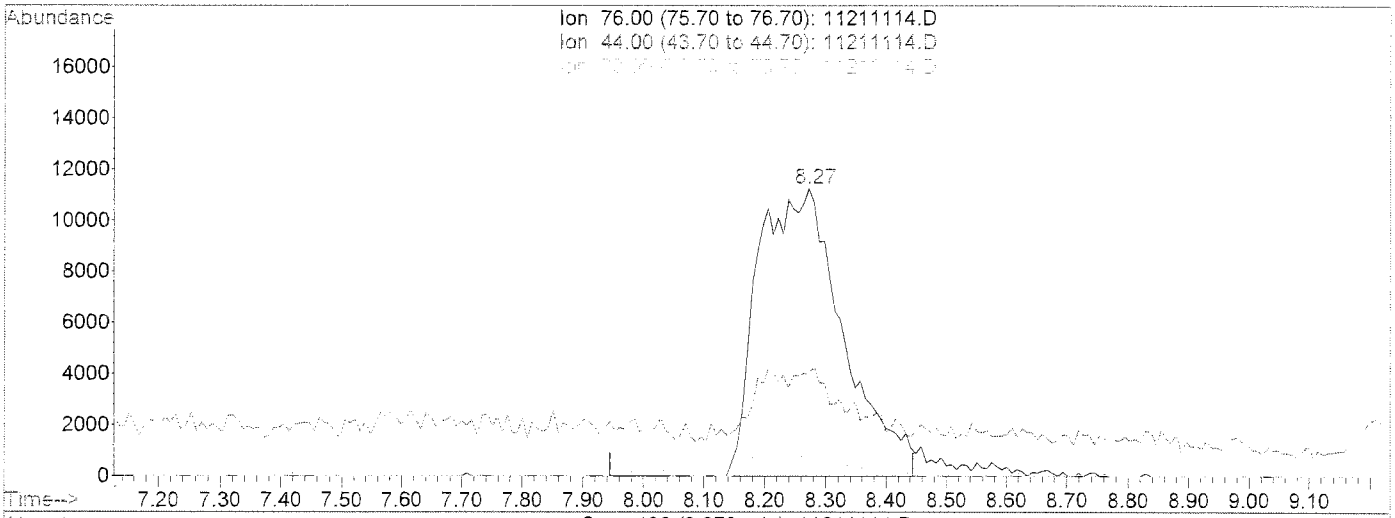
B
NIP
11/22/11

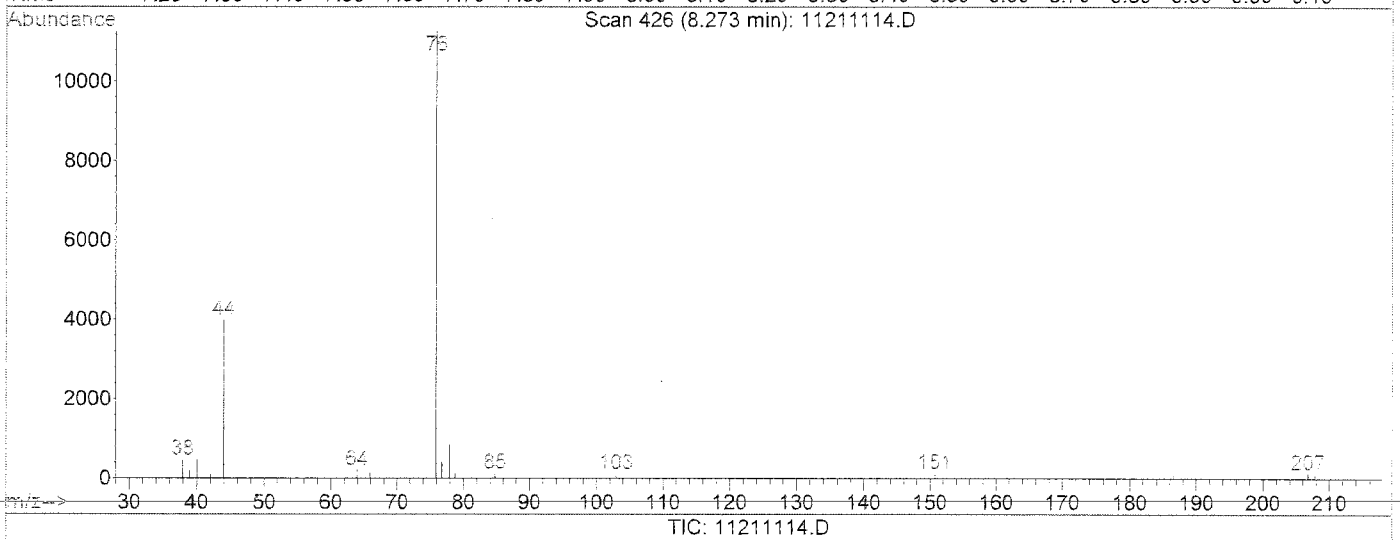
11211114.D 112111.M Tue Nov 22 15:22:42 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:22 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(19) Carbon Disulfide (T)

8.27min 4.93ug/L m

response 113281

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	8.35#
78.00	3.90	3.59
0.00	0.00	0.00

11/23/11

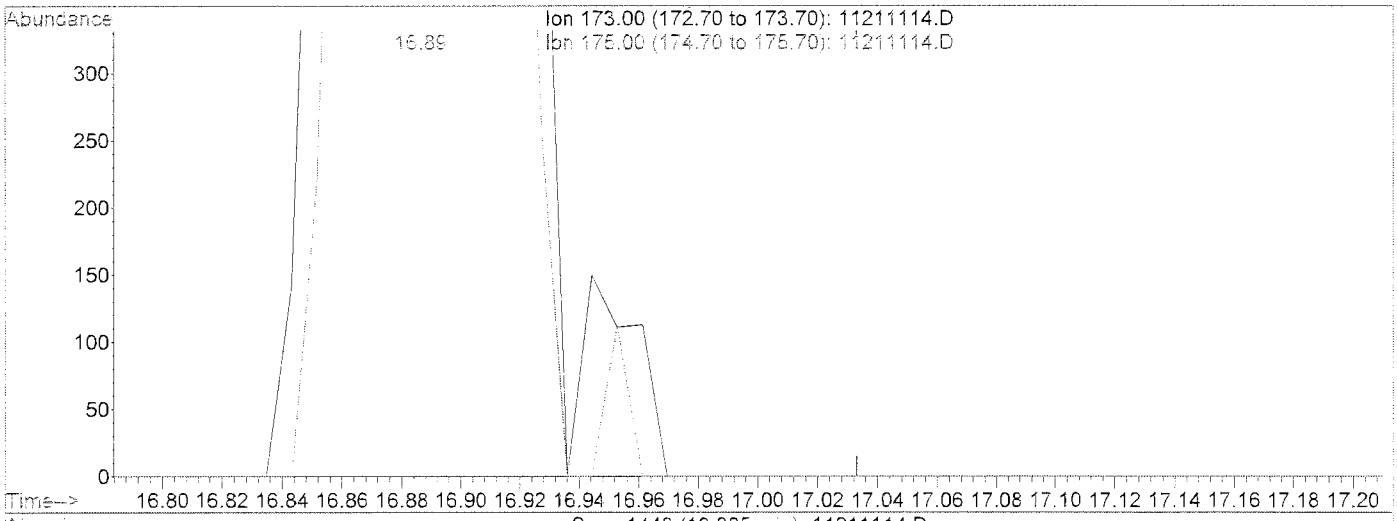
11/23/11

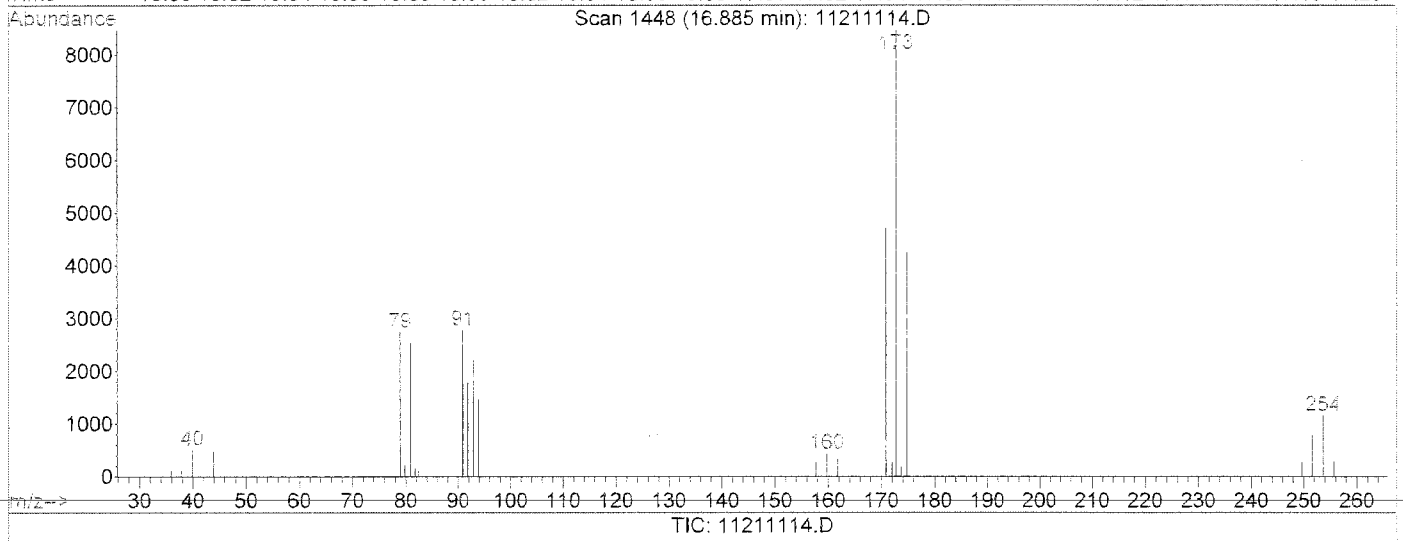
11211114.D 112111.M Tue Nov 22 15:22:50 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:22 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(66) Bromoform (P)

16.89min 4.86ug/L

response 19765

Ion	Exp%	Act%
173.00	100	100
175.00	48.10	48.75
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

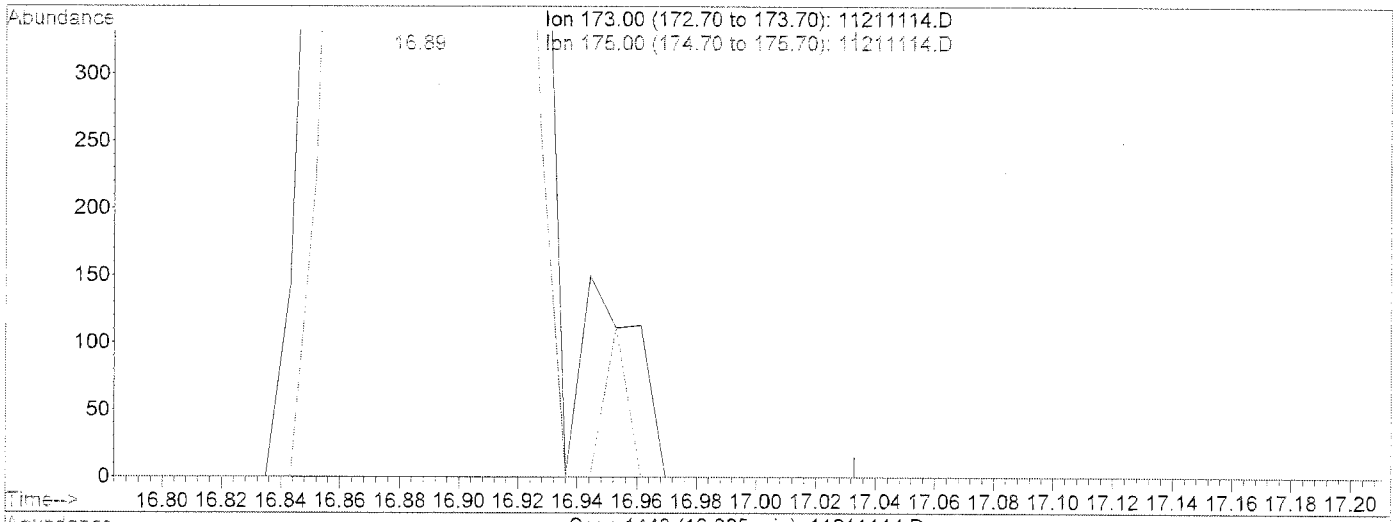
B
NIP
11/22/11

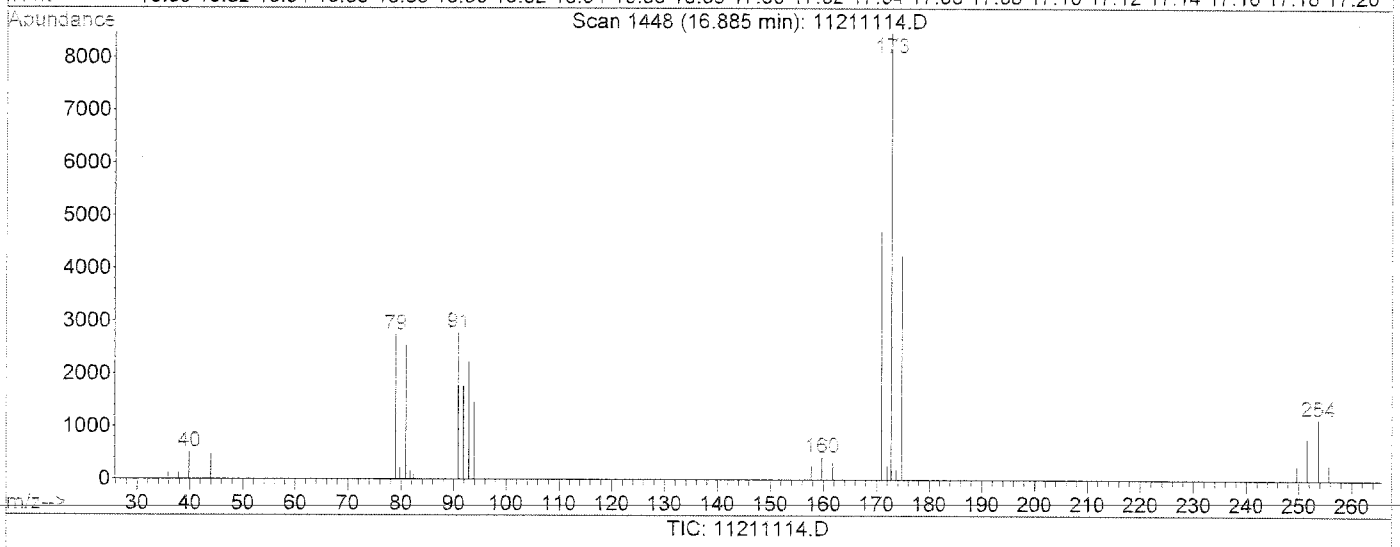
11211114.D 112111.M Tue Nov 22 15:23:44 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:23 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211114.D

(66) Bromoform (P)

16.89min 4.81ug/L m

response 19575

Ion	Exp%	Act%
173.00	100	100
175.00	48.10	49.22
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

11/22/11

11211114.D 112111.M Tue Nov 22 15:23:48 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:23 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.60	65	43131	200.00 ug/L	0.01
4) Pentafluorobenzene	10.70	168	295971	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	480046	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.14	117	407969	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	221751	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	200313	25.47 ug/L	0.00
Spiked Amount 25.000			Recovery	= 101.88%	
50) Toluene-d8 (surr)	14.20	98	526606	25.06 ug/L	0.01
Spiked Amount 25.000			Recovery	= 100.24%	
64) 4-Bromofluorobenzene (surr	17.82	95	242839	25.86 ug/L	0.00
Spiked Amount 25.000			Recovery	= 103.44%	
Target Compounds					Qvalue
2) Ethanol	6.19	45	11047m	61.06 ug/L	
3) tert-Butanol (TBA)	7.70	59	18293	26.47 ug/L	98
5) Dichlorodifluoromethane	4.89	85	87051m	4.96 ug/L	
6) Chloromethane	5.14	50	82634	5.00 ug/L	97
7) Vinyl Chloride	5.45	62	63354	5.02 ug/L	99
8) 1,3-Butadiene	5.57	54	39218	5.28 ug/L	97
9) Bromomethane	6.01	94	46993	5.16 ug/L	99
10) Chloroethane	6.22	64	34921	5.02 ug/L	98
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	7.07	101	66208m	5.08 ug/L	
13) Acetone	7.12	43	18286	5.95 ug/L	100
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.79	142	68284	5.04 ug/L #	28
16) 1,1-Dichloroethene	7.72	96	39504	5.19 ug/L	97
17) Methylene Chloride	7.88	84	51197	5.22 ug/L	97
18) Freon 113	8.01	101	41842	5.11 ug/L	96
19) Carbon Disulfide	8.27	76	113281m	4.93 ug/L	
20) trans-1,2-Dichloroethene	8.74	96	50778	5.33 ug/L	100
21) MTBE	8.87	73	51373	4.74 ug/L	98
22) 1,1-Dichloroethane	9.06	63	106805	5.38 ug/L	100
23) Vinyl Acetate	9.20	43	34229	3.44 ug/L >20	99
24) n-Hexane	9.57	86	8528	5.55 ug/L #	90
25) 2-Butanone (MEK)	9.60	72	2879	5.22 ug/L #	76
26) Diisopropylether (DIPE)	9.60	45	180331	5.46 ug/L	98
27) cis-1,2-Dichloroethene	9.79	96	51761	5.42 ug/L	97
28) Bromochloromethane	10.00	128	23361	5.21 ug/L	94
29) Chloroform	10.05	83	105133	5.29 ug/L	99
30) 2,2-Dichloropropane	10.16	77	36144	4.75 ug/L #	68
31) (ETBE) 2-Ethoxy-2-methyl p	10.11	59	54924	4.46 ug/L	97
33) Tetrahydrofuran	10.50	72	1780	4.16 ug/L #	53
34) 1,2-Dichloroethane	10.89	62	76019	5.25 ug/L	99
35) 1,1,1-Trichloroethane	11.02	97	77017	5.10 ug/L	99
36) (TAME) tert-Amyl methyl et	11.72	73	27886	3.93 ug/L	92
38) 1,1-Dichloropropene	11.26	75	61789	5.23 ug/L	97
39) Carbon Tetrachloride	11.49	117	77238	5.16 ug/L	98
0) Benzene	11.54	78	160976	5.25 ug/L	99

(#) = qualifier out of range (m) = manual integration
11211114.D 112111.M Tue Nov 22 15:24:00 2011

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:23 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

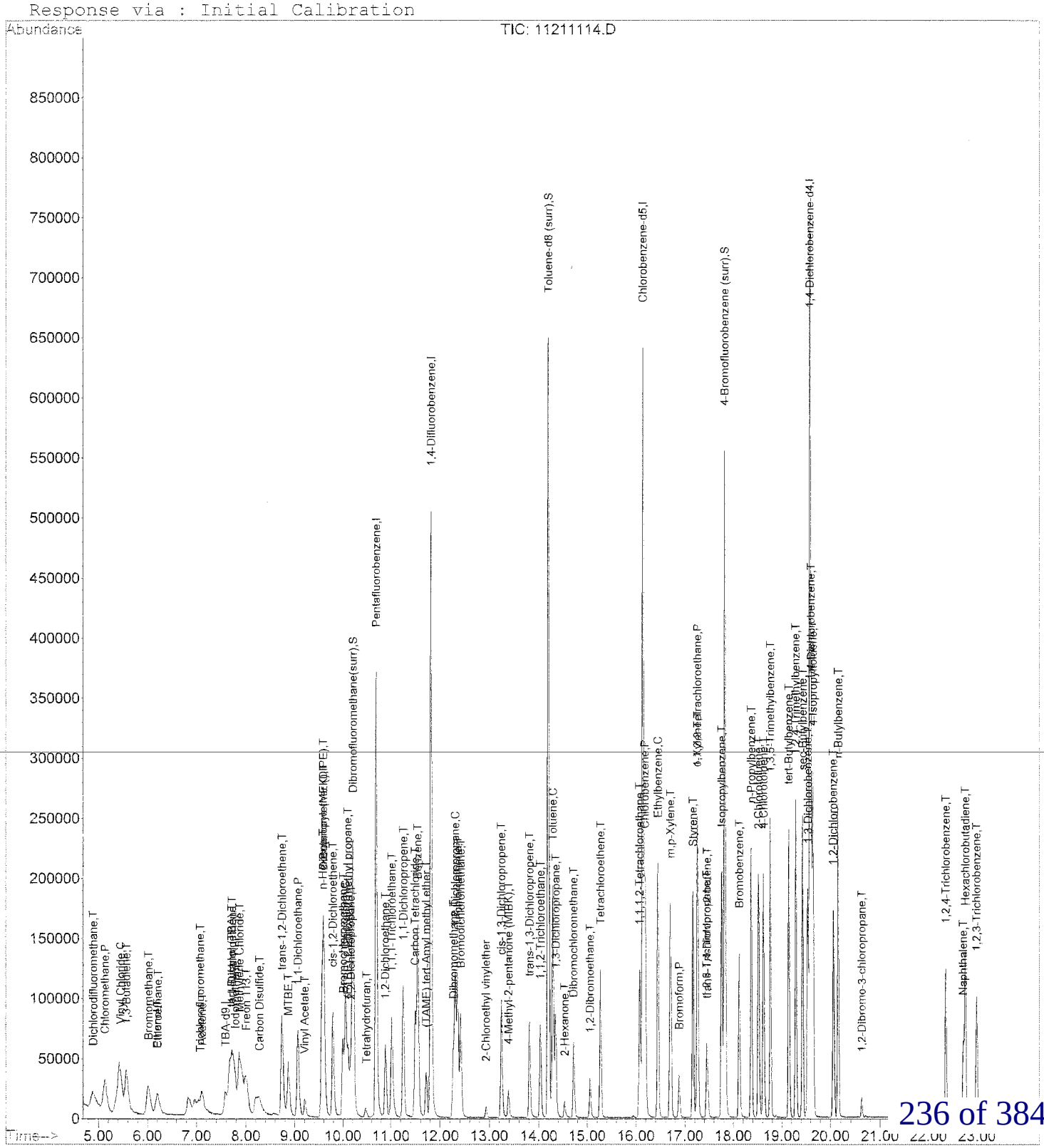
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Dibromomethane	12.27	93	26062	5.23 ug/L	99
42)	1,2-Dichloropropane	12.31	63	46530	5.37 ug/L	99
43)	Trichloroethene	12.36	95	51066	5.44 ug/L	95
44)	Bromodichloromethane	12.42	83	70164	5.13 ug/L	96
45)	2-Chloroethyl vinylether	12.94	63	4191	4.12 ug/L	97
46)	cis-1,3-Dichloropropene	13.24	75	58098	4.78 ug/L	99
47)	4-Methyl-2-pentanone (MIBK	13.39	43	23020	4.54 ug/L	98
48)	trans-1,3-Dichloropropene	13.81	75	48442	4.58 ug/L	99
49)	1,1,2-Trichloroethane	14.03	97	28642	5.22 ug/L	99
51)	Toluene	14.29	92	95036	5.24 ug/L	100
53)	1,3-Dichloropropane	14.35	76	51352	5.41 ug/L	100
54)	2-Hexanone	14.53	43	14837	4.76 ug/L #	90
55)	Dibromochloromethane	14.73	129	40917	5.32 ug/L	98
56)	1,2-Dibromoethane	15.07	107	27018	5.07 ug/L	94
57)	Tetrachloroethene	15.28	164	32981	5.19 ug/L	99
58)	1,1,1,2-Tetrachloroethane	16.08	131	42831	5.29 ug/L	98
59)	Chlorobenzene	16.19	112	113042	5.34 ug/L	96
60)	Ethylbenzene	16.45	91	178903	5.60 ug/L	99
61)	m,p-Xylene	16.71	106	67413	5.58 ug/L	97
62)	Styrene	17.16	104	101736	5.40 ug/L	98
63)	o-Xylene	17.26	106	71685	5.97 ug/L	100
66)	Bromoform	16.89	173	19575m	4.81 ug/L	
67)	1,1,2,2-Tetrachloroethane	17.25	83	29765	5.32 ug/L	99
68)	1,2,3-Trichloropropane	17.45	110	8075	4.75 ug/L	94
69)	trans-1,4-Dichloro-2-buten	17.47	53	9517	4.70 ug/L	97
70)	Isopropylbenzene	17.76	105	163629	5.36 ug/L	99
71)	Bromobenzene	18.12	156	42378	5.23 ug/L	97
72)	n-Propylbenzene	18.37	91	210579	5.57 ug/L	100
73)	2-Chlorotoluene	18.51	91	141007	5.58 ug/L	97
74)	4-Chlorotoluene	18.62	91	145036	5.54 ug/L	99
75)	1,3,5-Trimethylbenzene	18.76	105	160272	5.58 ug/L	100
76)	tert-Butylbenzene	19.14	119	124366	5.21 ug/L	99
77)	1,2,4-Trimethylbenzene	19.29	105	166262	5.64 ug/L	98
78)	sec-Butylbenzene	19.43	105	200266	5.64 ug/L	97
79)	1,3-Dichlorobenzene	19.54	146	87894	5.31 ug/L	98
80)	1,4-Dichlorobenzene	19.62	146	86503	5.19 ug/L	96
81)	4-Isopropyltoluene	19.65	119	173653	5.40 ug/L	99
82)	1,2-Dichlorobenzene	20.06	146	75014	5.17 ug/L	99
83)	n-Butylbenzene	20.16	91	160845	5.62 ug/L	97
84)	1,2-Dibromo-3-chloropropan	20.62	75	4814	4.82 ug/L	90
85)	1,2,4-Trichlorobenzene	22.36	180	50696	4.91 ug/L	99
86)	Naphthalene	22.72	128	55605	4.59 ug/L	98
87)	Hexachlorobutadiene	22.76	225	39060	5.02 ug/L	98
88)	1,2,3-Trichlorobenzene	22.99	180	41206	4.95 ug/L	100

(#) = qualifier out of range (m) = manual integration
11211114.D 112111.M Tue Nov 22 15:24:00 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211114.D Vial: 9
Acq On : 21 Nov 2011 5:31 pm Operator: KH
Sample : 5.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:23 2011 Quant Results File: 112111.RES

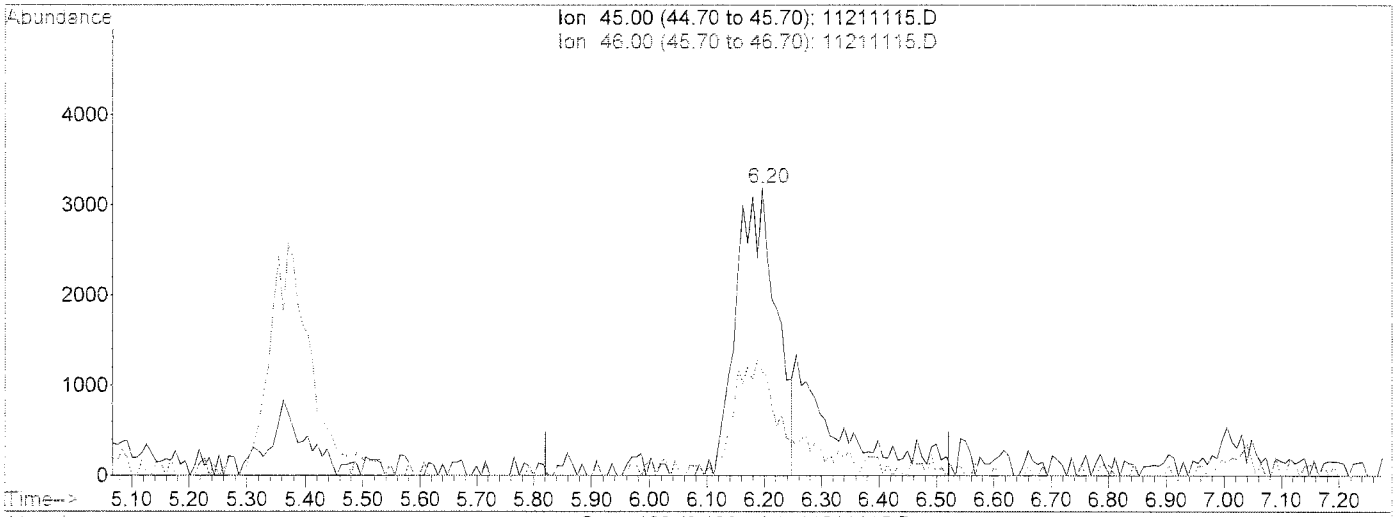
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

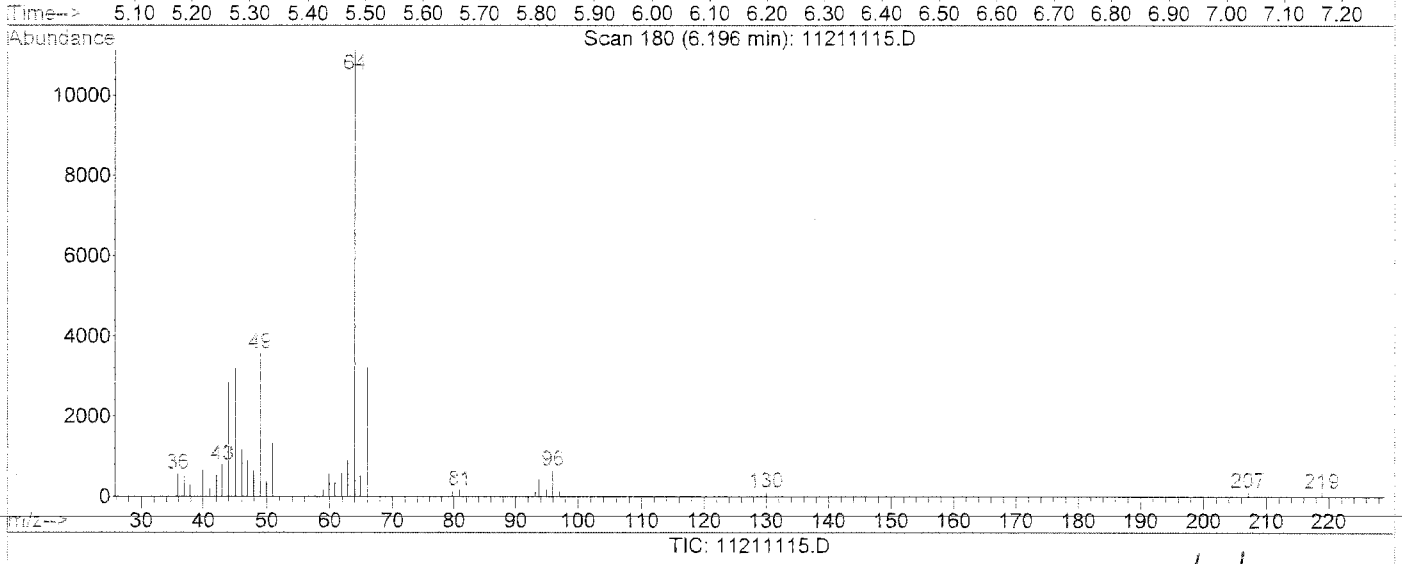


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:24 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

(2) Ethanol (T)

6.20min 73.27ug/L

response 15371

Ion	Exp%	Act%
45.00	100	100
46.00	35.20	42.09
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

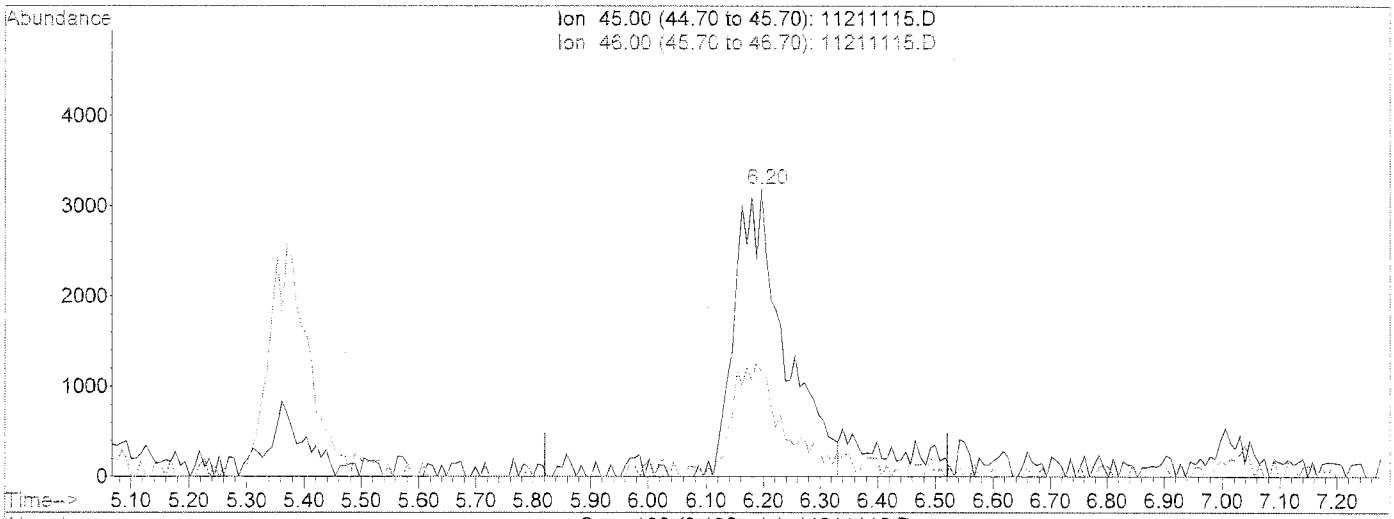
B
NIP
11/22/11

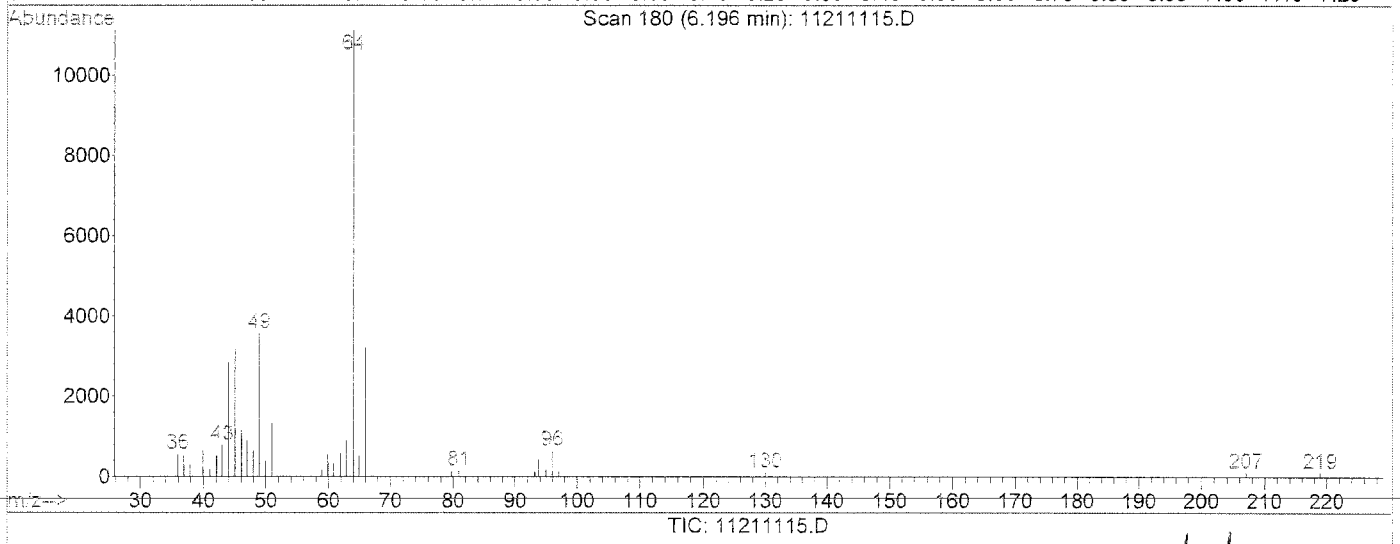
11211115.D 112111.M Tue Nov 22 15:24:33 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:24 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

✓ 11/23/11

(2) Ethanol (T)

6.20min 91.42ug/L m

response 19179

Ion	Exp%	Act%
45.00	100	100
46.00	35.20	33.73
0.00	0.00	0.00
0.00	0.00	0.00

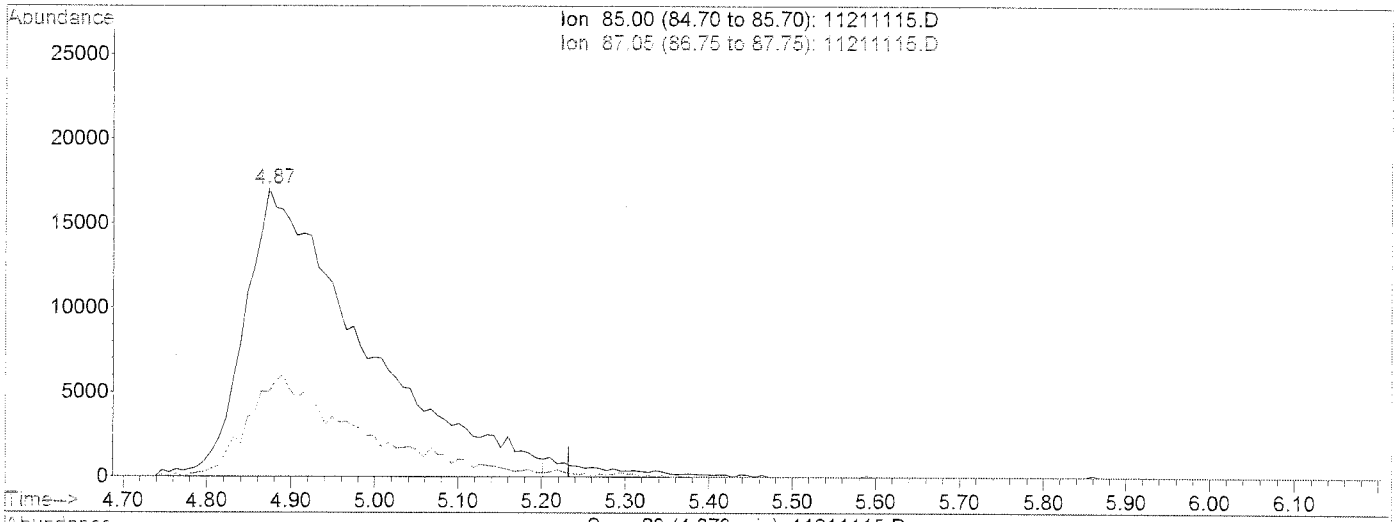
A
NIP
11/22/11

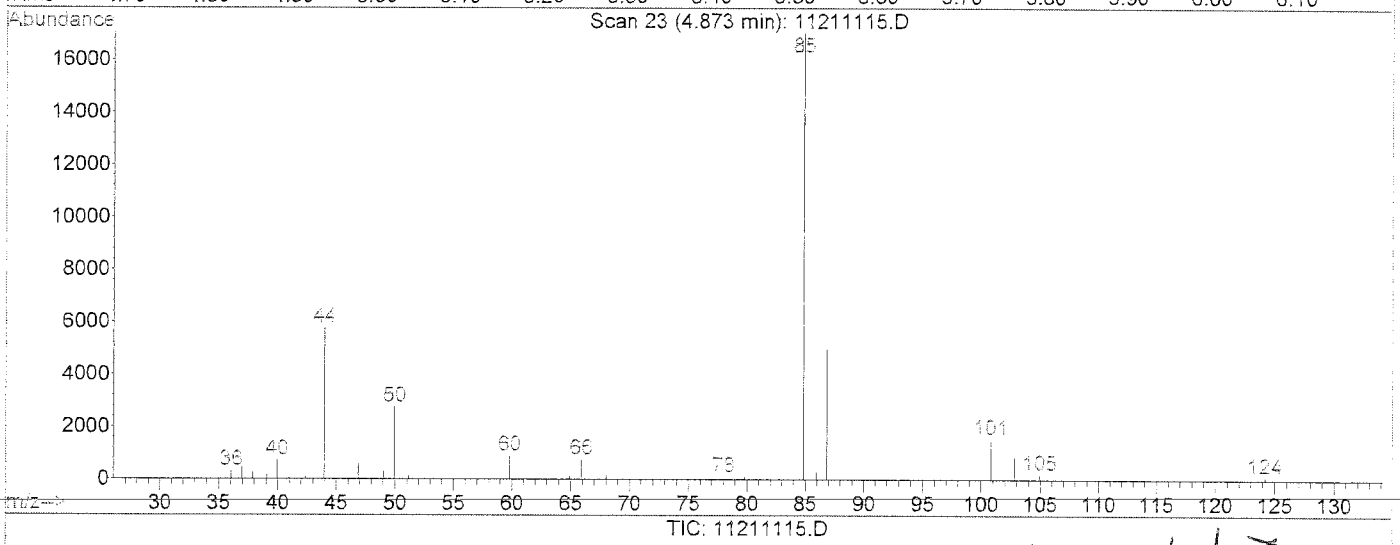
11211115.D 112111.M Tue Nov 22 15:24:42 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:24 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.87min 9.55ug/L

response 167786

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	28.79
0.00	0.00	0.00
0.00	0.00	0.00

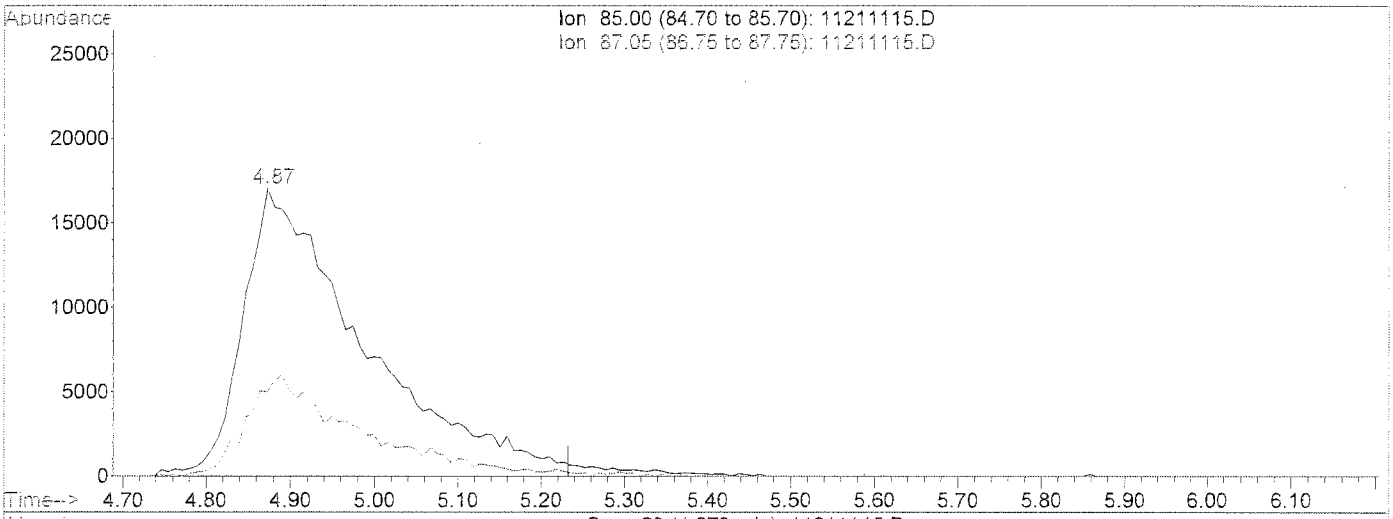
B
NIP
11/22/11

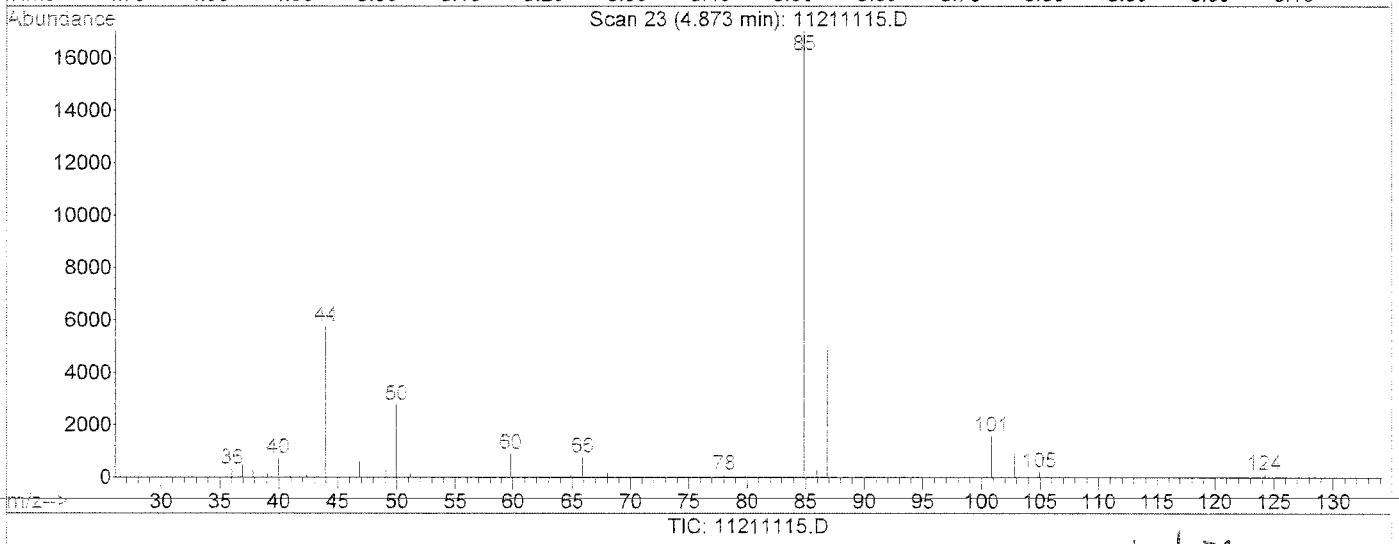
11211115.D 112111.M Tue Nov 22 15:24:52 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:25 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.87min 9.84ug/L m

response 172999

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	27.92
0.00	0.00	0.00
0.00	0.00	0.00

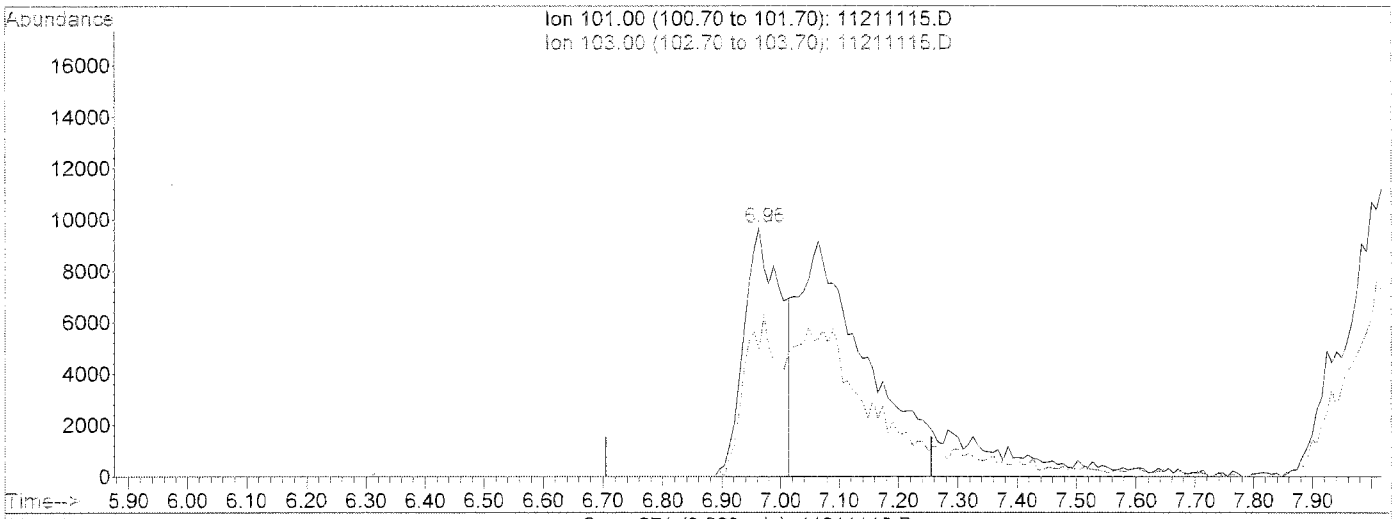
11/22/11

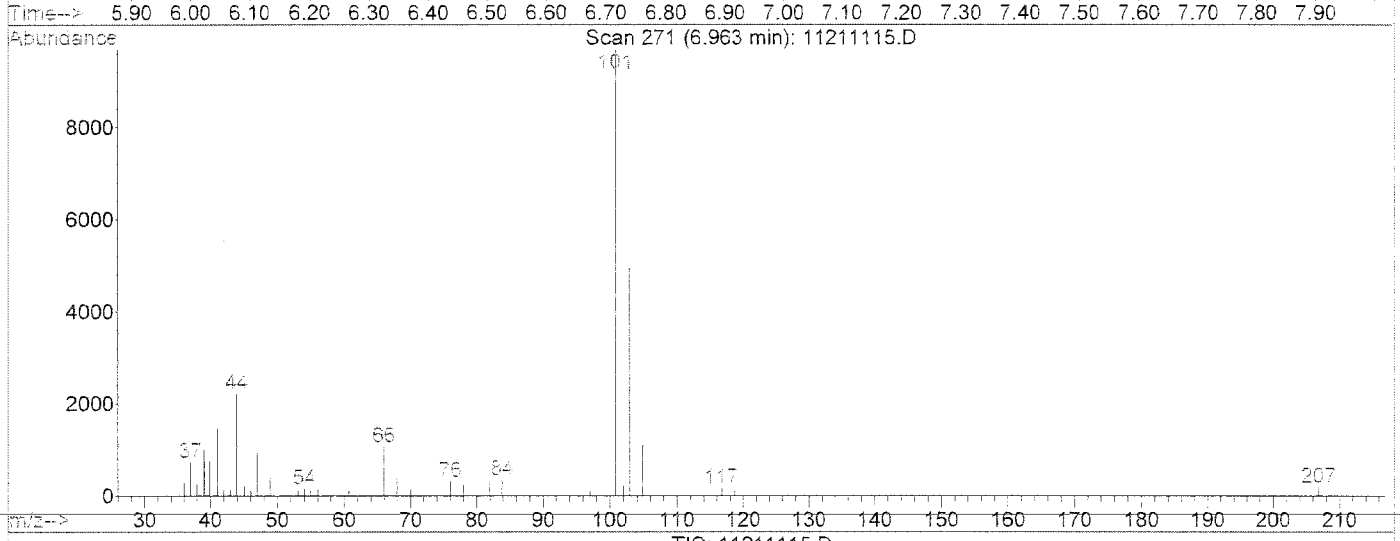
11211115.D 112111.M Tue Nov 22 15:25:06 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:25 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

11/23/11

(12) Trichlorofluoromethane (T)

6.96min 3.29ug/L

response 42822

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	51.06
0.00	0.00	0.00
0.00	0.00	0.00

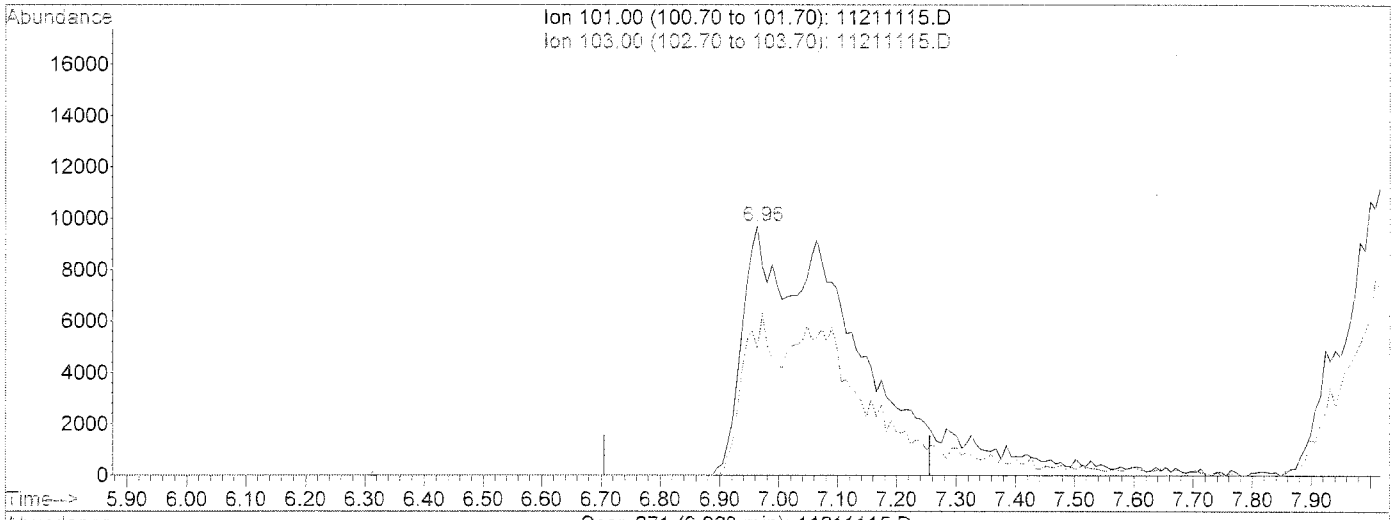
B
NIP
11/22/11

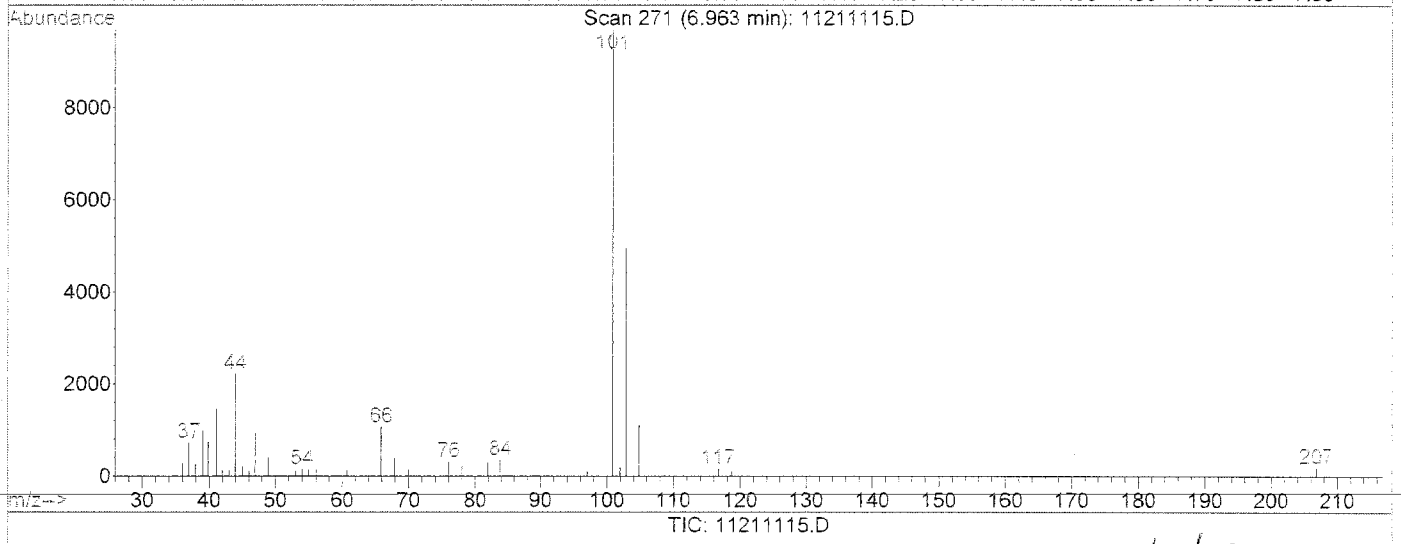
11211115.D 112111.M Tue Nov 22 15:25:21 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:26 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

11/23/11

(12) Trichlorofluoromethane (T)

6.96min 10.20ug/L m

response 132922

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	51.06
0.00	0.00	0.00
0.00	0.00	0.00

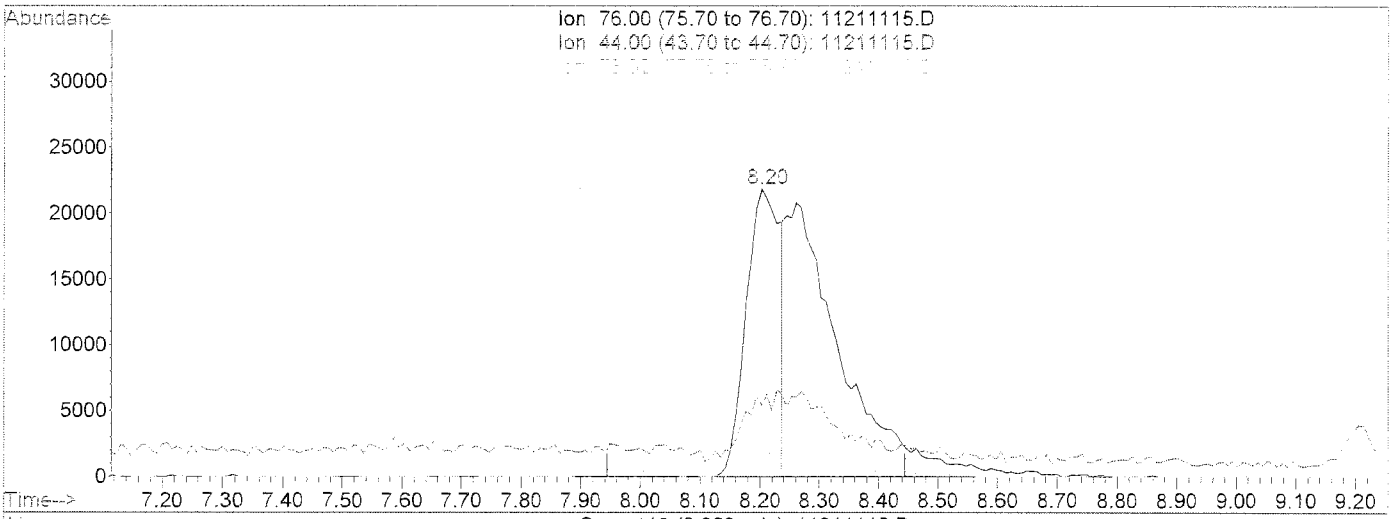
11/22/11

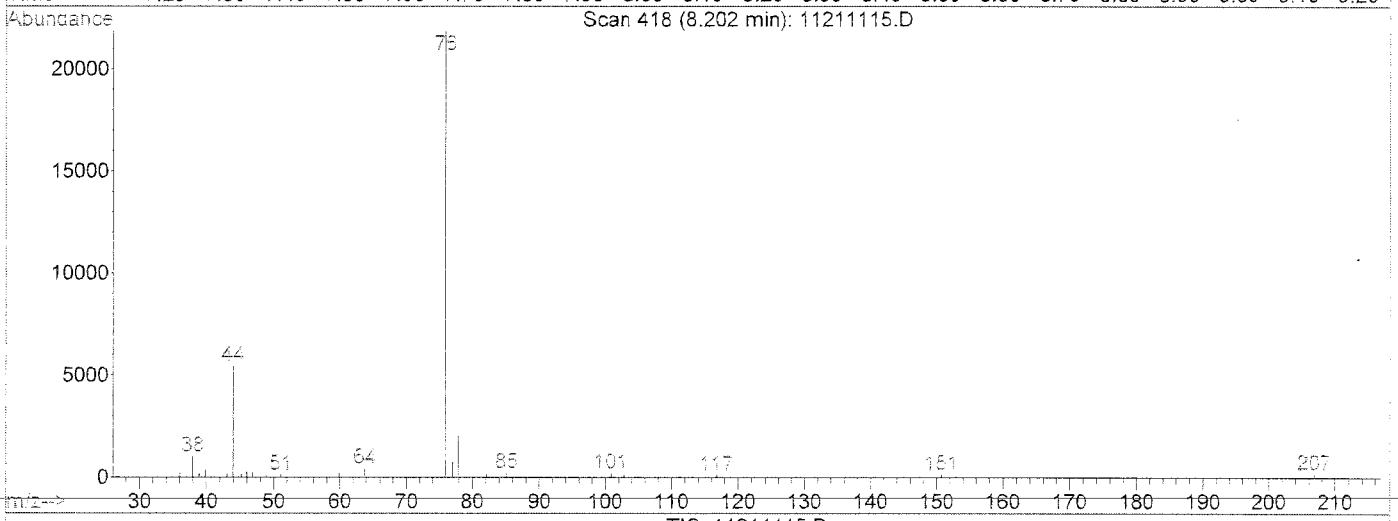
11211115.D 112111.M Tue Nov 22 15:26:14 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:26 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

✓ 11/23/11

(19) Carbon Disulfide (T)

8.20min 3.68ug/L

response 84564

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	20.08
78.00	3.90	8.04#
0.00	0.00	0.00

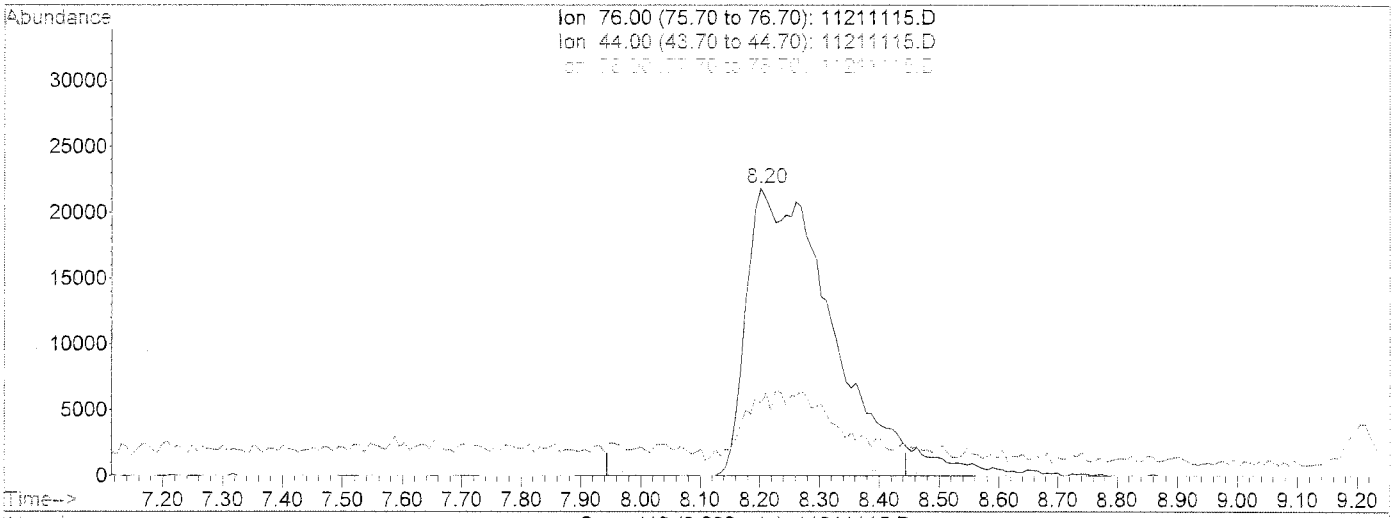
B NIP 11/22/11

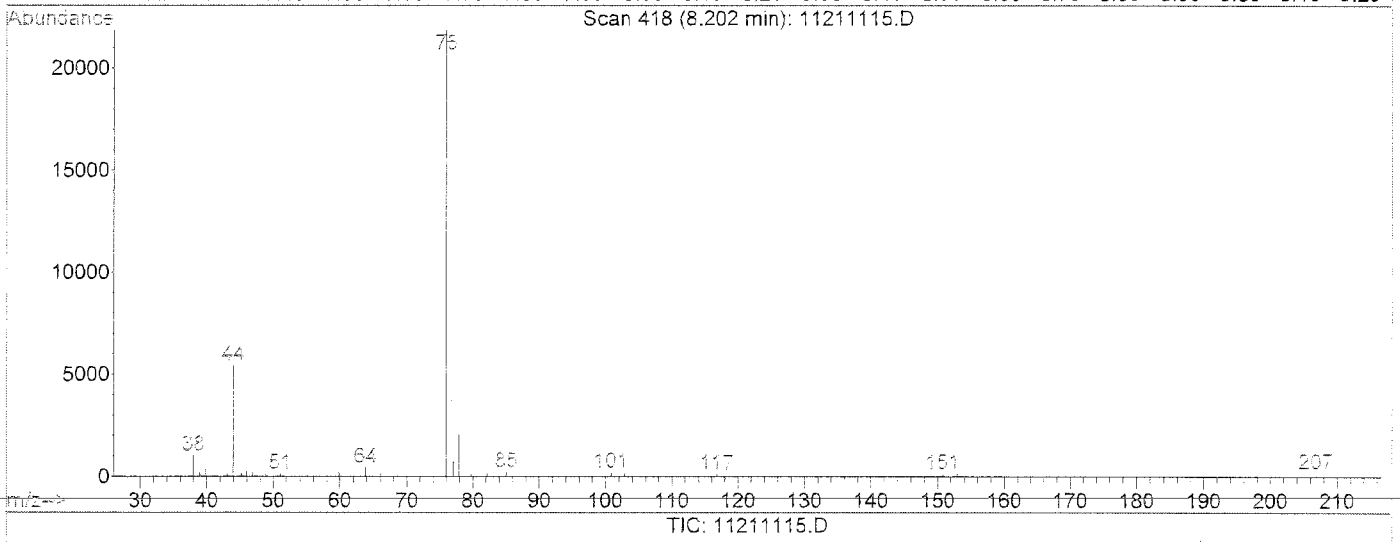
11211115.D 112111.M Tue Nov 22 15:26:27 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:26 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211115.D

11/23/11

(19) Carbon Disulfide (T)

8.20min 9.68ug/L m

response 222422

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	7.63#
78.00	3.90	3.06#
0.00	0.00	0.00

A 11/23/11

11211115.D 112111.M Tue Nov 22 15:26:58 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:26 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	50017	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	296067	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	476394	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.15	117	414849	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	229385	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	198937	25.29 ug/L	0.00
Spiked Amount 25.000			Recovery	= 101.16%	
50) Toluene-d8 (surr)	14.19	98	519189	24.90 ug/L	0.00
Spiked Amount 25.000			Recovery	= 99.60%	
64) 4-Bromofluorobenzene (surr	17.82	95	243123	25.46 ug/L	0.00
Spiked Amount 25.000			Recovery	= 101.84%	

Target Compounds					Qvalue
2) Ethanol	6.20	45	19179m	91.42 ug/L	
3) tert-Butanol (TBA)	7.70	59	39912	49.80 ug/L	99
5) Dichlorodifluoromethane	4.87	85	172999m	9.84 ug/L	
6) Chloromethane	5.14	50	177548	10.75 ug/L	100
7) Vinyl Chloride	5.47	62	123683	9.80 ug/L	97
8) 1,3-Butadiene	5.56	54	77569	10.43 ug/L	94
9) Bromomethane	6.02	94	90844	9.97 ug/L	97
10) Chloroethane	6.20	64	70135	10.08 ug/L	98
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	6.96	101	132922m	10.20 ug/L	
13) Acetone	7.12	43	34176	11.12 ug/L	95
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.76	142	135579	10.01 ug/L	98
16) 1,1-Dichloroethene	7.72	96	75593	9.93 ug/L	98
17) Methylene Chloride	7.87	84	94286	9.61 ug/L	96
18) Freon 113	8.02	101	79643	9.71 ug/L	96
19) Carbon Disulfide	8.20	76	222422m	9.68 ug/L	
~~20) trans-1,2-Dichloroethene~~	~~8.74~~	~~96~~	~~96973~~	~~10.17 ug/L~~	~~97~~
21) MTBE	8.87	73	118431	10.92 ug/L	99
22) 1,1-Dichloroethane	9.06	63	205267	10.34 ug/L	99
23) Vinyl Acetate	9.20	43	116215	9.00 ug/L	100
24) n-Hexane	9.56	86	15734	10.24 ug/L #	93
25) 2-Butanone (MEK)	9.59	72	6240	11.32 ug/L #	81
26) Diisopropylether (DIPE)	9.59	45	360989	10.93 ug/L	99
27) cis-1,2-Dichloroethene	9.79	96	99064	10.38 ug/L	98
28) Bromochloromethane	10.00	128	46843	10.43 ug/L	97
29) Chloroform	10.06	83	203019	10.21 ug/L	99
30) 2,2-Dichloropropane	10.17	77	80846	10.61 ug/L #	72
31) (ETBE) 2-Ethoxy-2-methyl p	10.11	59	126063	10.24 ug/L #	86
33) Tetrahydrofuran	10.47	72	3686	8.60 ug/L #	70
34) 1,2-Dichloroethane	10.89	62	148724	10.27 ug/L	99
35) 1,1,1-Trichloroethane	11.03	97	152411	10.09 ug/L	99
36) (TAME) tert-Amyl methyl et	11.72	73	70803	9.97 ug/L	97
38) 1,1-Dichloropropene	11.25	75	121897	10.40 ug/L	98
39) Carbon Tetrachloride	11.49	117	148833	10.01 ug/L	98
40) Benzene	11.55	78	309896	10.19 ug/L	99

(#) = qualifier out of range (m) = manual integration
11211115.D 112111.M Tue Nov 22 15:27:21 2011

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:26 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Dibromomethane	12.26	93	50926	10.29 ug/L	98
42) 1,2-Dichloropropane	12.31	63	91433	10.62 ug/L	98
43) Trichloroethene	12.36	95	94702	10.17 ug/L	100
44) Bromodichloromethane	12.42	83	139260	10.26 ug/L	99
45) 2-Chloroethyl vinylether	12.94	63	12598	8.38 ug/L	98
46) cis-1,3-Dichloropropene	13.24	75	126128	10.16 ug/L	99
47) 4-Methyl-2-pentanone (MIBK	13.38	43	52991	10.52 ug/L	96
48) trans-1,3-Dichloropropene	13.81	75	107176	9.91 ug/L	98
49) 1,1,2-Trichloroethane	14.03	97	56367	10.36 ug/L	99
51) Toluene	14.29	92	183923	10.22 ug/L	99
53) 1,3-Dichloropropane	14.35	76	103761	10.74 ug/L	96
54) 2-Hexanone	14.53	43	31519	9.95 ug/L	97
55) Dibromochloromethane	14.72	129	83894	10.73 ug/L	98
56) 1,2-Dibromoethane	15.05	107	58406	10.78 ug/L	99
57) Tetrachloroethene	15.27	164	65761	10.18 ug/L	99
58) 1,1,1,2-Tetrachloroethane	16.08	131	83310	10.12 ug/L	97
59) Chlorobenzene	16.19	112	219482	10.20 ug/L	97
60) Ethylbenzene	16.44	91	357357	11.01 ug/L	99
61) m,p-Xylene	16.71	106	136348	11.10 ug/L	99
62) Styrene	17.16	104	214395	10.99 ug/L	99
63) o-Xylene	17.26	106	136830	11.26 ug/L	98
66) Bromoform	16.88	173	42785	10.16 ug/L	97
67) 1,1,2,2-Tetrachloroethane	17.24	83	58304	10.07 ug/L	99
68) 1,2,3-Trichloropropane	17.45	110	18126	10.30 ug/L	98
69) trans-1,4-Dichloro-2-buten	17.46	53	24145	10.31 ug/L	97
70) Isopropylbenzene	17.76	105	334700	10.45 ug/L	100
71) Bromobenzene	18.12	156	89477	10.68 ug/L	98
72) n-Propylbenzene	18.37	91	419102	10.71 ug/L	100
73) 2-Chlorotoluene	18.52	91	277503	10.61 ug/L	99
74) 4-Chlorotoluene	18.62	91	290282	10.73 ug/L	99
75) 1,3,5-Trimethylbenzene	18.76	105	325529	10.96 ug/L	99
~~76) tert-Butylbenzene~~	~~19.14~~	~~119~~	~~263318~~	~~10.52 ug/L~~	~~98~~
77) 1,2,4-Trimethylbenzene	19.29	105	333690	10.94 ug/L	100
78) sec-Butylbenzene	19.43	105	391783	10.66 ug/L	99
79) 1,3-Dichlorobenzene	19.54	146	175458	10.25 ug/L	99
80) 1,4-Dichlorobenzene	19.62	146	177574	10.29 ug/L	99
81) 4-Isopropyltoluene	19.65	119	343296	10.33 ug/L	99
82) 1,2-Dichlorobenzene	20.06	146	157562	10.50 ug/L	99
83) n-Butylbenzene	20.15	91	318425	10.76 ug/L	99
84) 1,2-Dibromo-3-chloropropan	20.62	75	10665	10.32 ug/L	98
85) 1,2,4-Trichlorobenzene	22.36	180	110567	10.36 ug/L	99
86) Naphthalene	22.71	128	142939	10.06 ug/L	99
87) Hexachlorobutadiene	22.76	225	76799	9.54 ug/L	98
88) 1,2,3-Trichlorobenzene	22.99	180	91443	10.63 ug/L	100

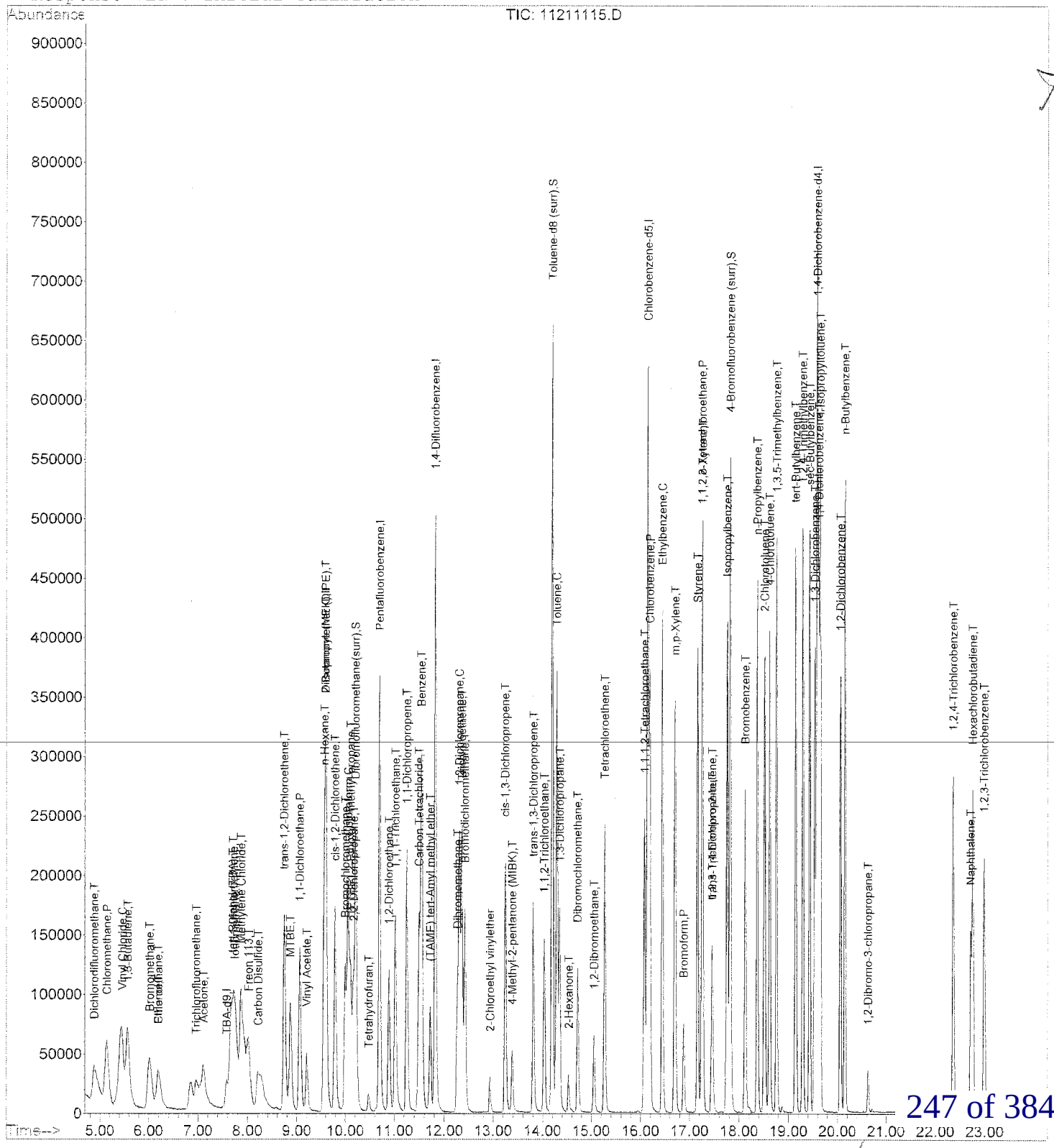
J

(#) = qualifier out of range (m) = manual integration
11211115.D 112111.M Tue Nov 22 15:27:21 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211115.D Vial: 10
Acq On : 21 Nov 2011 6:03 pm Operator: KH
Sample : 10.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:26 2011 Quant Results File: 112111.RES

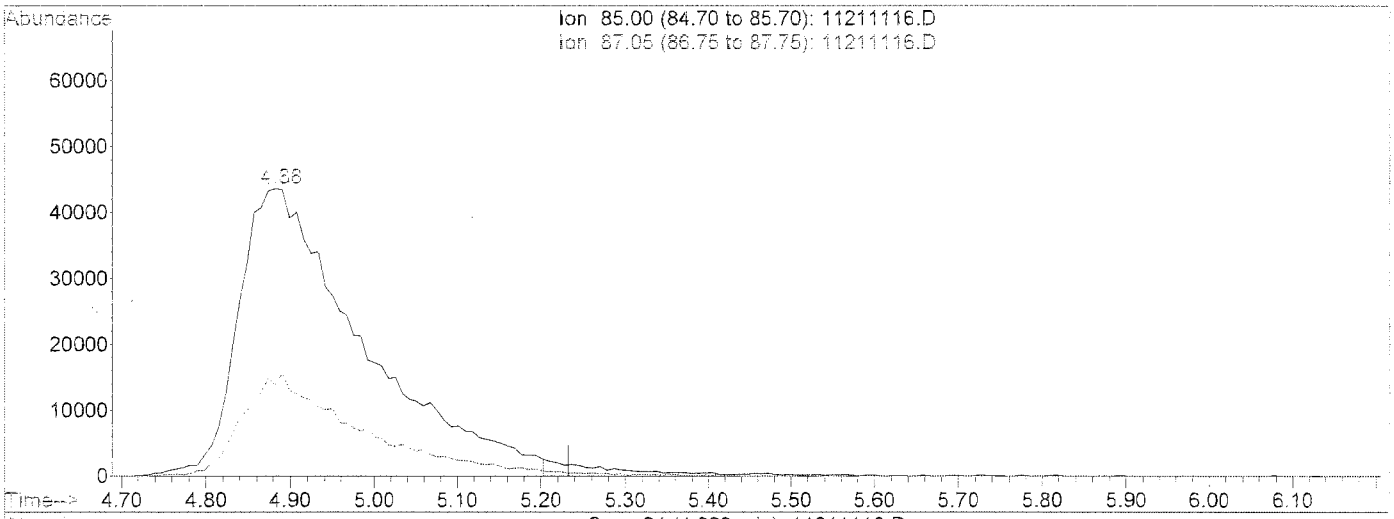
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

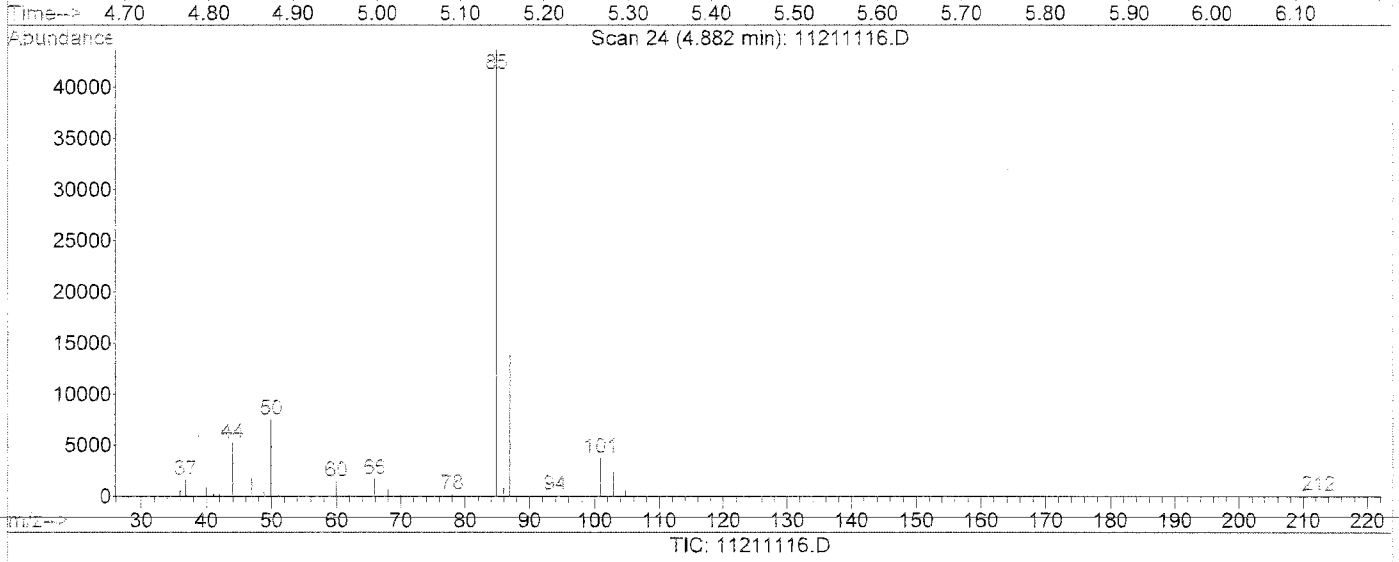


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:48 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211116.D

(5) Dichlorodifluoromethane (T)

4.88min 24.95ug/L

response 447734

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	33.16
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

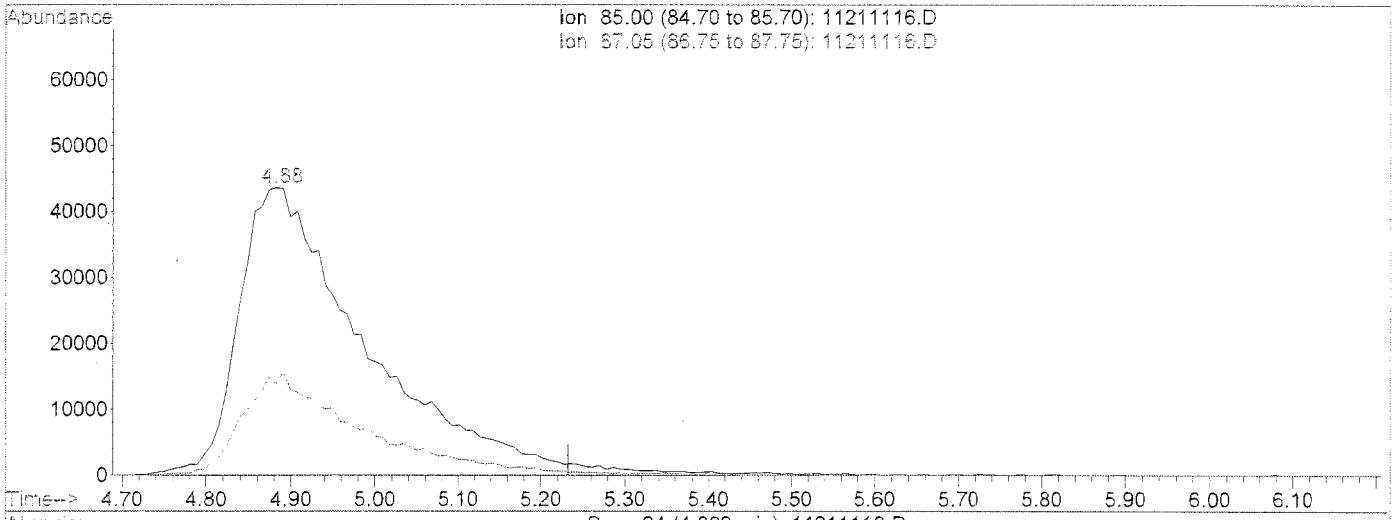
B
NIP
11/22/11

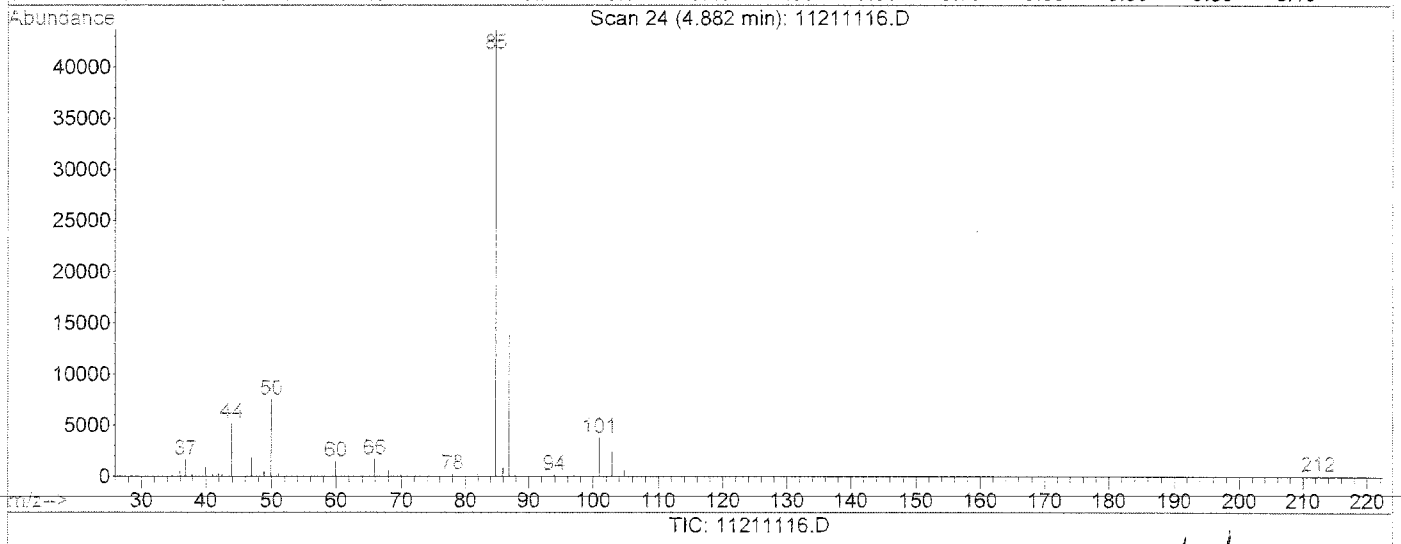
11211116.D 112111.M Tue Nov 22 15:48:26 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:49 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211116.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.88min 25.77ug/L m

response 462401

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	32.11
0.00	0.00	0.00
0.00	0.00	0.00

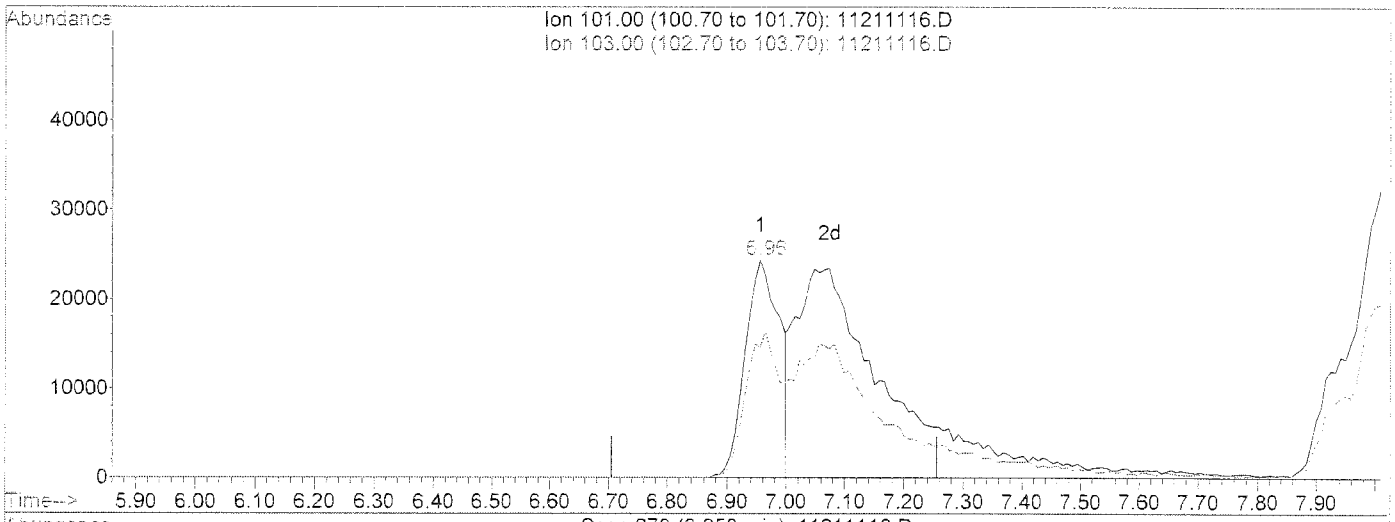
11/22/11

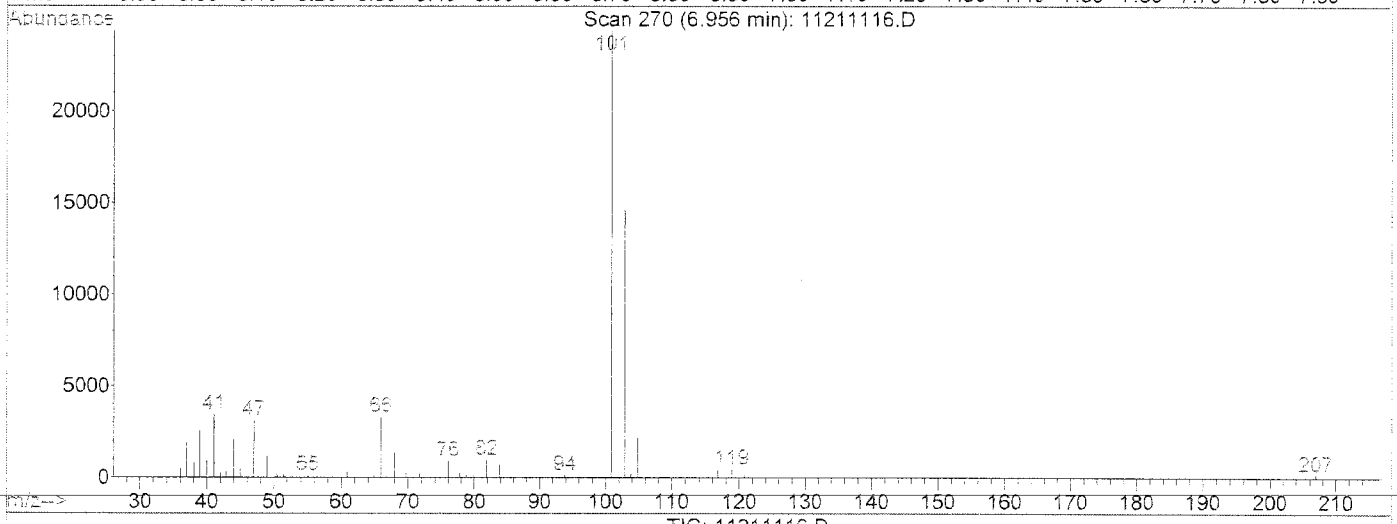
11211116.D 112111.M Tue Nov 22 15:49:46 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:49 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211116.D

(12) Trichlorofluoromethane (T)

6.96min 7.35ug/L

response 97883

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	60.05
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

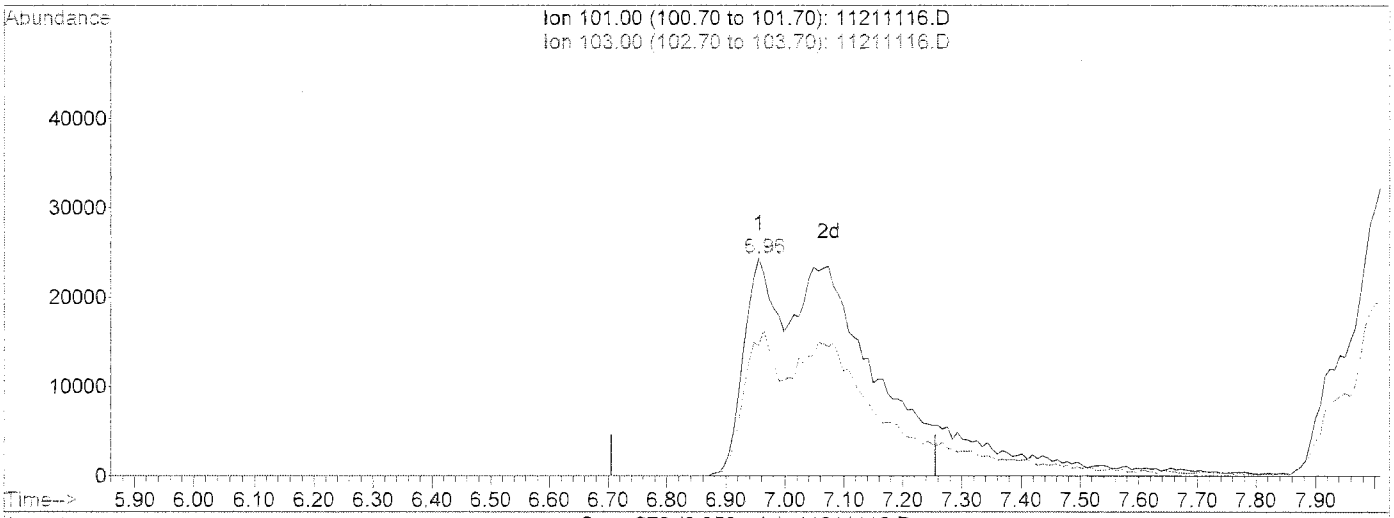
B
MP
11/22/11

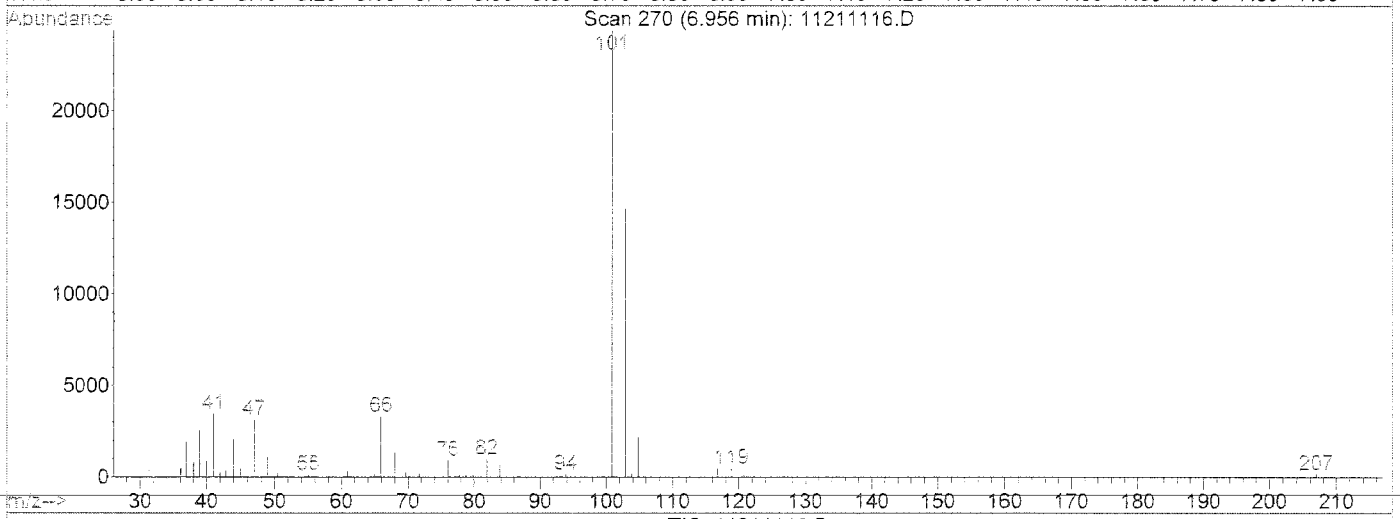
11211116.D 112111.M Tue Nov 22 15:49:56 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:50 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211116.D

(12) Trichlorofluoromethane (T)

6.96min 26.89ug/L m

response 357964

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	60.05
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

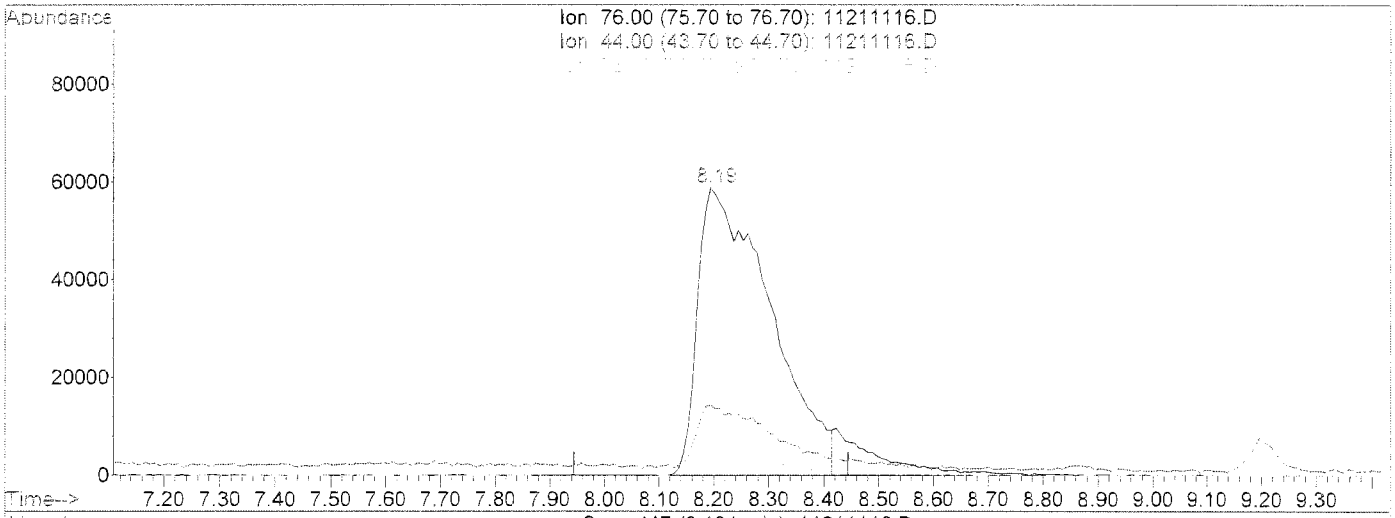
11/22/11

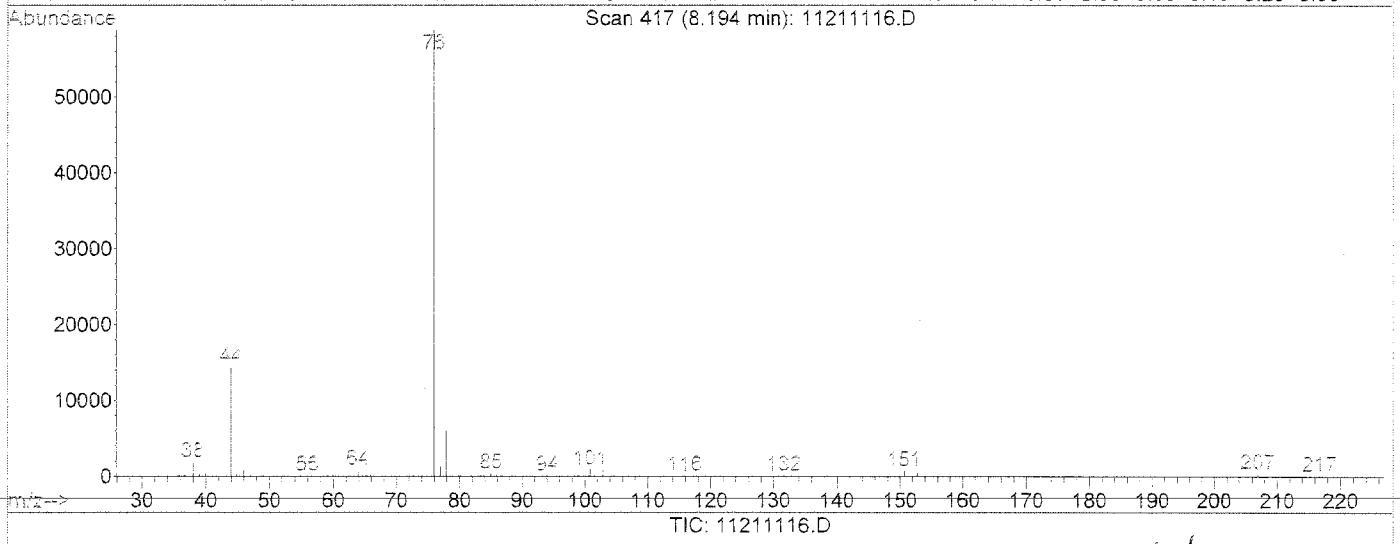
11211116.D 112111.M Tue Nov 22 15:50:12 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:50 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211116.D

11/23/11

(19) Carbon Disulfide (T)

8.19min 23.12ug/L

response 542675

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	21.40
78.00	3.90	4.32
0.00	0.00	0.00

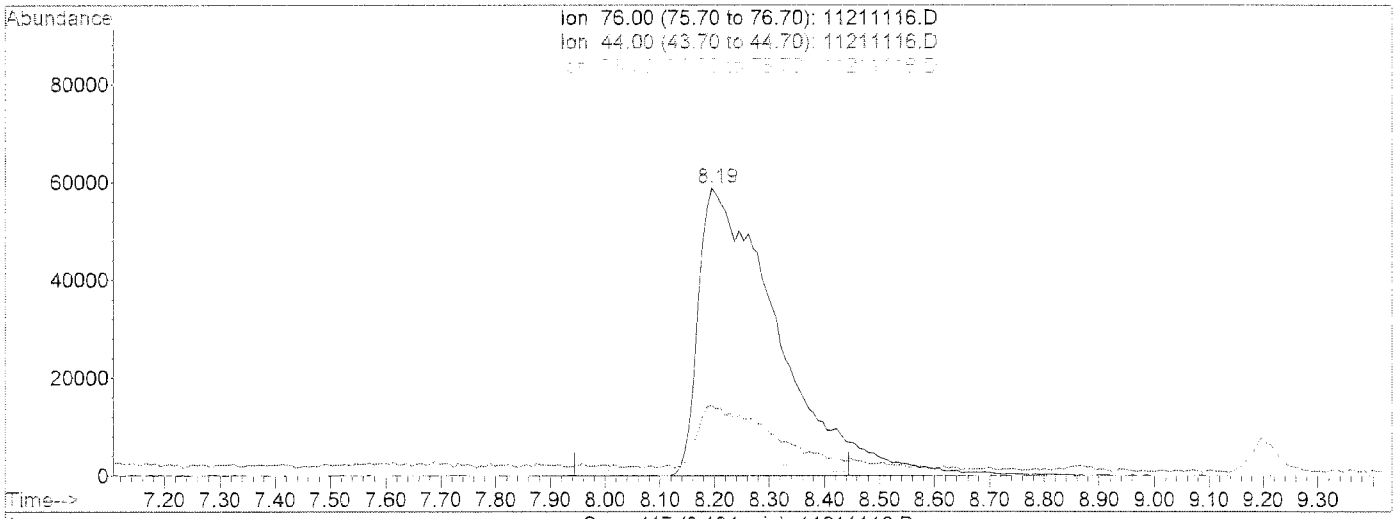
B
MP
11/22/11

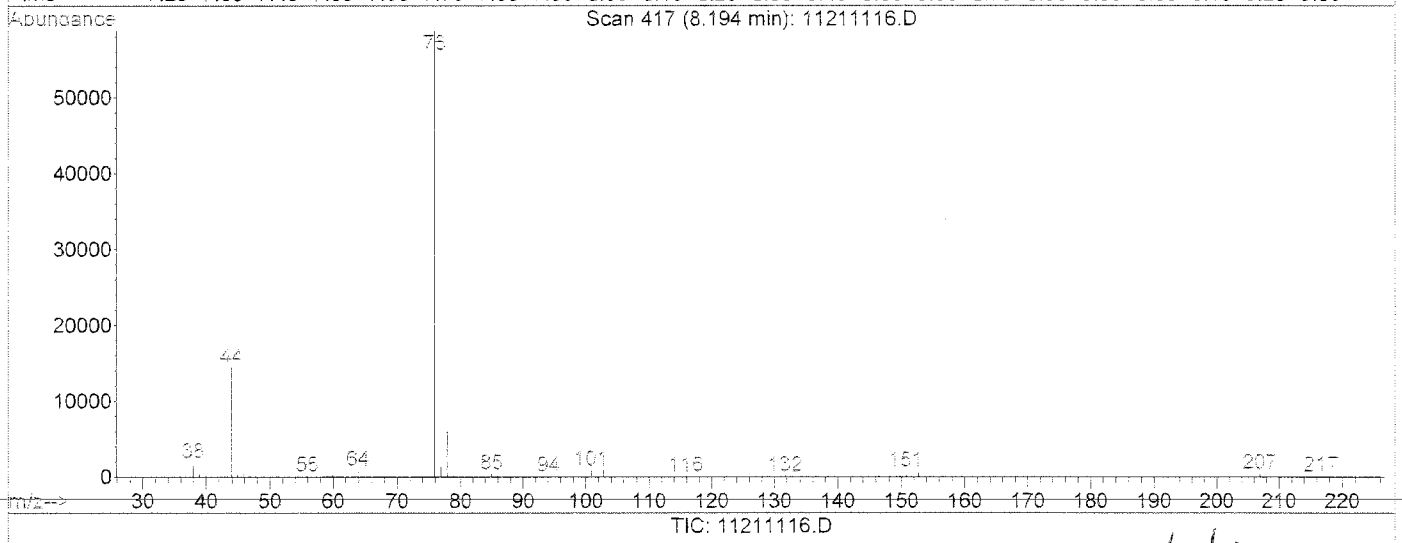
11211116.D 112111.M Tue Nov 22 15:50:25 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:50 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211116.D

11/23/11

(19) Carbon Disulfide (T)

8.19min 25.38ug/L m

response 595726

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	19.49
78.00	3.90	3.93
0.00	0.00	0.00

11/22/11

11211116.D 112111.M Tue Nov 22 15:50:33 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:50 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	48124	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	302344	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	483112	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.14	117	429428	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	231815	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	194275	24.18 ug/L	0.00
Spiked Amount 25.000			Recovery = 96.72%		
50) Toluene-d8 (surr)	14.19	98	534903	25.30 ug/L	0.00
Spiked Amount 25.000			Recovery = 101.20%		
64) 4-Bromofluorobenzene (surr	17.82	95	247398	25.02 ug/L	0.00
Spiked Amount 25.000			Recovery = 100.08%		
Target Compounds					Qvalue
2) Ethanol	6.17	45	53663	265.85 ug/L	100
3) tert-Butanol (TBA)	7.70	59	94420	122.46 ug/L	100
5) Dichlorodifluoromethane	4.88	85	462401m	25.77 ug/L	
6) Chloromethane	5.14	50	398891	23.65 ug/L	100
7) Vinyl Chloride	5.48	62	308330	23.92 ug/L	100
8) 1,3-Butadiene	5.57	54	191415	25.20 ug/L	100
9) Bromomethane	6.03	94	225200	24.21 ug/L	100
10) Chloroethane	6.21	64	179206	25.23 ug/L	100
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	6.96	101	357964m	26.89 ug/L	
13) Acetone	7.11	43	76510	24.38 ug/L	100
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.79	142	348368	25.19 ug/L	100
16) 1,1-Dichloroethene	7.72	96	198034	25.47 ug/L	100
17) Methylene Chloride	7.86	84	233443	23.30 ug/L	100
18) Freon 113	8.01	101	213148	25.46 ug/L	100
19) Carbon Disulfide	8.19	76	595726m	25.38 ug/L	
~~20) trans-1,2-Dichloroethene~~	~~8.73~~	~~96~~	~~252504~~	~~25.93 ug/L~~	~~100~~
21) MTBE	8.87	73	297444	26.86 ug/L	100
22) 1,1-Dichloroethane	9.05	63	508418	25.07 ug/L	100
23) Vinyl Acetate	9.21	43	316311	22.13 ug/L	100
24) n-Hexane	9.55	86	45073	28.72 ug/L	100
25) 2-Butanone (MEK)	9.59	72	14583	25.90 ug/L #	100
26) Diisopropylether (DIPE)	9.59	45	878603	26.05 ug/L	100
27) cis-1,2-Dichloroethene	9.79	96	253322	25.99 ug/L	100
28) Bromochloromethane	10.00	128	113832	24.83 ug/L	100
29) Chloroform	10.05	83	497742	24.52 ug/L	100
30) 2,2-Dichloropropane	10.16	77	206041	26.49 ug/L	100
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	324773	25.83 ug/L	100
33) Tetrahydrofuran	10.47	72	11119	25.42 ug/L	100
34) 1,2-Dichloroethane	10.88	62	360773	24.40 ug/L	100
35) 1,1,1-Trichloroethane	11.02	97	400591	25.97 ug/L	100
36) (TAME) tert-Amyl methyl et	11.71	73	183519	25.31 ug/L	100
38) 1,1-Dichloropropene	11.25	75	336359	28.31 ug/L	100
39) Carbon Tetrachloride	11.49	117	392235	26.03 ug/L	100
40) Benzene	11.54	78	800239	25.95 ug/L	100

(#) = qualifier out of range (m) = manual integration

11/22/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:50 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

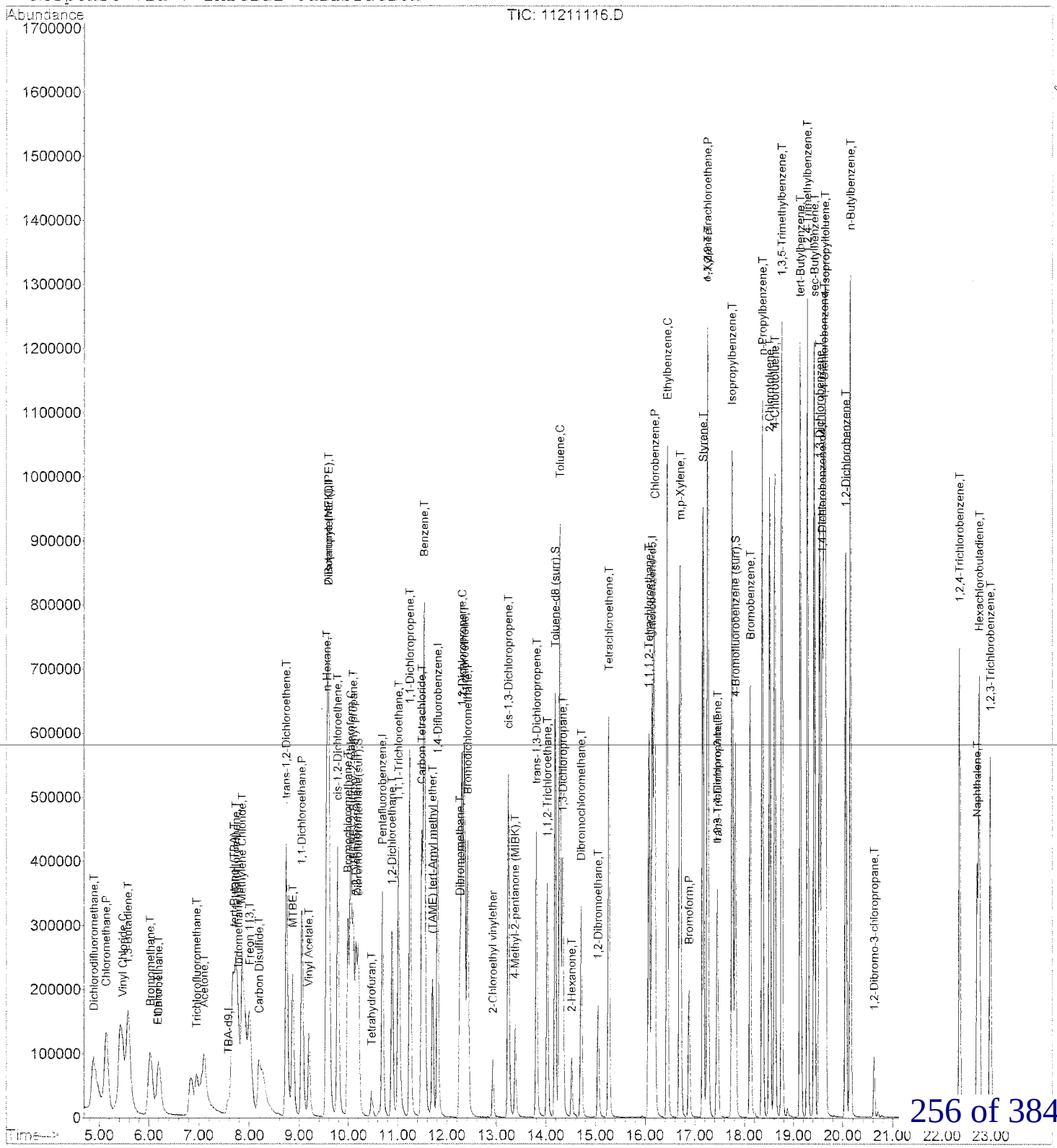
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Dibromomethane	12.26	93	128218	25.56 ug/L	100
42)	1,2-Dichloropropane	12.31	63	224233	25.69 ug/L	100
43)	Trichloroethene	12.35	95	240815	25.50 ug/L	100
44)	Bromodichloromethane	12.42	83	348747	25.33 ug/L	100
45)	2-Chloroethyl vinylether	12.93	63	41688	22.76 ug/L	100
46)	cis-1,3-Dichloropropene	13.24	75	332118	25.99 ug/L	100
47)	4-Methyl-2-pentanone (MIBK	13.38	43	137421	26.90 ug/L	100
48)	trans-1,3-Dichloropropene	13.81	75	285493	25.63 ug/L	100
49)	1,1,2-Trichloroethane	14.03	97	138242	25.05 ug/L	100
51)	Toluene	14.29	92	469100	25.71 ug/L	100
53)	1,3-Dichloropropane	14.34	76	252423	25.25 ug/L	100
54)	2-Hexanone	14.52	43	87017	26.53 ug/L	100
55)	Dibromochloromethane	14.72	129	212340	26.22 ug/L	100
56)	1,2-Dibromoethane	15.05	107	148612	26.51 ug/L	100
57)	Tetrachloroethene	15.27	164	173310	25.93 ug/L	100
58)	1,1,1,2-Tetrachloroethane	16.08	131	216889	25.45 ug/L	100
59)	Chlorobenzene	16.19	112	569211	25.56 ug/L	100
60)	Ethylbenzene	16.44	91	927929	27.61 ug/L	100
61)	m,p-Xylene	16.71	106	355011	27.91 ug/L	100
62)	Styrene	17.16	104	554812	27.19 ug/L	100
63)	o-Xylene	17.26	106	348205	27.77 ug/L	100
66)	Bromoform	16.88	173	114074	26.81 ug/L	100
67)	1,1,2,2-Tetrachloroethane	17.25	83	141596	24.21 ug/L	100
68)	1,2,3-Trichloropropane	17.45	110	43875	24.68 ug/L	100
69)	trans-1,4-Dichloro-2-buten	17.46	53	61313	24.63 ug/L	100
70)	Isopropylbenzene	17.76	105	879686	26.92 ug/L	100
71)	Bromobenzene	18.12	156	224793	26.54 ug/L	100
72)	n-Propylbenzene	18.37	91	1089998	27.56 ug/L	100
73)	2-Chlorotoluene	18.51	91	705252	26.69 ug/L	100
74)	4-Chlorotoluene	18.62	91	728766	26.65 ug/L	100
75)	1,3,5-Trimethylbenzene	18.76	105	828969	27.62 ug/L	100
76)	tert-Butylbenzene	19.14	119	675949	26.49 ug/L	100
77)	1,2,4-Trimethylbenzene	19.28	105	850189	27.57 ug/L	100
78)	sec-Butylbenzene	19.43	105	1005884	27.08 ug/L	100
79)	1,3-Dichlorobenzene	19.54	146	445409	25.74 ug/L	100
80)	1,4-Dichlorobenzene	19.62	146	432678	24.81 ug/L	100
81)	4-Isopropyltoluene	19.65	119	891835	26.55 ug/L	100
82)	1,2-Dichlorobenzene	20.06	146	397383	26.19 ug/L	100
83)	n-Butylbenzene	20.15	91	819599	27.40 ug/L	100
84)	1,2-Dibromo-3-chloropropan	20.62	75	26839	25.71 ug/L	100
85)	1,2,4-Trichlorobenzene	22.36	180	303093	28.10 ug/L	100
86)	Naphthalene	22.71	128	388434	25.53 ug/L	100
87)	Hexachlorobutadiene	22.76	225	204648	25.14 ug/L	100
88)	1,2,3-Trichlorobenzene	22.98	180	242633	27.91 ug/L	100

(#) = qualifier out of range (m) = manual integration
11211116.D 112111.M Tue Nov 22 15:51:00 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211116.D Vial: 11
Acq On : 21 Nov 2011 6:35 pm Operator: KH
Sample : 25.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:50 2011 Quant Results File: 112111.RES

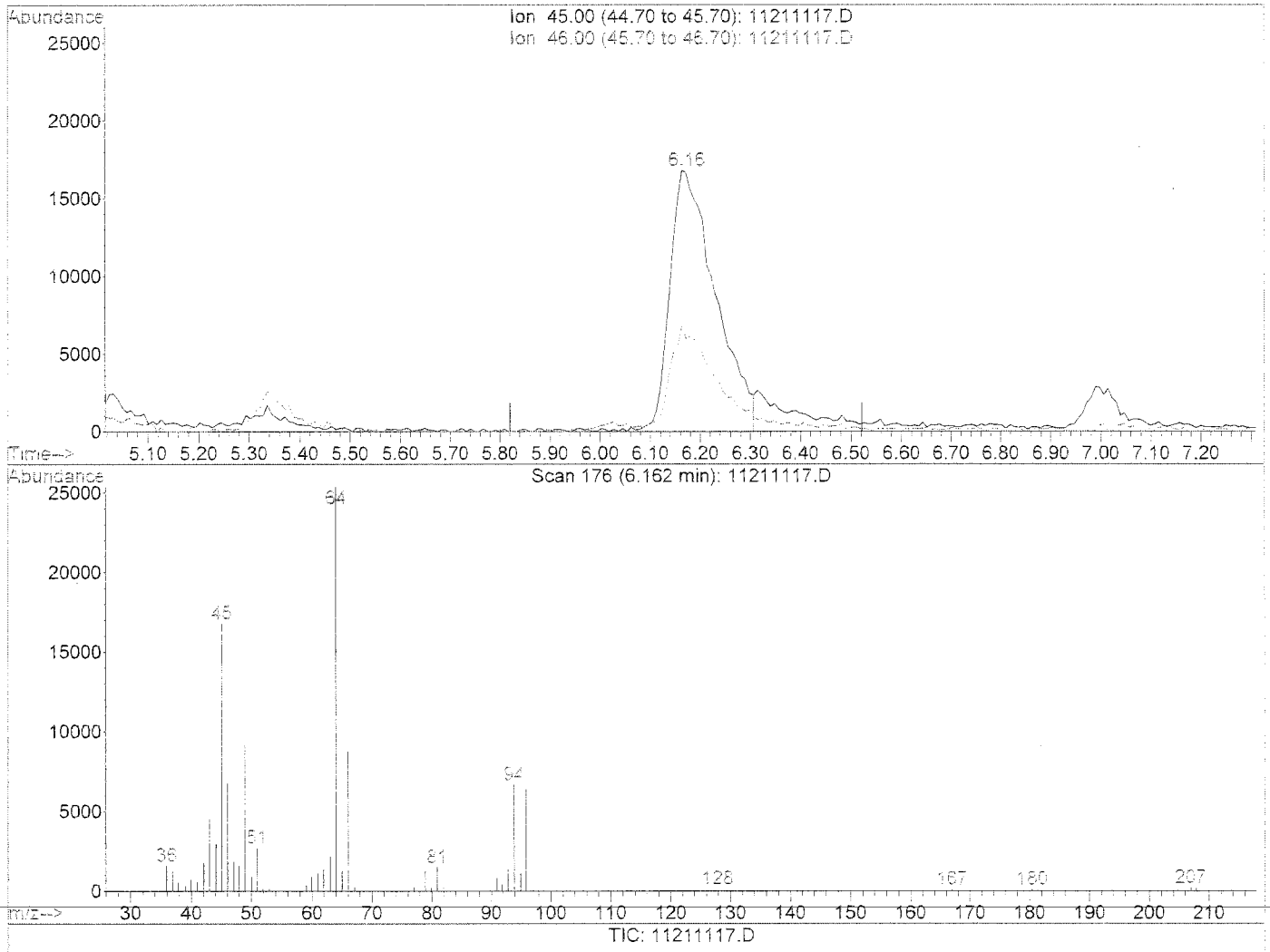
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:52 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration



TIC: 11211117.D

(2) Ethanol (T)

6.16min 452.67ug/L

response 106718

Ion	Exp%	Act%
45.00	100	100
46.00	35.20	39.10
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11
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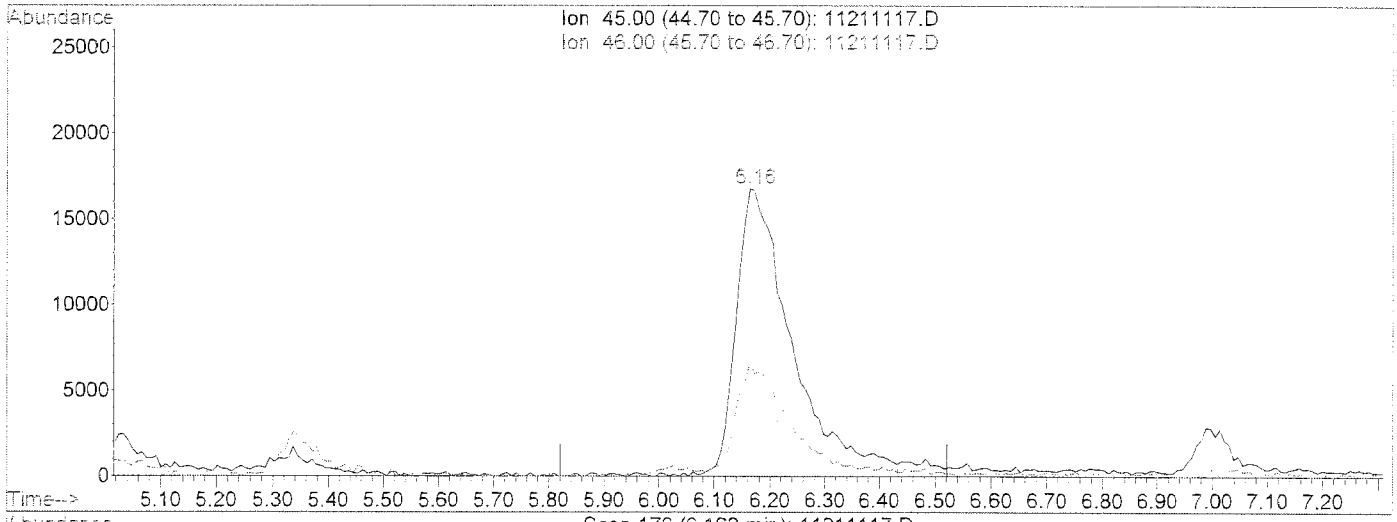
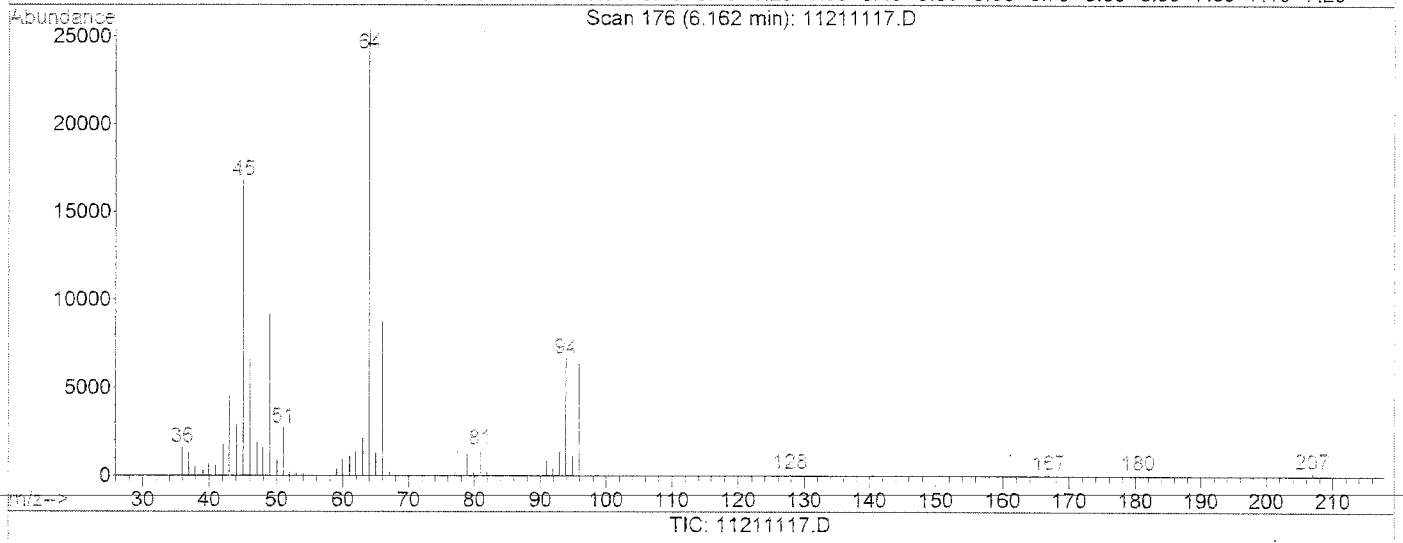
11211117.D 112111.M Tue Nov 22 15:56:08 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:56 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

(2) Ethanol (T)

6.16min 498.74ug/L m

response 117581

Ion	Exp%	Act%
45.00	100	100
46.00	35.20	35.49
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

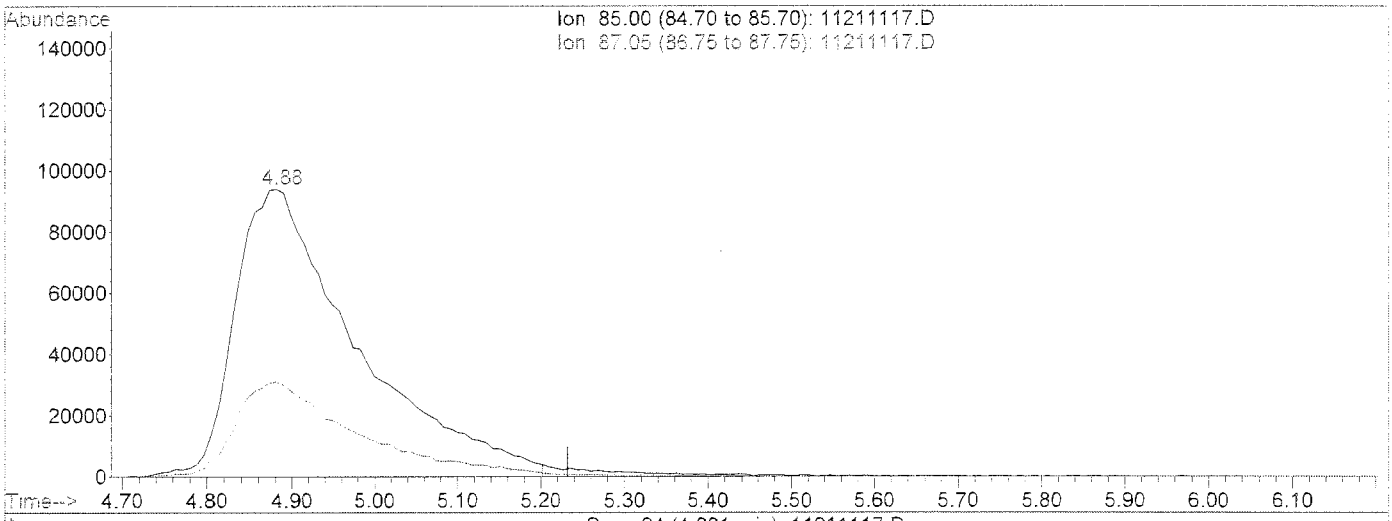
11/22/11

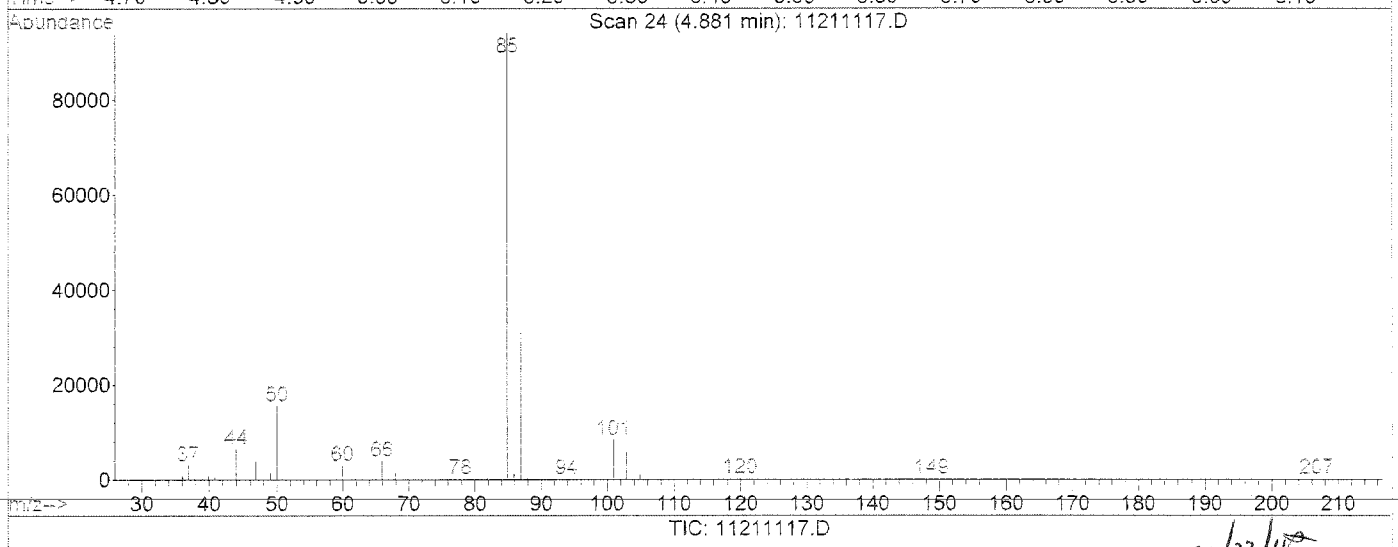
11211117.D 112111.M Tue Nov 22 15:56:26 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:51 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.88min 48.68ug/L

response 948758

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	32.74
0.00	0.00	0.00
0.00	0.00	0.00

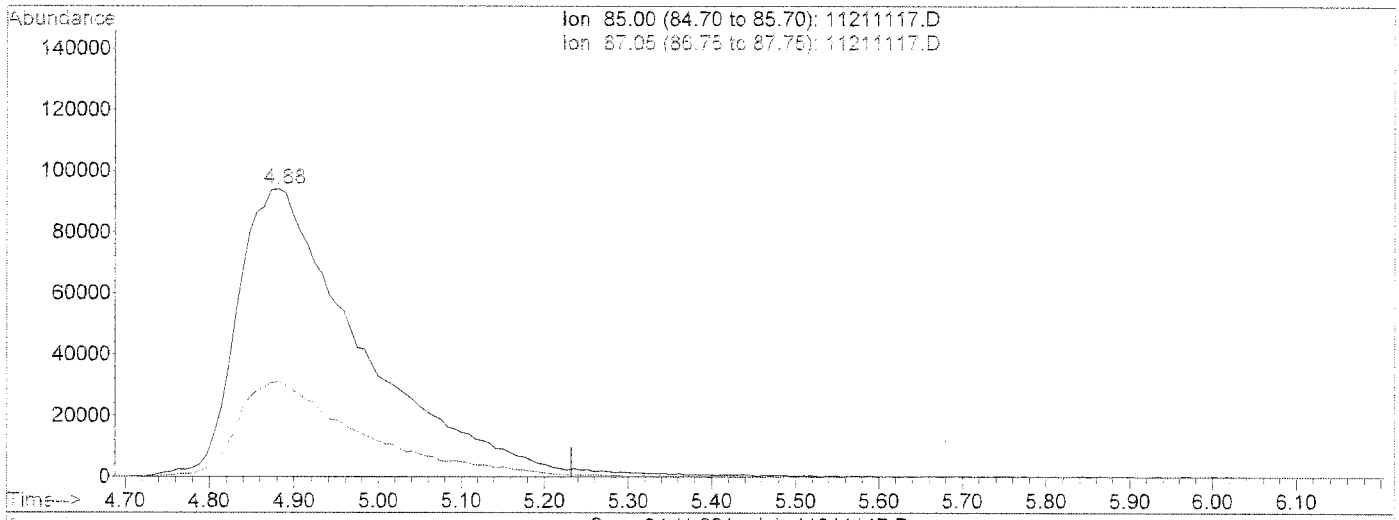
B
MIP
11/22/11

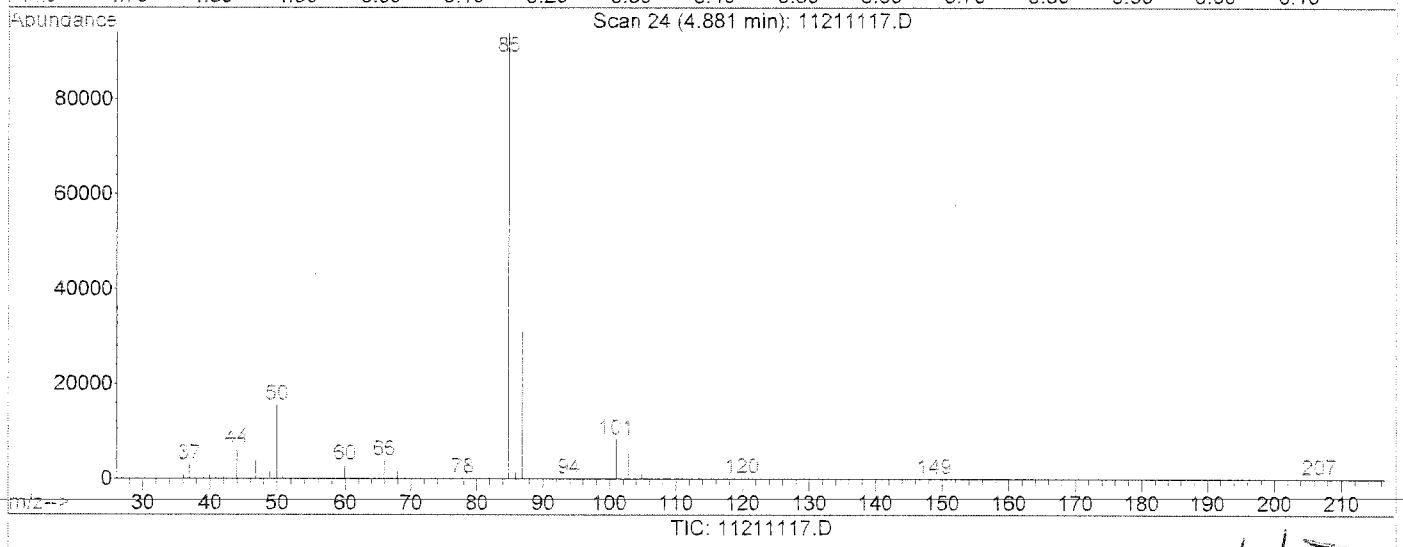
11211117.D 112111.M Tue Nov 22 15:51:22 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KB
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:51 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

11/23/11

(5) Dichlorodifluoromethane (T)

4.88min 49.85ug/L m

response 971536

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	31.97
0.00	0.00	0.00
0.00	0.00	0.00

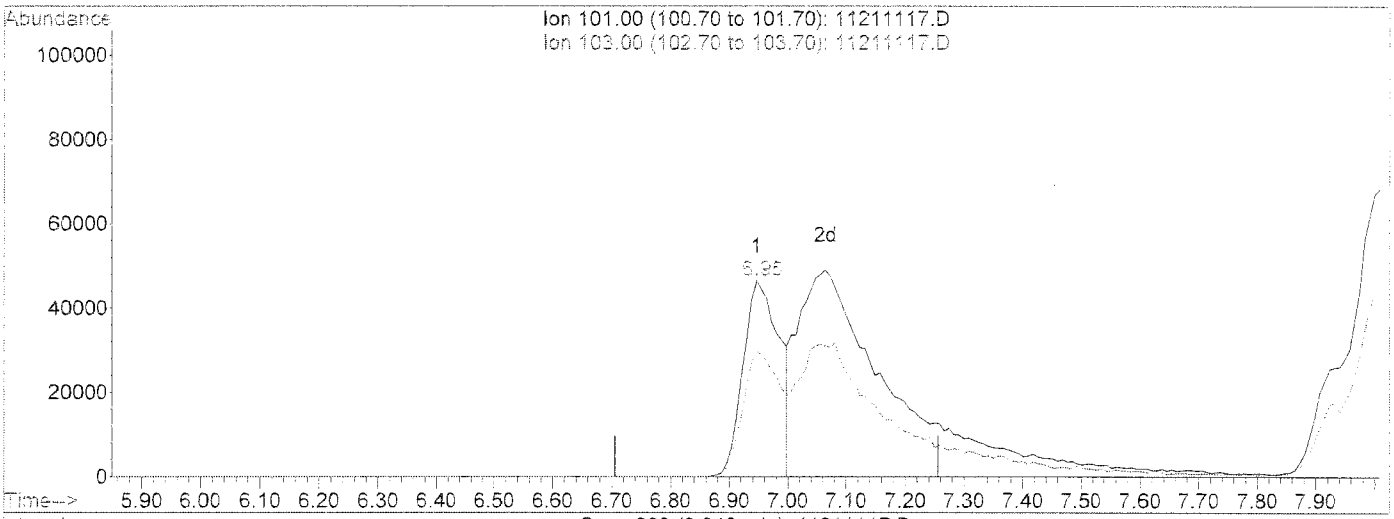
11/22/11

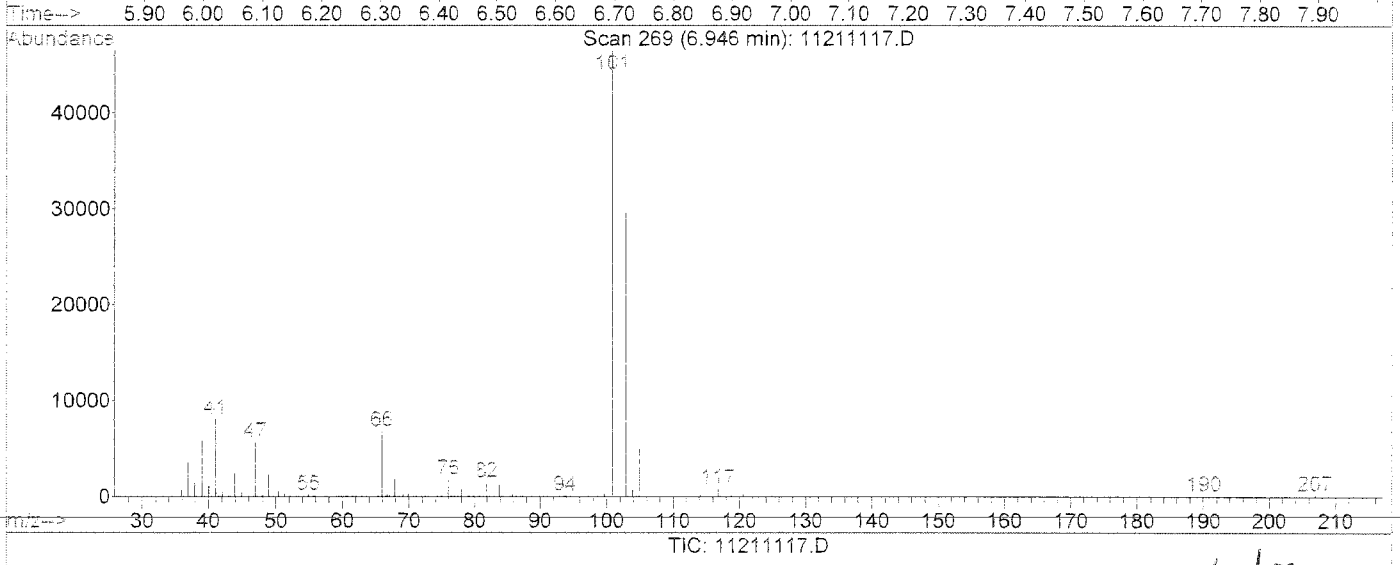
11211117.D 112111.M Tue Nov 22 15:51:39 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KB
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:51 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





11/23/11

(12) Trichlorofluoromethane (T)

6.95min 13.68ug/L

response 197700

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	63.61
0.00	0.00	0.00
0.00	0.00	0.00

B NIP
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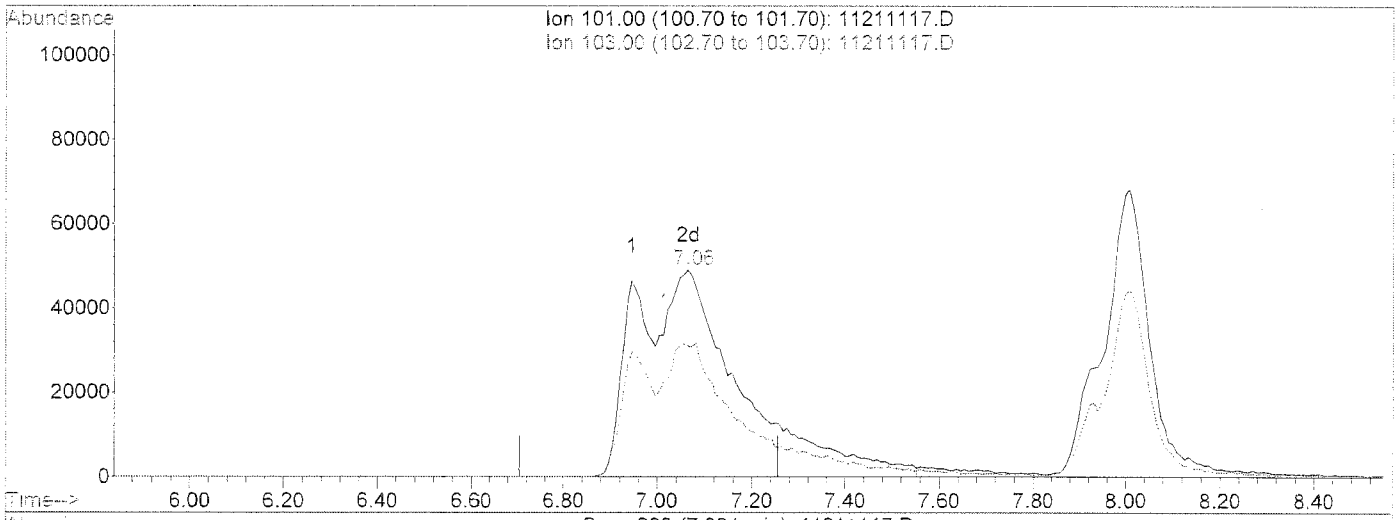
11/22/11

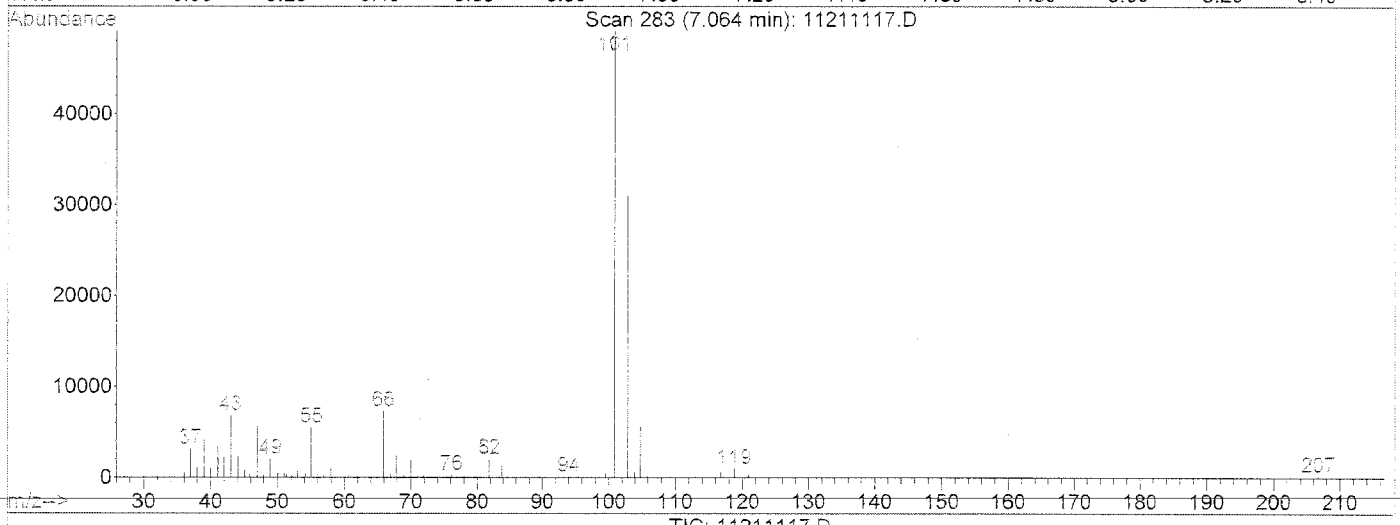
11211117.D 112111.M Tue Nov 22 15:51:49 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:52 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

✓ 11/23/11

(12) Trichlorofluoromethane (T)

7.06min 52.57ug/L m

response 759921

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	63.07
0.00	0.00	0.00
0.00	0.00	0.00

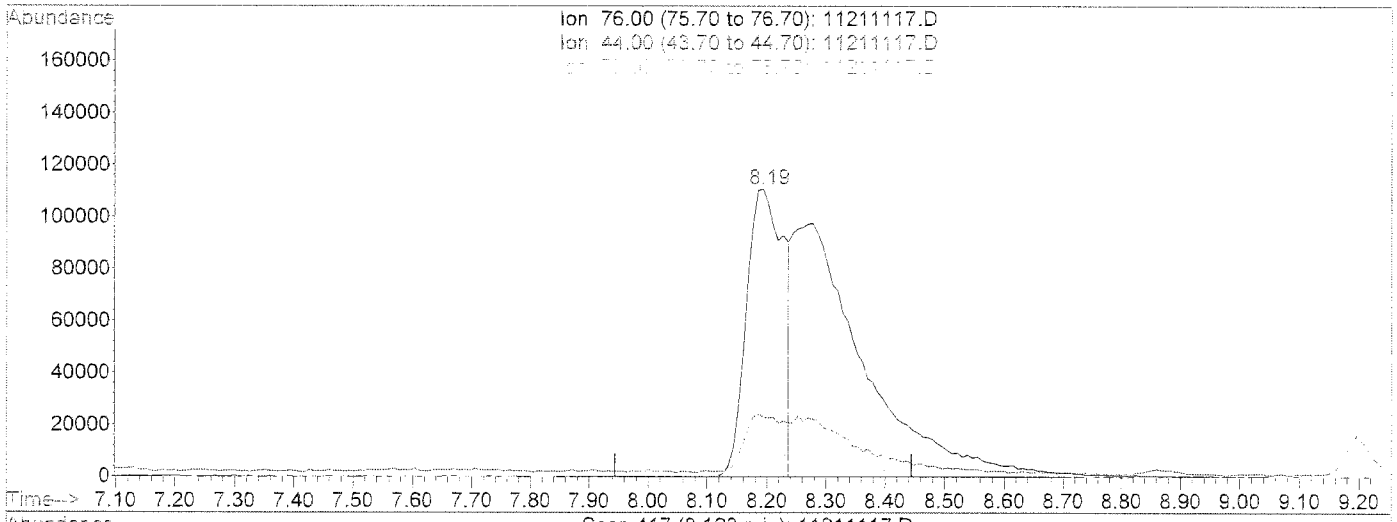
11/22/11

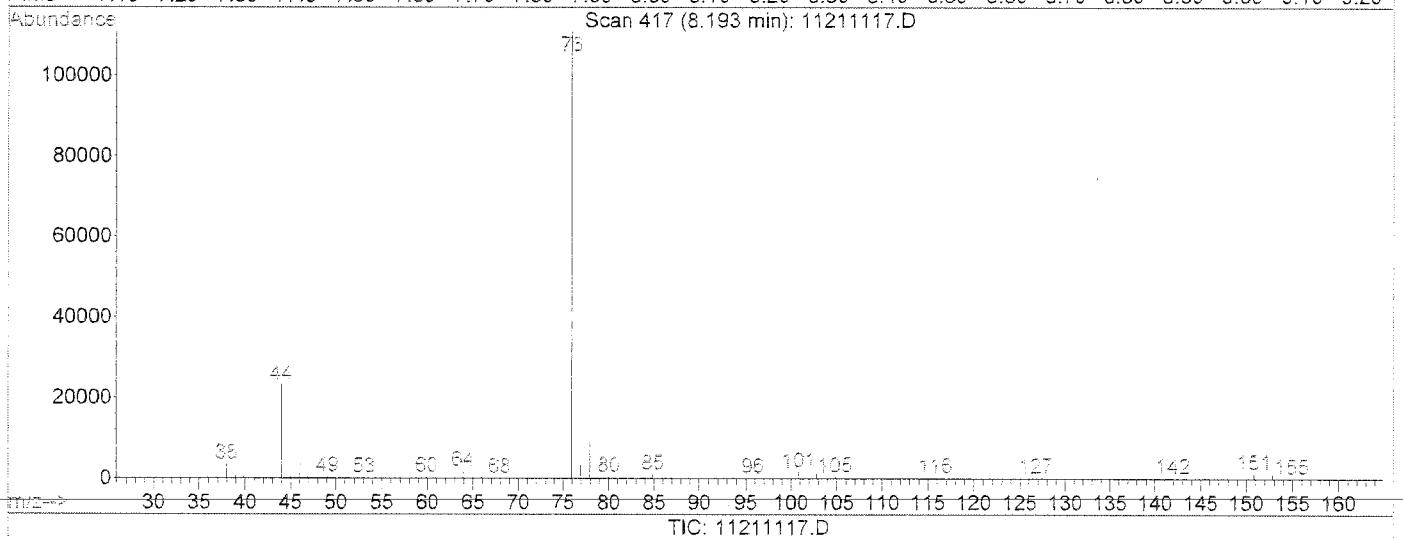
11211117.D 112111.M Tue Nov 22 15:52:31 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:52 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





(19) Carbon Disulfide (T)

8.19min 19.14ug/L

response 488105

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	20.78
78.00	3.90	8.02#
0.00	0.00	0.00

11/23/11

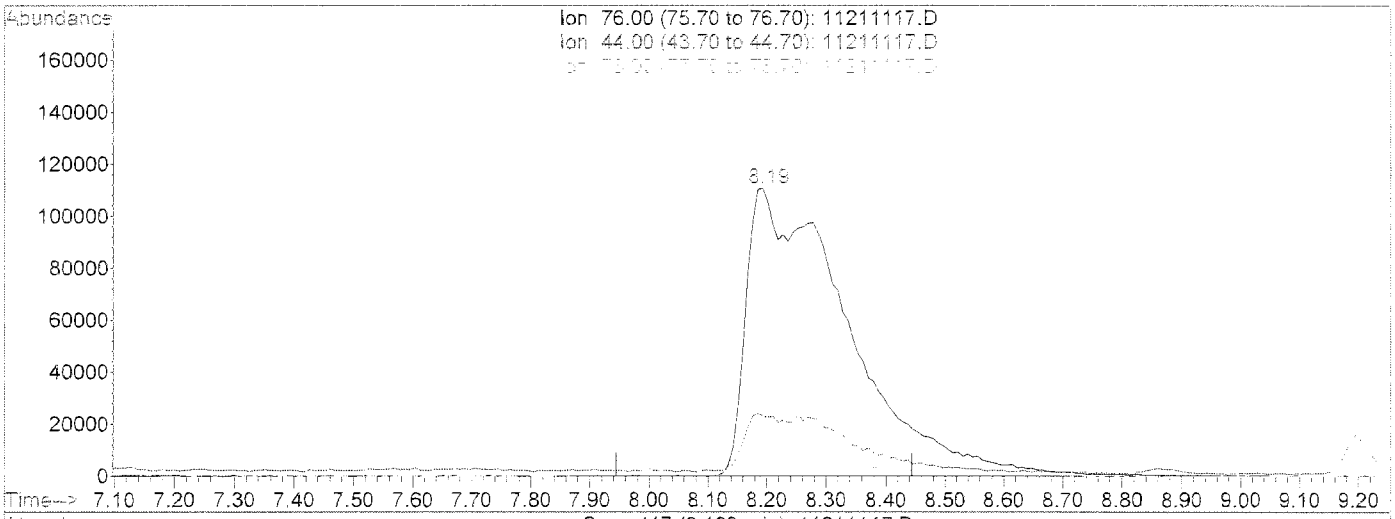
B
NIP
11/22/11

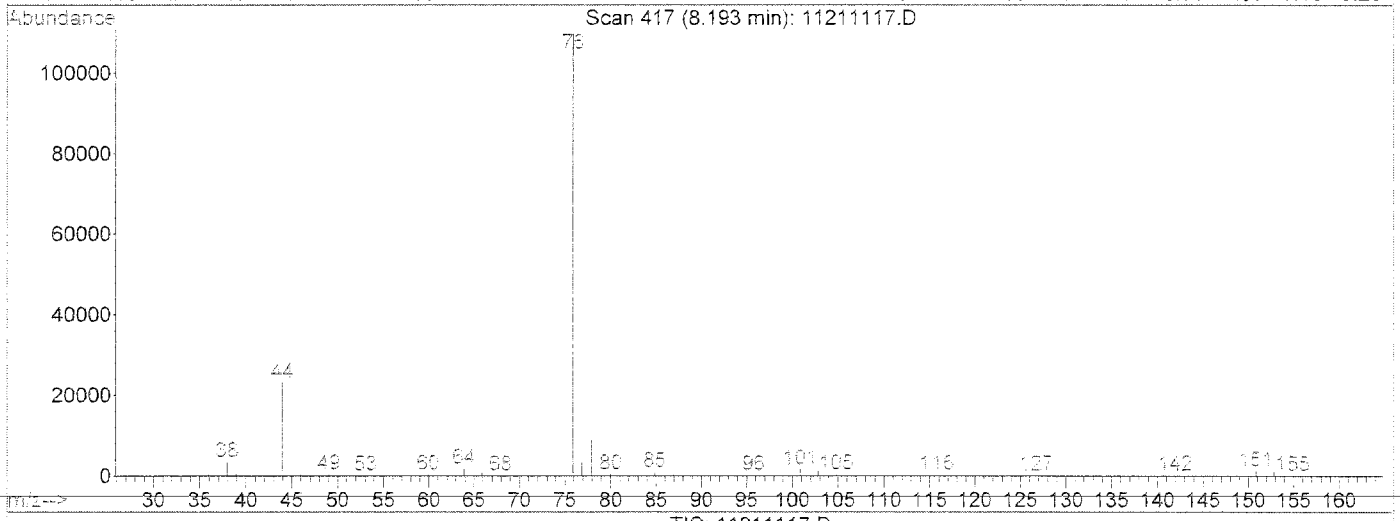
11211117.D 112111.M Tue Nov 22 15:52:50 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:52 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11211117.D

11/23/11

(19) Carbon Disulfide (T)

8.19min 51.77ug/L m

response 1320037

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	7.69#
78.00	3.90	2.97#
0.00	0.00	0.00

11/23/11

11211117.D 112111.M Tue Nov 22 15:53:00 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:56 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/112

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	56207	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	328361	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.81	114	534192	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.14	117	490895	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	253788	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.20	113	210588	24.14 ug/L	0.00
Spiked Amount 25.000			Recovery = 96.56%		
50) Toluene-d8 (surr)	14.19	98	587588	25.13 ug/L	0.00
Spiked Amount 25.000			Recovery = 100.52%		
64) 4-Bromofluorobenzene (surr	17.82	95	269247	23.82 ug/L	0.00
Spiked Amount 25.000			Recovery = 95.28%		

Target Compounds					Qvalue
2) Ethanol	6.16	45	117581m	498.74 ug/L	
3) tert-Butanol (TBA)	7.69	59	221178	245.60 ug/L	98
5) Dichlorodifluoromethane	4.88	85	971536m	49.85 ug/L	
6) Chloromethane	5.14	50	779271	42.54 ug/L	99
7) Vinyl Chloride	5.48	62	635951	45.43 ug/L	99
8) 1,3-Butadiene	5.58	54	407733	49.43 ug/L	97
9) Bromomethane	6.04	94	463833	45.92 ug/L	99
10) Chloroethane	6.20	64	382040	49.52 ug/L	99
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	7.06	101	759921m	52.57 ug/L	
13) Acetone	7.11	43	152966	44.89 ug/L	98
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.78	142	758533	50.51 ug/L	99
16) 1,1-Dichloroethene	7.74	96	428083	50.69 ug/L	100
17) Methylene Chloride	7.86	84	491016	45.13 ug/L	99
18) Freon 113	8.01	101	457604	50.32 ug/L	99
19) Carbon Disulfide	8.19	76	1320037m	51.77 ug/L	
~~20) trans-1,2-Dichloroethene~~	~~8.73~~	~~96~~	~~526933~~	~~49.83 ug/L~~	~~100~~
21) MTBE	8.87	73	672828	55.95 ug/L	98
22) 1,1-Dichloroethane	9.05	63	1047639	47.57 ug/L	100
23) Vinyl Acetate	9.20	43	791659	49.55 ug/L	99
24) n-Hexane	9.55	86	91423	53.64 ug/L	99
25) 2-Butanone (MEK)	9.58	72	30243	49.46 ug/L #	97
26) Diisopropylether (DIPE)	9.59	45	1861584	50.82 ug/L	98
27) cis-1,2-Dichloroethene	9.78	96	531046	50.16 ug/L	99
28) Bromochloromethane	9.99	128	234426	47.08 ug/L	98
29) Chloroform	10.05	83	1012770	45.94 ug/L	100
30) 2,2-Dichloropropane	10.16	77	433614	51.33 ug/L	96
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	736556	53.94 ug/L	99
33) Tetrahydrofuran	10.48	72	26678	56.15 ug/L	98
34) 1,2-Dichloroethane	10.88	62	755814	47.06 ug/L	99
35) 1,1,1-Trichloroethane	11.02	97	834160	49.79 ug/L	99
36) (TAME) tert-Amyl methyl et	11.71	73	424650	53.93 ug/L	98
38) 1,1-Dichloropropene	11.24	75	693757	52.80 ug/L	98
39) Carbon Tetrachloride	11.49	117	817768	49.07 ug/L	99
40) Benzene	11.54	78	1665217	48.83 ug/L	100

(#) = qualifier out of range (m) = manual integration
11211117.D 112111.M Tue Nov 22 15:56:33 2011

11/23/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:56 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

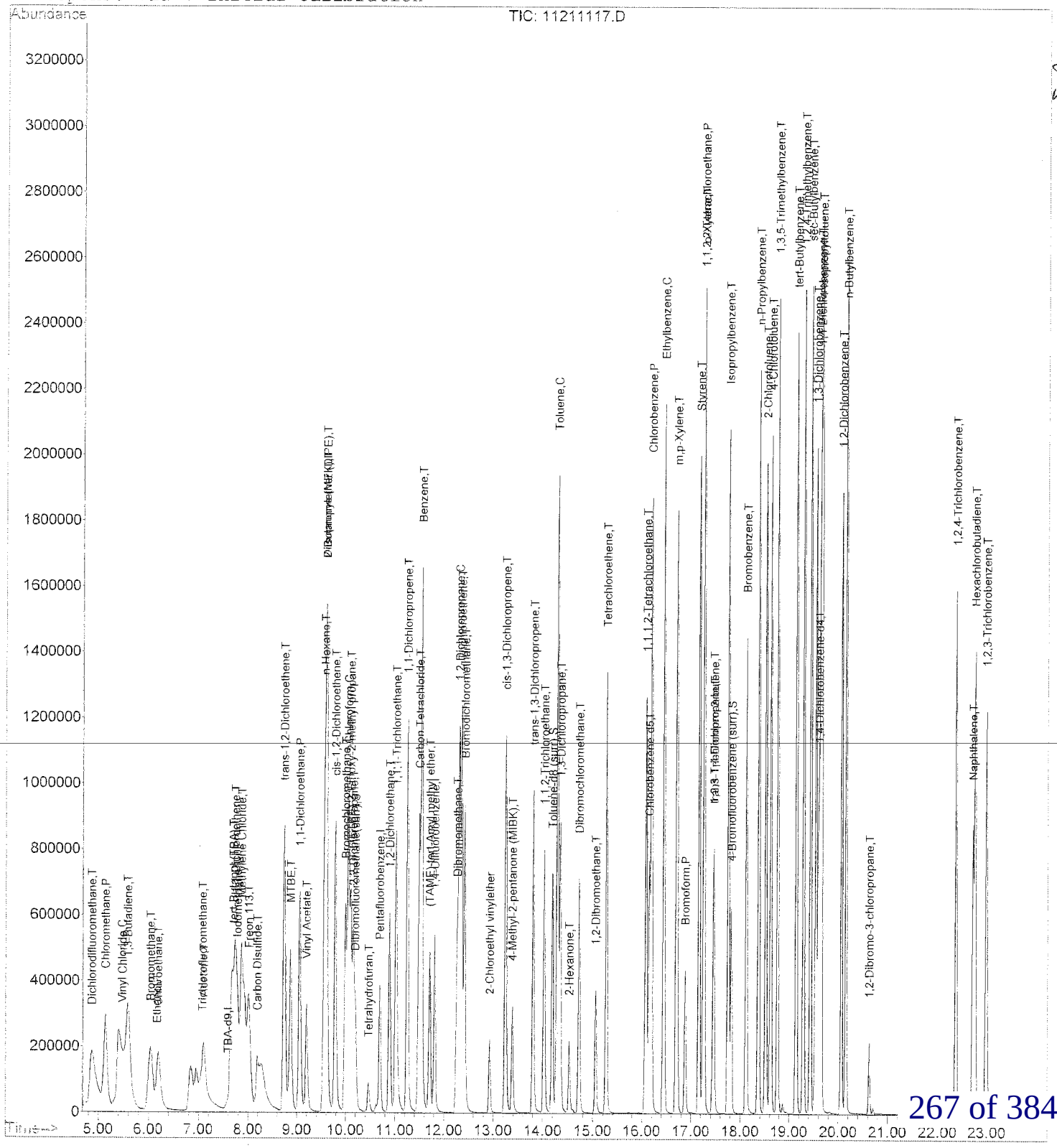
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Dibromomethane	12.26	93	272364	49.09 ug/L	99
42) 1,2-Dichloropropane	12.30	63	470948	48.80 ug/L	99
43) Trichloroethene	12.35	95	508636	48.70 ug/L	99
44) Bromodichloromethane	12.42	83	751223	49.34 ug/L	99
45) 2-Chloroethyl vinylether	12.93	63	108278	50.75 ug/L	100
46) cis-1,3-Dichloropropene	13.24	75	734203	51.71 ug/L	98
47) 4-Methyl-2-pentanone (MIBK	13.38	43	313668	55.54 ug/L	96
48) trans-1,3-Dichloropropene	13.81	75	639157	51.64 ug/L	98
49) 1,1,2-Trichloroethane	14.03	97	304531	49.91 ug/L	98
51) Toluene	14.29	92	999606	49.55 ug/L	100
53) 1,3-Dichloropropane	14.35	76	548903	48.03 ug/L	99
54) 2-Hexanone	14.52	43	209160	55.78 ug/L	100
55) Dibromochloromethane	14.72	129	475014	51.32 ug/L	100
56) 1,2-Dibromoethane	15.05	107	331118	51.66 ug/L	98
57) Tetrachloroethene	15.27	164	375399	49.13 ug/L	99
58) 1,1,1,2-Tetrachloroethane	16.08	131	476005	48.87 ug/L	99
59) Chlorobenzene	16.19	112	1204580	47.32 ug/L	99
60) Ethylbenzene	16.44	91	1943371	50.58 ug/L	99
61) m,p-Xylene	16.71	106	757113	52.07 ug/L	98
62) Styrene	17.16	104	1185703	50.67 ug/L	99
63) o-Xylene	17.26	106	721940	50.42 ug/L	99
66) Bromoform	16.88	173	255502	54.84 ug/L	98
67) 1,1,2,2-Tetrachloroethane	17.24	83	289218	45.17 ug/L	97
68) 1,2,3-Trichloropropane	17.45	110	98666	50.70 ug/L	98
69) trans-1,4-Dichloro-2-buten	17.46	53	138032	49.75 ug/L	97
70) Isopropylbenzene	17.76	105	1799748	50.18 ug/L	99
71) Bromobenzene	18.12	156	477080	51.46 ug/L	99
72) n-Propylbenzene	18.37	91	2222537	51.33 ug/L	98
73) 2-Chlorotoluene	18.52	91	1446970	50.01 ug/L	100
74) 4-Chlorotoluene	18.62	91	1493648	49.89 ug/L	99
75) 1,3,5-Trimethylbenzene	18.76	105	1697845	51.68 ug/L	98
76) tert-Butylbenzene	19.14	119	1401208	50.03 ug/L	99
77) 1,2,4-Trimethylbenzene	19.29	105	1731792	51.30 ug/L	98
78) sec-Butylbenzene	19.43	105	2052353	50.47 ug/L	100
79) 1,3-Dichlorobenzene	19.54	146	930005	49.09 ug/L	100
80) 1,4-Dichlorobenzene	19.62	146	912152	47.78 ug/L	100
81) 4-Isopropyltoluene	19.65	119	1797751	48.88 ug/L	100
82) 1,2-Dichlorobenzene	20.06	146	840875	50.63 ug/L	99
83) n-Butylbenzene	20.15	91	1642368	50.15 ug/L	100
84) 1,2-Dibromo-3-chloropropan	20.62	75	59393	51.97 ug/L	92
85) 1,2,4-Trichlorobenzene	22.36	180	664609	56.28 ug/L	99
86) Naphthalene	22.71	128	887008	52.26 ug/L	100
87) Hexachlorobutadiene	22.76	225	422844	47.45 ug/L	99
88) 1,2,3-Trichlorobenzene	22.98	180	535787	56.29 ug/L	100

(#) = qualifier out of range (m) = manual integration
11211117.D 112111.M Tue Nov 22 15:56:33 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211117.D Vial: 12
Acq On : 21 Nov 2011 7:06 pm Operator: KH
Sample : 50.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:56 2011 Quant Results File: 112111.RES

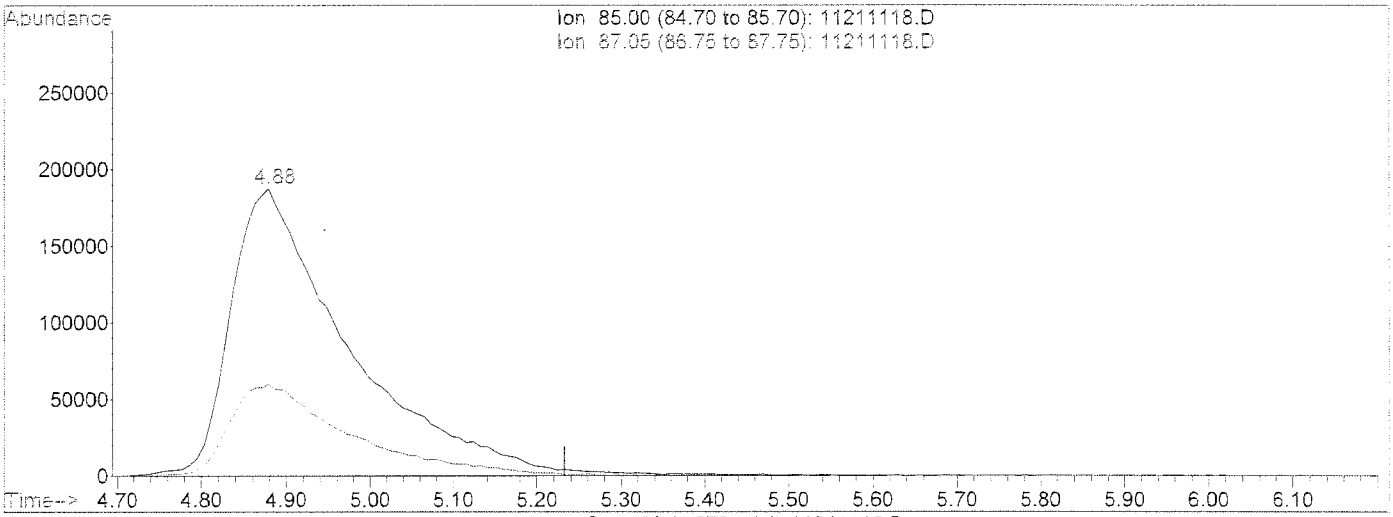
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

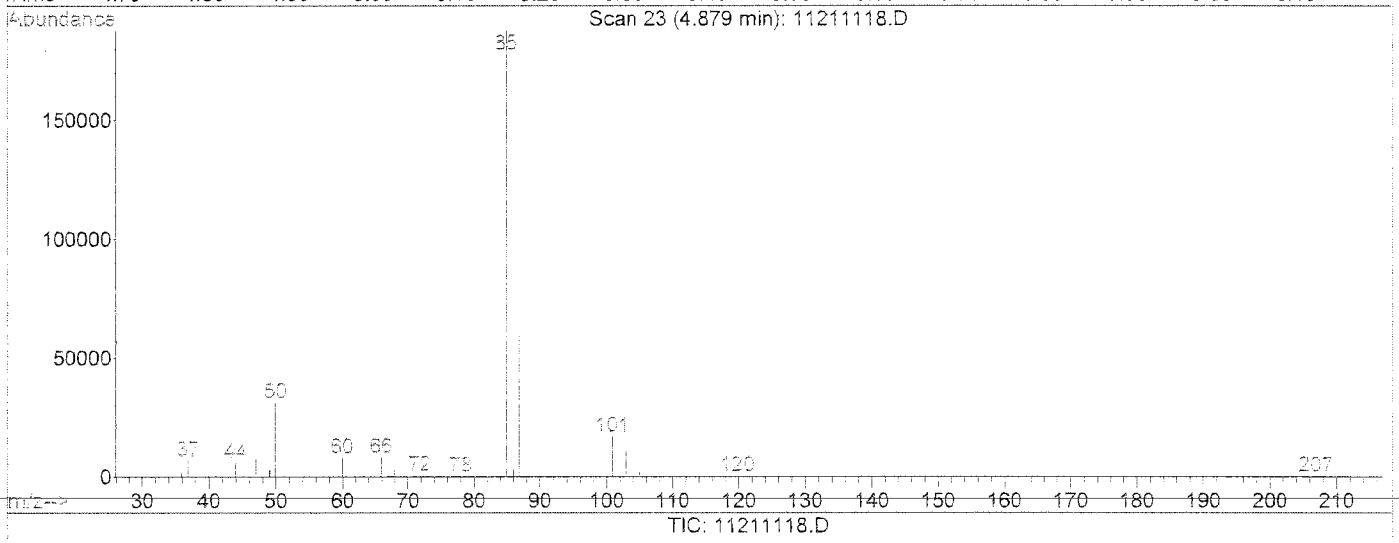


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:53 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





11/23/11

(5) Dichlorodifluoromethane (T)

4.88min 85.69ug/L

response 1789792

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	32.66
0.00	0.00	0.00
0.00	0.00	0.00

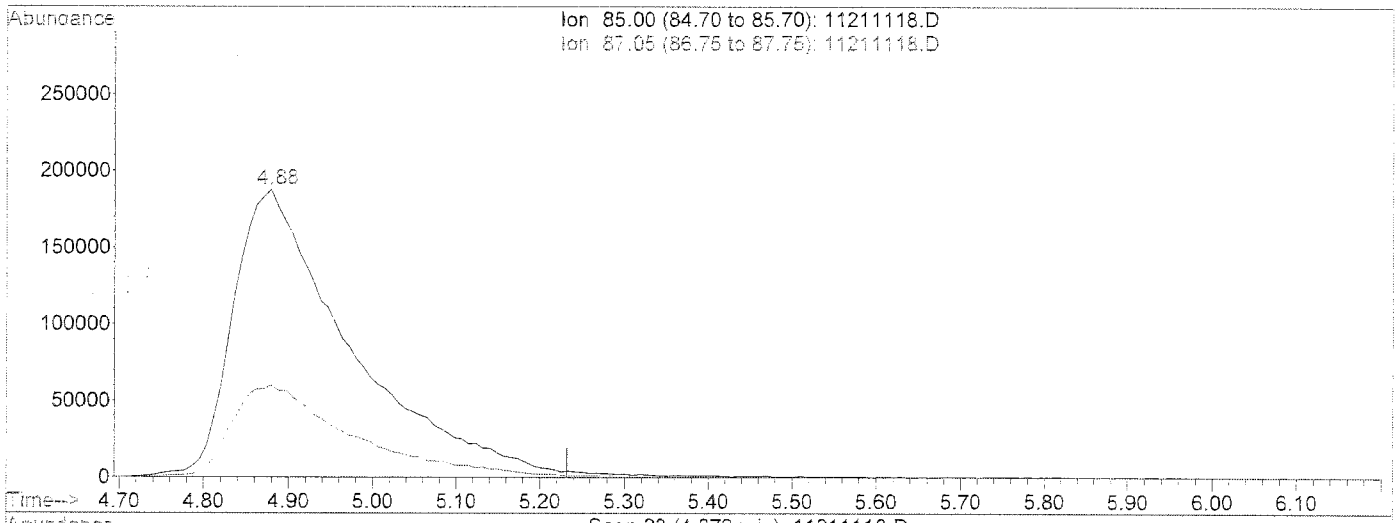
B NIP
11/22/11

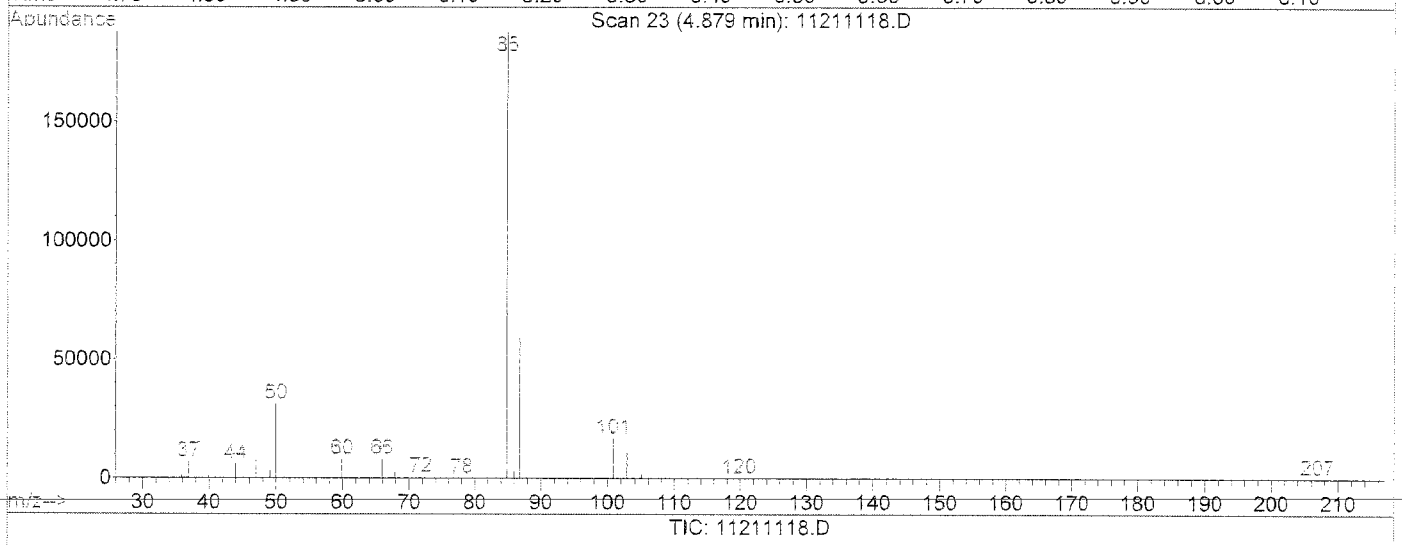
11211118.D 112111.M Tue Nov 22 15:53:48 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:53 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





(5) Dichlorodifluoromethane (T)

4.88min 87.67ug/L m

response 1831049

Ion	Exp%	Act%
85.00	100	100
87.05	31.90	31.93
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

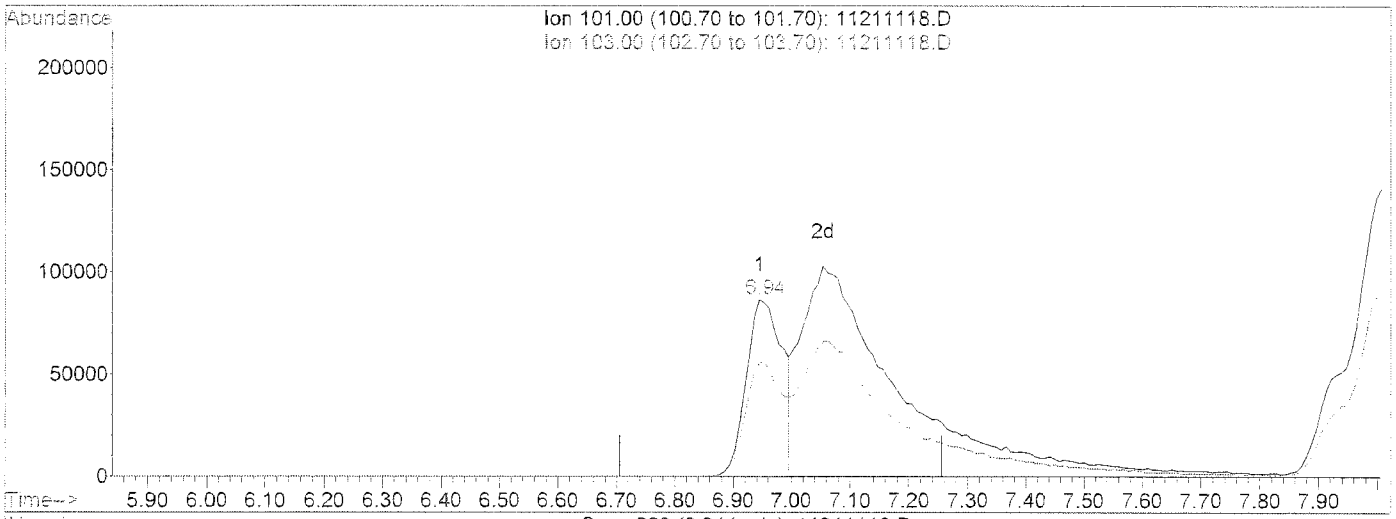
11/22/11

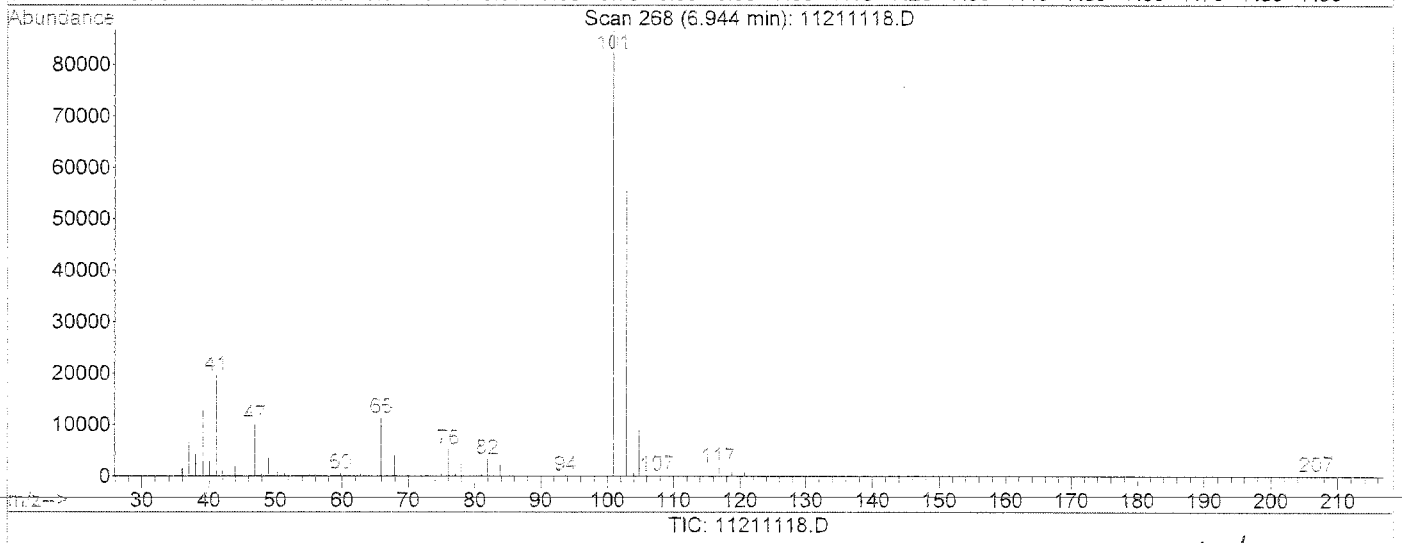
11211118.D 112111.M Tue Nov 22 15:54:08 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:54 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





11/23/11

(12) Trichlorofluoromethane (T)

6.94min 24.21ug/L

response 375098

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	63.93
0.00	0.00	0.00
0.00	0.00	0.00

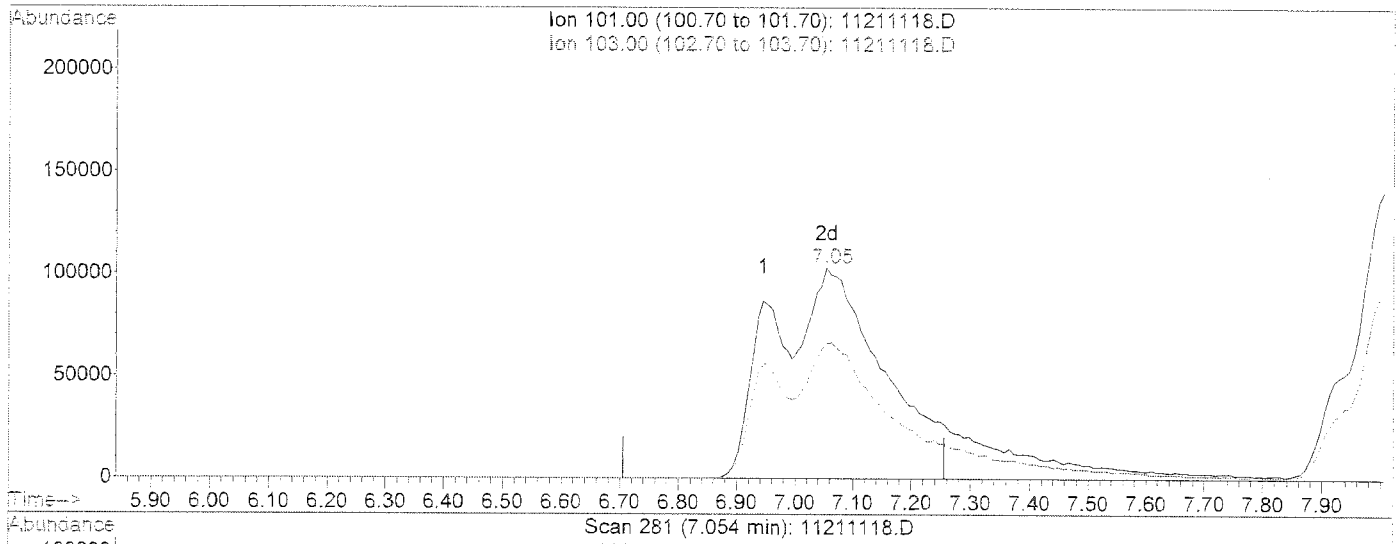
B
NP
11/22/11

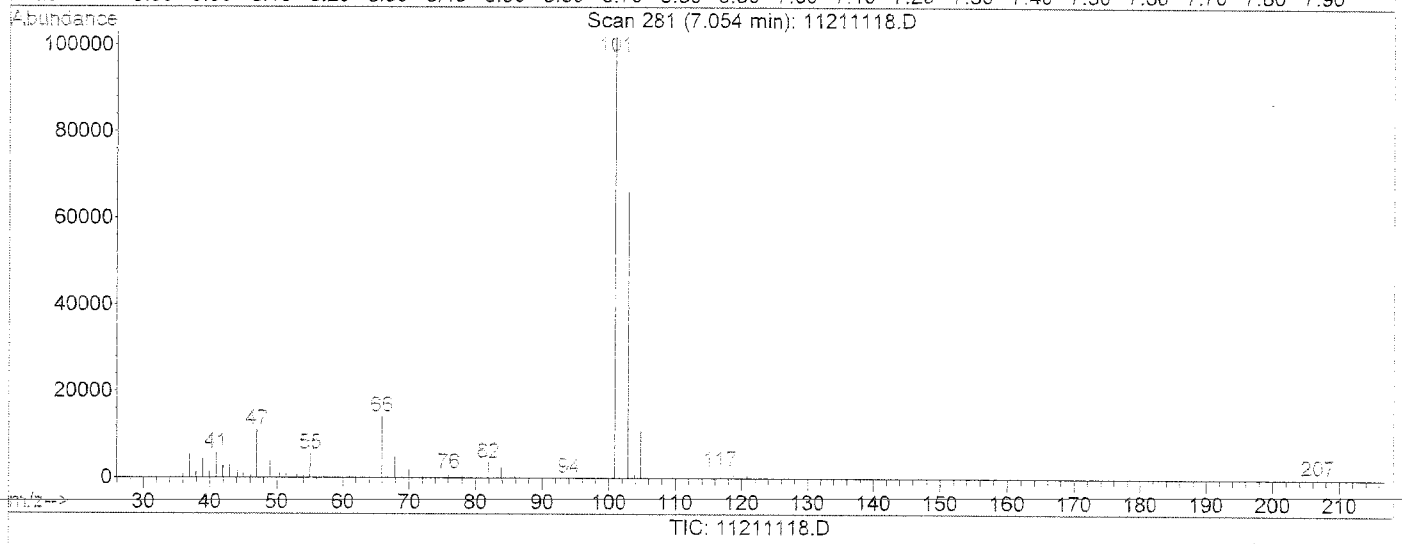
11211118.D 112111.M Tue Nov 22 15:54:18 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:54 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





(12) Trichlorofluoromethane (T)

7.05min 100.88ug/L m

response 1562795

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	64.10
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

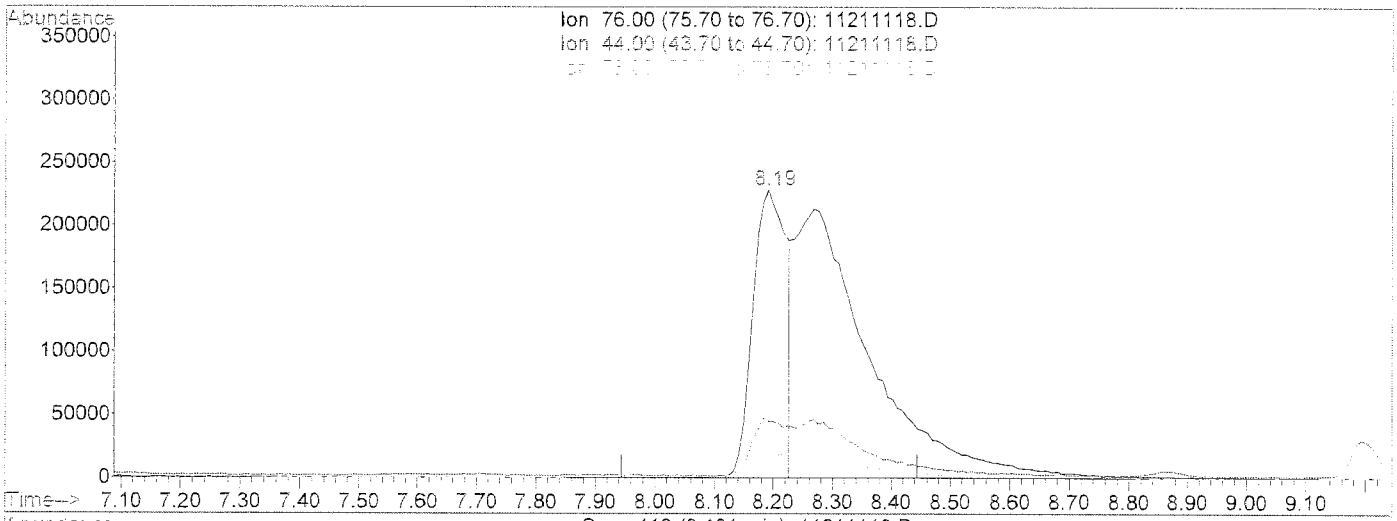
11/22/11

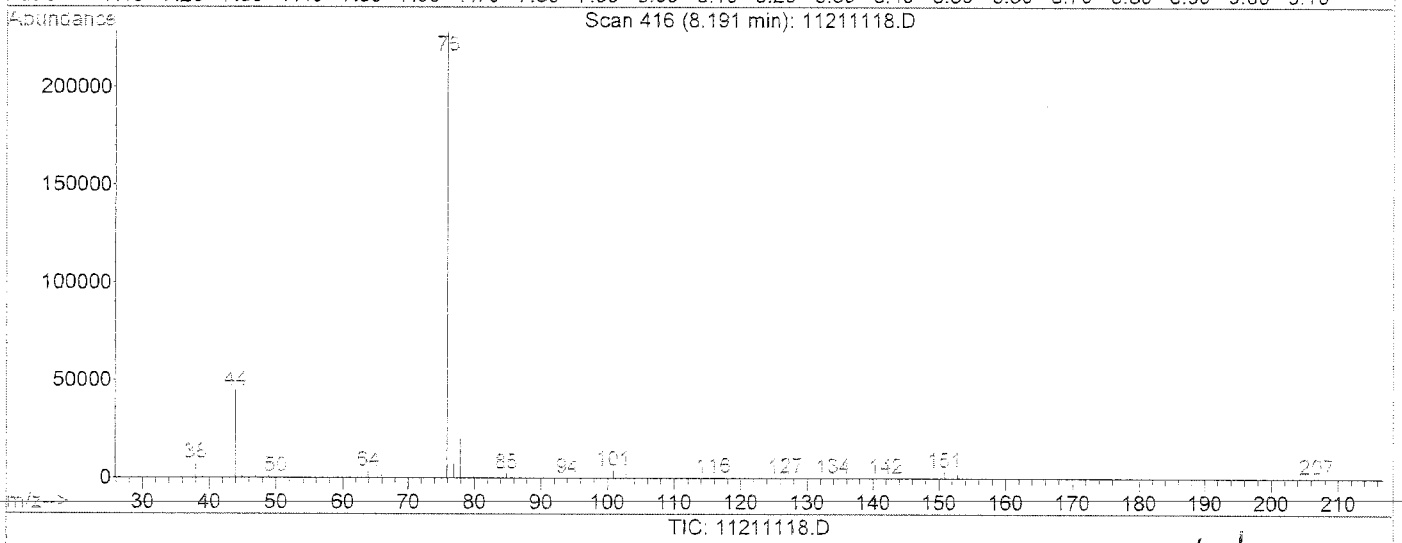
11211118.D 112111.M Tue Nov 22 15:54:45 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:54 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





(19) Carbon Disulfide (T)

8.19min 32.49ug/L

response 887676

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	24.58#
78.00	3.90	9.95#
0.00	0.00	0.00

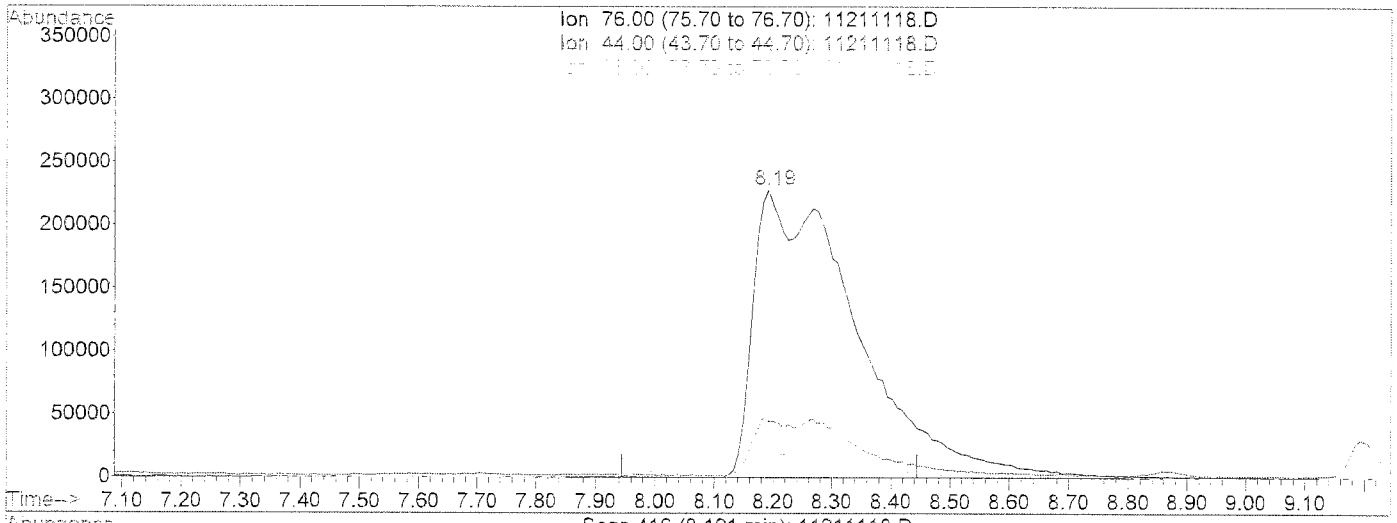
✓ 11/23/11
B NID
✓ 11/22/11

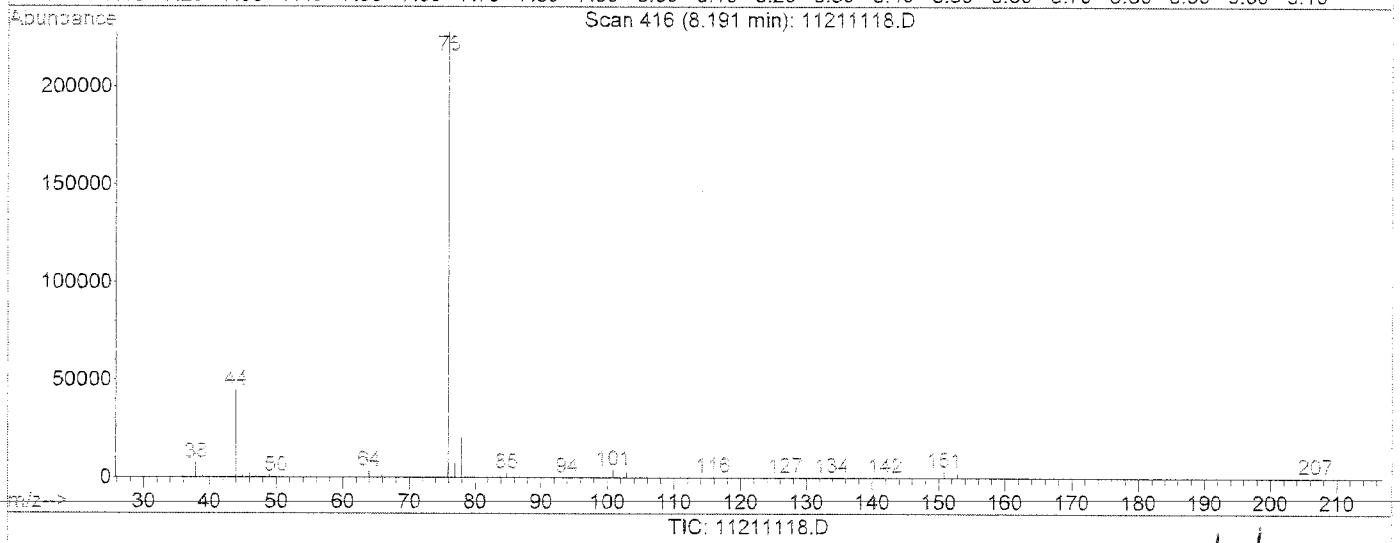
11211118.D 112111.M Tue Nov 22 15:54:56 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:55 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





11/23/11

(19) Carbon Disulfide (T)

8.19min 102.08ug/L m

response 2789200

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	7.82#
78.00	3.90	3.17
0.00	0.00	0.00

A

11/22/11

11211118.D 112111.M Tue Nov 22 15:55:29 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:55 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.58	65	65273	200.00 ug/L	0.00
4) Pentafluorobenzene	10.69	168	351889	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	558739	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.15	117	497846	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	247720	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	217417	23.25 ug/L	0.00
Spiked Amount 25.000			Recovery =	93.00%	
50) Toluene-d8 (surr)	14.19	98	609096	24.91 ug/L	0.00
Spiked Amount 25.000			Recovery =	99.64%	
64) 4-Bromofluorobenzene (surr	17.82	95	262568	22.91 ug/L	0.00
Spiked Amount 25.000			Recovery =	91.64%	

Target Compounds					Qvalue
2) Ethanol	6.18	45	229272	837.43 ug/L	97
3) tert-Butanol (TBA)	7.69	59	480312	459.27 ug/L	100
5) Dichlorodifluoromethane	4.88	85	1831049m	87.67 ug/L	
6) Chloromethane	5.15	50	1542726	78.59 ug/L	99
7) Vinyl Chloride	5.49	62	1192623	79.51 ug/L	98
8) 1,3-Butadiene	5.59	54	768960	87.00 ug/L	97
9) Bromomethane	6.05	94	967189	89.35 ug/L	98
10) Chloroethane	6.20	64	800572	96.84 ug/L	99
11) Acrolein	0.00	56	0	N.D. d	
12) Trichlorofluoromethane	7.05	101	1562795m	100.88 ug/L	
13) Acetone	7.11	43	306315	83.88 ug/L	98
14) Acrylonitrile	0.00	53	0	N.D. d	
15) Iodomethane	7.78	142	1685964	104.76 ug/L	96
16) 1,1-Dichloroethene	7.74	96	918724	101.51 ug/L	97
17) Methylene Chloride	7.86	84	1080678	92.69 ug/L	98
18) Freon 113	8.01	101	942757	96.75 ug/L	98
19) Carbon Disulfide	8.19	76	2789200m	102.08 ug/L	
~~20) trans-1,2-Dichloroethene~~	~~8.73~~	~~96~~	~~1043954~~	~~92.12 ug/L~~	~~99~~
21) MTBE	8.87	73	1457716	113.12 ug/L	98
22) 1,1-Dichloroethane	9.05	63	2179757	92.36 ug/L	99
23) Vinyl Acetate	9.20	43	1830010	105.60 ug/L	99
24) n-Hexane	9.55	86	180769	98.96 ug/L	99
25) 2-Butanone (MEK)	9.59	72	58275	88.93 ug/L #	96
26) Diisopropylether (DIPE)	9.59	45	3733907	95.12 ug/L	96
27) cis-1,2-Dichloroethene	9.78	96	1081354	95.31 ug/L	99
28) Bromochloromethane	9.99	128	492205	92.25 ug/L	93
29) Chloroform	10.05	83	2047134	86.65 ug/L	99
30) 2,2-Dichloropropane	10.16	77	947157	104.62 ug/L	93
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	1601833	109.47 ug/L #	88
33) Tetrahydrofuran	10.48	72	52476	103.07 ug/L	91
34) 1,2-Dichloroethane	10.89	62	1508039	87.62 ug/L	99
35) 1,1,1-Trichloroethane	11.01	97	1643424	91.54 ug/L	98
36) (TAME) tert-Amyl methyl et	11.71	73	949631	112.55 ug/L	96
38) 1,1-Dichloropropene	11.25	75	1380352	100.44 ug/L	98
39) Carbon Tetrachloride	11.49	117	1602862	91.96 ug/L	99
0) Benzene	11.54	78	3283790	92.07 ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:55 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

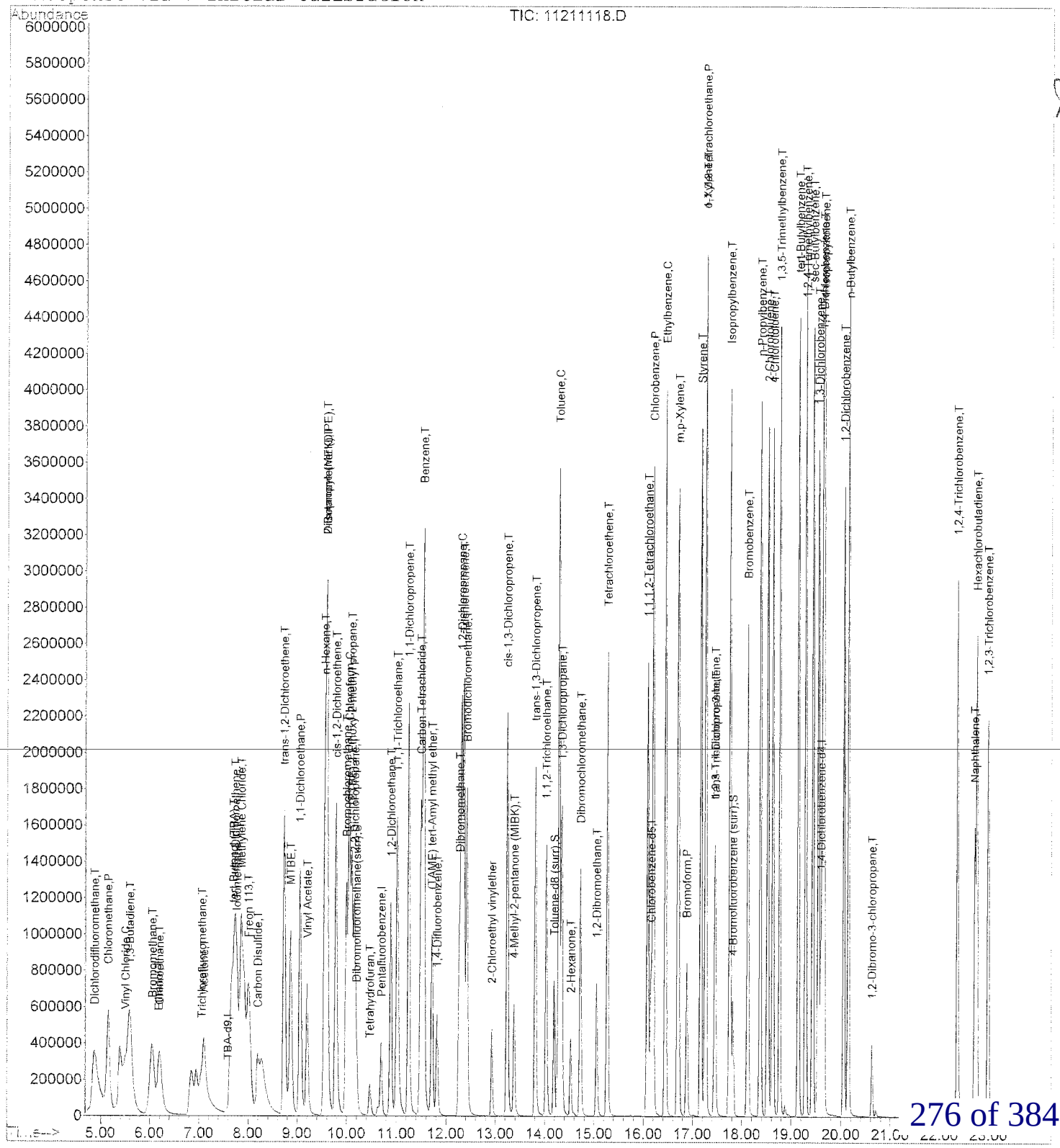
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Dibromomethane	12.26	93	542737	93.53 ug/L	98
42)	1,2-Dichloropropane	12.30	63	920357	91.19 ug/L	98
43)	Trichloroethene	12.35	95	994949	91.08 ug/L	99
44)	Bromodichloromethane	12.41	83	1488800	93.48 ug/L	98
45)	2-Chloroethyl vinylether	12.93	63	235144	103.19 ug/L	98
46)	cis-1,3-Dichloropropene	13.24	75	1452617	97.58 ug/L	98
47)	4-Methyl-2-pentanone (MIBK	13.38	43	631663	106.93 ug/L	97
48)	trans-1,3-Dichloropropene	13.80	75	1276973	98.42 ug/L	98
49)	1,1,2-Trichloroethane	14.02	97	596834	93.52 ug/L	97
51)	Toluene	14.28	92	1923681	91.16 ug/L	99
53)	1,3-Dichloropropane	14.34	76	1047995	90.43 ug/L	99
54)	2-Hexanone	14.53	43	415016	109.14 ug/L	98
55)	Dibromochloromethane	14.72	129	955193	101.76 ug/L	99
56)	1,2-Dibromoethane	15.05	107	665718	102.42 ug/L	98
57)	Tetrachloroethene	15.27	164	738998	95.37 ug/L	98
58)	1,1,1,2-Tetrachloroethane	16.08	131	949562	96.13 ug/L	99
59)	Chlorobenzene	16.19	112	2341008	90.67 ug/L	98
60)	Ethylbenzene	16.44	91	3649221	93.66 ug/L	98
61)	m,p-Xylene	16.70	106	1470329	99.71 ug/L	95
62)	Styrene	17.16	104	2269154	95.46 ug/L	99
63)	o-Xylene	17.26	106	1365802	94.11 ug/L	97
66)	Bromoform	16.88	173	519835	114.32 ug/L	98
67)	1,1,2,2-Tetrachloroethane	17.25	83	522527	83.61 ug/L	97
68)	1,2,3-Trichloropropane	17.44	110	188136	99.04 ug/L	98
69)	trans-1,4-Dichloro-2-buten	17.46	53	274348	100.42 ug/L	96
70)	Isopropylbenzene	17.76	105	3407073	97.18 ug/L	98
71)	Bromobenzene	18.12	156	921877	101.87 ug/L	96
72)	n-Propylbenzene	18.37	91	4114524	97.35 ug/L	97
73)	2-Chlorotoluene	18.52	91	2735231	96.86 ug/L	99
74)	4-Chlorotoluene	18.62	91	2753981	94.24 ug/L	97
75)	1,3,5-Trimethylbenzene	18.77	105	3160582	98.56 ug/L	98
76)	~~tert-Butylbenzene~~	~~19.15~~	~~119~~	~~2678868~~	~~97.86 ug/L~~	~~96~~
77)	1,2,4-Trimethylbenzene	19.29	105	3249565	98.62 ug/L	97
78)	sec-Butylbenzene	19.43	105	3718851	93.70 ug/L	98
79)	1,3-Dichlorobenzene	19.53	146	1767538	95.58 ug/L	99
80)	1,4-Dichlorobenzene	19.62	146	1704943	91.49 ug/L	99
81)	4-Isopropyltoluene	19.65	119	3289895	91.64 ug/L	99
82)	1,2-Dichlorobenzene	20.06	146	1552547	95.76 ug/L	99
83)	n-Butylbenzene	20.15	91	2926935	91.56 ug/L	98
84)	1,2-Dibromo-3-chloropropan	20.62	75	113160	101.44 ug/L	91
85)	1,2,4-Trichlorobenzene	22.36	180	1246030	108.10 ug/L	99
86)	Naphthalene	22.71	128	1624621	97.27 ug/L	100
87)	Hexachlorobutadiene	22.75	225	817891	94.04 ug/L	99
88)	1,2,3-Trichlorobenzene	22.99	180	994183	107.00 ug/L	99

(#) = qualifier out of range (m) = manual integration
11211118.D 112111.M Tue Nov 22 15:55:51 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112111\11211118.D Vial: 13
Acq On : 21 Nov 2011 7:38 pm Operator: KH
Sample : 100.0 PPB CAL PT Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 22 15:55 2011 Quant Results File: 112111.RES

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration



ANALYTICAL DATA

METHOD: 8260

DATE: 11/22/11

WORK ORDER: PUJ0015

TestAmerica
Phoenix

GC/MS 09 DAILY LOG SUMMARY

DATE: 11/22/11

ANALYST: [illegible]

QC BATCH # (s) : 11K0879

SEQUENCE FILE: C:\GCMS9\DATA\ 1122 11 S

CALIBRATION METHOD(S): 112 11 M

POS #	FILENAME	SAMPLE ID.CLIENT	SAMPLE VOL 10 ml √ if OK	pH ≤ 2 √ if OK	EPA METHOD	MATRIX	COMMENTS
	11 22 11 01	Tune	2 mL	NA	8260	NA	
2	02	25ppb CCV	✓			H_2O	
3	03	11K0879-BS1	✓				
4	04	-BSD1	✓				
5	05	-MS1	✓	✓			
5 6	06	-MSD1	✓	✓			PUK1044-03A
6 7	07	Blank	✓	NA			
7 8	08	11K0879-BLK1	✓				cleanout
8 9	09	PUK1044-01A@TB	✓	✓			
9 10	10	1116-04A	✓	✓			
10 11	11	1123-04A	✓	✓			
11 12	12	1044-03B	✓	✓			
12 13	13	1127-02B	✓	✓			Surrogate
13 14	14	1044-02A	✓	✓			
14 15	15	1116-01A	✓	✓			
15 16	16	-02A	✓	✓			
16 17	17	-03A	✓	✓			
17 18	18	1123-01A	✓	✓			
18 19	19	-02A	✓	✓			
19 20	20	1127-01A	✓	✓			
20 21	21	-03A	✓	✓			
21	22	-04A	✓	✓			RR 10x TCE
22	23	Blank	✓	NA			cleanout

[illegible] 11/23/11

STANDARD ID NUMBERS

ICV / H_2O LCS: PU07128

CCV/CALIBRATION STD: PU07078

IS/Surrogate: PU07118

BFB: PU06988

REQUIRED REVIEWS

25 ppb CCV PREPARATION: 25 mL CCV STD → 50 mL H_2O

NA PREPARATION: NA

ARCHON REVIEWED By/Date: [illegible] 11/23

SEQUENCE REVIEWED By/Date: [illegible]

FINAL REVIEWER / Date: [illegible] 11/23/11

[illegible] 11/23/11

PX-VOA-002-F-09/11

Injection Log

Directory: C:\HPCHEM\1\GCMS9\DATA\112211

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	11221101.D	1.	TUNE		22 Nov 2011 13:05
2	2	11221102.D	1.	25 PPB CCV		22 Nov 2011 13:31
3	3	11221103.D	1.	11K0879-BS1		22 Nov 2011 14:04
4	4	11221104.D	1.	11K0879-BSD1		22 Nov 2011 14:36
5	5	11221105.D	1.	11K0879-MS1		22 Nov 2011 15:15
6	5	11221106.D	1.	11K0879-MSD1		22 Nov 2011 15:47
7	6	11221107.D	1.	BLANK		22 Nov 2011 16:18
8	7	11221108.D	1.	11K0879-BLK1		22 Nov 2011 16:50
9	8	11221109.D	1.	PUK1044-01@TB		22 Nov 2011 17:22
10	9	11221110.D	1.	PUK1116-04@TB		22 Nov 2011 17:54
11	10	11221111.D	1.	PUK1123-04@TB		22 Nov 2011 18:25
12	11	11221112.D	1.	PUK1044-03		22 Nov 2011 18:57
13	12	11221113.D	1.	PUK1127-02		22 Nov 2011 19:29
14	13	11221114.D	1.	PUK1044-02		22 Nov 2011 20:00
15	14	11221115.D	1.	PUK1116-01		22 Nov 2011 20:32
16	15	11221116.D	1.	PUK1116-02		22 Nov 2011 21:04
17	16	11221117.D	1.	PUK1116-03		22 Nov 2011 21:36
18	17	11221118.D	1.	PUK1123-01		22 Nov 2011 22:08
19	18	11221119.D	1.	PUK1123-02		22 Nov 2011 22:39
20	19	11221120.D	1.	PUK1127-01		22 Nov 2011 23:11
21	20	11221121.D	1.	PUK1127-03		22 Nov 2011 23:42
22	21	11221122.D	1.	PUK1127-04		23 Nov 2011 00:14
23	22	11221123.D	1.	BLANK		23 Nov 2011 00:45

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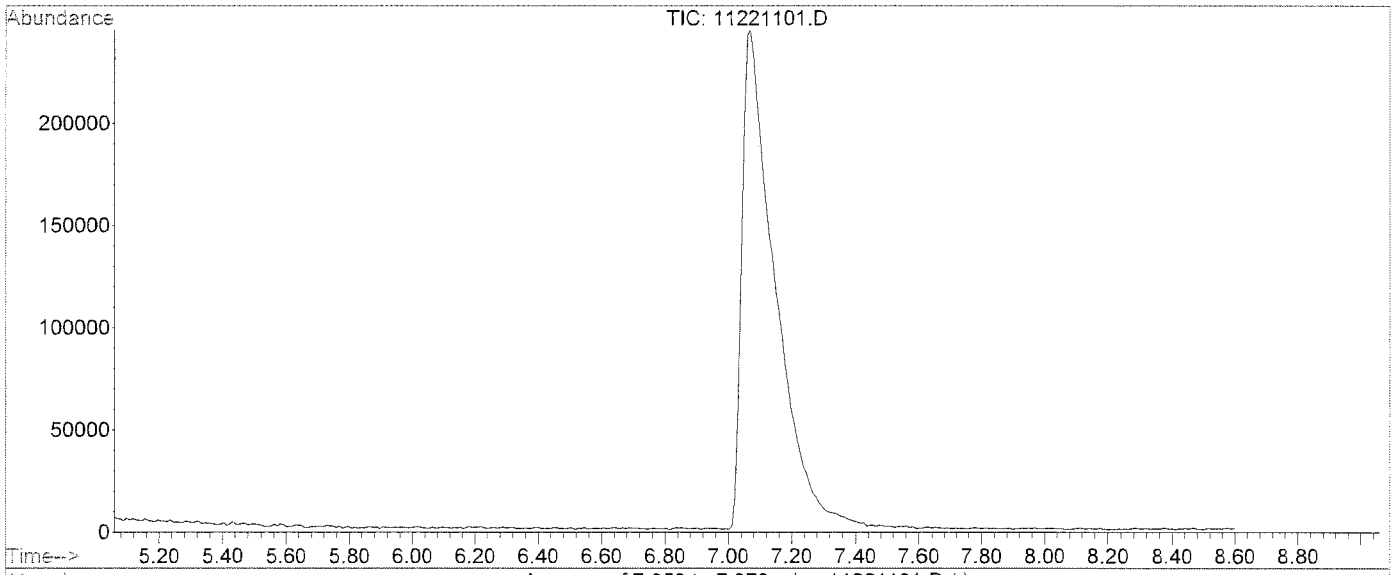
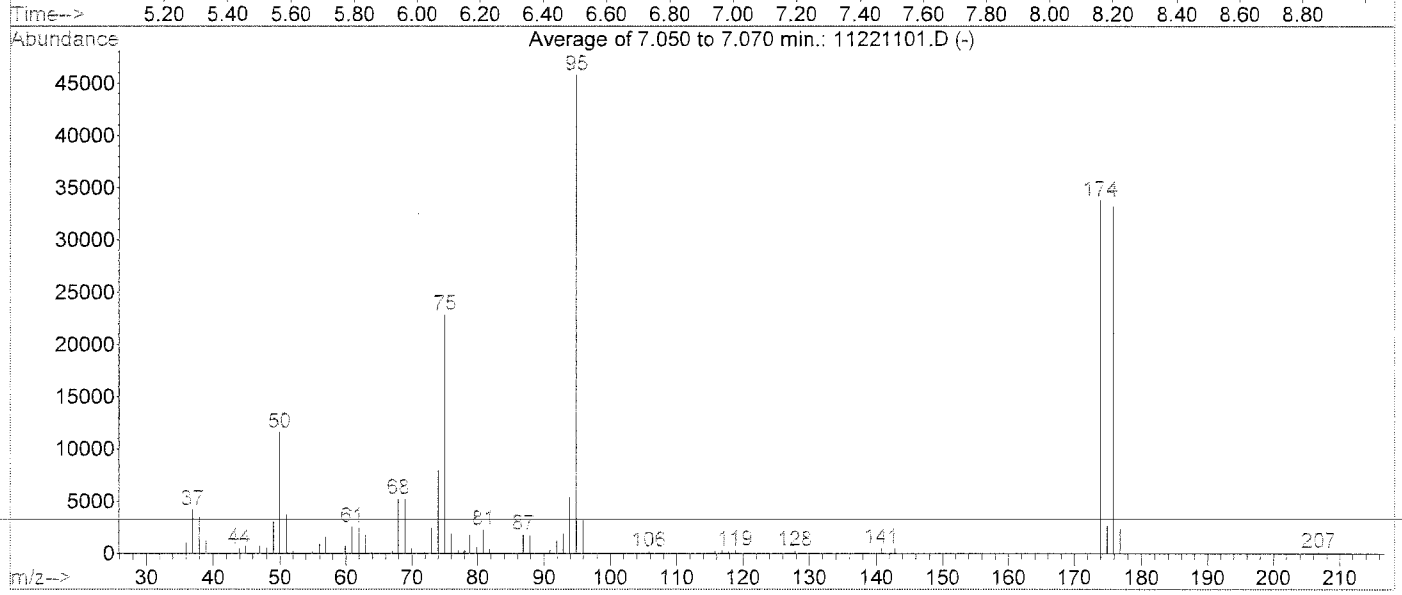
11/12/11

Method 8260

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221101.D Vial: 1
Acq On : 22 Nov 2011 1:05 pm Operator: KH
Sample : TUNE Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260





Spectrum Information: Average of 7.050 to 7.070 min.

11/23/11

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.3	11572	PASS
75	95	30	60	49.8	22819	PASS
95	95	100	100	100.0	45792	PASS
96	95	5	9	7.0	3187	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	73.8	33776	PASS
175	174	5	9	7.8	2625	PASS
176	174	95	101	98.3	33197	PASS
177	176	5	9	7.1	2341	PASS

11221101.D 112111.M Wed Nov 23 07:04:35 2011

8260 CCV/ICV Custom Report

Data File Name	11221102.D
Data File Path	C:\HPCHEM\1\GCMS9\DATA\112211\
Operator	KH
Date Acquired	11/22/2011 1:31
Acq. Method File	8260C
Sample Name	25 PPB CCV
Instrument Name	GCMS9

11/23/11

Name	Target Response	ICAL Response	Low	High	T/F
TBA-d9	47922	48124	24062	96248	TRUE
Pentafluorobenzene	343131	302344	151172	604688	TRUE
1,4-Difluorobenzene	521522	483112	241556	966224	TRUE
Chlorobenzene-d5	437716	429428	214714	858856	TRUE
1,4-Dichlorobenzene-d4	224702	231815	115907.5	463630	TRUE

Name	Amount	Spike Level	%REC.	Low	High	T/F
Ethanol	215.80	250	86%	36%	150%	TRUE
tert-Butanol (TBA)	86.14	125	69%	70%	134%	FALSE NT
Dichlorodifluoromethane	22.21	25	89%	60%	140%	TRUE
Chloromethane	21.82	25	87%	48%	144%	TRUE
Vinyl Chloride	23.66	25	95%	80%	120%	TRUE
1,3-Butadiene	23.40	25	94%	50%	141%	TRUE
Bromomethane	21.75	25	87%	40%	144%	TRUE
Chloroethane	24.15	25	97%	60%	132%	TRUE
Acrolein	0.00	25	0%	80%	120%	FALSE NT
Trichlorofluoromethane	26.09	25	104%	68%	136%	TRUE
Acetone	34.10	25	136%	12%	150%	TRUE
Acrylonitrile	0.00	25	0%	80%	120%	FALSE NT
Iodomethane	22.93	25	92%	40%	150%	TRUE
1,1-Dichloroethene	23.95	25	96%	80%	120%	TRUE
Methylene Chloride	21.94	25	88%	68%	128%	TRUE
Freon 113	23.43	25	94%	76%	124%	TRUE
Carbon Disulfide	23.91	25	96%	64%	136%	TRUE
trans-1,2-Dichloroethene	23.27	25	93%	76%	120%	TRUE
MTBE	23.50	25	94%	64%	140%	TRUE
1,1-Dichloroethane	22.12	25	88%	72%	124%	TRUE
Vinyl Acetate	19.75	25	79%	48%	150%	TRUE
n-Hexane	26.26	25	105%	56%	150%	TRUE
2-Butanone (MEK)	27.16	25	109%	44%	150%	TRUE
Diisopropylether (DIPE)	22.97	25	92%	72%	132%	TRUE
cis-1,2-Dichloroethene	23.03	25	92%	72%	128%	TRUE
Bromochloromethane	22.17	25	89%	72%	132%	TRUE
Chloroform	21.21	25	85%	80%	120%	TRUE
2,2-Dichloropropane	23.73	25	95%	64%	140%	TRUE
(ETBE) 2-Ethoxy-2-methyl propane	21.46	25	86%	72%	140%	TRUE
Dibromofluoromethane(surr)	24.25	25	97%	80%	120%	TRUE
Tetrahydrofuran	20.97	25	84%	64%	139%	TRUE
1,2-Dichloroethane	21.09	25	84%	68%	136%	TRUE

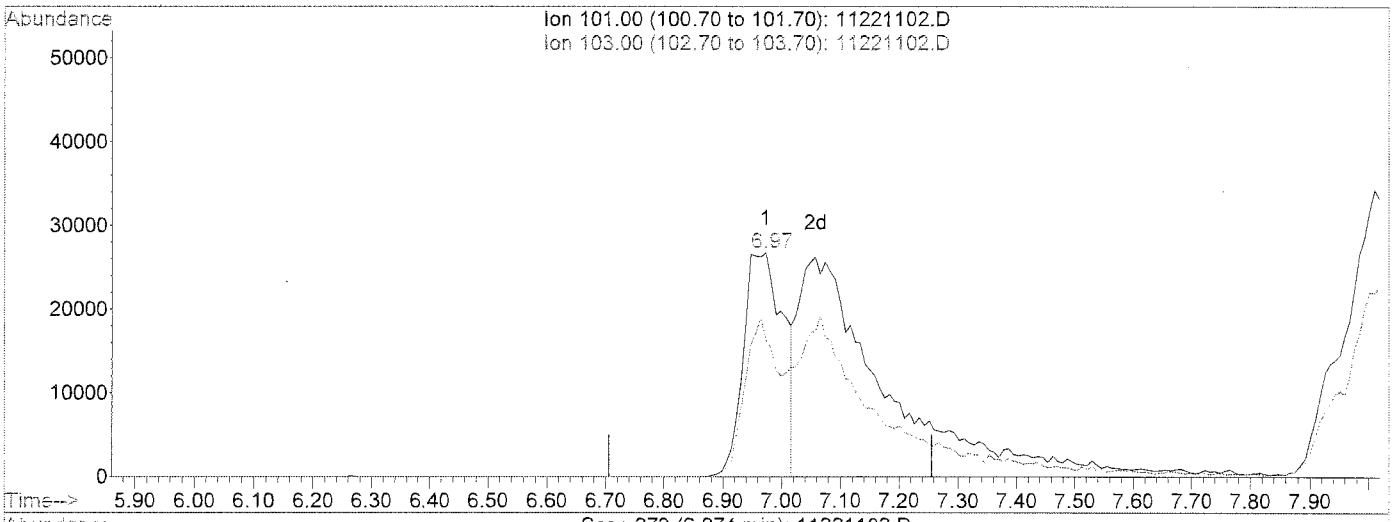
11/23/11

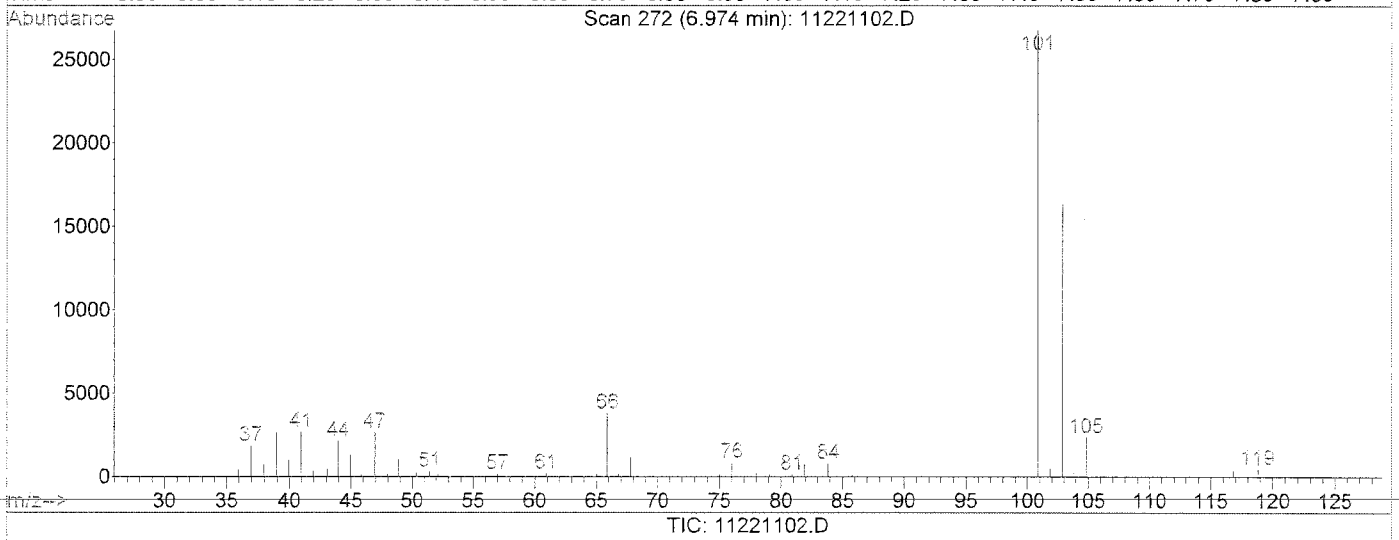
1,1,1-Trichloroethane	22.16	25	89%	72%	132%	TRUE
(TAME) tert-Amyl methyl ether	19.72	25	79%	68%	140%	TRUE
1,1-Dichloropropene	25.09	25	100%	76%	128%	TRUE
Carbon Tetrachloride	23.43	25	94%	72%	136%	TRUE
Benzene	23.51	25	94%	76%	120%	TRUE
Dibromomethane	23.13	25	93%	72%	132%	TRUE
1,2-Dichloropropane	23.28	25	93%	80%	120%	TRUE
Trichloroethene	22.70	25	91%	80%	120%	TRUE
Bromodichloromethane	22.79	25	91%	76%	128%	TRUE
2-Chloroethyl vinylether	22.38	25	90%	10%	150%	TRUE
cis-1,3-Dichloropropene	23.77	25	95%	76%	136%	TRUE
4-Methyl-2-pentanone (MIBK)	24.26	25	97%	60%	144%	TRUE
trans-1,3-Dichloropropene	23.23	25	93%	68%	140%	TRUE
1,1,2-Trichloroethane	22.64	25	91%	72%	132%	TRUE
Toluene-d8 (surr)	24.58	25	98%	80%	120%	TRUE
Toluene	23.06	25	92%	80%	120%	TRUE
1,3-Dichloropropane	24.08	25	96%	80%	124%	TRUE
2-Hexanone	31.98	25	128%	52%	150%	TRUE
Dibromochloromethane	25.49	25	102%	80%	128%	TRUE
1,2-Dibromoethane	25.83	25	103%	80%	128%	TRUE
Tetrachloroethene	24.30	25	97%	76%	128%	TRUE
1,1,1,2-Tetrachloroethane	24.41	25	98%	76%	124%	TRUE
Chlorobenzene	24.21	25	97%	80%	120%	TRUE
Ethylbenzene	26.29	25	105%	80%	120%	TRUE
m,p-Xylene	26.53	25	106%	80%	120%	TRUE
Styrene	25.98	25	104%	84%	124%	TRUE
o-Xylene	26.69	25	107%	72%	128%	TRUE
4-Bromofluorobenzene (surr)	24.68	25	99%	80%	120%	TRUE
Bromoform	26.48	25	106%	68%	132%	TRUE
1,1,2,2-Tetrachloroethane	23.66	25	95%	68%	132%	TRUE
1,2,3-Trichloropropane	25.15	25	101%	76%	128%	TRUE
trans-1,4-Dichloro-2-butene	25.84	25	103%	48%	138%	TRUE
Isopropylbenzene	26.26	25	105%	76%	132%	TRUE
Bromobenzene	26.77	25	107%	76%	128%	TRUE
n-Propylbenzene	26.98	25	108%	76%	132%	TRUE
2-Chlorotoluene	26.42	25	106%	80%	124%	TRUE
4-Chlorotoluene	26.22	25	105%	80%	124%	TRUE
1,3,5-Trimethylbenzene	27.13	25	109%	80%	128%	TRUE
tert-Butylbenzene	26.26	25	105%	76%	132%	TRUE
1,2,4-Trimethylbenzene	27.33	25	109%	80%	128%	TRUE
sec-Butylbenzene	26.52	25	106%	80%	128%	TRUE
1,3-Dichlorobenzene	25.18	25	101%	80%	124%	TRUE
1,4-Dichlorobenzene	24.92	25	100%	76%	120%	TRUE
4-Isopropyltoluene	25.60	25	102%	80%	128%	TRUE
1,2-Dichlorobenzene	25.73	25	103%	80%	124%	TRUE
n-Butylbenzene	26.94	25	108%	76%	132%	TRUE
1,2-Dibromo-3-chloropropane	24.73	25	99%	64%	128%	TRUE
1,2,4-Trichlorobenzene	26.64	25	107%	76%	128%	TRUE
Naphthalene	23.62	25	94%	68%	136%	TRUE
Hexachlorobutadiene	23.88	25	96%	76%	132%	TRUE
1,2,3-Trichlorobenzene	25.47	25	102%	72%	128%	TRUE

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221102.D Vial: 2
Acq On : 22 Nov 2011 1:31 pm Operator: KH
Sample : 25 PPB CCV Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:05 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221102.D

(12) Trichlorofluoromethane (T)

6.97min 8.32ug/L

response 125622

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	61.08
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

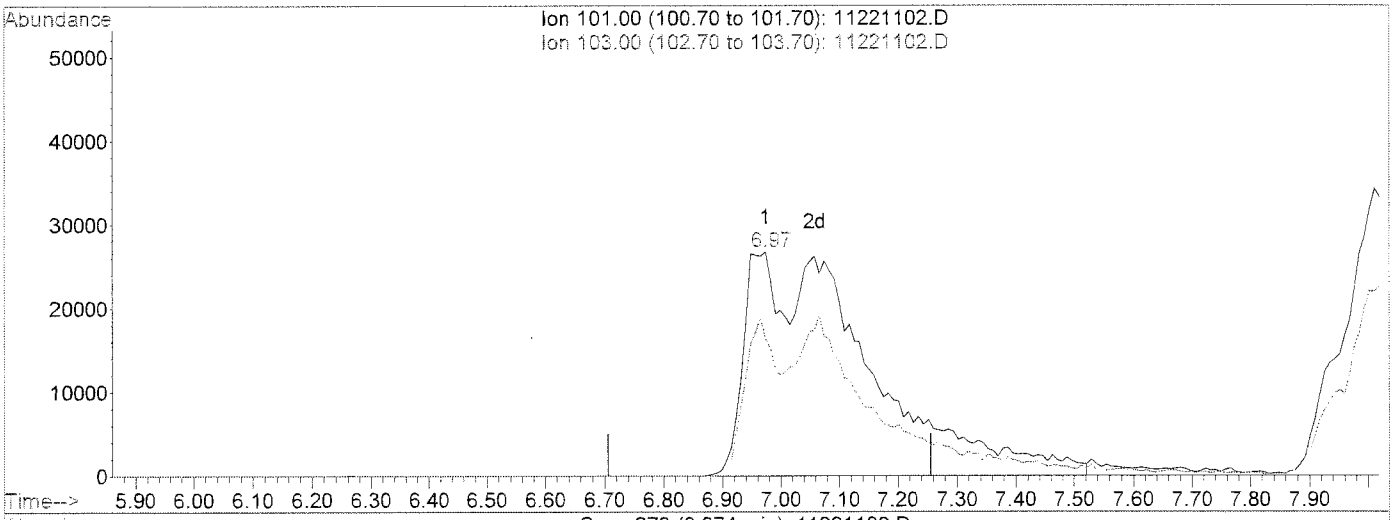
Before-NH

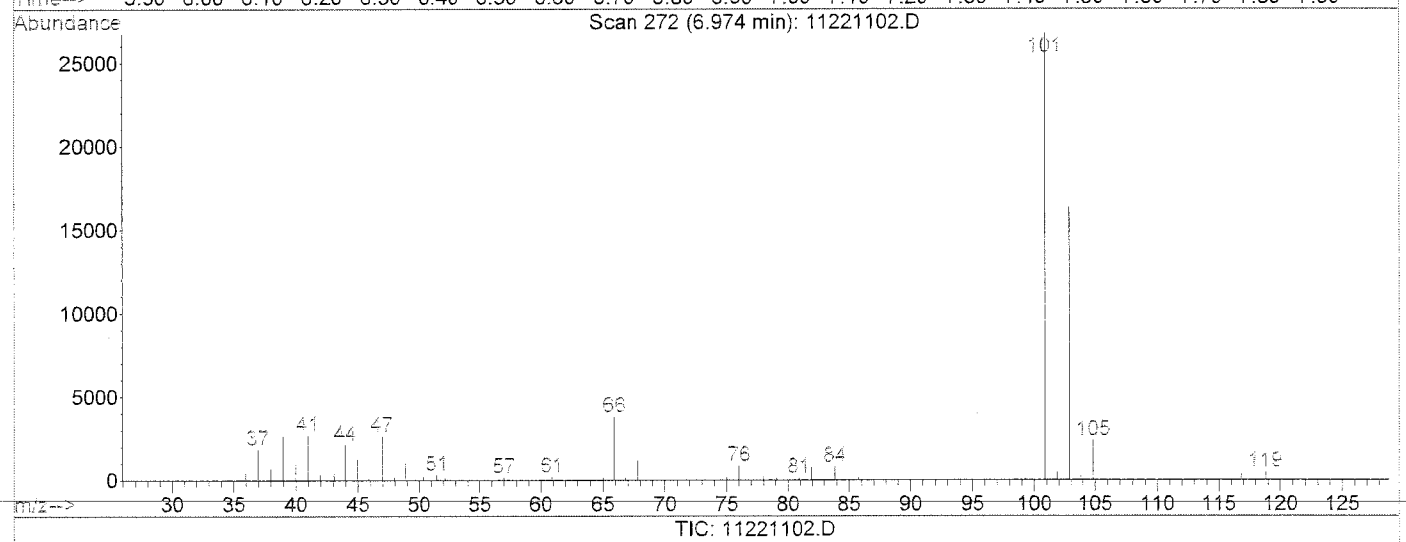
11221102.D 112111.M Wed Nov 23 07:05:38 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221102.D Vial: 2
Acq On : 22 Nov 2011 1:31 pm Operator: KH
Sample : 25 PPB CCV Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:05 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221102.D

(12) Trichlorofluoromethane (T)

6.97min 26.09ug/L m

response 394098

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	61.08
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

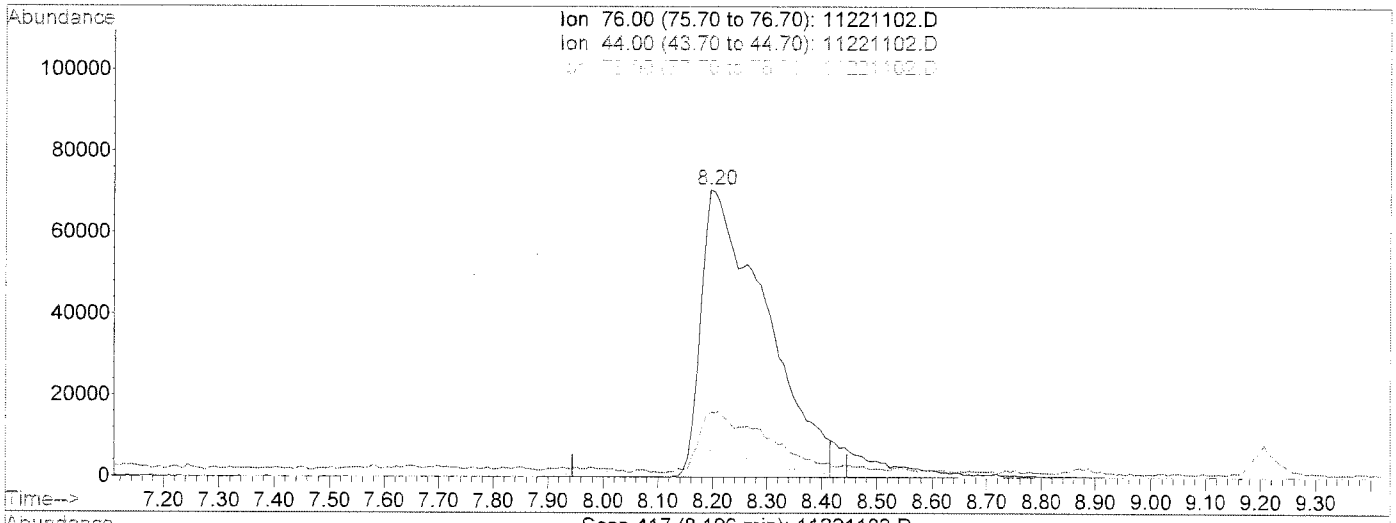
After

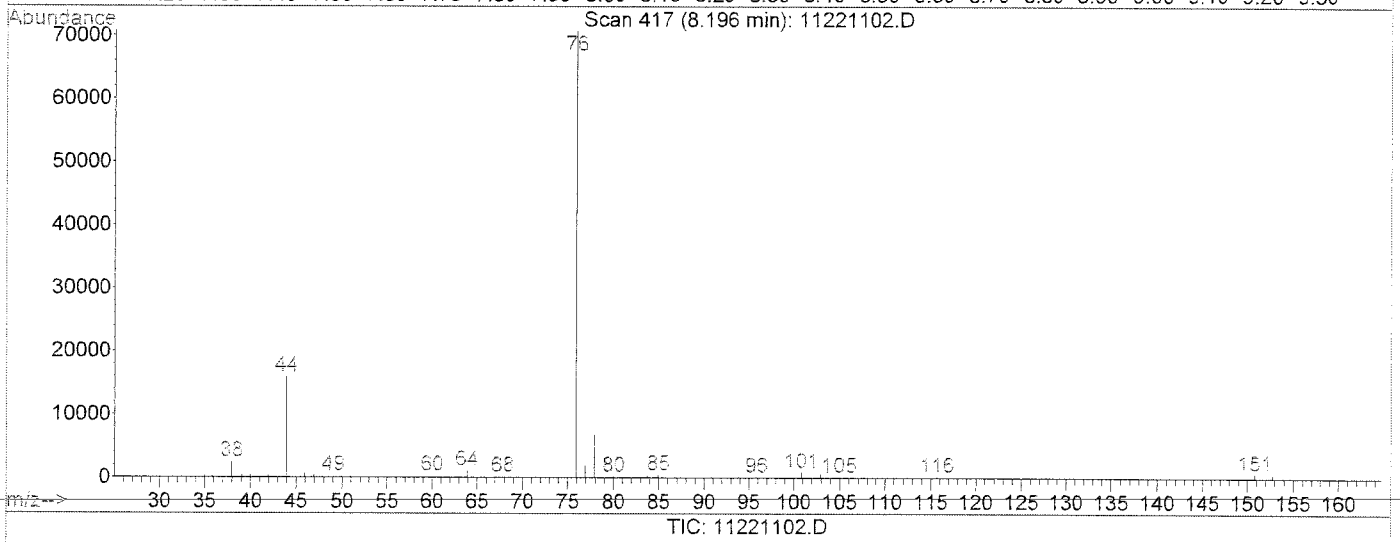
11221102.D 112111.M Wed Nov 23 07:05:45 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221102.D Vial: 2
Acq On : 22 Nov 2011 1:31 pm Operator: KH
Sample : 25 PPB CCV Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:05 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221102.D

(19) Carbon Disulfide (T)

8.20min 21.98ug/L

response 585583

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	11.33#
78.00	3.90	4.62
0.00	0.00	0.00

11/23/11

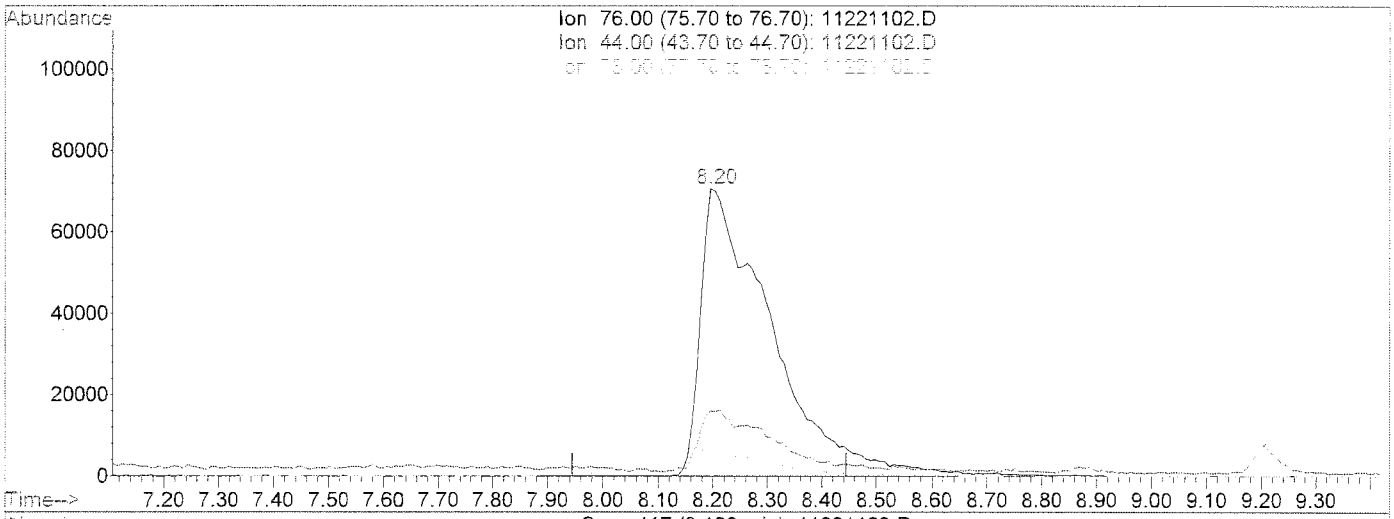
Before-NH

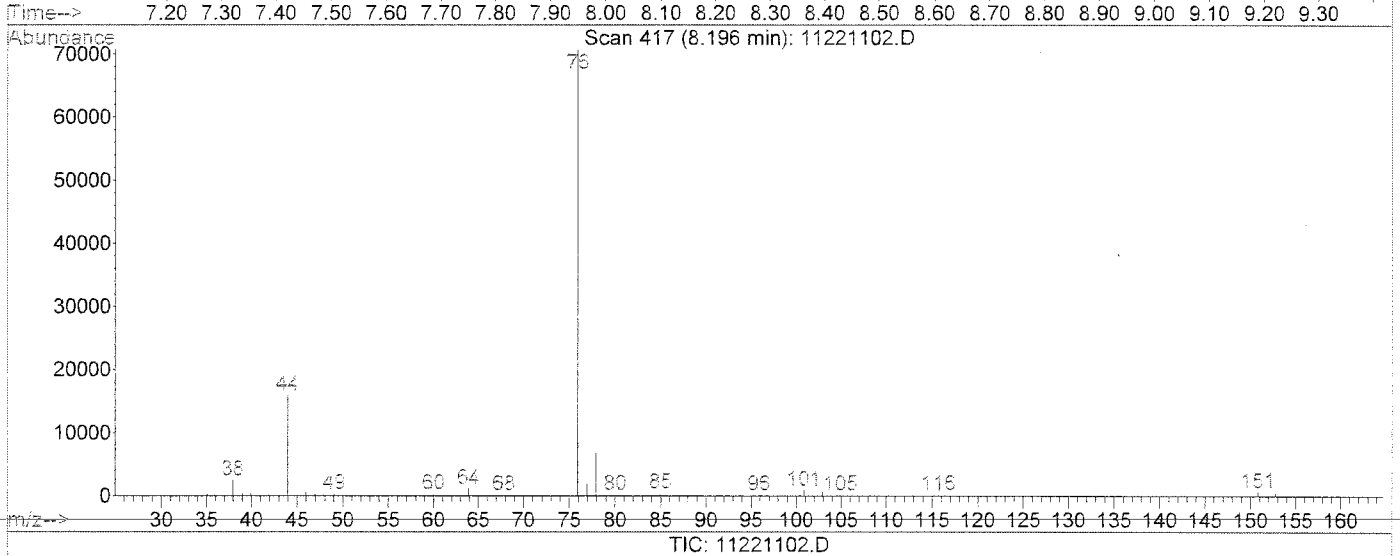
11221102.D 112111.M Wed Nov 23 07:05:52 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221102.D Vial: 2
Acq On : 22 Nov 2011 1:31 pm Operator: KH
Sample : 25 PPB CCV Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:05 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221102.D

(19) Carbon Disulfide (T)

8.20min 23.91ug/L m

response 637151

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	10.41#
78.00	3.90	4.24
0.00	0.00	0.00

11/23/11

After

11/23/11

11221102.D 112111.M Wed Nov 23 07:06:03 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221102.D Vial: 2
Acq On : 22 Nov 2011 1:31 pm Operator: KH
Sample : 25 PPB CCV Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:05 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.58	65	47922	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	343131	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	521522	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.15	117	437716	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	224702	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	221065	24.25 ug/L	0.00
Spiked Amount 25.000			Recovery =	97.00%	
50) Toluene-d8 (surr)	14.20	98	561107	24.58 ug/L	0.00
Spiked Amount 25.000			Recovery =	98.32%	
64) 4-Bromofluorobenzene (surr	17.82	95	248730	24.68 ug/L	0.00
Spiked Amount 25.000			Recovery =	98.72%	

Target Compounds					Qvalue
2) Ethanol	6.17	45	43376	215.80 ug/L	97
3) tert-Butanol (TBA)	7.71	59	66139	86.14 ug/L	96
5) Dichlorodifluoromethane	4.88	85	452373	22.21 ug/L	99
6) Chloromethane	5.16	50	417567	21.82 ug/L	97
7) Vinyl Chloride	5.49	62	346089	23.66 ug/L	92
8) 1,3-Butadiene	5.59	54	201667	23.40 ug/L	96
9) Bromomethane	6.05	94	229554	21.75 ug/L	97
10) Chloroethane	6.21	64	194639	24.15 ug/L	99
12) Trichlorofluoromethane	6.97	101	394098m	26.09 ug/L	
13) Acetone	7.11	43	121445	34.10 ug/L	100
15) Iodomethane	7.76	142	359767	22.93 ug/L	99
16) 1,1-Dichloroethene	7.70	96	211351	23.95 ug/L	99
17) Methylene Chloride	7.88	84	249493	21.94 ug/L	99
18) Freon 113	8.01	101	222638	23.43 ug/L	98
19) Carbon Disulfide	8.20	76	637151m	23.91 ug/L	
20) trans-1,2-Dichloroethene	8.74	96	257165	23.27 ug/L	100
21) MTBE	8.88	73	295239	23.50 ug/L	98
~~22) 1,1-Dichloroethane~~	~~9.06~~	~~63~~	~~509094~~	~~22.12 ug/L~~	~~99~~
23) Vinyl Acetate	9.21	43	318344	19.75 ug/L	99
24) n-Hexane	9.57	86	46771	26.26 ug/L	96
25) 2-Butanone (MEK)	9.59	72	17355	27.16 ug/L #	53
26) Diisopropylether (DIPE)	9.59	45	879243	22.97 ug/L	98
27) cis-1,2-Dichloroethene	9.79	96	254773	23.03 ug/L	99
28) Bromochloromethane	10.00	128	115353	22.17 ug/L	98
29) Chloroform	10.06	83	488629	21.21 ug/L	99
30) 2,2-Dichloropropane	10.17	77	209528	23.73 ug/L	95
31) (ETBE) 2-Ethoxy-2-methyl p	10.11	59	306129	21.46 ug/L	99
33) Tetrahydrofuran	10.49	72	10410	20.97 ug/L #	84
34) 1,2-Dichloroethane	10.89	62	353877	21.09 ug/L	100
35) 1,1,1-Trichloroethane	11.03	97	387880	22.16 ug/L	100
36) (TAME) tert-Amyl methyl et	11.72	73	162265	19.72 ug/L	99
38) 1,1-Dichloropropene	11.25	75	321851	25.09 ug/L	99
39) Carbon Tetrachloride	11.50	117	381179	23.43 ug/L	98
40) Benzene	11.55	78	782749	23.51 ug/L	100
41) Dibromomethane	12.27	93	125277	23.13 ug/L	99
42) 1,2-Dichloropropane	12.32	63	219292	23.28 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221102.D Vial: 2
Acq On : 22 Nov 2011 1:31 pm Operator: KH
Sample : 25 PPB CCV Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:05 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

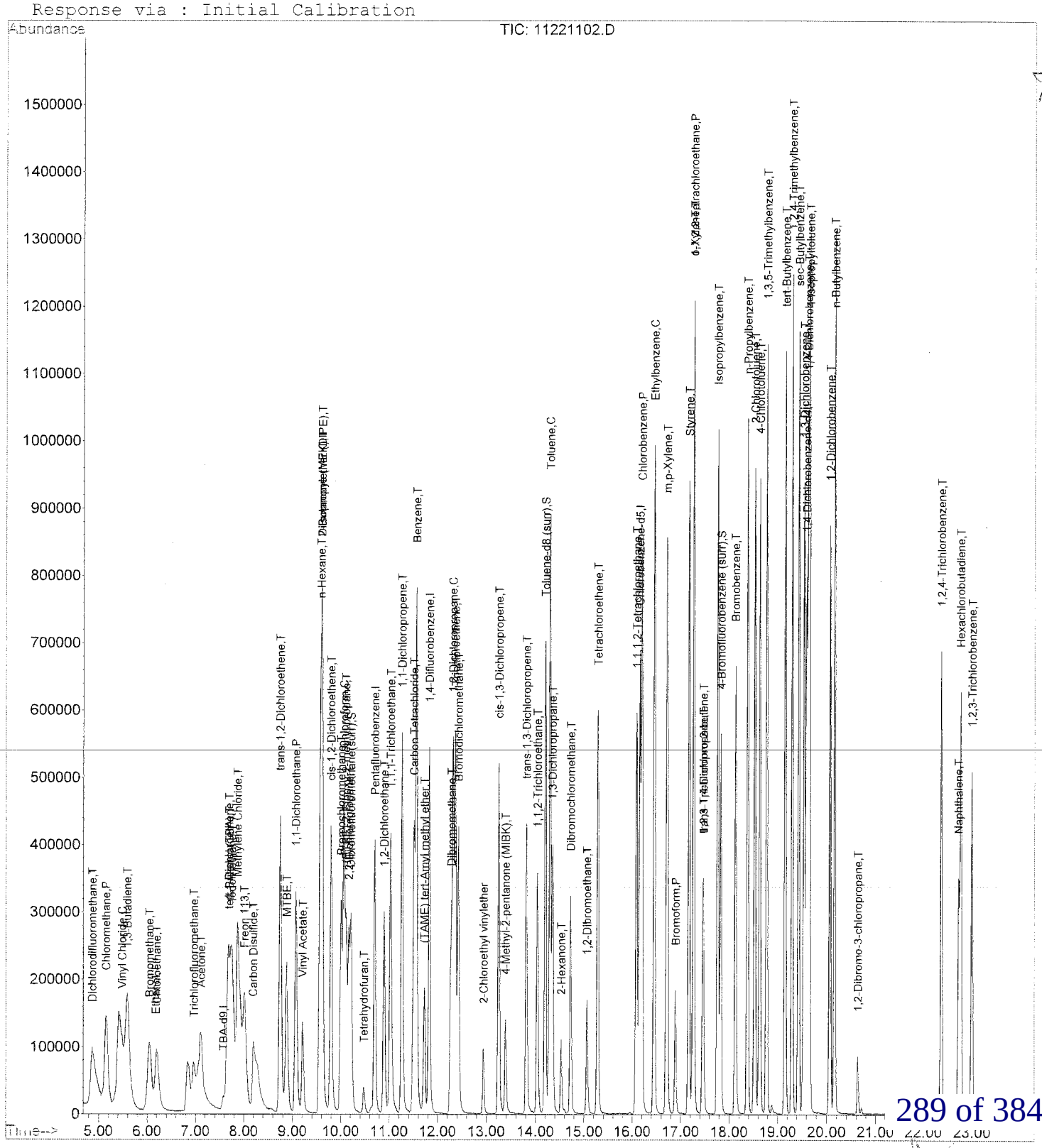
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	Trichloroethene	12.36	95	231431	22.70 ug/L	100
44)	Bromodichloromethane	12.43	83	338829	22.79 ug/L	100
45)	2-Chloroethyl vinylether	12.94	63	44166	22.38 ug/L	99
46)	cis-1,3-Dichloropropene	13.25	75	327574	23.77 ug/L	100
47)	4-Methyl-2-pentanone (MIBK	13.39	43	133772	24.26 ug/L	97
48)	trans-1,3-Dichloropropene	13.82	75	279033	23.23 ug/L	100
49)	1,1,2-Trichloroethane	14.04	97	134837	22.64 ug/L	99
51)	Toluene	14.30	92	454202	23.06 ug/L	99
53)	1,3-Dichloropropane	14.35	76	245376	24.08 ug/L	99
54)	2-Hexanone	14.53	43	106923	31.98 ug/L	97
55)	Dibromochloromethane	14.73	129	210376	25.49 ug/L	100
56)	1,2-Dibromoethane	15.06	107	147633	25.83 ug/L	98
57)	Tetrachloroethene	15.28	164	165574	24.30 ug/L	97
58)	1,1,1,2-Tetrachloroethane	16.08	131	212040	24.41 ug/L	99
59)	Chlorobenzene	16.19	112	549534	24.21 ug/L	99
60)	Ethylbenzene	16.45	91	900576	26.29 ug/L	100
61)	m,p-Xylene	16.71	106	343914	26.53 ug/L	99
62)	Styrene	17.16	104	540257	25.98 ug/L	99
63)	o-Xylene	17.26	106	341207	26.69 ug/L	97
66)	Bromoform	16.89	173	109205	26.48 ug/L	100
67)	1,1,2,2-Tetrachloroethane	17.26	83	134155	23.66 ug/L	98
68)	1,2,3-Trichloropropane	17.46	110	43344	25.15 ug/L	98
69)	trans-1,4-Dichloro-2-buten	17.47	53	62456	25.84 ug/L	99
70)	Isopropylbenzene	17.76	105	831563	26.26 ug/L	100
71)	Bromobenzene	18.13	156	219736	26.77 ug/L	98
72)	n-Propylbenzene	18.38	91	1034549	26.98 ug/L	99
73)	2-Chlorotoluene	18.52	91	676687	26.42 ug/L	99
74)	4-Chlorotoluene	18.63	91	695074	26.22 ug/L	100
75)	1,3,5-Trimethylbenzene	18.77	105	789016	27.13 ug/L	98
76)	tert-Butylbenzene	19.15	119	649482	26.26 ug/L	99
77)	1,2,4-Trimethylbenzene	19.29	105	816724	27.33 ug/L	99
78)	~~sec-Butylbenzene~~	~~19.43~~	~~105~~	~~954731~~	~~26.52 ug/L~~	~~100~~
79)	1,3-Dichlorobenzene	19.54	146	422423	25.18 ug/L	99
80)	1,4-Dichlorobenzene	19.62	146	421160	24.92 ug/L	100
81)	4-Isopropyltoluene	19.66	119	833751	25.60 ug/L	99
82)	1,2-Dichlorobenzene	20.06	146	378348	25.73 ug/L	99
83)	n-Butylbenzene	20.15	91	781064	26.94 ug/L	100
84)	1,2-Dibromo-3-chloropropan	20.63	75	25029	24.73 ug/L	97
85)	1,2,4-Trichlorobenzene	22.37	180	278548	26.64 ug/L	98
86)	Naphthalene	22.72	128	347280	23.62 ug/L	100
87)	Hexachlorobutadiene	22.77	225	188365	23.88 ug/L	99
88)	1,2,3-Trichlorobenzene	22.99	180	214657	25.47 ug/L	99

(#) = qualifier out of range (m) = manual integration
11221102.D 112111.M Wed Nov 23 07:06:56 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221102.D Vial: 2
Acq On : 22 Nov 2011 1:31 pm Operator: KH
Sample : 25 PPB CCV Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:05 2011 Quant Results File: 112111.RES

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221102.D Vial: 2
Acq On : 22 Nov 2011 1:31 pm Operator: KH
Sample : 25 PPB CCV Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration

11/23/11

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	TBA-d9	1.000	1.000	0.0	100	0.00
2	T	Ethanol	0.839	0.724	13.7	81	0.00
3	T	tert-Butanol (TBA)	3.204	2.208	31.1#	70	0.00
4	I	Pentafluorobenzene	1.000	1.000	0.0	113	0.00
5	T	Dichlorodifluoromethane	1.484	1.318	11.2	98	0.00
6	P	Chloromethane	1.395	1.217	12.8	105	0.02
7	C	Vinyl Chloride	1.066	1.009	5.3	112	0.01
8	T	1,3-Butadiene	0.628	0.588	6.4	105	0.02
9	T	Bromomethane	0.769	0.669	13.0	102	0.02
10	T	Chloroethane	0.587	0.567	3.4	109	0.00
11		Acrolein	0.000	0.001	0.0	0#	-0.02
12	T	Trichlorofluoromethane	1.101	1.149	-4.4	110	0.02
13	T	Acetone	0.259	0.354	-36.7#	160	0.00
14		Acrylonitrile	0.000	0.063	0.0	0#	0.01
15	T	Iodomethane	1.143	1.048	8.3	103	-0.03
16	T	1,1-Dichloroethene	0.643	0.616	4.2	107	-0.02
17	T	Methylene Chloride	0.828	0.727	12.2	107	0.02
18	T	Freon 113	0.692	0.649	6.2	104	0.00
19	T	Carbon Disulfide	1.941	1.857	4.3	107	0.00
20	T	trans-1,2-Dichloroethene	0.805	0.749	7.0	102	0.00
21	T	MTBE	0.915	0.860	6.0	99	0.00
22	P	1,1-Dichloroethane	1.677	1.484	11.5	100	0.00
23	T	Vinyl Acetate	0.874	0.928	-6.2	101	0.00
24	T	n-Hexane	0.130	0.136	-4.6	104	0.02
25	T	2-Butanone (MEK)	0.047	0.051	-8.5	119	0.00
26	T	Diisopropylether (DIPE)	2.789	2.562	8.1	100	0.00
27	T	cis-1,2-Dichloroethene	0.806	0.742	7.9	101	0.00
28	T	Bromochloromethane	0.379	0.336	11.3	101	0.00
29	C	Chloroform	1.679	1.424	15.2	98	0.00
30	T	2,2-Dichloropropane	0.643	0.611	5.0	102	0.00
31	T	(ETBE) 2-Ethoxy-2-methyl pr	1.040	0.892	14.2	94	0.01
32	S	Dibromofluoromethane(surr)	0.664	0.644	3.0	114	0.00
33	T	Tetrahydrofuran	0.036	0.030	16.7	94	0.02
34	T	1,2-Dichloroethane	1.223	1.031	15.7	98	0.00
35	T	1,1,1-Trichloroethane	1.276	1.130	11.4	97	0.00
36	T	(TAME) tert-Amyl methyl eth	0.599	0.473	21.0	88	0.01
37	I	1,4-Difluorobenzene	1.000	1.000	0.0	108	0.00
38	T	1,1-Dichloropropene	0.615	0.617	-0.3	96	0.00
39	T	Carbon Tetrachloride	0.780	0.731	6.3	97	0.00
40	T	Benzene	1.596	1.501	6.0	98	0.00
41	T	Dibromomethane	0.260	0.240	7.7	98	0.02
42	C	1,2-Dichloropropane	0.452	0.420	7.1	98	0.00
43	T	Trichloroethene	0.489	0.444	9.2	96	0.00
44	T	Bromodichloromethane	0.713	0.650	8.8	97	0.00
45		2-Chloroethyl vinylether	0.074	0.085	-14.9	106	0.01
46	T	cis-1,3-Dichloropropene	0.587	0.628	-7.0	99	0.01
47	T	4-Methyl-2-pentanone (MIBK)	0.264	0.257	2.7	98	0.00
48		trans-1,3-Dichloropropene	0.512	0.535	-4.5	98	0.00

(#) = Out of Range

11/23/11

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221102.D Vial: 2
Acq On : 22 Nov 2011 1:31 pm Operator: KH
Sample : 25 PPB CCV Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

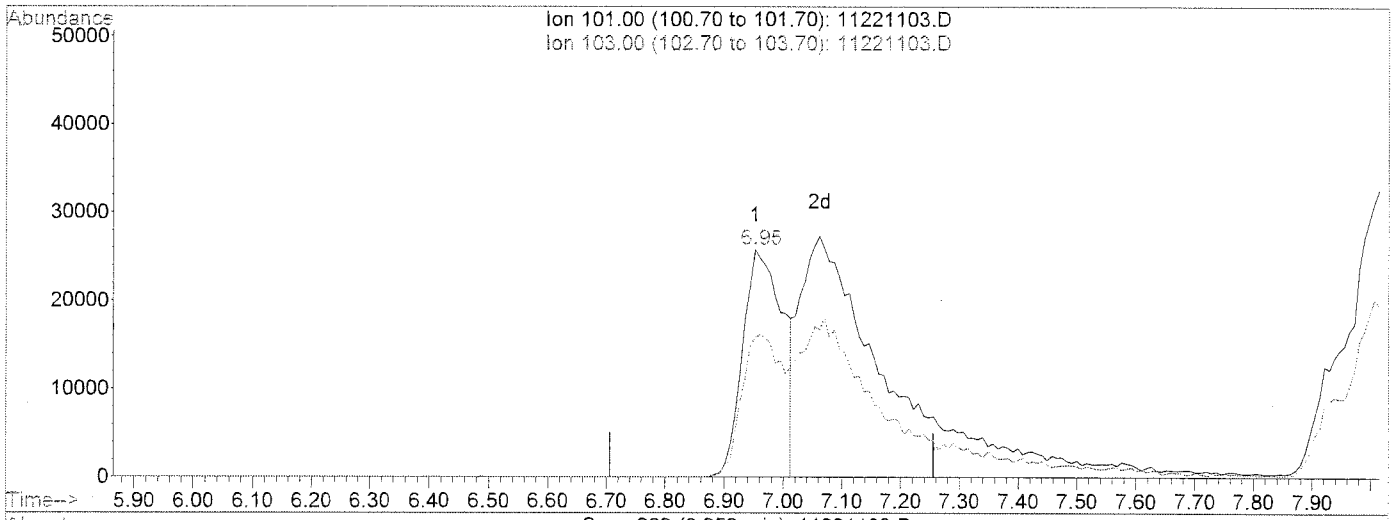
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,1,2-Trichloroethane	0.286	0.259	9.4	98	0.00
50	S	Toluene-d8 (surr)	1.094	1.076	1.6	105	0.00
51	C	Toluene	0.944	0.871	7.7	97	0.00
52	I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00
53	T	1,3-Dichloropropane	0.582	0.561	3.6	97	0.00
54	T	2-Hexanone	0.191	0.244	-27.7	123	0.00
55	T	Dibromochloromethane	0.471	0.481	-2.1	99	0.00
56	T	1,2-Dibromoethane	0.326	0.337	-3.4	99	0.00
57	T	Tetrachloroethene	0.389	0.378	2.8	95	0.00
58	T	1,1,1,2-Tetrachloroethane	0.496	0.484	2.4	98	0.00
59	P	Chlorobenzene	1.297	1.255	3.2	96	0.00
60	C	Ethylbenzene	1.957	2.057	-5.1	97	0.00
61	T	m,p-Xylene	0.740	0.786	-6.2	97	0.00
62	T	Styrene	1.089	1.234	-13.3	97	0.00
63	T	o-Xylene	0.751	0.780	-3.9	98	0.00
64	S	4-Bromofluorobenzene (surr)	0.576	0.568	1.4	101	0.00
65	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
66	P	Bromoform	0.459	0.486	-5.9	96	0.00
67	P	1,1,2,2-Tetrachloroethane	0.631	0.597	5.4	95	0.01
68	T	1,2,3-Trichloropropane	0.192	0.193	-0.5	99	0.00
69	T	trans-1,4-Dichloro-2-butene	0.244	0.278	-13.9	102	0.00
70	T	Isopropylbenzene	3.285	3.701	-12.7	95	0.00
71	T	Bromobenzene	0.913	0.978	-7.1	98	0.00
72	T	n-Propylbenzene	4.266	4.604	-7.9	95	0.00
73	T	2-Chlorotoluene	2.850	3.011	-5.6	96	0.00
74	T	4-Chlorotoluene	2.949	3.093	-4.9	95	0.00
75	T	1,3,5-Trimethylbenzene	3.236	3.511	-8.5	95	0.01
76	T	tert-Butylbenzene	2.576	2.890	-12.2	96	0.01
77	T	1,2,4-Trimethylbenzene	3.325	3.635	-9.3	96	0.01
78	T	sec-Butylbenzene	4.005	4.249	-6.1	95	0.00
79	T	1,3-Dichlorobenzene	1.866	1.880	-0.8	95	0.00
80	T	1,4-Dichlorobenzene	1.881	1.874	0.4	97	0.00
81	T	4-Isopropyltoluene	3.623	3.710	-2.4	93	0.00
82	T	1,2-Dichlorobenzene	1.636	1.684	-2.9	95	0.00
83	T	n-Butylbenzene	3.226	3.476	-7.7	95	0.00
84	T	1,2-Dibromo-3-chloropropane	0.113	0.111	1.8	93	0.00
85	T	1,2,4-Trichlorobenzene	1.163	1.240	-6.6	92	0.01
86	T	Naphthalene	1.478	1.546	-4.6	89	0.00
87	T	Hexachlorobutadiene	0.878	0.838	4.6	92	0.00
88	T	1,2,3-Trichlorobenzene	0.938	0.955	-1.8	88	0.01

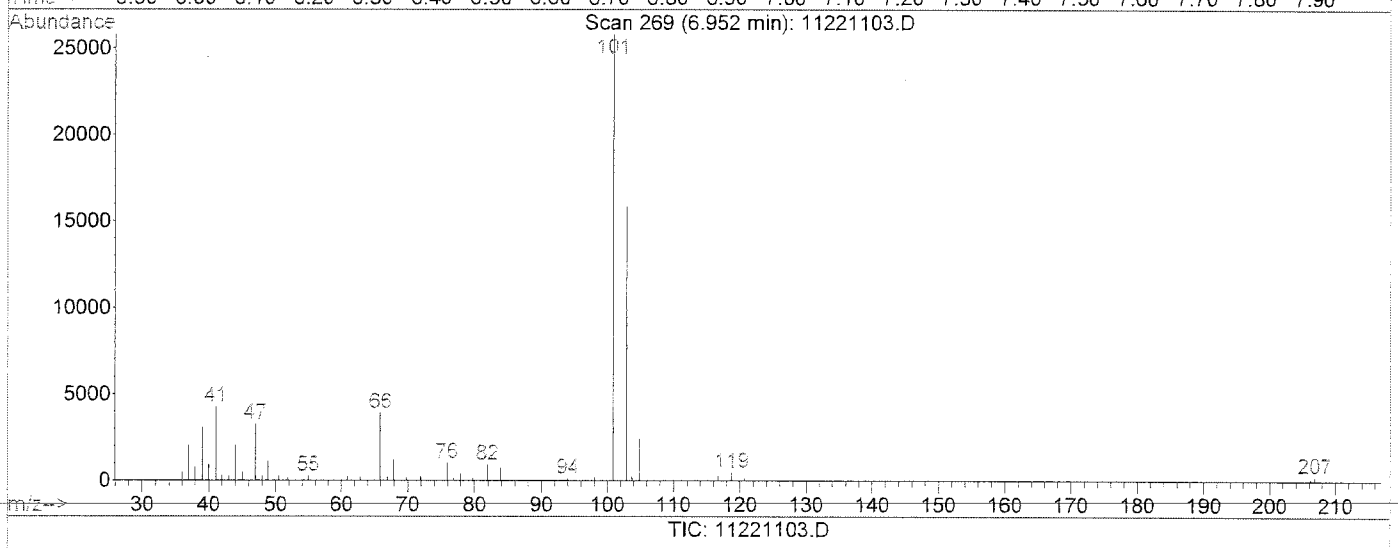
(#) = Out of Range SPCC's out = 0 CCC's out = 0
11221102.D 112111.M Wed Nov 23 08:34:10 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221103.D Vial: 3
Acq On : 22 Nov 2011 2:04 pm Operator: KH
Sample : 11K0879-BS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:07 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





(12) Trichlorofluoromethane (T)

6.95min 7.92ug/L

response 120181

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	61.38
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

Before-DIP

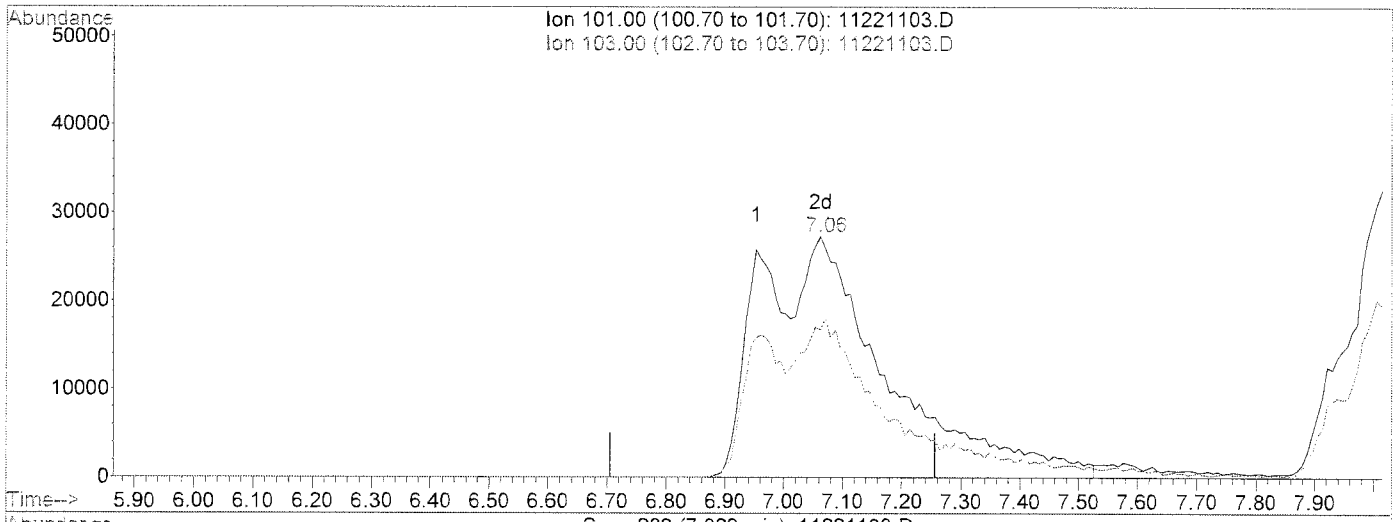
11/23/11

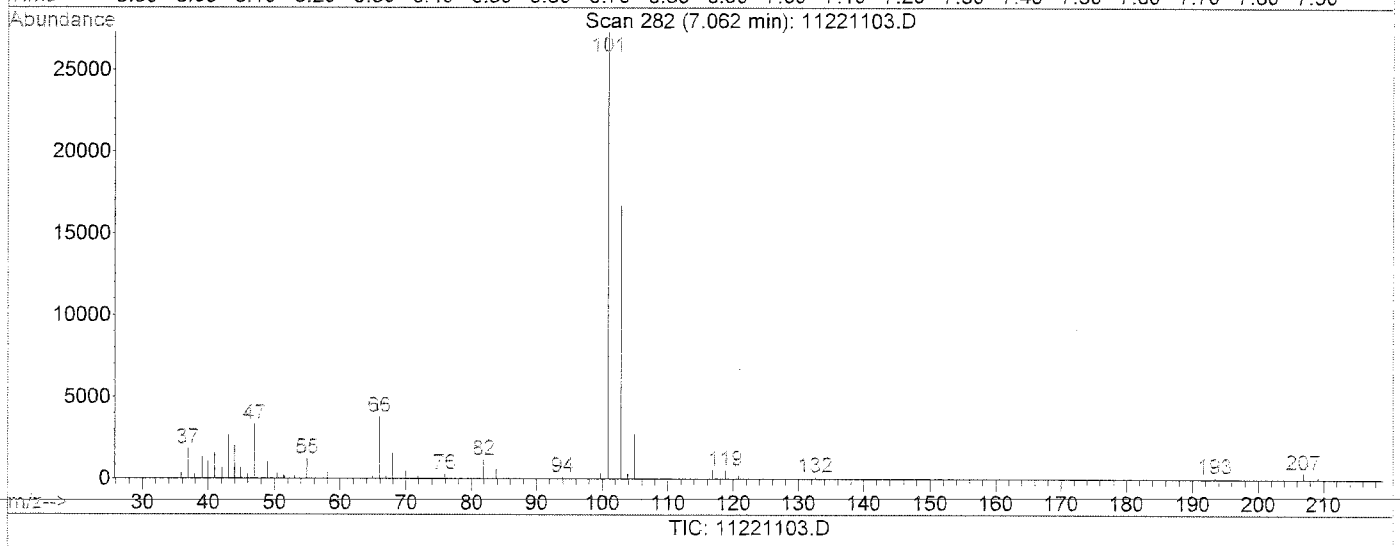
11221103.D 112111.M Wed Nov 23 07:07:18 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221103.D Vial: 3
Acq On : 22 Nov 2011 2:04 pm Operator: KH
Sample : 11K0879-BS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:07 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





(12) Trichlorofluoromethane (T)

7.06min 26.83ug/L m

response 407149

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	61.18
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

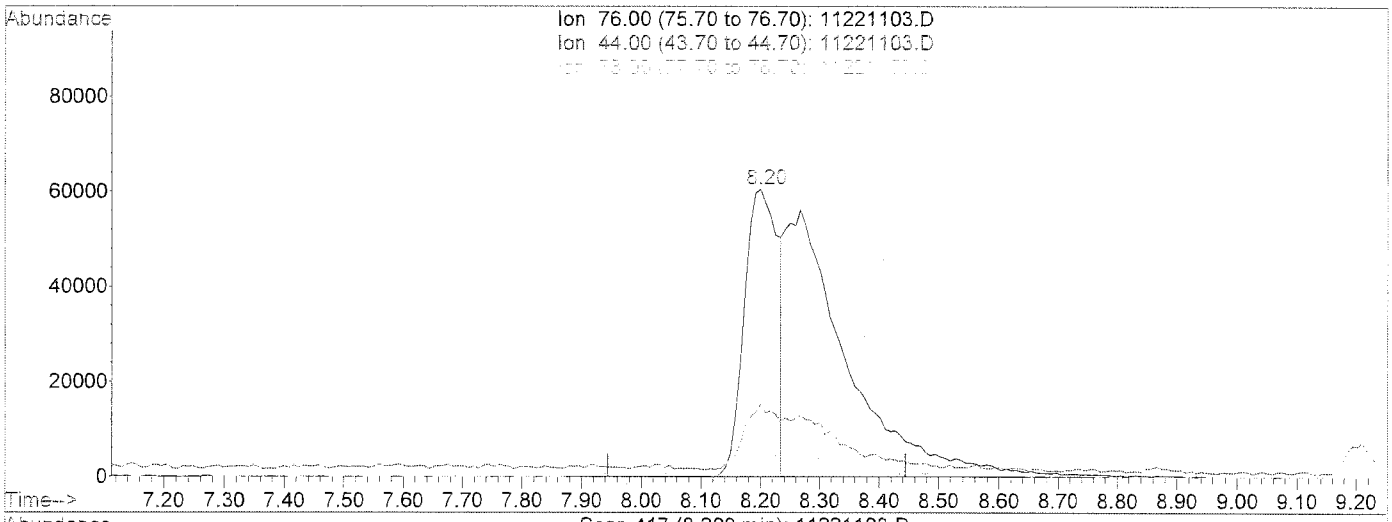
After

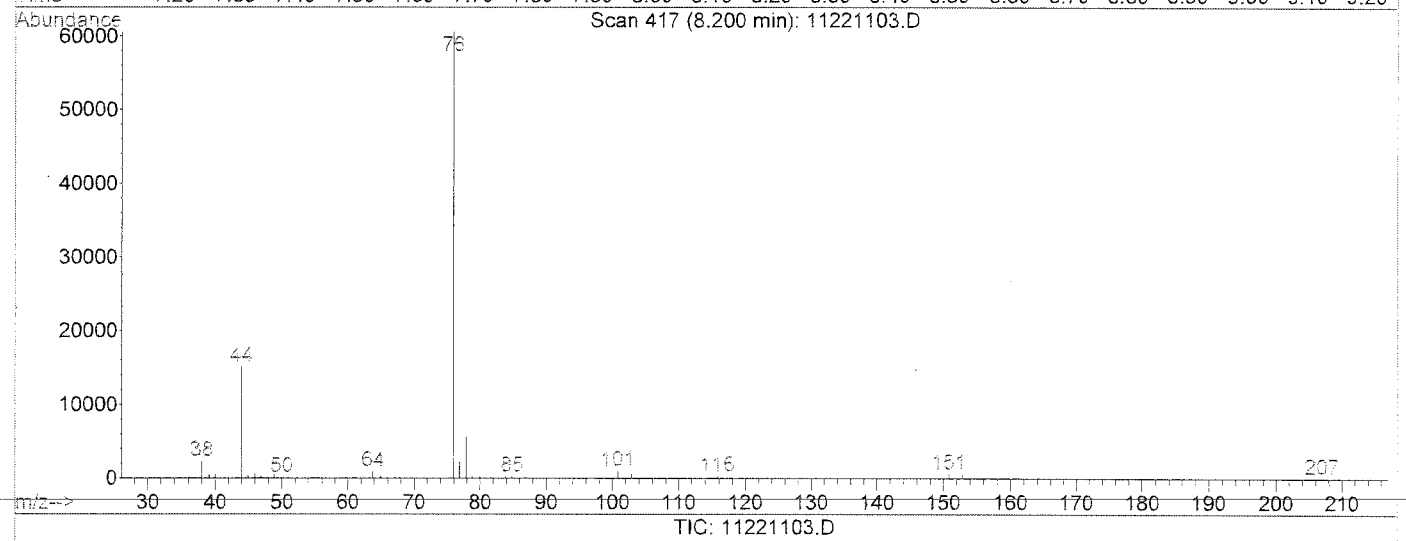
11221103.D 112111.M Wed Nov 23 07:07:31 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221103.D Vial: 3
Acq On : 22 Nov 2011 2:04 pm Operator: KH
Sample : 11K0879-BS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:07 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221103.D

(19) Carbon Disulfide (T)

8.20min 8.88ug/L

response 237677

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	26.56#
78.00	3.90	8.33#
0.00	0.00	0.00

11/23/11

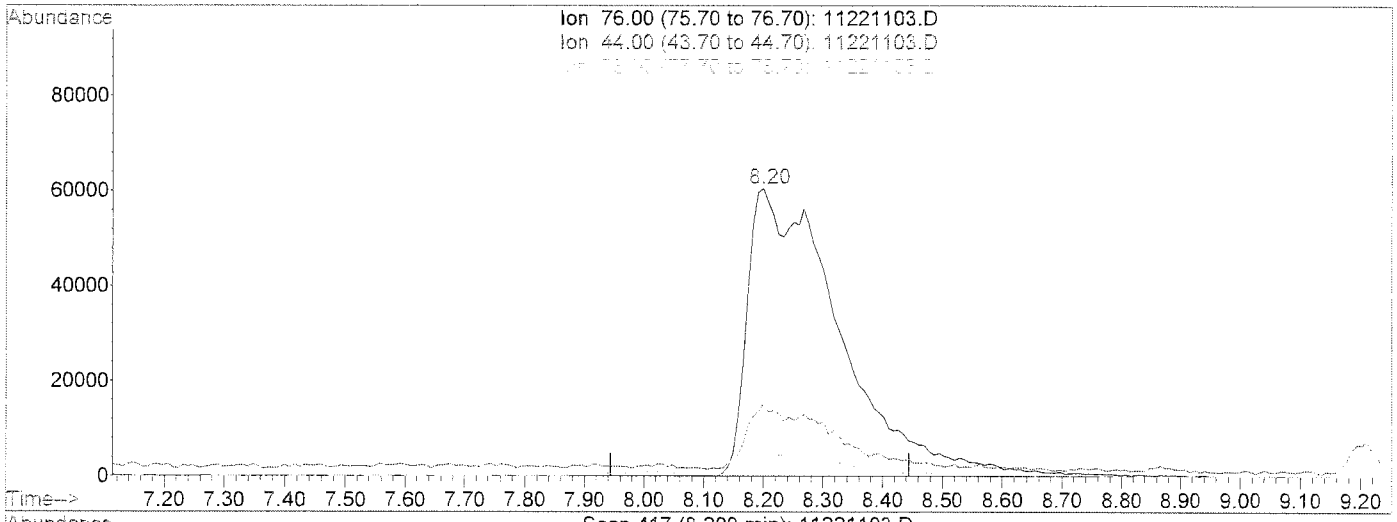
Before-NH

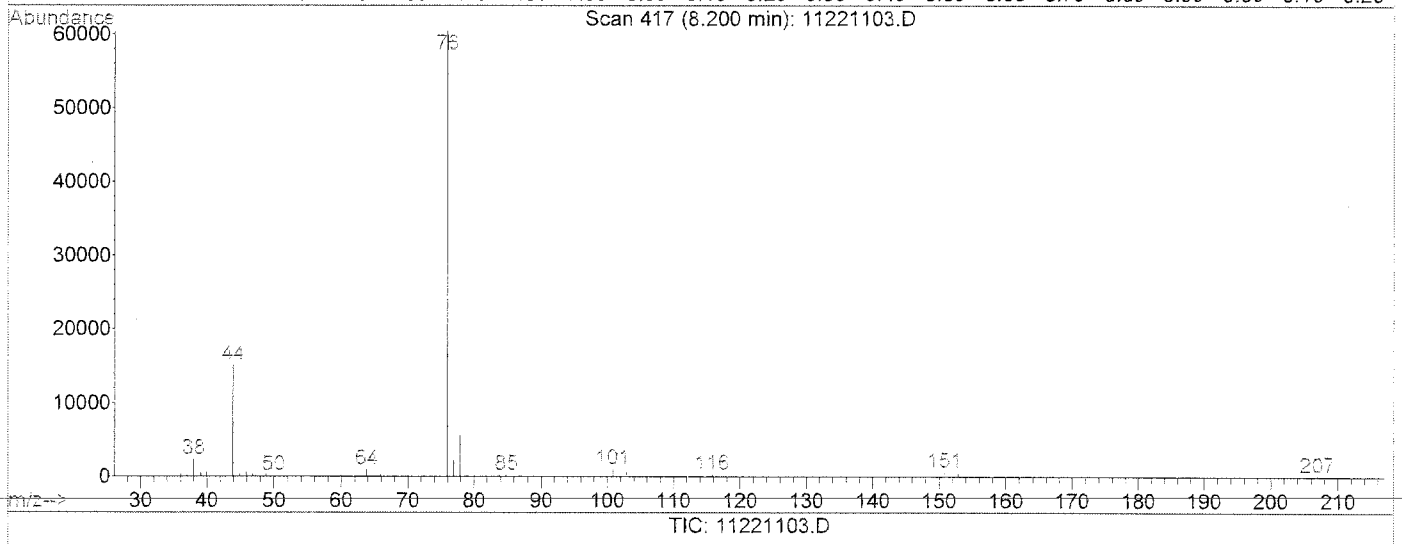
11221103.D 112111.M Wed Nov 23 07:07:42 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221103.D Vial: 3
Acq On : 22 Nov 2011 2:04 pm Operator: KH
Sample : 11K0879-BS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:07 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221103.D

(19) Carbon Disulfide (T)

11/23/11

8.20min 24.23ug/L m

response 648563

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	9.73#
78.00	3.90	3.05#
0.00	0.00	0.00

After

11221103.D 112111.M Wed Nov 23 07:07:52 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221103.D Vial: 3
Acq On : 22 Nov 2011 2:04 pm Operator: KH
Sample : 11K0879-BS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:07 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) TBA-d9	7.58	65	44418	200.00	ug/L	0.00
4) Pentafluorobenzene	10.69	168	344716	25.00	ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	515690	25.00	ug/L	0.00
52) Chlorobenzene-d5	16.15	117	420132	25.00	ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	209171	25.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(surr)	10.21	113	213093	23.27	ug/L	0.00
Spiked Amount 25.000			Recovery = 93.08%			
50) Toluene-d8 (surr)	14.19	98	549217	24.33	ug/L	0.00
Spiked Amount 25.000			Recovery = 97.32%			
64) 4-Bromofluorobenzene (surr	17.82	95	228188	23.59	ug/L	0.00
Spiked Amount 25.000			Recovery = 94.36%			

Target Compounds						Qvalue
2) Ethanol	6.17	45	33819	181.52	ug/L	90
3) tert-Butanol (TBA)	7.70	59	59559	83.69	ug/L	97
5) Dichlorodifluoromethane	4.90	85	388989	19.01	ug/L	99
6) Chloromethane	5.15	50	370615	19.27	ug/L	98
7) Vinyl Chloride	5.48	62	349755	23.80	ug/L	98
8) 1,3-Butadiene	5.59	54	279086	32.23	ug/L	96
9) Bromomethane	6.04	94	217077	20.47	ug/L	98
10) Chloroethane	6.20	64	183220	22.62	ug/L	98
12) Trichlorofluoromethane	7.06	101	407149m	26.83	ug/L	
13) Acetone	7.10	43	98529	27.54	ug/L	99
15) Iodomethane	7.79	142	400960	25.43	ug/L	99
16) 1,1-Dichloroethene	7.72	96	198868	22.43	ug/L	99
17) Methylene Chloride	7.87	84	226596	19.84	ug/L	100
18) Freon 113	8.01	101	219696	23.01	ug/L	98
19) Carbon Disulfide	8.20	76	648563m	24.23	ug/L	
20) trans-1,2-Dichloroethene	8.74	96	245032	22.07	ug/L	100
21) MTBE	8.87	73	291344	23.08	ug/L	98
~~22) 1,1-Dichloroethane~~	~~9.06~~	~~63~~	~~468688~~	~~20.27~~	~~ug/L~~	~~100~~
23) Vinyl Acetate	9.20	43	335887	20.69	ug/L	100
24) n-Hexane	9.56	86	42768	23.90	ug/L	96
25) 2-Butanone (MEK)	9.59	72	16058	25.01	ug/L #	62
26) Diisopropylether (DIPE)	9.60	45	863543	22.46	ug/L	100
27) cis-1,2-Dichloroethene	9.78	96	242711	21.84	ug/L	99
28) Bromochloromethane	9.99	128	109445	20.94	ug/L	97
29) Chloroform	10.05	83	459514	19.85	ug/L	100
30) 2,2-Dichloropropane	10.15	77	202852	22.87	ug/L	94
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	294906	20.57	ug/L #	86
33) Tetrahydrofuran	10.47	72	10440	20.93	ug/L #	87
34) 1,2-Dichloroethane	10.89	62	345215	20.48	ug/L	99
35) 1,1,1-Trichloroethane	11.02	97	377198	21.45	ug/L	100
36) (TAME) tert-Amyl methyl et	11.71	73	178795	21.63	ug/L	98
38) 1,1-Dichloropropene	11.25	75	329330	25.96	ug/L	98
39) Carbon Tetrachloride	11.49	117	383973	23.87	ug/L	98
40) Benzene	11.55	78	768214	23.34	ug/L	100
41) Dibromomethane	12.26	93	119839	22.38	ug/L	99
2) 1,2-Dichloropropane	12.30	63	213979	22.97	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221103.D Vial: 3
Acq On : 22 Nov 2011 2:04 pm Operator: KH
Sample : 11K0879-BS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:07 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

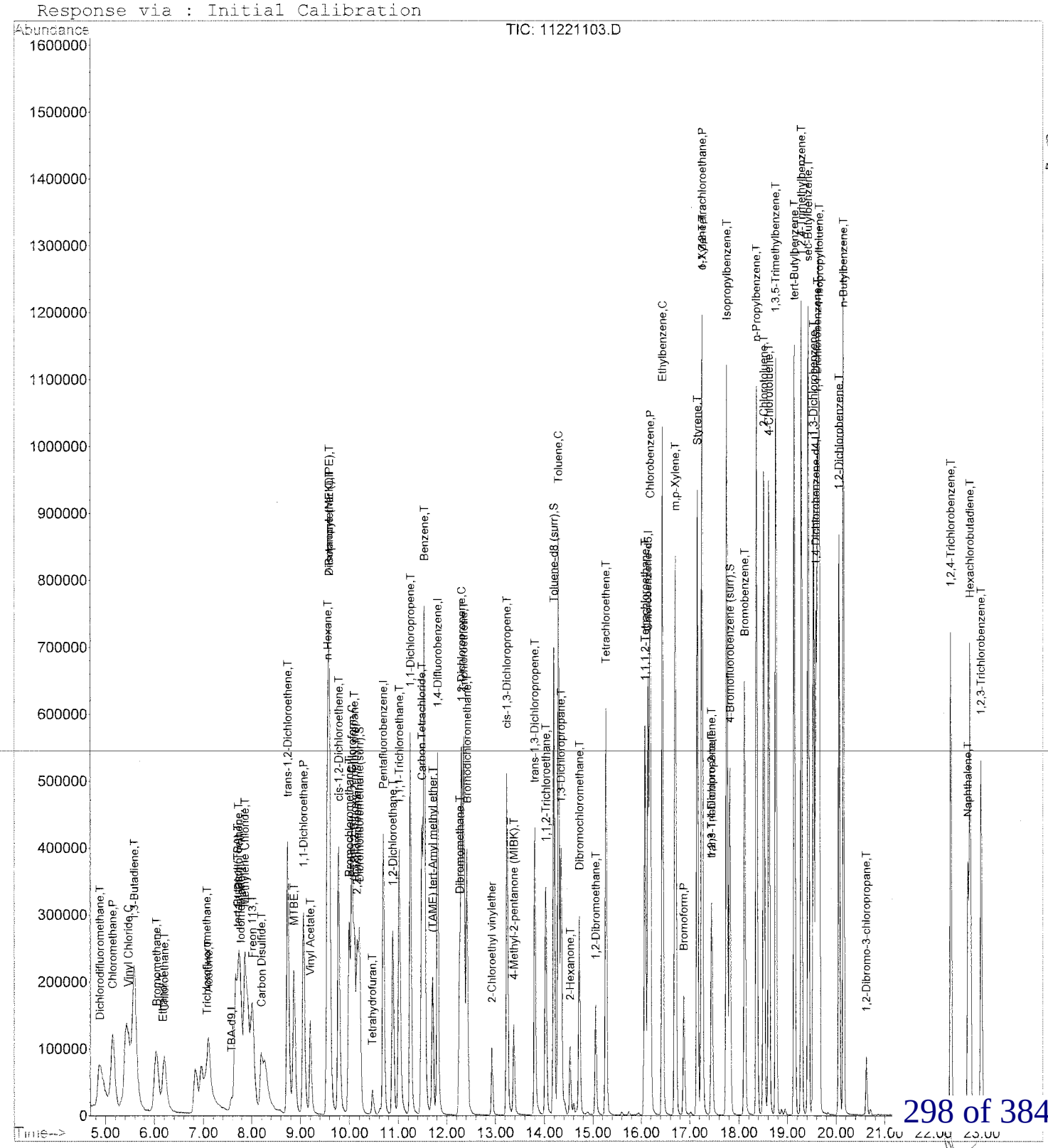
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	Trichloroethene	12.35	95	230032	22.82 ug/L	99
44)	Bromodichloromethane	12.42	83	322072	21.91 ug/L	98
45)	2-Chloroethyl vinylether	12.93	63	49171	24.94 ug/L	99
46)	cis-1,3-Dichloropropene	13.24	75	322900	23.69 ug/L	99
47)	4-Methyl-2-pentanone (MIBK	13.38	43	128203	23.51 ug/L	96
48)	trans-1,3-Dichloropropene	13.80	75	271285	22.85 ug/L	99
49)	1,1,2-Trichloroethane	14.03	97	131333	22.30 ug/L	100
51)	Toluene	14.28	92	449518	23.08 ug/L	99
53)	1,3-Dichloropropane	14.34	76	238506	24.39 ug/L	100
54)	2-Hexanone	14.53	43	100275	31.25 ug/L	99
55)	Dibromochloromethane	14.72	129	198532	25.06 ug/L	100
56)	1,2-Dibromoethane	15.06	107	140647	25.64 ug/L	98
57)	Tetrachloroethene	15.27	164	169685	25.95 ug/L	98
58)	1,1,1,2-Tetrachloroethane	16.08	131	207127	24.85 ug/L	99
59)	Chlorobenzene	16.19	112	526857	24.18 ug/L	99
60)	Ethylbenzene	16.44	91	900124	27.37 ug/L	100
61)	m,p-Xylene	16.70	106	334541	26.88 ug/L	100
62)	Styrene	17.16	104	527622	26.44 ug/L	100
63)	o-Xylene	17.26	106	331962	27.06 ug/L	99
66)	Bromoform	16.89	173	105061	27.36 ug/L	98
67)	1,1,2,2-Tetrachloroethane	17.25	83	135098	25.60 ug/L	98
68)	1,2,3-Trichloropropane	17.44	110	43333	27.01 ug/L	98
69)	trans-1,4-Dichloro-2-buten	17.46	53	47419	21.23 ug/L	98
70)	Isopropylbenzene	17.76	105	916699	31.07 ug/L	99
71)	Bromobenzene	18.12	156	207663	27.18 ug/L	99
72)	n-Propylbenzene	18.36	91	1081854	30.31 ug/L	100
73)	2-Chlorotoluene	18.51	91	666495	27.95 ug/L	99
74)	4-Chlorotoluene	18.62	91	687078	27.85 ug/L	99
75)	1,3,5-Trimethylbenzene	18.77	105	785369	29.00 ug/L	100
76)	tert-Butylbenzene	19.15	119	659337	28.63 ug/L	100
77)	1,2,4-Trimethylbenzene	19.29	105	790658	28.42 ug/L	100
78)	~~sec-Butylbenzene~~	~~19.43~~	~~105~~	~~963266~~	~~28.74 ug/L~~	~~99~~
79)	1,3-Dichlorobenzene	19.53	146	417265	26.72 ug/L	99
80)	1,4-Dichlorobenzene	19.62	146	405118	25.75 ug/L	99
81)	4-Isopropyltoluene	19.65	119	842171	27.78 ug/L	98
82)	1,2-Dichlorobenzene	20.06	146	370258	27.05 ug/L	100
83)	n-Butylbenzene	20.15	91	793670	29.40 ug/L	99
84)	1,2-Dibromo-3-chloropropan	20.62	75	25155	26.71 ug/L	96
85)	1,2,4-Trichlorobenzene	22.36	180	289537	29.75 ug/L	99
86)	Naphthalene	22.71	128	371129	26.98 ug/L	100
87)	Hexachlorobutadiene	22.76	225	210710	28.69 ug/L	99
88)	1,2,3-Trichlorobenzene	22.99	180	232988	29.70 ug/L	99

(#) = qualifier out of range (m) = manual integration
11221103.D 112111.M Wed Nov 23 07:08:14 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221103.D Vial: 3
Acq On : 22 Nov 2011 2:04 pm Operator: KH
Sample : 11K0879-BS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:07 2011 Quant Results File: 112111.RES

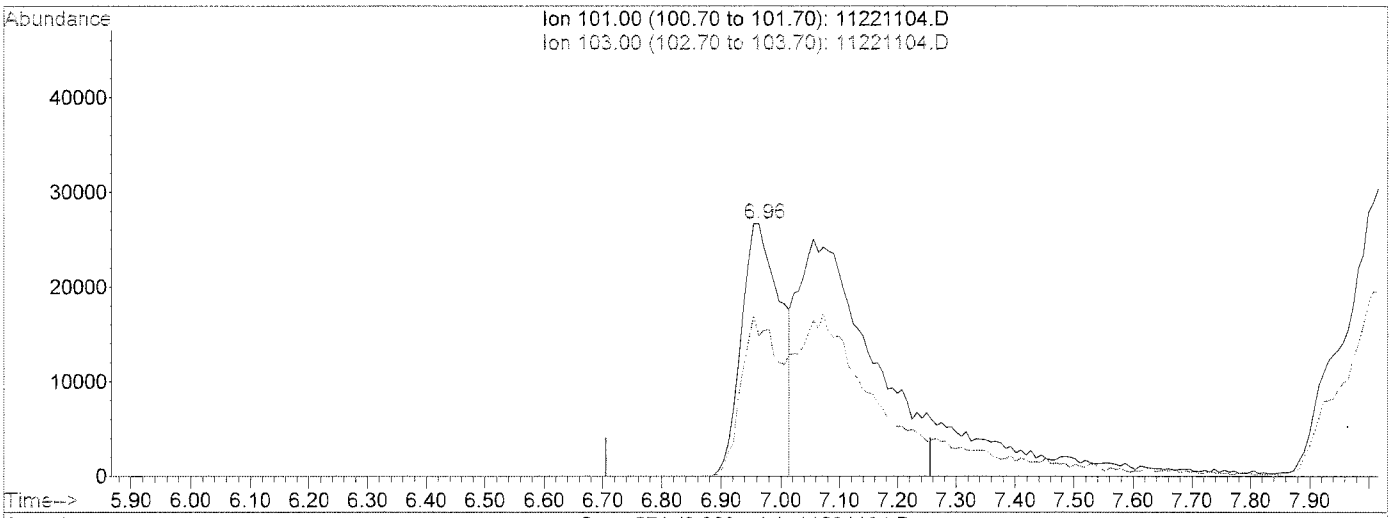
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

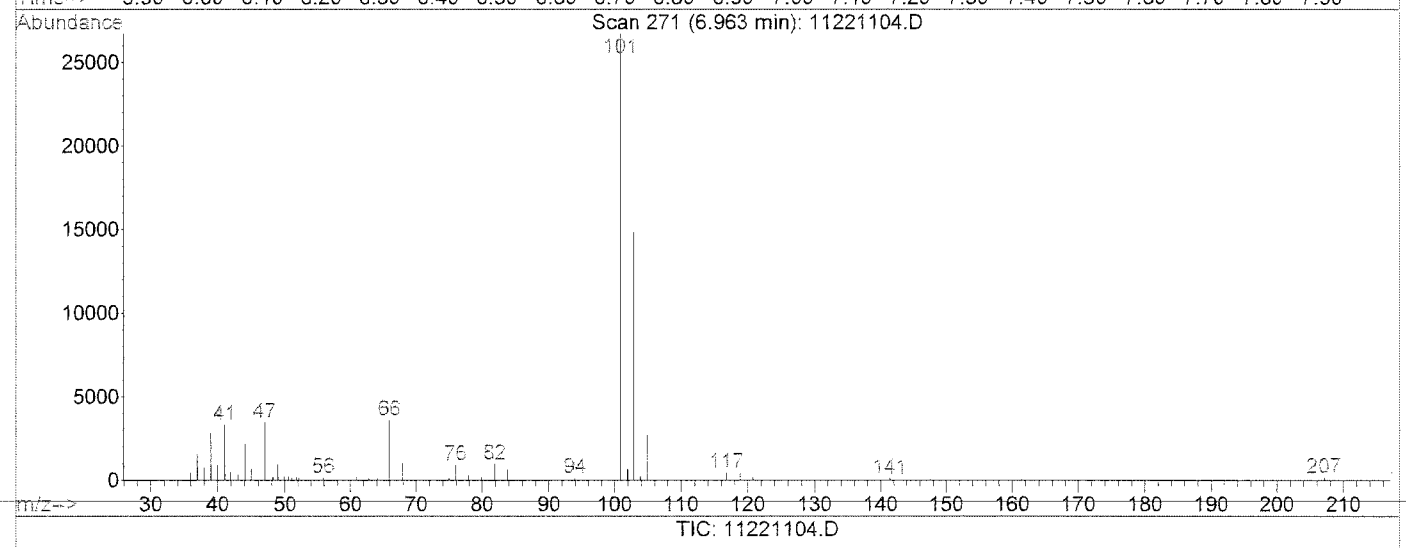


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221104.D Vial: 4
Acq On : 22 Nov 2011 2:36 pm Operator: KH
Sample : 11K0879-BSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:08 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221104.D

11/23/11

(12) Trichlorofluoromethane (T)

6.96min 8.04ug/L

response 121268

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	55.62
0.00	0.00	0.00
0.00	0.00	0.00

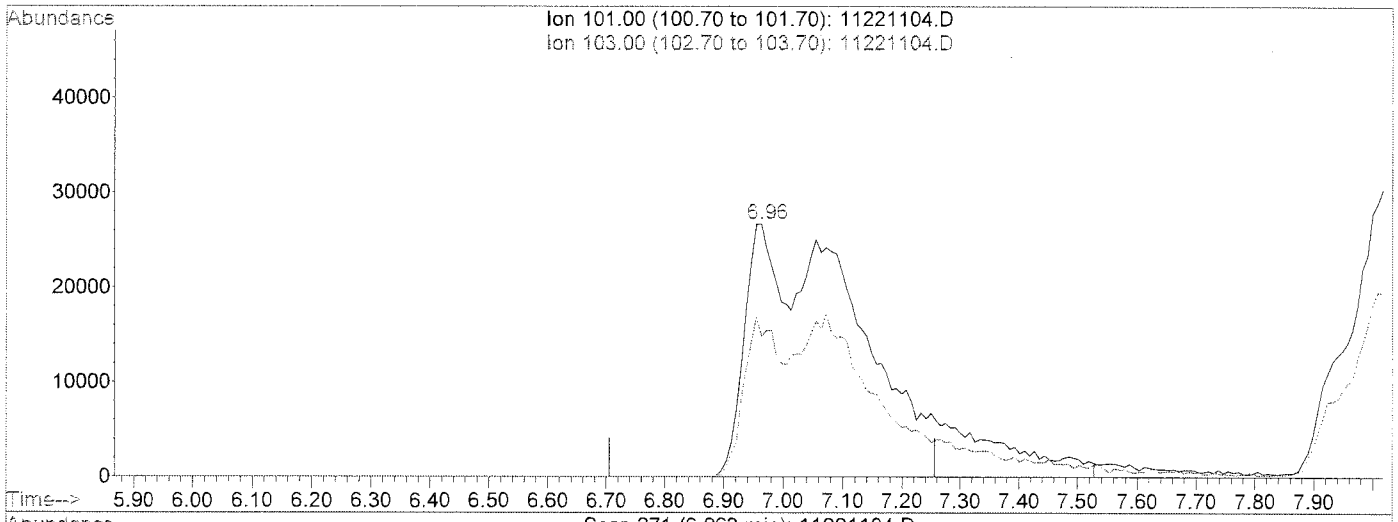
Before - NAP

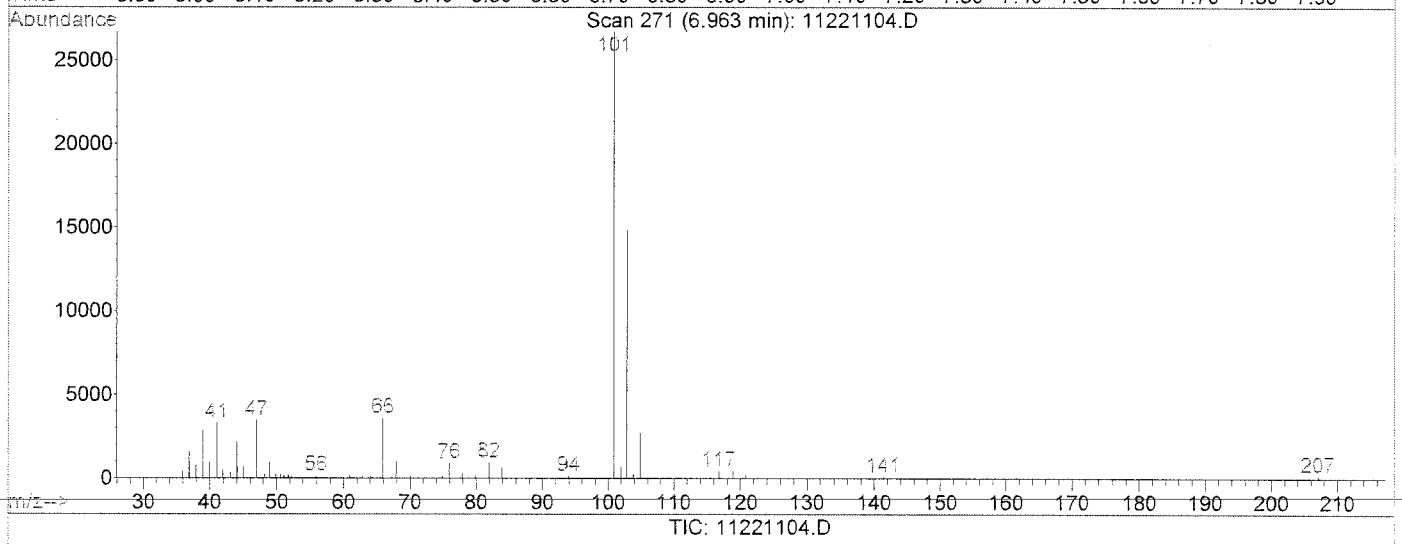
11221104.D 112111.M Wed Nov 23 07:08:41 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221104.D Vial: 4
Acq On : 22 Nov 2011 2:36 pm Operator: KH
Sample : 11K0879-BSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:08 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221104.D

(12) Trichlorofluoromethane (T)

11/23/11

6.96min 25.92ug/L m

response 390914

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	55.62
0.00	0.00	0.00
0.00	0.00	0.00

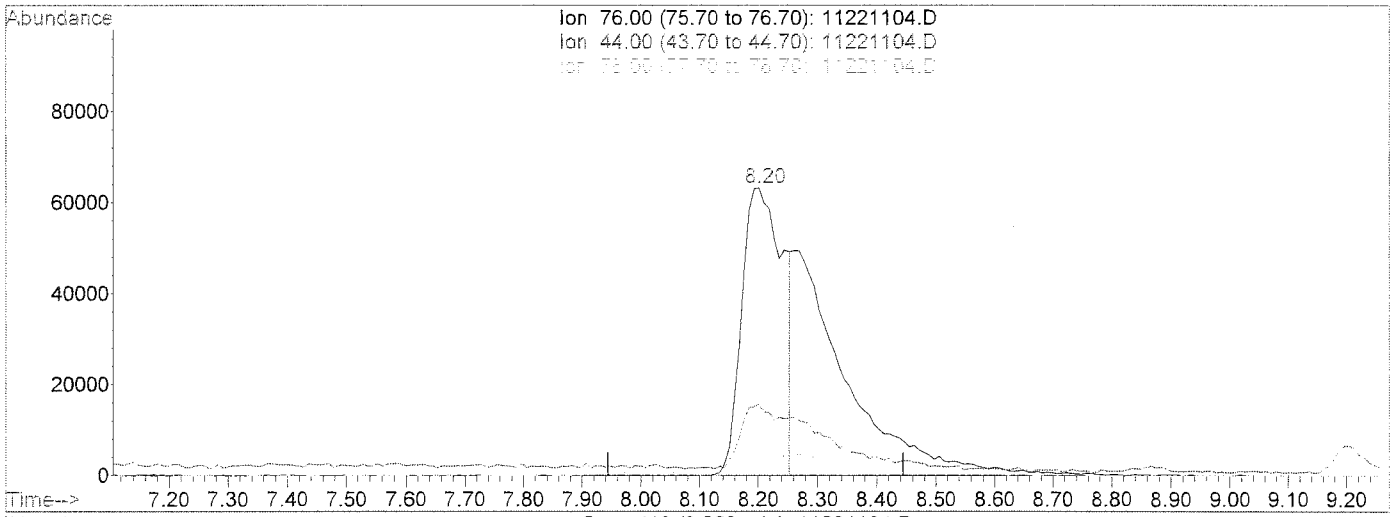
After

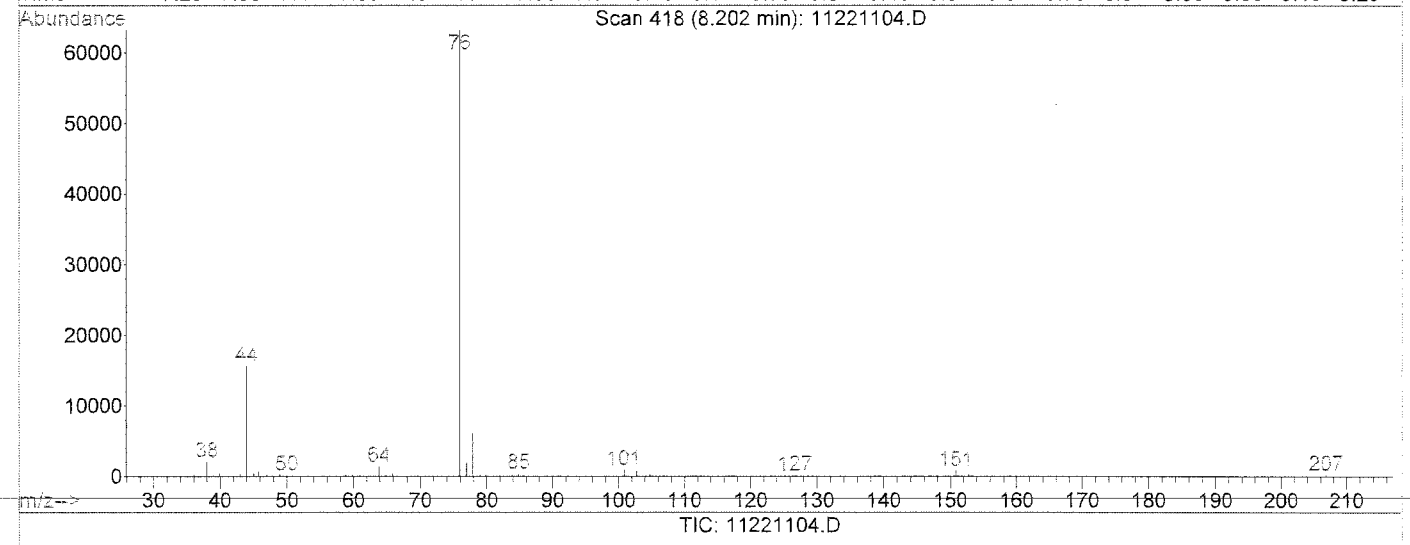
11221104.D 112111.M Wed Nov 23 07:08:49 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221104.D Vial: 4
Acq On : 22 Nov 2011 2:36 pm Operator: KH
Sample : 11K0879-BSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:08 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221104.D

(19) Carbon Disulfide (T)

8.20min 11.45ug/L

response 304537

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	20.46
78.00	3.90	8.31#
0.00	0.00	0.00

11/23/11

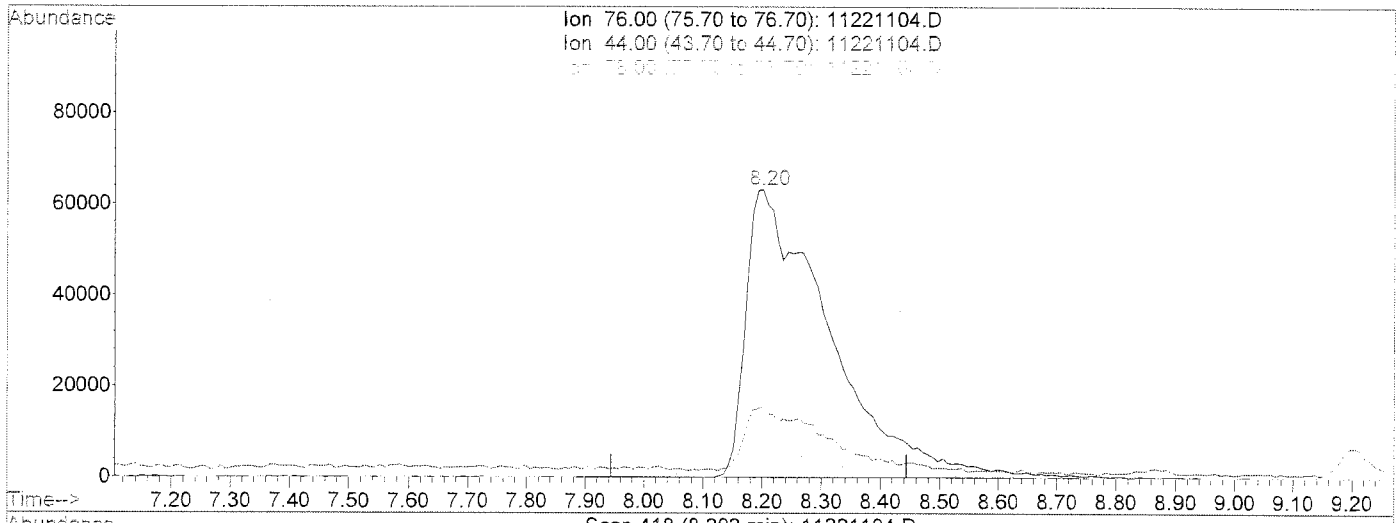
Before-NH

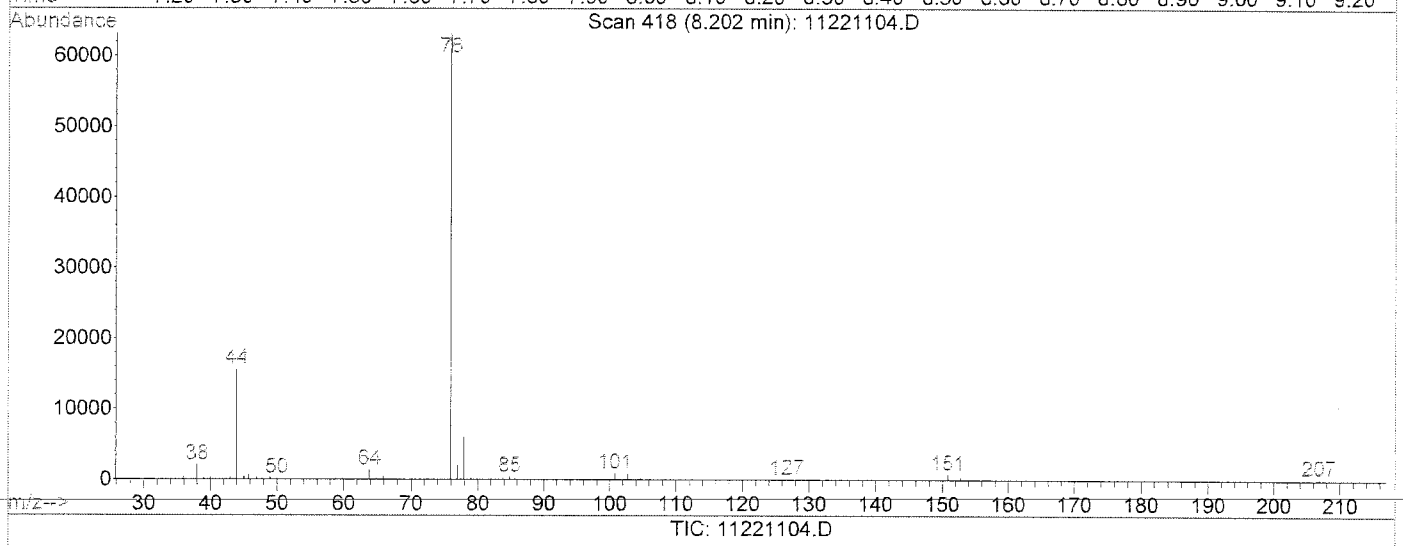
11221104.D 112111.M Wed Nov 23 07:09:00 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221104.D Vial: 4
Acq On : 22 Nov 2011 2:36 pm Operator: KH
Sample : 11K0879-BSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:09 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221104.D

(19) Carbon Disulfide (T)

11/23/11

8.20min 23.33ug/L m

response 620486

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	10.04#
78.00	3.90	4.08
0.00	0.00	0.00

After

11/23/11

11221104.D 112111.M Wed Nov 23 07:09:21 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221104.D Vial: 4
Acq On : 22 Nov 2011 2:36 pm Operator: KH
Sample : 11K0879-BSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:09 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	45849	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	342522	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	507576	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.15	117	426478	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	214501	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	207300	22.78 ug/L	0.00
Spiked Amount 25.000			Recovery =	91.12%	
50) Toluene-d8 (surr)	14.19	98	549056	24.71 ug/L	0.00
Spiked Amount 25.000			Recovery =	98.84%	
64) 4-Bromofluorobenzene (surr	17.82	95	236724	24.11 ug/L	0.00
Spiked Amount 25.000			Recovery =	96.44%	

Target Compounds					Qvalue
2) Ethanol	6.16	45	36365	189.10 ug/L	95
3) tert-Butanol (TBA)	7.70	59	58473	79.60 ug/L	95
5) Dichlorodifluoromethane	4.88	85	375515	18.47 ug/L	99
6) Chloromethane	5.15	50	362579	18.98 ug/L	98
7) Vinyl Chloride	5.48	62	330901	22.66 ug/L	99
8) 1,3-Butadiene	5.60	54	272567	31.68 ug/L	97
9) Bromomethane	6.04	94	211412	20.06 ug/L	100
10) Chloroethane	6.20	64	176736	21.96 ug/L	99
12) Trichlorofluoromethane	6.96	101	390914m	25.92 ug/L	
13) Acetone	7.11	43	79335	22.32 ug/L	99
15) Iodomethane	7.78	142	384129	24.52 ug/L	99
16) 1,1-Dichloroethene	7.72	96	183194	20.79 ug/L	96
17) Methylene Chloride	7.86	84	216389	19.07 ug/L	99
18) Freon 113	8.02	101	203040	21.41 ug/L	97
19) Carbon Disulfide	8.20	76	620486m	23.33 ug/L	
20) trans-1,2-Dichloroethene	8.74	96	232581	21.09 ug/L	99
21) MTBE	8.87	73	295000	23.52 ug/L	98
~~22) 1,1-Dichloroethane~~	~~9.06~~	~~63~~	~~451504~~	~~19.65 ug/L~~	~~99~~
23) Vinyl Acetate	9.20	43	342216	21.19 ug/L	100
24) n-Hexane	9.56	86	40822	22.96 ug/L	97
25) 2-Butanone (MEK)	9.58	72	13991	21.93 ug/L #	98
26) Diisopropylether (DIPE)	9.59	45	856092	22.41 ug/L	98
27) cis-1,2-Dichloroethene	9.79	96	232451	21.05 ug/L	99
28) Bromochloromethane	10.00	128	107888	20.77 ug/L	96
29) Chloroform	10.05	83	444819	19.34 ug/L	100
30) 2,2-Dichloropropane	10.16	77	191012	21.68 ug/L	94
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	291357	20.46 ug/L #	86
33) Tetrahydrofuran	10.47	72	11375	22.95 ug/L	90
34) 1,2-Dichloroethane	10.89	62	347934	20.77 ug/L	98
35) 1,1,1-Trichloroethane	11.02	97	371194	21.24 ug/L	99
36) (TAME) tert-Amyl methyl et	11.72	73	181124	22.05 ug/L	98
38) 1,1-Dichloropropene	11.25	75	321302	25.74 ug/L	99
39) Carbon Tetrachloride	11.49	117	373463	23.59 ug/L	98
40) Benzene	11.54	78	743576	22.95 ug/L	99
41) Dibromomethane	12.26	93	122751	23.29 ug/L	98
2) 1,2-Dichloropropane	12.31	63	210403	22.95 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221104.D Vial: 4
Acq On : 22 Nov 2011 2:36 pm Operator: KH
Sample : 11K0879-BSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:09 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

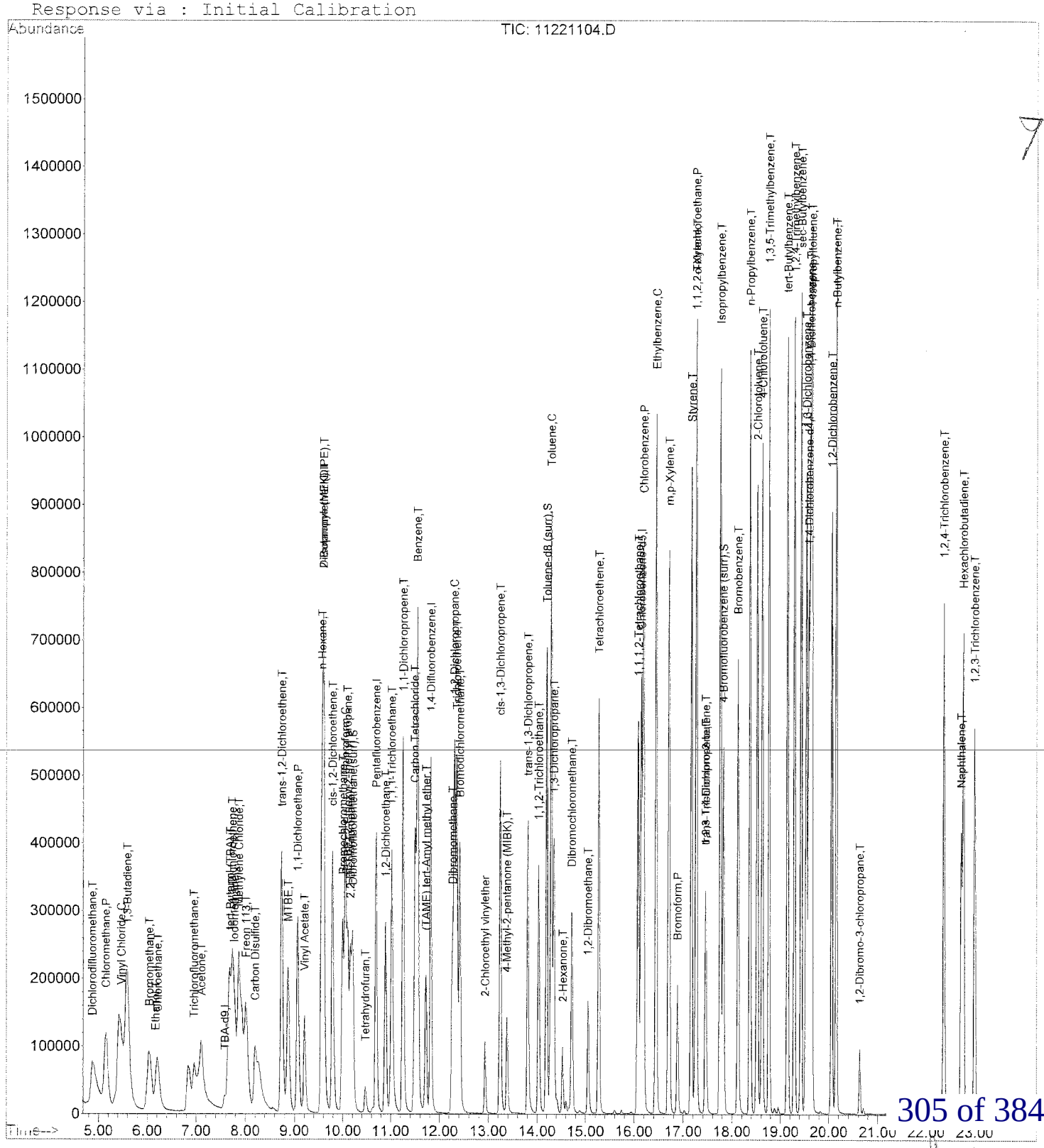
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	Trichloroethene	12.36	95	219088	22.08 ug/L	100
44)	Bromodichloromethane	12.42	83	319323	22.07 ug/L	99
45)	2-Chloroethyl vinylether	12.93	63	49970	25.69 ug/L	99
46)	cis-1,3-Dichloropropene	13.24	75	323972	24.15 ug/L	100
47)	4-Methyl-2-pentanone (MIBK	13.38	43	140702	26.22 ug/L	98
48)	trans-1,3-Dichloropropene	13.81	75	275325	23.55 ug/L	99
49)	1,1,2-Trichloroethane	14.03	97	136893	23.61 ug/L	100
51)	Toluene	14.29	92	447704	23.35 ug/L	99
53)	1,3-Dichloropropane	14.35	76	241994	24.37 ug/L	100
54)	2-Hexanone	14.53	43	94774	29.09 ug/L	99
55)	Dibromochloromethane	14.72	129	205445	25.55 ug/L	98
56)	1,2-Dibromoethane	15.05	107	146284	26.27 ug/L	97
57)	Tetrachloroethene	15.27	164	165054	24.87 ug/L	99
58)	1,1,1,2-Tetrachloroethane	16.08	131	211451	24.99 ug/L	98
59)	Chlorobenzene	16.19	112	528627	23.90 ug/L	100
60)	Ethylbenzene	16.44	91	902630	27.04 ug/L	99
61)	m,p-Xylene	16.71	106	334683	26.50 ug/L	100
62)	Styrene	17.16	104	535894	26.45 ug/L	100
63)	o-Xylene	17.26	106	323512	25.97 ug/L	97
66)	Bromoform	16.88	173	110061	27.95 ug/L	97
67)	1,1,2,2-Tetrachloroethane	17.24	83	140154	25.90 ug/L	98
68)	1,2,3-Trichloropropane	17.45	110	45778	27.83 ug/L	99
69)	trans-1,4-Dichloro-2-buten	17.46	53	49998	21.80 ug/L	99
70)	Isopropylbenzene	17.76	105	921170	30.45 ug/L	100
71)	Bromobenzene	18.12	156	213459	27.24 ug/L	98
72)	n-Propylbenzene	18.37	91	1091216	29.82 ug/L	100
73)	2-Chlorotoluene	18.52	91	670298	27.41 ug/L	99
74)	4-Chlorotoluene	18.62	91	698705	27.61 ug/L	99
75)	1,3,5-Trimethylbenzene	18.76	105	796792	28.70 ug/L	99
76)	tert-Butylbenzene	19.14	119	658146	27.87 ug/L	100
77)	1,2,4-Trimethylbenzene	19.29	105	798750	28.00 ug/L	100
78)	sec-Butylbenzene	19.43	105	976071	28.40 ug/L	99
79)	1,3-Dichlorobenzene	19.54	146	423574	26.45 ug/L	99
80)	1,4-Dichlorobenzene	19.62	146	417457	25.87 ug/L	99
81)	4-Isopropyltoluene	19.65	119	846147	27.22 ug/L	99
82)	1,2-Dichlorobenzene	20.06	146	379701	27.05 ug/L	100
83)	n-Butylbenzene	20.15	91	812728	29.36 ug/L	99
84)	1,2-Dibromo-3-chloropropan	20.62	75	28470	29.47 ug/L	98
85)	1,2,4-Trichlorobenzene	22.36	180	299055	29.96 ug/L	99
86)	Naphthalene	22.71	128	404870	28.64 ug/L	100
87)	Hexachlorobutadiene	22.76	225	210135	27.90 ug/L	99
88)	1,2,3-Trichlorobenzene	22.98	180	244534	30.39 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221104.D Vial: 4
Acq On : 22 Nov 2011 2:36 pm Operator: KH
Sample : 11K0879-BSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:09 2011 Quant Results File: 112111.RES

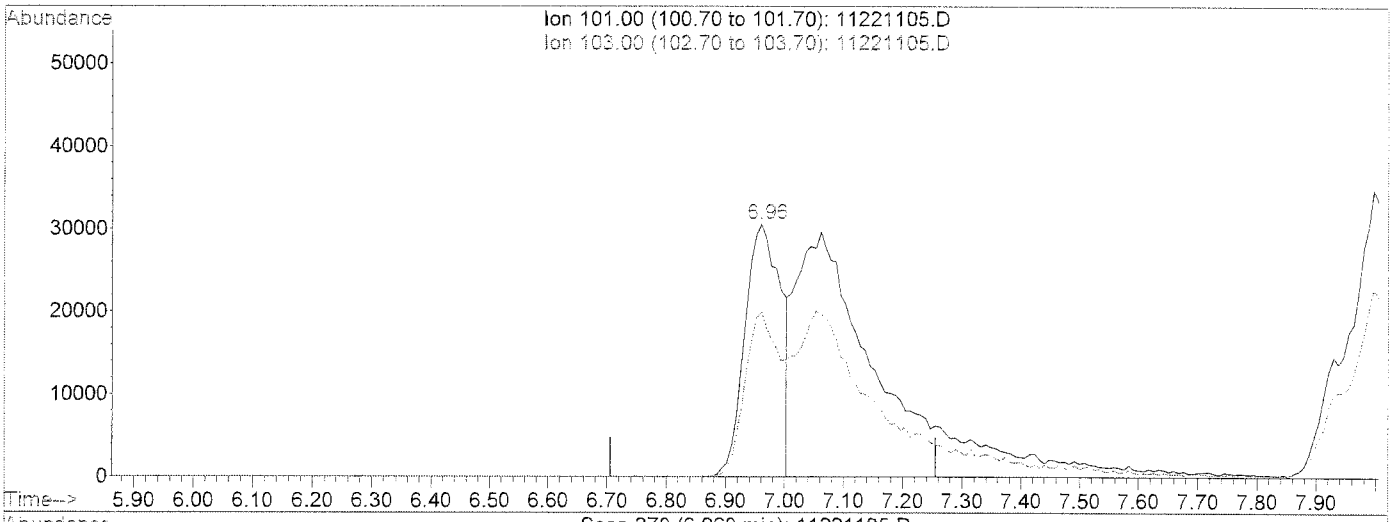
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

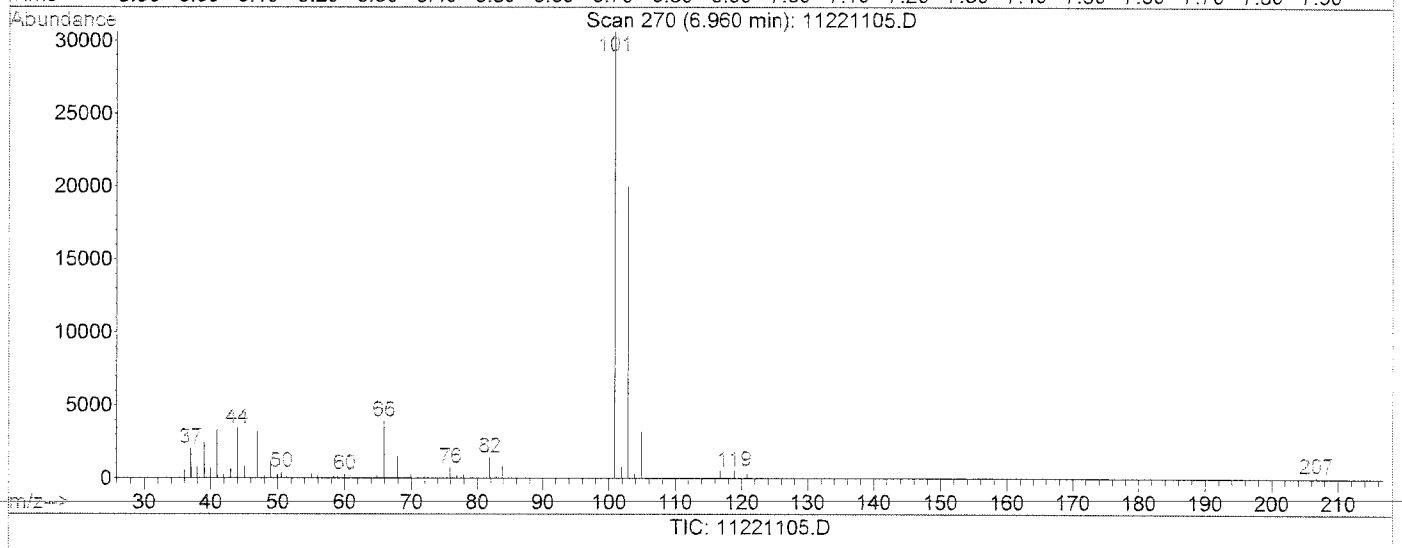


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221105.D Vial: 5
Acq On : 22 Nov 2011 3:15 pm Operator: KH
Sample : 11K0879-MS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:09 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221105.D

(12) Trichlorofluoromethane (T)

11/23/11

6.96min 8.52ug/L

response 130518

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	64.92
0.00	0.00	0.00
0.00	0.00	0.00

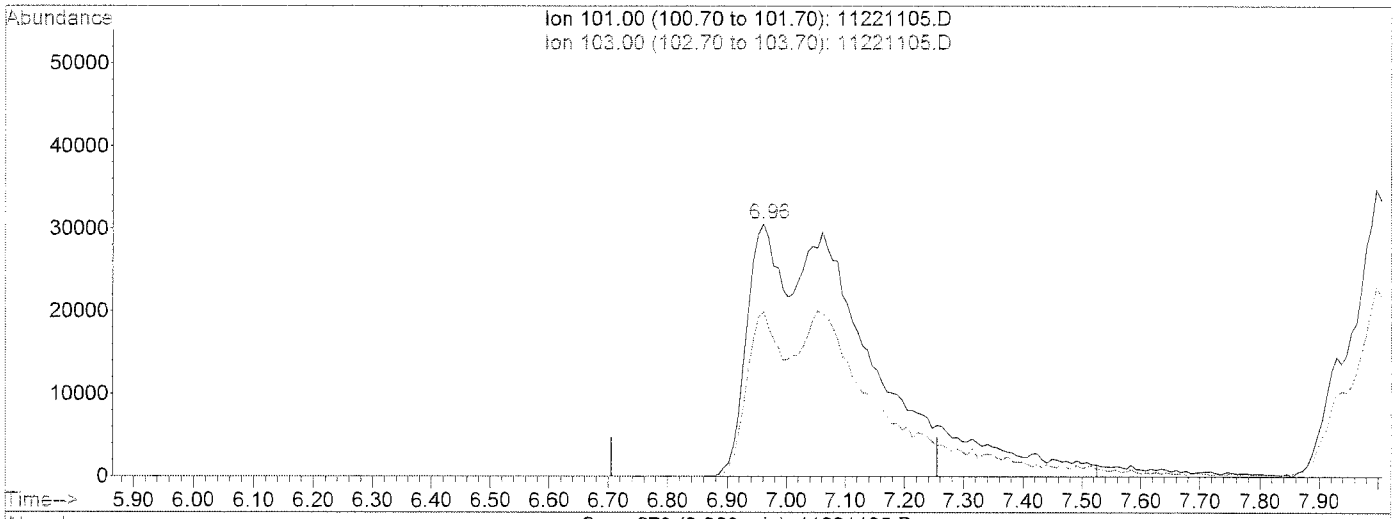
Before - 10 ppb

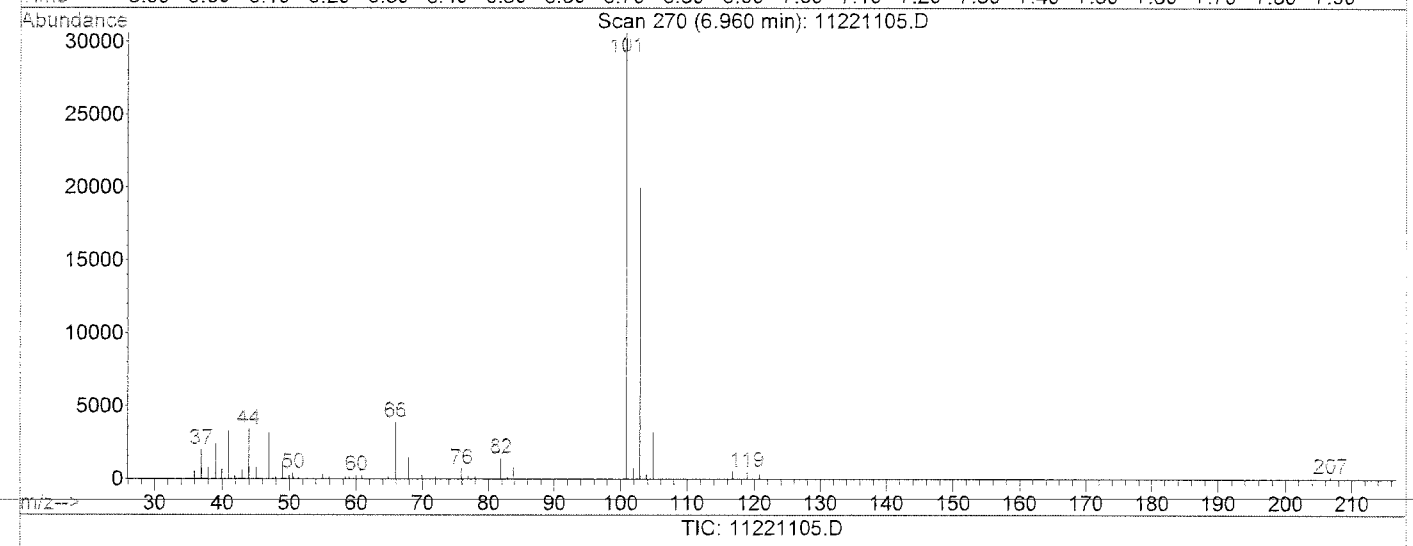
11221105.D 112111.M Wed Nov 23 07:10:03 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221105.D Vial: 5
Acq On : 22 Nov 2011 3:15 pm Operator: KH
Sample : 11K0879-MS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:10 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221105.D

(12) Trichlorofluoromethane (T)

6.96min 28.21ug/L m

response 431917

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	65.32
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

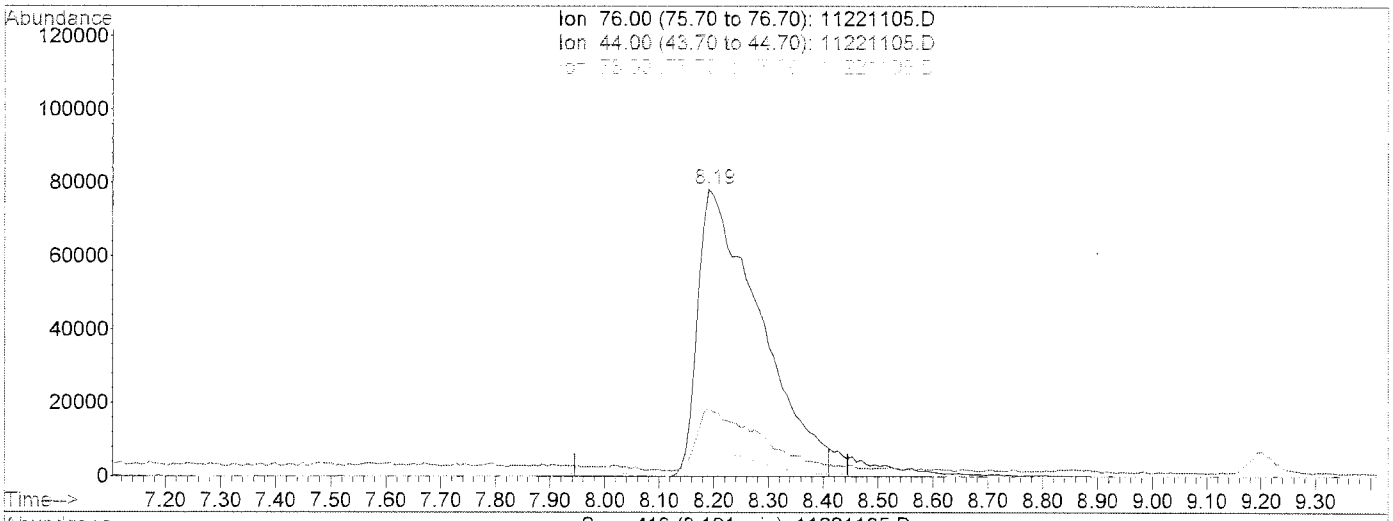
After

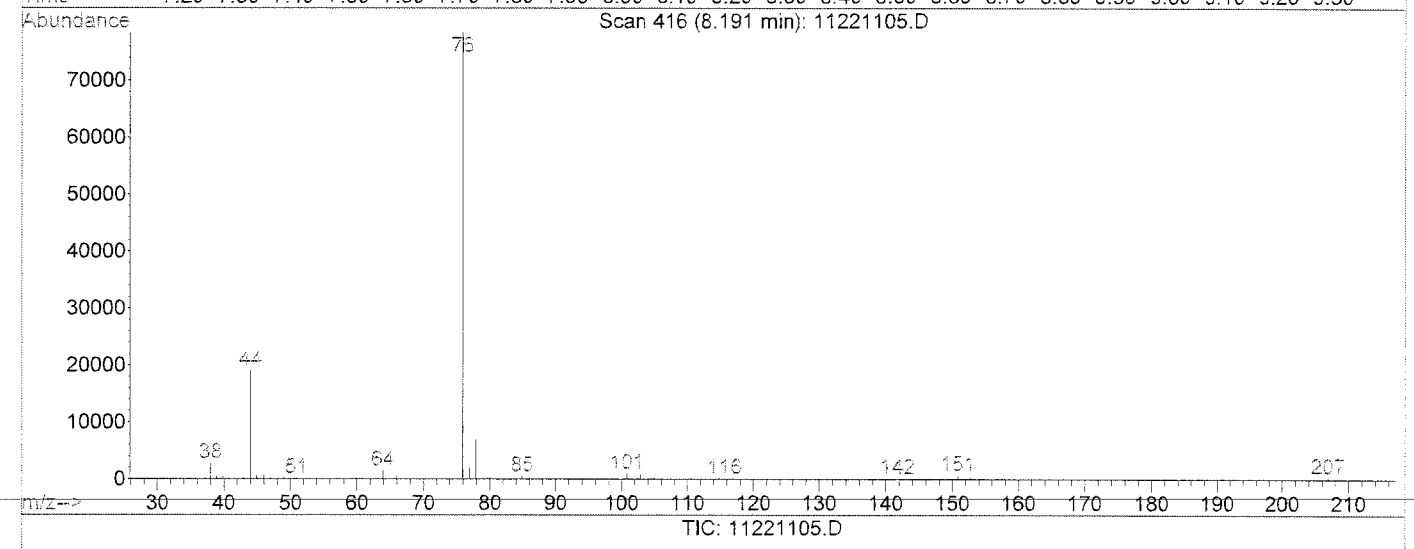
11221105.D 112111.M Wed Nov 23 07:10:14 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221105.D Vial: 5
Acq On : 22 Nov 2011 3:15 pm Operator: KH
Sample : 11K0879-MS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:10 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221105.D

11/23/11

(19) Carbon Disulfide (T)

8.19min 22.81ug/L

response 616042

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	21.80
78.00	3.90	9.02#
0.00	0.00	0.00

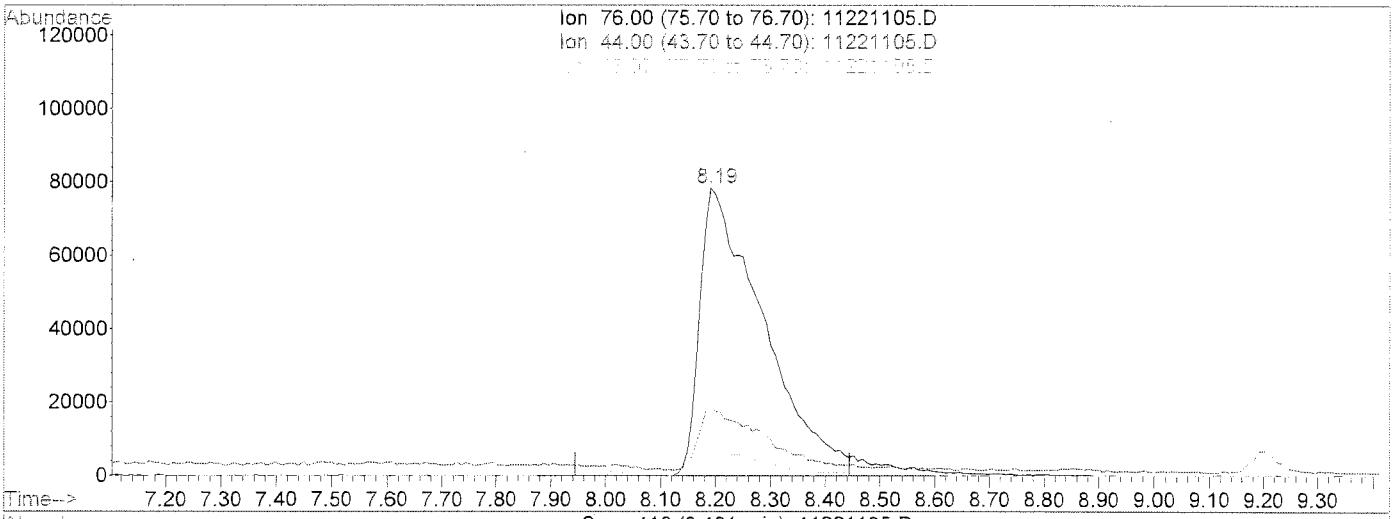
Before-DIP

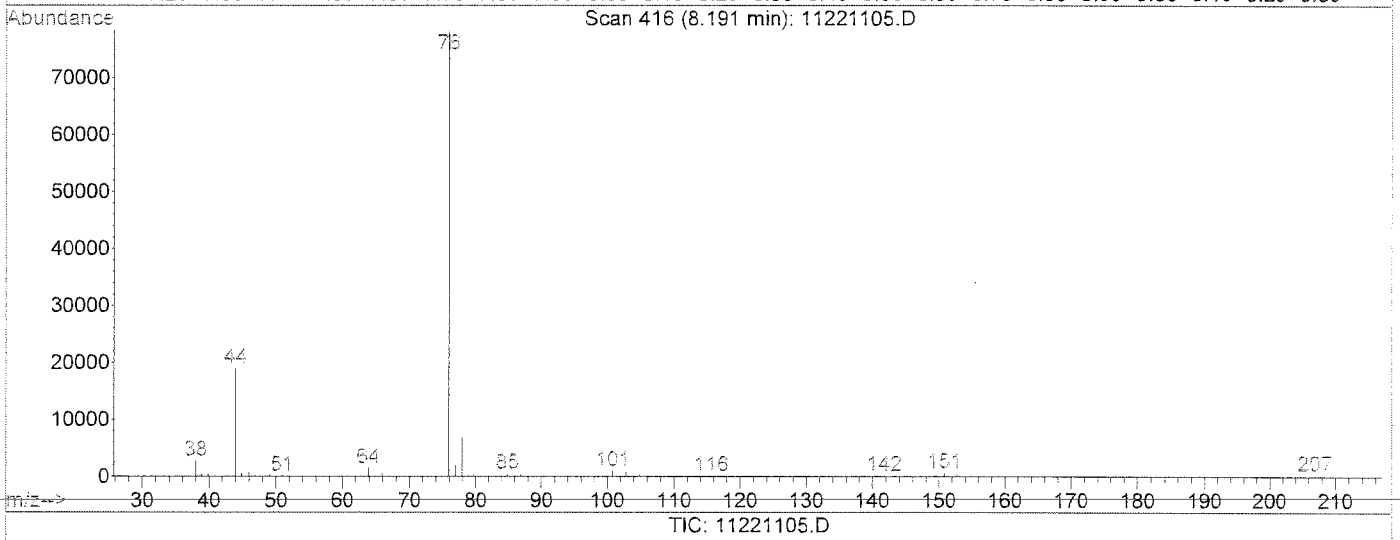
11221105.D 112111.M Wed Nov 23 07:10:20 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221105.D Vial: 5
Acq On : 22 Nov 2011 3:15 pm Operator: KH
Sample : 11K0879-MS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:10 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





(19) Carbon Disulfide (T)

8.19min 24.42ug/L m

response 659428

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	20.37
78.00	3.90	8.43#
0.00	0.00	0.00

11/23/11

After

11221105.D 112111.M Wed Nov 23 07:10:28 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221105.D Vial: 5
Acq On : 22 Nov 2011 3:15 pm Operator: KH
Sample : 11K0879-MS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:10 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/112

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	44073	200.00 ug/L	0.00
4) Pentafluorobenzene	10.69	168	347812	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.81	114	505228	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.15	117	415482	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.58	152	207984	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	210040	22.73 ug/L	0.00
Spiked Amount 25.000			Recovery =	90.92%	
50) Toluene-d8 (surr)	14.19	98	541193	24.47 ug/L	0.00
Spiked Amount 25.000			Recovery =	97.88%	
64) 4-Bromofluorobenzene (surr	17.82	95	228087	23.85 ug/L	0.00
Spiked Amount 25.000			Recovery =	95.40%	

Target Compounds					Qvalue
2) Ethanol	6.17	45	39424	213.26 ug/L	97
3) tert-Butanol (TBA)	7.69	59	57915	82.02 ug/L #	94
5) Dichlorodifluoromethane	4.87	85	412616	19.99 ug/L	99
6) Chloromethane	5.15	50	387854	19.99 ug/L	99
7) Vinyl Chloride	5.49	62	371633	25.07 ug/L	98
8) 1,3-Butadiene	5.60	54	287405	32.90 ug/L	96
9) Bromomethane	6.02	94	229470	21.45 ug/L	99
10) Chloroethane	6.20	64	191718	23.46 ug/L	98
12) Trichlorofluoromethane	6.96	101	431917m	28.21 ug/L	
13) Acetone	7.10	43	73206	20.28 ug/L	100
15) Iodomethane	7.75	142	407006	25.59 ug/L	99
16) 1,1-Dichloroethene	7.69	96	207502	23.19 ug/L	100
17) Methylene Chloride	7.86	84	222321	19.29 ug/L	99
18) Freon 113	8.00	101	229141	23.79 ug/L	99
19) Carbon Disulfide	8.19	76	659428m	24.42 ug/L	
20) trans-1,2-Dichloroethene	8.74	96	245546	21.92 ug/L	100
21) MTBE	8.87	73	274636	21.56 ug/L	98
~~22) 1,1-Dichloroethane~~	~~9.06~~	~~63~~	~~472696~~	~~20.26 ug/L~~	~~100~~
23) Vinyl Acetate	9.20	43	322225	19.73 ug/L	100
24) n-Hexane	9.56	86	45838	25.39 ug/L	95
25) 2-Butanone (MEK)	9.59	72	13014	20.09 ug/L #	74
26) Diisopropylether (DIPE)	9.59	45	843955	21.75 ug/L	100
27) cis-1,2-Dichloroethene	9.78	96	242959	21.66 ug/L	99
28) Bromochloromethane	9.99	128	107094	20.31 ug/L	98
29) Chloroform	10.05	83	462157	19.79 ug/L	100
30) 2,2-Dichloropropane	10.16	77	207979	23.24 ug/L	92
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	276404	19.11 ug/L	98
33) Tetrahydrofuran	10.47	72	10253	20.37 ug/L	94
34) 1,2-Dichloroethane	10.89	62	340882	20.04 ug/L	99
35) 1,1,1-Trichloroethane	11.02	97	388244	21.88 ug/L	99
36) (TAME) tert-Amyl methyl et	11.71	73	163425	19.60 ug/L	97
38) 1,1-Dichloropropene	11.25	75	341897	27.51 ug/L	99
39) Carbon Tetrachloride	11.49	117	389142	24.69 ug/L	100
40) Benzene	11.54	78	762773	23.65 ug/L	100
41) Dibromomethane	12.26	93	115954	22.10 ug/L	100
42) 1,2-Dichloropropane	12.30	63	211156	23.14 ug/L	99

(#) = qualifier out of range (m) = manual integration
11221105.D 112111.M Wed Nov 23 07:10:53 2011

11/23/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221105.D Vial: 5
Acq On : 22 Nov 2011 3:15 pm Operator: KH
Sample : 11K0879-MS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:10 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

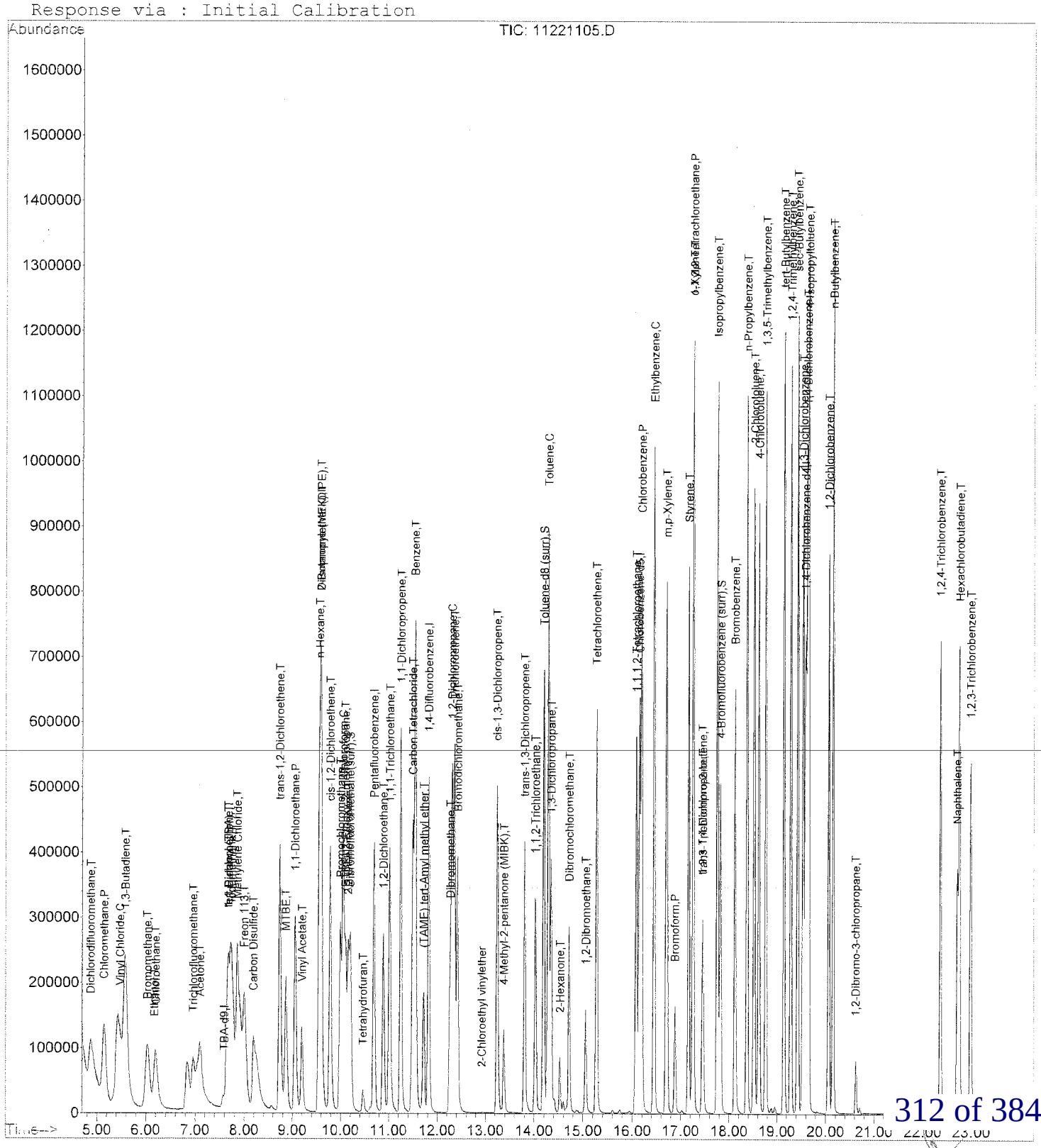
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	Trichloroethene	12.35	95	235333	23.83 ug/L	99
44)	Bromodichloromethane	12.42	83	317239	22.03 ug/L	99
45)	2-Chloroethyl vinylether	12.93	63	442	2.23 ug/L #	50
46)	cis-1,3-Dichloropropene	13.24	75	313755	23.50 ug/L	99
47)	4-Methyl-2-pentanone (MIBK	13.38	43	124050	23.22 ug/L	97
48)	trans-1,3-Dichloropropene	13.80	75	264798	22.76 ug/L	100
49)	1,1,2-Trichloroethane	14.02	97	126083	21.85 ug/L	98
51)	Toluene	14.28	92	454428	23.81 ug/L	99
53)	1,3-Dichloropropane	14.34	76	231402	23.92 ug/L	100
54)	2-Hexanone	14.53	43	81775	25.77 ug/L	98
55)	Dibromochloromethane	14.72	129	193221	24.66 ug/L	99
56)	1,2-Dibromoethane	15.06	107	136212	25.11 ug/L	99
57)	Tetrachloroethene	15.28	164	175915	27.20 ug/L	99
58)	1,1,1,2-Tetrachloroethane	16.08	131	205789	24.96 ug/L	99
59)	Chlorobenzene	16.19	112	526745	24.45 ug/L	99
60)	Ethylbenzene	16.44	91	907098	27.90 ug/L	100
61)	m,p-Xylene	16.70	106	334548	27.19 ug/L	100
62)	Styrene	17.16	104	466322	23.65 ug/L	99
63)	o-Xylene	17.26	106	327107	26.96 ug/L	99
66)	Bromoform	16.89	173	103419	27.09 ug/L	99
67)	1,1,2,2-Tetrachloroethane	17.25	83	130307	24.83 ug/L	100
68)	1,2,3-Trichloropropane	17.45	110	40380	25.32 ug/L	98
69)	trans-1,4-Dichloro-2-buten	17.46	53	43958	19.85 ug/L	95
70)	Isopropylbenzene	17.76	105	922142	31.43 ug/L	99
71)	Bromobenzene	18.12	156	210146	27.66 ug/L	99
72)	n-Propylbenzene	18.37	91	1106655	31.19 ug/L	100
73)	2-Chlorotoluene	18.51	91	672656	28.37 ug/L	99
74)	4-Chlorotoluene	18.62	91	681149	27.76 ug/L	99
75)	1,3,5-Trimethylbenzene	18.77	105	775878	28.82 ug/L	100
76)	tert-Butylbenzene	19.15	119	679018	29.64 ug/L	99
77)	1,2,4-Trimethylbenzene	19.29	105	754595	27.28 ug/L	99
78)	~~sec-Butylbenzene~~	~~19.42~~	~~105~~	~~990949~~	~~29.74 ug/L~~	~~99~~
79)	1,3-Dichlorobenzene	19.53	146	420166	27.06 ug/L	99
80)	1,4-Dichlorobenzene	19.62	146	409412	26.17 ug/L	100
81)	4-Isopropyltoluene	19.65	119	851297	28.24 ug/L	99
82)	1,2-Dichlorobenzene	20.06	146	370625	27.23 ug/L	100
83)	n-Butylbenzene	20.15	91	821850	30.62 ug/L	99
84)	1,2-Dibromo-3-chloropropan	20.63	75	24671	26.34 ug/L	94
85)	1,2,4-Trichlorobenzene	22.36	180	296419	30.63 ug/L	99
86)	Naphthalene	22.71	128	370099	27.05 ug/L	99
87)	Hexachlorobutadiene	22.76	225	219158	30.01 ug/L	99
88)	1,2,3-Trichlorobenzene	22.99	180	234397	30.05 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221105.D Vial: 5
Acq On : 22 Nov 2011 3:15 pm Operator: KH
Sample : 11K0879-MS1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:10 2011 Quant Results File: 112111.RES

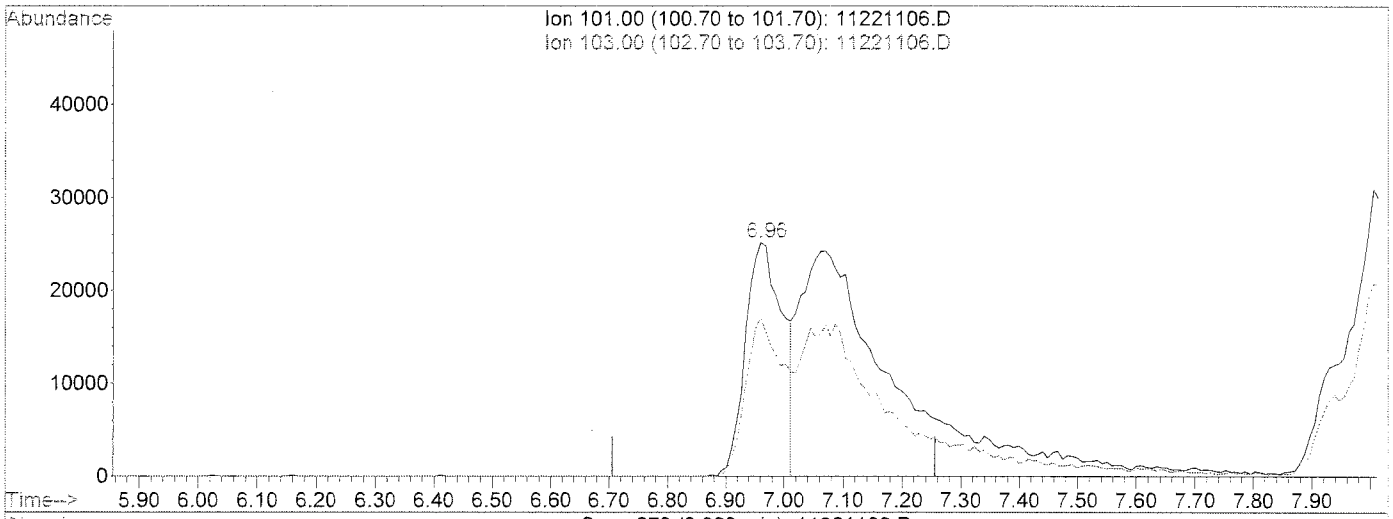
Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

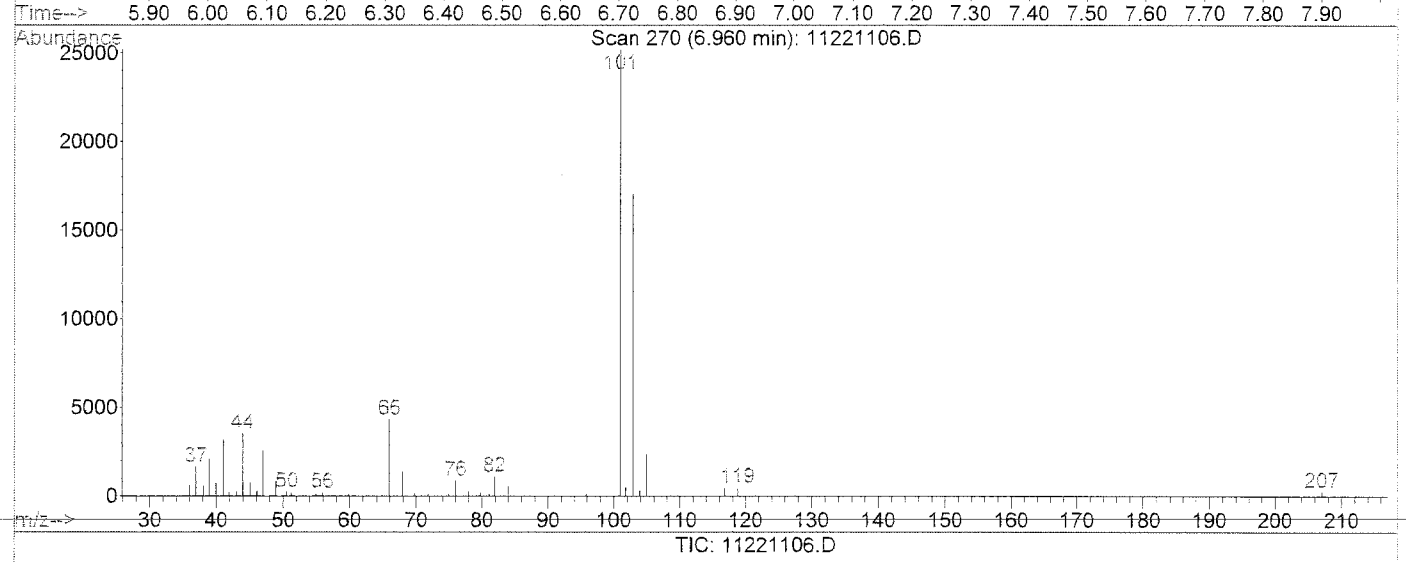


Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221106.D Vial: 5
Acq On : 22 Nov 2011 3:47 pm Operator: KH
Sample : 11K0879-MSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:11 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221106.D

(12) Trichlorofluoromethane (T)

6.96min 7.41ug/L

response 111890

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	67.73
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

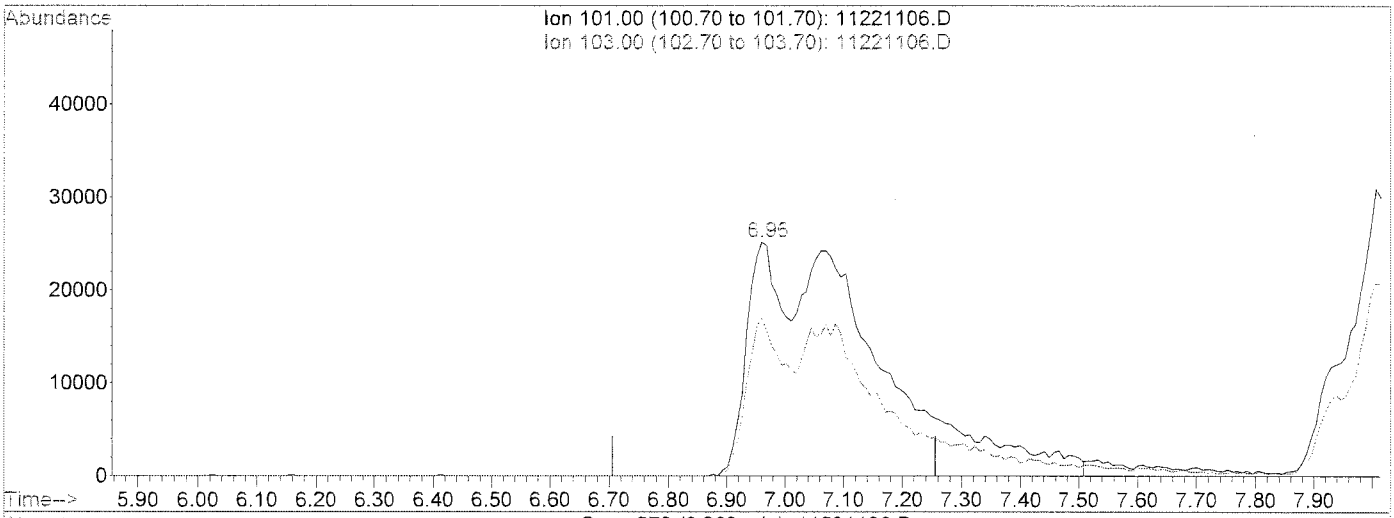
Before-10H

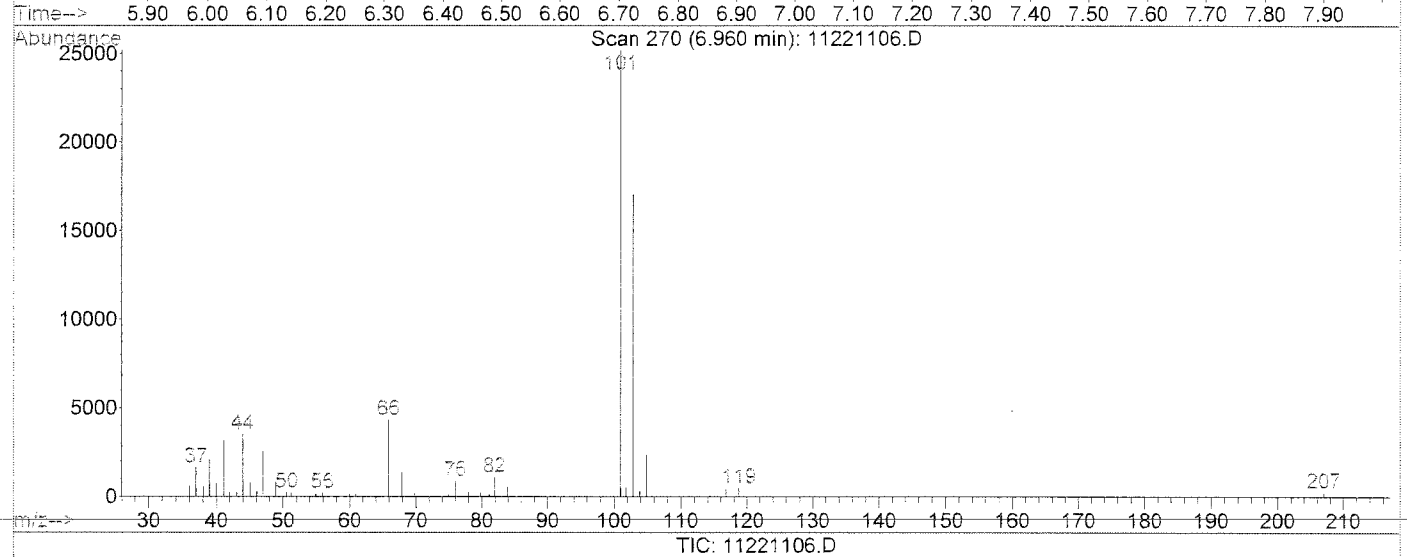
11221106.D 112111.M Wed Nov 23 07:11:11 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221106.D Vial: 5
Acq On : 22 Nov 2011 3:47 pm Operator: KH
Sample : 11K0879-MSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:11 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221106.D

(12) Trichlorofluoromethane (T)

6.96min 25.29ug/L m

response 381657

Ion	Exp%	Act%
101.00	100	100
103.00	60.10	67.73
0.00	0.00	0.00
0.00	0.00	0.00

11/23/11

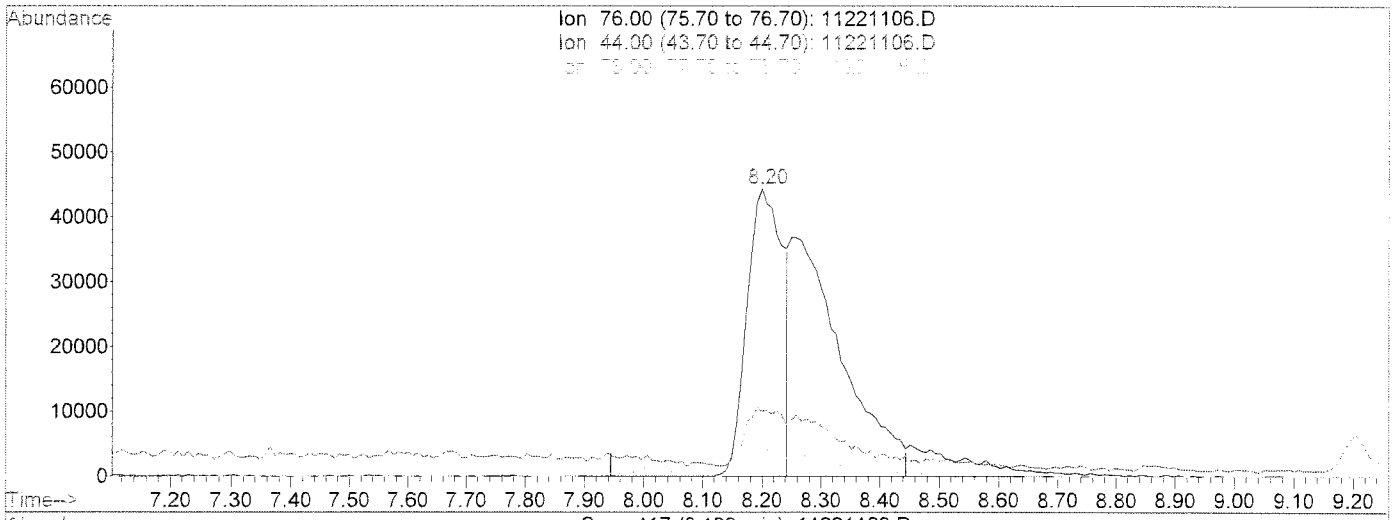
After

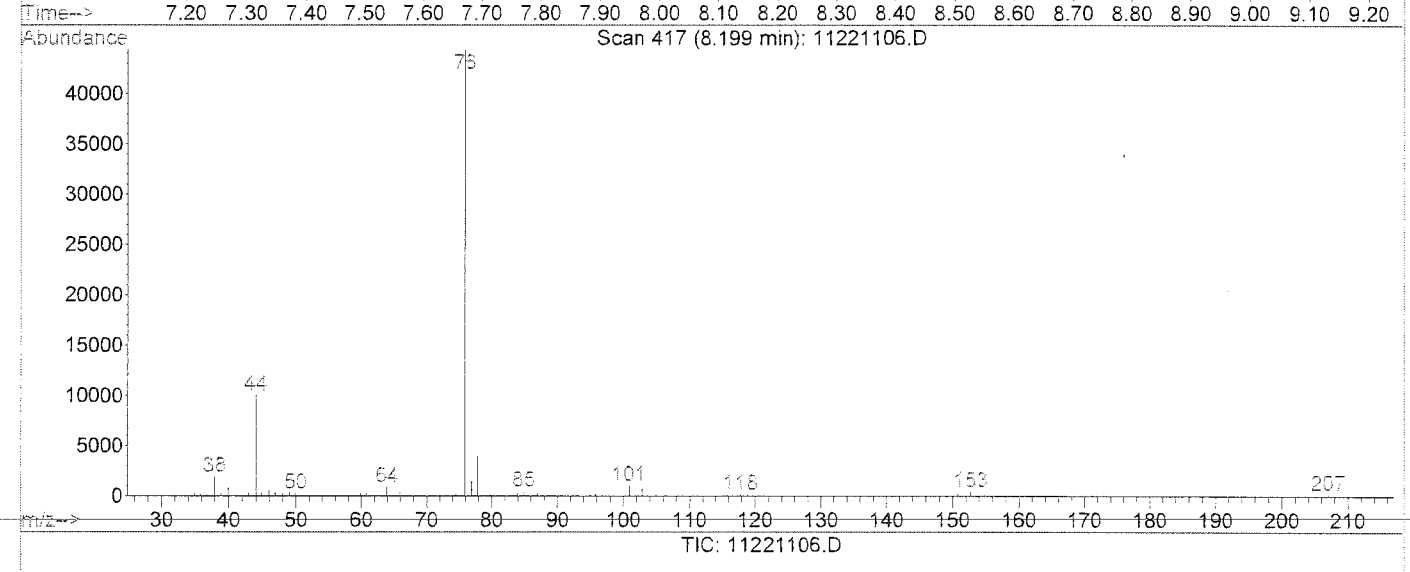
11221106.D 112111.M Wed Nov 23 07:11:18 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221106.D Vial: 5
Acq On : 22 Nov 2011 3:47 pm Operator: KH
Sample : 11K0879-MSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:11 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221106.D

11/23/11

(19) Carbon Disulfide (T)

8.20min 7.00ug/L

response 186464

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	21.10
78.00	3.90	9.05#
0.00	0.00	0.00

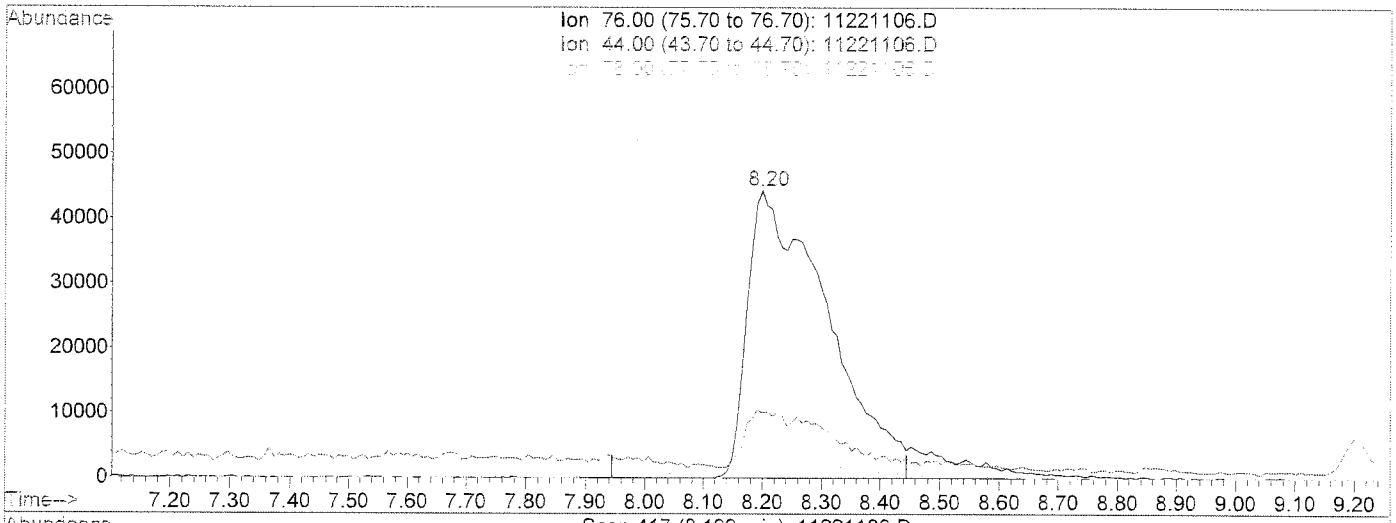
Before -N 11

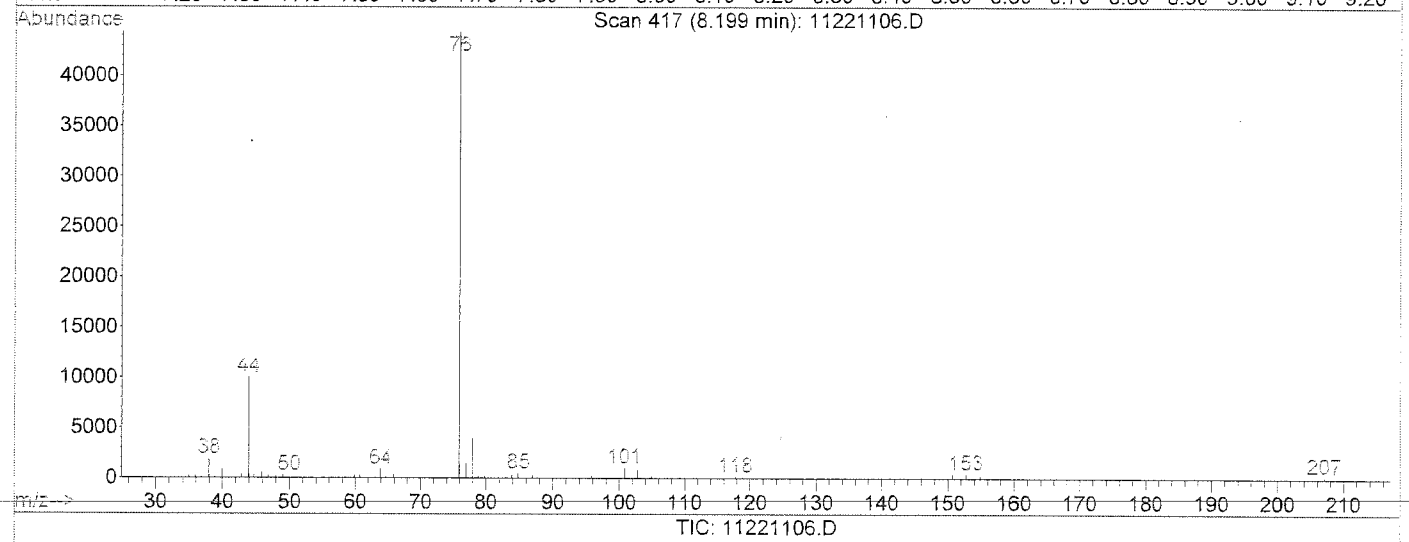
11221106.D 112111.M Wed Nov 23 07:11:29 2011

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221106.D Vial: 5
Acq On : 22 Nov 2011 3:47 pm Operator: KH
Sample : 11K0879-MSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:11 2011 Quant Results File: temp.res

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Multiple Level Calibration





TIC: 11221106.D

(19) Carbon Disulfide (T)

8.20min 16.82ug/L m

response 447878

Ion	Exp%	Act%
76.00	100	100
44.00	19.50	8.78#
78.00	3.90	3.77
0.00	0.00	0.00

11/23/11

After

112311

11221106.D 112111.M Wed Nov 23 07:11:39 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221106.D Vial: 5
Acq On : 22 Nov 2011 3:47 pm Operator: KH
Sample : 11K0879-MSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:11 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) TBA-d9	7.58	65	40611	200.00	ug/L	-0.01
4) Pentafluorobenzene	10.69	168	342850	25.00	ug/L	0.00
37) 1,4-Difluorobenzene	11.81	114	509359	25.00	ug/L	0.00
52) Chlorobenzene-d5	16.15	117	417634	25.00	ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.58	152	207234	25.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(surr)	10.21	113	204154	22.41	ug/L	0.00
Spiked Amount 25.000			Recovery = 89.64%			
50) Toluene-d8 (surr)	14.19	98	546902	24.53	ug/L	0.00
Spiked Amount 25.000			Recovery = 98.12%			
64) 4-Bromofluorobenzene (surr	17.82	95	229207	23.84	ug/L	0.00
Spiked Amount 25.000			Recovery = 95.36%			

Target Compounds						Qvalue
2) Ethanol	6.19	45	34073	200.03	ug/L	95
3) tert-Butanol (TBA)	7.69	59	55949	85.99	ug/L	97
5) Dichlorodifluoromethane	4.88	85	372221	18.29	ug/L	95
6) Chloromethane	5.15	50	336115	17.57	ug/L	98
7) Vinyl Chloride	5.49	62	319789	21.88	ug/L	96
8) 1,3-Butadiene	5.60	54	276270	32.08	ug/L	95
9) Bromomethane	6.05	94	199577	18.92	ug/L	100
10) Chloroethane	6.21	64	169509	21.04	ug/L	99
12) Trichlorofluoromethane	6.96	101	381657m	25.29	ug/L	
13) Acetone	7.11	43	65967	18.54	ug/L	97
15) Iodomethane	7.79	142	376240	24.00	ug/L	99
16) 1,1-Dichloroethene	7.74	96	188899	21.42	ug/L	99
17) Methylene Chloride	7.87	84	201425	17.73	ug/L	98
18) Freon 113	8.01	101	211859	22.31	ug/L #	92
19) Carbon Disulfide	8.20	76	447878m	16.82	ug/L	
20) trans-1,2-Dichloroethene	8.74	96	230945	20.92	ug/L	99
21) MTBE	8.87	73	254591	20.28	ug/L	98
~~22) 1,1-Dichloroethane~~	~~9.06~~	~~63~~	~~437478~~	~~19.03~~	~~ug/L~~	~~100~~
23) Vinyl Acetate	9.20	43	284125	17.76	ug/L	100
24) n-Hexane	9.56	86	42037	23.62	ug/L #	91
25) 2-Butanone (MEK)	9.60	72	11986	18.77	ug/L #	60
26) Diisopropylether (DIPE)	9.60	45	795079	20.79	ug/L	99
27) cis-1,2-Dichloroethene	9.78	96	226225	20.46	ug/L	99
28) Bromochloromethane	9.99	128	101492	19.52	ug/L	97
29) Chloroform	10.05	83	440365	19.13	ug/L	99
30) 2,2-Dichloropropane	10.16	77	184797	20.95	ug/L	93
31) (ETBE) 2-Ethoxy-2-methyl p	10.10	59	256594	18.00	ug/L #	84
33) Tetrahydrofuran	10.48	72	8905	17.95	ug/L #	75
34) 1,2-Dichloroethane	10.89	62	329375	19.64	ug/L	99
35) 1,1,1-Trichloroethane	11.02	97	363045	20.75	ug/L	99
36) (TAME) tert-Amyl methyl et	11.71	73	153572	18.68	ug/L	97
38) 1,1-Dichloropropene	11.25	75	319285	25.48	ug/L	98
39) Carbon Tetrachloride	11.49	117	361157	22.73	ug/L	99
40) Benzene	11.55	78	726125	22.33	ug/L	100
41) Dibromomethane	12.26	93	112963	21.35	ug/L	99
2) 1,2-Dichloropropane	12.30	63	203638	22.13	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221106.D Vial: 5
Acq On : 22 Nov 2011 3:47 pm Operator: KH
Sample : 11K0879-MSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:11 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

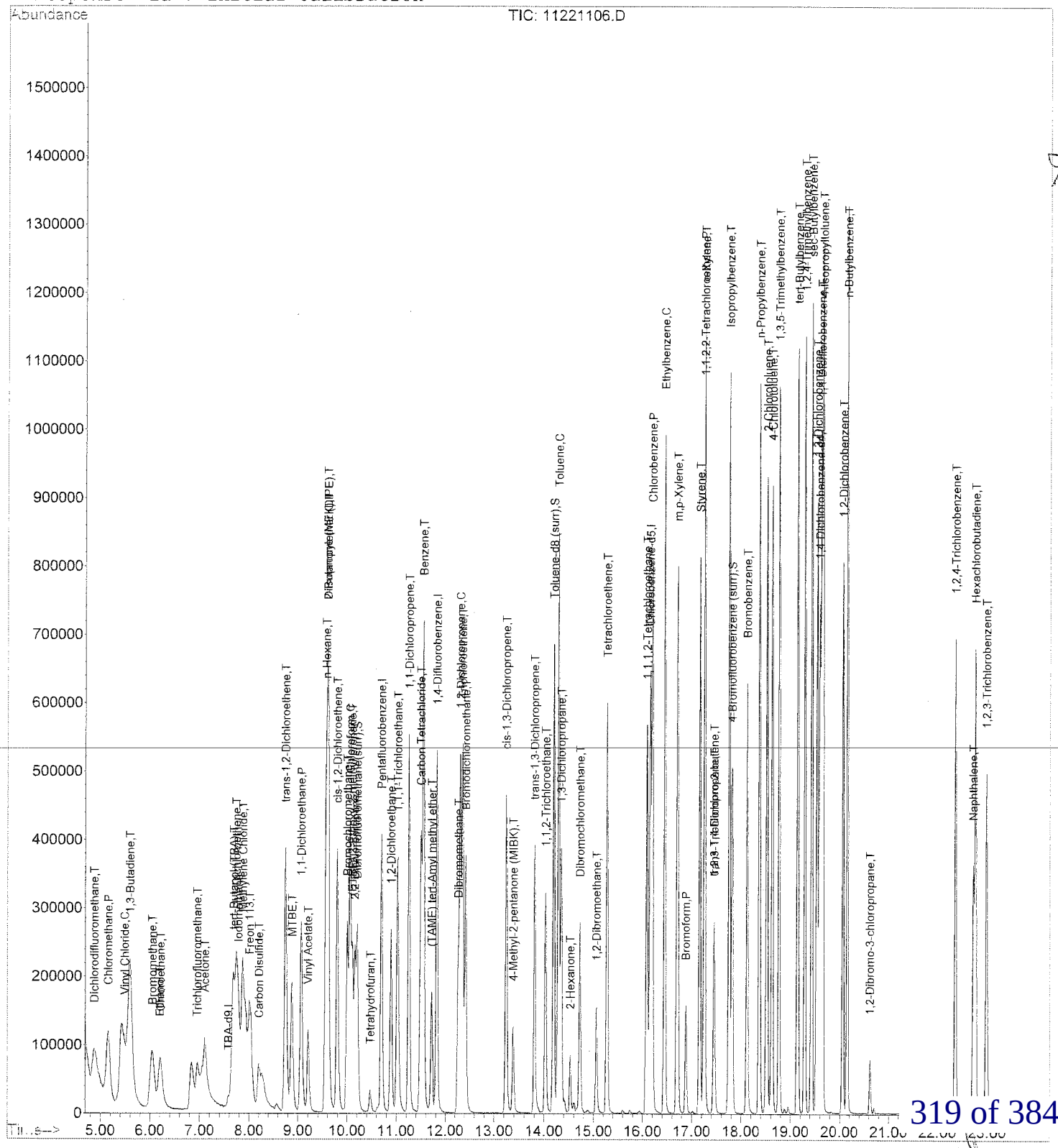
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
43)	Trichloroethene	12.35	95	221300	22.22 ug/L	99
44)	Bromodichloromethane	12.42	83	309980	21.35 ug/L	100
46)	cis-1,3-Dichloropropene	13.24	75	288415	21.45 ug/L	99
47)	4-Methyl-2-pentanone (MIBK	13.38	43	123997	23.02 ug/L	96
48)	trans-1,3-Dichloropropene	13.80	75	248018	21.16 ug/L	100
49)	1,1,2-Trichloroethane	14.03	97	122981	21.14 ug/L	98
51)	Toluene	14.28	92	434051	22.56 ug/L	100
53)	1,3-Dichloropropane	14.34	76	227800	23.43 ug/L	100
54)	2-Hexanone	14.53	43	81768	25.63 ug/L	99
55)	Dibromochloromethane	14.72	129	185784	23.59 ug/L	99
56)	1,2-Dibromoethane	15.06	107	134442	24.66 ug/L	99
57)	Tetrachloroethene	15.28	164	167887	25.83 ug/L	98
58)	1,1,1,2-Tetrachloroethane	16.08	131	198389	23.94 ug/L	98
59)	Chlorobenzene	16.19	112	512398	23.66 ug/L	98
60)	Ethylbenzene	16.44	91	873647	26.73 ug/L	99
61)	m,p-Xylene	16.70	106	319893	25.86 ug/L	100
62)	Styrene	17.16	104	459372	23.18 ug/L	99
63)	o-Xylene	17.26	106	320624	26.29 ug/L	99
66)	Bromoform	16.88	173	93259	24.51 ug/L	98
67)	1,1,2,2-Tetrachloroethane	17.24	83	127106	24.31 ug/L	97
68)	1,2,3-Trichloropropane	17.45	110	41458	26.09 ug/L	96
69)	trans-1,4-Dichloro-2-buten	17.46	53	34144	15.66 ug/L	96
70)	Isopropylbenzene	17.76	105	885795	30.31 ug/L	100
71)	Bromobenzene	18.12	156	199997	26.42 ug/L	99
72)	n-Propylbenzene	18.36	91	1054614	29.83 ug/L	100
73)	2-Chlorotoluene	18.51	91	649687	27.50 ug/L	98
74)	4-Chlorotoluene	18.62	91	659770	26.99 ug/L	99
75)	1,3,5-Trimethylbenzene	18.77	105	742958	27.69 ug/L	100
76)	tert-Butylbenzene	19.15	119	644321	28.24 ug/L	99
77)	1,2,4-Trimethylbenzene	19.29	105	736702	26.73 ug/L	100
78)	sec-Butylbenzene	19.42	105	956080	28.80 ug/L	99
79)	1,3-Dichlorobenzene	19.53	146	396591	25.64 ug/L	99
80)	1,4-Dichlorobenzene	19.62	146	389535	24.99 ug/L	99
81)	4-Isopropyltoluene	19.65	119	811256	27.01 ug/L	99
82)	1,2-Dichlorobenzene	20.06	146	348056	25.66 ug/L	100
83)	n-Butylbenzene	20.15	91	786158	29.40 ug/L	99
84)	1,2-Dibromo-3-chloropropan	20.62	75	23596	25.28 ug/L	99
85)	1,2,4-Trichlorobenzene	22.36	180	276800	28.71 ug/L	99
86)	Naphthalene	22.71	128	348309	25.60 ug/L	100
87)	Hexachlorobutadiene	22.76	225	203803	28.01 ug/L	100
88)	1,2,3-Trichlorobenzene	22.99	180	218484	28.11 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221106.D Vial: 5
Acq On : 22 Nov 2011 3:47 pm Operator: KH
Sample : 11K0879-MSD1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:11 2011 Quant Results File: 112111.RES

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221108.D Vial: 7
Acq On : 22 Nov 2011 4:50 pm Operator: KH
Sample : 11K0879-BLK1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:12 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.58	65	36318	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	312402	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	469601	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.14	117	365372	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	170472	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	195534	23.56 ug/L	0.00
Spiked Amount 25.000			Recovery =	94.24%	
50) Toluene-d8 (surr)	14.20	98	495596	24.11 ug/L	0.00
Spiked Amount 25.000			Recovery =	96.44%	
64) 4-Bromofluorobenzene (surr	17.82	95	196317	23.34 ug/L	0.00
Spiked Amount 25.000			Recovery =	93.36%	

Target Compounds					Qvalue
2) Ethanol	6.17	45	190	1.25 ug/L LRL/NT	96
3) tert-Butanol (TBA)	7.66	59	57	0.10 ug/L #	76
13) Acetone	7.12	43	2095	0.65 ug/L #	56
17) Methylene Chloride	7.88	84	1682	0.16 ug/L #	85
23) Vinyl Acetate	9.18	43	122	1.12 ug/L #NSM	82
33) Tetrahydrofuran	10.47	72	308	0.68 ug/L #LRL/NT	90
36) (TAME) tert-Amyl methyl et	11.82	73	6604	0.88 ug/L #	40
57) Tetrachloroethene	15.27	164	606	0.11 ug/L #	61
62) Styrene	17.15	104	177	0.20 ug/L #	72
63) o-Xylene	17.25	106	231	Below Cal #	64
70) Isopropylbenzene	17.76	105	760	0.18 ug/L #	82
76) tert-Butylbenzene	19.14	119	912	0.19 ug/L #	85
78) sec-Butylbenzene	19.42	105	2554	0.09 ug/L	94
80) 1,4-Dichlorobenzene	19.62	146	1304	0.10 ug/L #	27
81) 4-Isopropyltoluene	19.65	119	3124	0.13 ug/L	94
83) n-Butylbenzene	20.15	91	3209	0.15 ug/L #	85
85) 1,2,4-Trichlorobenzene	22.36	180	1605	0.20 ug/L	97
~~86) Naphthalene~~	~~22.72~~	~~128~~	~~1827~~	~~1.06 ug/L #~~	~~74~~
87) Hexachlorobutadiene	22.77	225	2016	0.34 ug/L #	90
88) 1,2,3-Trichlorobenzene	22.99	180	1785	0.28 ug/L #	88

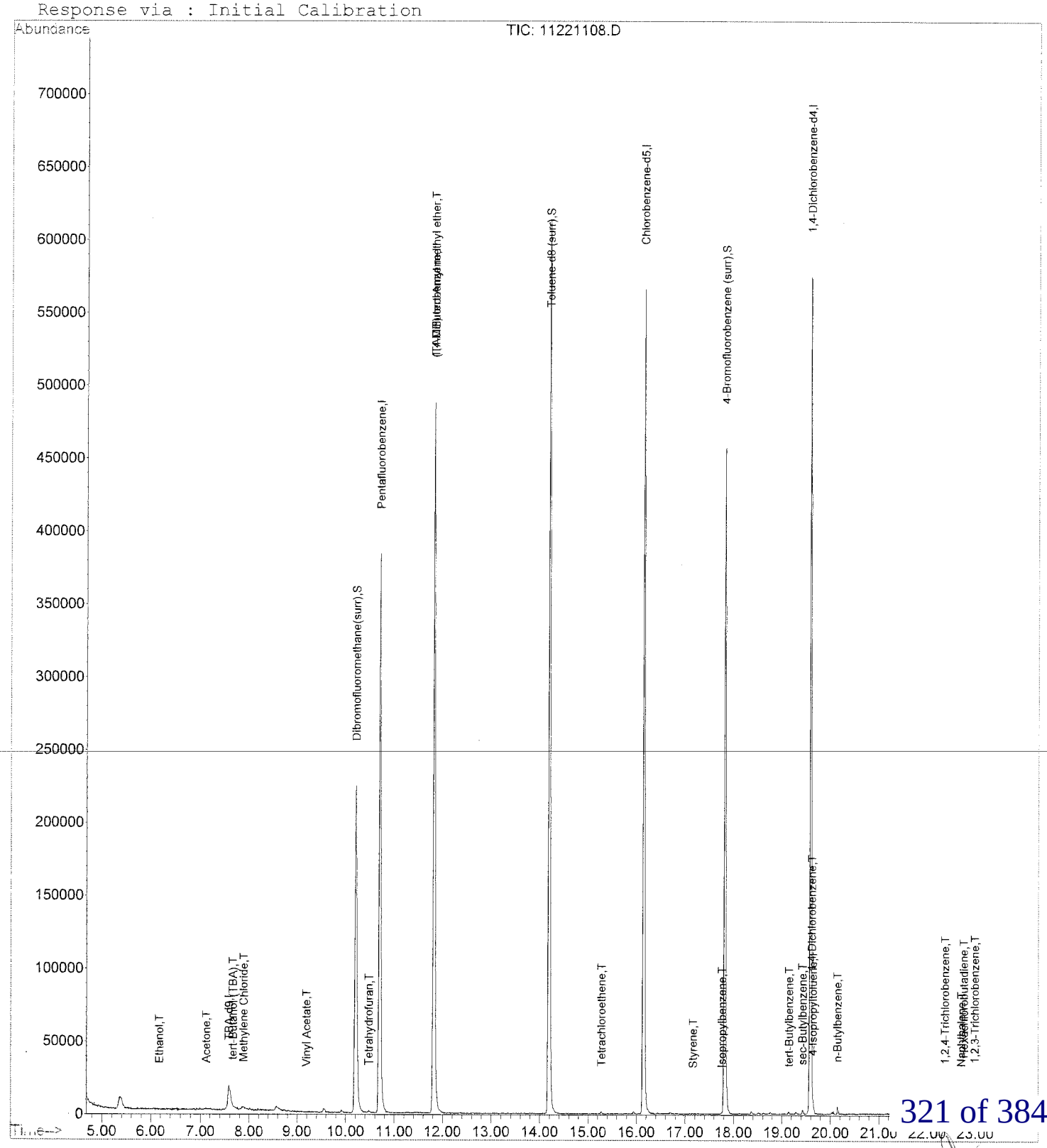
11/23/11

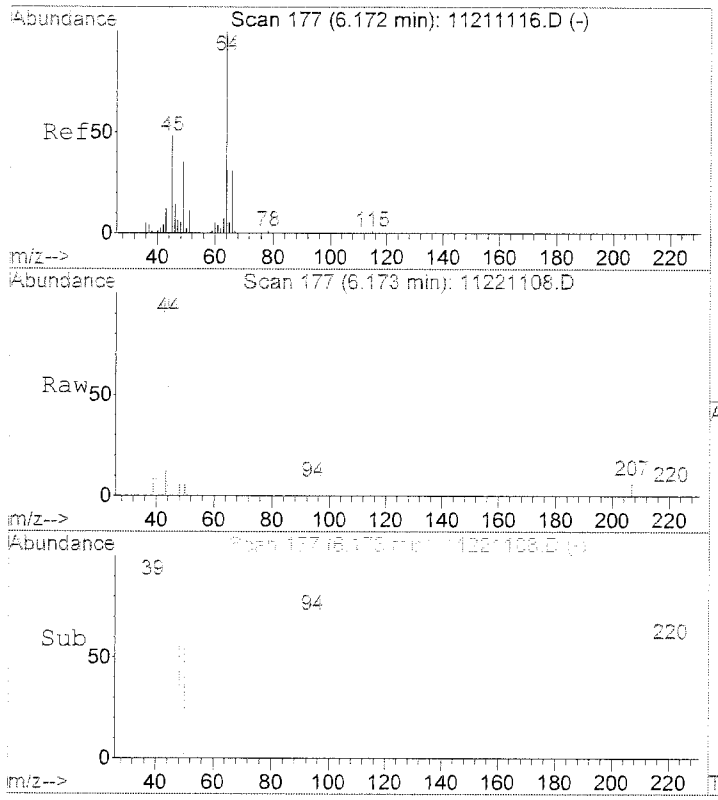
(#) = qualifier out of range (m) = manual integration
11221108.D 112111.M Wed Nov 23 07:14:22 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221108.D Vial: 7
Acq On : 22 Nov 2011 4:50 pm Operator: KH
Sample : 11K0879-BLK1 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:12 2011 Quant Results File: 112111.RES

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

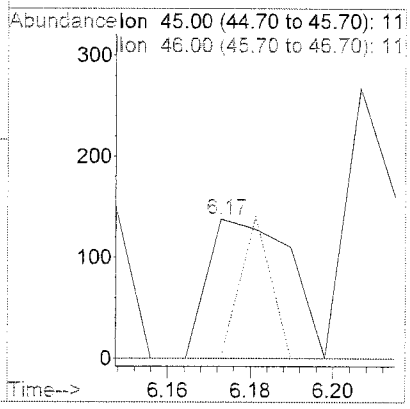


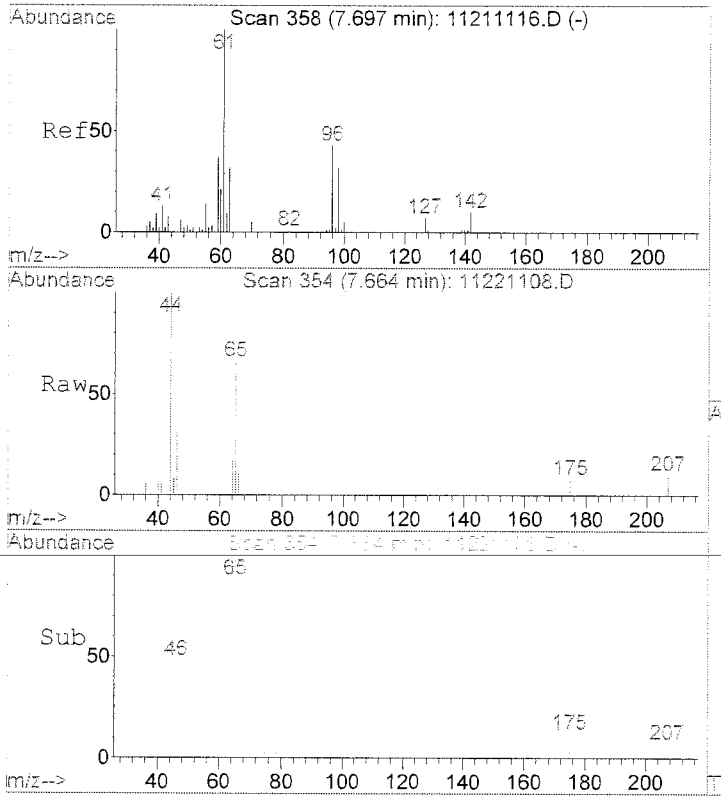


#2
Ethanol
Concen: 1.25 ug/L
RT: 6.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion: 45 Resp: 190

Ion	Ratio	Lower	Upper
45	100		
46	37.4	28.2	42.2

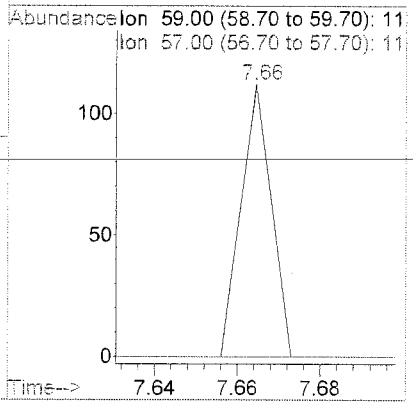


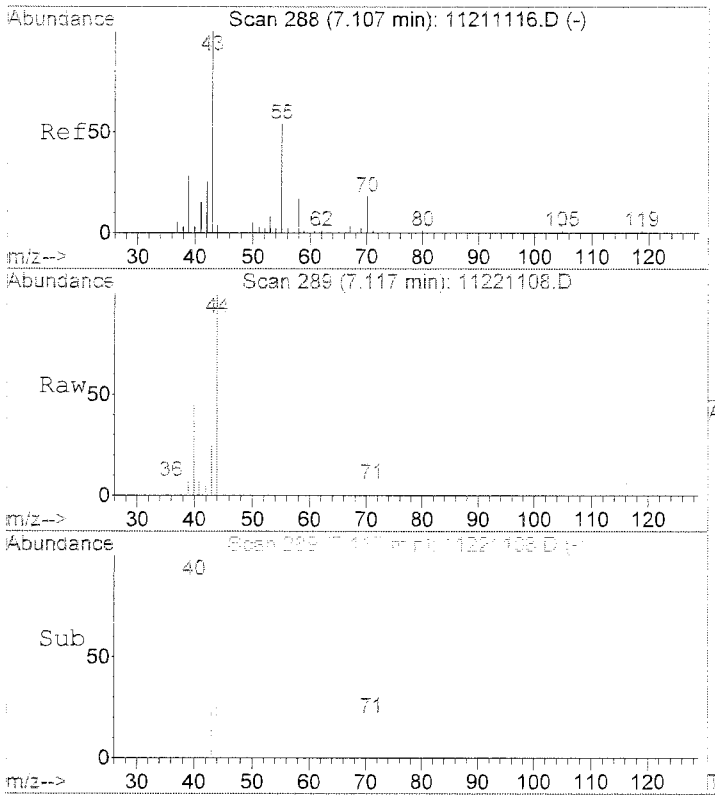


#3
tert-Butanol (TBA)
Concen: 0.10 ug/L
RT: 7.66 min Scan# 354
Delta R.T. -0.03 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion: 59 Resp: 57

Ion	Ratio	Lower	Upper
59	100		
57	0.0	6.9	10.3#

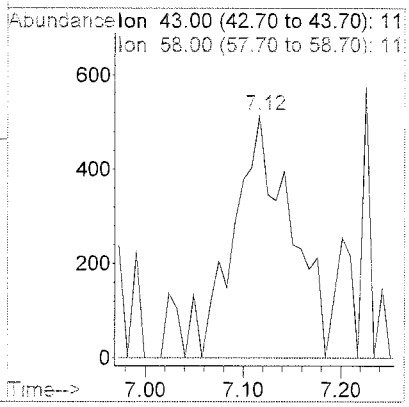


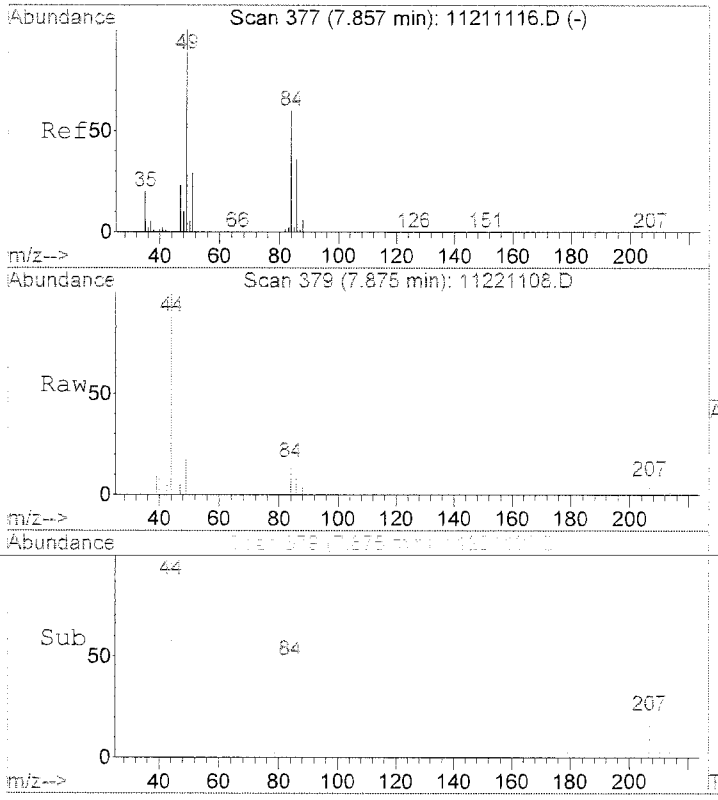


#13
Acetone
Concen: 0.65 ug/L
RT: 7.12 min Scan# 289
Delta R.T. 0.01 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion: 43 Resp: 2095

Ion	Ratio	Lower	Upper
43	100		
58	0.0	16.4	24.6#

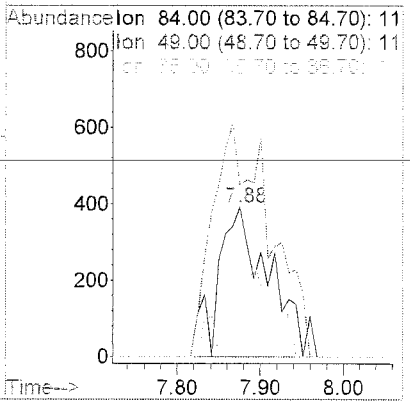


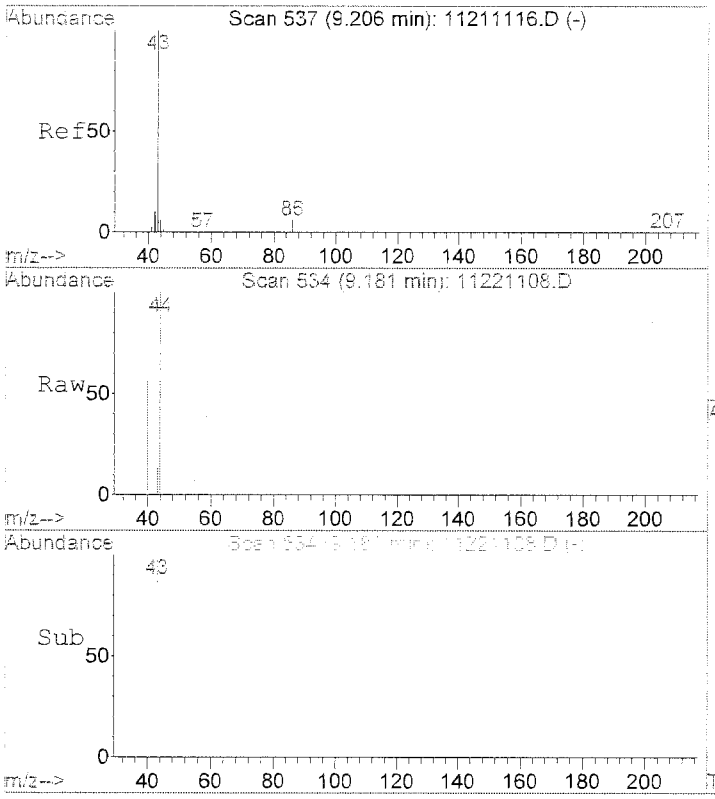


#17
Methylene Chloride
Concen: 0.16 ug/L
RT: 7.88 min Scan# 379
Delta R.T. 0.02 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion: 84 Resp: 1682

Ion	Ratio	Lower	Upper
84	100		
49	173.2	133.1	199.7
86	32.8	51.0	76.4#

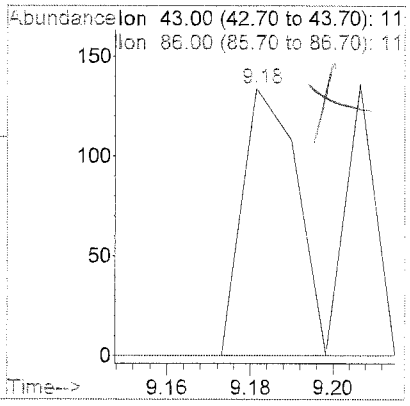


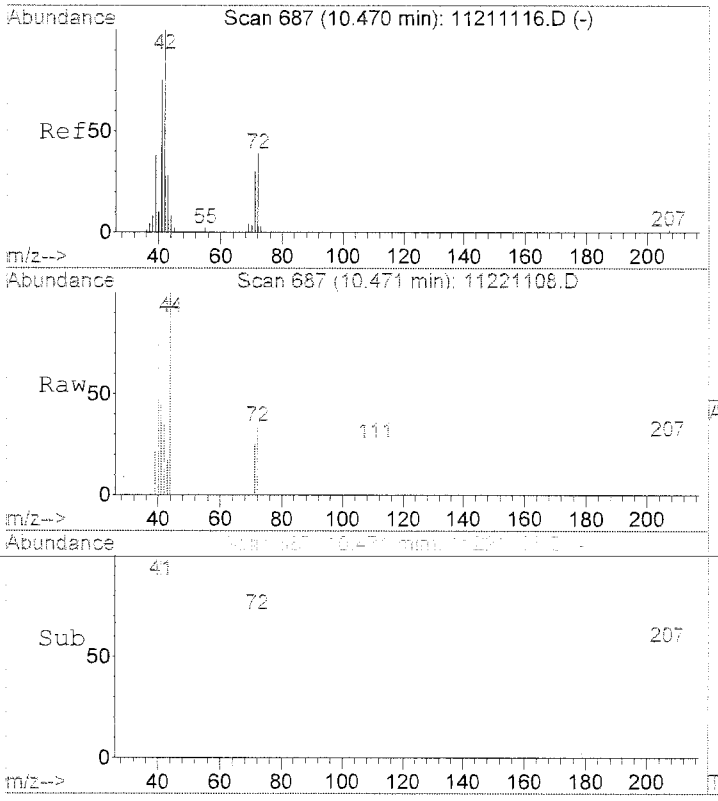


#23
Vinyl Acetate
Concen: 1.12 ug/L
RT: 9.18 min Scan# 534
Delta R.T. -0.02 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion: 43 Resp: 122

Ion	Ratio	Lower	Upper
43	100		
86	0.0	4.7	7.1#

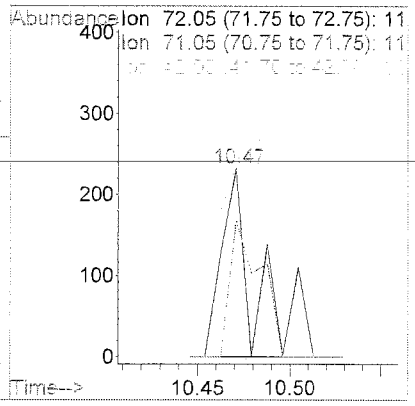


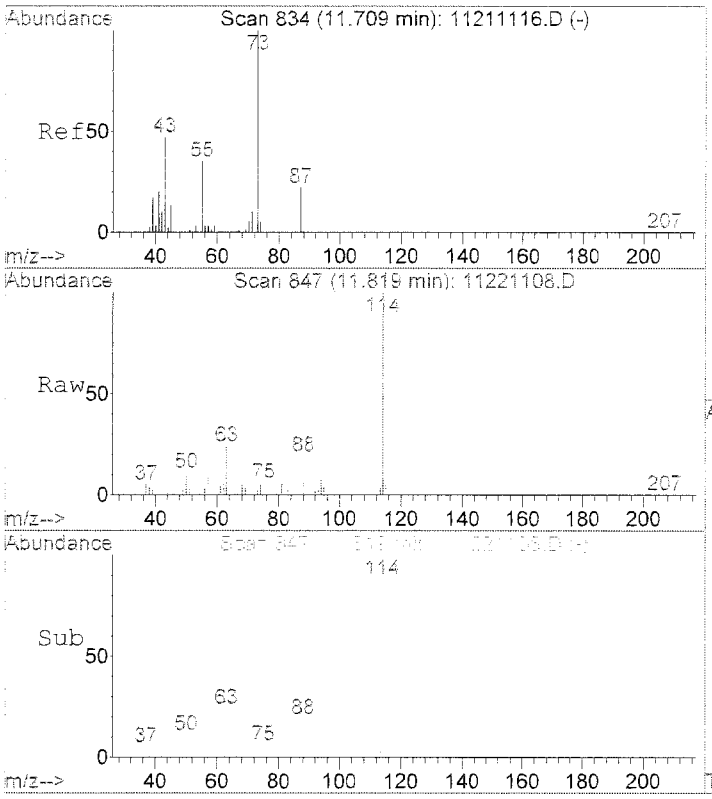


#33
Tetrahydrofuran
Concen: 0.68 ug/L
RT: 10.47 min Scan# 687
Delta R.T. 0.00 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion: 72 Resp: 308

Ion	Ratio	Lower	Upper
72	100		
71	63.3	68.4	108.4#
42	286.4	276.4	316.4

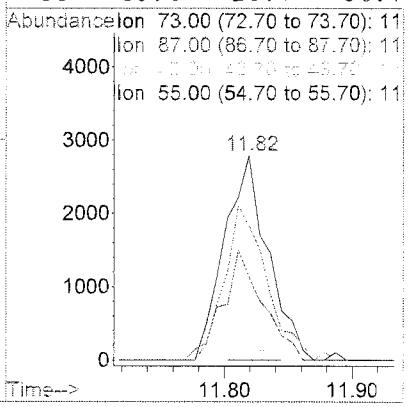


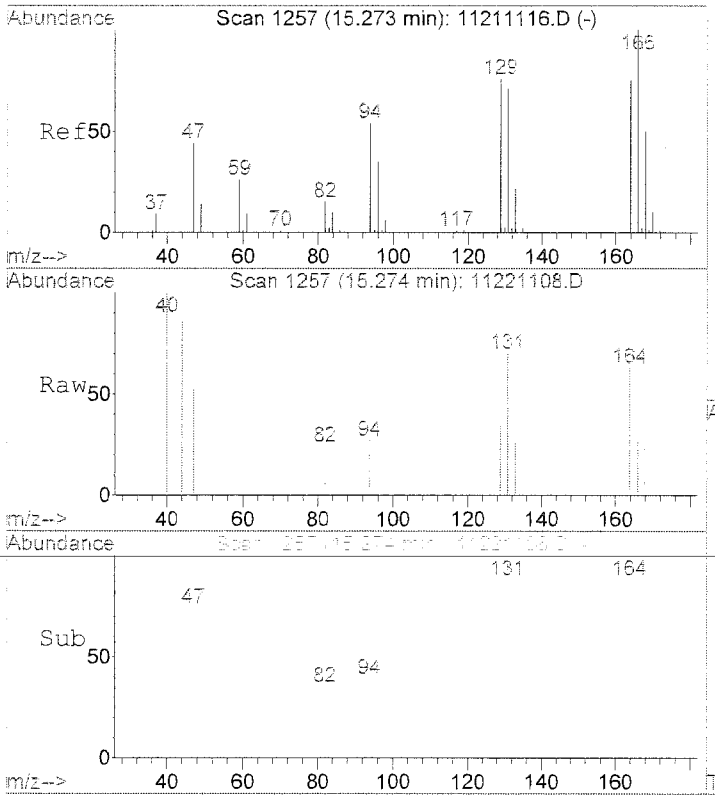


#36
(TAME) tert-Amyl methyl ether
Concen: 0.88 ug/L
RT: 11.82 min Scan# 847
Delta R.T. 0.11 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion: 73 Resp: 6604

Ion	Ratio	Lower	Upper
73	100		
87	74.7	2.5	42.5#
43	4.4	31.5	71.5#
55	48.6	16.7	56.7

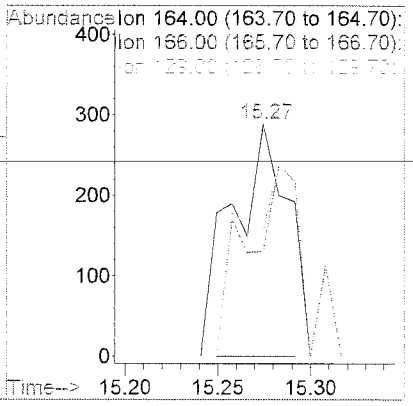


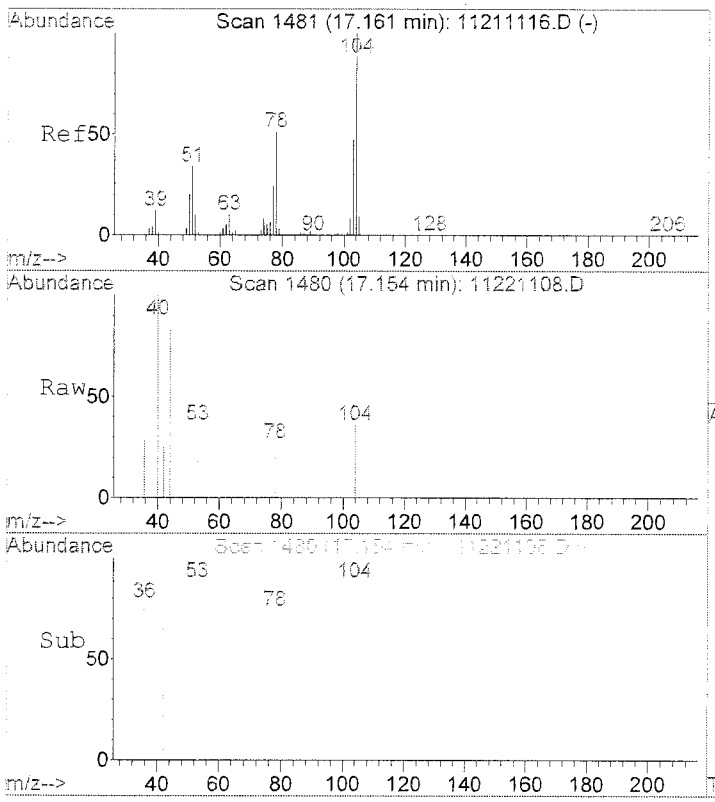


#57
Tetrachloroethene
Concen: 0.11 ug/L
RT: 15.27 min Scan# 1257
Delta R.T. 0.00 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:164 Resp: 606

Ion	Ratio	Lower	Upper
164	100		
166	83.3	104.4	156.6#
129	61.7	78.2	117.4#

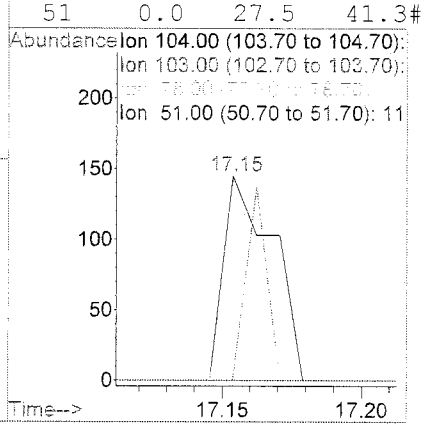


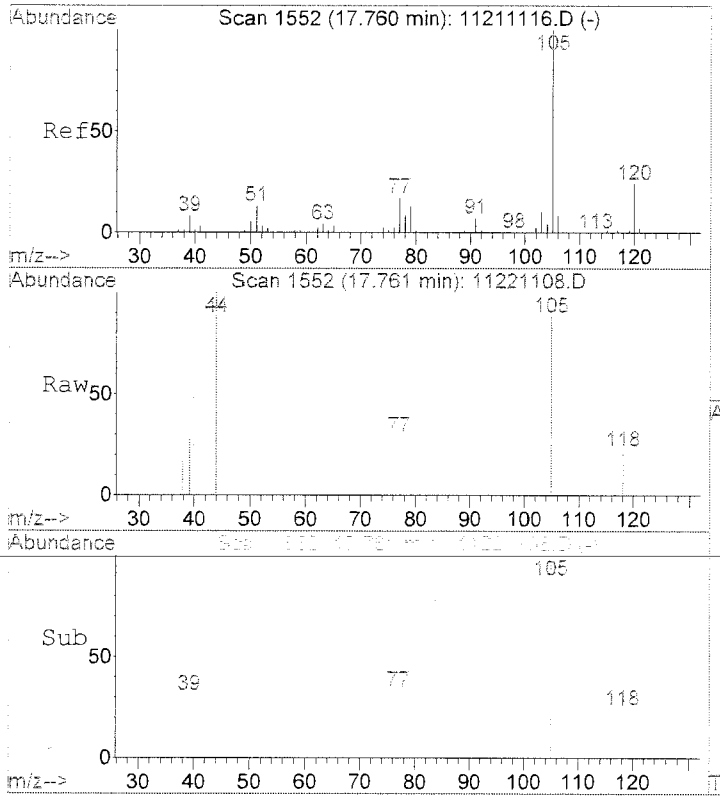


#62
Styrene
Concen: 0.20 ug/L
RT: 17.15 min Scan# 1480
Delta R.T. -0.01 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:104 Resp: 177

Ion	Ratio	Lower	Upper
104	100		
103	39.0	38.1	57.1
78	67.2	41.7	62.5#
51	0.0	27.5	41.3#

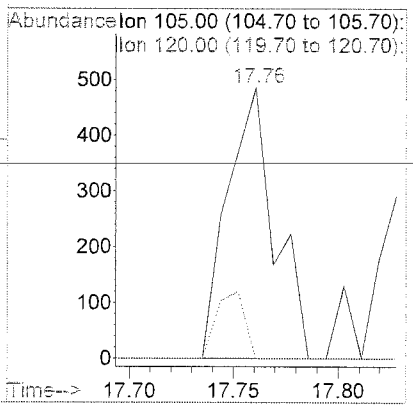


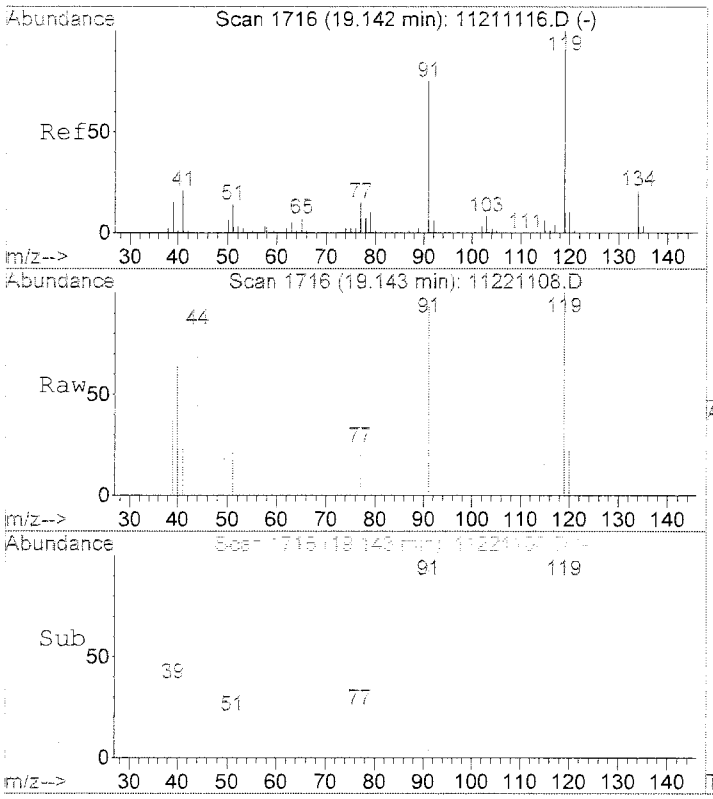


#70
Isopropylbenzene
Concen: 0.18 ug/L
RT: 17.76 min Scan# 1552
Delta R.T. 0.00 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:105 Resp: 760

Ion	Ratio	Lower	Upper
105	100		
120	14.9	19.0	28.6#

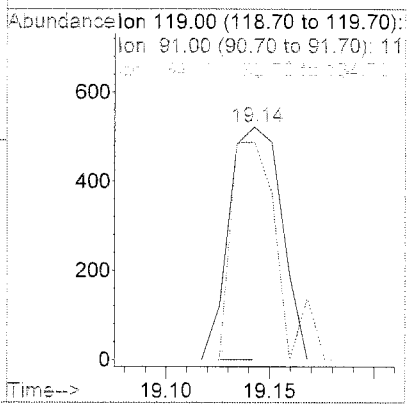


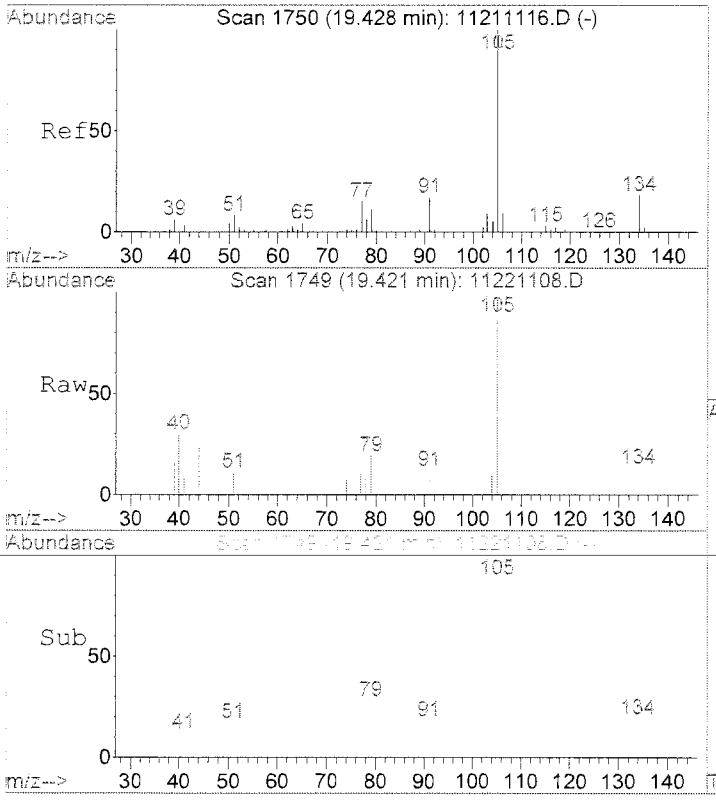


#76
tert-Butylbenzene
Concen: 0.19 ug/L
RT: 19.14 min Scan# 1716
Delta R.T. 0.00 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:119 Resp: 912

Ion	Ratio	Lower	Upper
119	100		
91	82.2	59.3	88.9
134	6.6	17.4	26.0#

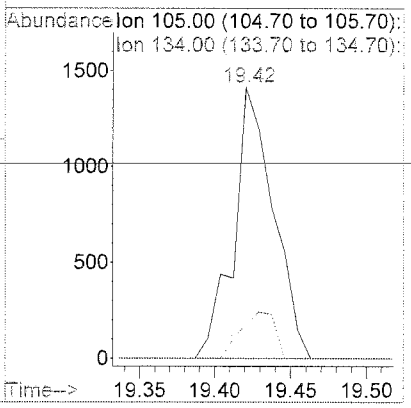


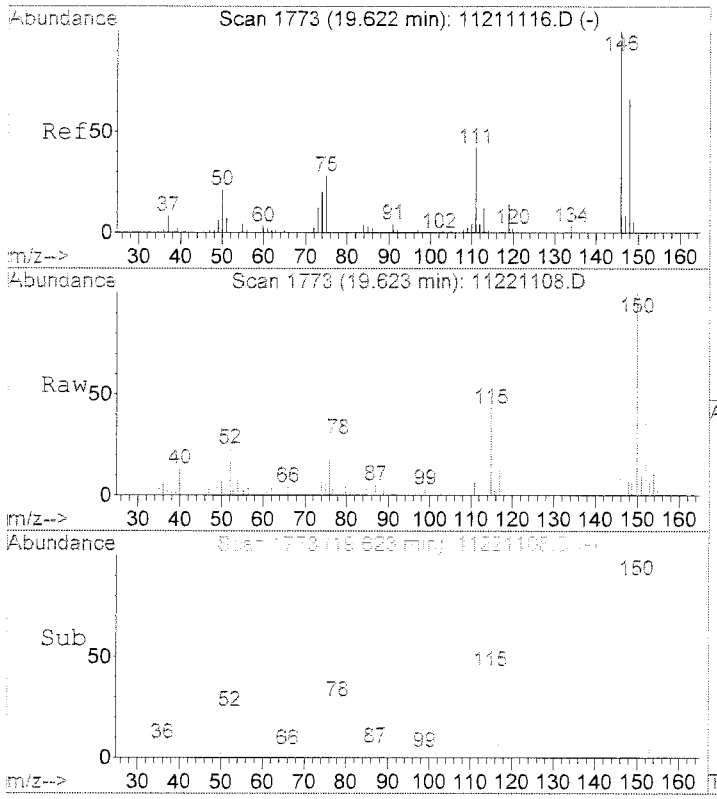


#78
sec-Butylbenzene
Concen: 0.09 ug/L
RT: 19.42 min Scan# 1749
Delta R.T. -0.01 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:105 Resp: 2554

Ion	Ratio	Lower	Upper
105	100		
134	14.8	14.1	21.1

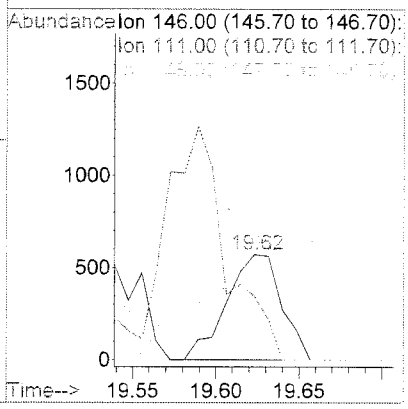




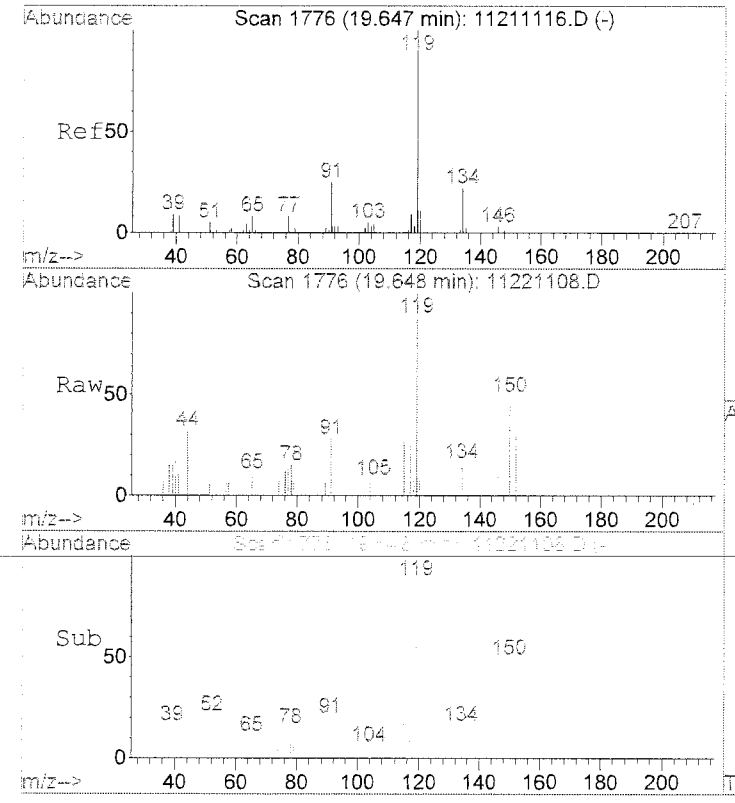
#80
1,4-Dichlorobenzene
Concen: 0.10 ug/L
RT: 19.62 min Scan# 1773
Delta R.T. 0.00 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:146 Resp: 1304

Ion	Ratio	Lower	Upper
146	100		
111	0.0	35.3	52.9#
148	124.0	51.5	77.3#



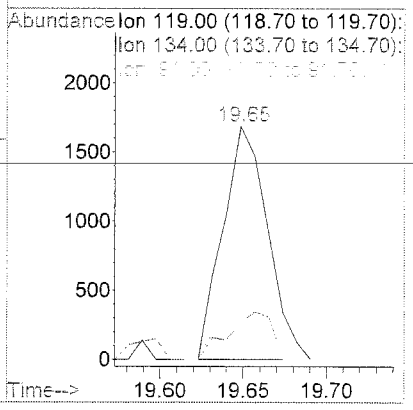
9

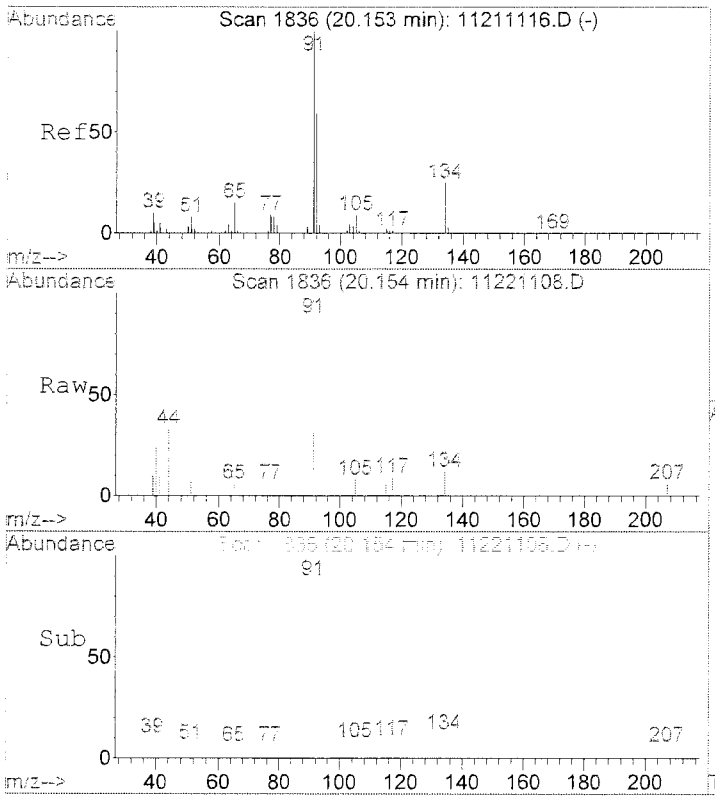


#81
4-Isopropyltoluene
Concen: 0.13 ug/L
RT: 19.65 min Scan# 1776
Delta R.T. 0.00 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:119 Resp: 3124

Ion	Ratio	Lower	Upper
119	100		
134	19.6	17.6	26.4
91	28.5	20.2	30.4

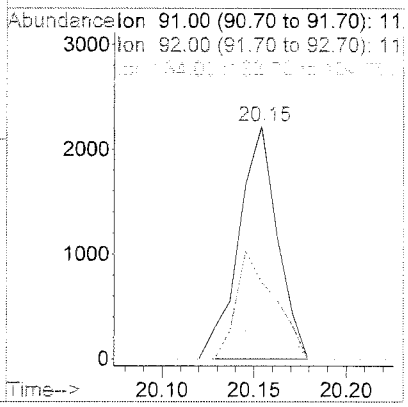




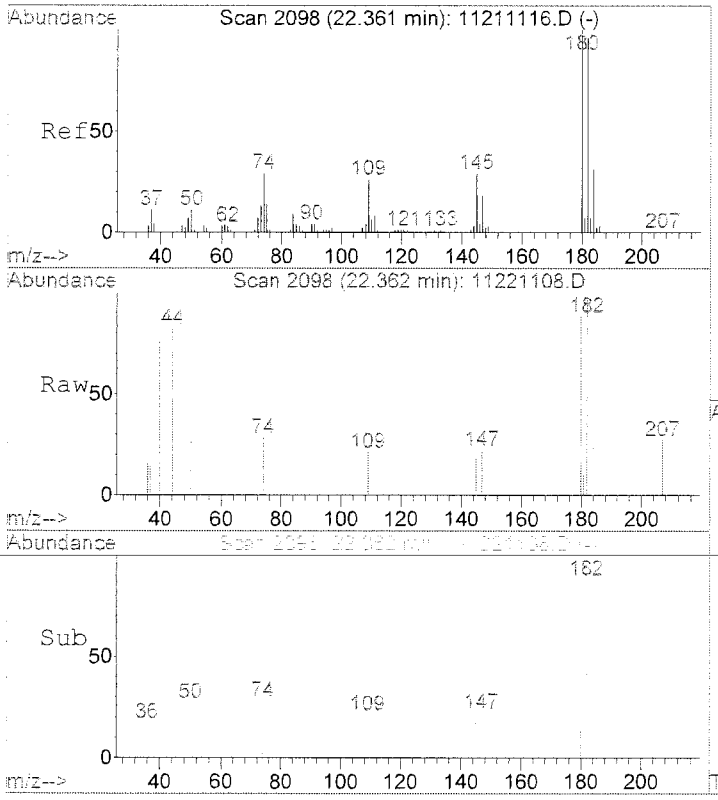
#83
n-Butylbenzene
Concen: 0.15 ug/L
RT: 20.15 min Scan# 1836
Delta R.T. 0.00 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion: 91 Resp: 3209

Ion	Ratio	Lower	Upper
91	100		
92	45.9	46.4	69.6#
134	18.3	19.0	28.6#



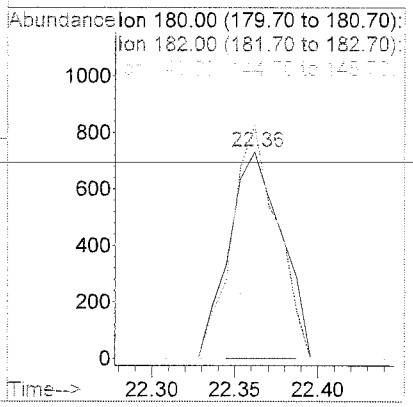
9

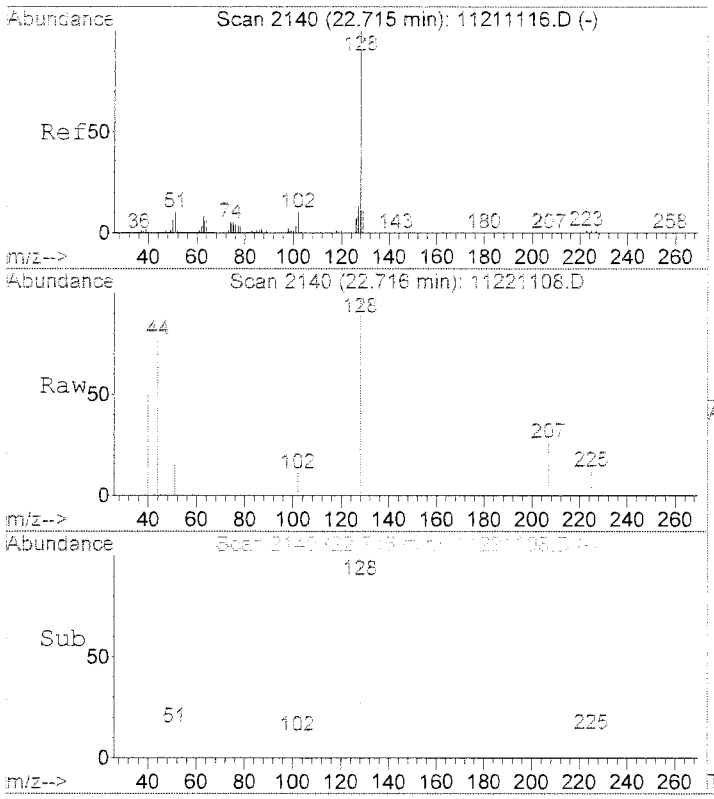


#85
1,2,4-Trichlorobenzene
Concen: 0.20 ug/L
RT: 22.36 min Scan# 2098
Delta R.T. 0.00 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:180 Resp: 1605

Ion	Ratio	Lower	Upper
180	100		
182	97.6	77.0	115.4
145	24.2	23.0	34.4

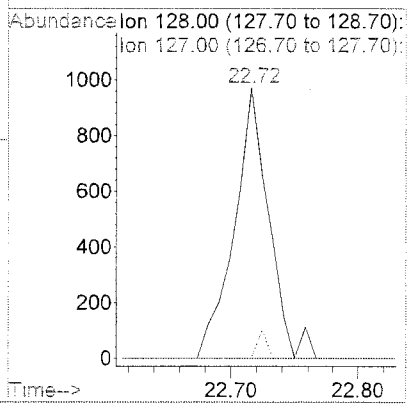


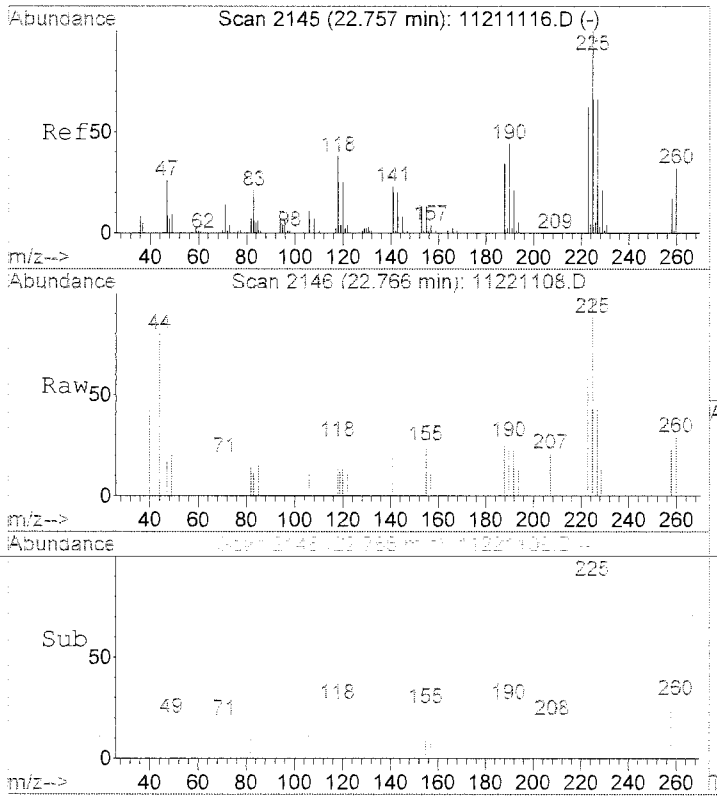


#86
Naphthalene
Concen: 1.06 ug/L
RT: 22.72 min Scan# 2140
Delta R.T. 0.00 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:128 Resp: 1827

Ion	Ratio	Lower	Upper
128	100		
127	2.8	10.5	15.7#

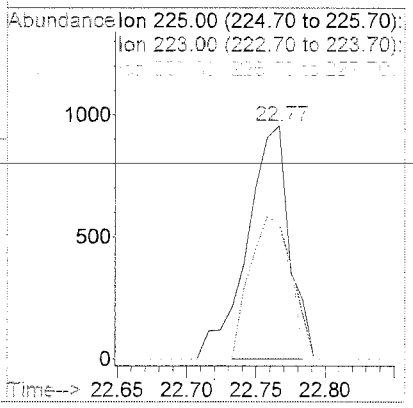


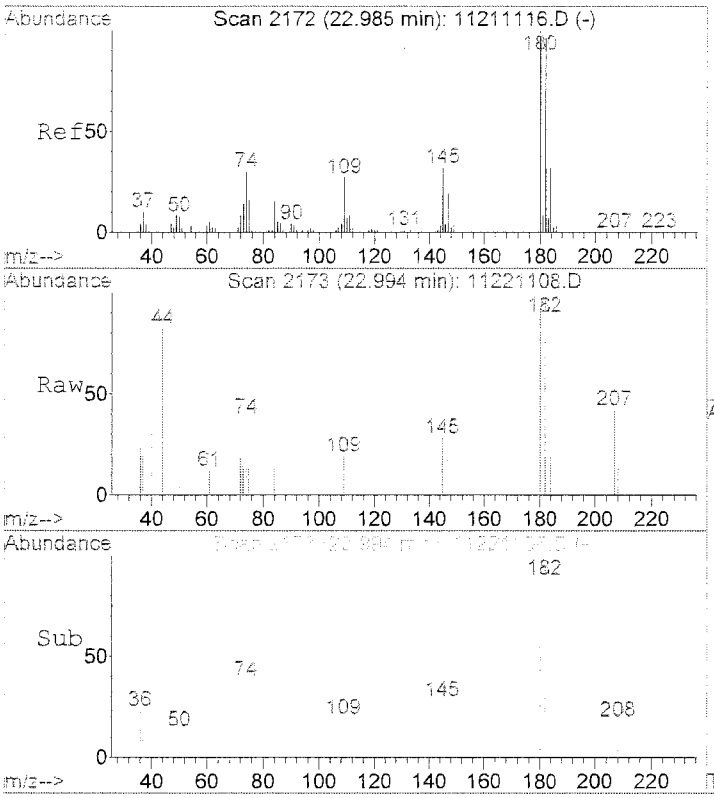


#87
Hexachlorobutadiene
Concen: 0.34 ug/L
RT: 22.77 min Scan# 2146
Delta R.T. 0.01 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:225 Resp: 2016

Ion	Ratio	Lower	Upper
225	100		
223	61.2	49.4	74.0
227	48.8	51.4	77.2#

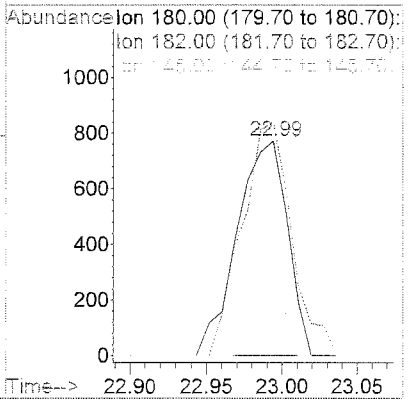




#88
1,2,3-Trichlorobenzene
Concen: 0.28 ug/L
RT: 22.99 min Scan# 2173
Delta R.T. 0.01 min
Lab File: 11221108.D
Acq: 22 Nov 2011 4:50 pm

Tgt Ion:180 Resp: 1785

Ion	Ratio	Lower	Upper
180	100		
182	107.1	77.2	115.8
145	23.3	24.9	37.3#



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221112.D Vial: 11
Acq On : 22 Nov 2011 6:57 pm Operator: KH
Sample : PUK1044-03 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:12 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) TBA-d9	7.57	65	35831	200.00	ug/L	-0.02
4) Pentafluorobenzene	10.70	168	302897	25.00	ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	460877	25.00	ug/L	0.00
52) Chlorobenzene-d5	16.14	117	377781	25.00	ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	171709	25.00	ug/L	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(surr)	10.21	113	196587	24.43	ug/L	0.00
Spiked Amount 25.000			Recovery = 97.72%			
50) Toluene-d8 (surr)	14.19	98	503264	24.95	ug/L	0.00
Spiked Amount 25.000			Recovery = 99.80%			
64) 4-Bromofluorobenzene (surr	17.82	95	202674	23.30	ug/L	0.00
Spiked Amount 25.000			Recovery = 93.20%			

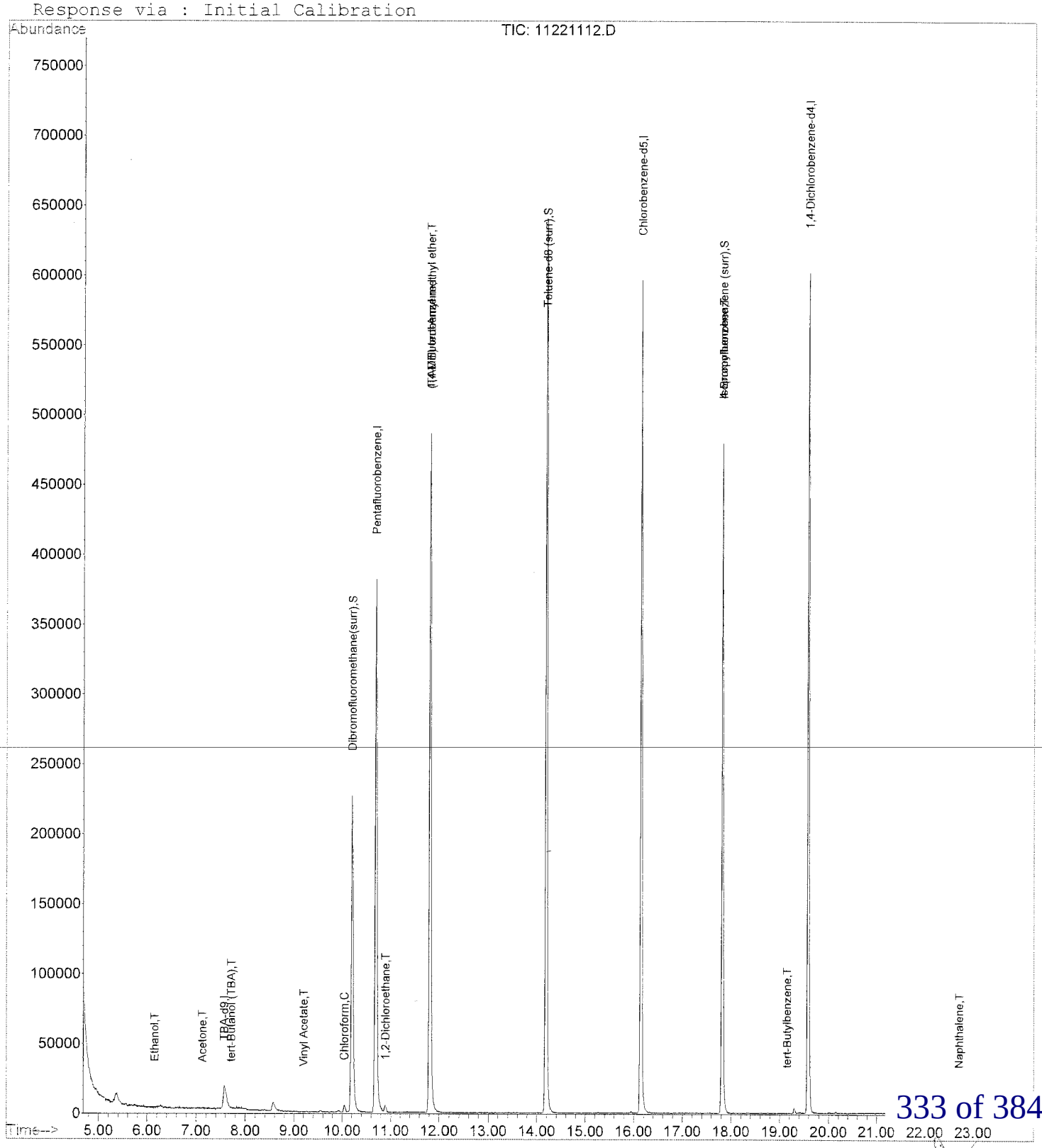
Target Compounds						Qvalue
2) Ethanol	6.15	45	413	2.75	ug/L #	40
3) tert-Butanol (TBA)	7.71	59	79	0.14	ug/L #	76
13) Acetone	7.13	43	937	0.30	ug/L #	56
23) Vinyl Acetate	9.21	43	68	1.12	ug/L #	82
29) Chloroform	10.04	83	5456	0.27	ug/L #	93
34) 1,2-Dichloroethane	10.88	62	5955	0.40	ug/L	96
36) (TAME) tert-Amyl methyl et	11.81	73	6626	0.91	ug/L #	43
70) Isopropylbenzene	17.83	105	226	0.16	ug/L #	52
76) tert-Butylbenzene	19.15	119	53	0.15	ug/L #	22
86) Naphthalene	22.70	128	122	0.92	ug/L #	67

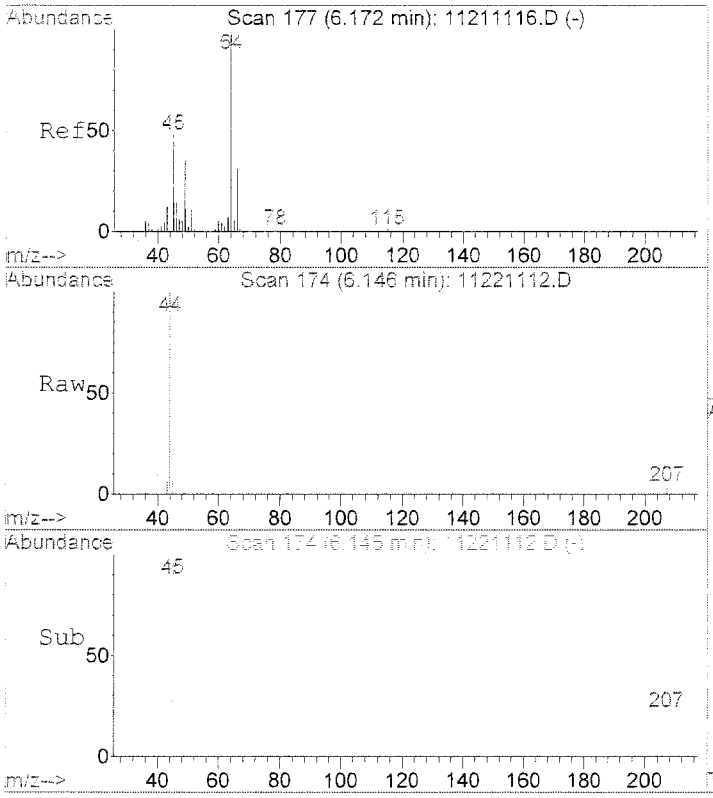
(#) = qualifier out of range (m) = manual integration
11221112.D 112111.M Wed Nov 23 07:14:46 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221112.D Vial: 11
Acq On : 22 Nov 2011 6:57 pm Operator: KH
Sample : PUK1044-03 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:12 2011 Quant Results File: 112111.RES

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

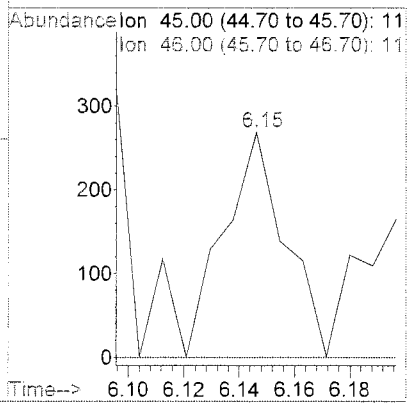


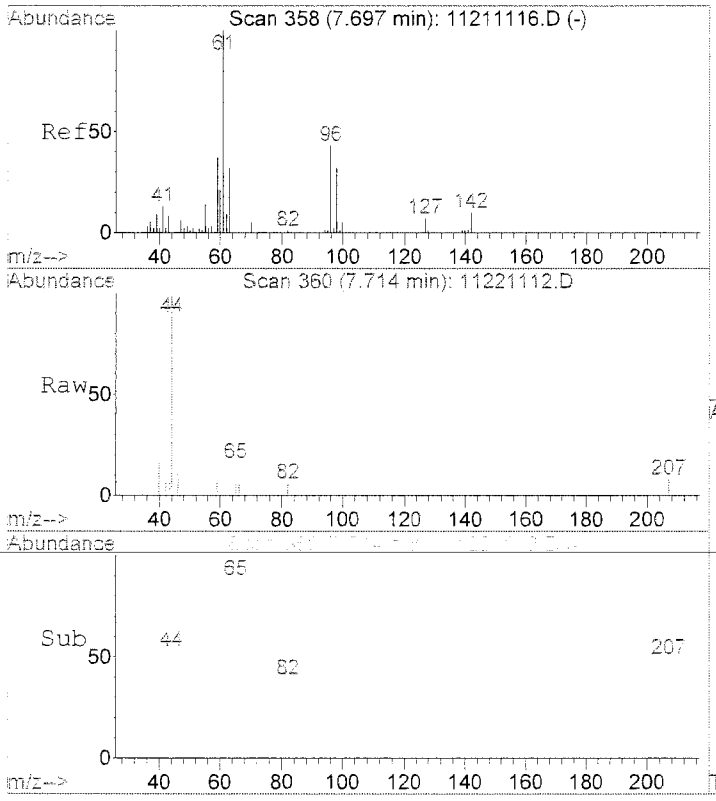


#2
Ethanol
Concen: 2.75 ug/L
RT: 6.15 min Scan# 174
Delta R.T. -0.02 min
Lab File: 11221112.D
Acq: 22 Nov 2011 6:57 pm

Tgt Ion: 45 Resp: 413

Ion	Ratio	Lower	Upper
45	100		
46	0.0	28.2	42.2#

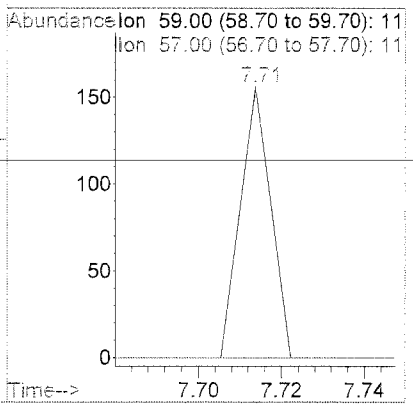


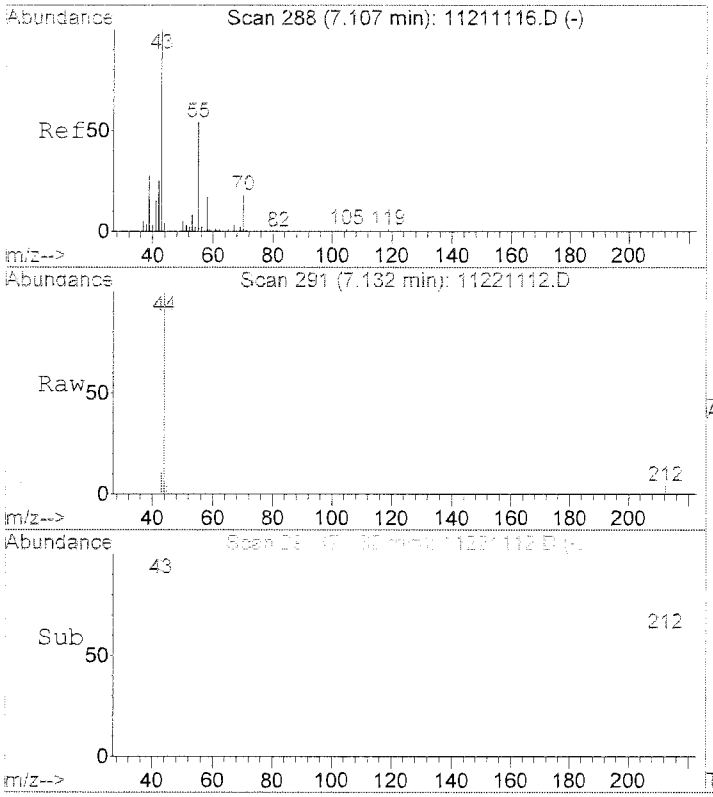


#3
tert-Butanol (TBA)
Concen: 0.14 ug/L
RT: 7.71 min Scan# 360
Delta R.T. 0.02 min
Lab File: 11221112.D
Acq: 22 Nov 2011 6:57 pm

Tgt Ion: 59 Resp: 79

Ion	Ratio	Lower	Upper
59	100		
57	0.0	6.9	10.3#



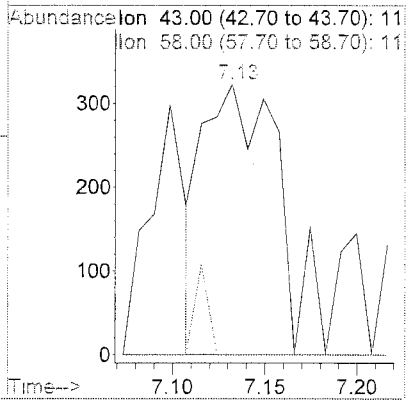


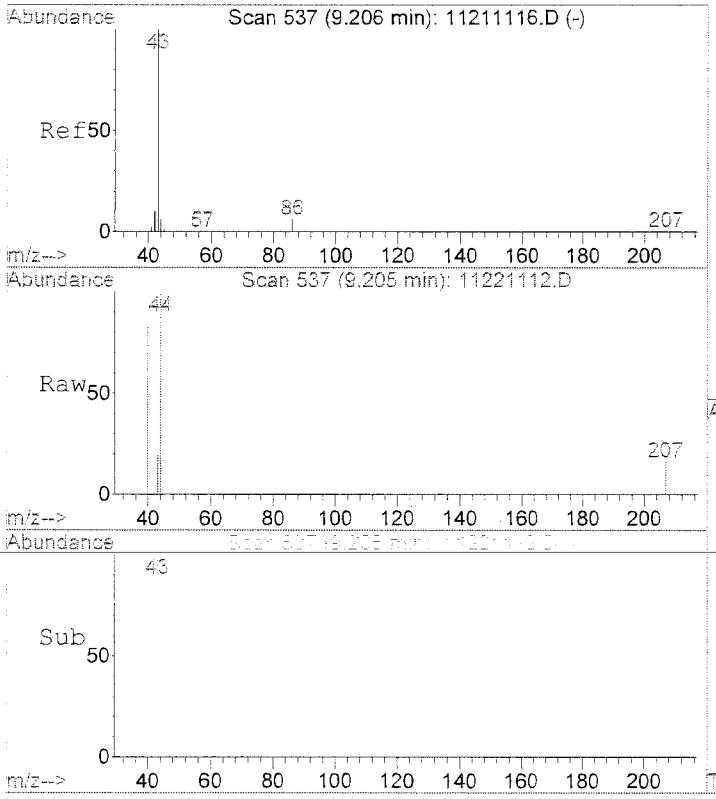
#13
Acetone
Concen: 0.30 ug/L
RT: 7.13 min Scan# 291
Delta R.T. 0.03 min
Lab File: 11221112.D
Acq: 22 Nov 2011 6:57 pm

Tgt Ion: 43 Resp: 937

Ion	Ratio	Lower	Upper
43	100		
58	0.0	16.4	24.6#

7



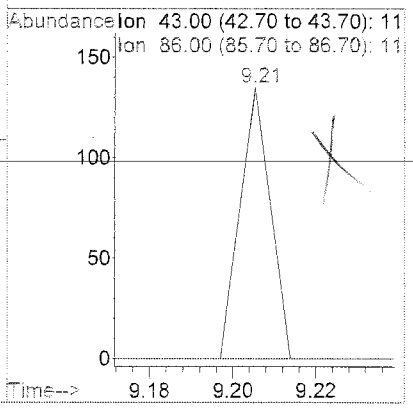


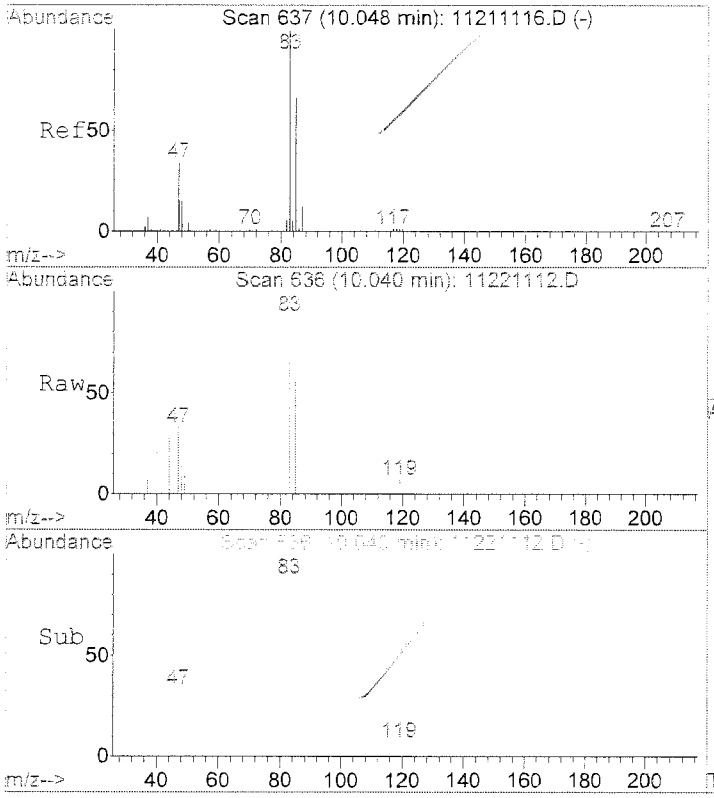
#23
Vinyl Acetate
Concen: 1.12 ug/L
RT: 9.21 min Scan# 537
Delta R.T. 0.00 min
Lab File: 11221112.D
Acq: 22 Nov 2011 6:57 pm

Tgt Ion: 43 Resp: 68

Ion	Ratio	Lower	Upper
43	100		
86	0.0	4.7	7.1#

NSM

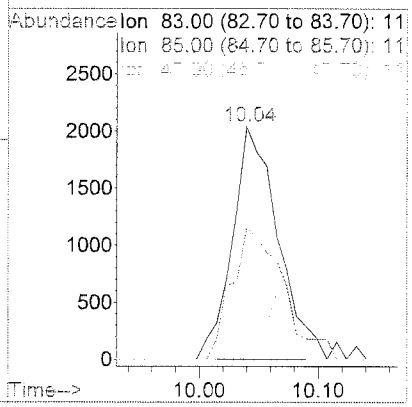


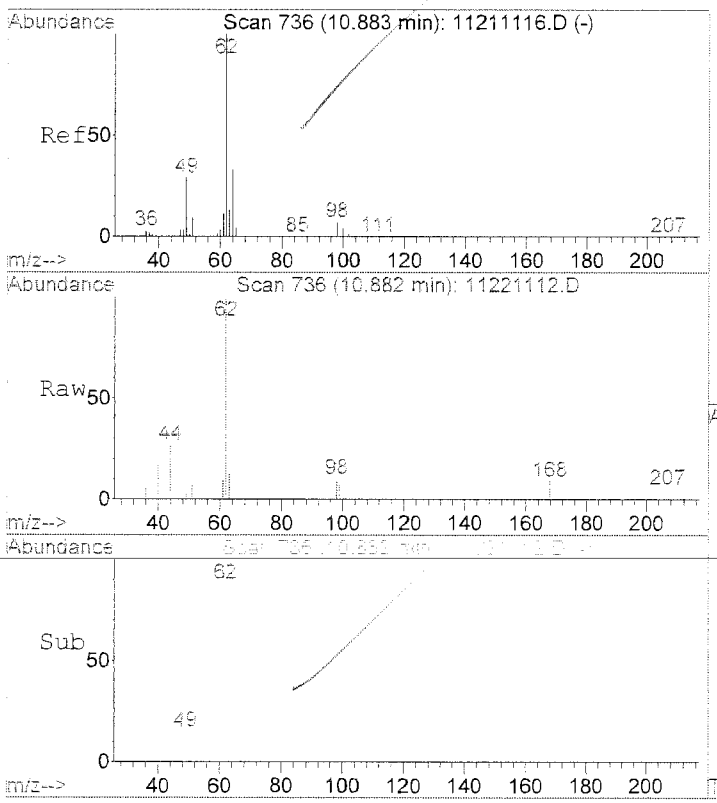


#29
Chloroform
Concen: 0.27 ug/L
RT: 10.04 min Scan# 636
Delta R.T. -0.01 min
Lab File: 11221112.D
Acq: 22 Nov 2011 6:57 pm

Tgt Ion: 83 Resp: 5456

Ion	Ratio	Lower	Upper
83	100		
85	64.2	52.1	78.1
47	32.7	33.8	50.8#

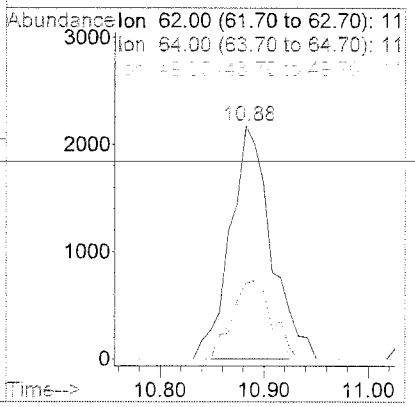


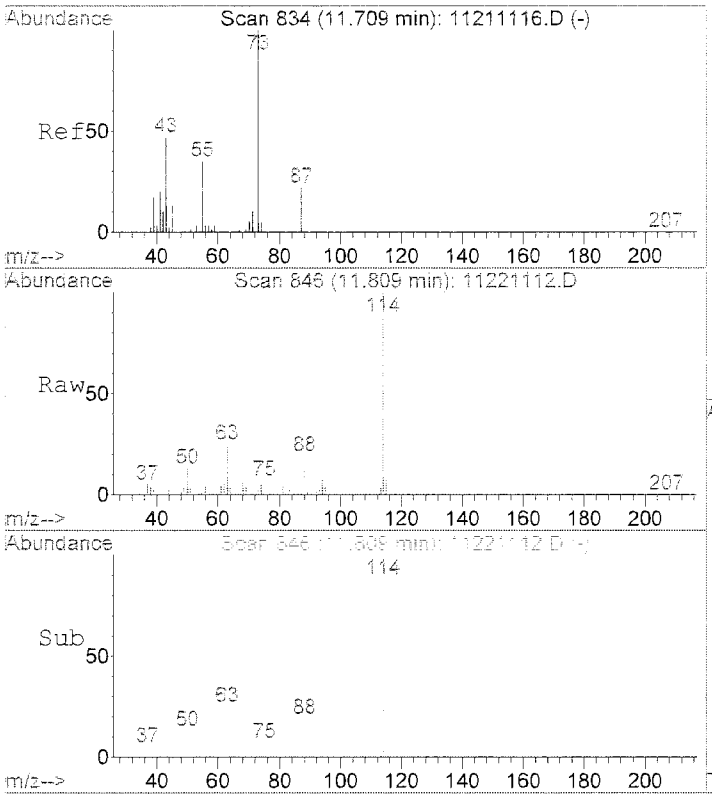


#34
1,2-Dichloroethane
Concen: 0.40 ug/L
RT: 10.88 min Scan# 736
Delta R.T. -0.00 min
Lab File: 11221112.D
Acq: 22 Nov 2011 6:57 pm

Tgt Ion: 62 Resp: 5955

Ion	Ratio	Lower	Upper
62	100		
64	32.5	12.1	52.1
49	25.3	9.2	49.2

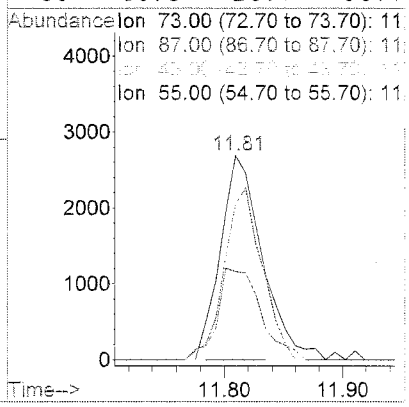


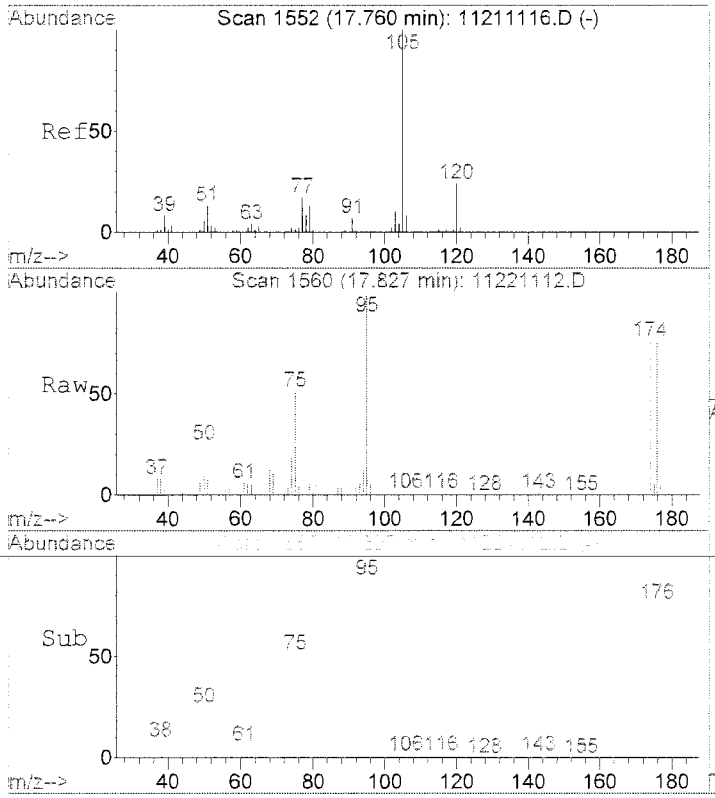


#36
(TAME) tert-Amyl methyl ether
Concen: 0.91 ug/L
RT: 11.81 min Scan# 846
Delta R.T. 0.10 min
Lab File: 11221112.D
Acq: 22 Nov 2011 6:57 pm

Tgt Ion: 73 Resp: 6626

Ion	Ratio	Lower	Upper
73	100		
87	75.4	2.5	42.5#
43	7.8	31.5	71.5#
55	46.3	16.7	56.7

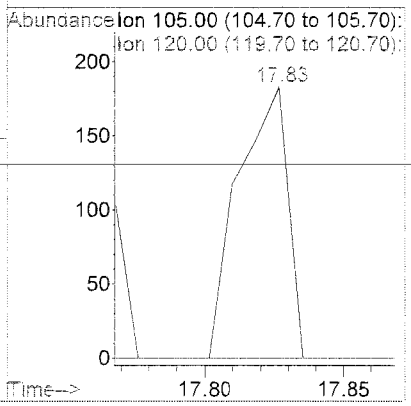


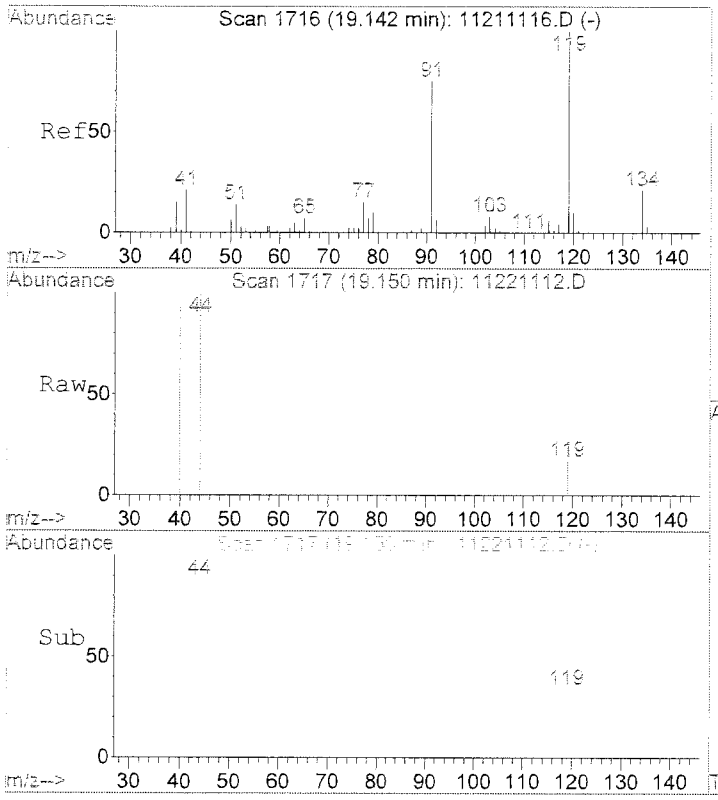


#70
Isopropylbenzene
Concen: 0.16 ug/L
RT: 17.83 min Scan# 1560
Delta R.T. 0.07 min
Lab File: 11221112.D
Acq: 22 Nov 2011 6:57 pm

Tgt Ion:105 Resp: 226

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.0	28.6#

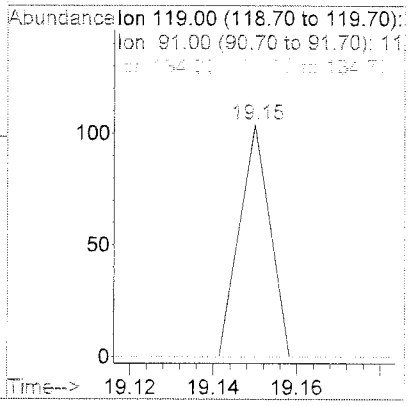


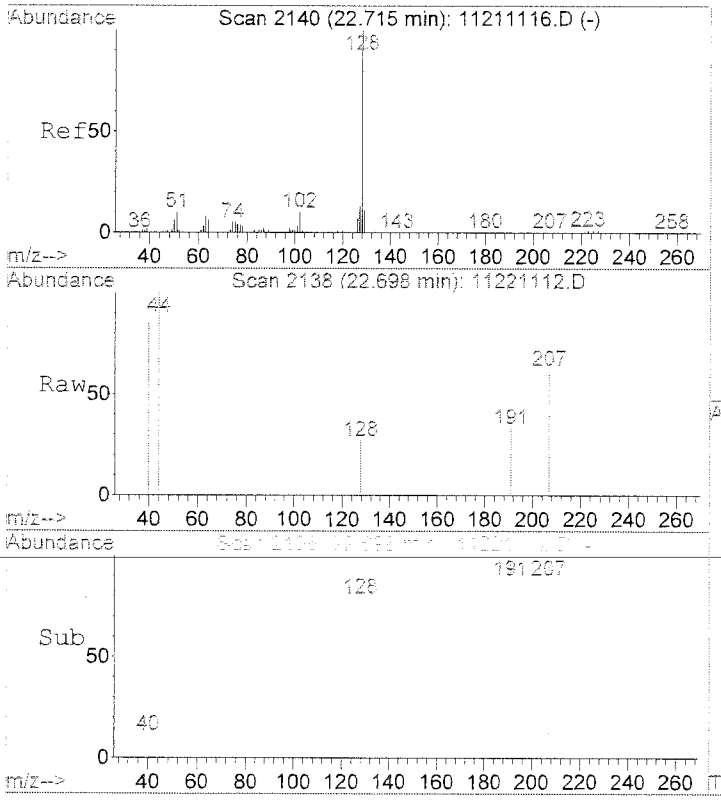


#76
tert-Butylbenzene
Concen: 0.15 ug/L
RT: 19.15 min Scan# 1717
Delta R.T. 0.01 min
Lab File: 11221112.D
Acq: 22 Nov 2011 6:57 pm

Tgt Ion:119 Resp: 53

Ion	Ratio	Lower	Upper
119	100		
91	0.0	59.3	88.9#
134	0.0	17.4	26.0#

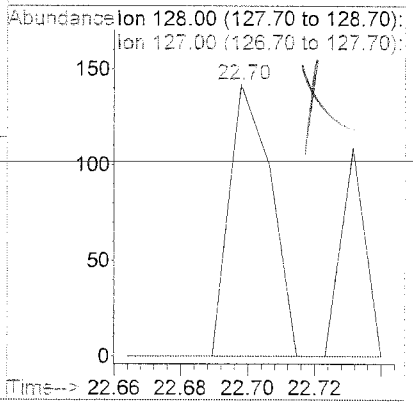




#86
Naphthalene
Concen: 0.92 ug/L
RT: 22.70 min Scan# 2138
Delta R.T. -0.02 min
Lab File: 11221112.D
Acq: 22 Nov 2011 6:57 pm

Tgt Ion:128 Resp: 122

Ion	Ratio	Lower	Upper
128	100		
127	0.0	10.5	15.7#



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221116.D Vial: 15
Acq On : 22 Nov 2011 9:04 pm Operator: KH
Sample : PUK1116-02 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:13 2011 Quant Results File: 112111.RES

Quant Method : C:\HPCHEM\1...\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration
DataAcq Meth : 8260C

11/23/11

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) TBA-d9	7.59	65	34988	200.00 ug/L	0.00
4) Pentafluorobenzene	10.70	168	295185	25.00 ug/L	0.00
37) 1,4-Difluorobenzene	11.82	114	454196	25.00 ug/L	0.00
52) Chlorobenzene-d5	16.14	117	370827	25.00 ug/L	0.00
65) 1,4-Dichlorobenzene-d4	19.59	152	172693	25.00 ug/L	0.00
System Monitoring Compounds					
32) Dibromofluoromethane(surr)	10.21	113	198862	25.36 ug/L	0.00
Spiked Amount 25.000			Recovery	= 101.44%	
50) Toluene-d8 (surr)	14.19	98	501140	25.21 ug/L	0.00
Spiked Amount 25.000			Recovery	= 100.84%	
64) 4-Bromofluorobenzene (surr	17.82	95	199054	23.32 ug/L	0.00
Spiked Amount 25.000			Recovery	= 93.28%	
Target Compounds					Qvalue
2) Ethanol	6.15	45	281	1.91 ug/L #LRLPNT	71
3) tert-Butanol (TBA)	7.68	59	1267	2.26 ug/L #	76
13) Acetone	7.10	43	1467	0.48 ug/L #	65
16) 1,1-Dichloroethene	7.71	96	32756	4.31 ug/L	95
21) MTBE	8.86	73	993	0.09 ug/L #LRLPNT	82
22) 1,1-Dichloroethane	9.05	63	67919	3.43 ug/L	98
23) Vinyl Acetate	9.19	43	70	1.12 ug/L #NSM	82
27) cis-1,2-Dichloroethene	9.78	96	54892	5.77 ug/L	98
29) Chloroform	10.05	83	89140	4.50 ug/L	96
36) (TAME) tert-Amyl methyl et	11.82	73	6902	0.98 ug/L #LRLPNT	45
42) 1,2-Dichloropropane	12.36	63	1274	0.16 ug/L #	1
43) Trichloroethene	12.36	95	259975	29.28 ug/L	95
44) Bromodichloromethane	12.35	83	3999	0.31 ug/L #LRLPNT	86
57) Tetrachloroethene	15.26	164	8718	1.51 ug/L	97
70) Isopropylbenzene	17.82	105	229	0.16 ug/L #LRLPNT	52

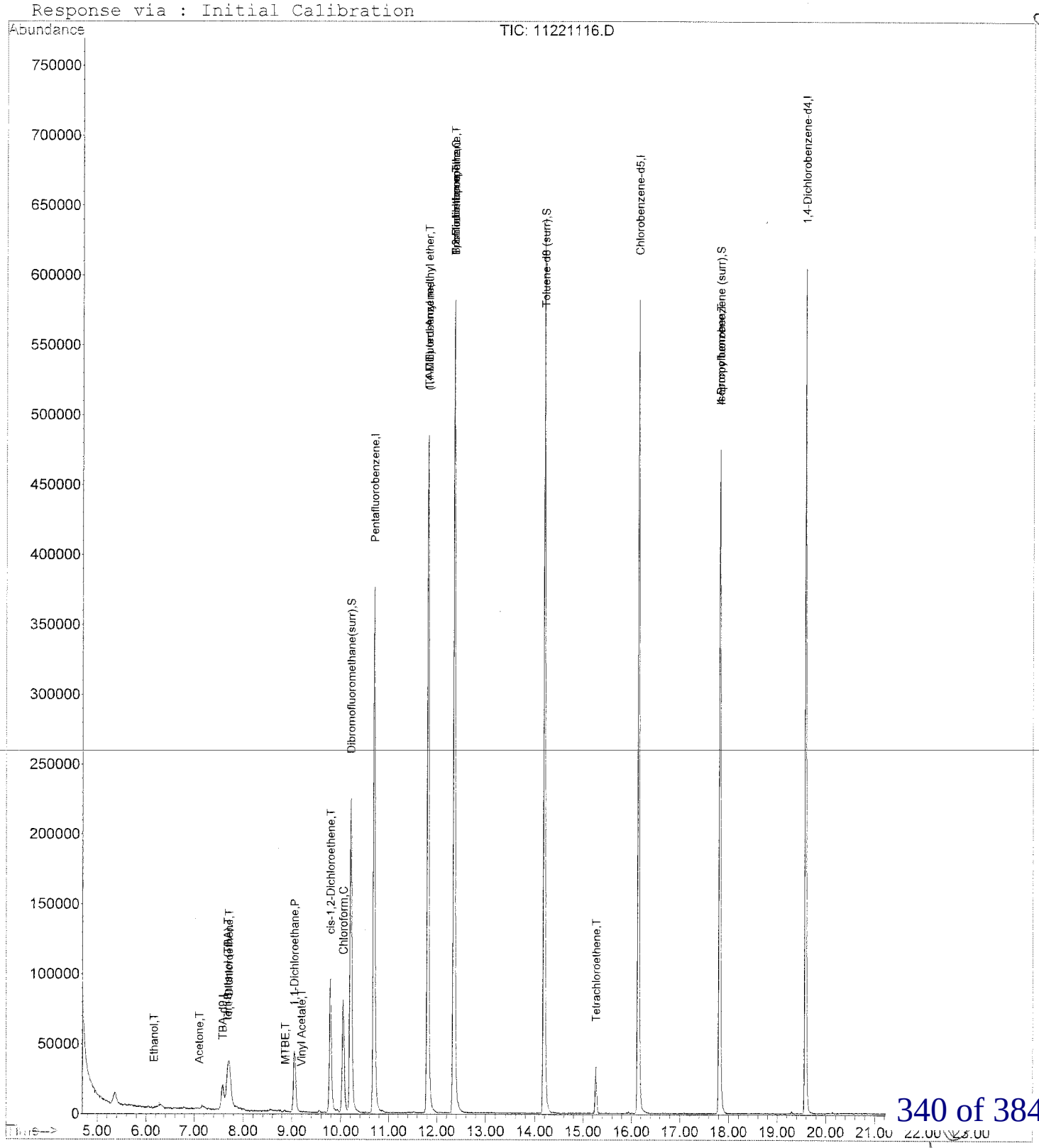
112311

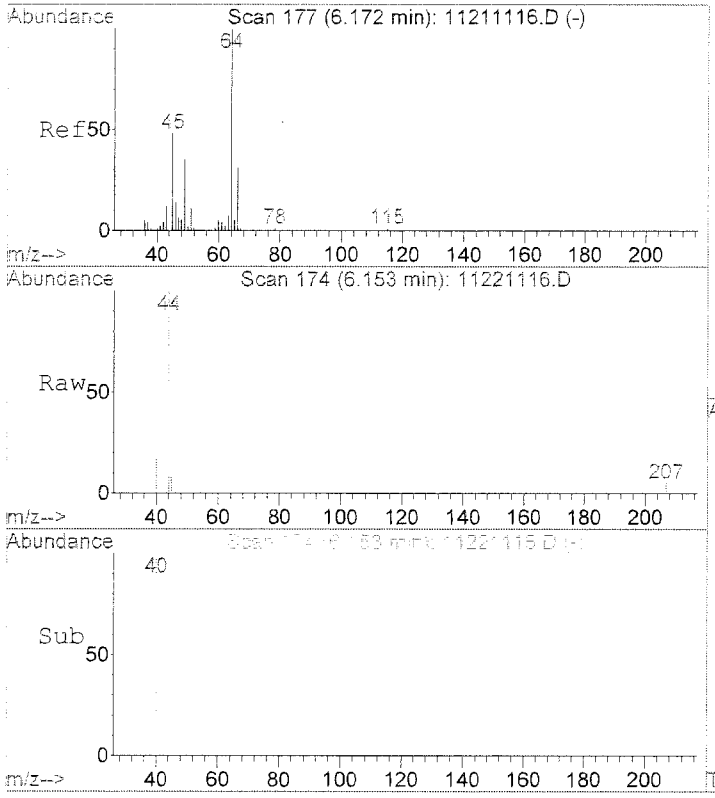
(#) = qualifier out of range (m) = manual integration
11221116.D 112111.M Wed Nov 23 07:15:07 2011

Quantitation Report

Data File : C:\HPCHEM\1\GCMS9\DATA\112211\11221116.D Vial: 15
Acq On : 22 Nov 2011 9:04 pm Operator: KH
Sample : PUK1116-02 Inst : GCMS9
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 23 7:13 2011 Quant Results File: 112111.RES

Method : C:\HPCHEM\1\GCMS9\METHODS\112111.M (RTE Integrator)
Title : USEPA Method 8260
Last Update : Tue Nov 22 11:07:12 2011
Response via : Initial Calibration

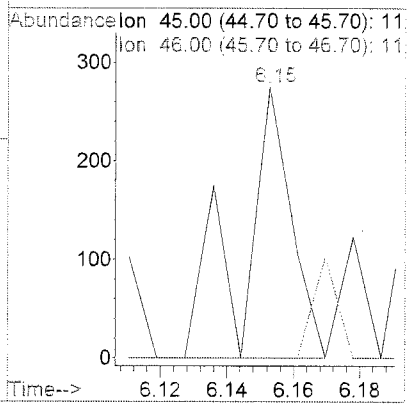


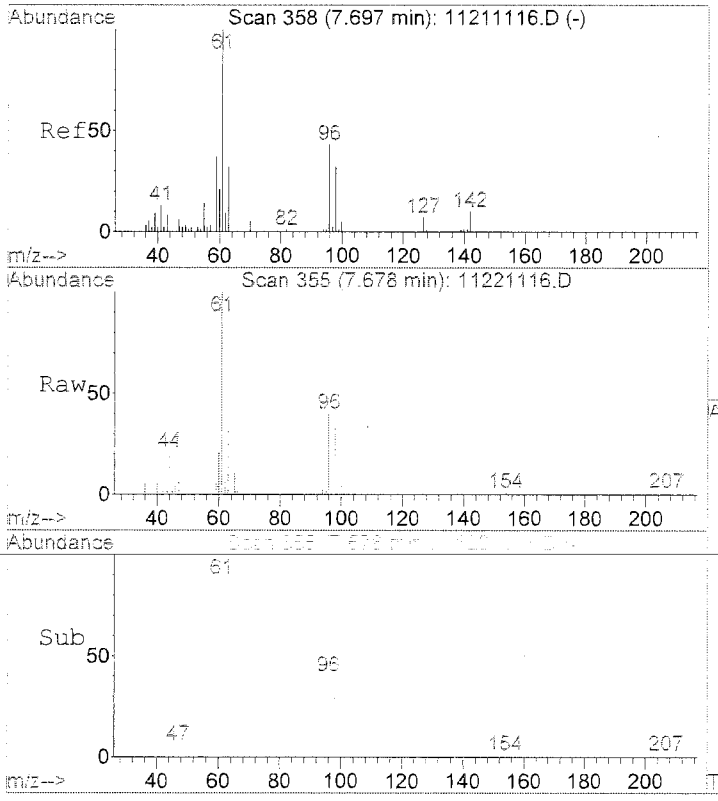


#2
Ethanol
Concen: 1.91 ug/L
RT: 6.15 min Scan# 174
Delta R.T. -0.02 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 45 Resp: 281

Ion	Ratio	Lower	Upper
45	100		
46	18.5	28.2	42.2#

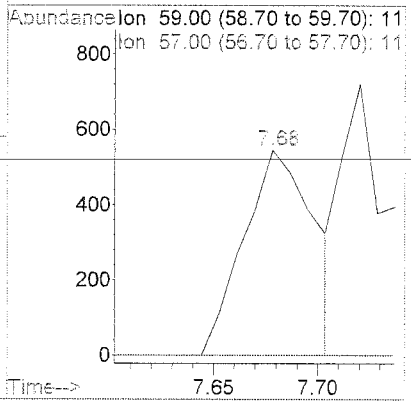


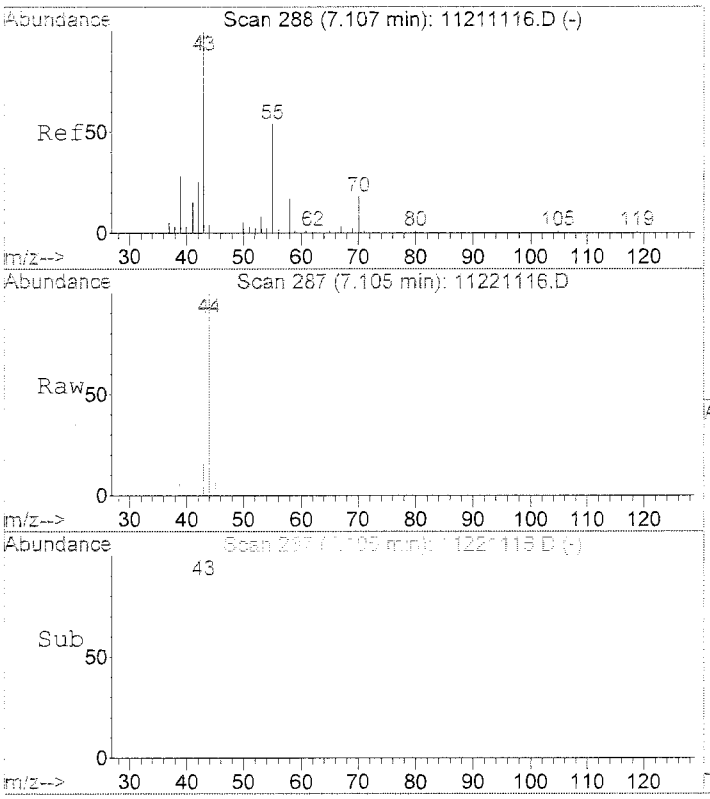


#3
tert-Butanol (TBA)
Concen: 2.26 ug/L
RT: 7.68 min Scan# 355
Delta R.T. -0.02 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 59 Resp: 1267

Ion	Ratio	Lower	Upper
59	100		
57	0.0	6.9	10.3#

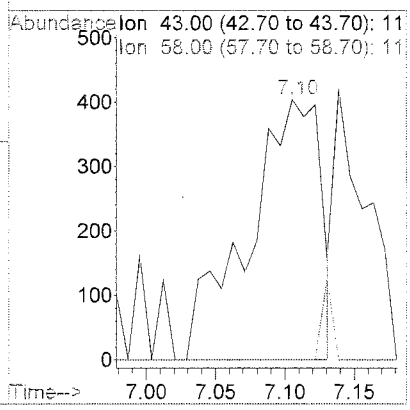


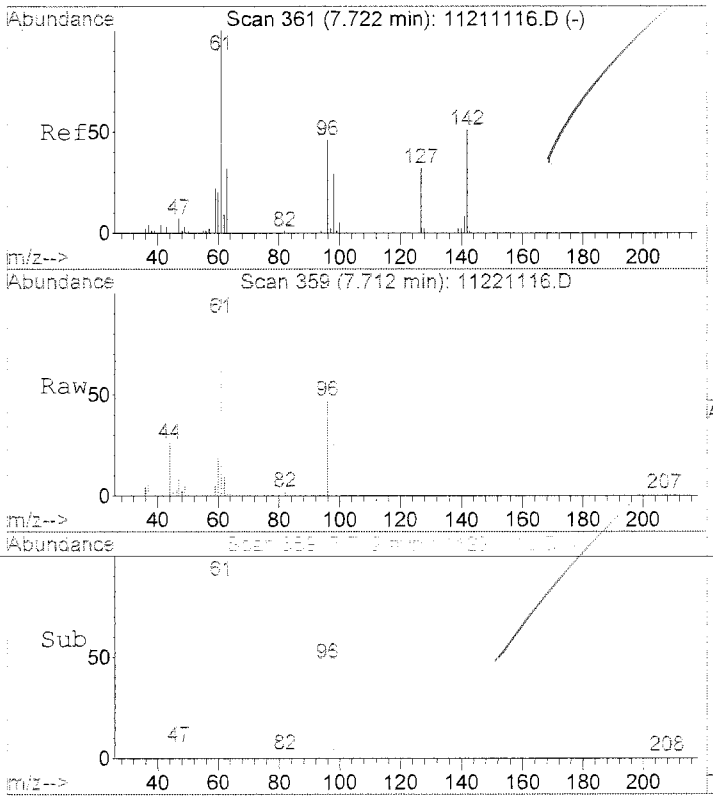


#13
Acetone
Concen: 0.48 ug/L
RT: 7.10 min Scan# 287
Delta R.T. -0.00 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 43 Resp: 1467

Ion	Ratio	Lower	Upper
43	100		
58	4.4	16.4	24.6#

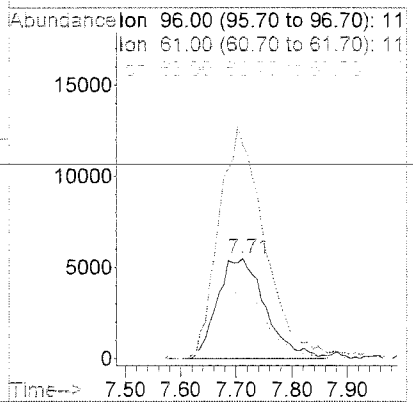


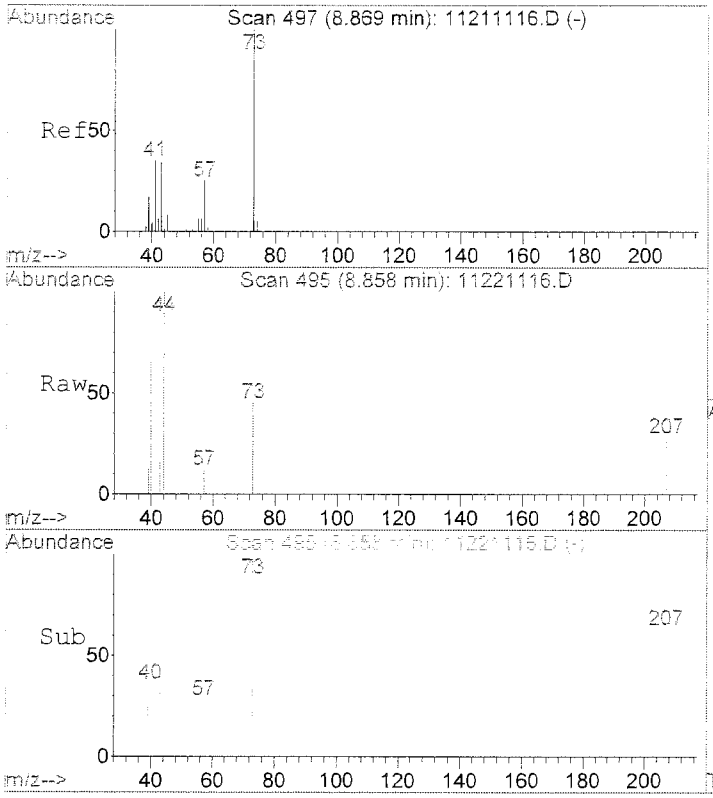


#16
1,1-Dichloroethene
Concen: 4.31 ug/L
RT: 7.71 min Scan# 359
Delta R.T. -0.01 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 96 Resp: 32756

Ion	Ratio	Lower	Upper
96	100		
61	220.8	169.2	253.8
63	69.8	54.2	81.2

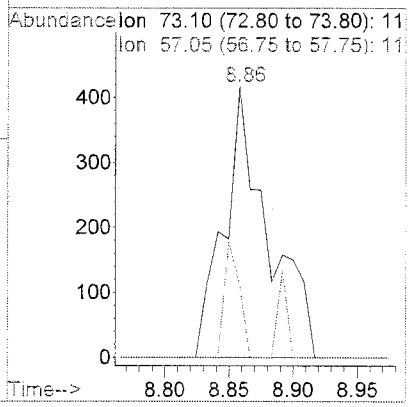


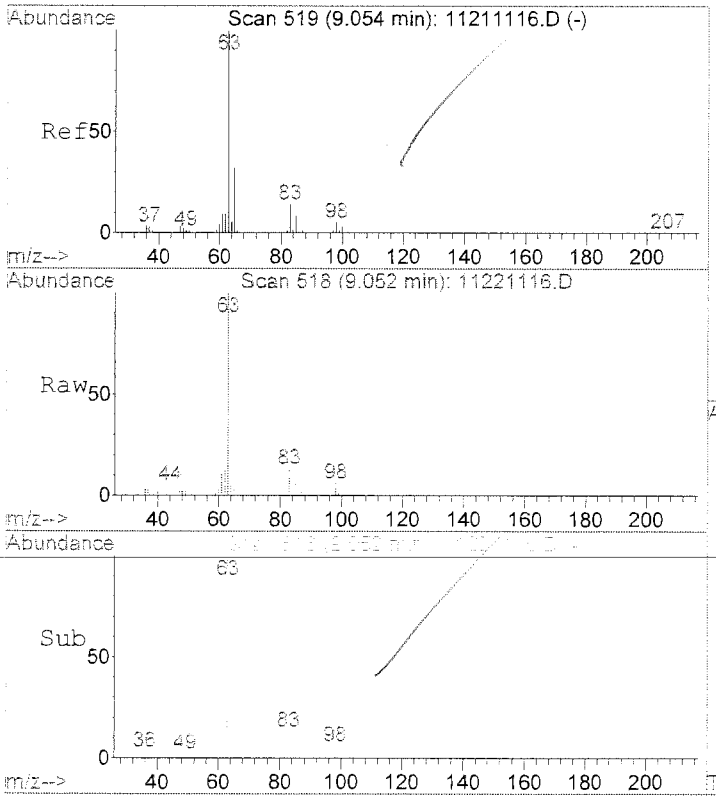


#21
MTBE
Concen: 0.09 ug/L
RT: 8.86 min Scan# 495
Delta R.T. -0.01 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 73 Resp: 993

Ion	Ratio	Lower	Upper
73	100		
57	14.9	19.1	28.7#

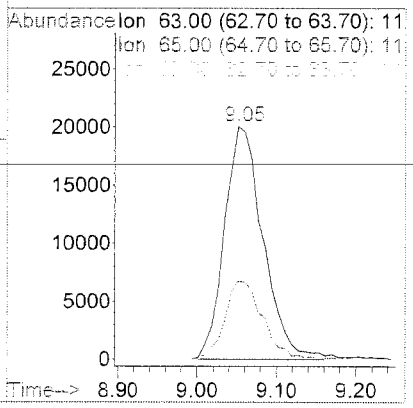


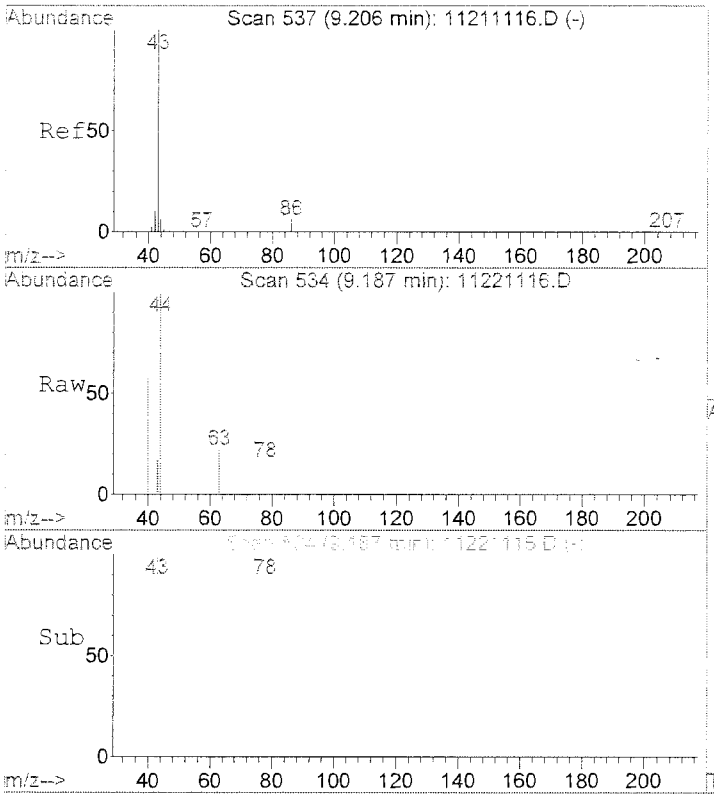


#22
1,1-Dichloroethane
Concen: 3.43 ug/L
RT: 9.05 min Scan# 518
Delta R.T. -0.00 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 63 Resp: 67919

Ion	Ratio	Lower	Upper
63	100		
65	33.0	25.1	37.7
83	13.7	11.0	16.4



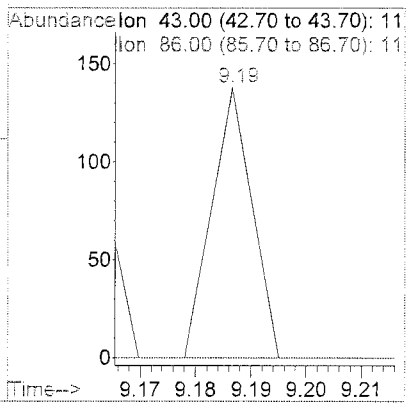


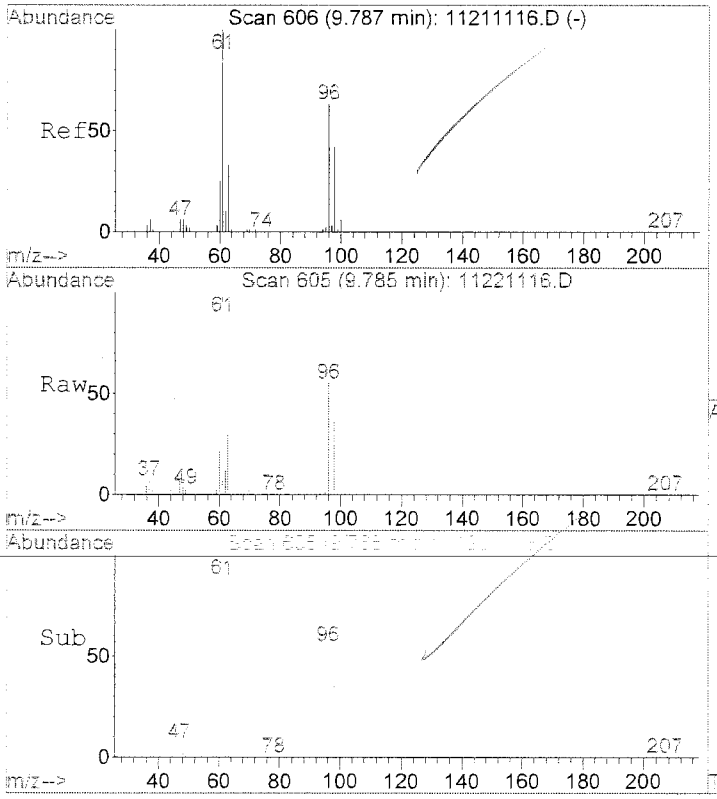
#23
Vinyl Acetate
Concen: 1.12 ug/L
RT: 9.19 min Scan# 534
Delta R.T. -0.02 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 43 Resp: 70

Ion	Ratio	Lower	Upper
43	100		
86	0.0	4.7	7.1#

NSM

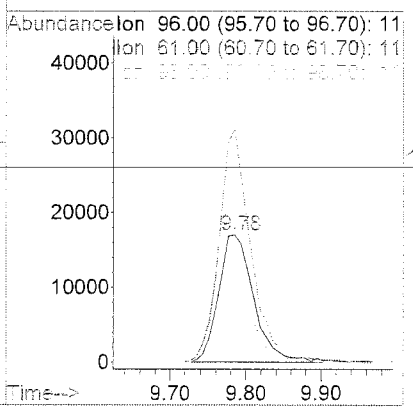


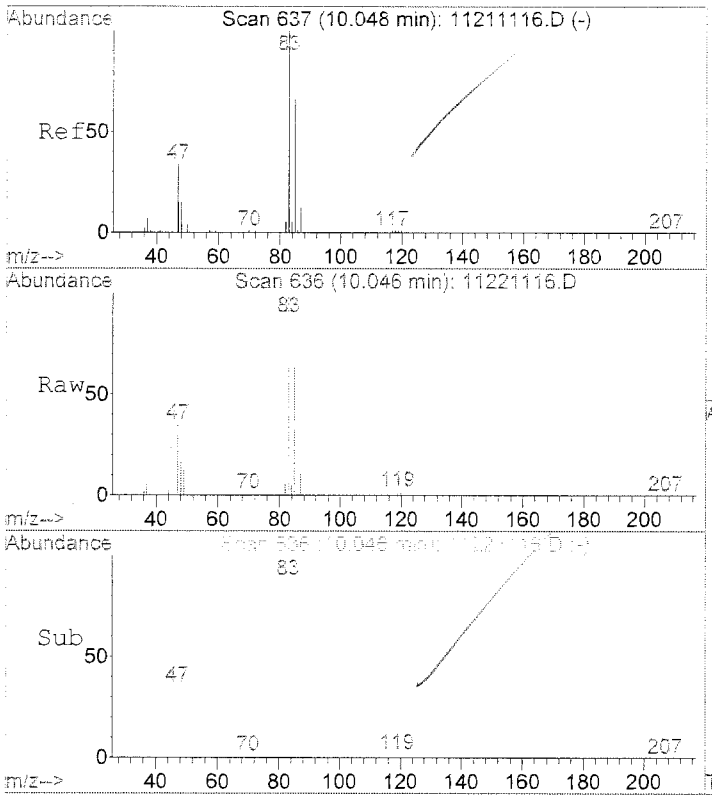


#27
cis-1,2-Dichloroethene
Concen: 5.77 ug/L
RT: 9.78 min Scan# 605
Delta R.T. -0.00 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 96 Resp: 54892

Ion	Ratio	Lower	Upper
96	100		
61	165.2	130.7	196.1
98	62.7	51.9	77.9

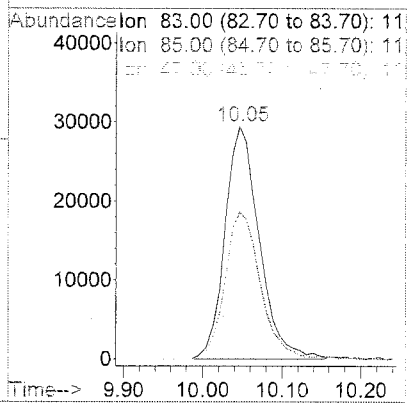


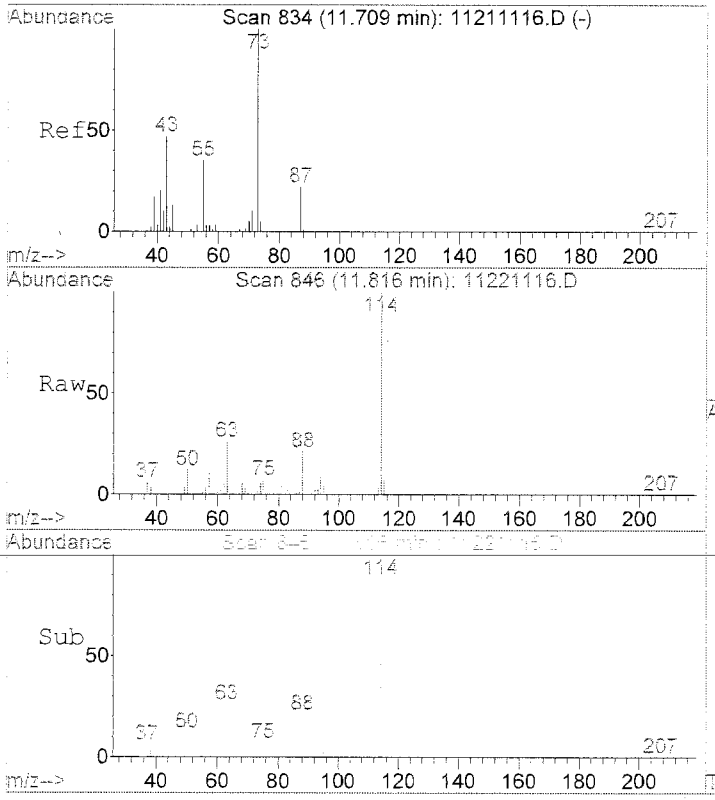


#29
Chloroform
Concen: 4.50 ug/L
RT: 10.05 min Scan# 636
Delta R.T. -0.00 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 83 Resp: 89140

Ion	Ratio	Lower	Upper
83	100		
85	64.7	52.1	78.1
47	36.8	33.8	50.8

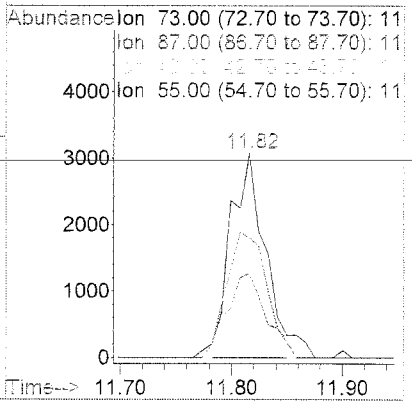


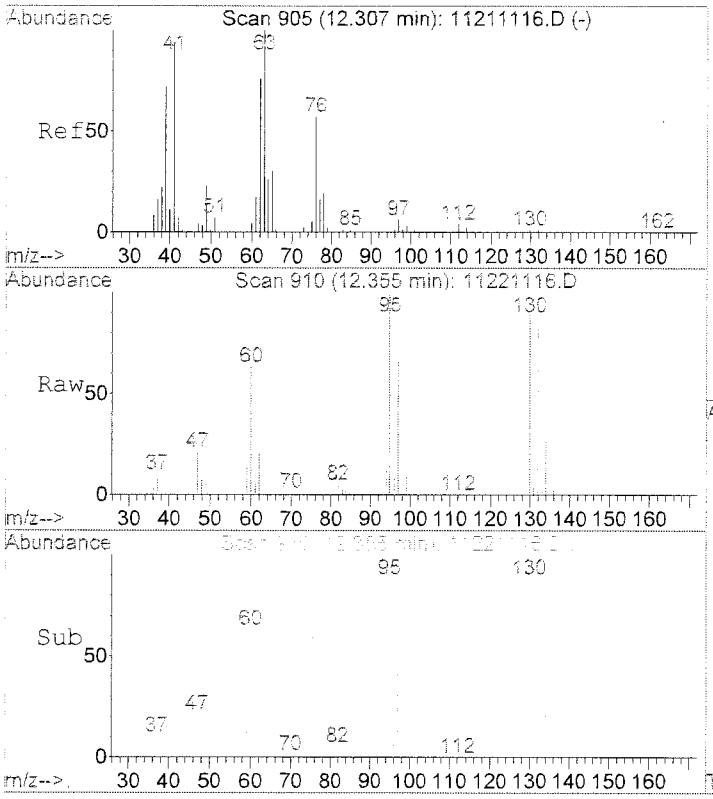


#36
(TAME) tert-Amyl methyl ether
Concen: 0.98 ug/L
RT: 11.82 min Scan# 846
Delta R.T. 0.11 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 73 Resp: 6902

Ion	Ratio	Lower	Upper
73	100		
87	68.6	2.5	42.5#
43	5.2	31.5	71.5#
55	44.9	16.7	56.7

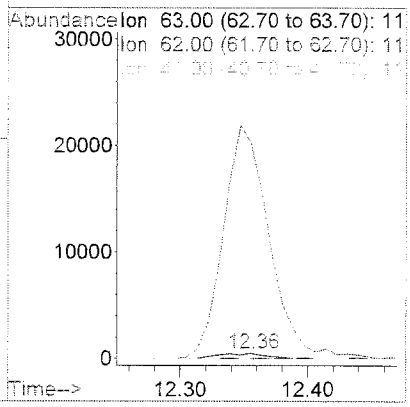


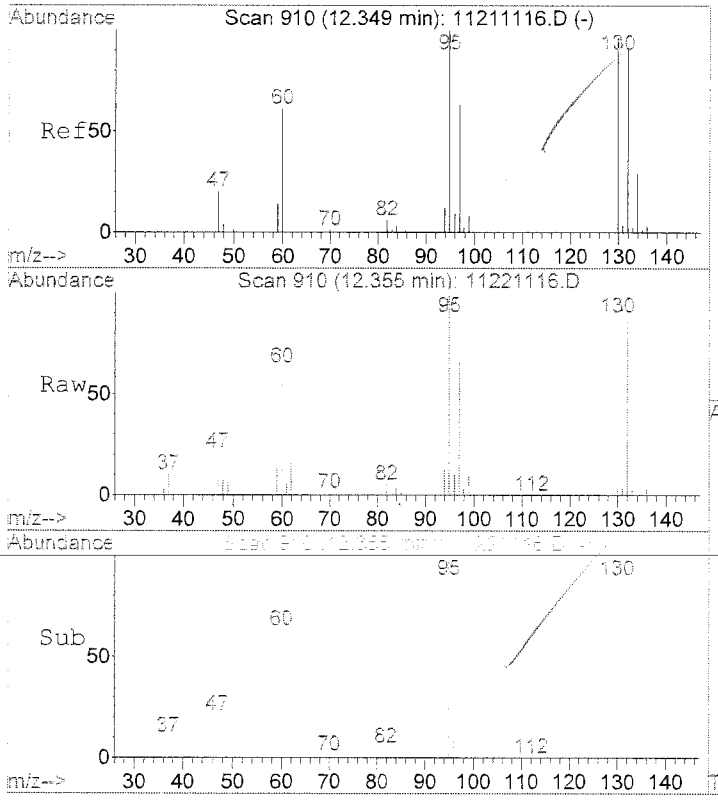


#42
1,2-Dichloropropane
Concen: 0.16 ug/L
RT: 12.36 min Scan# 910
Delta R.T. 0.05 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 63 Resp: 1274

Ion	Ratio	Lower	Upper
63	100		
62	4307.1	78.4	117.6#
41	4.5	75.6	113.4#

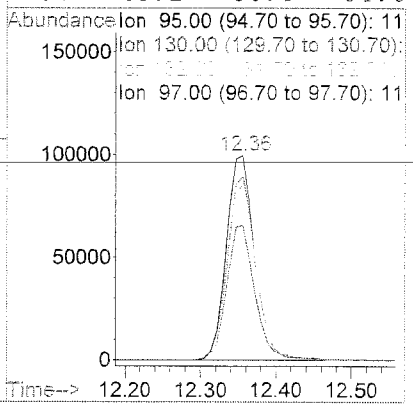


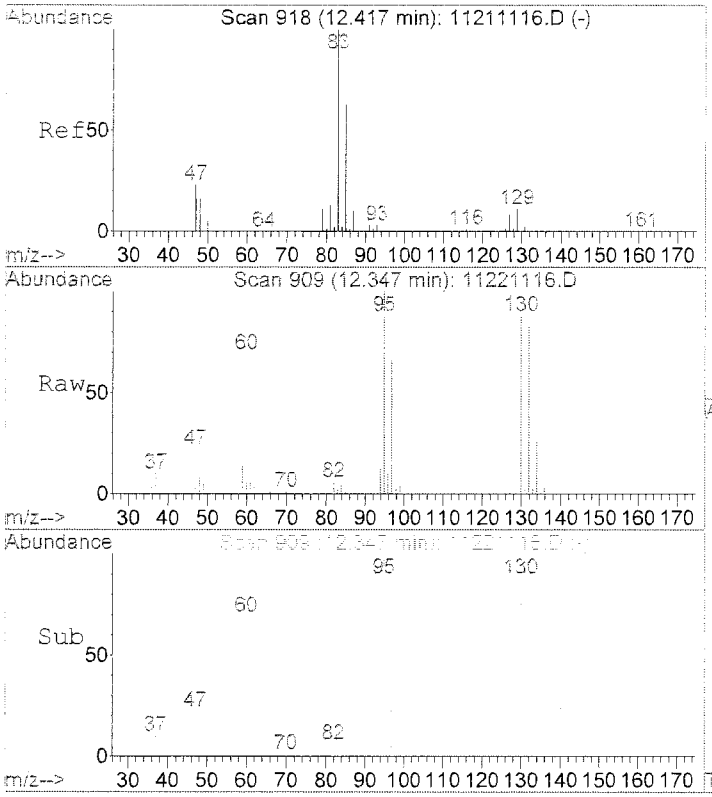


#43
Trichloroethene
Concen: 29.28 ug/L
RT: 12.36 min Scan# 910
Delta R.T. 0.01 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 95 Resp: 259975

Ion	Ratio	Lower	Upper
95	100		
130	89.6	75.6	113.4
132	86.3	73.0	109.4
97	65.1	56.4	84.6

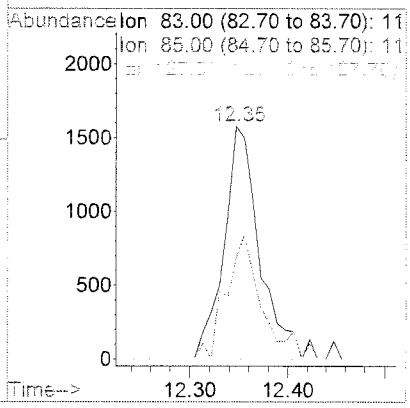


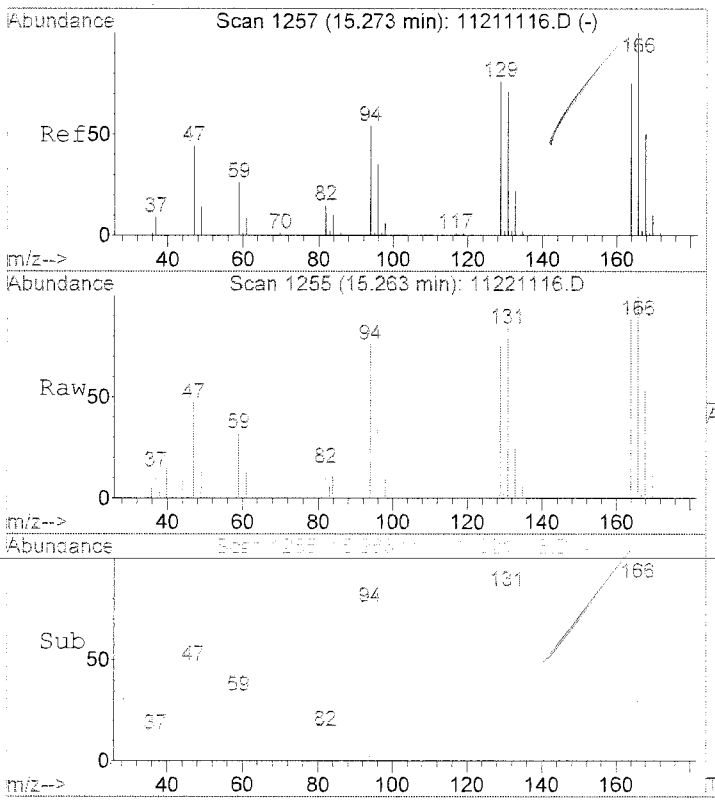


#44
Bromodichloromethane
Concen: 0.31 ug/L
RT: 12.35 min Scan# 909
Delta R.T. -0.07 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion: 83 Resp: 3999

Ion	Ratio	Lower	Upper
83	100		
85	53.4	50.4	75.6
127	0.0	7.1	10.7#

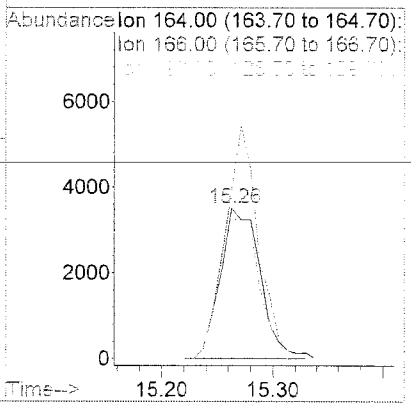


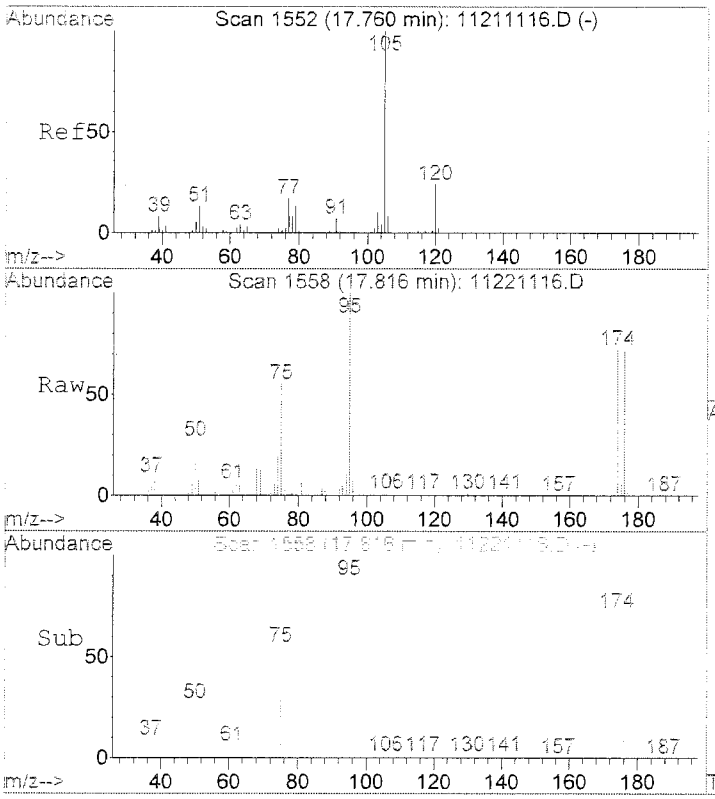


#57
Tetrachloroethene
Concen: 1.51 ug/L
RT: 15.26 min Scan# 1255
Delta R.T. -0.01 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion:164 Resp: 8718

Ion	Ratio	Lower	Upper
164	100		
166	129.0	104.4	156.6
129	92.3	78.2	117.4

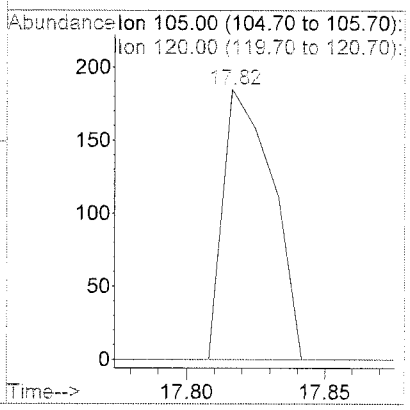




#70
Isopropylbenzene
Concen: 0.16 ug/L
RT: 17.82 min Scan# 1558
Delta R.T. 0.06 min
Lab File: 11221116.D
Acq: 22 Nov 2011 9:04 pm

Tgt Ion:105 Resp: 229

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.0	28.6#



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

STANDARD PREPARATION LOGS

METHOD: 8260

Analytical Standard Record

TestAmerica Phoenix

PU07128

Description:	8260 50ppm SS	Expires:	12/04/11
Standard Type:	Analyte Spike	Prepared:	11/20/11
Solvent:	MeOH/11350	Prepared By:	Marbella Mazza
Final Volume (mls):	2	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/20/11 07:41 by MNM

Analyte	CAS Number	Concentration	Units
Bromobenzene	108-86-1	50	ppm
2-Butanone	78-93-3	50	ppm
2-Butanone (MEK)	78-93-3	50	ppm
2-Chloroethyl vinyl ether	110-75-8	50	ppm
2-Chlorotoluene	95-49-8	50	ppm
2-Hexanone	591-78-6	50	ppm
4-Chlorotoluene	106-43-4	50	ppm
4-Isopropyltoluene	99-87-6	50	ppm
4-Methyl-2-pentanone (MIBK)	108-10-1	50	ppm
1,1,1,2-Tetrachloroethane	630-20-6	50	ppm
Benzene	71-43-2	50	ppm
1,3-Dichloropropane	142-28-9	50	ppm
Bromochloromethane	74-97-5	50	ppm
Bromodichloromethane	75-27-4	50	ppm
Bromoform	75-25-2	50	ppm
Bromomethane	74-83-9	50	ppm
Carbon disulfide	75-15-0	50	ppm
Carbon tetrachloride	56-23-5	50	ppm
Chlorobenzene	108-90-7	50	ppm
Chloroethane	75-00-3	50	ppm
Acetone	67-64-1	50	ppm
1,2-Dibromo-3-chloropropane	96-12-8	50	ppm
1,1,1-Trichloroethane	71-55-6	50	ppm
1,1,2,2-Tetrachloroethane	79-34-5	50	ppm
1,1,2-Trichloroethane	79-00-5	50	ppm
1,1-Dichloroethane	75-34-3	50	ppm
1,1-Dichloroethene	75-35-4	50	ppm
1,1-Dichloropropene	563-58-6	50	ppm
1,2,3-Trichlorobenzene	87-61-6	50	ppm
1,2,3-Trichloropropane	96-18-4	50	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU07128

2,2-Dichloropropane	594-20-7	50	ppm
1,2,4-Trimethylbenzene	95-63-6	50	ppm
1,4-Dichlorobenzene	106-46-7	50	ppm
1,2-Dibromoethane	106-93-4	50	ppm
1,2-Dibromoethane (EDB)	106-93-4	50	ppm
1,2-Dichlorobenzene	95-50-1	50	ppm
1,2-Dichloroethane	107-06-2	50	ppm
1,2-Dichloropropane	78-87-5	50	ppm
1,3,5-Trimethylbenzene	108-67-8	50	ppm
1,3-Butadiene	106-99-0	50	ppm
1,3-Dichlorobenzene	541-73-1	50	ppm
cis-1,2-Dichloroethene	156-59-2	50	ppm
1,2,4-Trichlorobenzene	120-82-1	50	ppm
Tetrachloroethene	127-18-4	50	ppm
Chloroform	67-66-3	50	ppm
Naphthalene	91-20-3	50	ppm
o-Xylene	95-47-6	50	ppm
p-Isopropyltoluene	99-87-6	50	ppm
p-Xylene	106-42-3	50	ppm
sec-Butylbenzene	135-98-8	50	ppm
Styrene	100-42-5	50	ppm
tert-Amyl Methyl Ether (TAME)	994-05-8	50	ppm
n-Hexane	110-54-3	50	ppm
tert-Butylbenzene	98-06-6	50	ppm
n-Butylbenzene	104-51-8	50	ppm
Tetrahydrofuran	109-99-9	50	ppm
Toluene	108-88-3	50	ppm
trans-1,2-Dichloroethene	156-60-5	50	ppm
trans-1,3-Dichloropropene	10061-02-6	50	ppm
trans-1,4-Dichloro-2-butene	110-57-6	50	ppm
Trichloroethene	79-01-6	50	ppm
Trichlorofluoromethane	75-69-4	50	ppm
Vinyl Acetate	108-05-4	50	ppm
Vinyl chloride	75-01-4	50	ppm
tert-Butyl ethyl ether	637-92-3	50	ppm
Iodomethane	4227-95-6	50	ppm
Xylenes, Total	1330-20-7	100	ppm
cis-1,3-Dichloropropene	10061-01-5	50	ppm
Di-isopropyl Ether (DIPE)	108-20-3	50	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU07128

Dibromochloromethane	124-48-1	50	ppm
Dibromomethane	74-95-3	50	ppm
Dichlorodifluoromethane	75-71-8	50	ppm
Ethyl tertiary-Butyl Ether (ETBE)	637-92-3	50	ppm
Ethylbenzene	100-41-4	50	ppm
n-Propylbenzene	103-65-1	50	ppm
Hexachlorobutadiene	87-68-3	50	ppm
Chloromethane	74-87-3	50	ppm
Isopropylbenzene	98-82-8	50	ppm
m,p-Xylenes	179601-23-1	50	ppm
m-Xylene - Front	108-38-3	50	ppm
Methyl Ethyl Ketone	78-93-3	50	ppm
Methyl Ethyl Ketone (MEK)	78-93-3	50	ppm
Methyl tert-Butyl Ether	1634-04-4	50	ppm
Methyl-tert-butyl Ether (MTBE)	1634-04-4	50	ppm
Methylene Chloride	75-09-2	50	ppm
MTBE	1634-04-4	50	ppm
Freon 113	76-13-1	50	ppm

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
PU02195	SS 1,3-Butadiene (O2Si)	11/20/11	Marbella Mazza	05/20/12	11/20/11 07:40 by MNM	0.05
PU04420	2-Chloroethyl vinyl ether	11/09/11	Marbella Mazza	05/09/12	11/09/11 13:14 by MNM	0.05
PU05859	SS 54 Compounds (O2SI)	11/09/11	Marbella Mazza	05/09/12	11/12/11 05:04 by KH	0.05
PU06093	8260 Gases O2SI	11/20/11	Marbella Mazza	12/04/11	11/20/11 07:33 by MNM	0.05
PU06183	SS Custom 8260 Mix	11/03/11	Amy Cerwinske	05/03/12	11/12/11 04:57 by KH	0.05
PU06811	8260 Additional compounds	11/09/11	Marbella Mazza	01/26/12	11/09/11 13:13 by MNM	0.05

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU02195

Description:	SS 1,3-Butadiene (O2Si)	Expires:	05/20/12
Standard Type:	Other	Prepared:	11/20/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/20/11 07:40 by MNM

Analyte	CAS Number	Concentration	Units
1,3-Butadiene	106-99-0	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU04420

Description:	2-Chloroethyl vinyl ether	Expires:	05/09/12
Standard Type:	Other	Prepared:	11/09/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/09/11 13:14 by MNM

Analyte	CAS Number	Concentration	Units
2-Chloroethyl vinyl ether	110-75-8	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU05859

Description:	SS 54 Compounds (O2SI)	Expires:	05/09/12
Standard Type:	Other	Prepared:	11/09/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/12/11 05:04 by KH

o2si catalog # 120023-04

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	2000	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	2000	ug/mL
Bromobenzene	108-86-1	2000	ug/mL
Benzene	71-43-2	2000	ug/mL
4-Isopropyltoluene	99-87-6	2000	ug/mL
4-Chlorotoluene	106-43-4	2000	ug/mL
2-Chlorotoluene	95-49-8	2000	ug/mL
2,2-Dichloropropane	594-20-7	2000	ug/mL
1,4-Dichlorobenzene	106-46-7	2000	ug/mL
1,3-Dichloropropane	142-28-9	2000	ug/mL
1,3-Dichlorobenzene	541-73-1	2000	ug/mL
1,3,5-Trimethylbenzene	108-67-8	2000	ug/mL
1,2-Dichloropropane	78-87-5	2000	ug/mL
Bromodichloromethane	75-27-4	2000	ug/mL
1,2-Dichlorobenzene	95-50-1	2000	ug/mL
Bromoform	75-25-2	2000	ug/mL
1,2-Dibromoethane	106-93-4	2000	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	2000	ug/mL
1,2,4-Trimethylbenzene	95-63-6	2000	ug/mL
1,2,4-Trichlorobenzene	120-82-1	2000	ug/mL
1,2,3-Trichloropropane	96-18-4	2000	ug/mL
1,2,3-Trichlorobenzene	87-61-6	2000	ug/mL
1,1-Dichloropropene	563-58-6	2000	ug/mL
1,1-Dichloroethene	75-35-4	2000	ug/mL
1,1-Dichloroethane	75-34-3	2000	ug/mL
1,1,2-Trichloroethane	79-00-5	2000	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	2000	ug/mL
1,1,1-Trichloroethane	71-55-6	2000	ug/mL
1,2-Dichloroethane	107-06-2	2000	ug/mL
Methylene Chloride	75-09-2	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU05859

Trichloroethene	79-01-6	2000	ug/mL
trans-1,3-Dichloropropene	10061-02-6	2000	ug/mL
trans-1,2-Dichloroethene	156-60-5	2000	ug/mL
Toluene	108-88-3	2000	ug/mL
Tetrachloroethene	127-18-4	2000	ug/mL
tert-Butylbenzene	98-06-6	2000	ug/mL
Styrene	100-42-5	2000	ug/mL
sec-Butylbenzene	135-98-8	2000	ug/mL
p-Xylene	106-42-3	2000	ug/mL
p-Isopropyltoluene	99-87-6	2000	ug/mL
o-Xylene	95-47-6	2000	ug/mL
Naphthalene	91-20-3	2000	ug/mL
Bromochloromethane	74-97-5	2000	ug/mL
n-Butylbenzene	104-51-8	2000	ug/mL
Xylenes, Total	1330-20-7	4000	ug/mL
m-Xylene - Front	108-38-3	2000	ug/mL
m,p-Xylenes	179601-23-1	2000	ug/mL
Isopropylbenzene	98-82-8	2000	ug/mL
Hexachlorobutadiene	87-68-3	2000	ug/mL
Ethylbenzene	100-41-4	2000	ug/mL
Dibromomethane	74-95-3	2000	ug/mL
Dibromochloromethane	124-48-1	2000	ug/mL
cis-1,3-Dichloropropene	10061-01-5	2000	ug/mL
cis-1,2-Dichloroethene	156-59-2	2000	ug/mL
Chloroform	67-66-3	2000	ug/mL
Chlorobenzene	108-90-7	2000	ug/mL
Carbon tetrachloride	56-23-5	2000	ug/mL
n-Propylbenzene	103-65-1	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU06093

Description:	8260 Gases O2SI	Expires:	12/04/11
Standard Type:	Other	Prepared:	11/20/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/20/11 07:33 by MNM

o2si catalog no. 120016-03

Analyte	CAS Number	Concentration	Units
Vinyl chloride	75-01-4	2000	ug/mL
Trichlorofluoromethane	75-69-4	2000	ug/mL
Dichlorodifluoromethane	75-71-8	2000	ug/mL
Chloromethane	74-87-3	2000	ug/mL
Chloroethane	75-00-3	2000	ug/mL
Bromomethane	74-83-9	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU06183

Description:	SS Custom 8260 Mix	Expires:	05/03/12
Standard Type:	Other	Prepared:	11/03/11
Solvent:	MeOH	Prepared By:	Amy Cerwinske
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/12/11 04:57 by KH

O2SI Catalog # 122848-02

Analyte	CAS Number	Concentration	Units
trans-1,4-Dichloro-2-butene	110-57-6	2000	ug/mL
Tetrahydrofuran	109-99-9	2000	ug/mL
tert-Butyl ethyl ether	637-92-3	2000	ug/mL
tert-Amyl Methyl Ether (TAME)	994-05-8	2000	ug/mL
n-Hexane	110-54-3	2000	ug/mL
MTBE	1634-04-4	2000	ug/mL
Methyl-tert-butyl Ether (MTBE)	1634-04-4	2000	ug/mL
Methyl tert-Butyl Ether	1634-04-4	2000	ug/mL
Freon 113	76-13-1	2000	ug/mL
Ethyl tertiary-Butyl Ether (ETBE)	637-92-3	2000	ug/mL
Di-isopropyl Ether (DIPE)	108-20-3	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU06811

Description:	8260 Additional compounds	Expires:	01/26/12
Standard Type:	Other	Prepared:	11/09/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/09/11 13:13 by MNM

Catalog # 120561-01

Analyte	CAS Number	Concentration	Units
Vinyl Acetate	108-05-4	2000	ppm
Methyl Ethyl Ketone (MEK)	78-93-3	2000	ppm
Methyl Ethyl Ketone	78-93-3	2000	ppm
Iodomethane	4227-95-6	2000	ppm
Carbon disulfide	75-15-0	2000	ppm
Acetone	67-64-1	2000	ppm
4-Methyl-2-pentanone (MIBK)	108-10-1	2000	ppm
2-Hexanone	591-78-6	2000	ppm
2-Butanone (MEK)	78-93-3	2000	ppm
2-Butanone	78-93-3	2000	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU06961

Description:	500ppm Ethanol/250ppm TBA SS	Expires:	12/11/11
Standard Type:	Analyte Spike	Prepared:	11/11/11
Solvent:	MEOH	Prepared By:	Melissa Spencer
Final Volume (mls):	2	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/19/11 08:53 by MNM

Analyte	CAS Number	Concentration	Units
Tert-Butanol (TBA)	75-65-0	250	ppm
Ethanol	64-17-5	500	ppm

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
PU02239	SS Ethanol 20000ppm	08/18/11	Nikki Le	02/18/12	08/18/11 16:13 by NL	0.05
PU06456	O2SI tert-butyl alcohol	11/11/11	Melissa Spencer	05/11/12	11/19/11 08:53 by MNM	0.25

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU02239

Description:	SS Ethanol 20000ppm	Expires:	02/18/12
Standard Type:	Other	Prepared:	08/18/11
Solvent:	MEOH	Prepared By:	Nikki Le
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	08/18/11 16:13 by NL

Description: Ethanol, 20000ppm
CAT# 020202-02-SS

Analyte	CAS Number	Concentration	Units
Ethanol	64-17-5	20000	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU06456

Description:	O2SI tert-butyl alcohol	Expires:	05/11/12
Standard Type:	Analyte Spike	Prepared:	11/11/11
Solvent:	MeOH	Prepared By:	Melissa Spencer
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/19/11 08:53 by MNM

o2si catalog No. 020511-03

Analyte	CAS Number	Concentration	Units
Tert-Butanol (TBA)	75-65-0	2000	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU07078

Description:	8260 50 ppm CCV (No Surr.)	Expires:	11/25/11
Standard Type:	Analyte Spike	Prepared:	11/18/11
Solvent:	MeOH/113540	Prepared By:	Marbella Mazza
Final Volume (mls):	2	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/18/11 08:22 by MNM

8260/524 CCV Standard w/ No Surrogates

Analyte	CAS Number	Concentration	Units
Bromobenzene	108-86-1	50	ppm
2-Butanone	78-93-3	50	ppm
2-Butanone (MEK)	78-93-3	50	ppm
2-Chloroethyl vinyl ether	110-75-8	50	ppm
2-Chlorotoluene	95-49-8	50	ppm
2-Hexanone	591-78-6	50	ppm
4-Chlorotoluene	106-43-4	50	ppm
4-Isopropyltoluene	99-87-6	50	ppm
4-Methyl-2-pentanone (MIBK)	108-10-1	50	ppm
Chloroform	67-66-3	50	ppm
Benzene	71-43-2	50	ppm
1,3-Dichloropropane	142-28-9	50	ppm
Bromochloromethane	74-97-5	50	ppm
Bromodichloromethane	75-27-4	50	ppm
Bromoform	75-25-2	50	ppm
Bromomethane	74-83-9	50	ppm
Carbon disulfide	75-15-0	50	ppm
Carbon tetrachloride	56-23-5	50	ppm
Chlorobenzene	108-90-7	50	ppm
1,1,1,2-Tetrachloroethane	630-20-6	50	ppm
Acetone	67-64-1	50	ppm
1,2-Dibromo-3-chloropropane	96-12-8	50	ppm
1,1,1-Trichloroethane	71-55-6	50	ppm
1,1,2,2-Tetrachloroethane	79-34-5	50	ppm
1,1,2-Trichloroethane	79-00-5	50	ppm
1,1-Dichloroethane	75-34-3	50	ppm
1,1-Dichloroethene	75-35-4	50	ppm
1,1-Dichloropropene	563-58-6	50	ppm
1,2,3-Trichlorobenzene	87-61-6	50	ppm
1,2,3-Trichloropropane	96-18-4	50	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU07078

2,2-Dichloropropane	594-20-7	50	ppm
1,2,4-Trimethylbenzene	95-63-6	50	ppm
1,4-Dichlorobenzene	106-46-7	50	ppm
1,2-Dibromoethane	106-93-4	50	ppm
1,2-Dibromoethane (EDB)	106-93-4	50	ppm
1,2-Dichlorobenzene	95-50-1	50	ppm
1,2-Dichloroethane	107-06-2	50	ppm
1,2-Dichloropropane	78-87-5	50	ppm
1,3,5-Trimethylbenzene	108-67-8	50	ppm
1,3-Butadiene	106-99-0	50	ppm
1,3-Dichlorobenzene	541-73-1	50	ppm
Chloromethane	74-87-3	50	ppm
1,2,4-Trichlorobenzene	120-82-1	50	ppm
Tetrachloroethene	127-18-4	50	ppm
n-Propylbenzene	103-65-1	50	ppm
Naphthalene	91-20-3	50	ppm
o-Xylene	95-47-6	50	ppm
p-Isopropyltoluene	99-87-6	50	ppm
p-Xylene	106-42-3	50	ppm
sec-Butylbenzene	135-98-8	50	ppm
Styrene	100-42-5	50	ppm
tert-Amyl Methyl Ether (TAME)	994-05-8	50	ppm
Chloroethane	75-00-3	50	ppm
tert-Butylbenzene	98-06-6	50	ppm
MTBE	1634-04-4	50	ppm
Tetrahydrofuran	109-99-9	50	ppm
Toluene	108-88-3	50	ppm
trans-1,2-Dichloroethene	156-60-5	50	ppm
trans-1,3-Dichloropropene	10061-02-6	50	ppm
trans-1,4-Dichloro-2-butene	110-57-6	50	ppm
Trichloroethene	79-01-6	50	ppm
Trichlorofluoromethane	75-69-4	50	ppm
Vinyl Acetate	108-05-4	50	ppm
tert-Butyl ethyl ether	637-92-3	50	ppm
Iodomethane	4227-95-6	50	ppm
cis-1,2-Dichloroethene	156-59-2	50	ppm
cis-1,3-Dichloropropene	10061-01-5	50	ppm
Di-isopropyl Ether (DIPE)	108-20-3	50	ppm
Dibromochloromethane	124-48-1	50	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU07078

Dibromomethane	74-95-3	50	ppm
Dichlorodifluoromethane	75-71-8	50	ppm
Ethyl tertiary-Butyl Ether (ETBE)	637-92-3	50	ppm
Ethylbenzene	100-41-4	50	ppm
n-Hexane	110-54-3	50	ppm
Hexachlorobutadiene	87-68-3	50	ppm
n-Butylbenzene	104-51-8	50	ppm
Isopropylbenzene	98-82-8	50	ppm
m,p-Xylenes	179601-23-1	50	ppm
m-Xylene - Front	108-38-3	50	ppm
Methyl Ethyl Ketone	78-93-3	50	ppm
Methyl Ethyl Ketone (MEK)	78-93-3	50	ppm
Methyl tert-Butyl Ether	1634-04-4	50	ppm
Methyl-tert-butyl Ether (MTBE)	1634-04-4	50	ppm
Methylene Chloride	75-09-2	50	ppm
Vinyl chloride	75-01-4	50	ppm
Freon 113	76-13-1	50	ppm

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
PU02915	Crescent Vinyl acetate	10/10/11	Marbella Mazza	03/01/12	10/10/11 04:45 by MNM	0.05
PU03446	2-Chloroethyl vinyl ether	10/18/11	Marbella Mazza	04/18/12	10/18/11 06:44 by MNM	0.02
PU03582	PS 1,3-Butadiene	11/08/11	Melissa Spencer	05/08/12	11/08/11 06:25 by MS	0.05
PU03591	PS Custom 8260 Mix	10/05/11	Kaycee Halla	04/05/12	10/11/11 13:17 by KH	0.05
PU05145	Restek Additions (w/o V.A.)	10/05/11	Kaycee Halla	06/05/12	10/05/11 11:53 by KH	0.05
PU05933	PS 54 Compounds 502/524 (Absolı	11/11/11	Kaycee Halla	05/11/12	11/11/11 13:09 by KH	0.05
PU06507	8260 Gases Primary Source	11/18/11	Thomas Samuel	11/25/11	11/18/11 08:20 by MNM	0.05

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU02915

Description:	Crescent Vinyl acetate	Expires:	03/01/12
Standard Type:	Other	Prepared:	10/10/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	10/10/11 04:45 by MNM

Part # 3415M.20 - TP (pack of 3)

Analyte	CAS Number	Concentration	Units
Vinyl Acetate	108-05-4	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU03446

Description:	2-Chloroethyl vinyl ether	Expires:	04/18/12
Standard Type:	Other	Prepared:	10/18/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	10/18/11 06:44 by MNM

PRIMARY CEVE

Analyte	CAS Number	Concentration	Units
2-Chloroethyl vinyl ether	110-75-8	5000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU03582

Description:	PS 1,3-Butadiene	Expires:	05/08/12
Standard Type:	Other	Prepared:	11/08/11
Solvent:	MeOH	Prepared By:	Melissa Spencer
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/08/11 06:25 by MS

Analyte	CAS Number	Concentration	Units
1,3-Butadiene	106-99-0	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU03591

Description:	PS Custom 8260 Mix	Expires:	04/05/12
Standard Type:	Other	Prepared:	10/05/11
Solvent:	MeOH	Prepared By:	Kaycee Halla
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	10/11/11 13:17 by KH

part#96419

Analyte	CAS Number	Concentration	Units
trans-1,4-Dichloro-2-butene	110-57-6	2000	ug/mL
Tetrahydrofuran	109-99-9	2000	ug/mL
tert-Butyl ethyl ether	637-92-3	2000	ug/mL
tert-Amyl Methyl Ether (TAME)	994-05-8	2000	ug/mL
n-Hexane	110-54-3	2000	ug/mL
MTBE	1634-04-4	2000	ug/mL
Methyl-tert-butyl Ether (MTBE)	1634-04-4	2000	ug/mL
Methyl tert-Butyl Ether	1634-04-4	2000	ug/mL
Freon 113	76-13-1	2000	ug/mL
Ethyl tertiary-Butyl Ether (ETBE)	637-92-3	2000	ug/mL
Di-isopropyl Ether (DIPE)	108-20-3	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU05145

Description:	Restek Additions (w/o V.A.)	Expires:	06/05/12
Standard Type:	Other	Prepared:	10/05/11
Solvent:	MeOH	Prepared By:	Kaycee Halla
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	10/05/11 11:53 by KH

PART#558995
verified

Analyte	CAS Number	Concentration	Units
Methyl Ethyl Ketone (MEK)	78-93-3	2000	ppm
Methyl Ethyl Ketone	78-93-3	2000	ppm
Iodomethane	4227-95-6	2000	ppm
Carbon disulfide	75-15-0	2000	ppm
Acetone	67-64-1	2000	ppm
4-Methyl-2-pentanone (MIBK)	108-10-1	2000	ppm
2-Hexanone	591-78-6	2000	ppm
2-Butanone (MEK)	78-93-3	2000	ppm
2-Butanone	78-93-3	2000	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU05933

Description:	PS 54 Compounds 502/524 (Absolute)	Expires:	05/11/12
Standard Type:	Other	Prepared:	11/11/11
Solvent:	MeOH	Prepared By:	Kaycee Halla
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/11/11 13:09 by KH

Analyte	CAS Number	Concentration	Units
1,2-Dibromoethane (EDB)	106-93-4	2000	ug/mL
Bromobenzene	108-86-1	2000	ug/mL
Benzene	71-43-2	2000	ug/mL
4-Isopropyltoluene	99-87-6	2000	ug/mL
4-Chlorotoluene	106-43-4	2000	ug/mL
2-Chlorotoluene	95-49-8	2000	ug/mL
2,2-Dichloropropane	594-20-7	2000	ug/mL
1,4-Dichlorobenzene	106-46-7	2000	ug/mL
1,3-Dichloropropane	142-28-9	2000	ug/mL
1,3-Dichlorobenzene	541-73-1	2000	ug/mL
1,3,5-Trimethylbenzene	108-67-8	2000	ug/mL
1,2-Dichloropropane	78-87-5	2000	ug/mL
1,1,1,2-Tetrachloroethane	630-20-6	2000	ug/mL
1,2-Dichlorobenzene	95-50-1	2000	ug/mL
Bromoform	75-25-2	2000	ug/mL
1,2-Dibromoethane	106-93-4	2000	ug/mL
1,2-Dibromo-3-chloropropane	96-12-8	2000	ug/mL
1,2,4-Trimethylbenzene	95-63-6	2000	ug/mL
1,2,4-Trichlorobenzene	120-82-1	2000	ug/mL
1,2,3-Trichloropropane	96-18-4	2000	ug/mL
1,2,3-Trichlorobenzene	87-61-6	2000	ug/mL
1,1-Dichloropropene	563-58-6	2000	ug/mL
1,1-Dichloroethene	75-35-4	2000	ug/mL
1,1-Dichloroethane	75-34-3	2000	ug/mL
1,1,2-Trichloroethane	79-00-5	2000	ug/mL
1,1,2,2-Tetrachloroethane	79-34-5	2000	ug/mL
1,1,1-Trichloroethane	71-55-6	2000	ug/mL
1,2-Dichloroethane	107-06-2	2000	ug/mL
m-Xylene - Front	108-38-3	2000	ug/mL
trans-1,3-Dichloropropene	10061-02-6	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU05933

trans-1,2-Dichloroethene	156-60-5	2000	ug/mL
Toluene	108-88-3	2000	ug/mL
Tetrachloroethene	127-18-4	2000	ug/mL
tert-Butylbenzene	98-06-6	2000	ug/mL
Styrene	100-42-5	2000	ug/mL
sec-Butylbenzene	135-98-8	2000	ug/mL
p-Xylene	106-42-3	2000	ug/mL
p-Isopropyltoluene	99-87-6	2000	ug/mL
o-Xylene	95-47-6	2000	ug/mL
Naphthalene	91-20-3	2000	ug/mL
n-Propylbenzene	103-65-1	2000	ug/mL
Bromochloromethane	74-97-5	2000	ug/mL
Methylene Chloride	75-09-2	2000	ug/mL
Bromodichloromethane	75-27-4	2000	ug/mL
m,p-Xylenes	179601-23-1	2000	ug/mL
Isopropylbenzene	98-82-8	2000	ug/mL
Hexachlorobutadiene	87-68-3	2000	ug/mL
Ethylbenzene	100-41-4	2000	ug/mL
Dibromomethane	74-95-3	2000	ug/mL
Dibromochloromethane	124-48-1	2000	ug/mL
cis-1,3-Dichloropropene	10061-01-5	2000	ug/mL
cis-1,2-Dichloroethene	156-59-2	2000	ug/mL
Chloroform	67-66-3	2000	ug/mL
Chlorobenzene	108-90-7	2000	ug/mL
Carbon tetrachloride	56-23-5	2000	ug/mL
Trichloroethene	79-01-6	2000	ug/mL
n-Butylbenzene	104-51-8	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU06507

Description:	8260 Gases Primary Source	Expires:	11/25/11
Standard Type:	Other	Prepared:	11/18/11
Solvent:	MeOH	Prepared By:	Thomas Samuel
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/18/11 08:20 by MNM

8260 Gases Primary Source Crescent Catalog CC2006.10

Analyte	CAS Number	Concentration	Units
Vinyl chloride	75-01-4	2000	ug/mL
Trichlorofluoromethane	75-69-4	2000	ug/mL
Dichlorodifluoromethane	75-71-8	2000	ug/mL
Chloromethane	74-87-3	2000	ug/mL
Chloroethane	75-00-3	2000	ug/mL
Bromomethane	74-83-9	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU07051

Description:	500ppm Ethanol/ 250ppmTBA	Expires:	12/16/11
Standard Type:	Calibration Stan	Prepared:	11/16/11
Solvent:	Methanol	Prepared By:	Amy Cerwinske
Final Volume (mls):	2	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/16/11 16:40 by AC

Calibration/CCV Standard

Analyte	CAS Number	Concentration	Units
Tert-Butanol (TBA)	75-65-0	250	ppm
t-Butanol (TBA)	75-65-0	250	ppm
Ethanol	64-17-5	500	ppm

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
PT01428	PS TBA	11/16/11	Marbella Mazza	05/17/12	11/16/11 04:33 by MNM	0.25
PT03900	Ethanol 20000ppm (Absolute)	09/07/11	Kaycee Halla	03/07/12	09/07/11 11:45 by KH	0.05

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PT01428

Description:	PS TBA	Expires:	05/17/12
Standard Type:	Other	Prepared:	11/16/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/16/11 04:33 by MNM

Analyte	CAS Number	Concentration	Units
Tert-Butanol (TBA)	75-65-0	2000	ppm
t-Butanol (TBA)	75-65-0	2000	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PT03900

Description:	Ethanol 20000ppm (Absolute)	Expires:	03/07/12
Standard Type:	Other	Prepared:	09/07/11
Solvent:	MEOH	Prepared By:	Kaycee Halla
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	09/07/11 11:45 by KH

Description: Ethanol, 20000ppm
Part# 90572

Analyte	CAS Number	Concentration	Units
Ethanol	64-17-5	20000	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU07118

Description:	8260/624 IS/Surrogate Mix (Archon)	Expires:	12/18/11
Standard Type:	Surrogate Spike	Prepared:	11/18/11
Solvent:	MeOH/113540	Prepared By:	Kaycee Halla
Final Volume (mls):	5	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/22/11 10:18 by AC

Analyte	CAS Number	Concentration	Units
Toluene-d8	2037-26-5	250	ug/mL
TBA-d9		2000	ug/mL
Pentafluorobenzene	363-72-4	250	ug/mL
Dibromofluoromethane	1868-53-7	250	ug/mL
Chlorobenzene-d5	3114-55-4	250	ug/mL
4-Bromofluorobenzene	460-00-4	250	ug/mL
1,4-Difluorobenzene	540-36-3	250	ug/mL
1,4-Dichlorobenzene d4	3855-82-1	250	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
PU02602	Tert-Butanol-d9, 40000 ppm	11/02/11	Marbella Mazza	05/02/12	11/02/11 05:13 by MNM	0.25
PU05395	8260 Surrogates	11/16/11	Kaycee Halla	05/16/12	11/16/11 07:45 by KH	0.5
PU06097	8260 Internal standard	11/02/11	Marbella Mazza	05/02/12	11/07/11 08:17 by MS	0.15
PU06098	8260 Internal standard	11/18/11	Marbella Mazza	05/18/12	11/22/11 10:18 by AC	0.475
PU06209	8260 Surrogates	11/18/11	Kaycee Halla	05/18/12	11/18/11 17:35 by KH	0.125

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU02602

Description:	Tert-Butanol-d9, 40000 ppm	Expires:	05/02/12
Standard Type:	Other	Prepared:	11/02/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/02/11 05:13 by MNM

Description: Tert-Butyl Alcohol-d9, 40000 mg/L
Catalog #: 020652-01

Analyte	CAS Number	Concentration	Units
TBA-d9		40000	ppm

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU05395

Description:	8260 Surrogates	Expires:	05/16/12
Standard Type:	Other	Prepared:	11/16/11
Solvent:	MeOH	Prepared By:	Kaycee Halla
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/16/11 07:45 by KH

Part # STM-330N

Analyte	CAS Number	Concentration	Units
Toluene-d8	2037-26-5	2000	ug/mL
Dibromofluoromethane	1868-53-7	2000	ug/mL
4-Bromofluorobenzene	460-00-4	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU06097

Description:	8260 Internal standard	Expires:	05/02/12
Standard Type:	Internal Standar	Prepared:	11/02/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/07/11 08:17 by MS

Ultra Catalog No. STM-341N (note: did not receive certificate - ts)

Analyte	CAS Number	Concentration	Units
Pentafluorobenzene	363-72-4	2000	ug/mL
Chlorobenzene-d5	3114-55-4	2000	ug/mL
1,4-Difluorobenzene	540-36-3	2000	ug/mL
1,4-Dichlorobenzene d4	3855-82-1	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU06098

Description:	8260 Internal standard	Expires:	05/18/12
Standard Type:	Internal Standar	Prepared:	11/18/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/22/11 10:18 by AC

Ultra Catalog No. STM-341N (note: did not receive certificate - ts)

Analyte	CAS Number	Concentration	Units
Pentafluorobenzene	363-72-4	2000	ug/mL
Chlorobenzene-d5	3114-55-4	2000	ug/mL
1,4-Difluorobenzene	540-36-3	2000	ug/mL
1,4-Dichlorobenzene d4	3855-82-1	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU06209

Description:	8260 Surrogates	Expires:	05/18/12
Standard Type:	Other	Prepared:	11/18/11
Solvent:	MeOH	Prepared By:	Kaycee Halla
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/18/11 17:35 by KH

Part # STM-330N

Analyte	CAS Number	Concentration	Units
Toluene-d8	2037-26-5	2000	ug/mL
Dibromofluoromethane	1868-53-7	2000	ug/mL
4-Bromofluorobenzene	460-00-4	2000	ug/mL

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU06988

Description:	25 ppm 4-BFB	Expires:	12/14/11
Standard Type:	MS Tune Soluti	Prepared:	11/14/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	2	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/14/11 05:11 by MNM

Analyte	CAS Number	Concentration	Units
4-Bromofluorobenzene	460-00-4	25	ug/mL

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
PU00031	4-Bromofluorobenzene	11/14/11	Marbella Mazza	05/14/12	11/14/11 05:10 by MNM	0.025

Reviewed By Date

Analytical Standard Record

TestAmerica Phoenix

PU00031

Description:	4-Bromofluorobenzene	Expires:	05/14/12
Standard Type:	Other	Prepared:	11/14/11
Solvent:	MeOH	Prepared By:	Marbella Mazza
Final Volume (mls):	1	Department:	GCMS Volatiles
Vials:	1	Last Edit:	11/14/11 05:10 by MNM

Catalog # STS-110N-1

Analyte	CAS Number	Concentration	Units
4-Bromofluorobenzene	460-00-4	2000	ug/mL

Reviewed By Date

Appendix O
Data Validation Report

APPENDIX O

DATA VALIDATION REPORT

Analytical data is the basis for evaluating the environmental conditions present at the Motorola Superfund Site, Operable Unit 3, Quarterly Groundwater Sampling Event – November 2011. It is essential that the data be accurate and reflective of actual conditions.

During the November 15, 2011 through November 17, 2011 groundwater sampling event, 6 original water samples and 2 QA/QC samples were collected. All data underwent a Tier 1A review, and 10% of the data was reviewed at Tier 3 to ensure that data quality was acceptable for decision-making purposes. This process identified limitations for use of the data, and/or data that should not be used for decision-making purposes. The quality of data was assessed and any necessary qualifiers were applied following the *United States Environmental Protection Agency* (USEPA) *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (June 2008).

Laboratory Data Consultants, Inc. (LDC) validated/reviewed data for compliance with the following QA/QC project and/or method-prescribed criteria (described later in this section):

- Holding Time and Preservation: The period of time between collection of the sample, preparation/analysis, and acceptable temperature range of the sample. Analyses performed for this project have method-prescribed holding times and temperature ranges.

- Calibration: The analysis of target analytes at a range of concentrations to develop a graphical plot of instrument response against the different analyte concentrations. An initial calibration curve establishes the graphical plot, and the continuing calibration verification monitors daily instrument linearity against the initial calibration (Tier 3 review only).

- Blank Samples: The preparation and analysis of reagent (contaminant-free) water. Blank samples for this investigation included method blanks, trip blanks, field blanks, and equipment rinsates. Detections in a blank sample indicate laboratory and/or transportation or field contamination.

- Spike Samples: The preparation and analysis of an environmental sample or a sample of reagent water spiked with a subset of target compounds at known concentrations. The results of the spike analysis measure laboratory accuracy in the reagent sample, and results from the environmental sample spike measure potential interferences from the matrix.

- Internal Standards: The addition of compounds similar to target compounds of interest that are added to sample aliquots for organic analysis. The internal standards are used to quantitatively and qualitatively evaluate retention time and response for each sample (Tier 3 review only).

- Surrogate Spikes: The addition of compounds similar to target compounds of interest that are added to sample aliquots for organic analysis. Surrogate spikes measure possible interference from the sample matrix for the analysis of target compounds.

- Duplicate Samples: The preparation and analysis of an additional aliquot of the sample. The results from duplicate analysis measure potential heterogeneity of contaminants in the sample.

Standard qualifiers that may be applied during the review process are as follows:

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample;

U: The analyte was not detected above the reported sample quantitation limit; and

UJ: The analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit was approximate and may or may not have represented the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R: The sample results were rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte could not be verified.

All of the data, including data qualified as having estimated values, are acceptable and can be used for decision-making purposes.

The following discussion addresses each of the QA/QC components listed above and the results for each of the components. EPA Tier 1A documentation was required for the samples in data packages PUK1116 and PUK1257. The data were reviewed for each of the components listed above, with the exception of calibration and internal standard response. EPA Tier 3 review was requested for one sample in data package PUK1116 for the groundwater samples. Results were validated from the raw data provided by the laboratory. The validation included a review of the calibration results, internal standard response, and recalculation of a portion of the raw data, as well as the areas covered in the standard data review.

Holding Time and Preservation

The EPA has established the maximum holding time that can elapse between preparation and analysis of samples. The EPA has also defined the acceptable temperature range at which samples must be stored to maintain sample preservation. Holding times and sample temperatures extending beyond the EPA maximum can negatively affect sample integrity (e.g., loss of volatile compounds, biodegradation) and are qualified depending on the severity of the exceedance and compounds of concern.

Each of the sample analysis results was reviewed for compliance with the method-prescribed preparation and analysis holding times. None of the samples were analyzed outside of the maximum allowable holding time.

All samples collected were received at the laboratory in within the proper temperature range.

Calibration Results

Before an analytical instrument is used for sample analysis, the instrument must be calibrated to be within EPA method specifications. The purpose of this calibration is to ensure that the instrument is appropriately responsive to measurable chemical concentrations. If an instrument is not properly calibrated, it may not be capable of producing acceptable quantitative, qualitative, and reproducible data. For example, detected concentrations of a given compound that would still be considered valid could contain an undetermined degree of inaccuracy. In the case of nondetected results, the reporting limit would be similarly affected; such results would still be considered nondetected.

Two types of calibration data were reviewed. These were initial calibration (ICAL) and continuing calibration verification (CCV). A curve establishes a graphical plot of instrument response against the different analyte concentrations, and the CCV monitors daily instrument linearity against the initial calibration. The ICAL consisted of standards that were analyzed at five concentrations. These concentrations ranged from the reporting limit to the upper linear range of the instrument. The laboratory calculated the relative standard deviation for each of the target analytes included in the ICAL. The laboratory also calculated the relative response factors (RRFs) for the analytes in the ICAL. The reported percent relative standard deviations and RRFs were compared to the method-prescribed acceptance criteria and validation criteria during the data validation. In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r^2) were greater than or equal to 0.990.

A CCV and ICV are analyzed every 12 hours to ensure the instrument response is still within method-performance criteria for linearity. The CCV/ICV consisted of analyzing a standard at one concentration; the concentration of this standard was generally in the mid-range of the ICAL standard concentrations. The laboratory calculated the percent difference (%D) between CCV/ICV and the ICAL. The laboratory calculated the CCV/ICV RRFs. The %Ds and RRFs were then compared to the method-

prescribed acceptance criteria and validation criteria during the data validation. Results quantitated using an unacceptable %D or RRF value may be considered semiquantitative and may be subject to some amount of error.

In data package PUK1116 for method 8260B, the ICV %Ds for Acetone and Hexanone were outside the QC limits. The associated data were qualified as estimated J/UJ on the basis of calibration outliers.

These outliers are listed in Table O-1.

Blank Samples

The purpose of a blank sample is to determine the presence and magnitude of contamination resulting from laboratory, shipping, or other sample-handling activities. Blank samples are analyzed and evaluated for detections of target compounds. If target compounds are detected in a blank sample that was initially intended to be contaminant-free, these detections indicate some element of the sample collection, transportation, or analysis activities has introduced contaminants not present in the original environmental sample aliquot. If target compounds are detected in a blank sample, then all associated data must be carefully evaluated to determine whether those results have been similarly impacted or the blank problem is an isolated occurrence not representative of other data.

The four types of blank samples routinely analyzed and reported with the groundwater samples were method blank, trip blank, field blank, and equipment blank samples. Preparation, handling, and analysis of these blank samples are summarized below.

1. The laboratory prepared method blank samples by taking an aliquot of reagent water through all of the preparation and analysis steps that the samples go through. A method blank was prepared and analyzed with each batch of environmental samples. Method blank samples monitor for potential contamination of samples from the laboratory.

2. Trip blank samples are typically analyzed with every shipment of samples for volatile organic compounds only. Field and method blank samples may occasionally be contaminated during preparation and/or

analysis from ambient conditions at the laboratory. The majority of the method blank and trip blank results were nondetected, indicating laboratory and handling conditions were acceptable.

3. Field blank samples were prepared at sample collection locations by slowly pouring tap water into clean sample containers supplied by the laboratory. Field blank samples collected were labeled with an "R" identifier in the sample identification number. Field blank samples monitor for potential contamination of project samples from ambient conditions at the sample collection site.

4. Equipment blank samples were prepared at sample collection locations from the pump exterior of the sampling equipment. The identifier "EB" was used in the equipment blank sample identification number. Equipment blank samples monitor for potential cross contamination of project samples from sampling equipment.

For method 8260B the method blank and trip blank samples analyzed were all nondetected.

Spike Samples

A spike sample is a QC sample that is prepared and analyzed by the laboratory. The laboratory prepares, analyzes, and reports spike sample results to demonstrate their ability to properly analyze, detect, and quantify target compounds. A spike sample result is typically reported as the amount of compound detected divided by the amount spiked into the sample and is commonly referred to as percent recovery. The percent recovery is then compared to an established limit range. The two types of spike samples analyzed with the project samples were matrix spikes and blank spikes.

1. Matrix spike (MS) samples consist of an aliquot of an environmental sample that is spiked with known concentrations of a subset of target compounds. A matrix spike duplicate (MSD) sample is a second sample prepared and analyzed with the MS sample. MS samples are used to monitor potential interference from the sample matrix for target compounds. A low MS recovery may indicate low-biased

sample results; a high MS recovery may indicate high-biased sample results.

2. Blank spike samples, which are commonly referred to as laboratory control samples (LCS), are an aliquot of reagent water that is spiked with known concentrations of a subset of target compounds. The LCS is used to monitor laboratory accuracy without the bias of a sample matrix. A laboratory control sample duplicate (LCSD) is a second LCS that is prepared with the first LCS. LCS and LCSD recoveries outside of acceptable limits may indicate poor laboratory accuracy. LCSD relative percent differences (RPD) outside of acceptable limits may indicate poor precision.

For method 8260B two LCS/LCSD recoveries were not within acceptable limits. Data required qualification in data package PUK1257.

For method 8260B the MS/MSD analysis was not performed. Using professional judgment, the data quality is not impacted. Therefore no data were qualified.

The LCS/LCSD outlier results are listed in Table O-2.

Internal Standard Responses

Under EPA methods, a given analyte list for organic compounds is segregated by chemical properties and retention time into subsets. An EPA-defined internal standard with comparable chemical properties and retention times is assigned to each subset of analytes. A known concentration of an internal standard is added to each sample including laboratory QC samples (e.g., calibration standards, MS, method blank samples) prior to analysis and the instrument internal standard response for each sample is compared to the internal standard response in the daily CCV.

The sample internal standard area count must be within the range of 0.5 to 2 times the CCV area count, and the retention time must be within ±30 seconds of the CCV retention time. If the area count and/or retention times measured for the sample is outside these acceptance ranges, quantitation results for the associated analyte subset may be biased. Interferences from the sample matrix are typically responsible for internal

standard responses that are consistently outside acceptable ranges. Most matrix interferences cause a high or low bias.

Internal standards were added to each of the samples analyzed for volatile compound analysis. None of the data was qualified due to measured retention times. The internal standard responses were within acceptable limits, indicating minimal matrix interferences and acceptable sample quantitation.

Surrogate Spikes

A surrogate spike is similar to an internal standard; it is chemically similar to the target compounds and it is only used in organic analyses. A surrogate spike is used to assess interference from the sample matrix during the analysis. An internal standard is used to quantitate target compounds while accounting for any possible interference from the sample matrix. Surrogate spike results are typically reported in terms of percent recovery, based on the concentration of surrogate detected divided by the known amount of surrogate added to the sample aliquot.

Surrogate recoveries were compared to the laboratory-generated limits of acceptance. All surrogate recoveries were within acceptable limits for all samples for method 8260B.

Field Duplicate Samples

A duplicate sample is a second aliquot of a sample that is collected, prepared, and analyzed in the same manner as the original sample. A field duplicate sample is collected to measure the precision of the method and to assess matrix heterogeneity. The USEPA has not established control criteria for field duplicate samples; therefore, sample data are not qualified on the basis of field duplicate imprecision.

No groundwater samples were collected in duplicate for these data packages.

Analytical Duplicate Samples

An analytical duplicate sample is a second aliquot of a sample that is prepared and analyzed in the laboratory in the same manner as the original sample. Analytical duplicate samples are analyzed to measure the precision of the method and to assess matrix heterogeneity.

No analytical duplicates were analyzed for method 8260B.

Performance Evaluation Sample

No performance evaluation samples were analyzed for method 8260B.

Overall Assessment

All data can be used for decision-making purposes; however, the limitations indicated by the applied qualifier should be considered when using the data.

No results were found to be rejected (R) during the sampling event. Sample results that were found to be estimated (J) are usable for limited purposes only. All other results are considered valid and usable for all purposes.

The quality of the data generated during the November 15, 2011 through November 17, 2011 groundwater investigation at the Motorola Superfund Site, Operable Unit 3 is acceptable for the preparation of technically defensible documents.

Table O-1
Calibrations Outside of Acceptable Limits
Motorola Superfund Site, Operable Unit 3 Quarterly

Lab Package	Calibration Date	Associated Sample	Method	Analyte	%D	Analysis Criteria	Validation Criteria	RRF	RRF Criteria	LDC Qualifier
PUK1116	11/21/2011	AT-OU3-5SR-S-111511-23:11-2**	8260B	Acetone	36	≤20.0	≤25.0	NA	NA	J/UJ
	ICV			Hexanone	28	≤20.0	≤25.0	NA	NA	J/UJ

Key:

NA = No qualified result
ICAL = Initial calibration
CCAL = Continuing calibration
RRF = Relative response factor
%D = Percent difference

J detects = Estimated detected result
UJ = Nondetected, estimated report limit
J/UJ = Detected results are estimated; nondetected results are estimated at the report limit
RPD = Relative percent difference
** = Sample underwent Tier 3 review

Table O-2

Laboratory Control Sample/Laboratory Control Sample Duplicate Recoveries & RPDs Outside of Acceptable Limits

Motorola Superfund Site, Operable Unit 3 Quarterly

Lab Package	LCS/LCSD ID	Associated Sample	Method	Compound	LCS (% R)	LCSD (% R)	Limit (%)	RPD	RPD Limit	LDC Qualifier
PUK1257	11K0979-BS1/BSD1	AT-OU3-AT-M-111611-2315-1	8260B	Hexachlorobutadiene	149	151	40-150	1	≤35	J detects
		AT-OU3-AT-M-111711-0445-2		Toluene	117	121	80-120	4	≤15	J detects
		AT-OU3-AT-M-111711-1045-3								
		AT-L1-1-111611								

Key:

J detects = Estimated detected result

UJ = Nondetected, estimated report limit

J/UJ = Detected results are estimated; nondetected results are estimated at the report limit

RPD = Relative percent difference

** = Sample underwent Tier 3 review

Appendix P
Lithology Information

Salt River Gravels

Basin fill is overlain by coarse river gravels composed of well-rounded gravel, cobbles, and boulders in a sandy matrix. The well-rounded clasts are mostly rock types that are not present in the local mountains around Phoenix. Instead, these clasts include distinctive rock types, such as red metarhyolite (Precambrian Red Rock Group) and maroon quartzite (Precambrian Mazatzal Quartzite), which are only exposed far upstream of the Phoenix basin along the Verde and Salt rivers (Reynolds, 1988). This coarse alluvium is identical in all aspects to the gravels seen in the modern channel of the Salt River; therefore we name these deposits the *Salt River Gravels*. We designate the type locality for this geologic unit to be the modern channel of the Salt River near the bridge at Priest Drive. There is conclusive evidence that these gravels were deposited by the Salt River, rather than in locally derived alluvial fans.

The Salt River Gravels are very coarse and sandy, generally with little or no finer grained material. Some core intervals have significant silt in the matrix, and may represent floodplain deposits. Other intervals have no matrix and are composed entirely of pebbles, cobbles, and boulders; these clearly represent main-channel deposits.

The gravels are consistently described in the drilling logs as gray and brown. The sands are multicolored, with clear, cream, gray, tan, red, green, black, and maroon grains. The Salt River Gravels are characteristically loose and unconsolidated, with no calcite cement. In a very few intervals, the grains adhere to one another and there is small amount of calcite cement.

The Salt River Gravels are widely distributed across the study area, except toward the northeast, where they are absent. In cross section, they appear as a wedge that thickens to the west and southwest and pinches out just northeast of the Grand Canal area (Figures 14 and 15). This pinch-out trends northwest across the area, and marks the northeastward, up-slope limit of former positions of the river. All areas to the southwest of this pinch-out were once sites of the Salt River. Coarse channel deposits are ubiquitous in these areas to the southwest, which indicates that one or more main channels of the Salt River once crossed these areas.

The contact between the Salt River Gravels and underlying basin fill is generally very sharp in the logs, cores, and cuttings. In the soft-sediment cores of the ASE-series of drill holes, the contact is very sharp, with coarse gravels directly overlying silt-dominated basin fill, with no

gradation or intermixing of sediment types. Where drill holes are closely spaced, the contact has tens of feet of relief (Figures 17 to 19), although layers in the underlying basin fill are horizontal (Figure 19). We interpret this contact to be an erosion surface or unconformity, perhaps representing hundreds of thousands to millions of years of missing time. The contrasts in the depositional environments and the degree of cementation are evidence for a significant age difference between the two units. There is a surprising lack of soil development along the contact, which can be explained by (1) no large age difference between the two units, or (2) scouring of the contact by the Salt River prior to deposition of the lowest Salt River Gravels. Nevertheless, the contact appears to be an erosion surface, but of unknown duration. The age of the Salt River Gravels is unknown. The oldest, most deeply buried gravels could be hundreds of thousands to a million years old, whereas the highest, youngest ones are probably Holocene.

The Salt River Gravels display some interesting relations to underlying units near the bedrock ridge (Figures 14 to 19). Salt River Gravels directly overlie Camels Head Formation on the top and upper flanks of the bedrock ridge, but elsewhere basin fill intervenes between the gravels and the hard bedrock. The basal contact of the gravels shows considerable relief, as shown on a contour map in Figure 20. The base of the gravels is at an elevation of 1060 feet on the bedrock ridge, but is lower on both the east and west sides (Figures 14 and 16). On the east flank of the ridge, the base of the gravels is a notch cut into the underlying basin fill (Figures 14, 16, and 17). In view of the sharp contact between Salt River Gravels and basin fill, this feature is most easily interpreted as a paleovalley eroded into basin fill and then filled with Salt River Gravels. This interpretation is supported by the decrease in the preserved thickness of basin fill in the paleovalley compared to observations from drill holes east of the paleovalley (Figures 14 and 16). That is, more basin fill was eroded away to create the valley. The relief shown by this paleovalley is consistent with other evidence that an episode of erosion intervened between the basin fill and Salt River Gravels.

The paleovalley trends northwest on the east side of the bedrock ridge, and curves to the west around the north end of the ridge. As depicted on the contour map (Figure 20), the paleovalley is narrower near the southeast end of the ridge but becomes wider and deeper down slope to the northwest. The paleovalley may have several branches from the south, one through the southern saddle (Figure 18) and one farther to the east, where there are few data points.

BORING LOG

Well Registration: *55-575448*	Boring/Well Identifier: **ASE-37A**
Boring Location: *N888919.9, E473520.6 (survey)* Drilling Contractor: *Layne Christensen* Rig Type: *Air Rotary* Sampling Method: *Grab* Drilling Fluid: *Air* Logged By: *JCY* Checked By: *BAM*	Elevation of Measuring Point: *1120.61 (survey)* Date Started: *10/18/99* Date Finished: *10/22/99* Total Depth of Boring: 112 *ft.* Depth to Water: *61.50 ft* WELL CONSTRUCTION Type/Diameter of Well Casing: *8-inch PVC* Slot Size: *0.020"* Filter Material: *# 10-20 Sand* Development Method: *Bailed and Pumped*

Depth, ft	USCS	Description	Graphic Log	Blow Counts	Sample/Core	Sample ID	Well Construction	PID Screening, ppm	Remarks
		Asphalt & ABC							Flush-mounted water-tight well vault. 13.5-inch diameter borehole from 0 to 112 feet. Blank 8-inch diameter steel well casing, flush threaded, from 0 to 61 feet. Neat cement grout from 0 to 52 feet.
	SM	Silty SAND, 80% sand, 20% silt; brown with multicolored grains, very dense, slightly moist, no odor.							
5	ML	Clayey SILT, brown/reddish brown, medium to high plasticity, moderately dense, moist, no odor.							
10	SM	Silty SAND, trace gravel, 80% sand, 15% silt, 5% gravel; brown with multicolored grains, loose to moderately dense, very slightly moist, no odor.							
15	SP	Gravelly SAND, trace silt, 80% sand, 15% gravel, 5% silt; brown with multicolored grains, loose to moderately dense, very slightly moist, no odor.							
20 25 30 35	GP/SP	Silty Sandy, GRAVEL, COBBLES, AND BOULDERS, 40% sand, 15% silt, 45% gravel, cobbles, boulders; brown with multicolored grains, loose to moderately dense, very slightly moist to 60 feet, saturated at 61 feet: coarse fraction, subrounded to rounded. Matrix varies from silty sand to sand with silt stringers within this interval.							

BORING LOG

Well Registration: *55-575448*

Boring/Well Identifier: **ASE-37A**

Depth, ft	USCS	Description	Graphic Log	Blow Counts	Sample/Core	Sample ID	Well Construction	PID Screening, ppm	Remarks
35		Silty Sandy, GRAVEL, COBBLES, AND BOULDERS (continued).							
40									
45									
50	GP/SP								
									Bentonite pellet seal from 52 to 55 feet.
55									# 10-20 silica sand from 55 to 112 feet.
									Steel cross-over fitting from 61 to 62 feet.
60									▼ Static Water Level 61.50 feet bls (11/4/99)
65		Sandy GRAVEL, COBBLES, trace clayey silt, 50% gravel and cobbles, 35% sand, 5% clayey silt; multicolored grains, loose to moderately dense, coarse fraction: subrounded to rounded.							
70	GP								8-inch diameter Schedule 80 PVC slotted casing, 0.020 inch slots, flush threaded, with end cap, from 62 to 111 feet.
75	SP	Silty Gravelly SAND, 60% sand, 25% gravel, 15% silt; multicolored grains, loose to moderately dense, saturated.							

BORING LOG

Well Registration: *55-575448*

Boring/Well Identifier: **ASE-37A**

Depth, ft	USCS	Description	Graphic Log	Blow Counts	Sample/Core	Sample ID	Well Construction	PID Screening, ppm	Remarks
75	SP	Silty Gravelly SAND (continued).							
80									
85	SM/ML	Silty SAND/Sandy SILT, 50% sand, 50% silt; light reddish brown, low to medium plasticity, slightly moist.							
90									
95									
100									
105	SP	Gravelly Silty SAND, 40% sand, 35% silt, 25% gravel; reddish brown with multicolored grains, loose to moderately dense, saturated; gravel, angular to subangular.							
110		Camels Head Formation.							
115		Total Depth of Borehole: 112 feet							

WELL NAME OR NUMBER: DM 518

ADWR REGISTRATION NUMBER: 55-537131

DATE COMPLETED: 1/17/93

GROUND SURFACE ELEVATION (MSL): _____ FEET

TOTAL DEPTH: 160 FEET

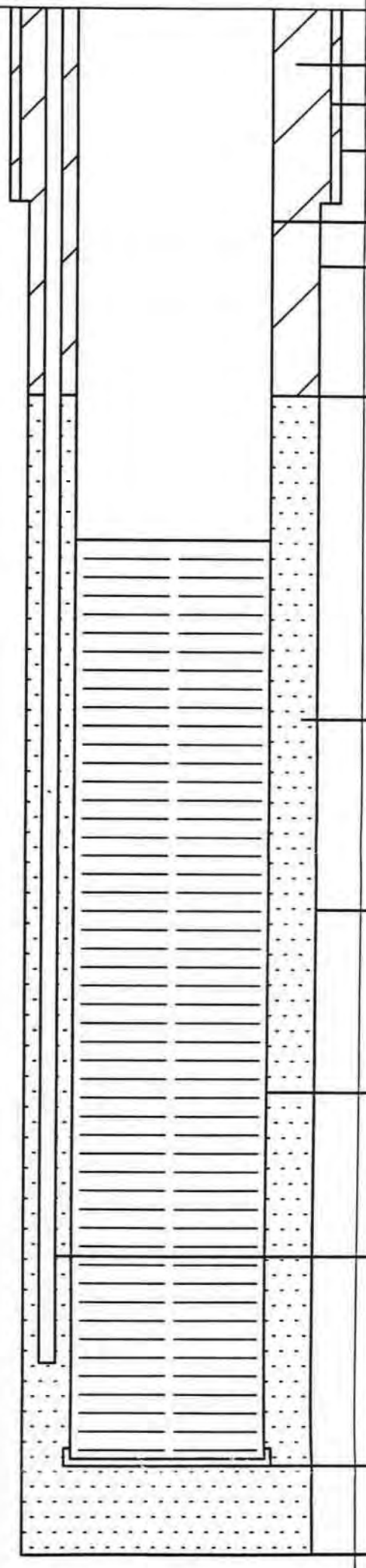
LOCATION: T.1N, R.3E, SW1/4 NE1/4 NW1/4, SEC.11

COORDINATES: _____

DEPTH BELOW SURFACE (FEET)	GRAPHIC LOG	SYMBOL	DESCRIPTION	SAMPLE INTERVAL	RECOVERY %	RQD/E
5, 10		SM	BROWN, SANDY SILT, DRY; SAND IS BLACK, RED, GREY, GREEN, ORANGE, MEDIUM TO COARSE GRAINED AND ANGULAR.			
15, 20, 25, 30, 35		GW	BLACK, GREY, RED, ORANGE, BROWN, FINE TO COARSE, SUBANGULAR TO ANGULAR SAND WITH SILT AND CLAY			
			RED, BROWN, ORANGE, BLACK, MEDIUM TO COARSE GRAINED, ANGULAR SAND WITH WELL ROUNDED, FINE TO COARSE GRAINED GRAVEL			
40, 45, 50, 55			RED, BROWN, BLACK, MEDIUM TO COARSE GRAINED, ANGULAR SAND WITH FINE TO COARSE GRAINED GRAVEL			
60, 65, 70, 75			RED, BROWN, BLACK, FINE TO COARSE GRAINED, ANGULAR SAND AND FINE GRAVEL WITH COARSE GRAINED GRAVEL			
80, 85, 90, 95, 100, 105			BLACK, BROWN, RED, ORANGE, GREY, FINE TO COARSE GRAINED, ANGULAR SAND WITH CLAY AND SILT			
110, 115			BLACK, RED, BROWN, GREY, FINE TO COARSE GRAINED, ANGULAR SAND WITH CLAY AND SILT; TRACE OF GRAVEL			
120, 125, 130, 135		SW	RED, BLACK, GREY, BROWN, ORANGE, FINE TO MEDIUM GRAINED, SUBANGULAR SAND; MINOR AMOUNTS OF COARSE GRAINED SAND AND SILT			
			LIGHT BROWN CLAY WITH RED, BLACK, GREY, FINE SAND AT 135' TO 137'			
140, 145, 150, 155, 160		Tcf	WHITE, BROWN, BLACK, SANDY FINE GRAVEL; SAND IS FINE TO MEDIUM GRAINED AND ANGULAR; GRAVEL CONSISTS OF WHITE VITREOUS FELDSPARS AND BIOTITE			
160			T.D.= 160 FEET			
165, 170, 175, 180, 185, 190, 195						

WELL CONSTRUCTION

SCHEMATIC



NARRATIVE

- TYPE I AND II PORTLAND CEMENT
- 18"O.D./17.25" I.D. LOW CARBON STEEL SURFACE CASING
- 24" AIR ROTARY BOREHOLE
- 12.5" O.D./12" I.D. BLANK LOW CARBON STEEL CASING
- 17.5" AIR ROTARY BOREHOLE
- 40
- WATER DEPTH FROM SURFACE 59.3' (1/12/93)
- #4-8 COLORADO SILICA SAND (20'-59')
- 17.5" MUD ROTARY BOREHOLE (59'-160')
- MONITOR ZONE
- 12.5" O.D./12" I.D. JOHNSON WIRE-WRAP SCREEN (0.080" SLOTS)
- 1.25" O.D./1" I.D. SCH 80 PVC SOUNDING TUBE (0.020" SLOTS)
- 12.5" O.D. STEEL END CAP
- 160

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09448-139-033

DM 518
SHEET 1 OF 1
Figure 3

WELL NAME OR NUMBER: DM 5180B1

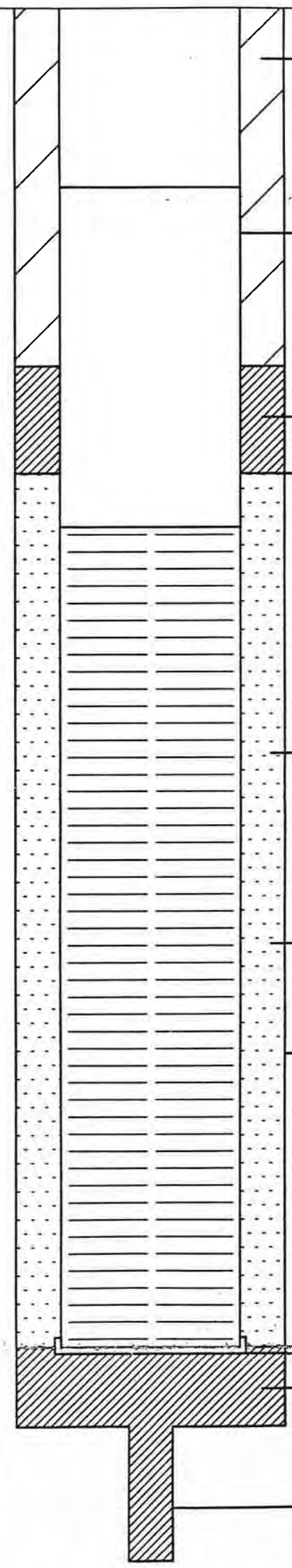
ADWR REGISTRATION NUMBER: 55-536787 DATE COMPLETED: 10/7/92 GROUND SURFACE ELEVATION (MSL): 1107.29 FEET TOTAL DEPTH: 159 FEET

LOCATION: T.1N, R.3E, SW1/4 NE1/4 NW1/4, SEC.11 COORDINATES:

DEPTH BELOW SURFACE (FEET)	GRAPHIC LOG	SYMBOL	DESCRIPTION	SAMPLE INTERVAL	RECOVERY %	RQD%
		SM	BROWN, CLAYEY SILT; TRACE OF FINE SAND, DRY			
5						
10		SW	BROWN, BROWN-RED, FINE TO COARSE GRAINED, ANGULAR SAND, DRY			
15						
20			PREDOMINANTLY DARK BROWN, RED-BROWN, GREY, BLACK, FINE TO MEDIUM GRAINED ANGULAR SAND			
25			ORANGE-BROWN TO RED-BROWN MEDIUM TO COARSE GRAINED, ANGULAR SAND WITH GREY ROUNDED FINE GRAINED GRAVEL			
30			DARK GREY, BLACK, RED-BROWN, BROWN, FINE TO MEDIUM GRAINED, ANGULAR SAND WITH FINE TO COARSE GRAINED, ANGULAR GRAVEL			
35						
40			GREY, RED-BROWN, BROWN, FINE TO COARSE GRAINED, ANGULAR SAND; SOME SILT AND CLAY; TRACE OF FINE GRAVEL			
45						
50			RED TO RED-BROWN, MEDIUM TO COARSE GRAINED, ANGULAR SAND AND FINE SUBROUNDED GRAVEL, WITH GREY TO GREY-GREEN, FINE GRAINED, ROUNDED GRAVEL			
55						
60			RED-BROWN, GREY, RED, BROWN, MEDIUM TO COARSE GRAINED, ANGULAR SAND, SOME FINE TO COARSE GRAINED, SUBROUNDED GRAVEL			
65						
70			BROWN, RED-BROWN, GREY, RED, BLACK, ANGULAR TO SUBROUNDED SANDY GRAVEL			
75						
80			RED-BROWN, BROWN, GREY, GREEN, FINE TO COARSE GRAINED, ANGULAR TO SUBROUNDED GRAVEL WITH MEDIUM GRAINED SAND			
85						
90			BROWN, GREY, RED-BROWN, BLACK, MEDIUM TO COARSE GRAINED, ANGULAR SAND WITH FINE TO COARSE GRAINED, ANGULAR TO SUBROUNDED GRAVEL			
95						
100			RED, RED-BROWN, GREY, WHITE, MEDIUM TO COARSE GRAINED SAND WITH ROUNDED TO SUBROUNDED, FINE GRAINED GRAVEL			
105						
110			RED, RED-BROWN, BROWN, ORANGE, GREY, GREEN, FINE TO COARSE GRAINED, SUBANGULAR SAND AND FINE TO COARSE GRAINED, SUBROUNDED GRAVEL			
115						
120			RED, RED-BROWN, BROWN, GREEN, GREY, MEDIUM TO COARSE GRAINED, SUBROUNDED TO SUBANGULAR SAND, WITH ROUND, FINE TO COARSE GRAINED GRAVEL			
125		SW/ GW	BROWN, BROWN-RED, GREY, TAN, SUBROUNDED TO SUBANGULAR SAND WITH SUBROUNDED TO SUBANGULAR, COARSE GRAINED GRAVEL			
130						
135		SM	BROWN, RED-BROWN, TAN, BLACK, FINE SAND AND SILT, TRACE AMOUNTS OF GRANITIC SAND AND MATRIX ROCK OF Tcf (LIGHT BROWN MUDSTONE)			
140						
145						
150						
155						
160			LIGHT BROWN, FINE GRAINED SANDSTONE WITH INTERBEDDED LAYERS OF CLAY FROM 160' TO 168'		45	7.5
165						
170					0	0
175			T.D.= 174 FEET			
180						
185						
190						
195						

WELL CONSTRUCTION

SCHEMATIC



NARRATIVE

- TYPE I AND II PORTLAND CEMENT
- 6.625" O.D./6" I.D. FLUSH THREADED SCH 40, PVC BLANK CASING
- ENVIROPLUG #16 BENTONITE SEAL
- 52
- WATER DEPTH FROM SURFACE 59.5' (10/8/92)
- 6.625" O.D./6" I.D. FLUSH THREADED SCH 40, PVC SCREENED CASING (0.040" SLOTS)
- #6-9 COLORADO SILICA SAND
- NOMINAL 10" AIR ROTARY CASING HAMMER BOREHOLE
- MONITOR ZONE
- 150
- 6.625" O.D. SCH 80, PVC END CAP
- ENVIROPLUG #16 BENTONITE SEAL
- 3.94" DIAMOND COREHOLE

DM 5180B1
SHEET 1 OF 1
Figure 4

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LOG EW-N. SUMMARY OF LITHOLOGIC DESCRIPTIONS FOR DRILL CUTTINGS SAMPLES FROM WELL EW-N

DEPTH (feet)	DESCRIPTION
0-5	**FILL**; slightly moist.
5-10	**FILL**; slightly moist.
10-15	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM);** brown (7.5YR5/3); gravel 60%, very fine to very coarse sand, angular to subrounded 35%, silt and clay 5%; nonlithified; dry. Gravel fraction: angular to very rounded volcanic rocks, granite, quartz, feldspar, and fine-grained siliceous rocks. Reaction to acid: moderate to strong. Some clasts have $CaCO_3$ coatings.
15-20	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM);** brown (7.5YR5/3); gravel 60%, very fine to very coarse sand, angular to subrounded 35%, silt and clay 5%; nonlithified; dry. Gravel fraction: angular to very rounded volcanic rocks, granite, quartz, feldspar, and fine-grained siliceous rocks. Reaction to acid: moderate to strong. Some clasts have $CaCO_3$ coatings.
20-25	**SANDY GRAVEL WITH COBBLES (GW-GM)**; reddish brown (5YR5/3, 4/3); gravel 90%, very fine to very coarse sand, angular to subangular 10%, trace silt; nonlithified; dry. Gravel fraction: subangular to very rounded quartzite, granite, volcanic rocks, and fine-grained siliceous rocks; fine to cobbles. Reaction to acid: none.
25-30	**SANDY GRAVEL WITH COBBLES (GW-GM)**; reddish brown (5YR5/3, 5/4); gravel 90%, very fine to very coarse sand, angular to subrounded 10%, trace silt; nonlithified; dry. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, fine-grained siliceous rocks, epidote, and quartz; fine to cobbles. Reaction to acid: none.
30-35	**GRAVEL WITH COBBLES (GW)**; reddish gray (5YR5/2); gravel 100%, trace sand, trace silt; nonlithified; very slightly moist. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, and granite; fine cobbles to boulders; abundant cut chips. Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
35-40	**SANDY GRAVEL WITH COBBLES (GW-GM)**; reddish gray (5YR5/2); gravel 90%, very fine to very coarse sand, angular to subrounded 10%, trace silt; nonlithified; slightly moist. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, granite, and fine-grained siliceous rocks; fine to boulders; abundant cut chips. Reaction to acid: none.
40-45	**SANDY GRAVEL WITH COBBLES (GW-GM)**; reddish gray (5YR5/2); gravel 90%, very fine to very coarse sand, angular to subrounded 10%, trace silt; nonlithified; slightly moist. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, and granite; fine to boulders; abundant cut chips. Reaction to acid: none.
45-50	**GRAVEL AND COBBLES (GW)**; reddish gray (5YR5/2); gravel 100%, trace sand, trace silt; nonlithified; dry. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, granite, and metamorphic rocks; fine to boulders; abundant cut chips. Reaction to acid: none.
50-55	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/4); gravel 80%, very fine to very coarse sand, angular to subrounded 15%, silt 5%; nonlithified; slightly moist. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, and granite; fine to cobbles; abundant cut chips. Reaction to acid: none.
55-60	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3, 5/4); gravel 80%, very fine to very coarse sand, angular to subrounded 15%, silt 5%; nonlithified; slightly moist. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, granite, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.
60-65	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3); gravel 85%, very fine to very coarse sand, angular to subrounded 10%, silt 5%; nonlithified; slightly moist. Gravel fraction: subangular to very rounded volcanic rocks, metamorphic rocks, quartzite, and granite; fine to cobbles; abundant cut chips. Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
65-70	**SANDY GRAVEL WITH COBBLES (GW)**; brown (7.5YR5/3); gravel 90%, very fine to very coarse sand, angular to subrounded 10%, trace silt; nonlithified; slightly moist. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.
70-75	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3); gravel 80%, very fine to very coarse sand, angular to subrounded 15%, silt 5%; nonlithified; moist. Gravel fraction: subrounded to very rounded quartz, volcanic rocks, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.
75-80	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; pinkish gray to light brown (7.5YR6/2, 6/3); gravel 70%, very fine to coarse sand, angular to subrounded 20%, silt 10%; nonlithified; moist. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, and quartz; fine to cobbles; some cut chips. Reaction to acid: none.
80-85	**SILTY AND SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3, 4/3); gravel 90%, very fine to coarse sand, angular to subrounded 5%, silt and clay 5%; nonlithified; moist. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, granite, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.
85-90	**SILTY AND SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3); gravel 85%, very fine to very coarse sand, angular to subrounded 10%, silt and clay 5%; nonlithified; very moist. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, granite, and quartz; fine to cobbles; abundant cut chips. Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
90-95	**SILTY AND SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3); gravel 80%, very fine to coarse sand, angular to subrounded 10%, silt and clay 10%; nonlithified; saturated. Gravel fraction: subangular to very rounded quartzite and volcanic rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.
95-100	**SILTY AND SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3); gravel 80%, very fine to very coarse sand, angular to subrounded 10%, silt and clay 10%; nonlithified; saturated. Gravel fraction: subangular to very rounded volcanic rocks and quartzite; fine to cobbles; some cut chips. Reaction to acid: none.
100-105	**SILTY AND SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3, 5/4); gravel 55%, very fine to very coarse sand, angular to subrounded 35%, silt and clay 10%; nonlithified. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, fine-grained siliceous rocks, and quartz; fine to cobbles; abundant cut chips. Reaction to acid: none.
105-110	**CLAYEY, SILTY, SANDY GRAVEL WITH COBBLES (GM-GC)**; brown (7.5YR5/3, 5/4); gravel 50%, very fine to very coarse sand;, angular to subrounded 35%, silt and clay 15%; nonlithified to slightly cohesive. Gravel fraction: subangular to very rounded granite, quartzite, volcanic rocks, and quartz; fine to cobbles; abundant cut chips. Reaction to acid: none.
110-115	**SANDY GRAVEL WITH COBBLES (GW)**; reddish gray to reddish brown (5YR5/3, 5/2); gravel 75%, very fine to very coarse sand, angular to subrounded 25%, trace silt and clay; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, and granite; fine to cobbles; abundant cut chips. Reaction to acid: none.
115-120	**SANDY GRAVEL WITH COBBLES (GW)**; reddish brown (5YR5/3); gravel 80%, very fine to very coarse sand, angular to subrounded 20%, trace silt and clay; nonlithified. Gravel fraction: subangular to very rounded granite, quartzite, volcanic rocks, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
120-125	**SANDY GRAVEL WITH COBBLES (GW)**; reddish brown (5YR5/3); gravel 75%, very fine to very coarse sand, angular to subrounded 25%, trace silt and clay; nonlithified. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, granite, and fine-grained siliceous rocks; fine to cobbles; some cut chips. Reaction to acid: none.
125-130	**SANDY GRAVEL (GW)**; reddish brown (5YR5/3); gravel 80%, very fine to very coarse sand, angular to subrounded 20%; nonlithified. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, granite, and quartz; fine to 2-inch pebbles; abundant cut chips. Reaction to acid: none.
130-135	**SANDY GRAVEL (GW)**; reddish brown (5YR5/3); gravel 65%, very fine to very coarse sand, angular to subrounded 35%, trace silt and clay; nonlithified. Gravel fraction: subangular to very rounded quartz, volcanic rocks, and fine-grained siliceous rocks; fine to 2-inch pebbles; minor cut chips. Reaction to acid: none.
135-140	**SAND AND GRAVEL (GW-SW)**; reddish brown (5YR5/3); gravel 50%, very fine to very coarse sand, angular to subrounded 50%, trace silt and clay: nonlithified. Gravel fraction: subangular to very rounded quartz, volcanic rocks, and fine-grained siliceous rocks; fine to 1 1/2-inch pebbles; some cut chips. Reaction to acid: none.
140-145	**CLAYEY, SILTY SAND (SM-SC)**; light brown (7.5YR6/3); very fine to coarse sand, angular to subrounded 50%, silt and clay 50%, trace gravel; cohesive to moderately lithified. Gravel fraction: subangular to subrounded quartz, fine-grained siliceous rocks, and volcanic rocks; fine. Reaction to acid: very weak. Abundant chips of sandy siltstone.

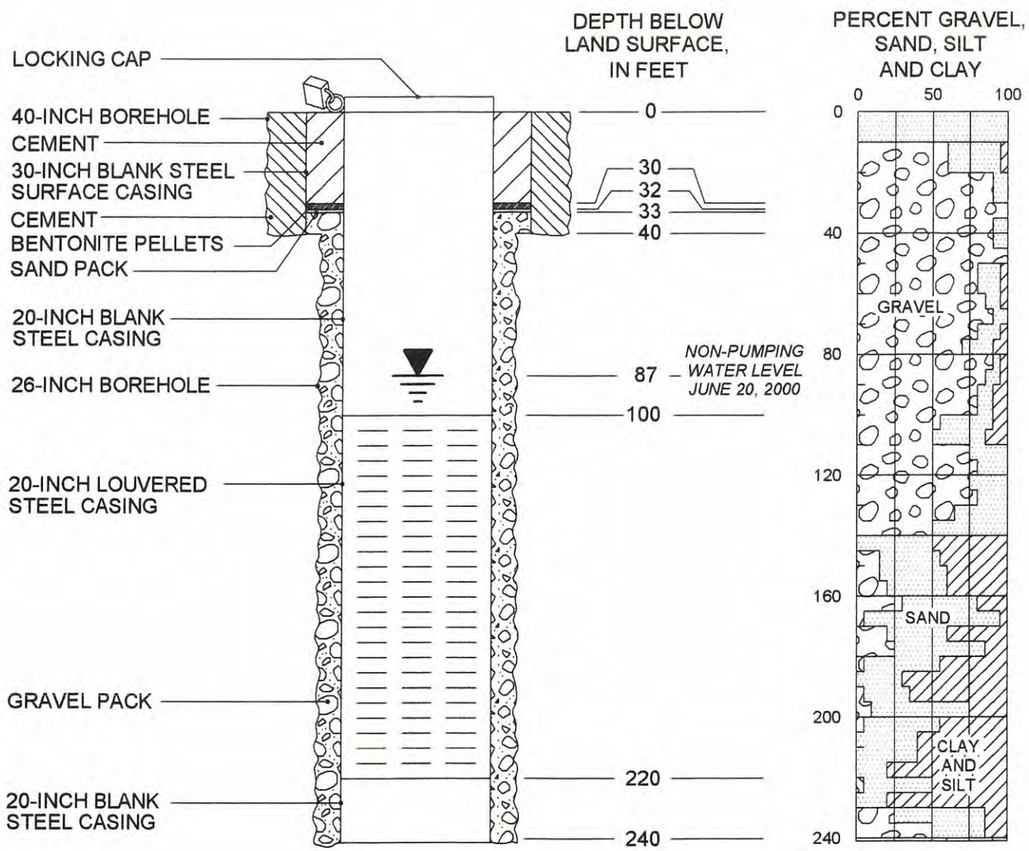
DEPTH (feet)	DESCRIPTION
145-150	**ALTERNATING LAYERS OF SILTY GRAVELLY SAND (SM) AND CLAYEY, SANDY SILT (ML)**; light brown to brown; (7.5YR6/3, 5/4); very fine to very coarse sand, angular to subrounded 50%, gravel 30%, silt and clay 20%; nonlithified. Gravel fraction: subangular to subrounded quartz, fine-grained siliceous rocks, and volcanic rocks; fine to 2-inch pebbles. Silt and clay 70%, very fine to very coarse sand, angular to subrounded 30%; moderately lithified. Reaction to acid: very weak. Abundant chips and lumps of sandy siltstone.
150-155	**ALTERNATING LAYERS OF SILTY, GRAVELLY SAND (SM) AND CLAYEY, SANDY SILT (ML)**; light brown (7.5YR6/4); very fine to very coarse sand, angular to subrounded 50%, gravel 30%, silt and clay 20%; nonlithified. Gravel fraction: subrounded volcanic rocks. Silt and clay 60%, very fine to very coarse sand, angular to subrounded 40%; moderately lithified. Reaction to acid: very weak. Abundant chips of sandy siltstone and mudstone.
155-160	**ALTERNATING LAYERS OF SILTY SAND AND GRAVEL (GM-SM) AND CLAYEY SANDY SILT (ML)**; light brown to brown (7.5YR6/4, 5/4); very fine to very coarse sand, angular to subrounded 40%, gravel 40%, silt and clay 20%; nonlithified. Gravel fraction: subangular to subrounded volcanic rocks, quartz, fine-grained siliceous rocks, and quartzite; fine to 2-inch pebbles. Silt and clay 60%, very fine to very coarse sand, angular to subrounded 40%; moderately lithified. Reaction to acid: very weak. Chips of silty sandstone.
160-165	**CLAYEY, SILTY, GRAVELLY SAND (SM-SC)**; brown (7.5YR5/2, 5/3); very fine to very coarse sand, angular to subrounded 50%, gravel 30%, silt and clay 20%; non- to weakly lithified. Gravel fraction: angular to very rounded granite, quartz, fine-grained siliceous rocks, and volcanic rocks; fine to 3/4-inch pebbles. Reaction to acid: none. Some weakly lithified clay balls in gravel fraction.

DEPTH (feet)	DESCRIPTION
165-170	**SILTY, GRAVELLY SAND (SW-SM)**; brown (7.5YR5/2, 5/3); very fine to very coarse sand, angular to subrounded 90%, gravel 5%, silt and clay 5%; very weakly lithified. Gravel fraction: subangular to very rounded volcanic rocks, fine-grained siliceous rocks, and quartz; fine to 1/2-inch pebbles. Reaction to acid: none.
170-175	**CLAYEY, GRAVELLY, SILTY SAND (SM-SC)**; light brown (7.5YR6/3, 6/4); very fine to very coarse sand, angular to subrounded 40%, silt and clay 40%, gravel 20%; very weakly to moderately lithified. Gravel fraction: subangular to very rounded quartzite, quartz, and volcanic rocks; fine to 1 1/2-inch pebbles. Reaction to acid: very weak. Lumps of sandy, gravelly siltstone.
175-180	**SILTY, GRAVELLY SAND (SM)**; light brown (7.5YR6/3); very fine to very coarse sand, angular to subrounded 60%, gravel 25%, silt and clay 15%; very weakly to weakly lithified. Gravel fraction: subangular to very rounded granite, quartz, volcanic rocks, and fine-grained siliceous rocks; fine to 1-inch pebbles. Reaction to acid: very weak. Some lumps of friable sandy siltstone.
180-185	**ALTERNATING LAYERS OF GRAVELLY, SILTY SAND (SM) AND SANDY SILT AND CLAY (CL)**; light brown (7.5YR6/3); very fine to very coarse sand, angular to subrounded 75%, silt and clay 20%, gravel 5%; very weakly lithified. Gravel fraction: subangular to subrounded quartz and fine-grained siliceous rocks; fine. Silt and clay 70%, very fine to very coarse sand, angular to subrounded 30%; moderately lithified. Reaction to acid: weak. Thick layers of sandy mudstone with black coatings and veinlets.
185-190	**ALTERNATING LAYERS OF CLAYEY, SILTY SAND (SM-SC) AND CLAYEY SILT (ML)**; light brown (7.5YR6/3, 6/4); very fine to very coarse sand, angular to subrounded 60%, silt and clay 40%, trace gravel; nonlithified. Gravel fraction: subangular quartz, and fine-grained siliceous rocks; fine. Silt and clay 100%; weakly to moderately lithified. Reaction to acid: weak. Hard chips of siltstone.

DEPTH (feet)	DESCRIPTION
190-195	**ALTERNATING LAYERS OF CLAYEY, GRAVELLY, SILTY SAND (SM-SC) AND SANDY, CLAYEY SILT (ML)**; light brown (7.5YR6/4); silt and clay 60%, very fine to very coarse sand, angular to subrounded 40%; nonlithified. Gravel fraction: subangular to subrounded quartz, fine-grained siliceous rocks, and volcanic rocks; fine. Silt and clay 75%, very fine to fine sand 25%; very weakly to moderately lithified. Reaction to acid: weak to moderate.
195-200	**CLAYEY, GRAVELLY, SILTY SAND (SM-SC)**; light brown to brown (7.5YR6/3, 5/3); very fine to very coarse sand, angular to subrounded 65%, silt and clay 25%, gravel 10%; slightly cohesive. Gravel fraction: subangular to subrounded quartz, granite, and fine-grained siliceous rocks; fine to 1/4-inch pebbles. Reaction to acid: very weak. Minor chips friable siltstone/mudstone.
200-205	**CLAYEY, GRAVELLY, SILTY SAND (SM-SC)**; light brown to brown (7.5YR6/3, 5/3); very fine to very coarse sand, angular to subrounded 50%, silt and clay 45%, gravel 5%; very weakly to weakly lithified. Gravel fraction: subangular to subrounded granite, quartz, and fine-grained siliceous rocks; fine to 1/4-inch pebbles. Reaction to acid: weak. Alternating layers of sandstone/siltstone; minor chips friable sandy siltstone.
205-210	**CLAYEY, SANDY SILT (ML)**; brown (7.5YR5/4); silt and clay 60%, very fine to coarse sand, angular to subrounded 40%, trace fine gravel; very weakly to moderately lithified. Reaction to acid: weak. Some lumps of silt/clayey silt/sandy siltstone.
210-215	**CLAYEY, SAND SILT (ML)**; brown (7.5YR5/4); silt and clay 60%, very fine to coarse sand, angular to subrounded 40%, trace gravel; very weakly to weakly lithified. Fine to 1/2-inch pebbles. Reaction to acid: weak. Some lumps of siltstone.
215-220	**CLAYEY, SANDY SILT (ML)**; brown to strong brown (7.5YR5/4 5/6); silt and clay 80%; very fine to fine sand 20%, trace fine gravel; very weakly to weakly lithified. Reaction to acid: weak. Some lumps of weakly lithified siltstone.

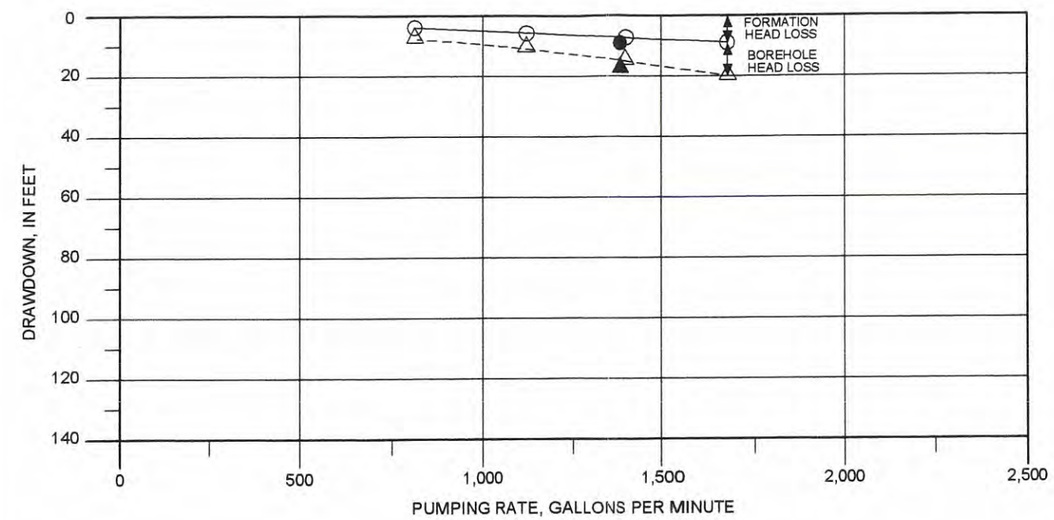
DEPTH (feet)	DESCRIPTION
220-225	**GRAVELLY, SANDY SILT (SM-ML)**; light brown (7.5YR6/4); silt and clay 50%, very fine to very coarse sand, angular to subrounded 45%, gravel 5%; very weakly to moderately lithified. Gravel fraction: angular to subangular volcanic rocks, and quartz. Reaction to acid: weak to moderate. Some lumps of weakly to moderately lithified siltstone.
225-230	**CLAYEY, SANDY SILT (ML)**; brown (7.5YR5/4); silt and clay 80%, very fine to coarse sand, angular to subrounded 20%; very weakly lithified. Reaction to acid: weak.
230-235	**SILTY, GRAVELLY SAND (SM)**; light brown to brown (7.5YR6/3, 5/3); very fine to very coarse sand, angular to subrounded 60%, gravel 25%, silt and clay 15%; nonlithified. Gravel fraction: angular to subangular quartz, granite, and metamorphic rocks (gneiss). Reaction to acid: very weak. Gravel has silty matrix attached.
235-240	**SILTY, SANDY GRAVEL (GM)**; light brown (7.5YR6/3); gravel 50%, very fine to very coarse sand, angular to subrounded 35%, silt and clay 15%; nonlithified. Gravel fraction: angular to subangular quartz, granite, and metamorphic rocks (gneiss). Reaction to acid: very weak. Gravel has silty matrix attached.
240-241	**CONGLOMERATE/BRECCIA**; light brown (7.5YR6/3); clasts 60%, matrix 40%; strongly lithified. Clasts are angular to subangular quartz, granite, and gneiss, fine to pebbles. Reaction to acid: weak. Matrix is silty sandstone.

TOTAL DEPTH DRILLED: 241 FEET



DRAWDOWN VERSUS PUMPING RATE DURING STEP-DISCHARGE AND CONSTANT-DISCHARGE PUMPING TESTS AT EXTRACTION WELL EW-N, JUNE 2000

PUMPING RATE (GPM)	DURATION (MINUTES)	THEORETICAL DRAWDOWN (FEET)	OBSERVED DRAWDOWN (FEET)	WELL HYDRAULIC EFFICIENCY (PERCENT)
816	90	4.1	7.4	55
1,129	90	5.9	11.1	53
1,408	90	7.5	15.2	49
1,683	90	9.1	20.7	44
1,390	2,880	9.2	17.7	52



EXPLANATION

- THEORETICAL DRAWDOWN FOR DISCHARGE TEST
- OBSERVED DRAWDOWN FOR STEP-DISCHARGE TEST
- OBSERVED DRAWDOWN AT END OF 2-DAY CONSTANT-DISCHARGE PUMPING TEST
- THEORETICAL DRAWDOWN AT END OF 2-DAY CONSTANT-DISCHARGE PUMPING TEST

FIGURE 2. SCHEMATIC DIAGRAM OF WELL CONSTRUCTION, LITHOLOGIC LOG, AND DRAWDOWN VERSUS PUMPING RATE GRAPH EXTRACTION WELL EW-N

LOG EW-M. SUMMARY OF LITHOLOGIC DESCRIPTIONS FOR DRILL CUTTINGS SAMPLES FROM WELL EW-M

DEPTH (feet)	DESCRIPTION
0-5	**SANDY, GRAVELLY SILT AND CLAY (CL)**; brown (7.5YR4/4); silt and clay 60%, fine to coarse, very angular to rounded sand 20%, gravel 20%; slightly cohesive; wet. Gravel fraction: very angular to very rounded volcanic rocks, metamorphic rocks, and quartzite; fine to 2-inch pebbles. Reaction to acid: weak. Disturbed sample; fill; sticky clay.
5-10	**GRAVELLY, SANDY SILT AND CLAY (CL)**; brown (7.5YR4/4; silt and clay 70%, very fine to very coarse sand, very angular to rounded sand 20%, gravel 10%; cohesive; moist. Gravel fraction: very angular to very rounded volcanic rocks; fine to 1-inch pebbles. Reaction to acid: moderate.
10-15	**SILTY, SANDY GRAVEL WITH COBBLES (GM)**; brown (7.5YR5/4); gravel 65%, very fine to very coarse sand, angular to rounded sand 20%, silt 15%; nonlithified; dry. Gravel fraction: subangular to very rounded volcanic rocks, metamorphic rocks, and quartzite; fine to cobbles. Reaction to acid: moderate.
15-20	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/4, 4/4); gravel 80%, very fine to very coarse sand, angular to rounded 15%, silt 5%; nonlithified; dry. Gravel fraction: subrounded to very rounded volcanic rocks; quartzite, metamorphic rocks; and granite; fine to cobbles. Reaction to acid: weak.
20-25	**SANDY GRAVEL WITH COBBLES (GW)**; brown (7.5YR5/4, 4/3); gravel 85%, medium to very coarse sand, angular to rounded 15%, trace silt; nonlithified; dry. Gravel fraction: subangular to very rounded volcanic rocks, metamorphic rocks, and quartzite, fine to cobbles. Reaction to acid: very weak.
25-30	**SANDY GRAVEL (GW)**; brown (7.5YR5/4); gravel 70%, very fine to very coarse sand, subangular to rounded 30%, trace silt; nonlithified; dry. Gravel fraction: subangular to very rounded volcanic rocks, metamorphic rocks, and quartzite; fine to coarse (some cobbles). Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
30-35	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3, 4/3); gravel 80%, fine to very coarse sand, subangular to rounded 15%, silt 5%; nonlithified; dry. Gravel fraction: subangular to very rounded volcanic rocks, granite, quartzite, and metamorphic rocks; fine to cobbles. Reaction to acid: none.
35-40	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3); gravel 85%, very fine to very coarse sand, angular to subrounded 10%, silt 5%; nonlithified; dry. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, granite, and metamorphic rocks; fine to cobbles. Reaction to acid: none.
40-45	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3, 4/3); gravel 80%, very fine to very coarse sand, angular to subrounded 10%, silt 10%; nonlithified; dry. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, and granite; fine to cobbles. Reaction to acid: none.
45-50	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/2, 5/3); gravel 80%, very fine to very coarse sand, angular to subrounded 10%, silt 10%; nonlithified; very slightly moist. Gravel fraction: subangular to very rounded volcanics, granite, and sandstone; fine to cobbles. Reaction to acid: none.
50-55	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/2, 5/3); gravel 85%, very fine to very coarse sand, angular to subrounded 10%, silt 5%; nonlithified; dry. Gravel fraction: subangular to very rounded volcanic rocks, sandstone, and quartzite; fine to cobbles. Reaction to acid: none.
55-60	**SILTY, SANDY GRAVEL (GW-GM)**; brown (7.5YR5/4); gravel 75%, very fine to very coarse sand, angular to subrounded 15%, silt 10%; nonlithified; very slightly moist. Gravel fraction: subangular to very rounded volcanic rocks, granite, and metamorphic rocks; fine to cobbles. Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
60-65	**SILTY, SANDY GRAVEL (GW-GM)**; brown (7.5YR5/4); gravel 75%, very fine to very coarse sand, angular to subrounded 20%, silt 5%; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, granite, quartzite, and fine-grained siliceous rocks; fine to cobbles. Reaction to acid: none.
65-70	**SILTY, SANDY GRAVEL WITH COBBLES (GM)**; brown (7.5YR5/4); gravel 60%, very fine to very coarse sand, subangular to subrounded 25%, silt 15%; nonlithified; slightly moist. Gravel fraction: subangular to very rounded volcanic rocks and granite; fine to cobbles. Reaction to acid: none.
70-75	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3); gravel 80%, very fine to very coarse sand, subangular to subrounded 15%, silt 5%; nonlithified; slightly moist to moist. Gravel fraction: subangular to very rounded volcanic rocks and quartzite; fine to cobbles. Reaction to acid: none.
75-80	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3); gravel 80%, very fine to very coarse sand, angular to subrounded 15%, silt 5%; nonlithified; very moist. Gravel fraction: subrounded to very rounded volcanic rocks and quartzite; fine to cobbles. Reaction to acid: very weak.
80-85	**SILTY, SANDY GRAVEL (GM-GC)**; brown (7.5YR5/3); gravel 45%, very fine to very coarse sand, angular to subrounded 35%, silt and clay 20%; nonlithified; very moist to wet. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, and metamorphic rocks; fine to cobbles. Reaction to acid: none.
85-90	**SILTY AND SANDY GRAVEL WITH COBBLES (GC)**; brown (7.5YR5/3, 5/4); gravel 70%, very fine to medium sand, angular to subrounded 15%, silt and clay 15%; nonlithified; wet. Gravel fraction: granite, metamorphic rocks (epidote), volcanic rocks, and quartzite; fine to cobbles. Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
90-95	**SILTY, CLAYEY, SANDY GRAVEL WITH COBBLES (GC)**; brown (7.5YR5/3, 5/4); gravel 50%, very fine to medium sand, angular to subrounded 25%, silt and clay 25%; nonlithified; saturated. Gravel fraction: subangular to very rounded volcanic rocks and quartzite; fine to cobbles. Reaction to acid: none.
95-100	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GC)**; brown (7.5YR5/3, 5/4); gravel 75%, very fine to very coarse sand, angular to subrounded 15%, silt and clay 10%; nonlithified. Gravel fraction: metamorphic (gneiss) rocks, quartzite, and volcanic rocks; fine to cobbles. Reaction to acid: very weak.
100-105	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/4); gravel 80%, very fine to very coarse sand, angular to subrounded 15%, silt 5%; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, and metamorphic rocks; fine to cobbles. Reaction to acid: none.
105-110	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; light brown (7.5YR6/4); gravel 75%, very fine to very coarse sand, angular to subrounded 15%, silt and clay 10%; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, and quartz; fine to cobbles. Reaction to acid: none.
110-115	**SILTY, SANDY GRAVEL WITH ONE COBBLE (GW-GM)**; light brown-brown (7.5YR5/4, 6/4); gravel 70%, very fine to very coarse sand, angular to subrounded 20%; silt and clay 10%; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, fine-grained siliceous rocks, quartzite, granite, epidote, and quartz; fine to cobbles. Reaction to acid: none.
115-120	**SANDY GRAVEL WITH COBBLES (GW)**; brown (7.5YR5/3, 4/3); gravel 85%, very fine to very coarse sand, angular to subrounded 15%, trace silt; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, quartz, quartzite, granite, and fine-grained siliceous rocks; fine to cobbles. Reaction to acid: none.

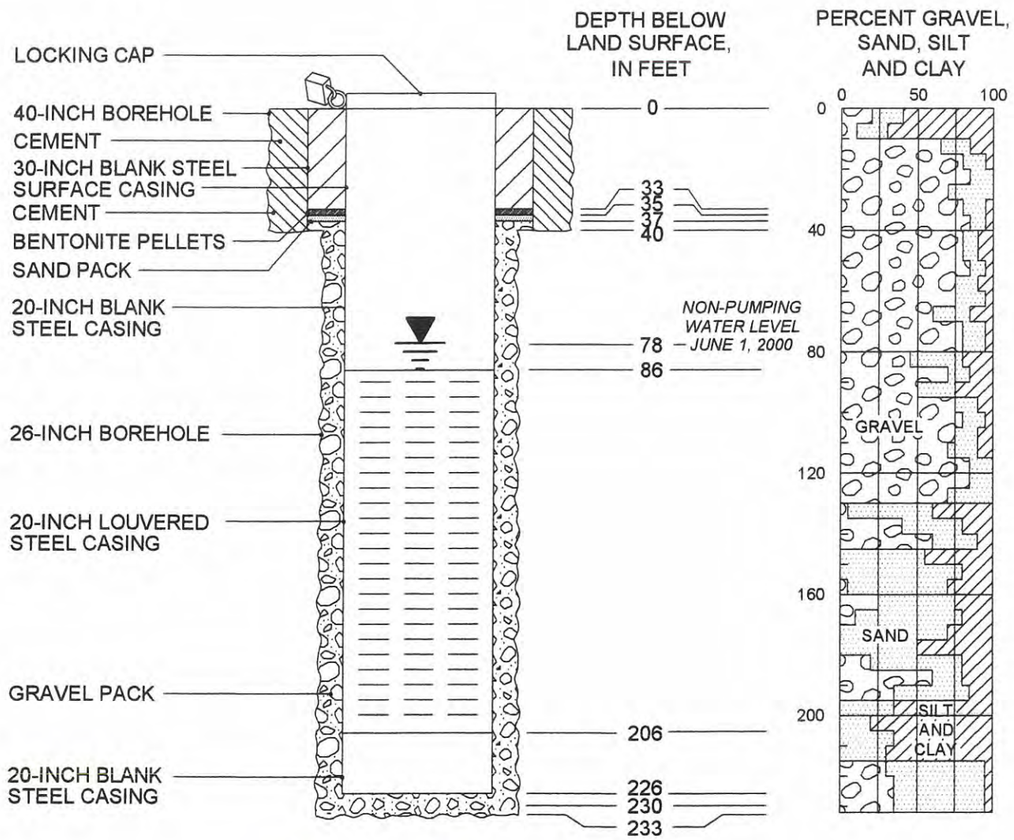
DEPTH (feet)	DESCRIPTION
120-125	**SANDY GRAVEL WITH COBBLES (GW)**; brown (7.5YR5/3, 4/3); gravel 85%, very fine to very coarse sand, angular to subrounded 15%, trace silt; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, quartz, quartzite, granite, and fine-grained siliceous rocks; fine to cobbles. Reaction to acid: none.
125-130	**SANDY GRAVEL WITH COBBLES (GW)**; brown (7.5YR5/3, 4/3); gravel 70%, very fine to very coarse sand, angular to subrounded 30%, trace silt. Gravel fraction: subangular to very rounded volcanic rocks, quartz, granite, and quartzite; fine to cobbles. Reaction to acid: very weak.
130-135	**GRAVELLY, CLAYEY, AND SILTY SAND (SM-SC)**; light brown (7.5YR6/3); very fine to very coarse sand, angular to subrounded 55%, silt and clay 40%, gravel 5%; slightly cohesive to moderately lithified. Gravel fraction: subangular to very rounded volcanic rocks, and fine-grained siliceous rocks; fine. Reaction to acid: very weak. Hard, dense sandy siltstone layers.
135-140	**SILTY AND CLAYEY SAND AND GRAVEL (GM-GC)**; brown (7.5YR5/2, 5/3); gravel 40%, very fine to very coarse sand, angular to subrounded 40%, silt and clay 20%; nonlithified to weakly lithified. Gravel fraction: subangular to very rounded granite, volcanic rocks, and fine-grained siliceous rocks; fine to 1 1/2-inch pebbles. Reaction to acid: weak. Some clay balls; some siltstone fragments.
140-145	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/2, 5/3); gravel 60%, very fine to very coarse sand, angular to subrounded 30%; silt 10%; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, granite, feldspar, and fine-grained siliceous rocks; fine to cobbles. Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
Begin Fill 145-150	**CLAYEY, SILTY SAND(SM-SC)**; light brown (7.5YR6/3, 6/4); very fine to very coarse sand, angular to subrounded 55%, silt and clay 45%, trace gravel, slightly cohesive to weakly lithified. Gravel fraction: subangular to very rounded volcanic rocks and fine-grained siliceous rocks. Reaction to acid: very weak.
150-155	**SILTY SAND (SM)**; pinkish gray to brown (7.5YR5/2, 6/2); very fine to very coarse sand, angular to subrounded 80%, silt and clay 20%, trace gravel; nonlithified. Gravel fraction: angular to subrounded quartz, volcanic rocks, and fine-grained siliceous rocks. Reaction to acid: very weak.
155-160	**GRAVELLY, CLAYEY, SILTY SAND (SM-SC)**; light brown (7.5YR6/3); very fine to very coarse sand, angular to subrounded 65%, silt and clay 30%, gravel 5%; slightly to moderately cohesive. Gravel fraction: angular to subrounded volcanic rocks, fine to pebbles. Reaction to acid: none. Hard, dense layers of sandy siltstone.
160-165	**GRAVELLY, SILTY SAND (SC-SM)**; light brown (7.5YR6/3); very fine to very coarse sand, angular to subrounded 50%, silt and clay 25%, gravel 25%; nonlithified. Gravel fraction: angular to very rounded volcanic rocks, fine-drained siliceous rocks, granite, and quartz; fine to 1 1/2-inch pebbles. Reaction to acid: none.
165-170	**CLAYEY, SILTY SAND (SM-SC)**; light brown (7.5YR6/3); very fine to very coarse sand, angular to subrounded 70%, silt and clay 20%, gravel 10%; nonlithified. Gravel fraction: angular to very rounded volcanic rocks, quartz, and fine-grained siliceous rocks; fine. Reaction to acid: none.
170-175	**CLAYEY, SILTY SAND (SM-SC)**; light brown (7.5YR6/3 6/4); very fine to very coarse sand. angular to subrounded 70%, silt and clay 30%, trace gravel; non- to weakly lithified. Gravel fraction: angular to subrounded quartz and fine-grained siliceous rocks; fine. Reaction to acid: none. Hard lumps of clayey siltstone.

DEPTH (feet)	DESCRIPTION
175-180	**CLAYEY, SILTY SAND (SM-SC)**; light brown (7.5YR6/4); very fine to very coarse sand, angular to subrounded 50%, silt and clay 50%; non- to moderately lithified. Reaction to acid: very weak.
180-185	**CLAYEY, SILTY, GRAVELLY SAND (SM-SC)**; light brown (7.5YR6/4); very fine to very coarse sand, angular to subrounded 60%, silt and clay 20%, gravel 20%; non- to moderately lithified. Gravel fraction: angular to subrounded volcanic rocks, quartz, and feldspar; fine to 1-inch pebbles. Reaction to acid: very weak.
185-190	**SILTY AND SANDY GRAVEL (GM)**; light brown to brown (7.5YR5/4, 6/4); gravel 60%, very fine to very coarse sand, angular to subrounded 20%, silt 20%; very weakly lithified. Gravel fraction: angular to very rounded volcanic rocks, fine-grained siliceous rocks, and quartz; fine to cobbles. Reaction to acid: none.
190-195	**SILTY, CLAYEY, GRAVELLY SAND (SM)**; brown (7.5YR5/3); very fine to very coarse sand, angular to subrounded 50%, gravel 35%, silt and clay 15%; very weakly lithified. Gravel fraction: angular to very rounded volcanic rocks, fine-grained siliceous rocks, quartz, and feldspar; fine to 2-inch pebbles. Reaction to acid: none. Sandy siltstone matrix chips.
195-200	**SANDY SILT AND CLAY (ML-CL)**; brown (7.5YR5/3, 5/4); silt and clay 65%, very fine to very coarse sand, angular to subrounded 35%; nonlithified to cohesive. Reaction to acid: very weak.
200-205	**CLAYEY, SANDY SILT (ML)**; brown (7.5YR5/3, 5/4); silt and clay 80%, very fine to coarse sand, angular to subrounded 20%; very weakly to moderately lithified. Reaction to acid: very weak. Lumps of mudstone.
205-210	**CLAYEY, SANDY SILT (ML)**; brown (7.5YR6/3); silt and clay 65%, very fine to very coarse sand, angular to subrounded 35%, very weakly to strongly lithified. Reaction to acid: very weak. Lumps of sandy siltstone.

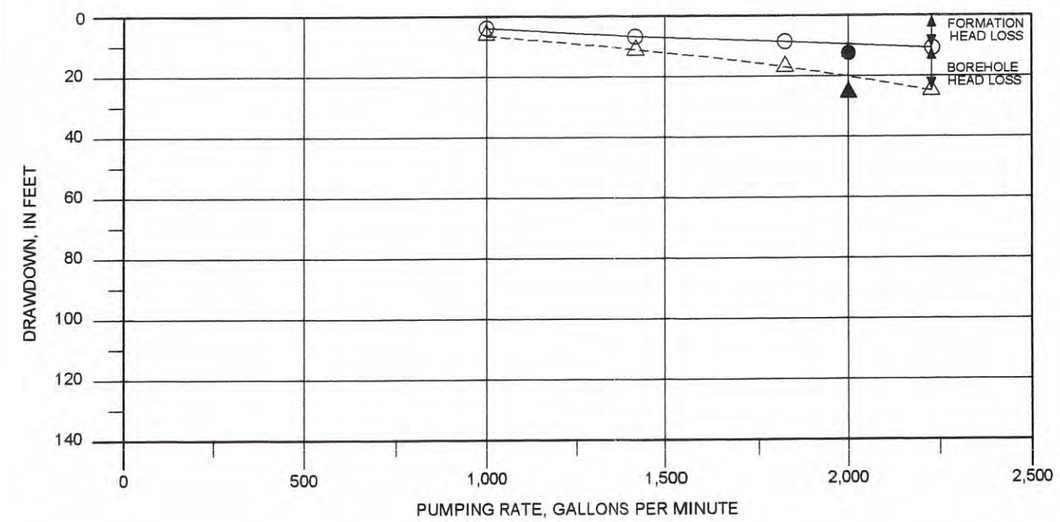
DEPTH (feet)	DESCRIPTION
210-215	**CLAYEY, SANDY SILT (ML)**; light brown (7.5YR6/4); silt and clay 70%, very fine to medium sand, angular to subrounded 30%; very weakly to moderately lithified. Reaction to acid: very weak. Lumps of mudstone.
215-220	**SILTY, GRAVELLY SAND (SW-SM)**; light brown to brown (7.5YR6/3, 5/3); very fine to very coarse sand, angular to subrounded 65%, gravel 30%, silt and clay 5%; very weakly lithified. Gravel fraction: very angular to subangular quartz, feldspar, fine-grained siliceous rocks, volcanic rocks, and granite; fine to 3/4-inch pebbles. Reaction to acid: none. Lumps of soft siltstone (sandy), cohesive to friable.
220-225	**SILTY, GRAVELLY SAND (SW-SM)**; brown (7.5YR5/3); very fine to very coarse sand, angular to subrounded 60%, gravel 35%, silt and clay 5%; weakly lithified. Gravel fraction: very angular to subangular quartz, feldspar, granite, fine-grained siliceous rocks, and volcanic rocks; fine to 1-inch pebbles. Reaction to acid: none. Abundant chips of silty sandstone; clasts have attached matrix.
225-230	**SILTY, GRAVELLY SAND (SW-SM)**; brown (7.5YR5/3); very fine to very coarse sand, angular to subrounded 60%, gravel 35%, silt and clay 5%; very weakly lithified. Gravel fraction: very angular to subangular granite, metamorphic rocks, fine-grained siliceous rocks, quartz, and feldspar; fine to 1 1/2-inch pebbles. Reaction to acid: none. Abundant chips of silty sandstone matrix; clasts have attached matrix.
230-232	**CONGLOMERATE/BRECCIA**; brown (7.5YR5/3); clasts 35%, matrix 65%; moderately to strongly lithified. Clasts are very angular to subangular granite, quartz, fine-grained siliceous rocks, metamorphic rocks (gneiss and epidote); fine to 1-inch pebbles. Reaction to acid: very weak to weak. Matrix is silty sandstone and mudstone.

TOTAL DEPTH DRILLED: 232 FEET



DRAWDOWN VERSUS PUMPING RATE DURING STEP-DISCHARGE AND CONSTANT-DISCHARGE PUMPING TESTS AT EXTRACTION WELL EW-M, MAY - JUNE 2000

PUMPING RATE (GPM)	DURATION (MINUTES)	THEORETICAL DRAWDOWN (FEET)	OBSERVED DRAWDOWN (FEET)	WELL HYDRAULIC EFFICIENCY (PERCENT)
997	90	4.6	6.2	74
1,419	90	6.9	10.6	65
1,824	90	9.0	16.0	56
2,223	90	11.2	25.3	44
1,998	7,200	12.8	26.0	49



EXPLANATION

- THEORETICAL DRAWDOWN FOR DISCHARGE TEST
- OBSERVED DRAWDOWN FOR STEP-DISCHARGE TEST
- OBSERVED DRAWDOWN AT END OF 5-DAY CONSTANT-DISCHARGE PUMPING TEST
- THEORETICAL DRAWDOWN AT END OF 5-DAY CONSTANT-DISCHARGE PUMPING TEST

FIGURE 3. SCHEMATIC DIAGRAM OF WELL CONSTRUCTION, LITHOLOGIC LOG, AND DRAWDOWN VERSUS PUMPING RATE GRAPH FOR EXTRACTION WELL EW-M

LOG EW-S. SUMMARY OF LITHOLOGIC DESCRIPTIONS FOR DRILL CUTTINGS SAMPLES FROM WELL EW-S

DEPTH (feet)	DESCRIPTION
0-5	**CLAYEY, GRAVELLY SILT AND SAND (SM)**; brown (7.5YR5/3); silt and clay 45%, very fine to very coarse sand, angular to subrounded 40%, gravel 15%; slightly cohesive; slightly moist. Gravel fraction: angular to subangular quartz, granite, and volcanic rocks; fine. Reaction to acid: moderate.
5-10	**SANDY SILT (ML)**; brown (7.5YR5/4); silt and clay 80%, very fine to fine sand 20%, trace fine gravel; cohesive; slightly moist. Reaction to acid: moderate.
10-15	**SANDY GRAVEL WITH COBBLES (GW)**; reddish brown (5YR5/3, 4/3); gravel 80%, very fine to very coarse sand, angular to subrounded 20%, trace silt; nonlithified; dry. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: moderate.
15-20	**GRAVEL WITH COBBLES (GW)**; dark reddish gray to reddish gray (5YR5/2, 4/2); gravel 100%, trace sand; nonlithified, dry. Gravel fraction: subangular to very rounded granite, volcanic rocks, metamorphic rocks, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: moderate.
20-25	**SANDY GRAVEL WITH COBBLES (GW)**; dark reddish gray to reddish gray (5YR5/2, 4/2); gravel 95%, very fine to very coarse sand, angular to subrounded 5%, trace silt; nonlithified; dry. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, metamorphic rocks, fine-grained siliceous rocks, and granite; fine to cobbles; abundant cut chips. Reaction to acid: weak to moderate.
25-30	**GRAVEL WITH COBBLES (GW)**; reddish gray to dark reddish gray (5YR5/2, 4/2); gravel 100%; nonlithified; dry. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, and granite; fine to boulders; abundant cut chips. Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
30-35	**SANDY GRAVEL WITH COBBLES (GW)**; reddish gray to dark reddish gray (5YR5/2, 4/2); gravel 85%, very fine to very coarse sand 15%; nonlithified; slightly moist. Gravel fraction: subangular to very rounded volcanic rocks, metamorphic rocks, quartz, granite, and quartzite; fine to boulders; abundant cut chips. Reaction to acid: none.
35-40	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3); gravel 75%, very fine to medium sand; angular to subrounded 15%, silt 10%; nonlithified; dry. Gravel fraction: subangular to very rounded quartzite, granite, and volcanic rocks; fine to boulders; abundant cut chips. Reaction to acid: none.
40-45	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/3, 5/4); gravel 70%, very fine to coarse sand, angular to subrounded 20%, silt 10%; nonlithified; moist. Gravel fraction: granite, quartzite, volcanic rocks, quartz, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.
45-50	**SANDY GRAVEL (GW)**; brown (7.5YR5/3); gravel 95%; very fine to very coarse sand, angular to subrounded 5%, trace silt; nonlithified; slightly moist. Gravel fraction: subrounded to very rounded quartzite, volcanic rocks, fine grained siliceous rocks, quartz, and granite; fine to cobbles; abundant cut chips. Reaction to acid: none.
50-55	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; reddish brown (5YR5/3); gravel 75%, very fine to coarse sand, angular to subrounded 20%, silt 5%; nonlithified; slightly moist. Gravel fraction: subrounded to very rounded quartzite, volcanic rocks, fine-grained siliceous rocks, quartz, and granite; fine to cobbles; abundant cut chips. Reaction to acid: none.
55-60	**GRAVEL WITH COBBLES (GW)**; reddish brown (5YR5/3); gravel 100%, trace sand; nonlithified; dry. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, granite, and metamorphic rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
60-65	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/4); gravel 70%, very fine to very coarse sand, angular to subrounded 20%, silt and clay 10%; nonlithified to slightly cohesive; moist. Gravel fraction: subangular to very rounded quartzite, metamorphic rocks, volcanic rocks, quartz, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: very weak.
65-70	**CLAYEY, SILTY, SANDY GRAVEL WITH COBBLES (GM-GC)**; brown (7.5YR5/4); gravel 60%, very fine to very coarse sand, angular to subrounded 20%, silt and clay 20%; nonlithified to slightly cohesive; moist. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, fine-grained siliceous rocks, and granite; fine to cobbles; abundant cut chips. Reaction to acid: none. Some clay balls.
70-75	**SILTY, SANDY GRAVEL WITH COBBLES (GM)**; brown (7.5YR5/3); gravel 50%, very fine to very coarse sand, angular to subrounded 30%, silt and clay 20%; nonlithified to slightly cohesive; very moist; slightly cohesive fine-grained layers. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.
75-80	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/4); gravel 75%, very fine to very coarse sand, angular to subrounded 15%, silt 10%; nonlithified; wet. Gravel fraction: subangular to very rounded quartzite, volcanic rocks, granite, and fine-grained siliceous rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.
80-85	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; brown (7.5YR5/4); gravel 65%, very fine to very coarse sand, angular to subrounded 25%, silt 10%; nonlithified, saturated. Gravel fraction: subangular to very rounded quartz, quartzite, and volcanic rocks; fine to cobbles; abundant cut chips. Reaction to acid: none.

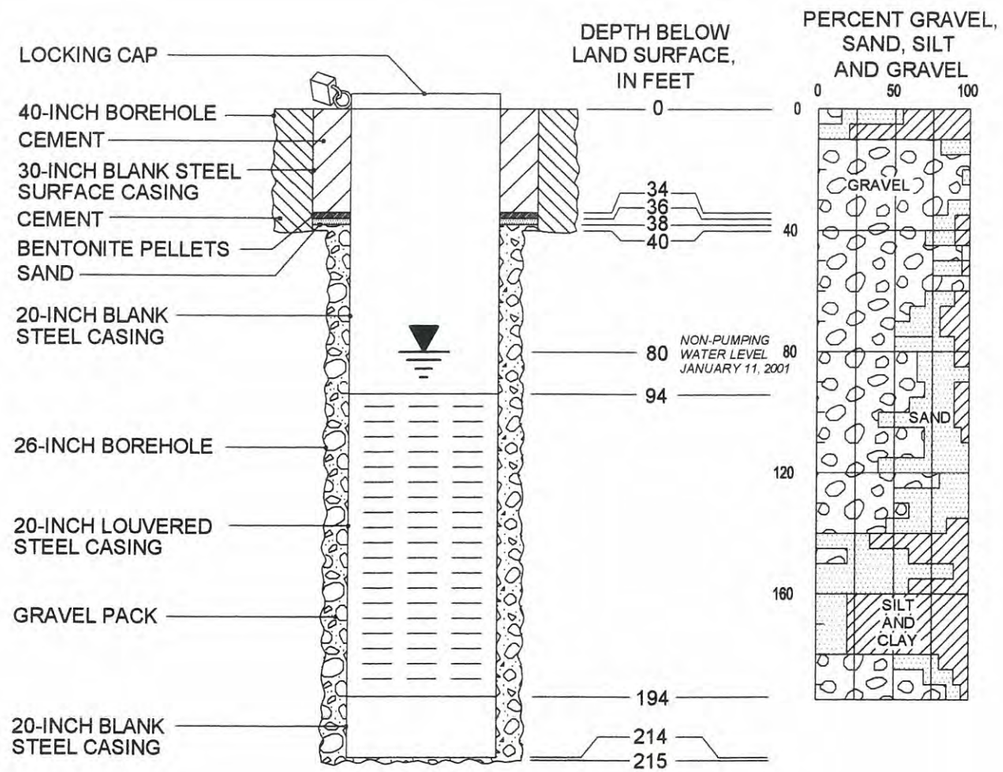
DEPTH (feet)	DESCRIPTION
85-90	**SANDY GRAVEL WITH COBBLES (GW)**; (7.5YR5/4, 5/3); gravel 65%, very fine to very coarse sand, angular to subrounded 35%, trace silt; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, fine-grained siliceous rocks; and granite; fine to cobbles; some cut chips. Reaction to acid: none.
90-95	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; light brown (7.5YR6/3); gravel 70%, very fine to very coarse sand, angular to subrounded 20%, silt 10%; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, quartzite, fine-grained siliceous rocks, and granite; fine to cobbles; some cut chips. Reaction to acid: none.
95-100	**SILTY SANDY GRAVEL (GW-GM)**; light brown to brown (7.5YR5/3, 6/3); gravel 60%, very fine to very coarse sand, angular to subrounded 30%, silt 10%; nonlithified. Gravel fraction: subangular to very rounded quartzite, fine-grained siliceous rocks, volcanic rocks, granite, and metamorphic rocks; fine to 2-inch pebbles; some cut chips. Reaction to acid: none.
100-105	**SILTY, GRAVELLY SAND (SW-SM)**; light brown (7.5YR6/3); very fine to very coarse sand, angular to subrounded 50%, gravel 40%, silt 10%; nonlithified. Gravel fraction: subangular to very rounded quartzite, quartz, fine-grained siliceous rocks, granite, and volcanic rocks; fine to 1-inch pebbles; minor cut chips. Reaction to acid: none.
105-110	**SILTY, SANDY GRAVEL WITH COBBLES (GW-GM)**; light brown to brown (7.5YR6/3, 5/3); gravel 70%, very fine to very coarse sand, angular to subrounded 25%, silt 5%; nonlithified. Gravel fraction: subangular to very rounded quartz, quartzite, volcanic rocks and fine-grained siliceous rocks; minor cut chips. Reaction to acid: none.
110-115	**SANDY GRAVEL WITH COBBLES (GW)**; brown (7.5R5/3 5/4); gravel 70%, very fine to very coarse sand, angular to subrounded 30%; nonlithified. Gravel fraction: subangular to very rounded volcanic rocks, diabase, fine-grained siliceous rocks, quartz, and granite; fine to cobbles; some cut chips. Reaction to acid: none.

DEPTH (feet)	DESCRIPTION
115-120	**GRAVELLY SAND WITH COBBLES (SW)**; brown (7.5YR5/4, 4/4); very fine to very coarse sand, angular to subrounded 60%, gravel 40%; nonlithified. Gravel fraction: subangular to very round granite, fine-grained siliceous rocks, and quartzite; fine to 3/4-inch pebbles (minor cobbles); minor cut chips. Reaction to acid: none.
120-125	**SANDY GRAVEL WITH COBBLES (GW)**; brown (7.5YR5/3); gravel 80%, very fine to very coarse sand, angular to subrounded 20%, trace silt; nonlithified. Gravel fraction: subangular to very round quartzite, fine-grained siliceous rocks, volcanic rocks, and granite; minor cut chips. Reaction to acid: none.
125-130	**SAND AND GRAVEL (GW-SW)**; brown (7.5YR5/4); gravel 50%, very fine to very coarse sand, angular to subrounded 50%; nonlithified. Gravel fraction: subangular to very rounded fine-grained rocks, volcanic rocks, granite, and quartzite; fine to 2-inch pebbles; minor cut chips. Reaction to acid: none.
130-135	**SANDY GRAVEL WITH COBBLES (GW)**; brown (7.5YR5/3); gravel 60%, very fine to coarse sand, angular to subrounded 40%, trace silt; nonlithified. Gravel fraction: subangular to very rounded quartz, quartzite, and volcanic rocks; fine to small cobbles; minor cut chips. Reaction to acid: none.
135-140	**CLAYEY, SILTY, SANDY GRAVEL (GM-GC)**; brown (7.5YR5/3); gravel 45%, very fine to very coarse sand, angular to subrounded 40%, silt and clay 15%; nonlithified. Gravel fraction: subangular to subrounded quartz, and volcanic rocks; fine to small cobbles. Reaction to acid: none. Some silty clay balls.
140-145	**CLAYEY, SANDY SILT (ML)**; brown (7.5YR5/4); silt and clay 65%, very fine to medium sand, angular to subrounded 35%, trace gravel; cohesive to moderately lithified. Reaction to acid: moderate.

DEPTH (feet)	DESCRIPTION
145-150	**CLAYEY, SILTY, GRAVELLY SAND (SM-SC)**; brown (7.5YR5/3, 5/4); very fine to medium sand, angular to subrounded 40%, silt and clay 40%, gravel 20%; cohesive to moderately lithified. Gravel fraction: subangular to subrounded quartzite (cobble). Reaction to acid: weak. Some clay balls; cohesive clayey silt layers; some hard lumps mudstone.
150-155	**SILTY SAND (SW-SM)**; brown (7.5YR5/3, 5/4); very fine to coarse sand, angular to subrounded 90%, silt 10%, trace gravel; nonlithified to very weakly lithified. Gravel fraction: subangular quartz, very fine. Reaction to acid: none.
155-160	**CLAYEY, SILTY SAND (SM-SC)**; light brown (7.5YR6/3); very fine to medium sand, angular to subrounded 60%, silt and clay 40%, trace gravel; nonlithified to moderately lithified. Gravel fraction: subangular very fine quartz. Reaction to acid: moderate. Hard lumps clayey siltstone.
160-165	**SANDY, CLAYEY SILT (ML)**; light brown (7.5YR6/3, 6/4); silt and clay 80%; very fine to medium sand, angular to subrounded 20%; cohesive to moderately lithified. Reaction to acid: moderate. Hard lumps of claystone with black veinlets.
165-170	**CLAYEY, SANDY SILT (ML)**; light brown to brown (7.5YR6/4, 5/4); silt and clay 80%; very fine to medium sand, angular to subrounded 20%; cohesive to moderately lithified; moist. Reaction to acid: moderate to strong. Hard lumps siltstone.
170-175	**CLAYEY, SANDY SILT (ML)**; light brown (7.5YR6/4); silt and clay 80%; very fine to medium sand, angular to subrounded 20%; cohesive to moderately lithified; moist. Reaction to acid: moderate to strong. Hard lumps of claystone with black veinlets.
175-180	**CLAYEY, SANDY SILT (ML)**; light brown (7.5YR6/3); silt and clay 80%; very fine to fine sand 20%; cohesive to moderately lithified; moist. Reaction to acid: moderate to strong. Some hard lumps sandy siltstone.

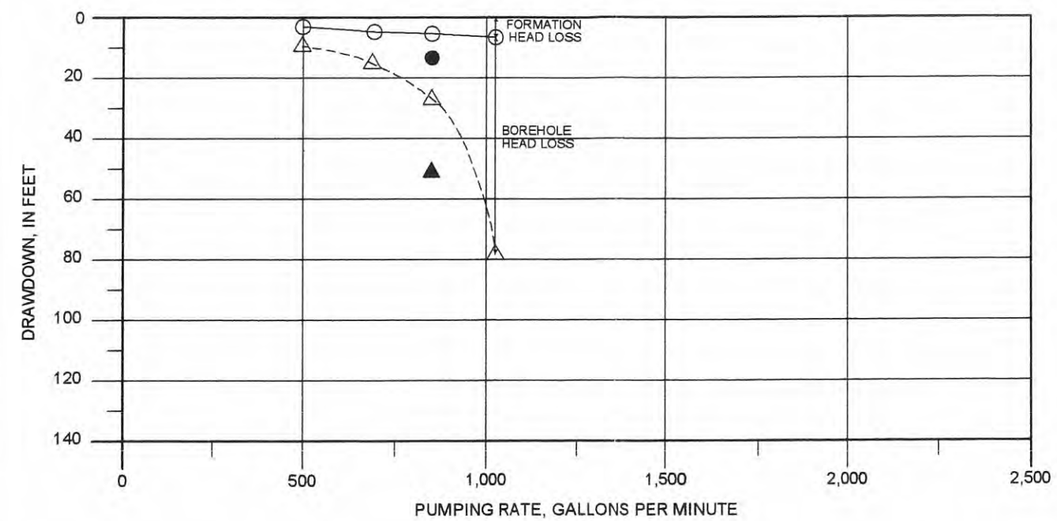
DEPTH (feet)	DESCRIPTION
180-185	**SILTY, SANDY GRAVEL (GM)**; brown (7.5YR5/3); gravel 50%, very fine to very coarse sand, angular to subangular 30%, silt and clay 20%; slightly cohesive; wet. Gravel fraction: angular to subangular quartz, granite, and gneiss; very fine to 3/4-inch pebbles. Reaction to acid: moderate. Some soft lumps of silty sand matrix.
185-190	**SILTY, SANDY GRAVEL (GW-GM)**; brown (7.5YR5/3); gravel 70%, very fine to very coarse sand, angular to subangular 20%, silt and clay 10%; slightly cohesive; wet. Gravel fraction: angular to subangular quartz, granite, and gneiss; very fine to 1-inch pebbles. Reaction to acid: weak. Some clasts have attached matrix; abundant biotite. Some soft lumps silty sand matrix.
190-195	**SILTY, SANDY GRAVEL (GW-GM)**; brown (7.5YR5/3); gravel 85%, very fine to very coarse sand, angular to subangular 10%, silt and clay 5%; nonlithified; saturated. Gravel fraction: angular to subangular quartz, granite, and gneiss; very fine to cobbles. Reaction to acid: weak. Some clasts have attached matrix.
195	**CONGLOMERATE/BRECCIA**; light brown to brown (7.5YR6/3, 5/3); clasts 80%, matrix 20%,; moderately to strongly lithified. Clasts are angular quartz, granite, and gneiss; very fine to cobbles. Reaction to acid: strong. Matrix is silty sandstone.

TOTAL DEPTH DRILLED: 195 FEET



DRAWDOWN VERSUS PUMPING RATE DURING STEP-DISCHARGE AND CONSTANT-DISCHARGE PUMPING TESTS AT EXTRACTION WELL EW-S, JANUARY 2001

PUMPING RATE (GPM)	DURATION (MINUTES)	THEORETICAL DRAWDOWN (FEET)	OBSERVED DRAWDOWN (FEET)	WELL HYDRAULIC EFFICIENCY (PERCENT)
493	90	3.0	9.4	32
686	90	4.4	15.1	29
854	90	5.6	27.3	21
1,053	90	6.8	78.3	9
848	5,880	6.9	51.3	14



EXPLANATION

- THEORETICAL DRAWDOWN FOR STEP-DISCHARGE TEST
- OBSERVED DRAWDOWN FOR STEP-DISCHARGE TEST
- OBSERVED DRAWDOWN AT END OF 4-DAY CONSTANT-DISCHARGE PUMPING TEST
- THEORETICAL DRAWDOWN AT END OF 4-DAY CONSTANT-DISCHARGE PUMPING TEST

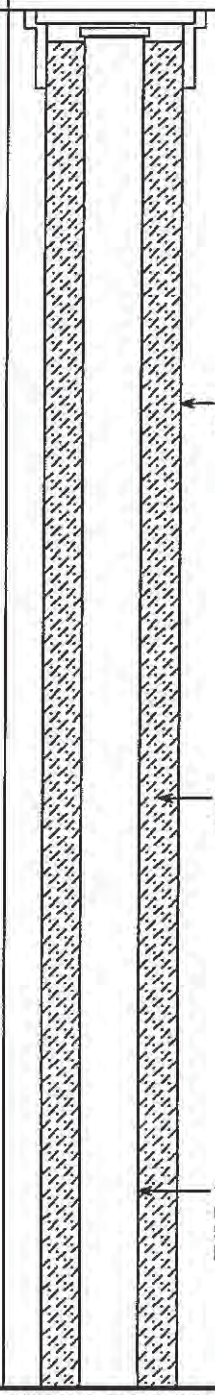
FIGURE 4. SCHEMATIC DIAGRAM OF WELL CONSTRUCTION, LITHOLOGIC LOG, AND DRAWDOWN VERSUS PUMPING RATE GRAPH FOR EXTRACTION WELL EW-S

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MOTOROLA 52ND ST. SUPERFUND SITE-OU2 AREA
PROJECT NUMBER: 8147-02
CLIENT: MOTOROLA
LOCATION: PHOENIX, ARIZONA

HOLE DESIGNATION: TEW-1
DATE COMPLETED: MAY 28, 1997
DRILLING METHOD: 13 3/8" Ø ARCH
CRA SUPERVISOR: C. DIETRICH

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE REFERENCE POINT (Top of Riser)	*1103.8* *1103.47*					
	SM-SAND (FILL), some silt, trace gravel, fine grained, brown, dry						
2.5				1SS			
5.0							
7.5				2S			
10.0	- little gravel		13" Ø BOREHOLE				
12.5				3S			
15.0		*1088.8*					
	GW-GRAVEL, some sand, trace silt, fine to coarse grained, brown, dry						
17.5				4S			
20.0			BENTONITE GROUT				
22.5				5S			
25.0		*1078.8*					
	SW-SAND, fine to medium grained, poorly sorted, brown, dry						
27.5				6S			
30.0			10" Ø LOW CARBON STEEL PIPE				
32.5				7S			



NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
GRAIN SIZE ANALYSIS ▭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MOTOROLA 52ND ST. SUPERFUND SITE-OU2 AREA
PROJECT NUMBER: 8147-02
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HOLE DESIGNATION: TEW-1
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DRILLING METHOD: 13 3/8" Ø ARCH
CRA SUPERVISOR: C. DIETRICH

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SW-SAND, some gravel, fine to medium grained, poorly sorted, brown, dry	*1068.7*					
37.5				8S			
40.0			← 13" Ø BOREHOLE				
42.5				9S			
45.0	- little fine gravel						
47.5				10S			
50.0	GW-GRAVEL, some sand, fine to coarse grained, brown, dry	*1053.8*	← BENTONITE GROUT				
52.5				11S			
55.0	SM-SAND, some silt, trace gravel, fine grained, poorly sorted, brown, dry	*1048.8*					
57.5				12S			
60.0	- little gravel		← 10" Ø LOW CARBON STEEL PIPE				
62.5				13S			
65.0							
67.5				14S			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
GRAIN SIZE ANALYSIS ▭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MOTOROLA 52ND ST. SUPERFUND SITE-OU2 AREA
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DRILLING METHOD: 13 3/8" Ø ARCH
CRA SUPERVISOR: C. DIETRICH

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	- trace gravel		13" Ø BOREHOLE				
72.5				15S			
75.0	GM-GRAVEL, silty, trace sand, fine to coarse grained, brown, moist	1028.8					
77.5				16S			
80.0	ML-SILT, little fine sand, brown, wet	1023.8	BENTONITE GROUT				
82.5				17S			
85.0	- water GW-GRAVEL, little silt and sand, fine to coarse grained, well graded, brown, wet	1018.7	▽				
87.5				18S			
90.0	- some silt		10" Ø LOW CARBON STEEL PIPE				
92.5			BENTONITE SEAL	19S			
95.0			FILTER SAND PACK				
97.5				20S			
100.0	GW-GRAVEL, some sand, little silt, wet	1003.8	NATURAL GRAVEL PACK				
102.5			50 SLOT WELL SCREEN	21S			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
GRAIN SIZE ANALYSIS ▭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MOTOROLA 52ND ST. SUPERFUND SITE-OU2 AREA
PROJECT NUMBER: 8147-02
CLIENT: MOTOROLA
LOCATION: PHOENIX, ARIZONA

HOLE DESIGNATION: TEW-1
DATE COMPLETED: MAY 28, 1997
DRILLING METHOD: 13 3/8" Ø ARCH
CRA SUPERVISOR: C. DIETRICH

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
107.5			13" Ø BOREHOLE	22S			
110.0	SP-SAND, some gravel, coarse grained, brown, wet	993.8					
112.5			NATURAL GRAVEL PACK	23S			
115.0							
117.5			50 SLOT WELL SCREEN	24S			
120.0							
122.5				25S			
125.0			10" Ø STAINLESS STEEL PIPE				
127.5				26S			
130.0			20 SLOT WELL SCREEN				
132.5				27S			
135.0	SW-SAND, little silt, medium to coarse grained, poorly sorted, wet	968.8					
137.5				28S			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
GRAIN SIZE ANALYSIS ▭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MOTOROLA 52ND ST. SUPERFUND SITE-OU2 AREA
PROJECT NUMBER: 8147-02
CLIENT: MOTOROLA
LOCATION: PHOENIX, ARIZONA

HOLE DESIGNATION: TEW-1
DATE COMPLETED: MAY 28, 1997
DRILLING METHOD: 13 3/8" Ø ARCH
CRA SUPERVISOR: C. DIETRICH

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	SC-SAND, clayey, little gravel, wet	963.7					
142.5			SUMP	29S			
145.0	SP-SAND, gravelly, little silt, wet	958.8					
147.5			NATURAL GRAVEL PACK	30S			
150.0	GC-GRAVEL, some clay, wet	953.8					
152.5				31S			
155.0	SP-SAND, some gravel, coarse grained, wet	948.8	13" Ø BOREHOLE				
157.5				32S			
160.0	END OF HOLE @ 160ft BGS	943.8					
162.5							
165.0							
167.5							
170.0							
172.5							

SCREEN DETAILS
Screened Interval:
100.0 to 125.0ft BGS
50 Slot
125.0 to 140.0ft BGS
20 Slot
140.0 to 145.0ft BGS
Sump
Length: 40.0ft
Diameter: 10"
Material: Stainless Steel
Natural Gravel Pack:
98.0 to 160.0ft BGS
Filter Sand Pack:
94.0 to 98.0ft BGS
Material: 10-20 Silica Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
GRAIN SIZE ANALYSIS ▭

D.N.A. INC.
CIVIL ENGINEERING
LAND SURVEYING

DAVID J. NYKORCHUK, R.L.S.
President
WILLIAM E. COLLINGS, P.E., R.L.S.
Vice-President
RONALD W. HILGART, P.E.
Vice-President

AUG 1992
LES

July 31, 1992

Layne Environmental Services, Inc.
9002 S. Hardy Dr.
Tempe, AZ 85284

Attention of Mr. Greg Zekoff

RE: Monitoring Wells
Allied Signal

Dear Greg:

This letter is to certify that field technicians from this firm have made in-field measurements of the monitoring wells located on the Allied Signal property on July 30, 1992. The results are as follows:

Well	Elevation	Well	Elevation
PL101	1120.39	PL201	1117.36
PL102	~~1122.90~~ 1122.69 *	PL202North	1112.47
PL103	1117.32	PL202Center	1112.51
PL104	~~1115.27~~ 1115.02 *	PL202South	1112.43
PL105	1118.08		

The bench mark used in establishing these elevations was a brass cap in a handhole in the intersection of 36th Street and Air Lane, U.S.G.S. datum 1120.68.

Certified correct this date.

REGISTERED LAND SURVEYOR
LEGAL
DAVID J.
NYKORCHUK
7-31-92
ARIZONA, U.S.A.

* A piece of well casing was cut to make room for well head completion.

David J. Nykorchuk
R.L.S. 13016

340 East Willetta Street
900 East Florence Blvd., Ste C

Phoenix, Arizona 85004
Casa Grande, Arizona 85222

(602) 271-9911
(602) 836-5501
FAX (602) 271-9985

Allied Signal Boring Log Notebook

PL Series Wells

WELL COMPLETION INFORMATION

FACILITY CODE ASGED

LOCATION ID 101A

ACCEPTANCE CODE A

OWNER CODE ASAC

INSTALLER CODE LESI

INSTALLATION DATE 14 July 1992

CASING ELEVATION (FT MSL) 1120.39

CASING DEPTH (FT) 75.0

CASING DIAMETER (IN) 4

SEAL END DEPTH (FTFD) 29.0

SCREEN MATERIAL SS

RISER MATERIAL PV

FILTER PACK LENGTH (FT) 48.0

FORMATION OF COMPLETION (US/RC) UAU

WELL TYPE CLASSIFICATION M

WELL COMPLETION METHOD S

ZONE OF COMPLETION U

OPEN/SCREEN DEPTH (FTFD) 35.0

OPEN/SCREEN LENGTH (FT) 40.0

OPEN/SCREEN AREA (IN^2 /FT) 44

FLOW RELATIONSHIP N

CAP MATERIAL PV

CAP TYPE LC

WELL TYPE CLASSIFICATIONS:
- M – MONITOR WELL
- P – PRODUCTION WELL
- T – TEST WELL
- O – OTHER (SPECIFY)

CAP TYPES:
- LC – LOCKING
- SL – SLIP-ON
- TR – THREADED
- NO – NONE
- SC – SCREW ON
- OT – OTHER (SPECIFY)

CASING, CAP, RISER MATERIALS:
- BR – BRICK
- CT – CONCRETE
- CU – COPPER
- FI – FIBERGLASS
- GI – GALVANIZED IRON
- WI – WROUGHT IRON
- SS – STAINLESS STEEL
- OM – OTHER METAL
- TE – TEFLON
- PV – PVC
- RS – ROCK OR STONE
- ST – STEEL
- TI – TILE
- CS – COATED STEEL
- WO – WOOD
- NO – NONE
- OT – OTHER (SPECIFY)

FLOW RELATIONSHIPS:
- U – UPGRADIENT
- D – DOWNGRADIENT
- C – CROSS GRADIENT
- O – ON SITE
- N – NOT KNOWN
- B – BACKGROUND

ZONES OF COMPLETION:
- A – ARTESIAN
- B – ANISOTROPIC
- C – CONFINED
- H – AQUITARD
- G – AQUICLUDE
- I – ISOTROPIC
- M – MULTI-SYSTEM
- S – SEMI-CONFINED
- U – UNCONSOLIDATED

WELL COMPLETION METHODS:
- C – POROUS CONCRETE
- F – GRAVEL PACK
- H – HORIZONTAL GALLERY
- O – OPEN END
- P – PERFORATED/SLOTTED
- S – SCREEN
- T – SAND POINT
- W – WALLED OR SHORED
- X – OPEN
- O – OTHER (SPECIFY)

NOTE : FTFD = FEET FROM DATUM

ACCEPTANCE CODES: A—ACCEPTABLE R—RECONNAISSANCE U—UNACCEPTABLE N—NOT DETERMINED

FORM COMPLETED BY/DATE

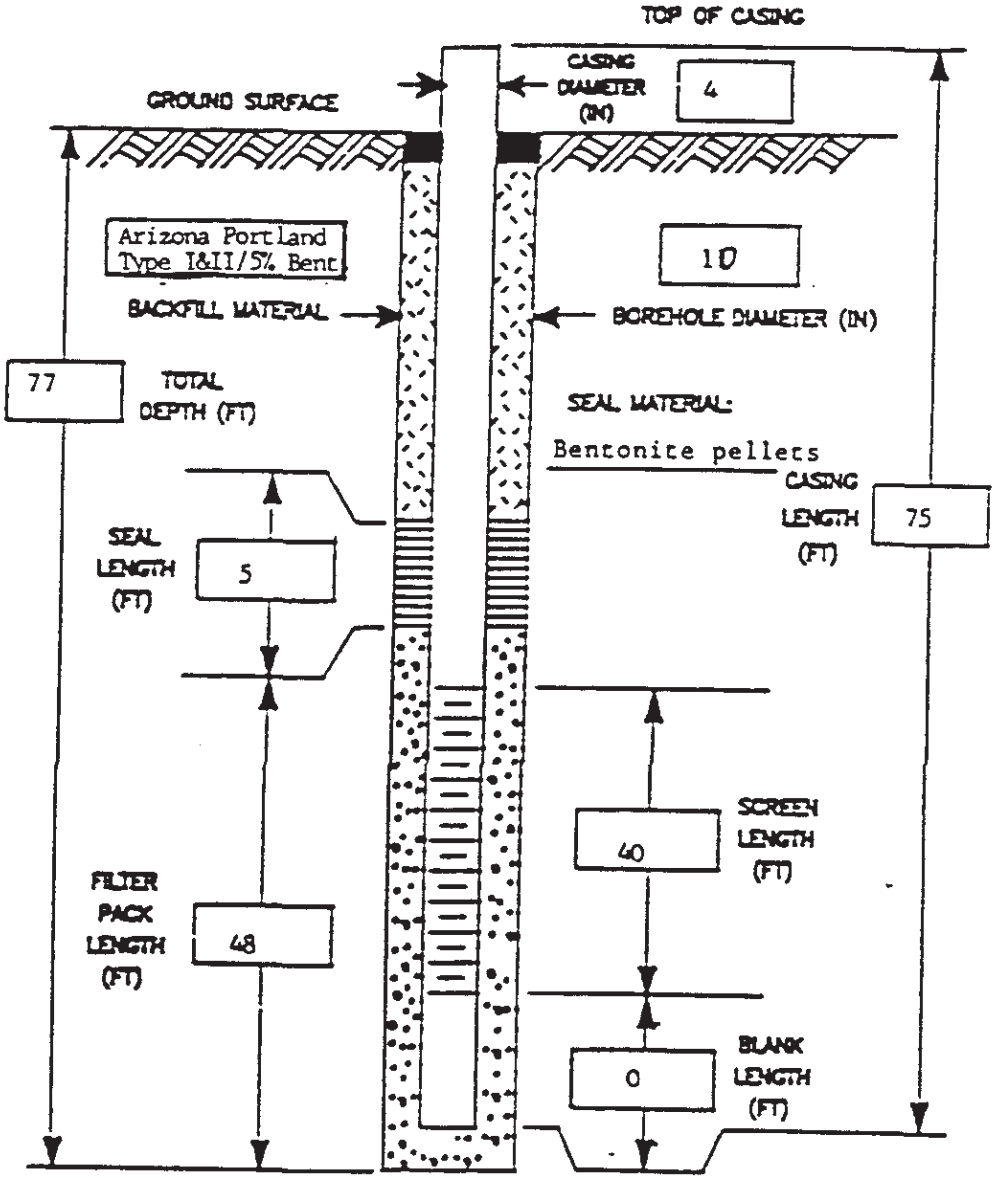
TECHNICAL REVIEWER/DATE

WELL COMPLETION INFORMATION

FACILITY CODE ASGED

LOCATION ID 101A

INSTALLATION DATE 14 July 1992



FILTER PACK MATERIAL: 10-20 Colorado Silica

COMMENTS Top of casing at below grade in a traffic rated vault.
Activated Bentonite pellets with water.

FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

BOREHOLE / WELL CONSTRUCTION FIELD DATA LOG

FACILITY CODE: ASGED LOCATION ID: 101A FIELD REP: Dan Alm

LOGGER CODE: G & M DRILLER CODE: LESI RIG TYPE: Becker AP-1000

INSTALLER CODE: LESI COMPLETION DATE: 14 July 92 ACCEPTANCE CODE: A

BOREHOLE SUMMARY

BIT TYPE	HOLE DIAM (in)	END ● DEPTH (ft)	FLUID TYPE
Dual wall percussion	10	77	NA

CASING SUMMARY

CASING* TYPE	DESCRIPTION	DIAM (in)	END ▲ DEPTH (ft)
P	Schedule 40 PVC	4	35
S	Type 304 wirewrap stainless steel	4	75

* P – Protective S – Screen O – Open N – None

▲ Depth from Top of Casing

WELL CONSTRUCTION

TYPE* CODE	DESCRIPTION	END ● DEPTH (ft)
S	Arizona Portland Type I & II w/ 5% Bent.	24
S	Bentonite pellets	29
F	10-20 Colorado silica	77

* B – Backfill S – Seal F – Filter Pack

● Depth From Ground Surface

CONSTRUCTION TIME LOG

ACTIVITY	START DATE	START TIME	END TIME
DRILLING	14 Jul 92	12:35	13:50
CASING		14:00	14:20
FILTER PACK		14:25	15:00
SEAL		15:00	16:00
BACKFILL	NA		
DEVELOPMENT	3 Aug 92	14:02	14:25
OTHER			

WELL DEVELOPMENT

COMMENTS: Activated bentonite pellets with water

ACCEPTANCE CODES: A–ACCEPTABLE R–RECONNAISSANCE U–UNACCEPTABLE N–NOT DETERMINED

FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

BOREHOLE LOG (SOIL)

FACILITY CODE: ASGED
LOCATION ID: 101A
COORDINATES (FT):
NORTH: NA EAST: NA
GROUND ELEVATION (FT MSL): NA
LOCATION TYPE: BH
COMMENTS:

DRILLER CODE: LESI
COMPLETION DATE: 14 Jul 92
DIAMETER (IN): 10
DEPTH (FTFD): 77.0
CONSTRUCTION METHOD: P
ACCEPTANCE CODE: A

GROUNDWATER LEVELS

DATE	TIME	DEPTH (FT)
14 Jul 92	13:20	65.0
	13:40	46.0

LOCATION DESCRIPTION

Parking lot north corner of 36th Street and Airlane

LITHOLOGIC LOG

LOGGER CODE: G & M

DEPTH (FT)	SAMPLE INTERVAL	SAMPLE RECOVERY	SAMPLE RETAINED	SAMPLE METHOD	SAMPLE ID	BLOW COUNT (PER 6 IN)	N VALUE	USCS	VISUAL DESCRIPTION
75	NA	NA	NA	O	NA	NA	NA	GW	Sand, gravel and cobbles, fine to coarse grained sand, subrounded to subangular cobbles, well graded, gray to brown
77	NA	NA	NA	NA	NA	NA	NA	CL	Sandy clay, fine to coarse grained sand, brown, wet

ACCEPTANCE CODES: A—ACCEPTABLE R—RECONNAISSANCE U—UNACCEPTABLE N—NOT DETERMINED

CONSTRUCTION METHODS:
A — AIR ROTARY
B — BORED OR AUGERED
C — CABLE-TOOL
D — DUG
H — HYDRAULIC-ROTARY
J — JETTED
P — AIR-PERCUSSION
R — REVERSE ROTARY
T — TRENCHING
V — DRIVEN
W — DRIVE AND WASH
Z — OTHER (SPECIFY)

SAMPLE METHODS:
A — AUGER CUTTINGS
S — 2" O.D. 1.38" I.D. DRIVE SAMPLE
U — 3" O.D. 2.42" I.D. TUBE SAMPLE
T — 3" O.D. THIN-WALLED SHELBY TUBE
O — OTHER (SPECIFY)

FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

GERAGHTY & MILLER, INC.
Ground-Water Consultants

SAMPLE/CORE LOG

Boring/Well PL-101 Project/No. _____ Page 1 of 2

Site Location _____ Drilling Started 7/14/92 Drilling Completed 7/14/92

Total Depth Drilled 77 feet Hole Diameter 11 inches Type of Sample/Coring Device _____

Length and Diameter of Coring Device _____ Sampling Interval _____ feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used NA Drilling Method Dual Wall Percussion

Drilling Contractor Layne Environmental Driller ART Helper Kevin/Bryan

Prepared By Dan Alm Hammer Weight _____ Hammer Drop _____ inches

LSE ~ 1120

	Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
	5	7	0	26,24,15	no Recovery, sand & Gravel cyclone
ND	10	12		10,9,8	no Recovery sand & Gravel cyclone
					well graded fine to coarse grained and
					sl. moist, brown. 2inch gravel 0-10
	12	15			Same as above
	15	20			Same as above
ND	20	25			Sand Gravel & Cobbles - fine to coarse
					grained sand, 5 inch cobbles; well
					graded, dry, Tan to light gray
					lots of dust
	25	30			same as above
	30	35			Same as above
ND	35	40			Same as above less dust
	40	45			Same as above, slight moisture, reddish
					Brown
ND	45	50			Sand gravel & Cobbles, fine to coarse sand
					well graded 6 inch cobbles, Brown
					moist; Trace clay
ND	50	55			Same as above
	55	60			Same as above ~~wet~~

G&M Form 03 6-86

GERAGHTY & MILLER, INC.
Ground-Water Consultants

SAMPLE/CORE LOG

Boring/Well PL-101 Project/No. _____ Page 2 of 2

Site Location _____ Drilling Started _____ Drilling Completed _____

Total Depth Drilled _____ feet Hole Diameter _____ inches Type of Sample/Coring Device _____

Length and Diameter of Coring Device _____ Sampling Interval _____ feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used _____ Drilling Method _____

Drilling Contractor _____ Driller _____ Helper _____

Prepared By _____ Hammer Weight _____ Hammer Drop _____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
60	65			sand gravel & Cobbles fine to med grained
				sand well graded brown, wet
65	70			Same as above
70	75			same as above
75	77			sandy clay, brown, wet, fine to
				coarse grained well graded

G&M Form 03 6-86

Southern 87-171A

GERAGHTY & MILLER, INC.
Ground-Water Consultants

SAMPLE/CORE LOG

Boring/Well PL-101 Project/No. _____ Page 1 of 2

Site Location _____ Drilling Started 7/14/92 Drilling Completed 7/14/92

Total Depth Drilled 77 feet Hole Diameter 11 inches Type of Sample/Coring Device _____

Length and Diameter of Coring Device _____ Sampling Interval _____ feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used NA Drilling Method Dual Wall Percussion

Drilling Contractor Layne Environmental Driller ART Helper Kevin/Bryan

Prepared By Dan Alm Hammer Weight _____ Hammer Drop _____ inches

LSE ~ 1120

	Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
	5	7	0	26,21,15	no Recovery, sand & Gravel cyclone
ND	10	12		10,9,8	no Recovery sand & Gravel cyclone
					well graded fine to coarsegrained and
					sl. moist, brown. 2inch gravel 0-10
	12	15			Same as above
	15	20			Same as above
ND	20	25			Sand Gravel & Cobbles - fine to coarse
					grained sand, 5 inch cobbles, well
					graded, dry Tan to light gray
					lots of dust
	25	30			same as above
	30	35			Same as above
ND	35	40			Same as above less dust
	40	45			Same as above, slight moisture, reddish
					Brown
ND	45	50			Sand gravel & Cobbles, fine to coarse sand
					well graded 6 inch cobbles, Brown
					moist; Trace clay
ND	50	55			Same as above
	55	60			Same as above ~~wet~~

G&M Form 03 6-86

GERAGHTY & MILLER, INC.
Ground-Water Consultants

SAMPLE/CORE LOG

Boring/Well PL-101 Project/No. _____ Page 2 of 2

Site Location _____ Drilling Started _____ Drilling Completed _____

Total Depth Drilled _____ feet Hole Diameter _____ inches Type of Sample/Coring Device _____

Length and Diameter of Coring Device _____ Sampling Interval _____ feet

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used _____ Drilling Method _____

Drilling Contractor _____ Driller _____ Helper _____

Prepared By _____ Hammer Weight _____ Hammer Drop _____ inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
60	65			sand gravel & Cobbles fine to med grained
				sand well graded brown, wet
65	70			Same as above
70	75			Same as above
75	77			sandy clay, brown, wet, fine to
				coarse grained well graded

G&M Form 03 6-86

Southpoint 87-1718

LOCATION INFORMATION

FACILITY CODE ASGED

LOCATION ID 101A

COORDINATES (FT):

NORTH NA EAST NA

GROUND ELEVATION (FT MSL) NA

LOCATION TYPE WL

MONITOR CODE

MONITOR DATE

ACCEPTANCE CODE A

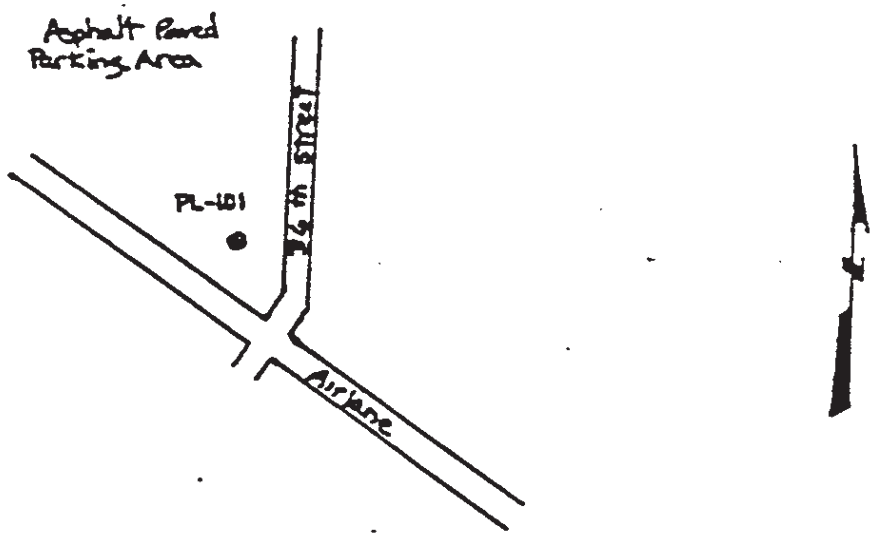
FLOW RELATIONSHIP N

LOCATION DESCRIPTION Near southeast end of parking lot north corner of 36th Street and Airlane

PURPOSE FOR ESTABLISHING LOCATION

DATA COLLECTION REQUIREMENTS/METHODS

LOCATION DIAGRAM



ACCEPTANCE CODES: A—ACCEPTABLE R—RECONNAISSANCE U—UNACCEPTABLE N—NOT DETERMINED

LOCATION TYPES:

BH – BOREHOLE
TP – TEST PIT
SL – SURFACE LOCATION
OC – OUT CROP
WL – WELL
SP – SPRING
RV – RIVER/STREAM
LK – LAKE/POND
CH – CHANNEL/DITCH

FLOW RELATIONSHIPS:

U – UPGRADIENT D – DOWNGRADIENT C – CROSS GRADIENT O – ON SITE N – NOT KNOWN B – BACKGROUND

FORM COMPLETED BY/DATE

TECHNICAL REVIEWER/DATE

CONSTRUCTION REPORT

INSTALLATION OF MONITORING WELLS

EAST WASHINGTON WQARF AREA

TEN-SQUARE-MILE PRIORITY AREA

GARRETT ENGINE DIVISION, AIRPORT FACILITY

ALLIED-SIGNAL AEROSPACE COMPANY

ATTACHMENT IX

WELL CONSTRUCTION DATA

MONITORING WELL: 101A

FILE NUMBER: A(1-3)12DBB

REGISTRATION NUMBER: 55-535767

TOP OF CASING ELEVATION: 1120.39 MSL

WELL COMPLETION INFORMATION

BOREHOLE / WELL CONSTRUCTION FIELD DATA LOG

BOREHOLE LOG (SOIL)

&

LOCATION INFORMATION

ARIZONA DEPARTMENT OF WATER RESOURCES
15 South 15th Avenue
Phoenix, Arizona 85007

WELL DRILLER REPORT

This report should be prepared by the driller in all detail and filed with the Department within 30 days following completion of the well.

1. Owner Name: Allied-Signal Aerospace Co.
   Address: 111 South 34th St. Phoenix, AZ 85044
   Street City State Zip
2. Driller Name: Layne Environmental Services, Inc.
   Address: 9002 S. Hardy Drive Tempe, AZ 85284
   Street City State Zip
3. Location: 1N N/S (Township) 3E E/W (Range) 12 (Section) NW 1/4 (10-acre) NW 1/4 (40-acre) SE 1/4 (160-acre)
4. Well Registration No. 55- 535767 (Required)
5. Permit No. _____ (If issued)

DESCRIPTION OF WELL

6. Total depth of hole 77 ft.
7. Type of casing SCH 40 PVC
   Diameter and length of casing 4 in. from 0 to 77, _____ in from _____ to _____.
9. Method of sealing at reduction points N/A
10. Perforated from 35 to 75, from _____ to _____, from _____ to _____.
11. Size of cuts 0.020 Number of cuts per foot 48
12. If screen was installed: Length 40 ft. Diam 4 in. Type SS Wire Wound Screen
13. Method of construction Drilled
    (drilled, dug, driven, bored, jetted, etc)
14. Date started July (Month) 14 (Day) 1992 (Year)
15. Date completed July (Month) 14 (Day) 1992 (Year)
16. Depth to water 45 ft. (If flowing well, so state)
17. Describe point from which depth measurements were made, and give sea-level elevation if available
    Ground Surface
18. If flowing well, state method of flow regulation: _____
19. Remarks: _____

DO NOT WRITE IN THIS SPACE

Reg
File 55-535767
Rec A(1-3)12DBB
Ent

DWR-55-55-7/91 (Rev.)

LOG OF WELL

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encounterd, and depth to which it rose in well.

From (feet)	To (feet)	Description of formation material
0	77	See Attached

I hereby certify that this well was drilled by me (or under my supervision), and that each and all statements herein contained are true to the best of my knowledge and belief.

Driller Name: Layne Environmental Ser. Inc.

9002 S. Hardy
Street

Tempe, Arizona 85284
City State Zip

Date August 14, 1992

ARIZONA DEPARTMENT OF WATER RESOURCES
15 South 15th Avenue
Phoenix, Arizona 85007

PL-101A

55-535767
A(1-3)12DBB

COMPLETION REPORT

1. Per A.R.S. § 45-600, the Completion Report is to be filed with the Department within 30 days after installation of pump equipment by the registered well owner.

2. Drawdown of the water level for a non-flowing well should be measured in feet after not less than 4 hours of continuous operation and while still in operation and for a flowing well the shut-in pressure should be measured in feet above the land or in pounds per square inch at the land surface.

3. The static groundwater level should be measured in feet from the land surface immediately prior to the well capacity test.

4. The tested pumping capacity of the well in gallons per minute for a non-flowing well should be determined by measuring the discharge of the pump after continuous operation for at least 4 hours and for a flowing well by measuring the natural flow at the land surface.

LOCATION OF THE WELL:

1N N/S	3E E/W	12	NW 1/4	NW 1/4	SE 1/4
Township	Range	Section	10-acre	40-acre	160-acre

EQUIPMENT INSTALLED:

Kind of pump Grundfos 5S03-9 SS Submersible pump
Turbine, centrifugal, etc.

d of power Electric H.P. Rating of Motor 1/3
Electric, natural gas, gasoline, etc.

Pumping Capacity 5 Date pump installed: 8/3/92
Gallons per minute

WELL TEST:

Test pumping capacity 5-1/2 Date Well Tested: 8/3/92
Gallons per minute

Method of Discharge Measurement Flow meter
Weir, orifice, current meter, etc.

Static Groundwater Level 45 ft. Drawdown 0.5 ft.

Total Pumping Lift 45.5 ft. Drawdown NA lbs.
(Flowing Well)

I HEREBY CERTIFY that the above statements are true to the best of my knowledge and belief.

August 20, 19 92
Date

Allied-Signal Aerospace Company
Print Well Owner's Name

Signature of Well Owner or Agent

111 South 34th Street
Address

Phoenix Arizona 85034
City State Zip

DWR-55-56-7/91 (Rev.)

Appendix Q
Aquifer Test Information

TABLE Q-4
Summary of Alluvial Aquifer Test Results

Well	Depth Interval (feet)	Test Type	Lithology	Reported Average Hydraulic Conductivity (feet/day)	Source of Data
DM-201	21 to 27	Multi-well	BF	7	Motorola Remedial Investigation (RI) Report (Dames & Moore, 1987)
DM-202	31 to 76	Multi-well	BF	51	Motorola RI Report (Dames & Moore, 1987)
DM-301	26 to 74	Multi-well	BF	44	Motorola RI Report (Dames & Moore, 1987)
DM-302	26 to 72	Multi-well	BF	43	Motorola RI Report (Dames & Moore, 1987)
DM-504	169 to 245	Multi-well	BF	60	Motorola Final Remedy RI Report (Dames & Moore, 1992)
DM-518	59 to 137	Multi-well	SRG	207	Motorola Operable Unit (OU)2 100% Design Report (CRA, 1999)
DM-3		Multi-well	SRG	230	Draft RI 19th Ave Landfill (Dames & Moore, 1988)
WCC-24		Multi-well	BF	57	Motorola 48th St Pilot-Scale Report (Woodward-Clyde, 1995)
SW-1	24 to 62	Multi-well	BF	36	Motorola OU2 100% Design Report (CRA, 1999)
TEW-1	100 to 140	Multi-well	SRG	450	Motorola OU2 30% Design Report (CRA, 1997)
ASE-37A	62 to 111	Multi-well	SRG+BF	134	Honeywell Aquifer Test Report (Rumbaugh, et al., 2000)
BC-2	99 to 114	Multi-well	BF	123	Honeywell Aquifer Test Report (Rumbaugh, et al., 2000)
PL-101A	35 to 75	Multi-well	SRG	165	Honeywell Aquifer Test Report (Rumbaugh, et al., 2000)
DM-12		Multi-well	BF	44	Stage III Report, Motorola 56th St. (Dames & Moore, 1990)
EW-N	100 to 220	Multi-well	SRG+BF	256	Montgomery & Assoc. (2002)
EW-M	86 to 206	Multi-well	SRG+BF	250	Montgomery & Assoc. (2002)
EW-S	94 to 194	Multi-well	SRG+BF	344	Montgomery & Assoc. (2002)
DM-107	16 to 31	Single-well Pump	BF	12	Motorola RI Report (Dames & Moore, 1987)
DM-113	15 to 56	Single-well Pump	BF	85	Motorola RI Report (Dames & Moore, 1987)
DM-114	27 to 61	Single-well Pump	BF	26	Motorola RI Report (Dames & Moore, 1987)
DM-115	31 to 52	Single-well Pump	BF	31	Motorola RI Report (Dames & Moore, 1987)
SRP18E-5N	45 to 155	Single-well Recovery	BF	65	Motorola OU2 100% Design Report (CRA, 1999)
SRP16.9E-6N	56 to 212	Single-well Recovery	BF	50	Motorola OU2 100% Design Report (CRA, 1999)
SRP18.5E-7N	18 to 124	Single-well Recovery	BF	32	Motorola OU2 100% Design Report (CRA, 1999)
DM-107	16 to 31	Slug	BF	12.0	Motorola OU2 100% Design Report (CRA, 1999)

TABLE Q-4
Summary of Alluvial Aquifer Test Results

Well	Depth Interval (feet)	Test Type	Lithology	Reported Average Hydraulic Conductivity (feet/day)	Source of Data
DM-111	18 to 24	Slug	BF	1.8	Motorola OU2 100% Design Report (CRA, 1999)
DM-501	152	Slug	BF	1.3	Motorola OU2 100% Design Report (CRA, 1999)
DM-501	212	Slug	BF	0.4	Motorola OU2 100% Design Report (CRA, 1999)
DM-502	85	Slug	BF	3.0	Motorola OU2 100% Design Report (CRA, 1999)
DM-502	129	Slug	BF	1.5	Motorola OU2 100% Design Report (CRA, 1999)
DM-506	110	Slug	BF	2.7	Motorola OU2 100% Design Report (CRA, 1999)
DM-506	195	Slug	BF	1.7	Motorola OU2 100% Design Report (CRA, 1999)
DM-507	89	Slug	SRG	3.4	Motorola OU2 100% Design Report (CRA, 1999)
DM-510	115	Slug	BF	17.6	Motorola OU2 100% Design Report (CRA, 1999)
DM-511	115	Slug	BF	20.1	Motorola OU2 100% Design Report (CRA, 1999)
DM-512	95	Slug	SRG	52.6	Motorola OU2 100% Design Report (CRA, 1999)
DM-512	160	Slug	BF	11.0	Motorola OU2 100% Design Report (CRA, 1999)
DM-513	150	Slug	BF	22.7	Motorola OU2 100% Design Report (CRA, 1999)
DM-514	110	Slug	BF	9.5	Motorola OU2 100% Design Report (CRA, 1999)
DM-515	120	Slug	SRG	47.2	Motorola OU2 100% Design Report (CRA, 1999)
DM-516	155	Slug	SRG	28.1	Motorola OU2 100% Design Report (CRA, 1999)
DM-516	215	Slug	BF	3.2	Motorola OU2 100% Design Report (CRA, 1999)
DM-517	130	Slug	SRG	35.2	Motorola OU2 100% Design Report (CRA, 1999)
DM-517	190	Slug	BF	13.1	Motorola OU2 100% Design Report (CRA, 1999)
DM-601	50	Slug	BF	5.2	Motorola OU2 100% Design Report (CRA, 1999)
DM-603	72	Slug	BF	64.3	Motorola OU2 100% Design Report (CRA, 1999)
DM-603	125	Slug	BF	7.3	Motorola OU2 100% Design Report (CRA, 1999)
DM-605	70	Slug	BF	4.4	Motorola OU2 100% Design Report (CRA, 1999)
DM-605	115	Slug	BF	1.2	Motorola OU2 100% Design Report (CRA, 1999)
EW-12	83	Slug	SRG	124.1	Motorola OU2 100% Design Report (CRA, 1999)
EW-12	98	Slug	SRG	281.3	Motorola OU2 100% Design Report (CRA, 1999)
EW-12	132	Slug	SRG	111.9	Motorola OU2 100% Design Report (CRA, 1999)
EW-12	184	Slug	BF	12.3	Motorola OU2 100% Design Report (CRA, 1999)
EW-12	232	Slug	BF	45.5	Motorola OU2 100% Design Report (CRA, 1999)
EW-12	237	Slug	BF	100.1	Motorola OU2 100% Design Report (CRA, 1999)
EW-13	83	Slug	SRG	56.3	Motorola OU2 100% Design Report (CRA, 1999)
EW-13	123	Slug	SRG	39.7	Motorola OU2 100% Design Report (CRA, 1999)
EW-13	173	Slug	SRG	13.6	Motorola OU2 100% Design Report (CRA, 1999)
EW-13	233	Slug	BF	22.5	Motorola OU2 100% Design Report (CRA, 1999)
EW-13	273	Slug	BF	28.5	Motorola OU2 100% Design Report (CRA, 1999)

TABLE Q-4
Summary of Alluvial Aquifer Test Results

Well	Depth Interval (feet)	Test Type	Lithology	Reported Average Hydraulic Conductivity (feet/day)	Source of Data
EW-13	295	Slug	BF	23.4	Motorola OU2 100% Design Report (CRA, 1999)
EW-19D	248 to 268	Slug	BF	5.6	Motorola OU2 100% Design Report (CRA, 1999)
EW-22D	408 to 428	Slug	BF	9.8	Motorola OU2 100% Design Report (CRA, 1999)

Notes:

BF =Basin Fill
SRG =Salt River Gravels

Data Sources:

Motorola RI Report - Dames & Moore. 1987. *Remedial Investigation Report, 52nd Street RI/FS, Phoenix, Arizona, for Motorola Inc. [Draft].* June 11.

Motorola Final Remedy RI Report - Dames & Moore. 1992. *Final Remedy Remedial Investigation Report, Motorola 52nd Street Superfund Site*, for Motorola Inc. February.

Motorola OU2 100% Design Report - Conestoga-Rovers & Associates (CRA). 1999. *Final (100%) Design Report, Operable Unit 2 Area, Motorola 52nd Street Superfund Site, Phoenix, Arizona*, for Motorola Inc. July.

Draft RI 19th Ave Landfill - Dames & Moore. 1988. *Draft Remedial Investigation/Feasibility Study, 19th Avenue Landfill,* for City of Phoenix, June 10.

Motorola 48th St Pilot-Scale Report - Woodward-Clyde. 1995. *Motorola 48th Street Pilot-Scale Treatment Facility Baseline Report, Phoenix, Arizona*, for Motorola Inc. March.

Motorola OU2 30% Design Report - CRA. 1997. *Preliminary (30%) Design Report – Operable Unit 2 Area, Motorola 52nd Street Superfund Site, Phoenix, Arizona*. Volume III, Appendices B through D, prepared for Motorola Inc. October 1.

Honeywell Aquifer Test Report - Rumbaugh, J. and F. Carlson. 2000*. Analysis of the November 1999 Aquifer Tests at the Honeywell Site*. July 11.

Stage III Report, Motorola 56th St. - Dames & Moore. 1990. *Stage III Report, Ground-water Quality Investigation, 56th Street Facility, Phoenix, Arizona*, for Motorola Inc. May 4.

Errol L. Montgomery and Associates (Montgomery & Assoc.). 2002. *Results of Hydrogeologic and Construction Services for Installation of Extraction and Monitoring Wells; 52nd Street Superfund Site, Operable Unit 2, Phoenix, Arizona*. August 29.

TABLE Q-5
Summary of Alluvial Aquifer Test Results

Well	Depth Interval (feet)	Test Type	Saturated Thickness (feet)		Reported Average Hydraulic Conductivity (feet/day)	Source of Data
			Basin Fill	Salt River Gravels		
DM-201	21 to 27	Multi-well	6	0	7	Motorola Remedial Investigation (RI) Report (Dames & Moore, 1987)
DM-202	31 to 76	Multi-well	45	0	51	Motorola RI Report (Dames & Moore, 1987)
DM-301	26 to 74	Multi-well	48	0	44	Motorola RI Report (Dames & Moore, 1987)
DM-302	26 to 72	Multi-well	46	0	43	Motorola RI Report (Dames & Moore, 1987)
DM-504	169 to 245	Multi-well	76	0	60	Motorola Final Remedy RI Report (Dames & Moore, 1992)
DM-518	59 to 137	Multi-well	0	78	207	Motorola OU2 100% Design Report (CRA, 1999)
DM-3	110 to 150	Multi-well	0	40	230	Draft RI 19th Ave Landfill (Dames & Moore, 1988)
WCC-24		Multi-well	all	0	57	Motorola 48th St Pilot-Scale Report (Woodward-Clyde, 1995)
SW-1	24 to 62	Multi-well	38	0	36	Motorola OU2 100% Design Report (CRA, 1999)
TEW-1	100 to 140	Multi-well	0	65 (?)	450	Motorola OU2 30% Design Report (CRA, 1997)
ASE-37A	62 to 111	Multi-well	26	20	134	Honeywell Aquifer Test Report (Rumbaugh, et al., 2000)
BC-2	99 to 114	Multi-well	34	0	123	Honeywell Aquifer Test Report (Rumbaugh, et al., 2000)
PL-101A	35 to 75	Multi-well	0	18	165	Honeywell Aquifer Test Report (Rumbaugh, et al., 2000)
DM-12		Multi-well	all	0	44	Stage III Report, Motorola 56th St. (Dames & Moore, 1990)
EW-N	100 to 220	Multi-well	80	70	256	Montgomery & Assoc. (2002)
EW-M	86 to 206	Multi-well	75	75	250	Montgomery & Assoc. (2002)
EW-S	94 to 194	Multi-well	40	75	344	Montgomery & Assoc. (2002)
DM-107	16 to 31	Single-well Pump	15	0	12	Motorola RI Report (Dames & Moore, 1987)
DM-113	15 to 56	Single-well Pump	41	0	85	Motorola RI Report (Dames & Moore, 1987)
DM-114	27 to 61	Single-well Pump	26	0	26	Motorola RI Report (Dames & Moore, 1987)
DM-115	31 to 52	Single-well Pump	21	0	31	Motorola RI Report (Dames & Moore, 1987)
SRP18E-5N	45 to 155	Single-well Recovery	All	0	65	Motorola OU2 100% Design Report (CRA, 1999)

TABLE Q-5
Summary of Alluvial Aquifer Test Results

Well	Depth Interval (feet)	Test Type	Saturated Thickness (feet)		Reported Average Hydraulic Conductivity (feet/day)	Source of Data
			Basin Fill	Salt River Gravels		
SRP16.9E-6N	56 to 212	Single-well Recovery	All	0	50	Motorola OU2 100% Design Report (CRA, 1999)
SRP18.5E-7N	18 to 124	Single-well Recovery	All	0	32	Motorola OU2 100% Design Report (CRA, 1999)

Data Sources:

Motorola RI Report - Dames & Moore. 1987. *Remedial Investigation Report, 52nd Street RI/FS, Phoenix, Arizona, for Motorola Inc. [Draft].* June 11.

Motorola Final Remedy RI Report - Dames & Moore. 1992. *Final Remedy Remedial Investigation Report, Motorola 52nd Street Superfund Site*, for Motorola Inc. February.

Motorola OU2 100% Design Report - Conestoga-Rovers & Associates (CRA). 1999. *Final (100%) Design Report, Operable Unit 2 Area, Motorola 52nd Street Superfund Site, Phoenix, Arizona*, for Motorola Inc. July.

Draft RI 19th Ave Landfill - Dames & Moore. 1988. *Draft Remedial Investigation/Feasibility Study, 19th Avenue Landfill,* for City of Phoenix, June 10.

Motorola 48th St Pilot-Scale Report - Woodward-Clyde. 1995. *Motorola 48th Street Pilot-Scale Treatment Facility Baseline Report, Phoenix, Arizona*, for Motorola Inc. March.

Motorola OU2 30% Design Report - CRA. 1997. *Preliminary (30%) Design Report – Operable Unit 2 Area, Motorola 52nd Street Superfund Site, Phoenix, Arizona*. Volume III, Appendices B through D, prepared for Motorola Inc. October 1.

Honeywell Aquifer Test Report - Rumbaugh, J. and F. Carlson. 2000*. Analysis of the November 1999 Aquifer Tests at the Honeywell Site*. July 11.

Stage III Report, Motorola 56th St. - Dames & Moore. 1990. *Stage III Report, Ground-water Quality Investigation, 56th Street Facility, Phoenix, Arizona*, for Motorola Inc. May 4.

Errol L. Montgomery and Associates (Montgomery & Assoc.). 2002. *Results of Hydrogeologic and Construction Services for Installation of Extraction and Monitoring Wells; 52nd Street Superfund Site, Operable Unit 2, Phoenix, Arizona*. August 29.

TABLE Q-6
Calculated Hydraulic Conductivity of Salt River Gravels

Well	Average Hydraulic Conductivity (feet/day)	Saturated Thickness (feet)		Calculated Hydraulic Conductivity of SRG (feet/day)
		SRG	BF	
ASE-37A	134	26	20	209 (196 to 218)
EW-N	256	80	70	448 (432 to 458)
EW-M	250	75	75	463 (446 to 475)
EW-S	344	75	40	508 (498 to 514)

Notes:

SRG = Salt River Gravels
BF = Basin Fill