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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1606028A

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Comments:

Completed by:

Vera Belitsky	Vera Belitsky / Document Control	6/22/16
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1606028A

Work Order Summary

CLIENT:	Mr. Terry Taylor Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577	**BILL TO:**	Accounts Payable Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577
PHONE:	(914) 251-0400	**P.O. #**	
FAX:		**PROJECT #**	Building 30 VI
DATE RECEIVED:	06/01/2016	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	06/14/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	B30AA (052816)	Modified TO-15	6.5 "Hg	5.2 psi
02A	B30IA-1 (052816)	Modified TO-15	4.3 "Hg	5 psi
03A	B30IA-1D (052816)	Modified TO-15	4.3 "Hg	5 psi
04A	B30IA-2 (052816)	Modified TO-15	0.2 psi	4.9 psi
05A	B30IA-3 (052816)	Modified TO-15	3.5 "Hg	5 psi
06A	B30IA-4 (052816)	Modified TO-15	7.1 "Hg	5 psi
07A	B30IA-5 (052816)	Modified TO-15	3.3 "Hg	5.3 psi
08A	Lab Blank	Modified TO-15	NA	NA
08B	Lab Blank	Modified TO-15	NA	NA
09A	CCV	Modified TO-15	NA	NA
09B	CCV	Modified TO-15	NA	NA
10A	LCS	Modified TO-15	NA	NA
10AA	LCSD	Modified TO-15	NA	NA
10B	LCS	Modified TO-15	NA	NA
10BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 06/14/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15
Anderson Mulholland & Associates, Inc.
Workorder# 1606028A

Seven 6 Liter Summa Canister (100% Certified) samples were received on June 01, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

The Summa canister for sample B30IA-2 (052816) was leaking upon arrival. The client was notified and the analysis proceeded.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. All the canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See

data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample Holding Time (Days)	Sample Extract Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
B30AA (052816)	1606028A-01A	5/29/2016	6/ 1/2016	NA	5	6/ 3/2016	NA	Good
B30IA-1 (052816)	1606028A-02A	5/29/2016	6/ 1/2016	NA	5	6/ 3/2016	NA	Good
B30IA-1D (052816)	1606028A-03A	5/29/2016	6/ 1/2016	NA	5	6/ 3/2016	NA	Good
B30IA-2 (052816)	1606028A-04A	5/29/2016	6/ 1/2016	NA	10	6/ 8/2016	NA	Good
B30IA-3 (052816)	1606028A-05A	5/29/2016	6/ 1/2016	NA	5	6/ 3/2016	NA	Good
B30IA-4 (052816)	1606028A-06A	5/29/2016	6/ 1/2016	NA	5	6/ 3/2016	NA	Good
B30IA-5 (052816)	1606028A-07A	5/29/2016	6/ 1/2016	NA	5	6/ 3/2016	NA	Good
Lab Blank	1606028A-08A	NA	NA	NA	NA	6/ 3/2016	NA	Good
Lab Blank	1606028A-08B	NA	NA	NA	NA	6/ 8/2016	NA	Good
CCV	1606028A-09A	NA	NA	NA	NA	6/ 3/2016	NA	Good
CCV	1606028A-09B	NA	NA	NA	NA	6/ 8/2016	NA	Good
LCS	1606028A-10A	NA	NA	NA	NA	6/ 3/2016	NA	Good
LCSD	1606028A-10AA	NA	NA	NA	NA	6/ 3/2016	NA	Good
LCS	1606028A-10B	NA	NA	NA	NA	6/ 8/2016	NA	Good
LCSD	1606028A-10BB	NA	NA	NA	NA	6/ 8/2016	NA	Good

Sample Results and Raw Data

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30AA (052816)

Lab ID#: 1606028A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.40	0.86	2.0
Chloromethane	0.86	0.79 J	1.8	1.6 J
Freon 11	0.17	0.23	0.97	1.3
Ethanol	0.86	1.8	1.6	3.5
Freon 113	0.17	0.066 J	1.3	0.51 J
Acetone	0.86	4.2	2.0	10
2-Propanol	0.86	0.74 J	2.1	1.8 J
Carbon Disulfide	0.86	0.45 J	2.7	1.4 J
Methylene Chloride	0.35	0.15 J	1.2	0.54 J
Hexane	0.17	0.11 J	0.61	0.39 J
2-Butanone (Methyl Ethyl Ketone)	0.86	0.64 J	2.6	1.9 J
Carbon Tetrachloride	0.17	0.066 J	1.1	0.42 J
Benzene	0.17	0.082 J	0.55	0.26 J
Toluene	0.17	0.11 J	0.65	0.40 J
m,p-Xylene	0.17	0.041 J	0.75	0.18 J
Naphthalene	0.86	0.047 J	4.5	0.25 J

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Client Sample ID: B30AA (052816)

Lab ID#: 1606028A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060312**	**Date of Collection:**	**5/29/16 6:24:00 PM**
Dil. Factor:	**1.73**	**Date of Analysis:**	**6/3/16 04:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.40	0.86	2.0
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.86	0.79 J	1.8	1.6 J
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
1,3-Butadiene	0.17	Not Detected	0.38	Not Detected
Bromomethane	0.86	Not Detected	3.4	Not Detected
Chloroethane	0.86	Not Detected	2.3	Not Detected
Freon 11	0.17	0.23	0.97	1.3
Ethanol	0.86	1.8	1.6	3.5
Freon 113	0.17	0.066 J	1.3	0.51 J
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	4.2	2.0	10
2-Propanol	0.86	0.74 J	2.1	1.8 J
Carbon Disulfide	0.86	0.45 J	2.7	1.4 J
3-Chloropropene	0.86	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.15 J	1.2	0.54 J
Methyl tert-butyl ether	0.17	Not Detected	0.62	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Hexane	0.17	0.11 J	0.61	0.39 J
1,1-Dichloroethane	0.17	Not Detected	0.70	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	0.64 J	2.6	1.9 J
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Tetrahydrofuran	0.86	Not Detected	2.6	Not Detected
Chloroform	0.17	Not Detected	0.84	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.94	Not Detected
Cyclohexane	0.17	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.17	0.066 J	1.1	0.42 J
2,2,4-Trimethylpentane	0.86	Not Detected	4.0	Not Detected
Benzene	0.17	0.082 J	0.55	0.26 J
1,2-Dichloroethane	0.17	Not Detected	0.70	Not Detected
Heptane	0.17	Not Detected	0.71	Not Detected
Trichloroethene	0.17	Not Detected	0.93	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.80	Not Detected
1,4-Dioxane	0.17	Not Detected	0.62	Not Detected
Bromodichloromethane	0.17	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.71	Not Detected
Toluene	0.17	0.11 J	0.65	0.40 J
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.94	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected

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Client Sample ID: B30AA (052816)

Lab ID#: 1606028A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060312**	**Date of Collection:**	**5/29/16 6:24:00 PM**
Dil. Factor:	**1.73**	**Date of Analysis:**	**6/3/16 04:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.80	Not Detected
Ethyl Benzene	0.17	Not Detected	0.75	Not Detected
m,p-Xylene	0.17	0.041 J	0.75	0.18 J
o-Xylene	0.17	Not Detected	0.75	Not Detected
Styrene	0.17	Not Detected	0.74	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.85	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.85	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.85	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.85	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.85	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.4	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.2	Not Detected
Naphthalene	0.86	0.047 J	4.5	0.25 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/03Jun2016.b/e060312.d
Lab Smp Id: 1606028A-01A
Inj Date : 03-JUN-2016 16:06
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 33321
Misc Info : 6.5"Hg -> 5.2psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/03Jun2016.b/e16l0317f.m
Meth Date : 03-Jun-2016 10:38 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1
Dil Factor: 1.73000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
5.220	5.196 (0.339)	85	22870	0.23011	0.3981	80.00- 120.00	100.00
5.196	5.220 (0.338)	87	7889			2.00- 62.00	34.50
17 Chloromethane					CAS #: 74-87-3		
6.932	6.956 (0.450)	50	8647	0.45853	0.7933	80.00- 120.00	100.00(a)
6.932	6.932 (0.450)	52	2073			5.50- 65.50	23.98
35 Freon 11					CAS #: 75-69-4		
10.747	10.747 (0.698)	101	14316	0.13377	0.2314	80.00- 120.00	100.00
10.747	10.747 (0.698)	103	9538			37.17- 97.17	66.63
42 Ethanol					CAS #: 64-17-5		
11.680	11.681 (0.759)	45	8285	1.06837	1.848	80.00- 120.00	100.00
11.680	11.681 (0.759)	46	2355			6.61- 66.61	28.43
11.680	11.681 (0.759)	43	4323			0.00- 54.66	52.18
49 Freon 113					CAS #: 76-13-1		
12.080	12.081 (0.785)	151	3079	0.03839	0.06642	80.00- 120.00	100.00(a)
12.080	12.081 (0.785)	153	2097			33.64- 93.64	68.11

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   49 Freon 113 (continued)
 12.080  12.081 (0.785)   101      2585                    80.40- 140.40    83.96
-------------------------------------------------------------------------------
   52 Acetone                                      CAS #: 67-64-1
 12.366  12.366 (0.803)    58     31898 2.43912    4.220  80.00- 120.00   100.00
 12.366  12.366 (0.803)    43    109659                   321.47- 381.47   343.78
-------------------------------------------------------------------------------
   56 Carbon Disulfide                             CAS #: 75-15-0
 12.442  12.443 (0.808)    76     26178 0.26264   0.4544  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                   CAS #: 67-63-0
 12.728  12.709 (0.827)    45     17169 0.42916   0.7424  80.00- 120.00   100.00(a)
 12.728  12.709 (0.827)    43      4471                     0.00-  54.09    26.04
 12.728  12.709 (0.827)    59       796                     0.00-  34.43     4.64
-------------------------------------------------------------------------------
   66 Methylene Chloride                           CAS #: 75-09-2
 13.149  13.149 (0.854)    84      2799 0.08932   0.1545  80.00- 120.00   100.00(a)
 13.149  13.149 (0.854)    49      1429                    63.99- 123.99    51.08
 13.149  13.149 (0.854)    51      1257                     0.29-  60.29    44.91
-------------------------------------------------------------------------------
   78 Hexane                                       CAS #: 110-54-3
 13.835  13.835 (0.899)    57      2487 0.06362   0.1101  80.00- 120.00   100.00(a)
 13.808  13.835 (0.897)    43      1958                    21.48-  81.48    78.75
  0.000  13.835 (0.000)    86         0                     0.00-  51.51     0.00
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72      5806 0.36857   0.6376  80.00- 120.00   100.00(a)
 15.047  15.047 (0.978)    43     23570                   262.26- 322.26   405.94
 15.047  15.047 (0.978)    57      1804                     0.00-  55.71    31.08
-------------------------------------------------------------------------------
*  98 Bromochloromethane                          CAS #: 74-97-5
 15.391  15.391 (1.000)   130    118168 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128     91538                    52.25- 112.25    77.46
 15.391  15.391 (1.000)    49     84460                    89.81- 149.81    71.47
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 15.854  15.854 (1.030)   119      3719 0.03826  0.06620  80.00- 120.00   100.00(a)
 15.854  15.854 (1.030)   117      3833                    74.09- 134.09   103.08
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.183  16.183 (0.967)    78      5189 0.04750  0.08218  80.00- 120.00   100.00(a)
 16.183  16.183 (0.967)    77      1491                     0.00-  53.97    28.74
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    178993 5.27637    5.276  80.00- 120.00   100.00
 16.183  16.183 (1.051)    67     85678                    21.16-  81.16    47.87
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	455859	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	70244			0.00- 45.20	15.41
$ 146 Toluene-d8					CAS #: 2037-26-5		
19.275	19.275 (1.152)	98	427877	4.77921	4.779	80.00- 120.00	100.00
19.275	19.275 (1.152)	70	48768			0.00- 40.11	11.40
19.275	19.275 (1.152)	100	280658			37.58- 97.58	65.59
147 Toluene					CAS #: 108-88-3		
19.432	19.410 (1.161)	91	7973	0.06127	0.1060	80.00- 120.00	100.00(a)
19.432	19.410 (1.161)	92	4224			28.92- 88.92	52.98
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	416339	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	203049			20.64- 80.64	48.77
169 m,p-Xylene					CAS #: 108-38-3		
22.488	22.467 (1.014)	106	1525	0.02393	0.04140	80.00- 120.00	100.00(a)
22.467	22.467 (1.013)	91	3814			166.46- 226.46	249.99
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	285005	4.98890	4.989	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	289603			77.42- 137.42	101.61
23.856	23.856 (1.076)	176	263520			65.38- 125.38	92.46
228 Naphthalene					CAS #: 91-20-3		
27.734	27.735 (1.251)	128	1751	0.02735	0.04731	80.00- 120.00	100.00(a)
27.734	27.712 (1.251)	127	606			0.00- 46.39	34.64

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060312.d
Lab Smp Id: 1606028A-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 6.5"Hg -> 5.2psi

Calibration Date: 03-JUN-2016
Calibration Time: 07:24

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	115058	69035	161081	118168	2.70
123 1,4-Difluorobenze	430856	258514	603198	455859	5.80
163 Chlorobenzene-d5	386725	232035	541415	416339	7.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 14-Jun-2016 06:31

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 03Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606028A-01A
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT09Bromo.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 6.5"Hg -> 5.2psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.276	105.53	70-130
$ 146 Toluene-d8	5.000	4.779	95.58	70-130
$ 177 4-Bromofluorobenze	5.000	4.989	99.78	70-130

Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

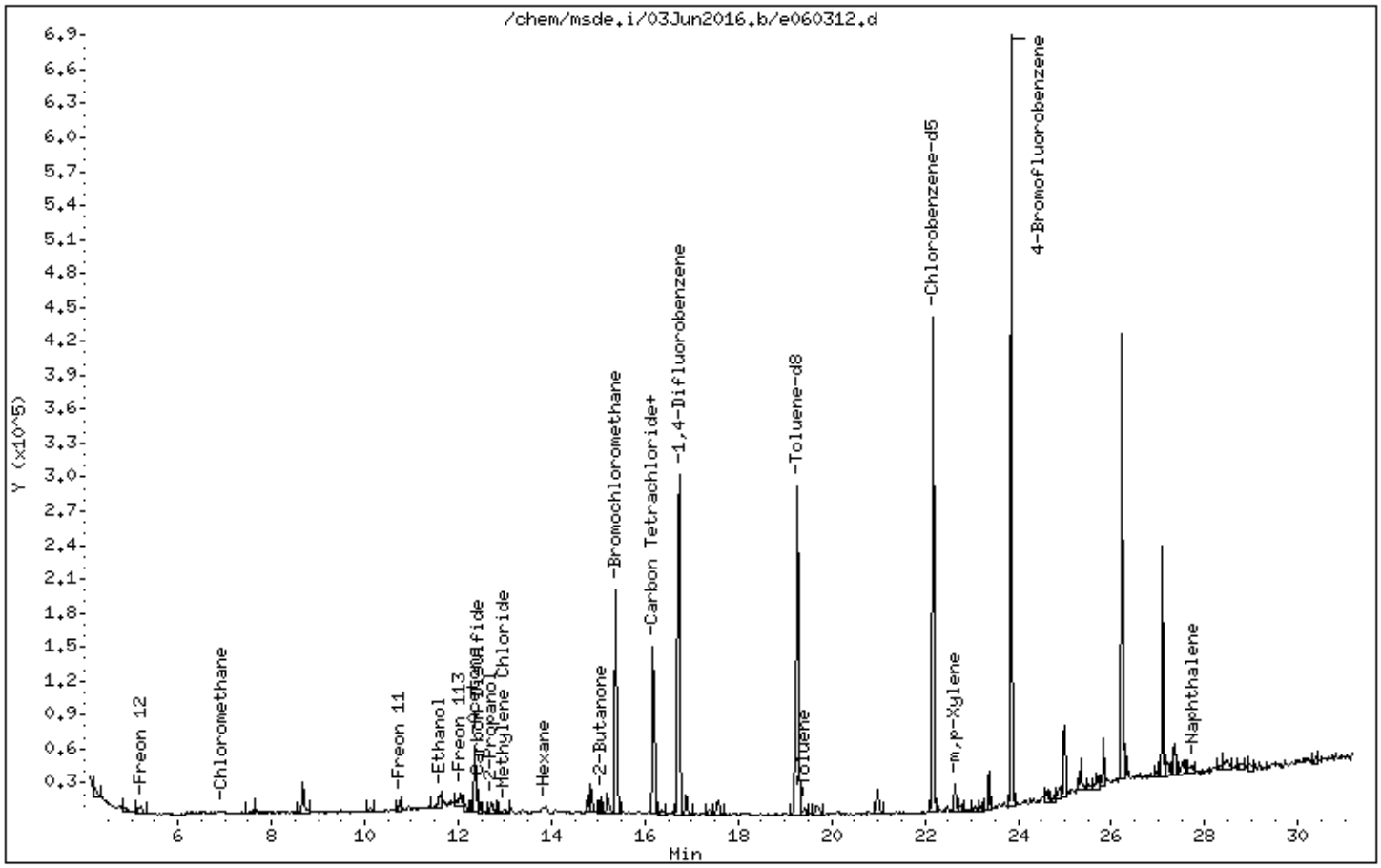
Instrument: msde.i

Sample Info: 250mL# 33321

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

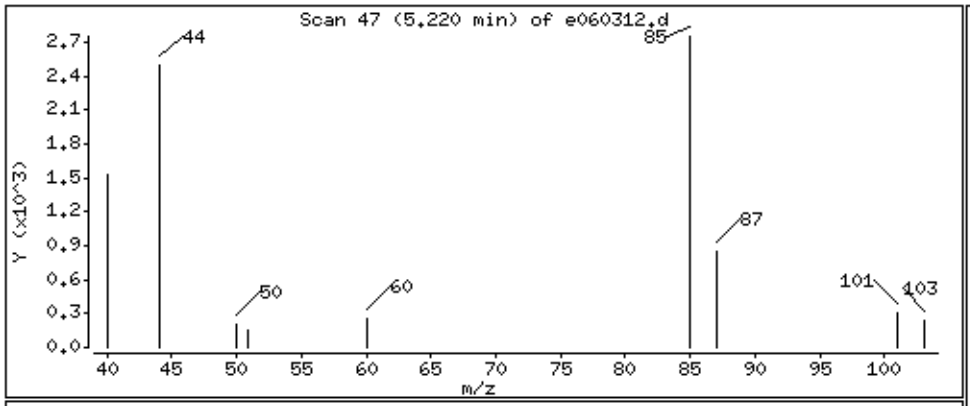
Operator: ef

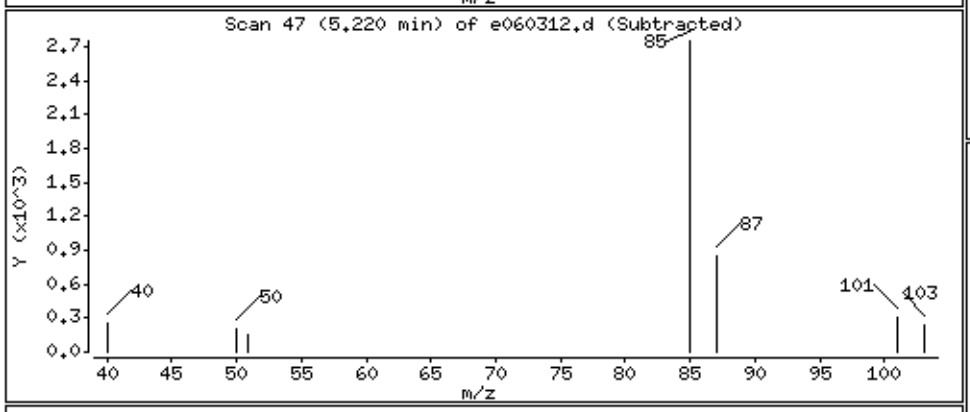
Column phase: RTX-624

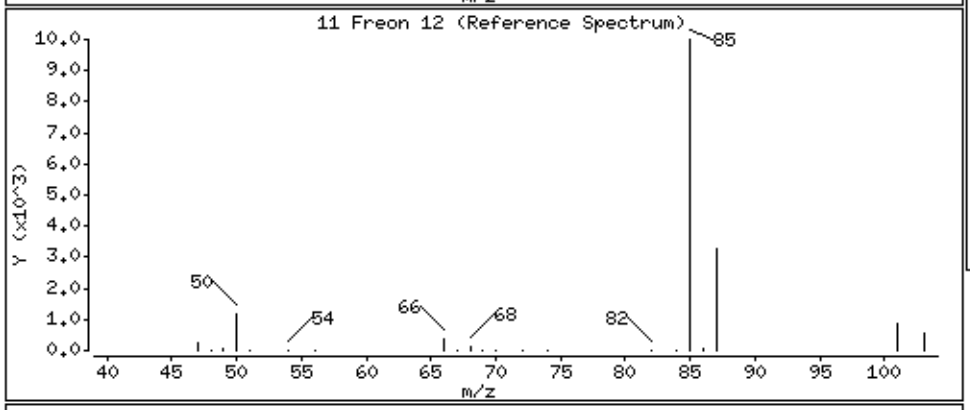
Column diameter: 0.32

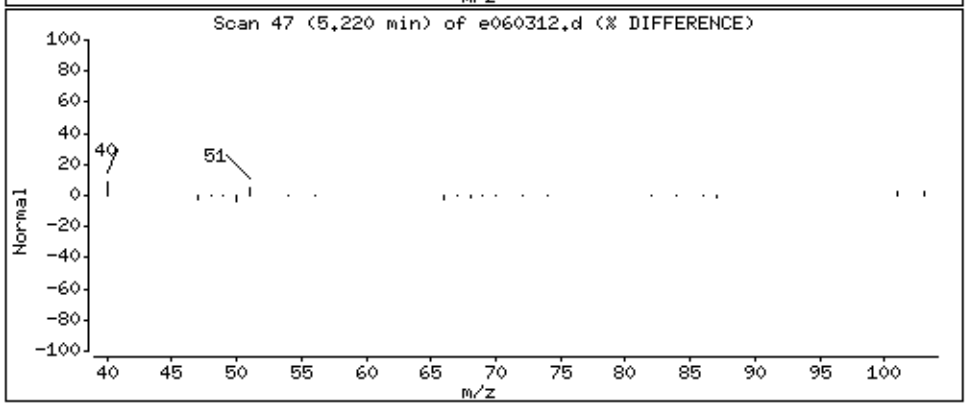
11 Freon 12

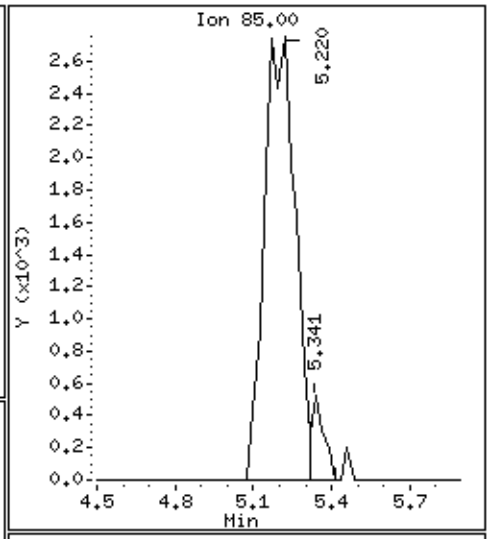
Concentration: 0.3981 PPBV

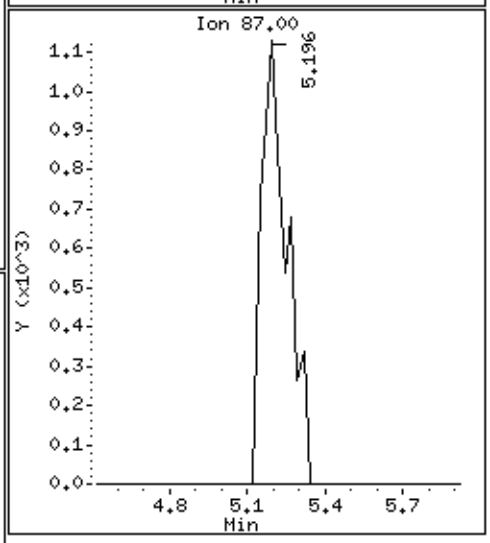












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

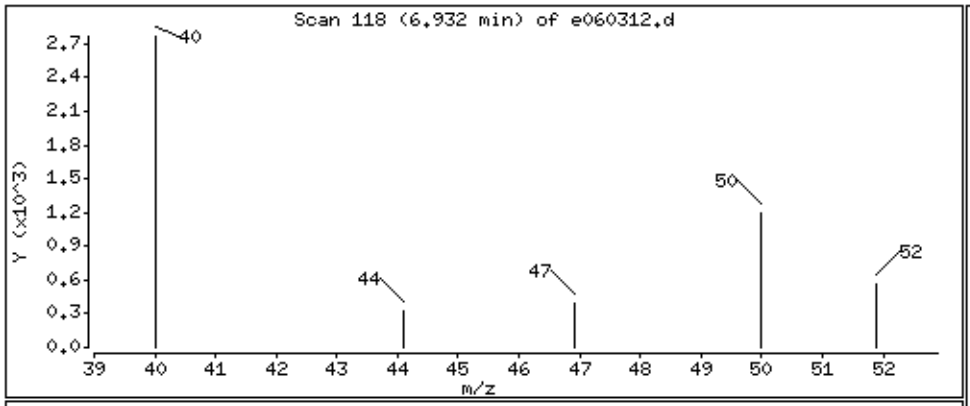
Operator: ef

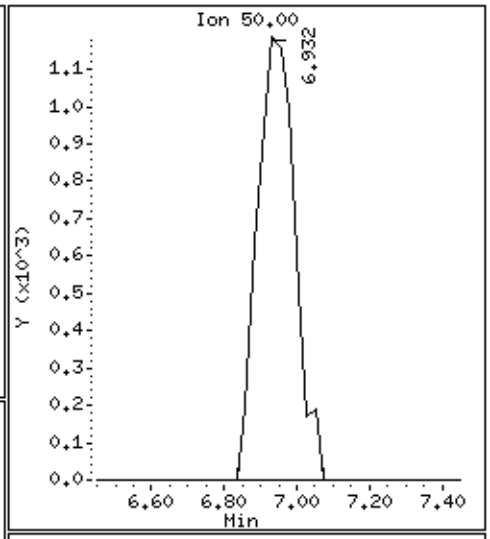
Column phase: RTX-624

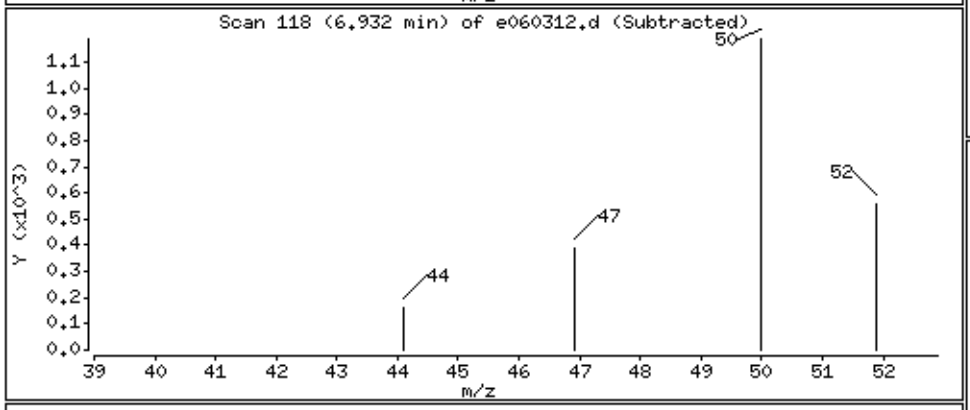
Column diameter: 0.32

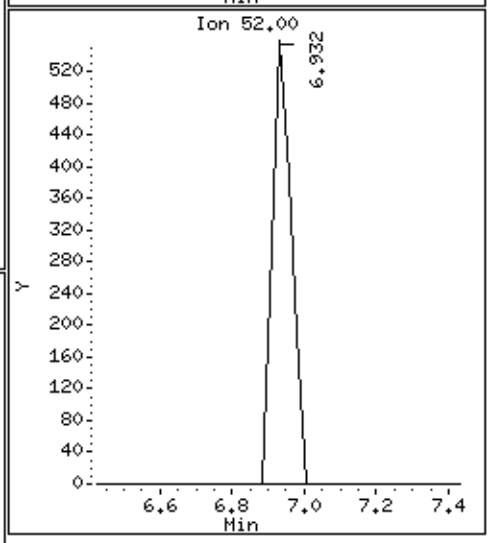
17 Chloromethane

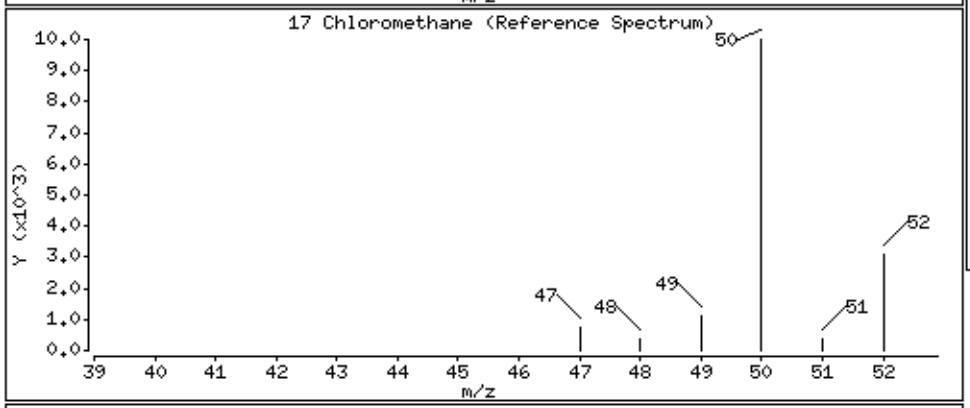
Concentration: 0.7933 PPBV

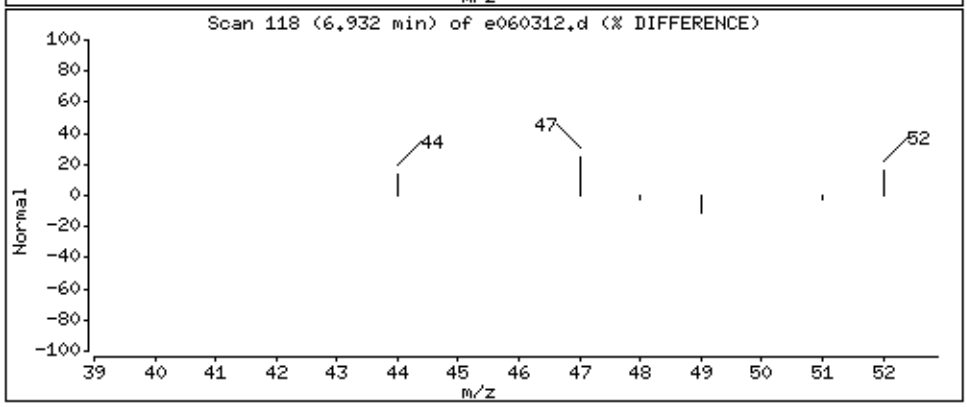












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

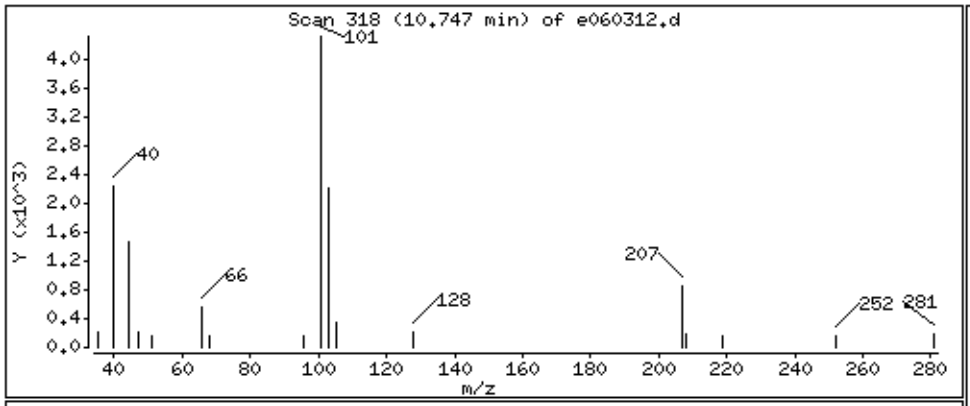
Operator: ef

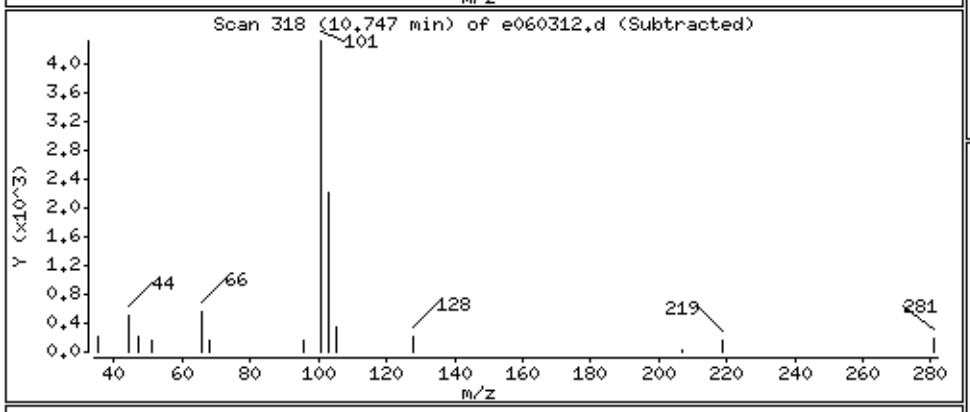
Column phase: RTX-624

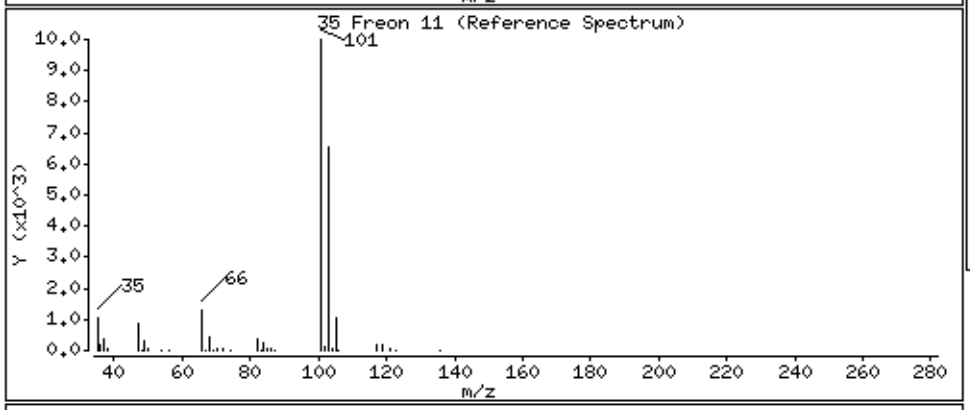
Column diameter: 0.32

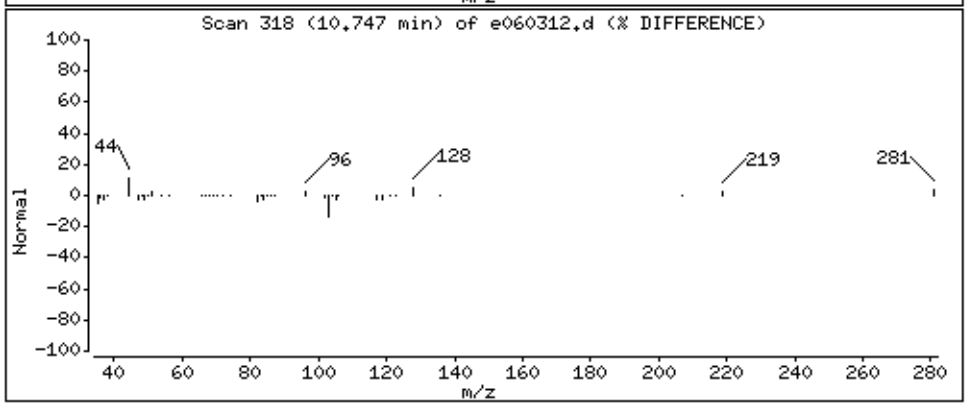
35 Freon 11

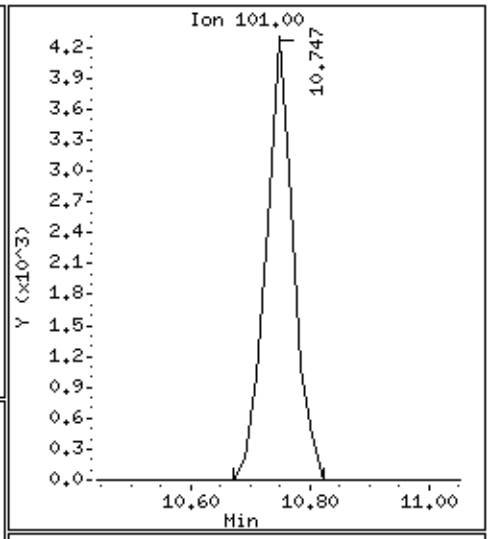
Concentration: 0.2314 PPBV

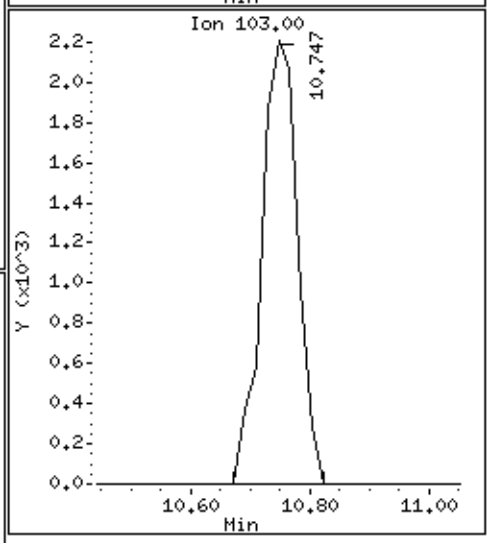












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

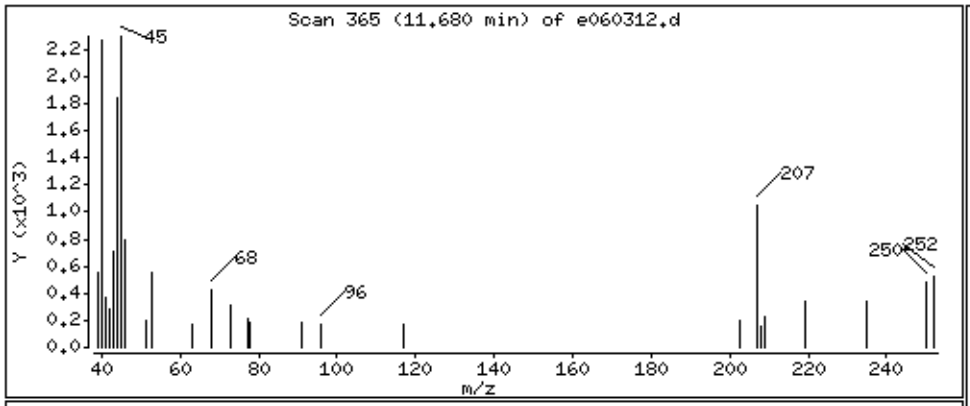
Operator: ef

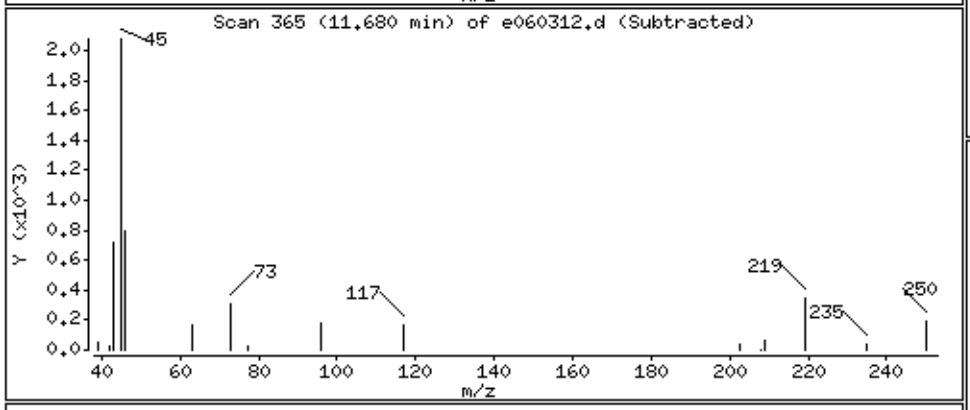
Column phase: RTX-624

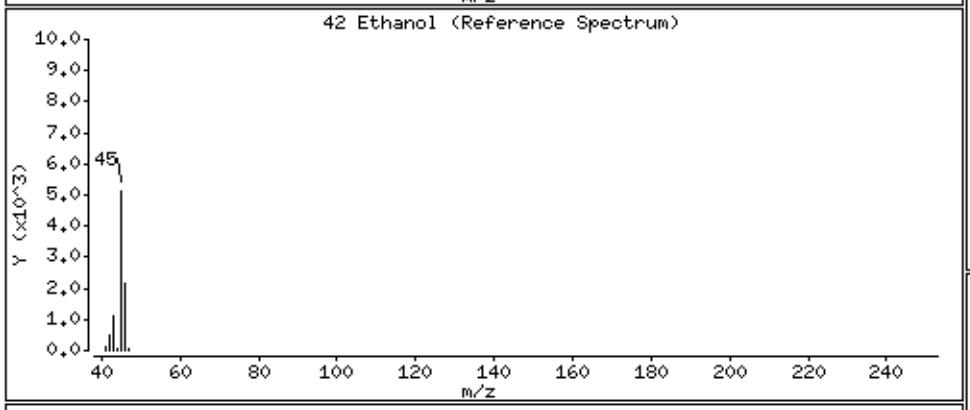
Column diameter: 0.32

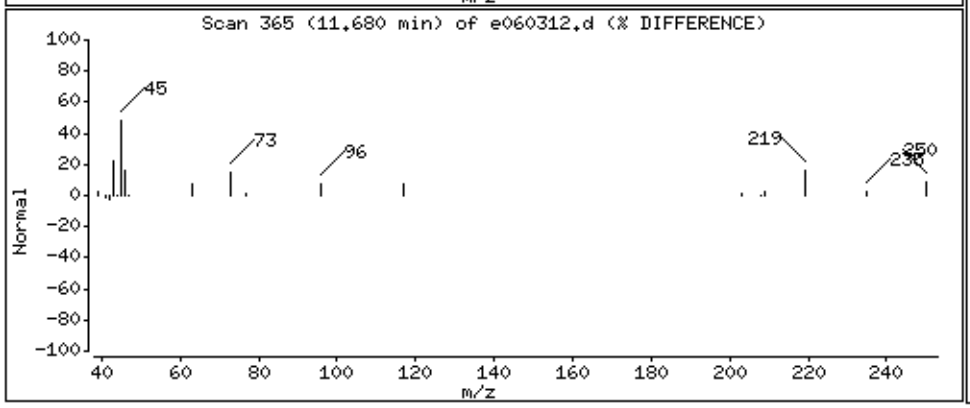
42 Ethanol

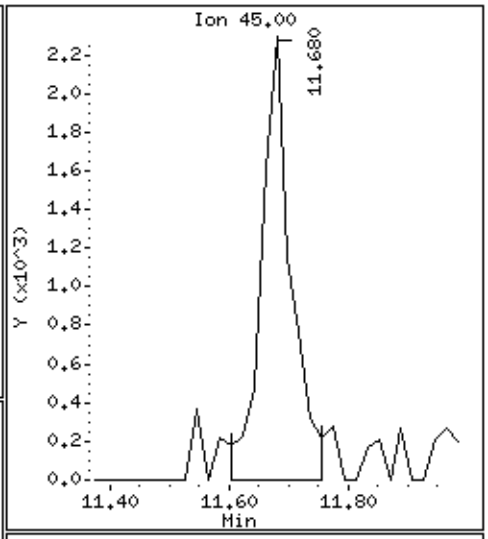
Concentration: 1.848 PPBV

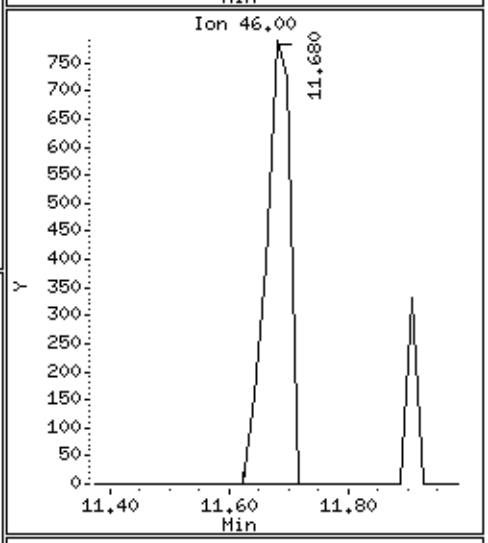


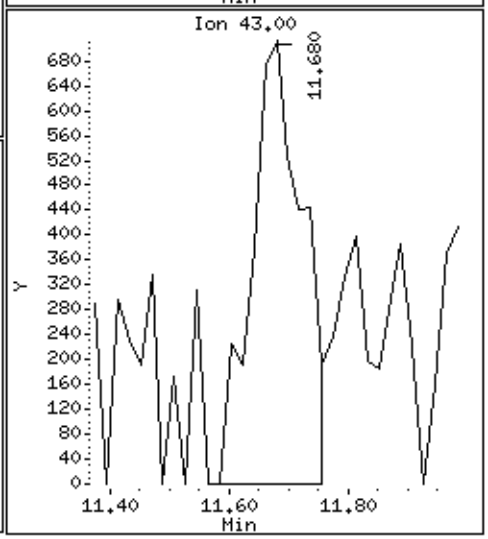












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

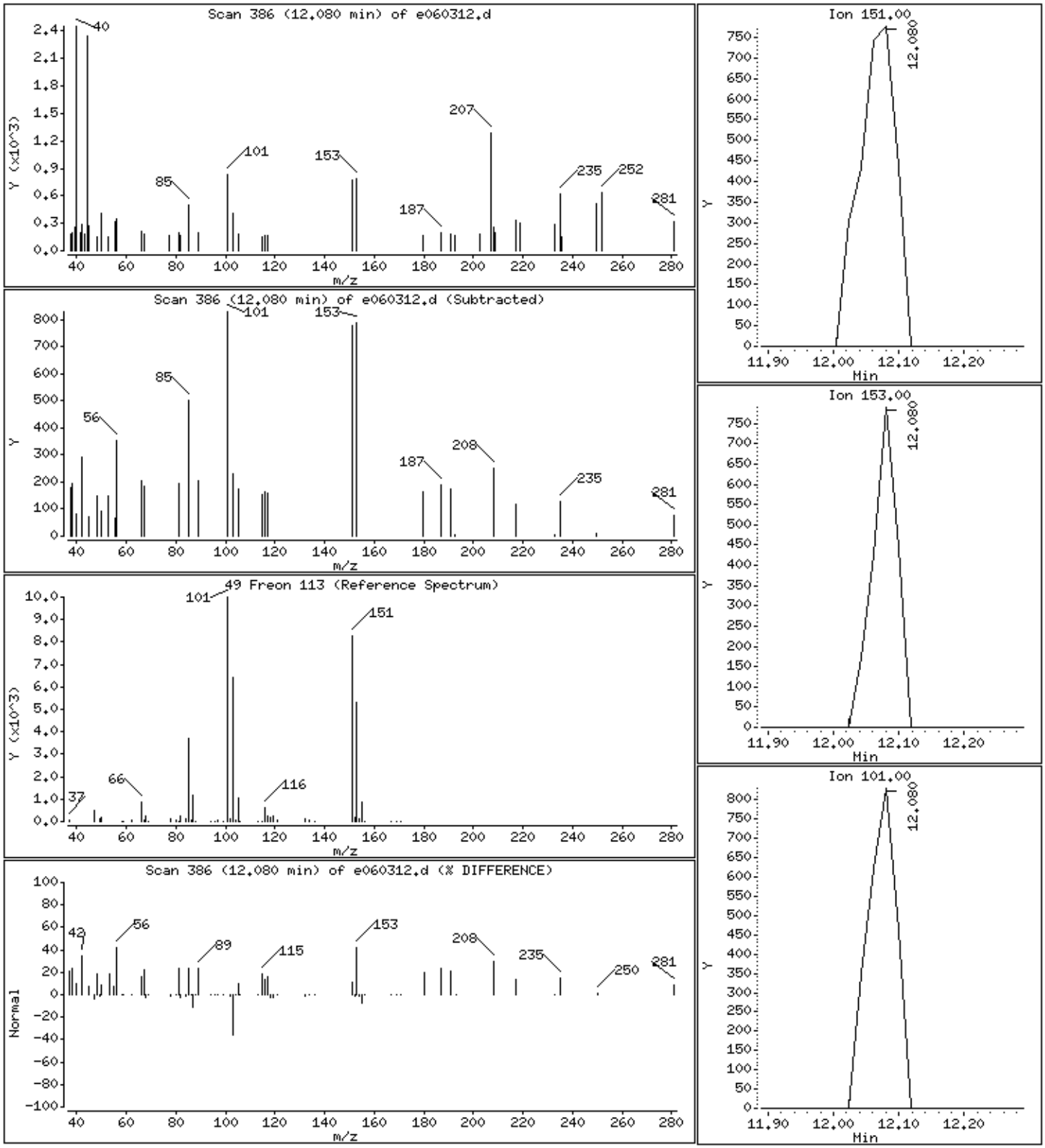
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

49 Freon 113

Concentration: 0.06642 PPBV



Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

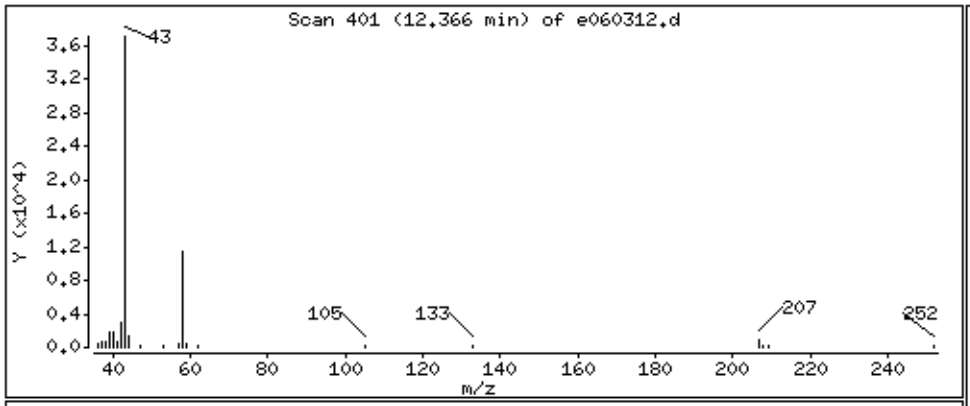
Operator: ef

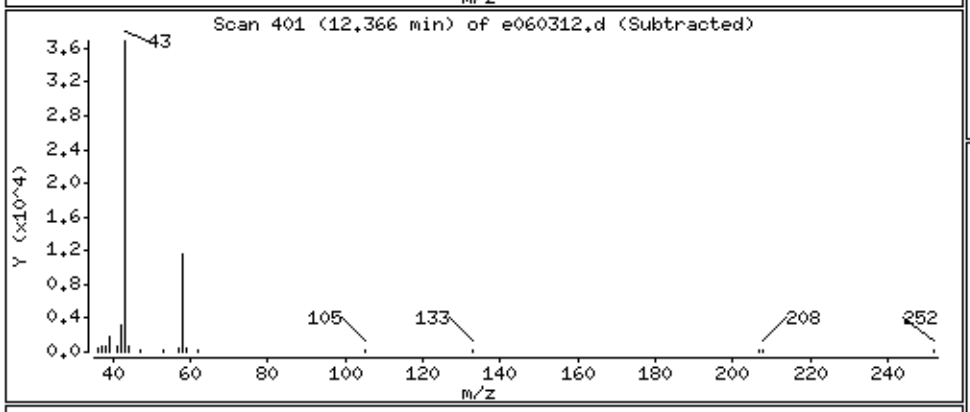
Column phase: RTX-624

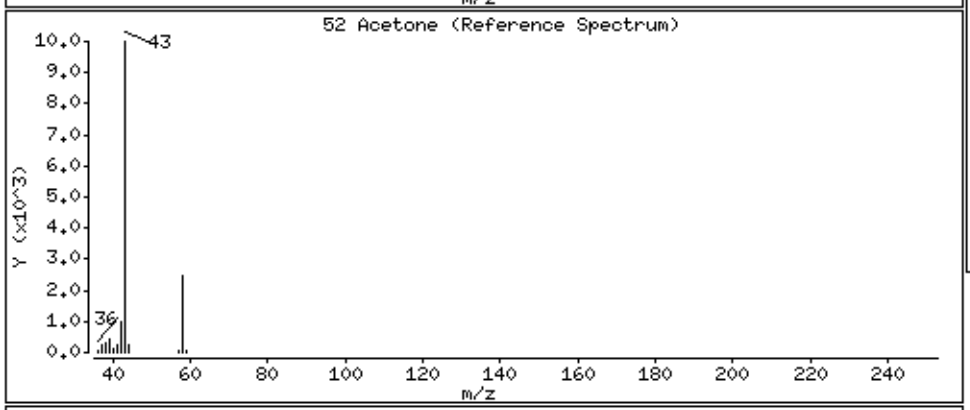
Column diameter: 0.32

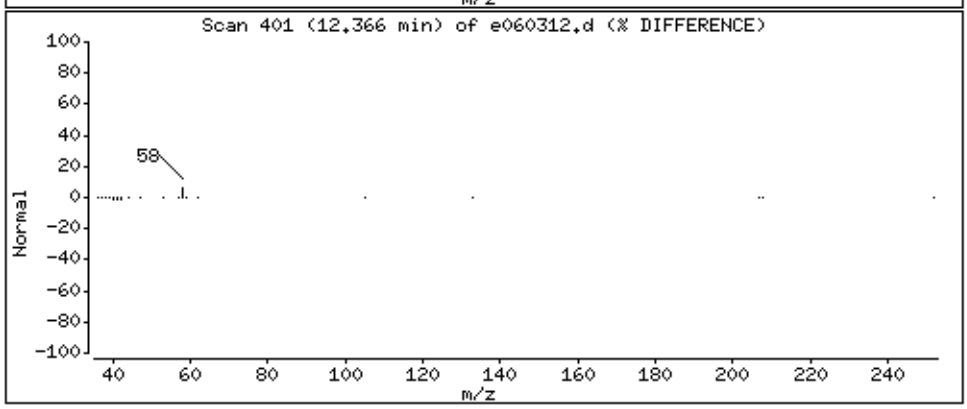
52 Acetone

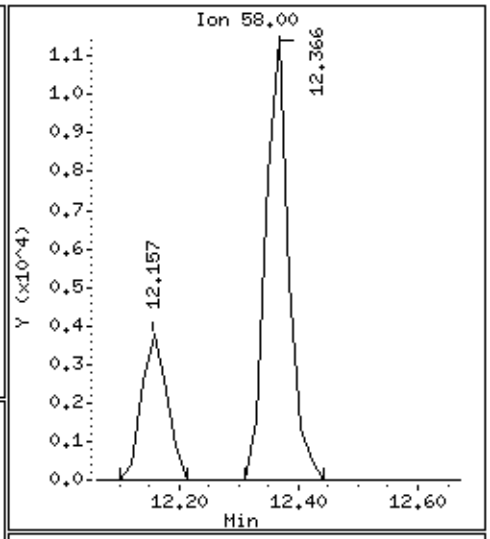
Concentration: 4.220 PPBV

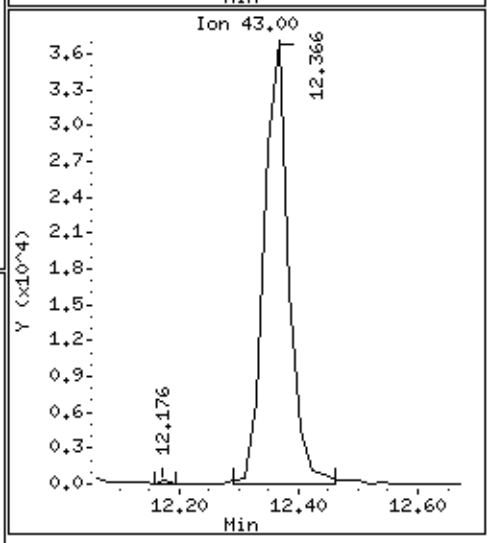












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

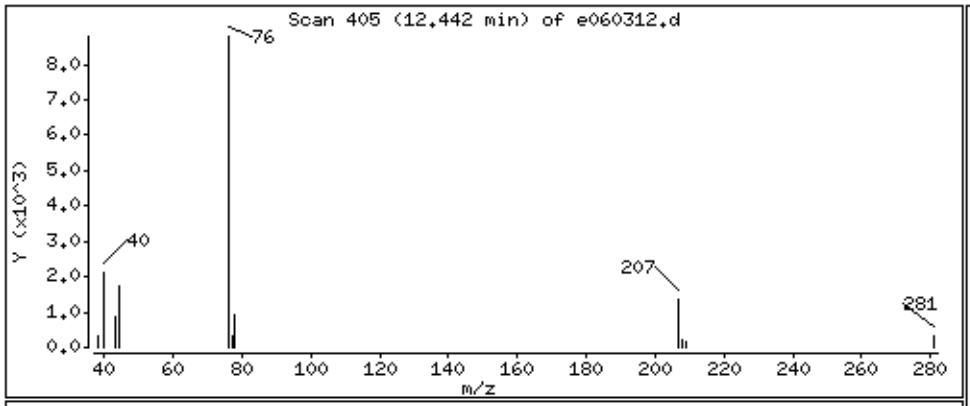
Operator: ef

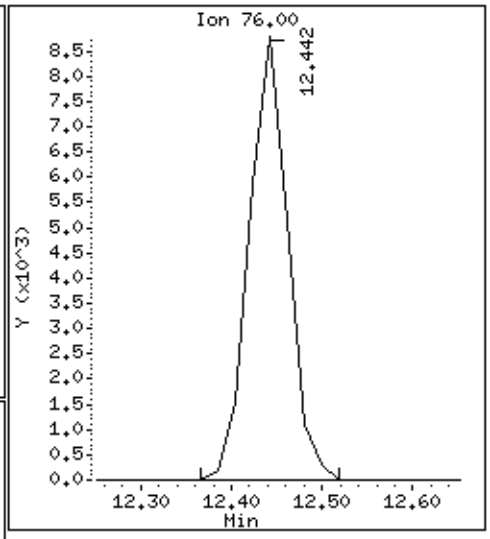
Column phase: RTX-624

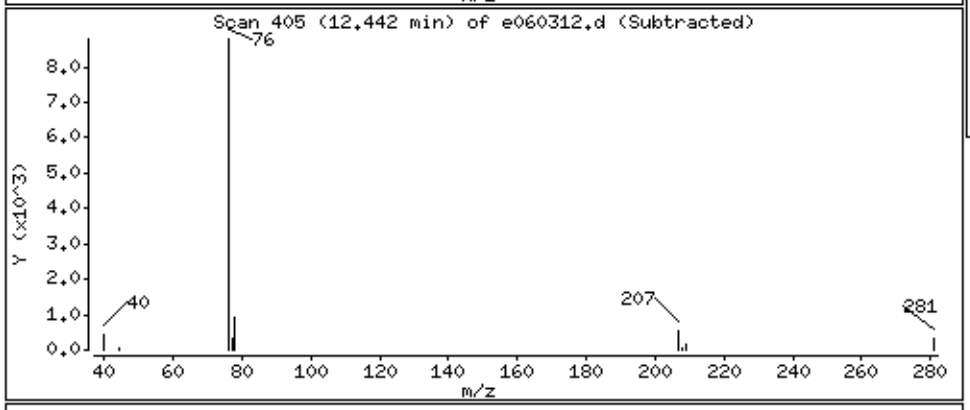
Column diameter: 0.32

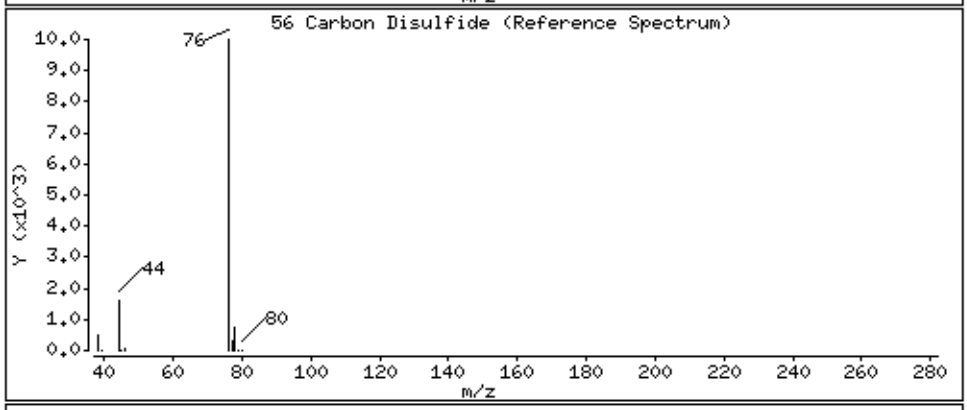
56 Carbon Disulfide

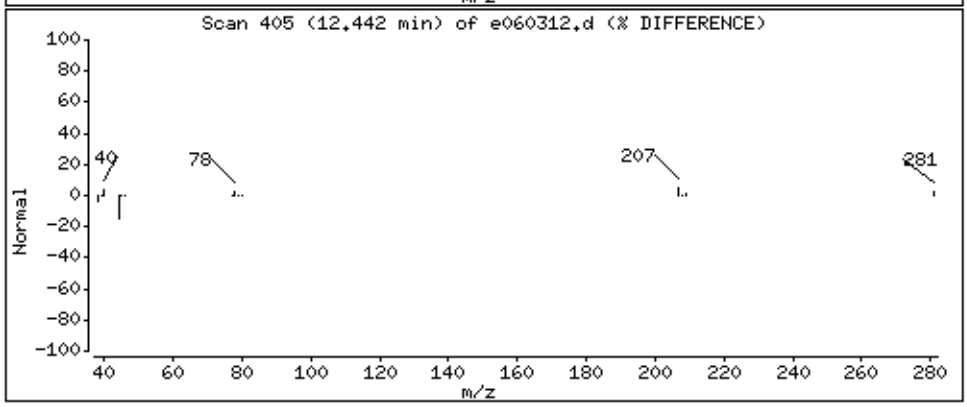
Concentration: 0.4544 PPBV











Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

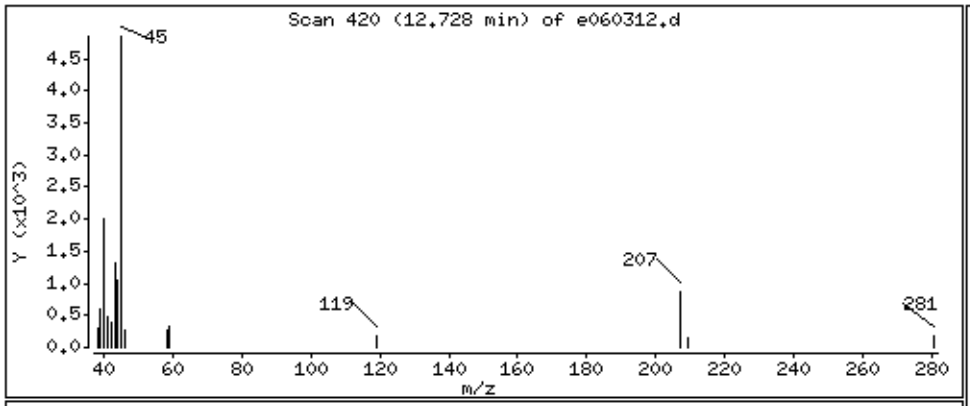
Operator: ef

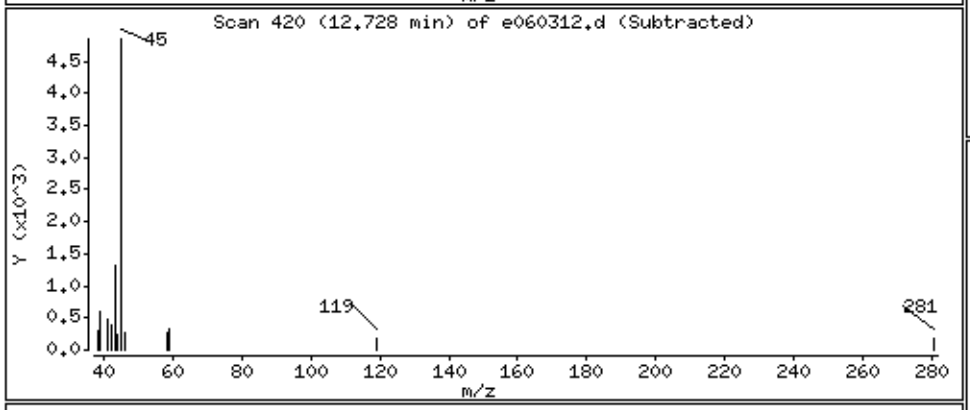
Column phase: RTX-624

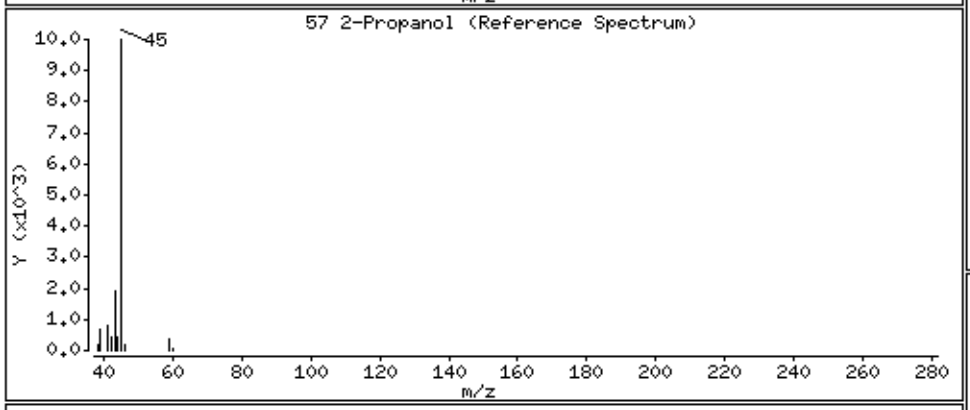
Column diameter: 0.32

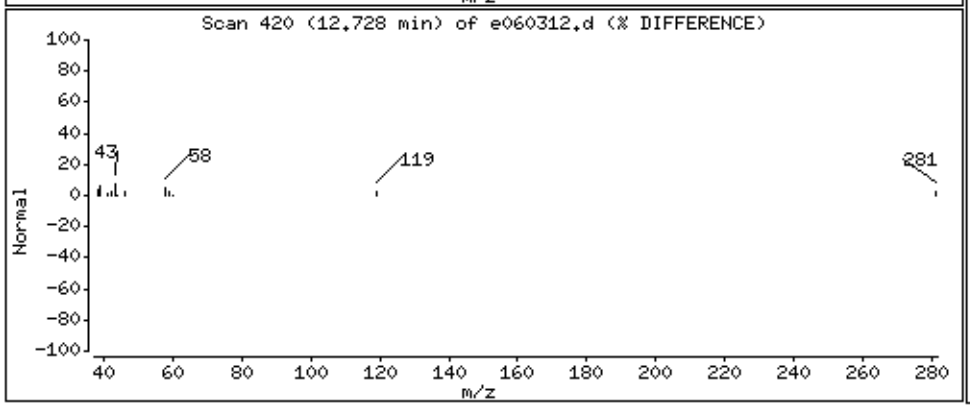
57 2-Propanol

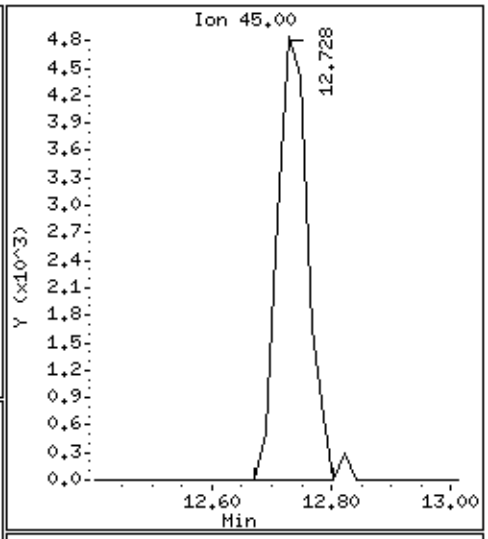
Concentration: 0.7424 PPBV

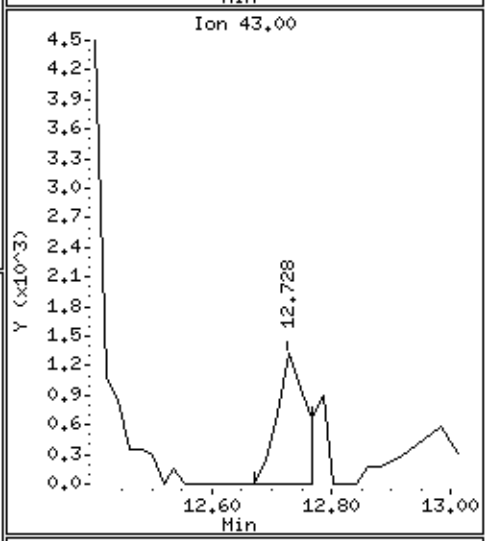


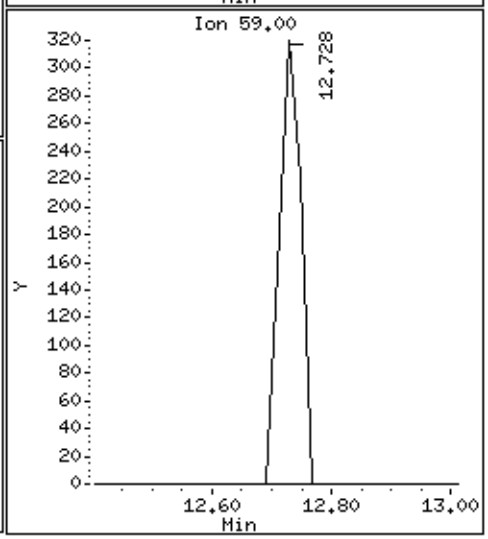












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

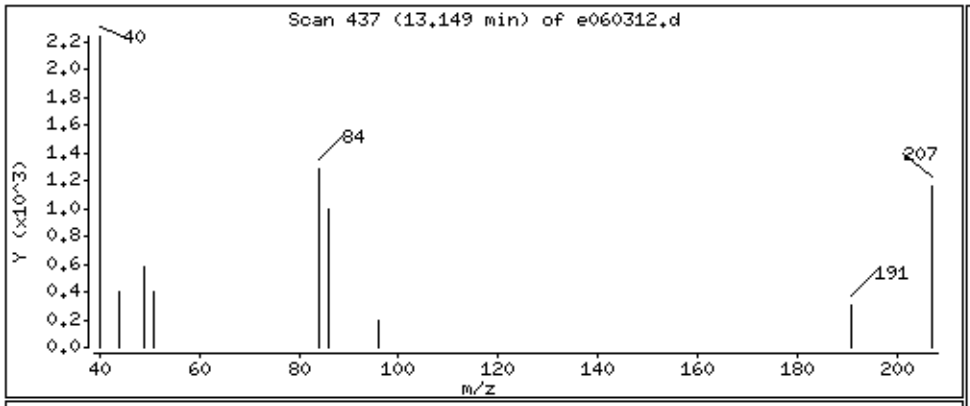
Operator: ef

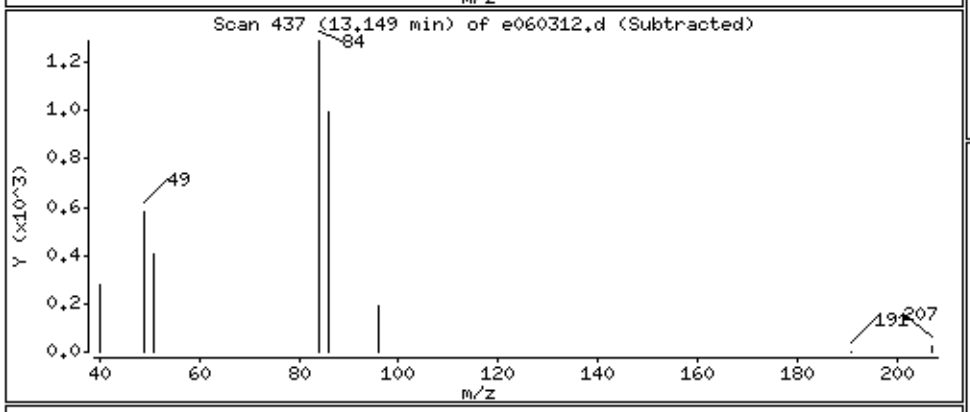
Column phase: RTX-624

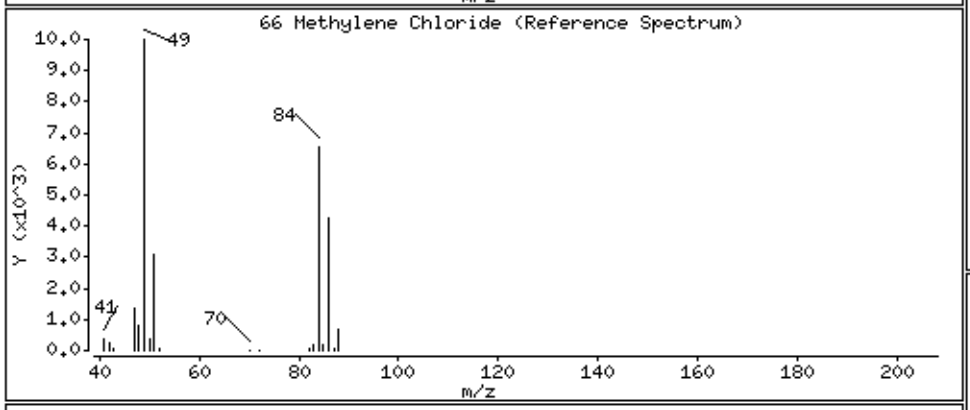
Column diameter: 0.32

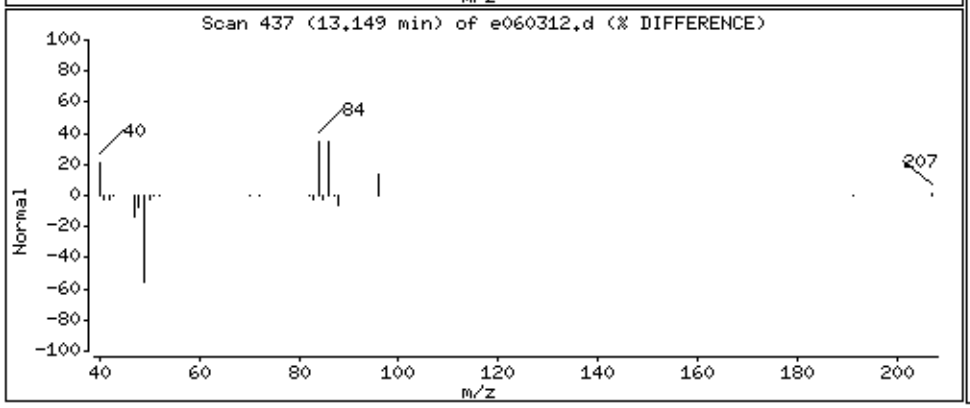
66 Methylene Chloride

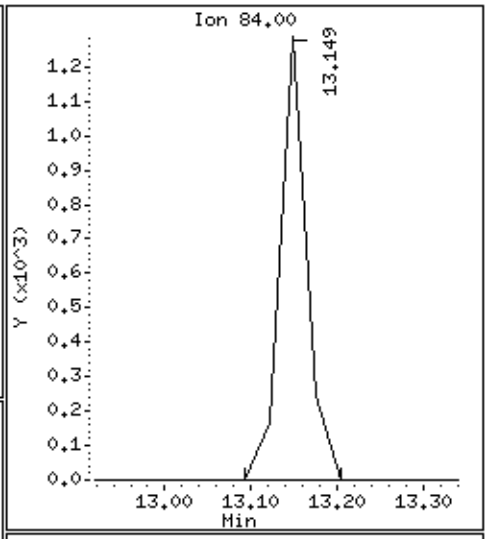
Concentration: 0.1545 PPBV

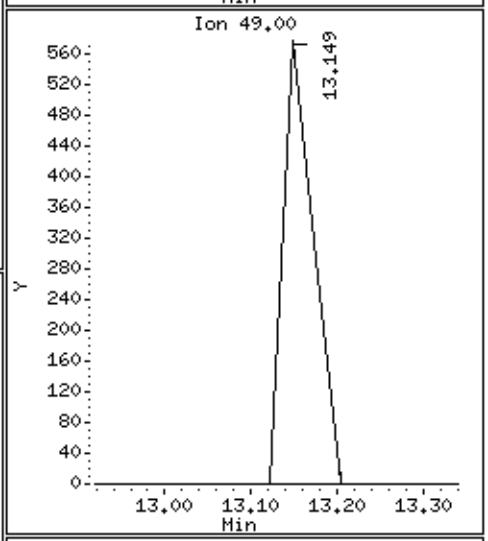


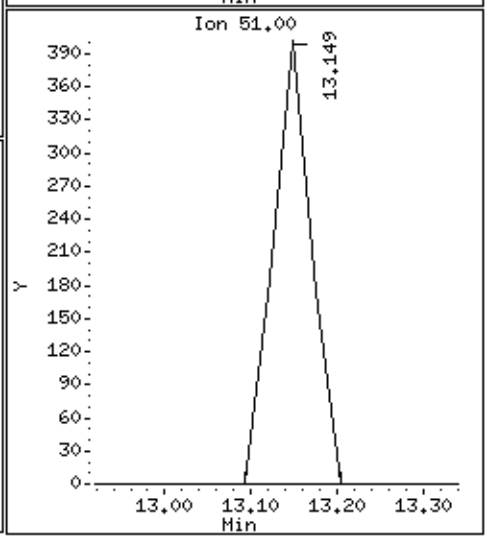












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

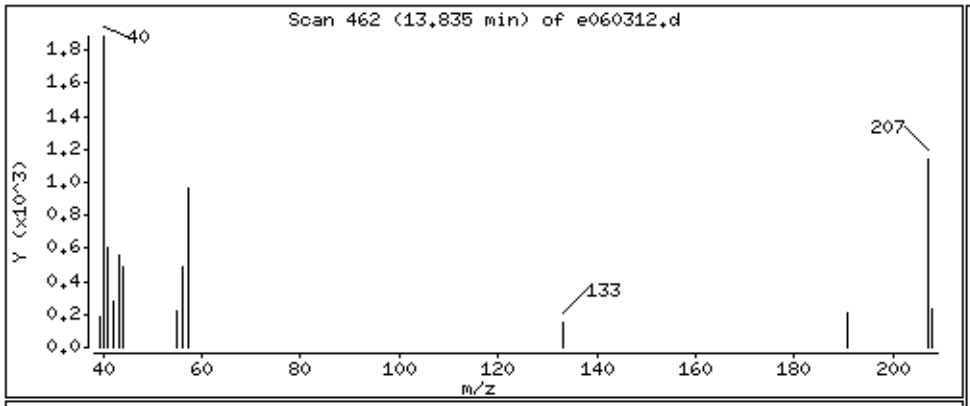
Operator: ef

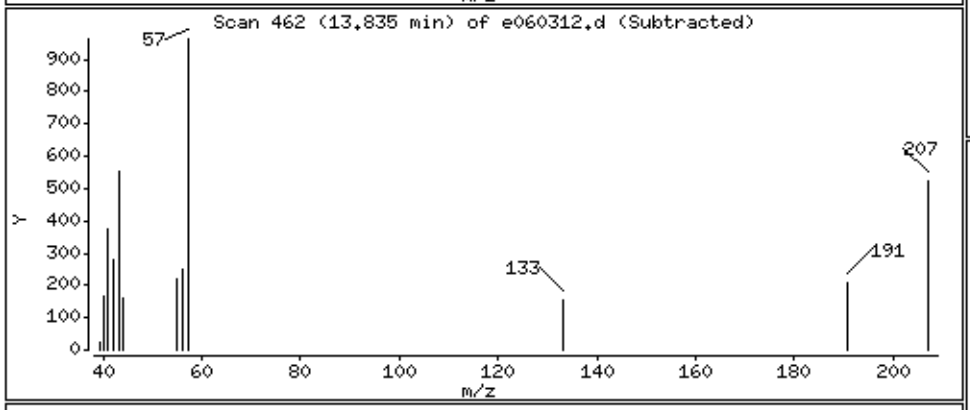
Column phase: RTX-624

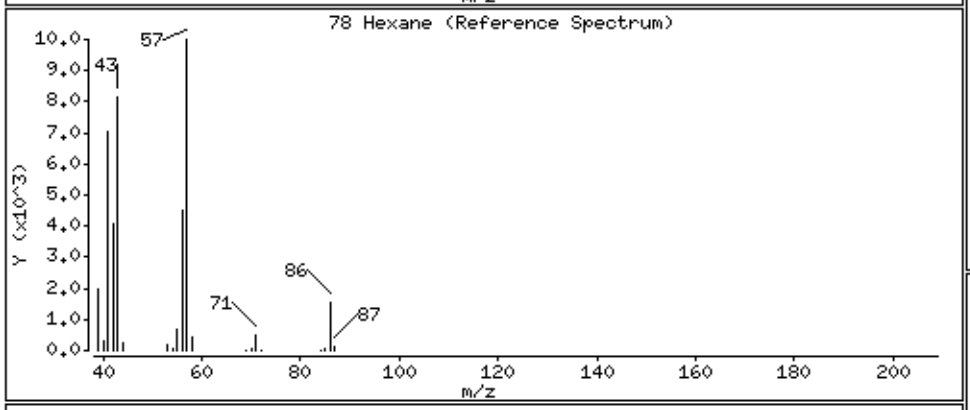
Column diameter: 0.32

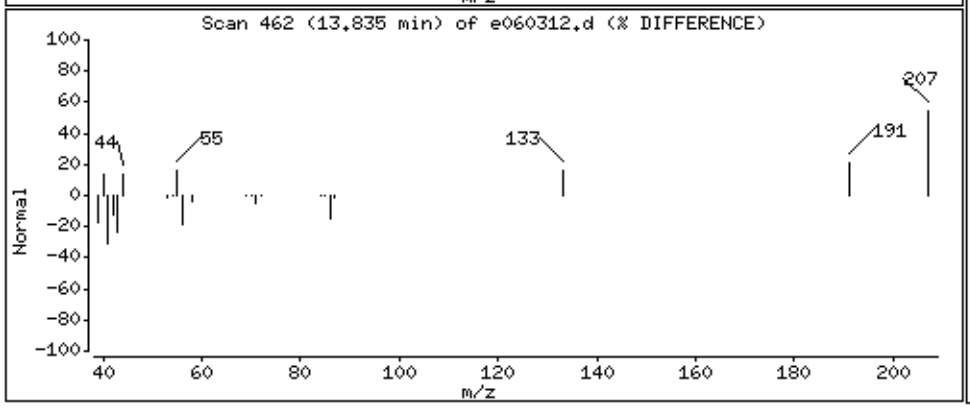
78 Hexane

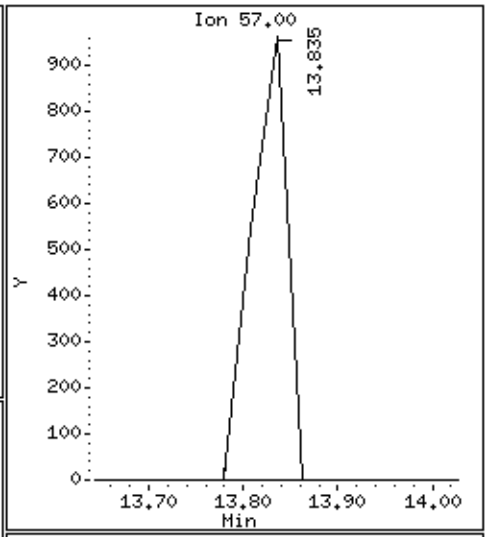
Concentration: 0.1101 PPBV

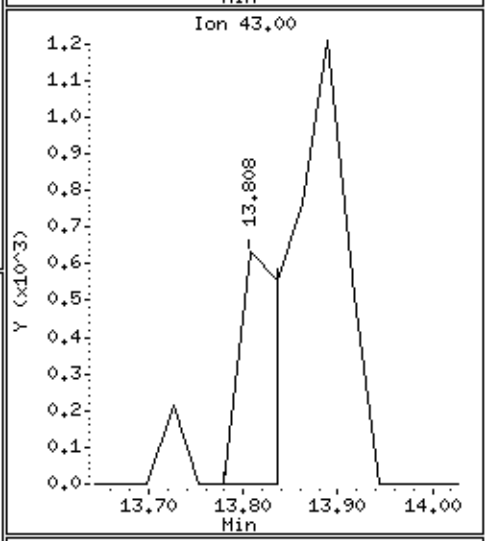


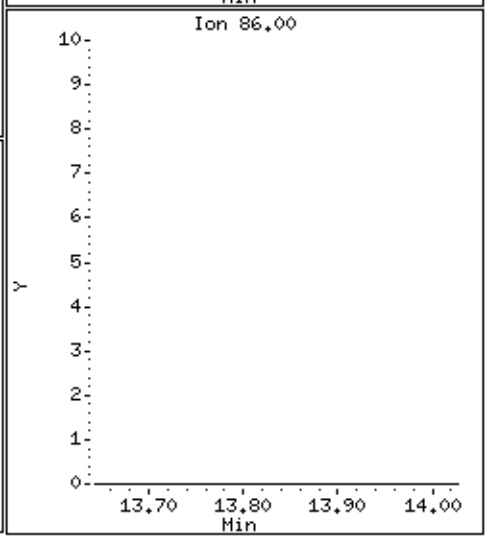












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

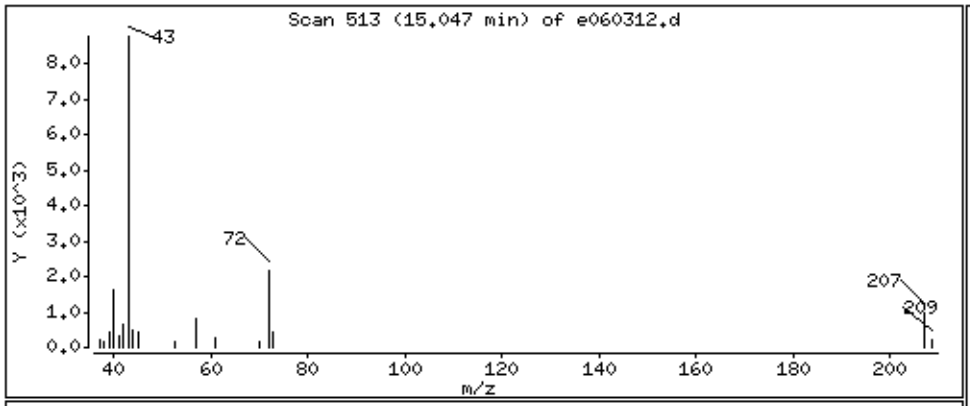
Operator: ef

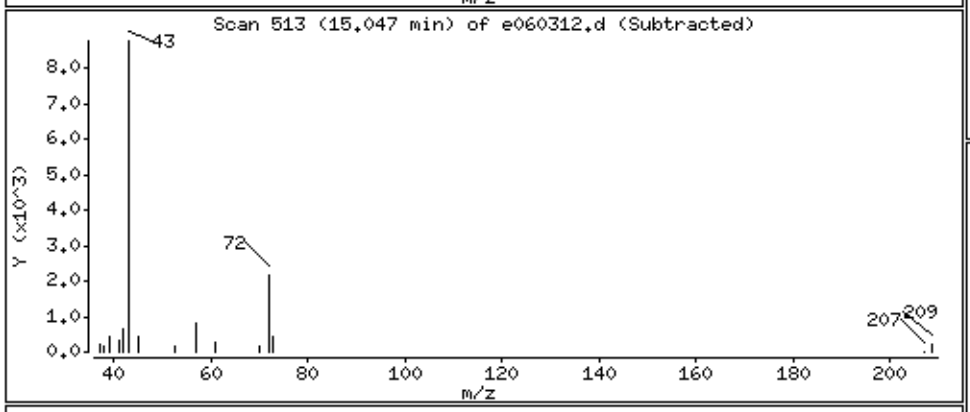
Column phase: RTX-624

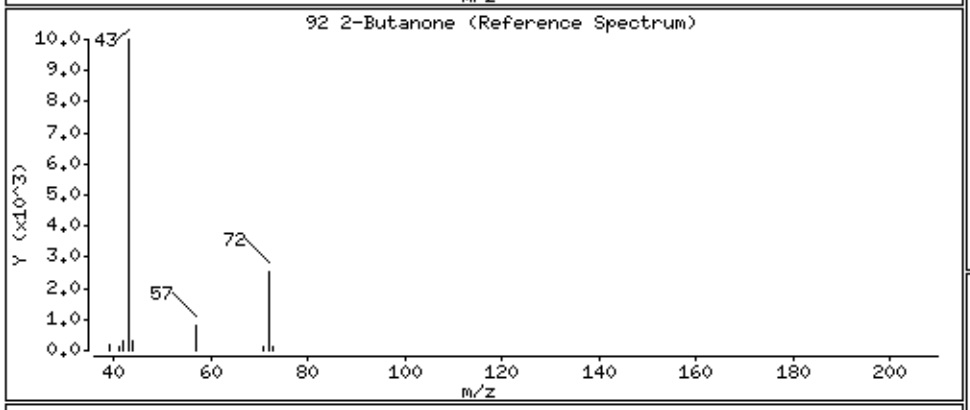
Column diameter: 0.32

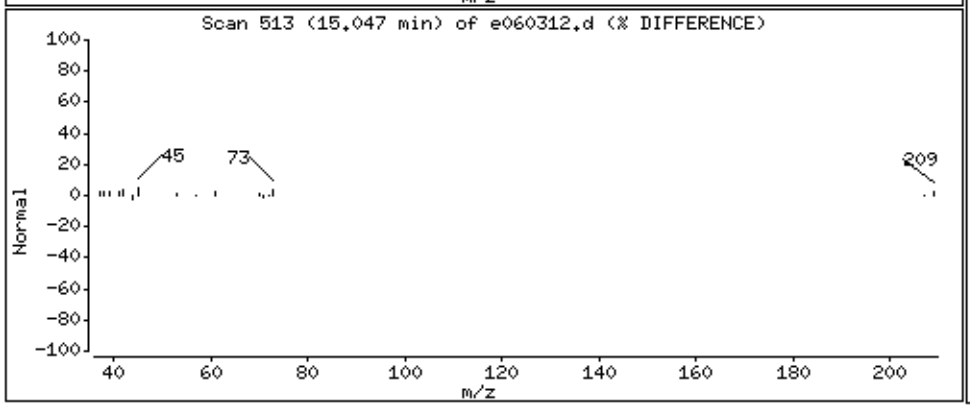
92 2-Butanone

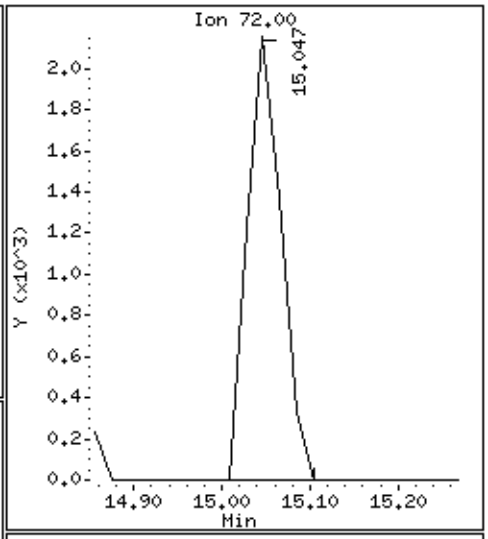
Concentration: 0.6376 PPBV

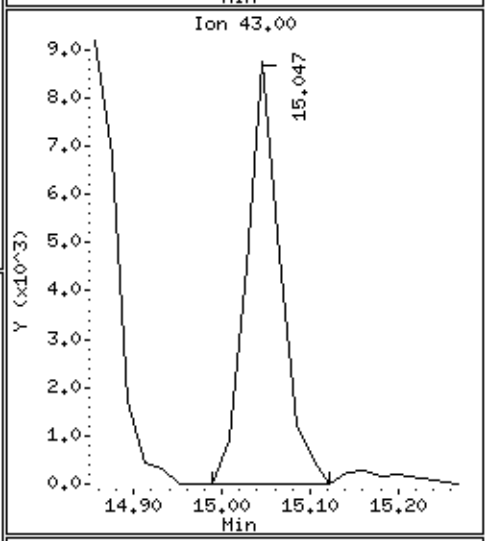


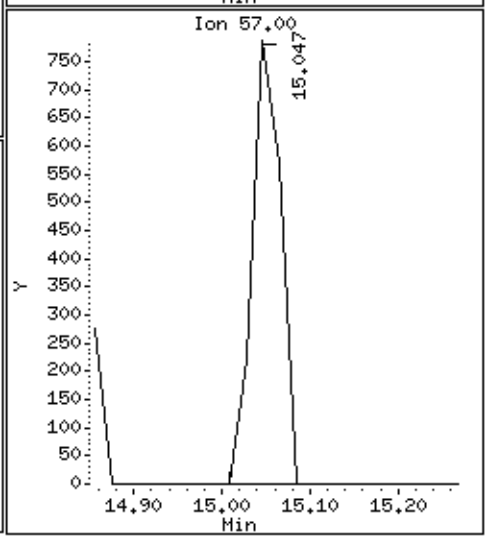












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

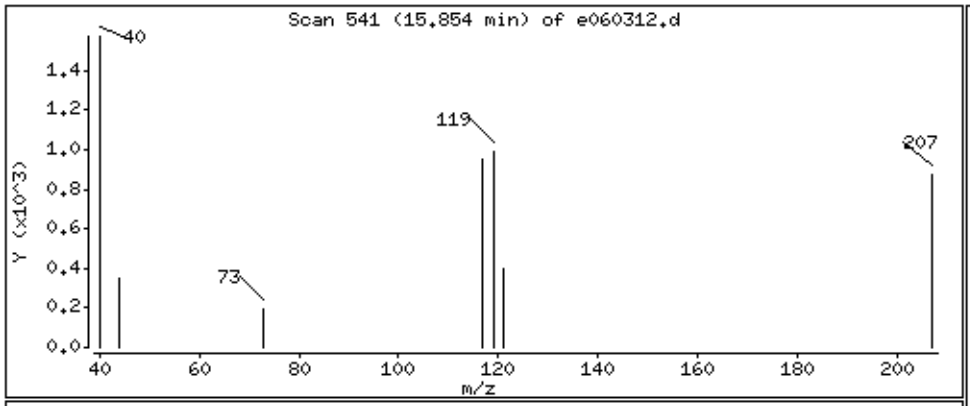
Operator: ef

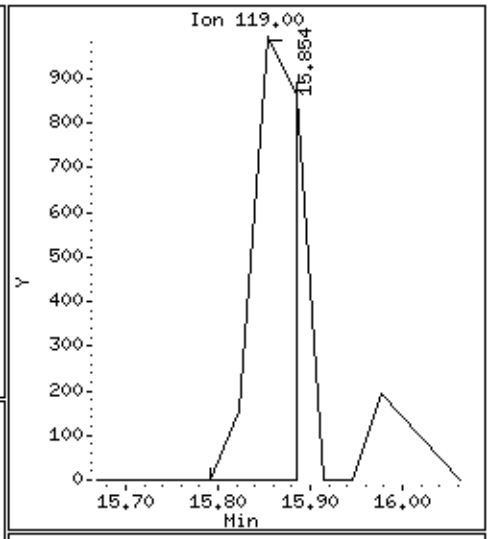
Column phase: RTX-624

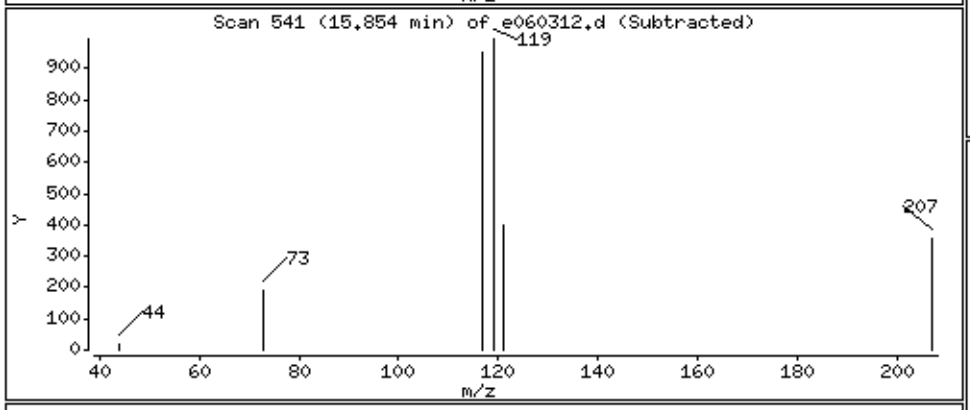
Column diameter: 0.32

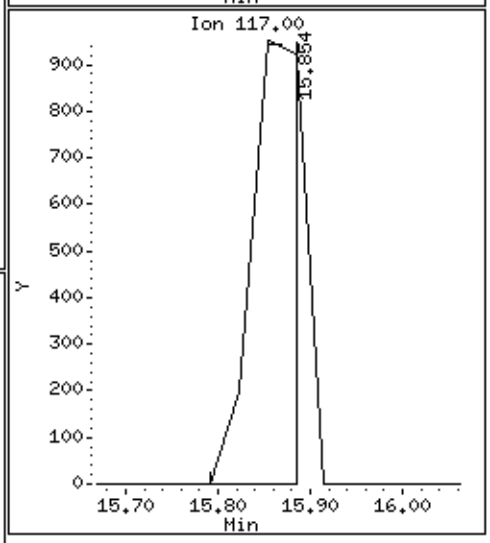
106 Carbon Tetrachloride

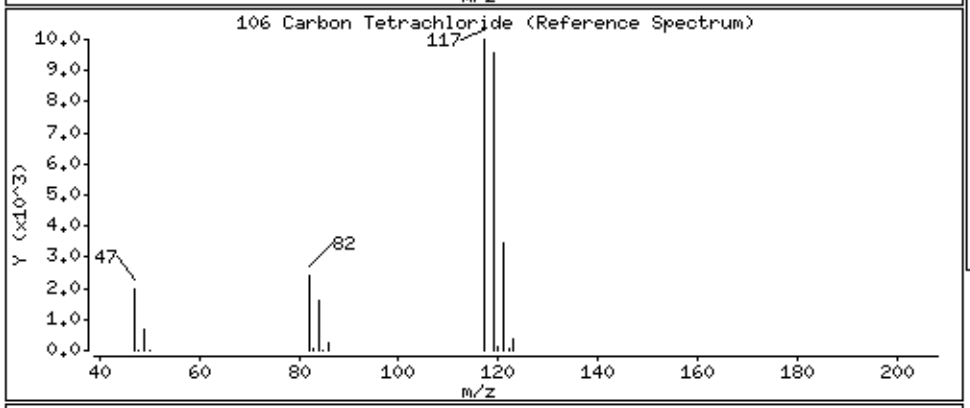
Concentration: 0.06620 PPBV

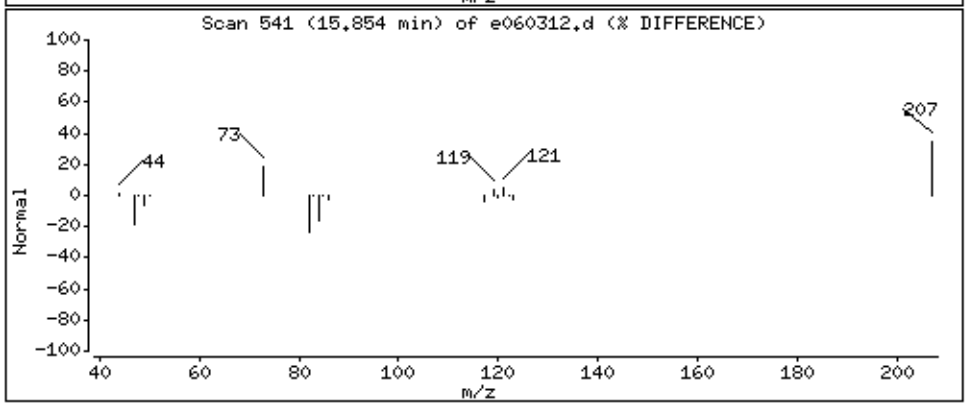












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

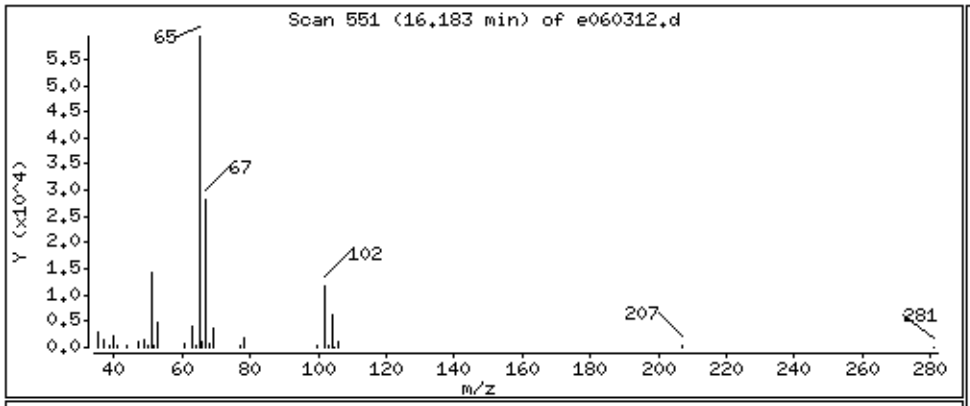
Operator: ef

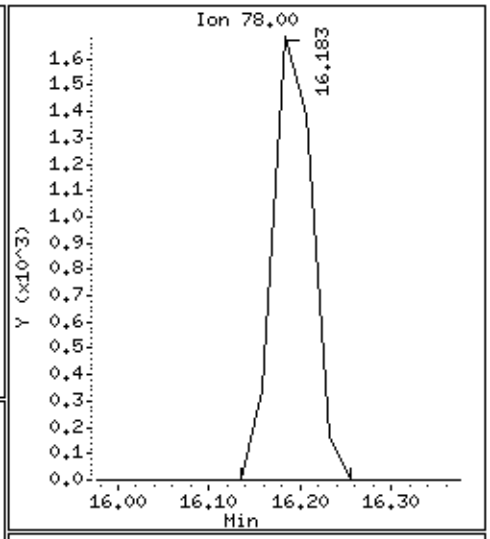
Column phase: RTX-624

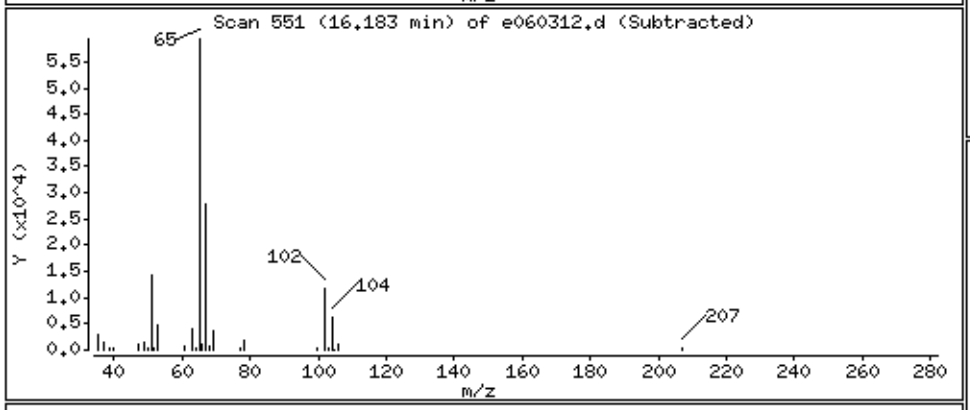
Column diameter: 0.32

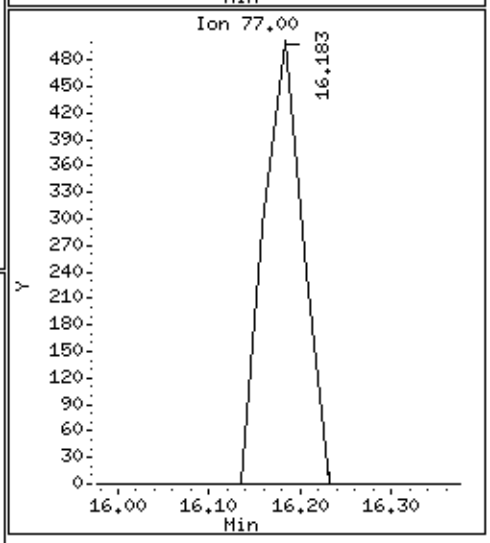
116 Benzene

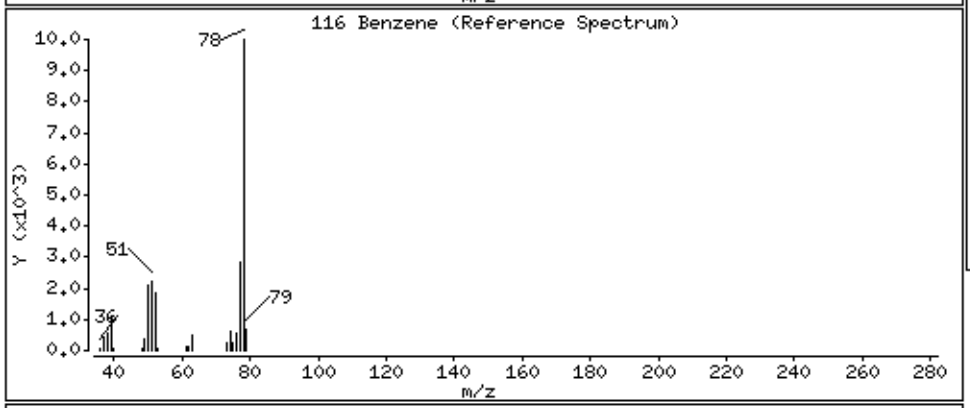
Concentration: 0.08218 PPBV

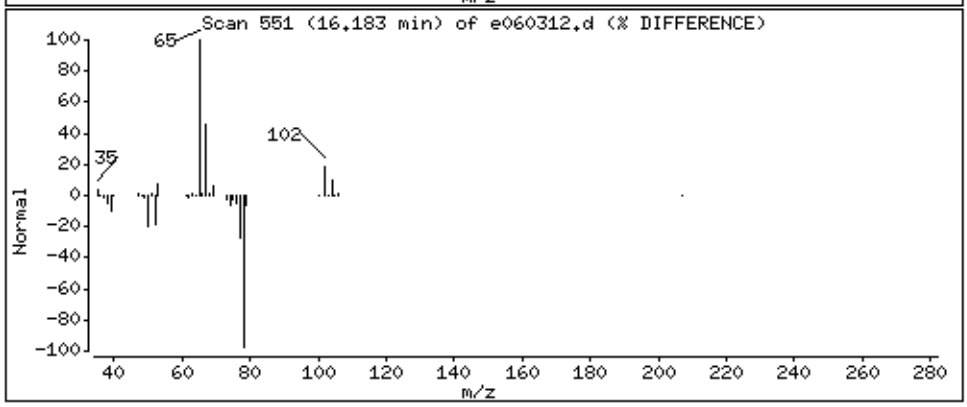












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

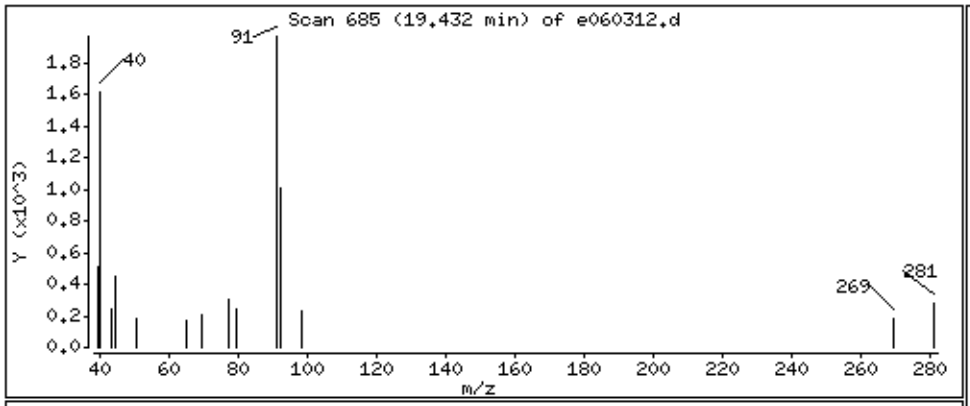
Operator: ef

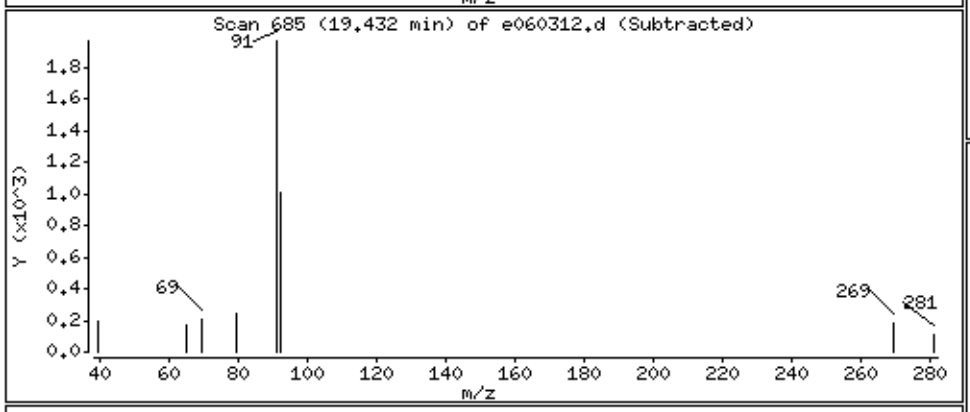
Column phase: RTX-624

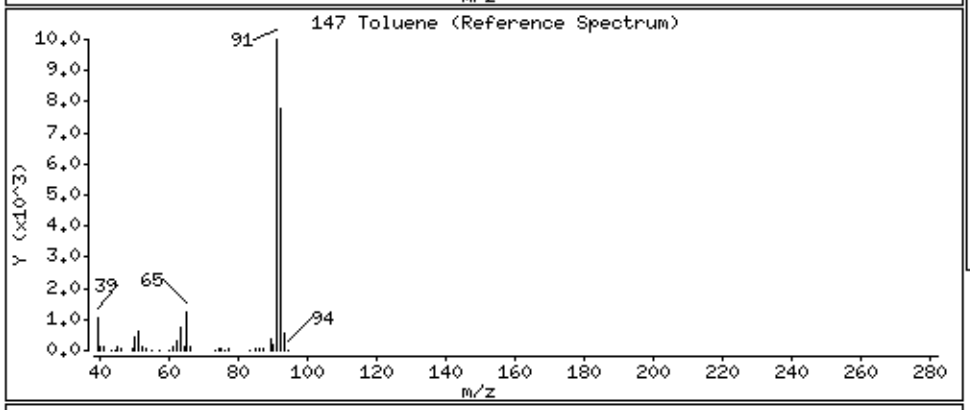
Column diameter: 0.32

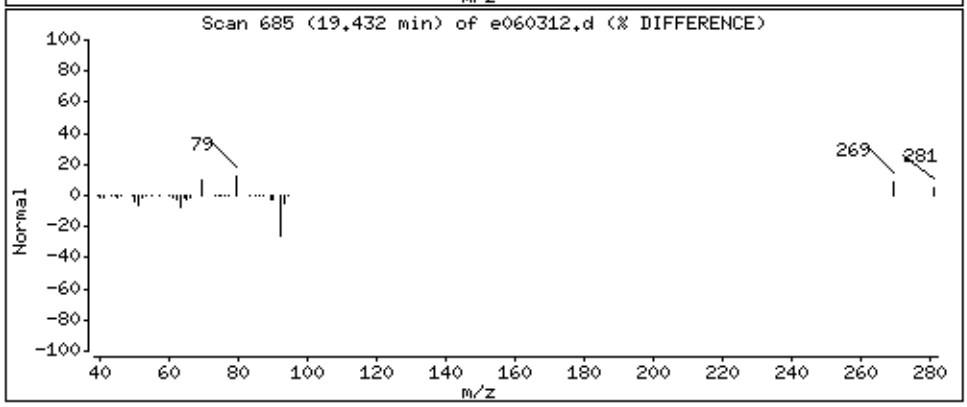
147 Toluene

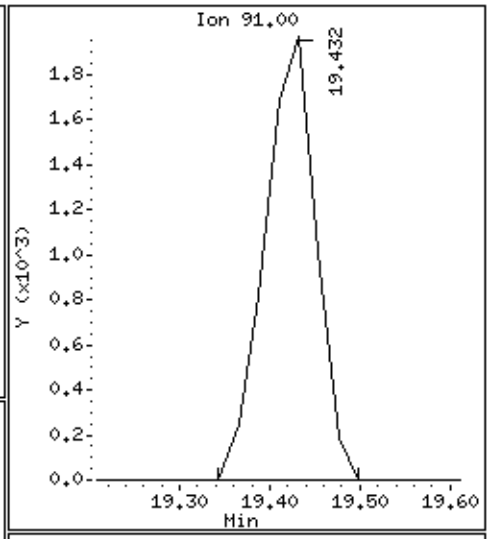
Concentration: 0.1060 PPBV

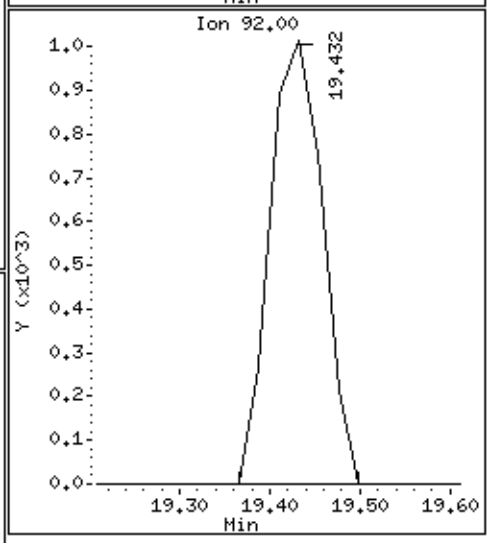












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

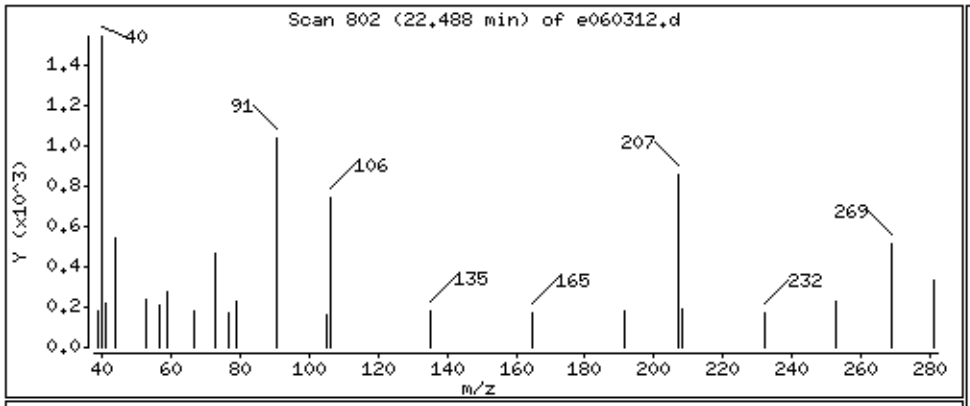
Operator: ef

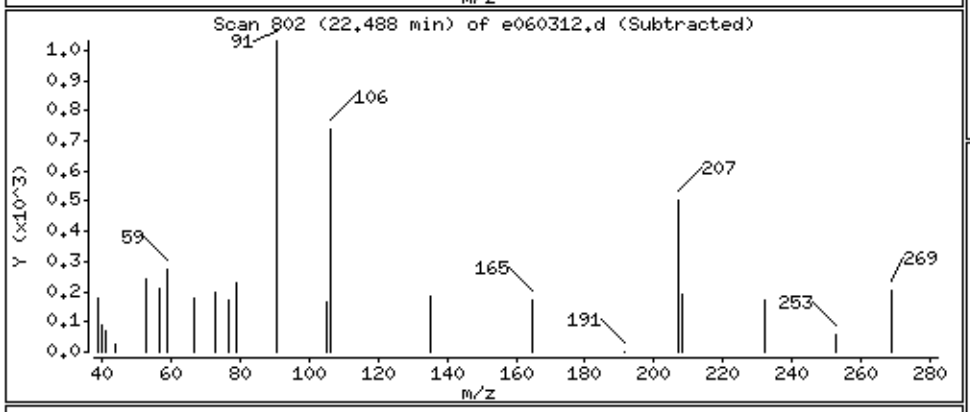
Column phase: RTX-624

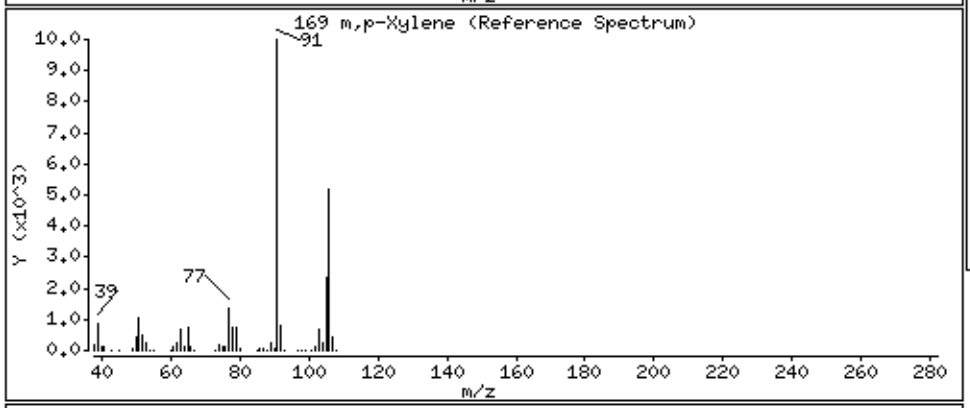
Column diameter: 0.32

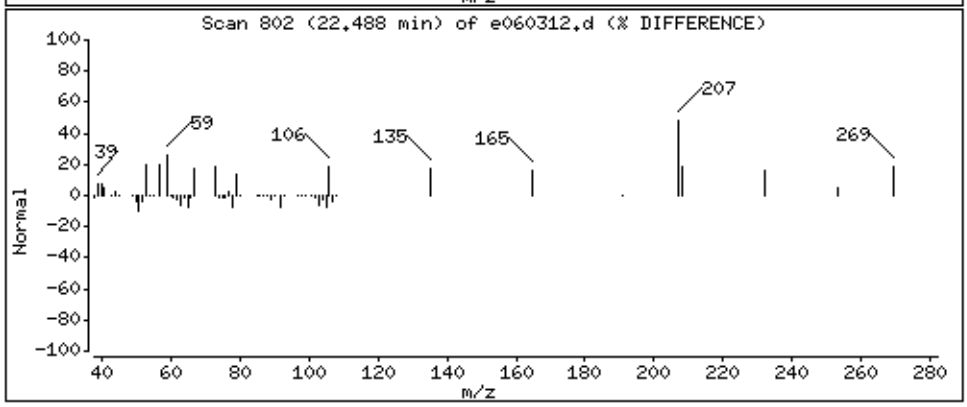
169 m,p-Xylene

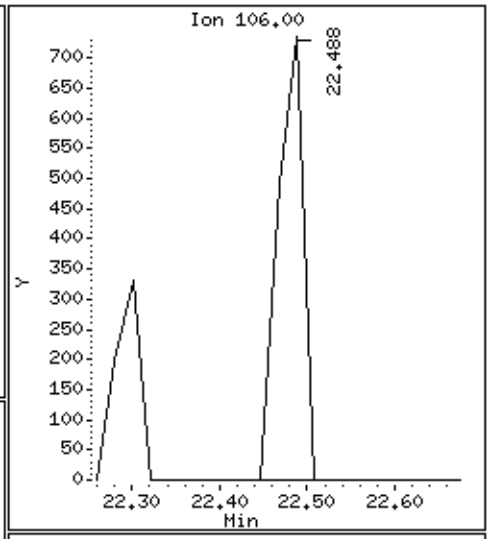
Concentration: 0.04140 PPBV

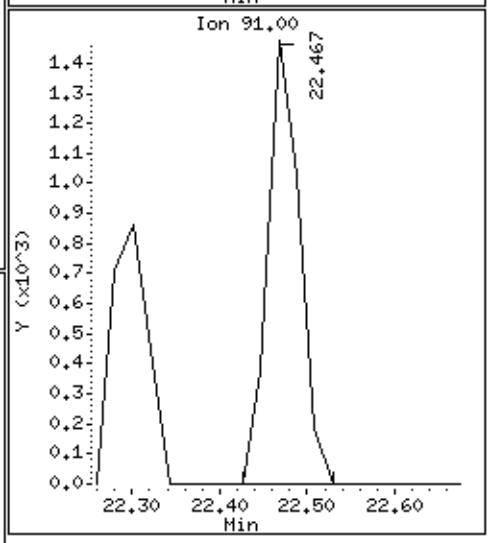












Data File: /chem/msde.i/03Jun2016.b/e060312.d

Date : 03-JUN-2016 16:06

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33321

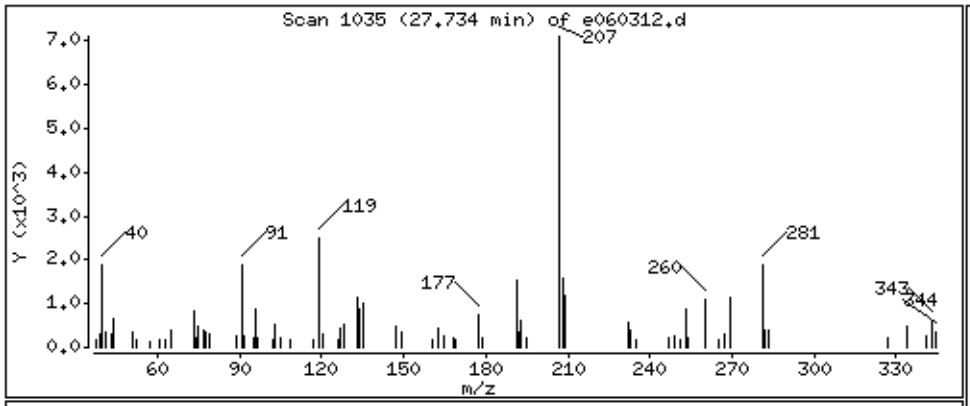
Operator: ef

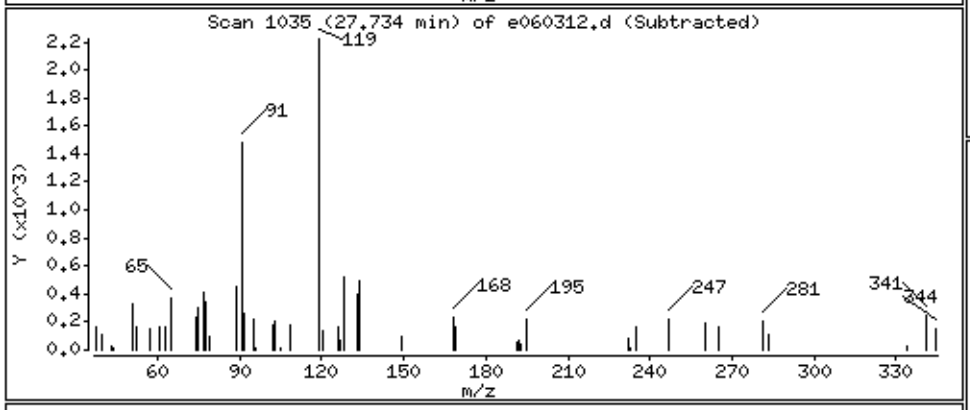
Column phase: RTX-624

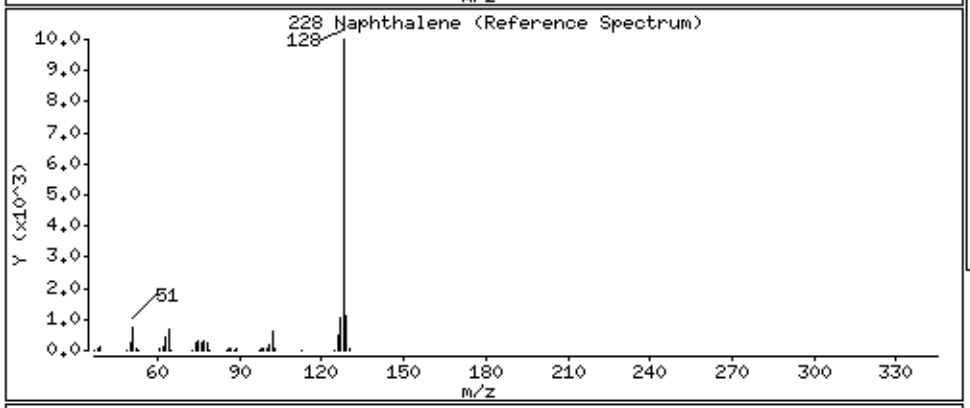
Column diameter: 0.32

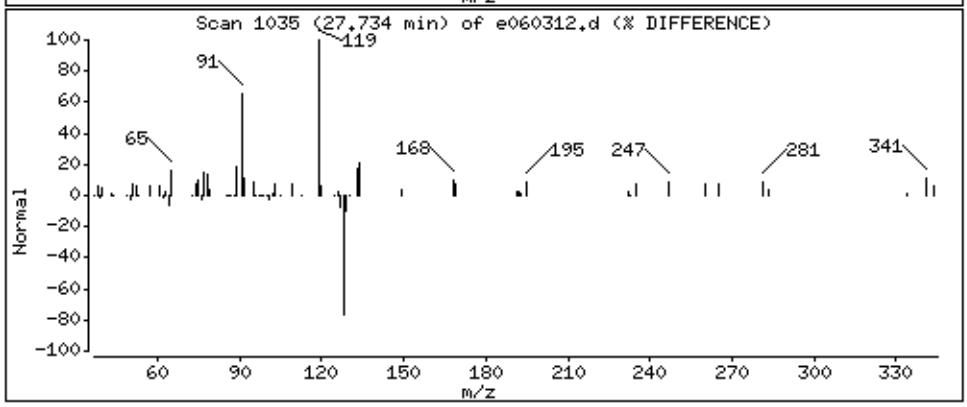
228 Naphthalene

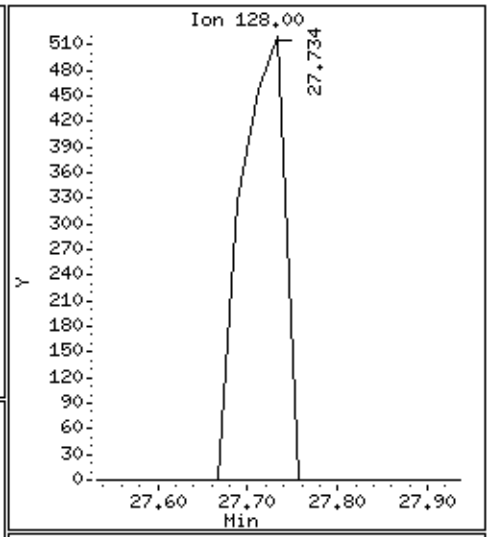
Concentration: 0.04731 PPBV

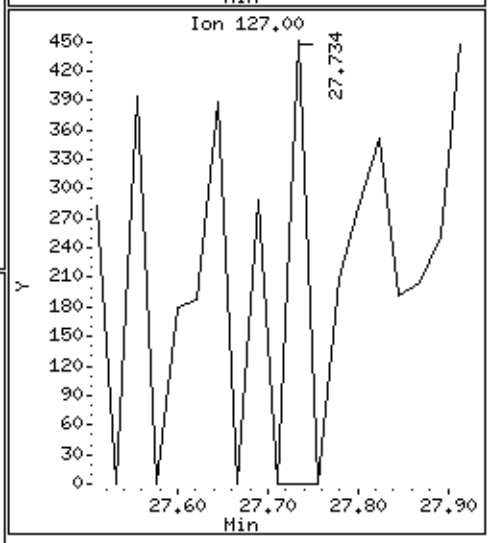












eurofins | Air Toxics

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-1 (052816)

Lab ID#: 1606028A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.41	0.77	2.0
Chloromethane	0.78	0.70 J	1.6	1.4 J
Freon 11	0.16	0.28	0.88	1.6
Ethanol	0.78	8.8	1.5	17
Freon 113	0.16	0.057 J	1.2	0.44 J
Acetone	0.78	6.1	1.8	14
2-Propanol	0.78	3.5	1.9	8.5
Carbon Disulfide	0.78	0.41 J	2.4	1.3 J
Methylene Chloride	0.31	0.064 J	1.1	0.22 J
2-Butanone (Methyl Ethyl Ketone)	0.78	0.53 J	2.3	1.6 J
Benzene	0.16	0.073 J	0.50	0.23 J
4-Methyl-2-pentanone	0.16	0.067 J	0.64	0.28 J
Toluene	0.16	0.25	0.59	0.93
Ethyl Benzene	0.16	0.044 J	0.68	0.19 J
m,p-Xylene	0.16	0.12 J	0.68	0.52 J
o-Xylene	0.16	0.046 J	0.68	0.20 J
Styrene	0.16	0.058 J	0.66	0.25 J
4-Ethyltoluene	0.16	0.031 J	0.77	0.15 J
1,2,4-Trimethylbenzene	0.16	0.036 J	0.77	0.18 J
Naphthalene	0.78	0.044 J	4.1	0.23 J

eurofins | Air Toxics

Client Sample ID: B30IA-1 (052816)

Lab ID#: 1606028A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060313**	**Date of Collection:**	**5/29/16 5:39:00 PM**
Dil. Factor:	**1.56**	**Date of Analysis:**	**6/3/16 04:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.41	0.77	2.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.78	0.70 J	1.6	1.4 J
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.34	Not Detected
Bromomethane	0.78	Not Detected	3.0	Not Detected
Chloroethane	0.78	Not Detected	2.0	Not Detected
Freon 11	0.16	0.28	0.88	1.6
Ethanol	0.78	8.8	1.5	17
Freon 113	0.16	0.057 J	1.2	0.44 J
1,1-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Acetone	0.78	6.1	1.8	14
2-Propanol	0.78	3.5	1.9	8.5
Carbon Disulfide	0.78	0.41 J	2.4	1.3 J
3-Chloropropene	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	0.064 J	1.1	0.22 J
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Hexane	0.16	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.63	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	0.53 J	2.3	1.6 J
cis-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.76	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.85	Not Detected
Cyclohexane	0.16	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.98	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.6	Not Detected
Benzene	0.16	0.073 J	0.50	0.23 J
1,2-Dichloroethane	0.16	Not Detected	0.63	Not Detected
Heptane	0.16	Not Detected	0.64	Not Detected
Trichloroethene	0.16	Not Detected	0.84	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
1,4-Dioxane	0.16	Not Detected	0.56	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.71	Not Detected
4-Methyl-2-pentanone	0.16	0.067 J	0.64	0.28 J
Toluene	0.16	0.25	0.59	0.93
trans-1,3-Dichloropropene	0.16	Not Detected	0.71	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.85	Not Detected
Tetrachloroethene	0.16	Not Detected	1.0	Not Detected
2-Hexanone	0.78	Not Detected	3.2	Not Detected

eurofins | Air Toxics

Client Sample ID: B30IA-1 (052816)

Lab ID#: 1606028A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060313**	**Date of Collection:**	**5/29/16 5:39:00 PM**
Dil. Factor:	**1.56**	**Date of Analysis:**	**6/3/16 04:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.72	Not Detected
Ethyl Benzene	0.16	0.044 J	0.68	0.19 J
m,p-Xylene	0.16	0.12 J	0.68	0.52 J
o-Xylene	0.16	0.046 J	0.68	0.20 J
Styrene	0.16	0.058 J	0.66	0.25 J
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.77	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.77	Not Detected
4-Ethyltoluene	0.16	0.031 J	0.77	0.15 J
1,3,5-Trimethylbenzene	0.16	Not Detected	0.77	Not Detected
1,2,4-Trimethylbenzene	0.16	0.036 J	0.77	0.18 J
1,3-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.81	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Hexachlorobutadiene	0.78	Not Detected	8.3	Not Detected
Naphthalene	0.78	0.044 J	4.1	0.23 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/03Jun2016.b/e060313.d
Lab Smp Id: 1606028A-02A
Inj Date : 03-JUN-2016 16:52
Operator : ea Inst ID: msde.i
Smp Info : 250mL# 35258
Misc Info : 4.3"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/03Jun2016.b/e16l0317f.m
Meth Date : 03-Jun-2016 10:38 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1
Dil Factor: 1.56000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12						CAS #: 75-71-8		
5.221	5.196	(0.339)	85	27611	0.26501	0.4134	80.00- 120.00	100.00
5.196	5.220	(0.338)	87	8969			2.00- 62.00	32.48
17 Chloromethane						CAS #: 74-87-3		
6.908	6.956	(0.449)	50	8907	0.45057	0.7029	80.00- 120.00	100.00(a)
6.956	6.932	(0.452)	52	2558			5.50- 65.50	28.72
35 Freon 11						CAS #: 75-69-4		
10.747	10.747	(0.698)	101	19893	0.17732	0.2766	80.00- 120.00	100.00
10.767	10.747	(0.700)	103	13088			37.17- 97.17	65.79
42 Ethanol						CAS #: 64-17-5		
11.681	11.681	(0.759)	45	46082	5.66873	8.843	80.00- 120.00	100.00
11.681	11.681	(0.759)	46	17171			6.61- 66.61	37.26
11.662	11.681	(0.758)	43	12161			0.00- 54.66	26.39
49 Freon 113						CAS #: 76-13-1		
12.081	12.081	(0.785)	151	3086	0.03671	0.05726	80.00- 120.00	100.00(a)
12.081	12.081	(0.785)	153	1807			33.64- 93.64	58.54

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   49 Freon 113 (continued)
 12.081  12.081 (0.785)   101      3429                    80.40- 140.40   111.11
-------------------------------------------------------------------------------
   52 Acetone                                     CAS #: 67-64-1
 12.366  12.366 (0.803)    58     53255 3.88469    6.060  80.00- 120.00   100.00
 12.366  12.366 (0.803)    43    186194                   321.47- 381.47   349.63
-------------------------------------------------------------------------------
   56 Carbon Disulfide                            CAS #: 75-15-0
 12.443  12.443 (0.808)    76     27343 0.26169   0.4082  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                  CAS #: 67-63-0
 12.728  12.709 (0.827)    45     93500 2.22954    3.478  80.00- 120.00   100.00
 12.728  12.709 (0.827)    43     24632                     0.00-  54.09    26.34
 12.728  12.709 (0.827)    59      4456                     0.00-  34.43     4.77
-------------------------------------------------------------------------------
   66 Methylene Chloride                          CAS #: 75-09-2
 13.149  13.149 (0.854)    84      1355 0.04125  0.06435  80.00- 120.00   100.00(a)
 13.149  13.149 (0.854)    49      1770                    63.99- 123.99   130.62
  0.000  13.149 (0.000)    51         0                     0.29-  60.29     0.00
-------------------------------------------------------------------------------
   92 2-Butanone                                  CAS #: 78-93-3
 15.047  15.047 (0.978)    72      5646 0.34191   0.5334  80.00- 120.00   100.00(a)
 15.047  15.047 (0.978)    43     24158                   262.26- 322.26   427.86
 15.047  15.047 (0.978)    57      1698                     0.00-  55.71    30.08
-------------------------------------------------------------------------------
*  98 Bromochloromethane                          CAS #: 74-97-5
 15.391  15.391 (1.000)   130    123872 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128     91426                   52.25- 112.25    73.81
 15.391  15.391 (1.000)    49     88186                   89.81- 149.81    71.19
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.183  16.183 (0.967)    78      5037 0.04687  0.07311  80.00- 120.00   100.00(a)
 16.183  16.183 (0.967)    77      1387                     0.00-  53.97    27.54
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    174619 4.91040    4.910  80.00- 120.00   100.00
 16.183  16.183 (1.051)    67     85207                   21.16-  81.16    48.80
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                         CAS #: 540-36-3
 16.737  16.737 (1.000)   114    448478 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     62040                     0.00-  45.20    13.83
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                        CAS #: 108-10-1
 19.007  18.984 (1.136)    43      2399 0.04326  0.06748  80.00- 120.00   100.00(a)
 19.007  18.984 (1.136)    58      1152                    15.64-  75.64    48.01
  0.000  18.984 (0.000)    85         0                     0.00-  56.71     0.00
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
19.276	19.275 (1.152)	98	438315	4.97637	4.976	80.00- 120.00	100.00
19.276	19.275 (1.152)	70	46228			0.00- 40.11	10.55
19.276	19.275 (1.152)	100	282780			37.58- 97.58	64.52
147 Toluene					CAS #: 108-88-3		
19.432	19.410 (1.161)	91	20198	0.15778	0.2461	80.00- 120.00	100.00
19.410	19.410 (1.160)	92	11009			28.92- 88.92	54.51
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	415868	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	212296			20.64- 80.64	51.05
167 Ethyl Benzene					CAS #: 100-41-4		
22.302	22.302 (1.006)	106	1562	0.02850	0.04447	80.00- 120.00	100.00(a)
22.302	22.302 (1.006)	91	5726			282.51- 342.51	366.48
169 m,p-Xylene					CAS #: 108-38-3		
22.467	22.467 (1.013)	106	4900	0.07697	0.1201	80.00- 120.00	100.00(a)
22.467	22.467 (1.013)	91	8929			166.46- 226.46	182.21
171 o-Xylene					CAS #: 95-47-6		
23.089	23.089 (1.041)	106	1739	0.02978	0.04646	80.00- 120.00	100.00(a)
23.089	23.089 (1.041)	91	3238			184.01- 244.01	186.19
172 Styrene					CAS #: 100-42-5		
23.110	23.110 (1.042)	104	3664	0.03708	0.05785	80.00- 120.00	100.00(a)
23.110	23.110 (1.042)	78	2343			20.27- 80.27	63.94
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	274963	4.81857	4.818	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	274111			77.42- 137.42	99.69
23.856	23.856 (1.076)	176	258642			65.38- 125.38	94.06
188 4-Ethyltoluene					CAS #: 622-96-8		
24.215	24.237 (1.092)	105	3480	0.01964	0.03063	80.00- 120.00	100.00(a)
24.192	24.237 (1.091)	120	242			1.08- 61.08	6.96
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	2754	0.02310	0.03603	80.00- 120.00	100.00(a)
24.775	24.775 (1.117)	120	1329			16.20- 76.20	48.26
228 Naphthalene					CAS #: 91-20-3		
27.712	27.735 (1.250)	128	1794	0.02805	0.04376	80.00- 120.00	100.00(a)
27.712	27.712 (1.250)	127	621			0.00- 46.39	34.63

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Report Date: 14-Jun-2016 06:31

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060313.d
Lab Smp Id: 1606028A-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 4.3"Hg -> 5.0psi

Calibration Date: 03-JUN-2016
Calibration Time: 07:24

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	115058	69035	161081	123872	7.66
123 1,4-Difluorobenze	430856	258514	603198	448478	4.09
163 Chlorobenzene-d5	386725	232035	541415	415868	7.54

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 14-Jun-2016 06:31

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606028A-02A
Level: LOW Operator: ea
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 4.3"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.910	98.21	70-130
$ 146 Toluene-d8	5.000	4.976	99.53	70-130
$ 177 4-Bromofluorobenze	5.000	4.818	96.37	70-130

Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

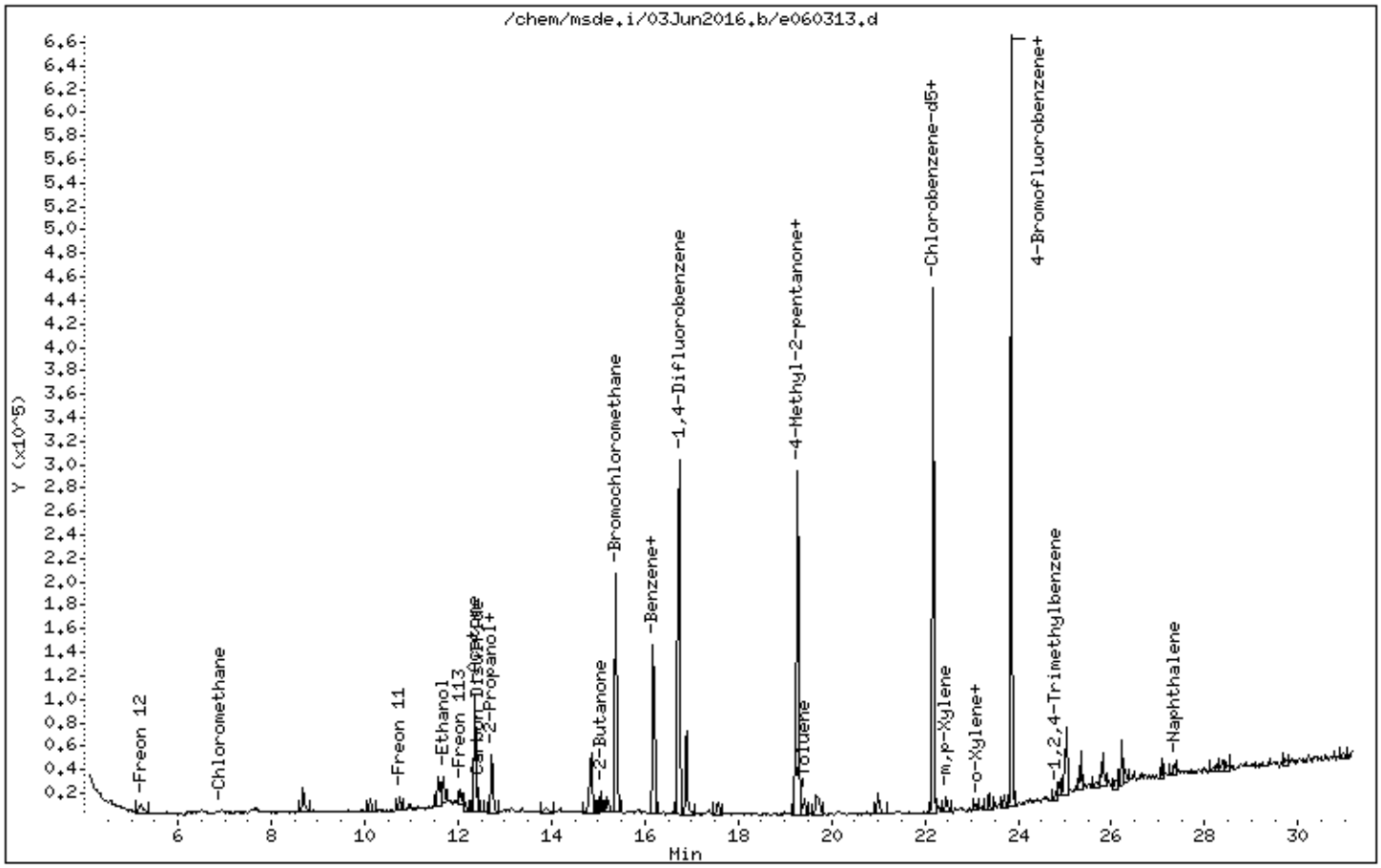
Instrument: msde.i

Sample Info: 250mL# 35258

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

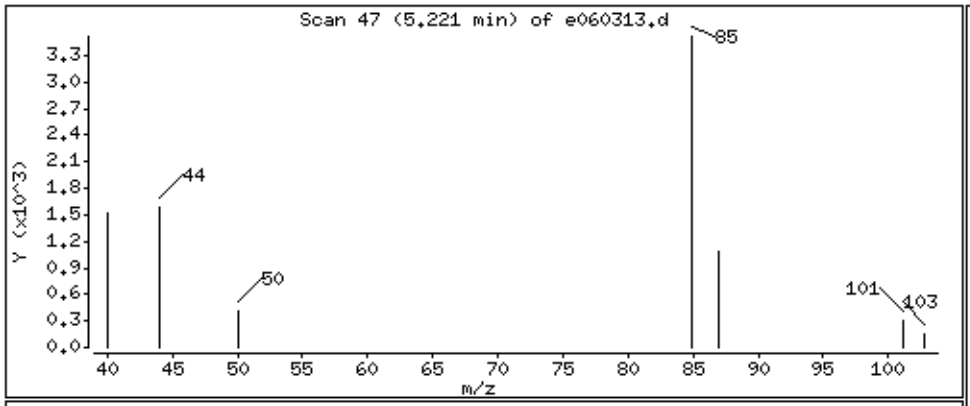
Operator: ea

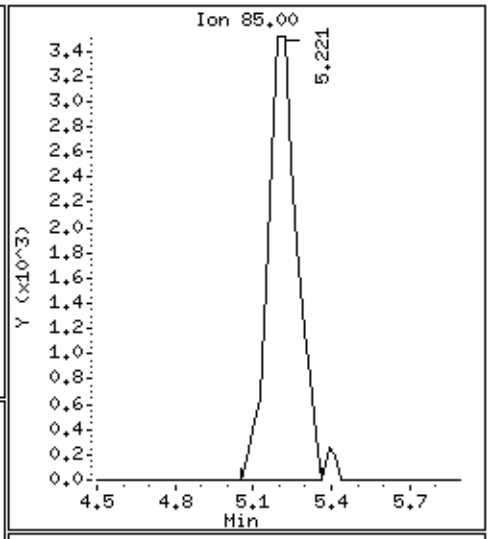
Column phase: RTX-624

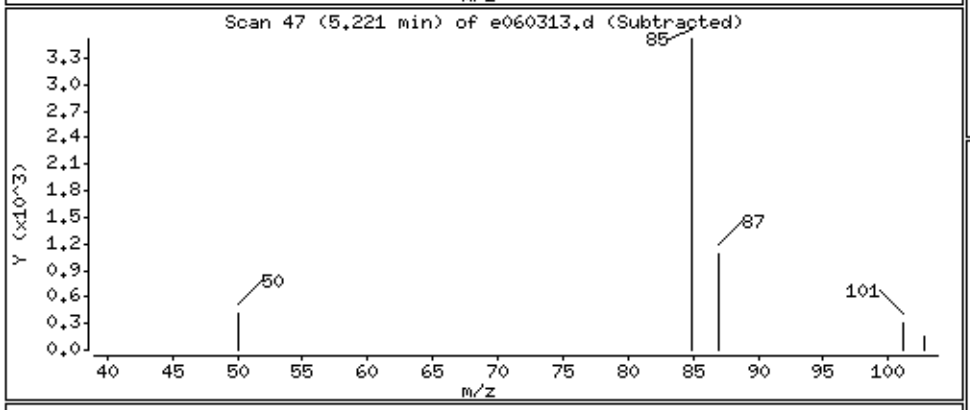
Column diameter: 0.32

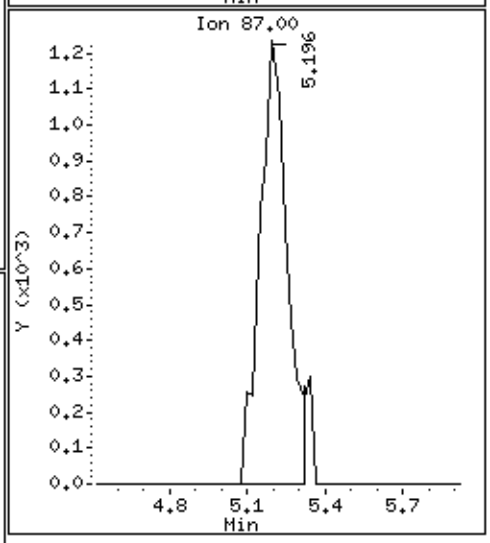
11 Freon 12

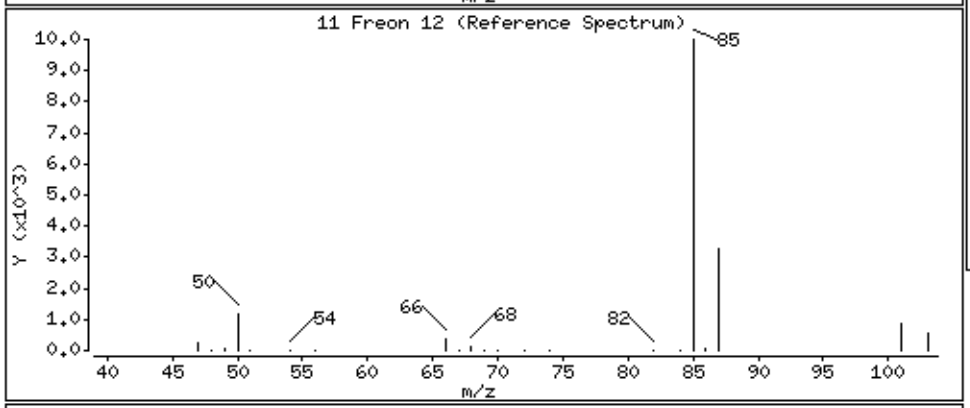
Concentration: 0.4134 PPBV

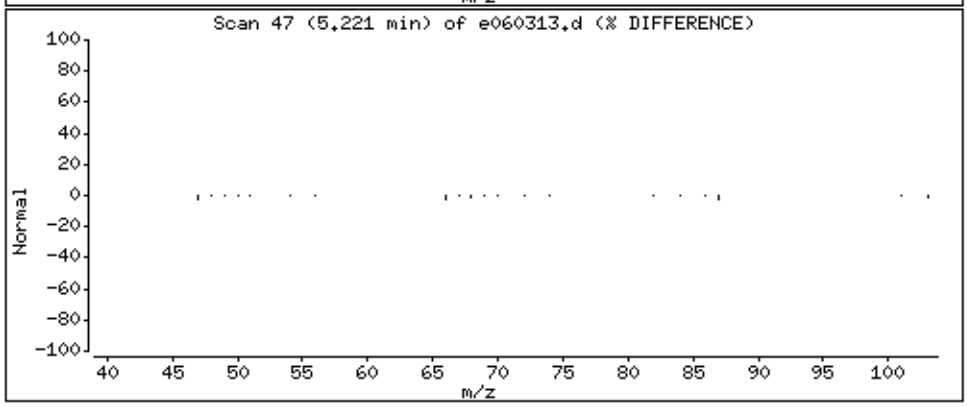












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

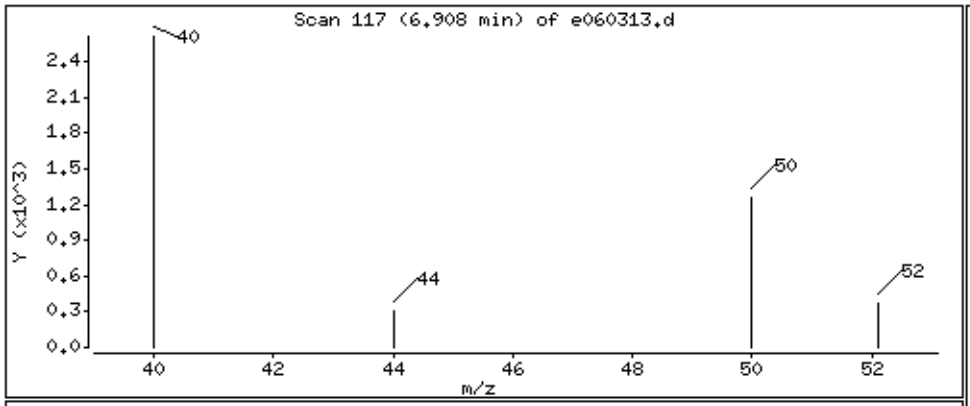
Operator: ea

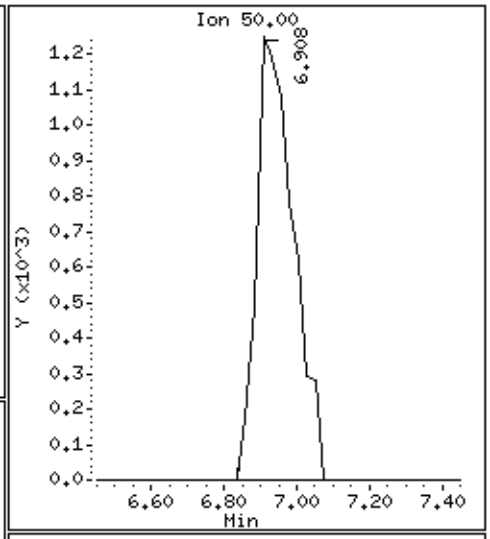
Column phase: RTX-624

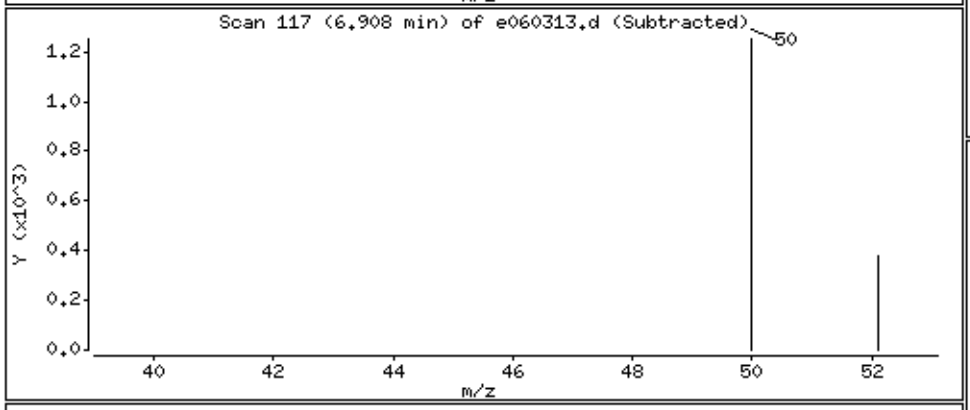
Column diameter: 0.32

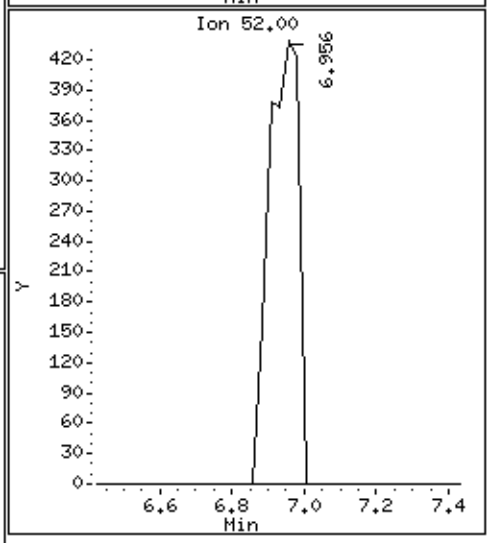
17 Chloromethane

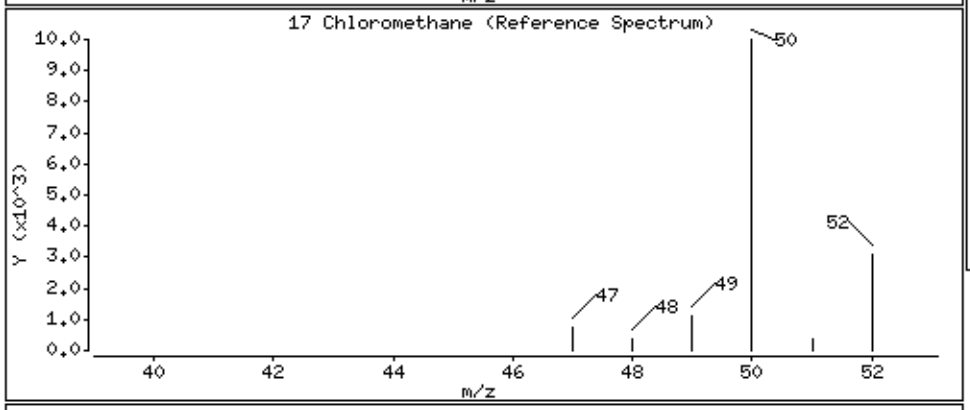
Concentration: 0.7029 PPBV

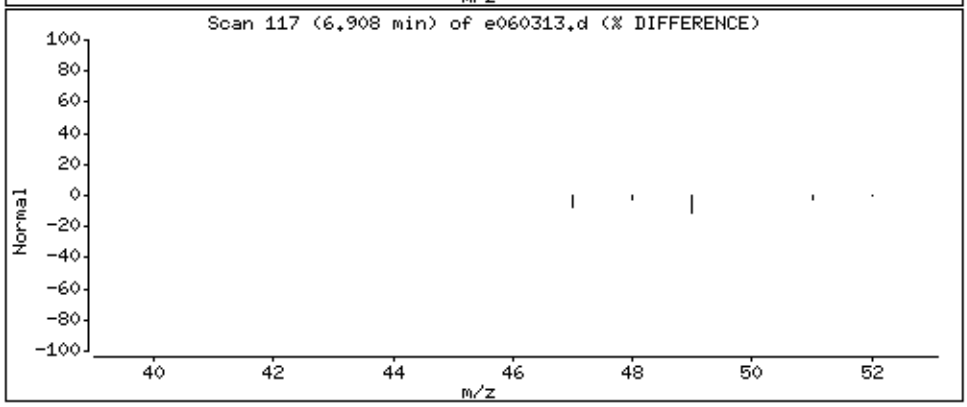












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

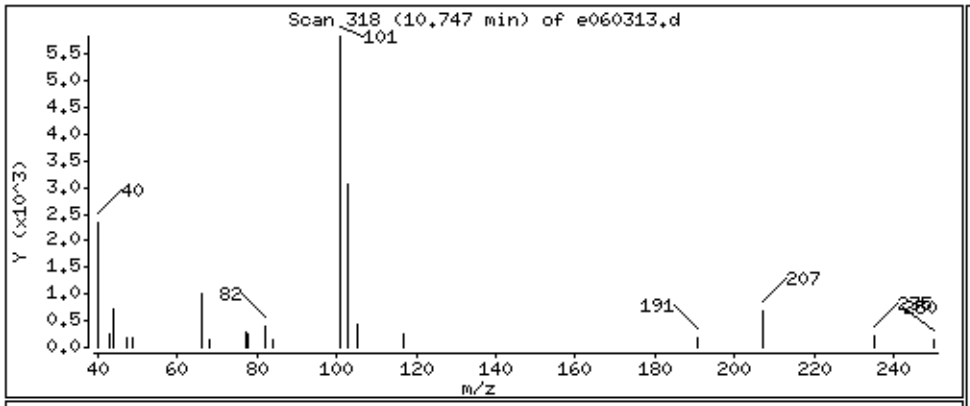
Operator: ea

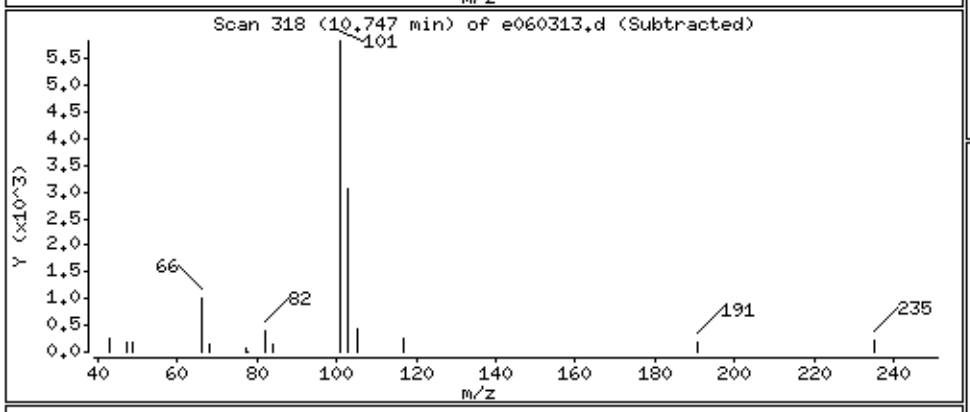
Column phase: RTX-624

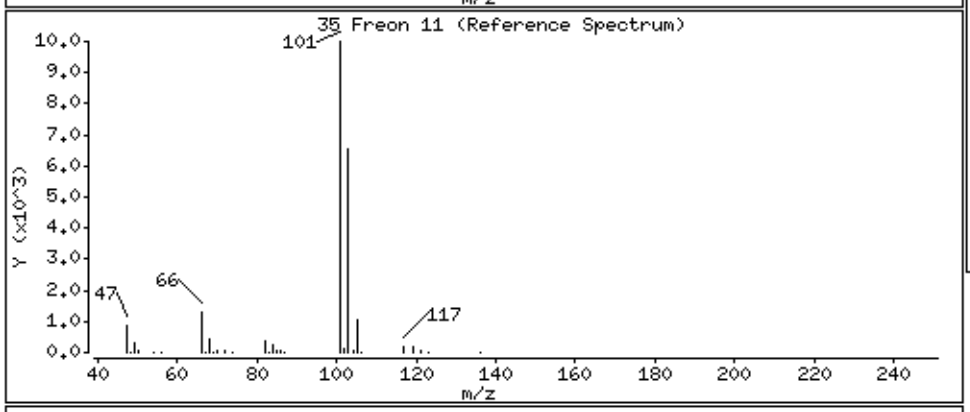
Column diameter: 0.32

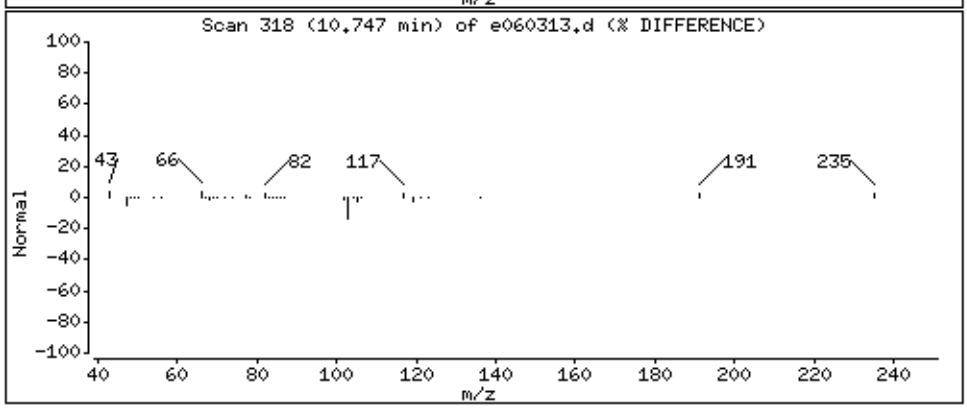
35 Freon 11

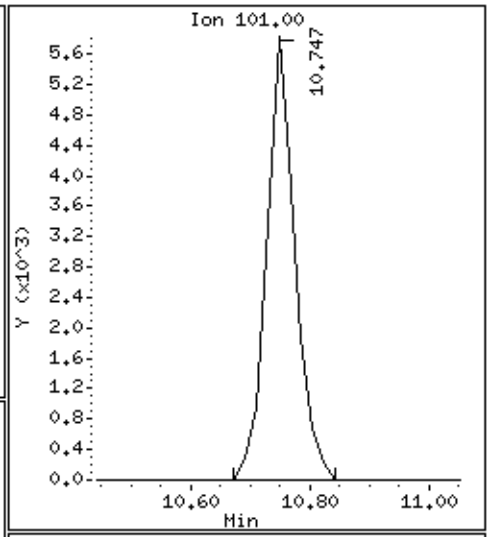
Concentration: 0.2766 PPBV

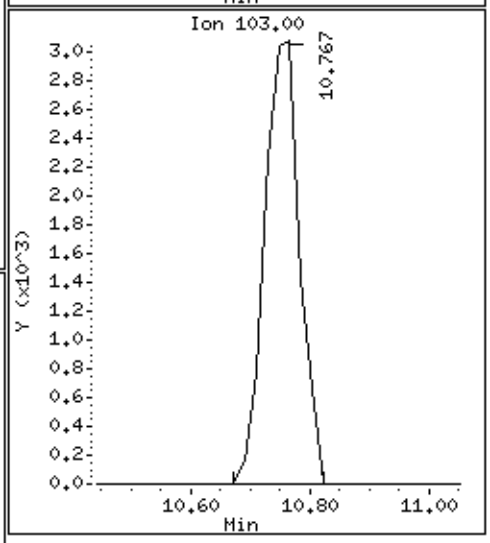












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

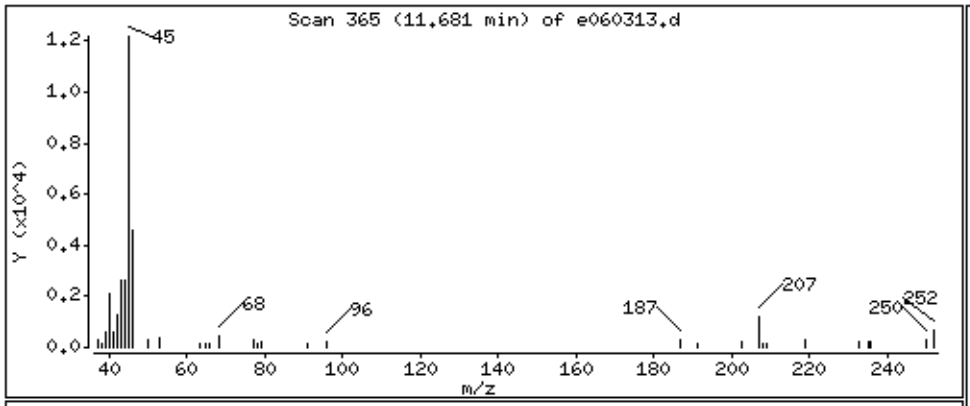
Operator: ea

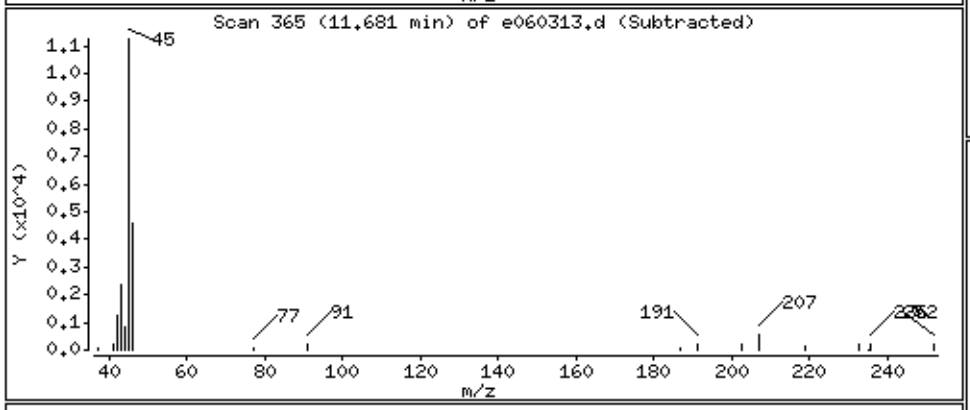
Column phase: RTX-624

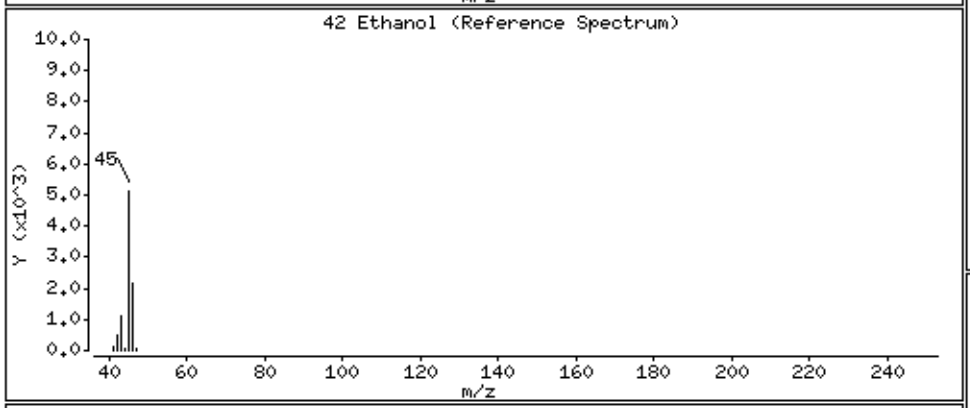
Column diameter: 0.32

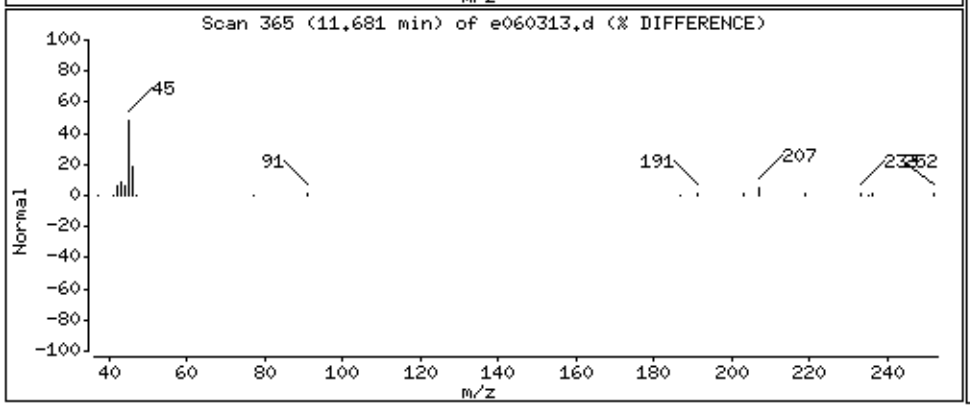
42 Ethanol

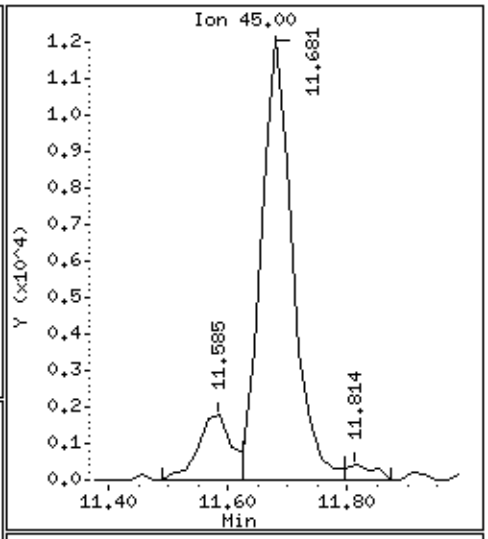
Concentration: 8.843 PPBV

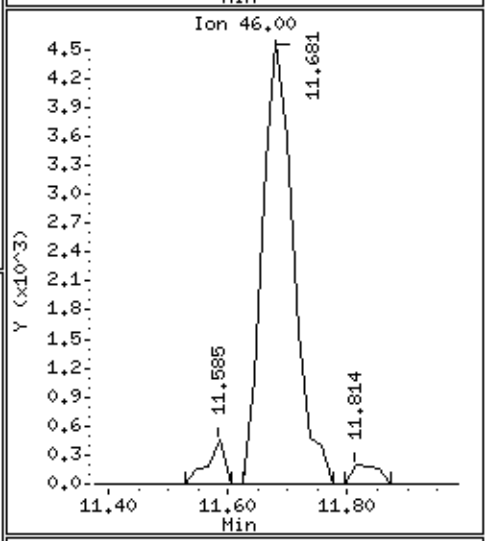


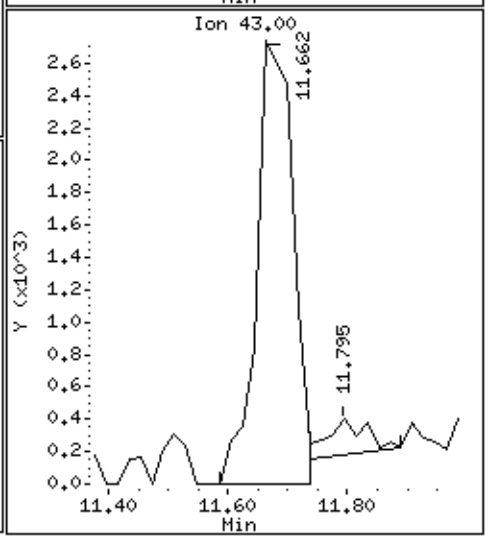












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

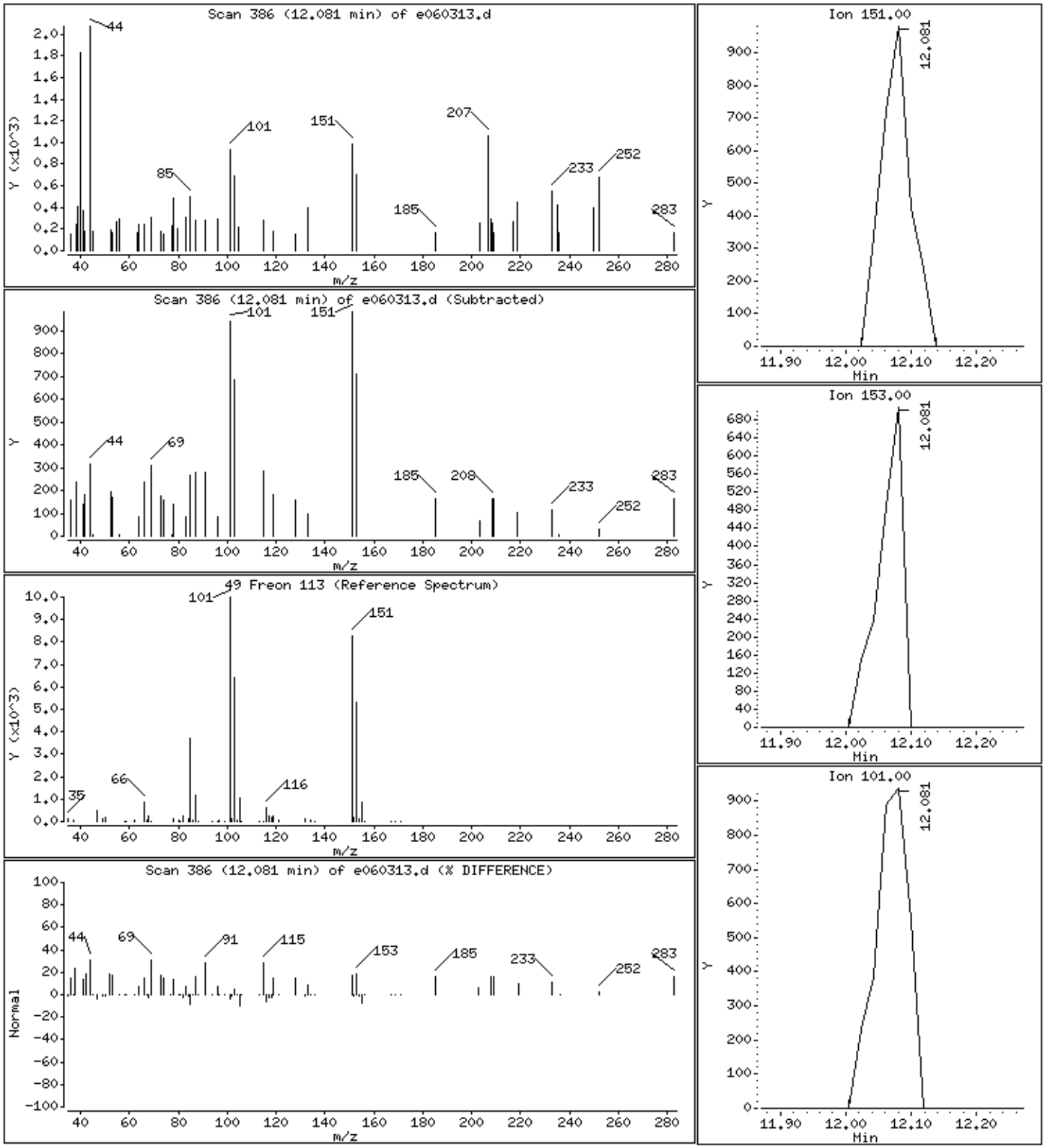
Operator: ea

Column phase: RTX-624

Column diameter: 0.32

49 Freon 113

Concentration: 0.05726 PPBV



Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

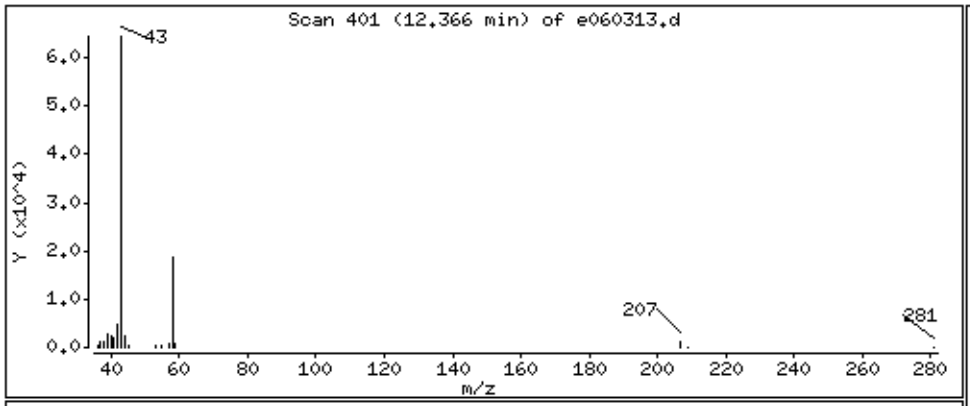
Operator: ea

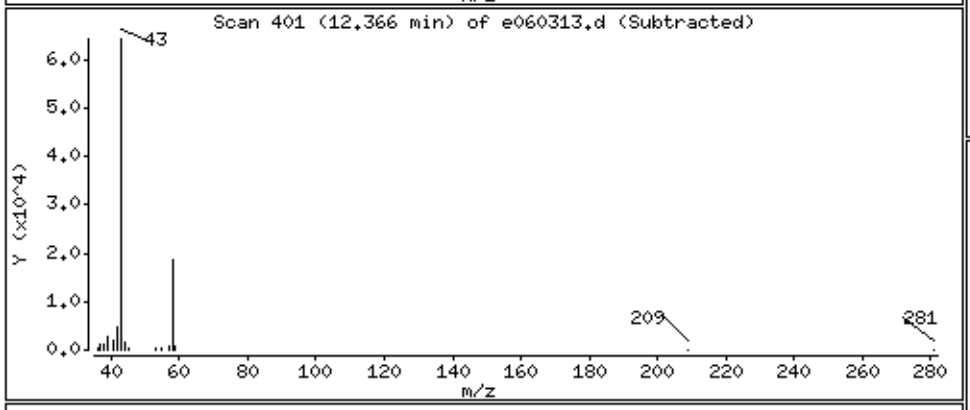
Column phase: RTX-624

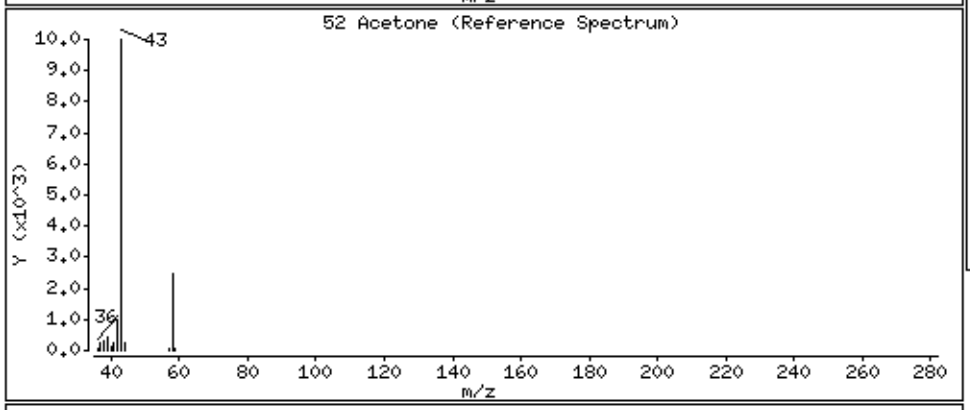
Column diameter: 0.32

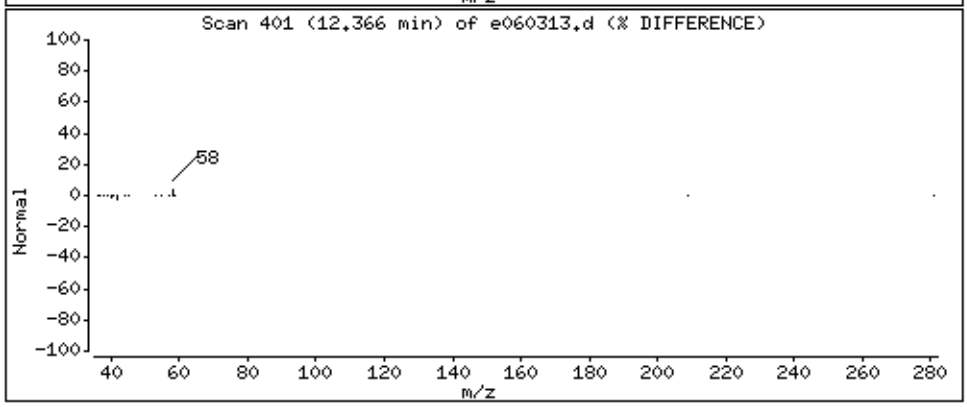
52 Acetone

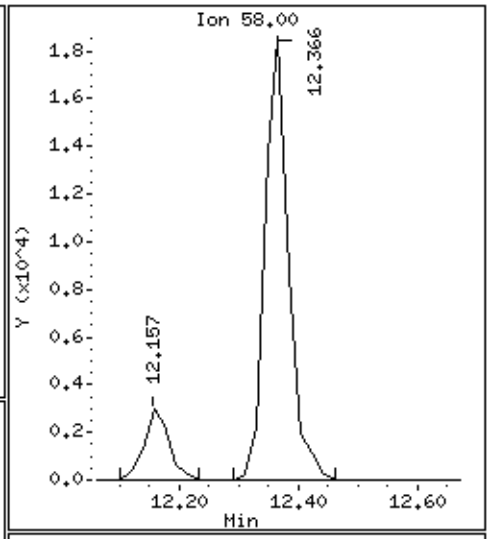
Concentration: 6.060 PPBV

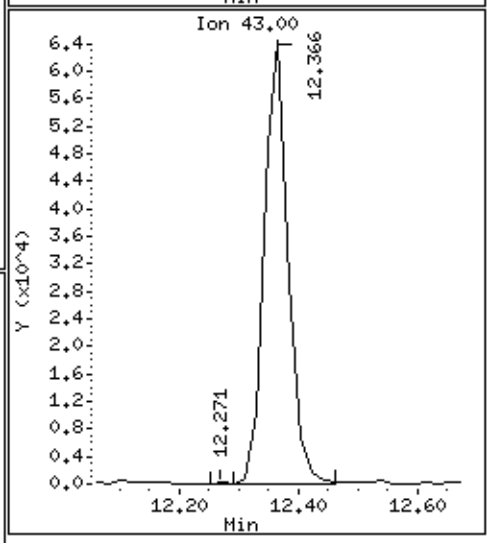












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

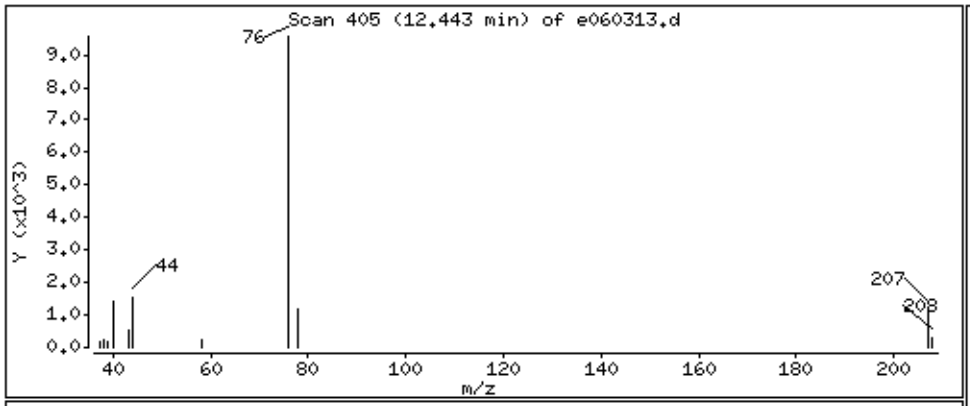
Operator: ea

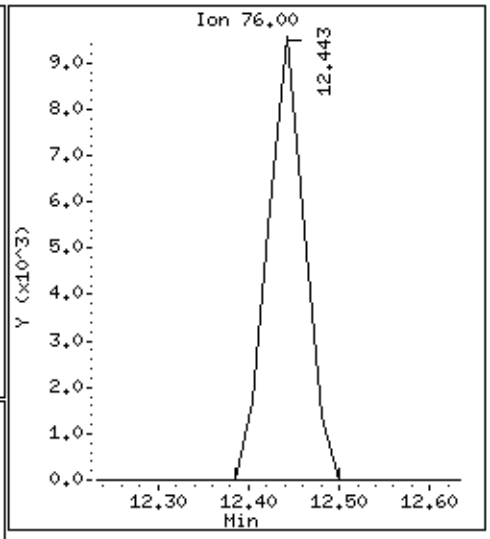
Column phase: RTX-624

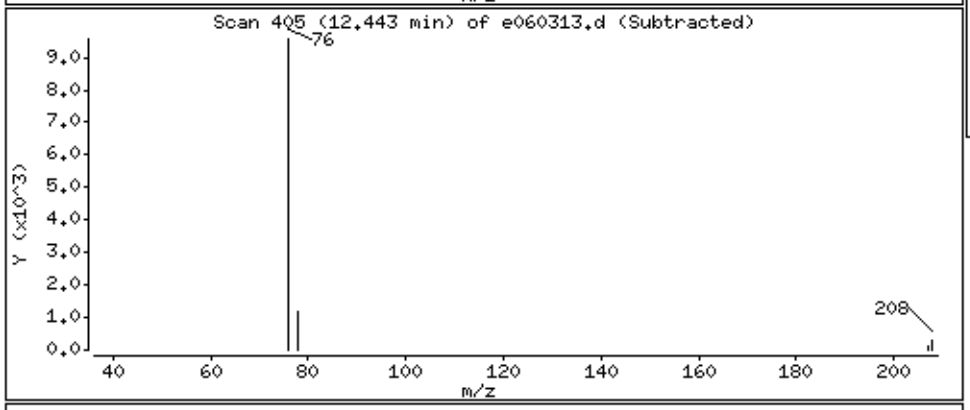
Column diameter: 0.32

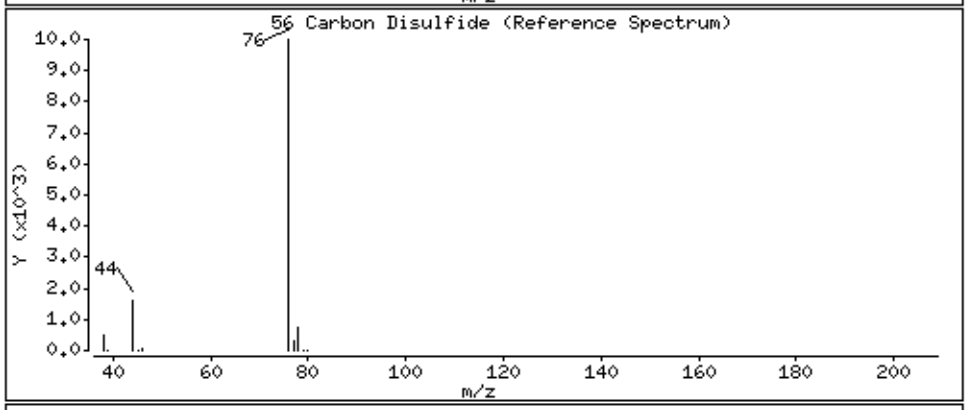
56 Carbon Disulfide

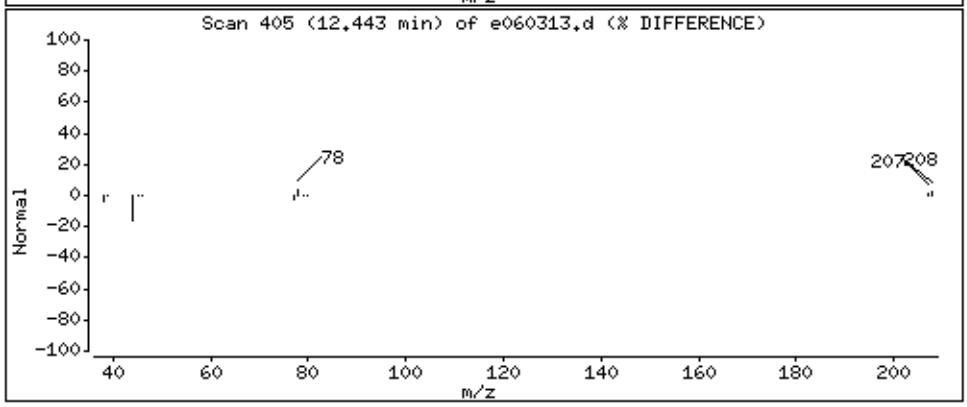
Concentration: 0.4082 PPBV











Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

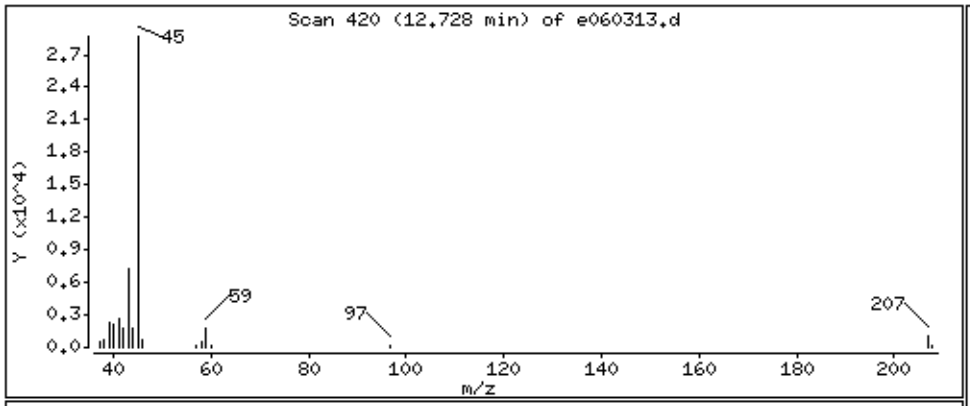
Operator: ea

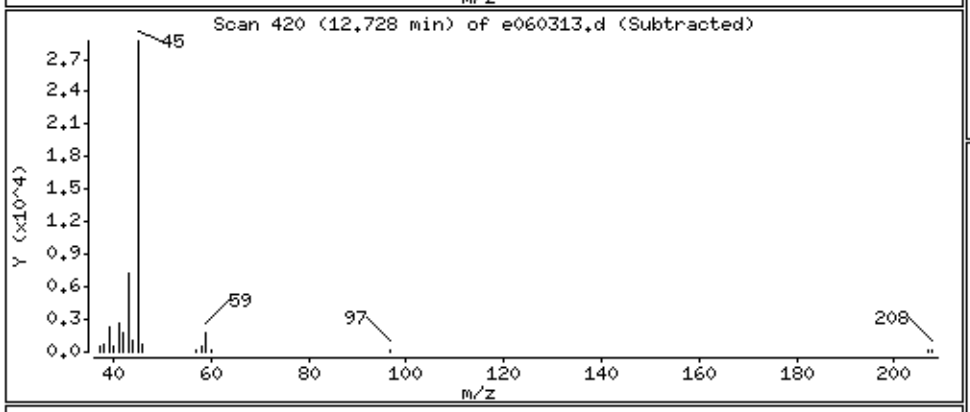
Column phase: RTX-624

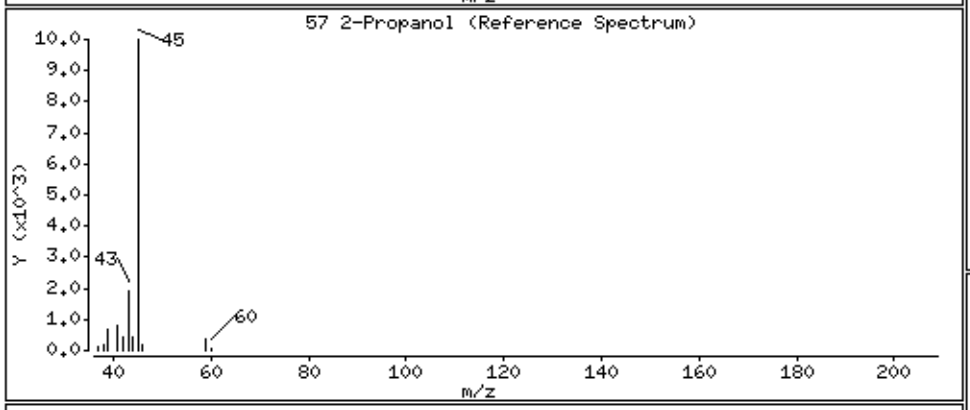
Column diameter: 0.32

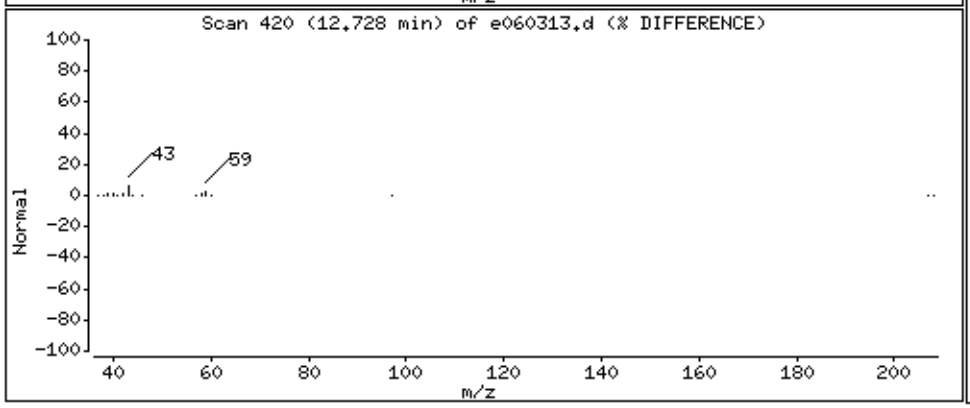
57 2-Propanol

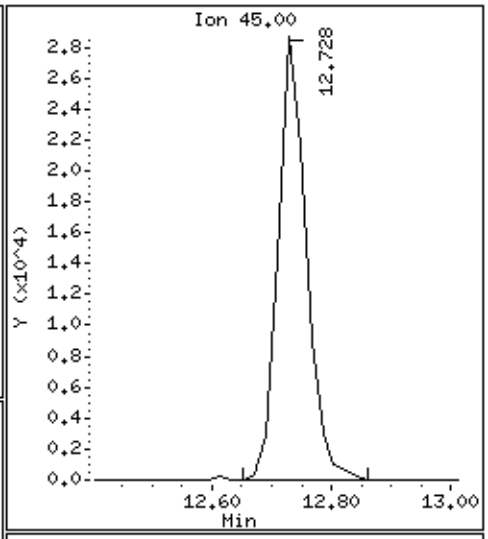
Concentration: 3.478 PPBV

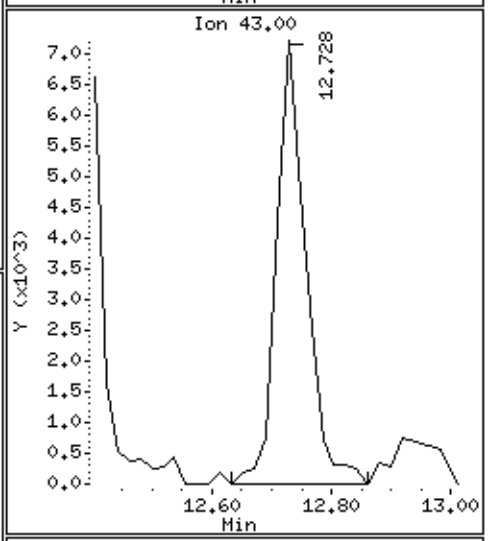


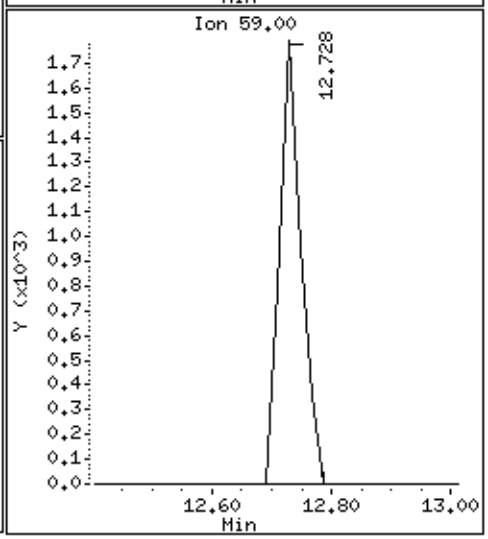












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

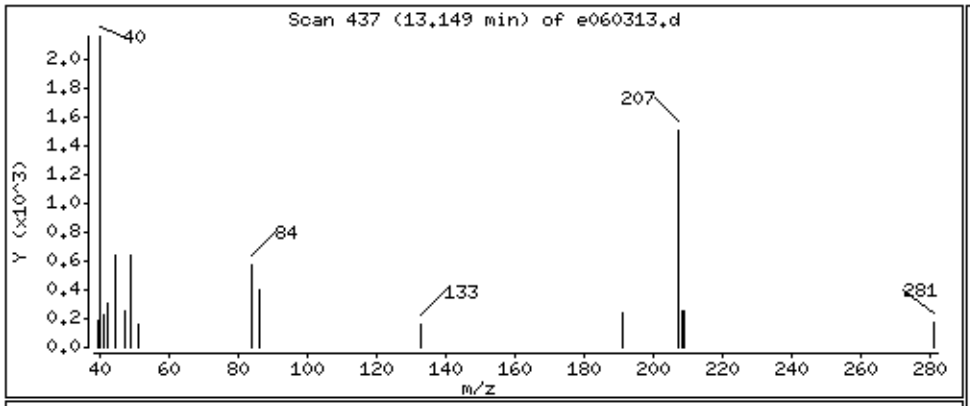
Operator: ea

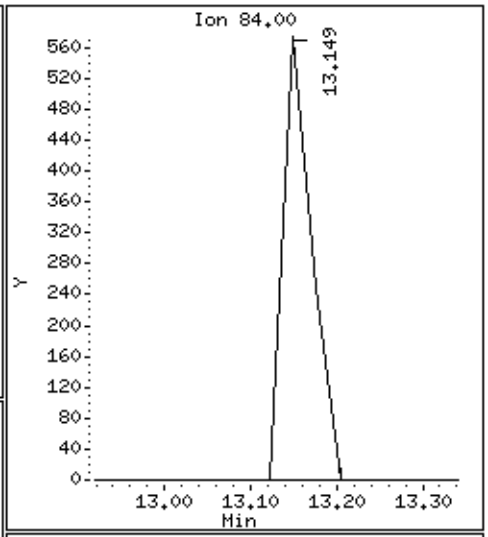
Column phase: RTX-624

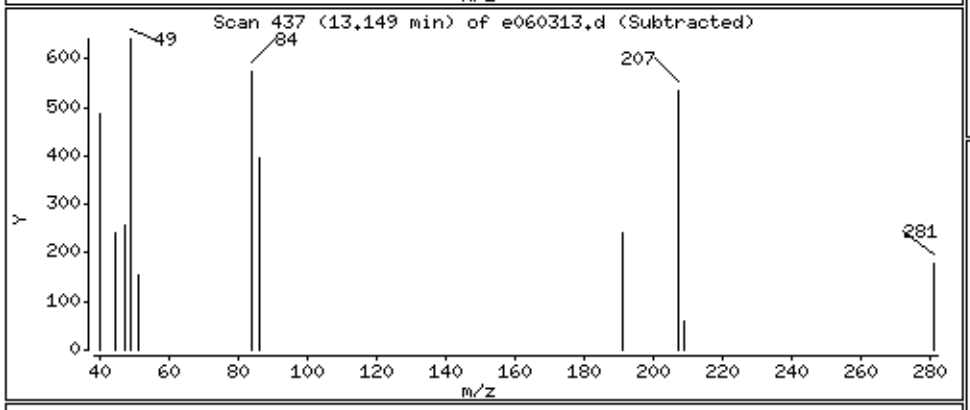
Column diameter: 0.32

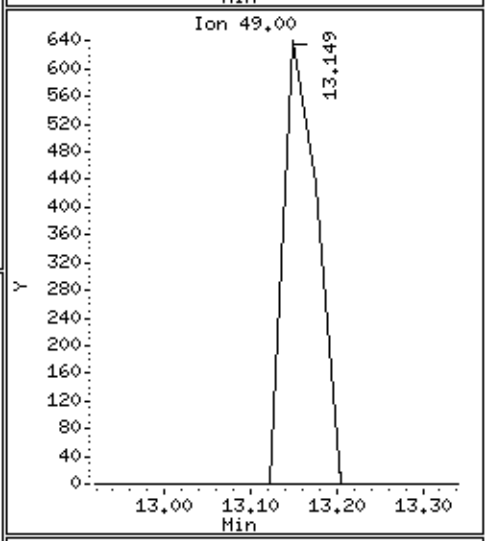
66 Methylene Chloride

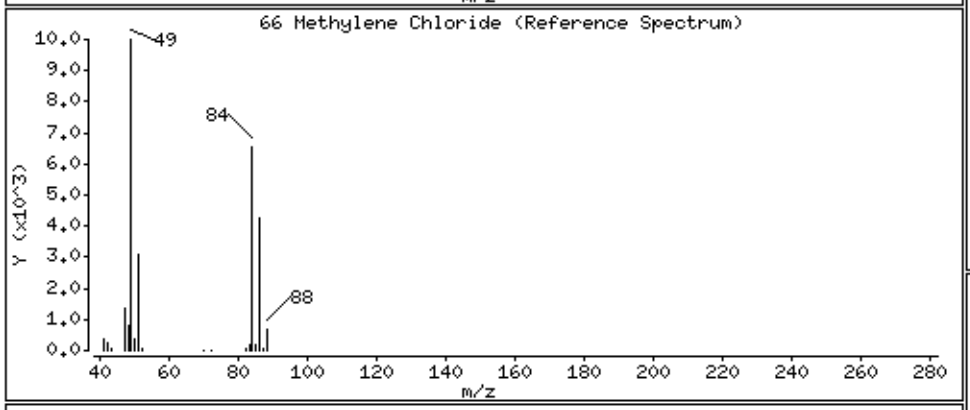
Concentration: 0.06435 PPBV

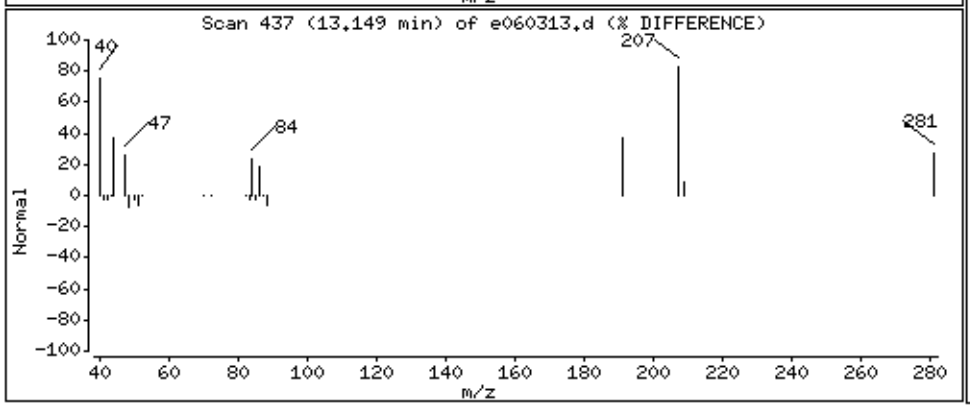


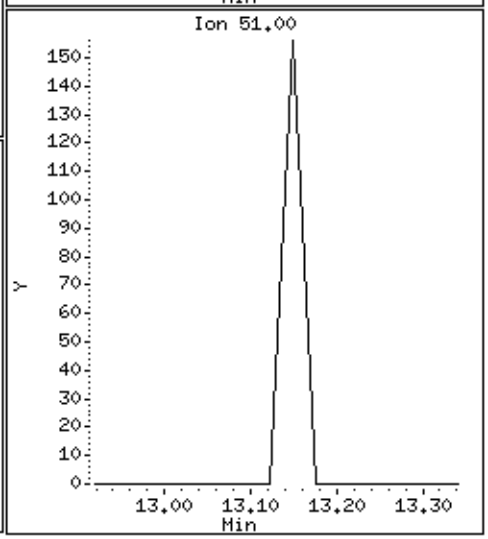












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

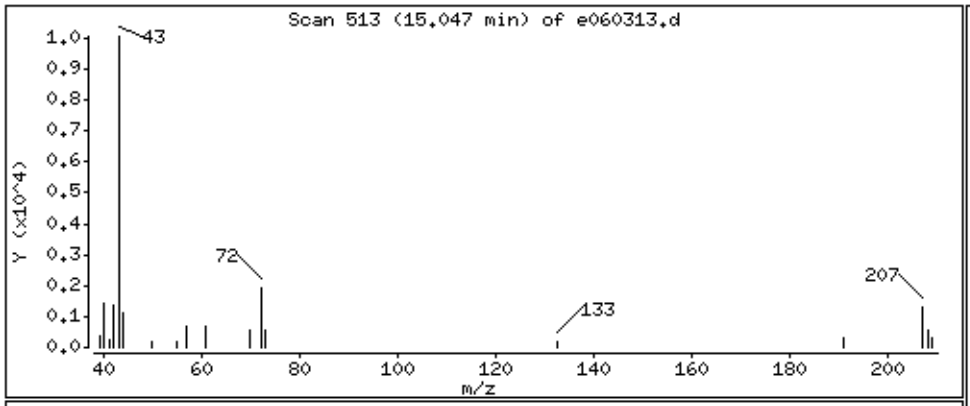
Operator: ea

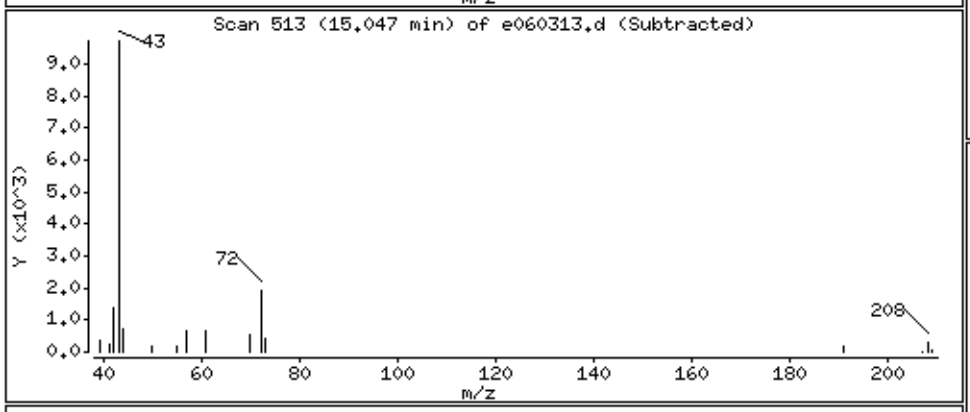
Column phase: RTX-624

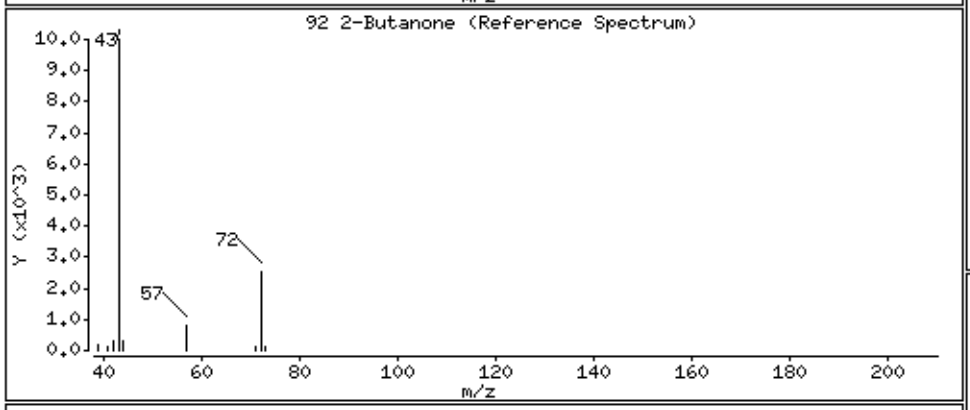
Column diameter: 0.32

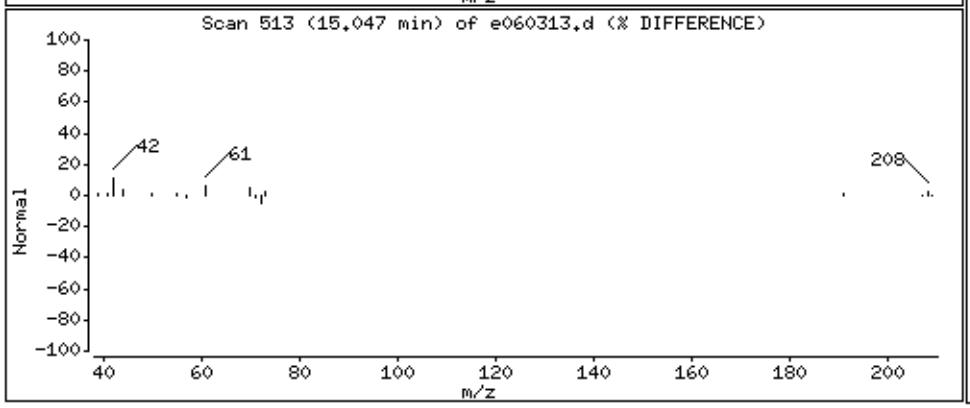
92 2-Butanone

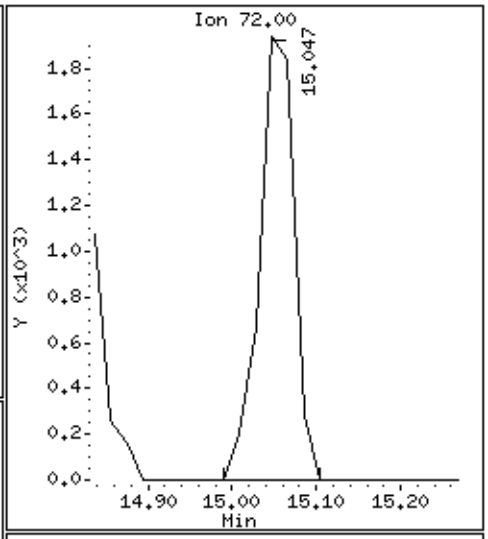
Concentration: 0.5334 PPBV

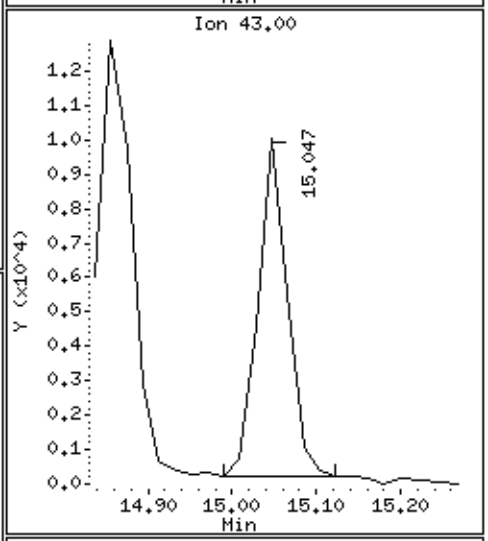


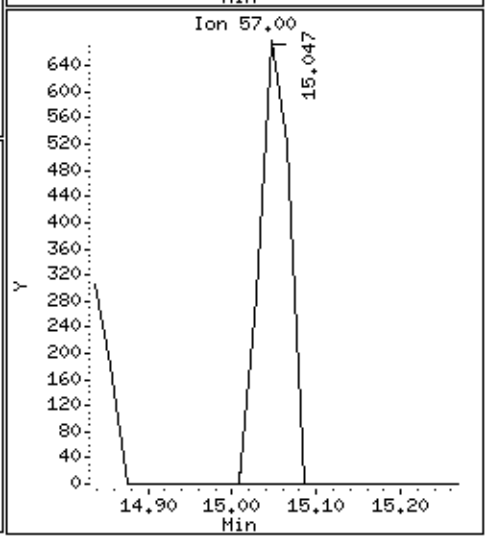












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

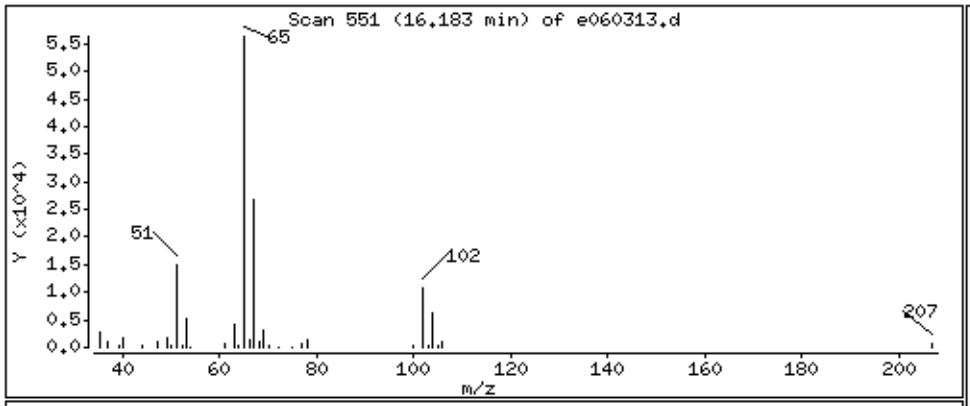
Operator: ea

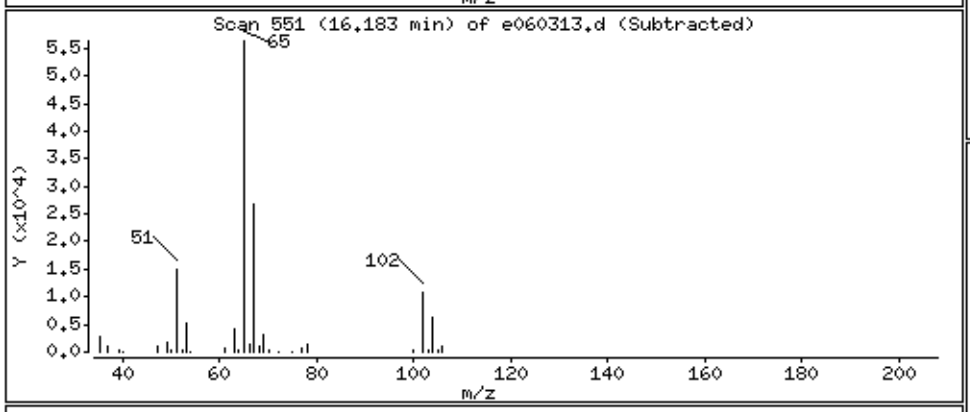
Column phase: RTX-624

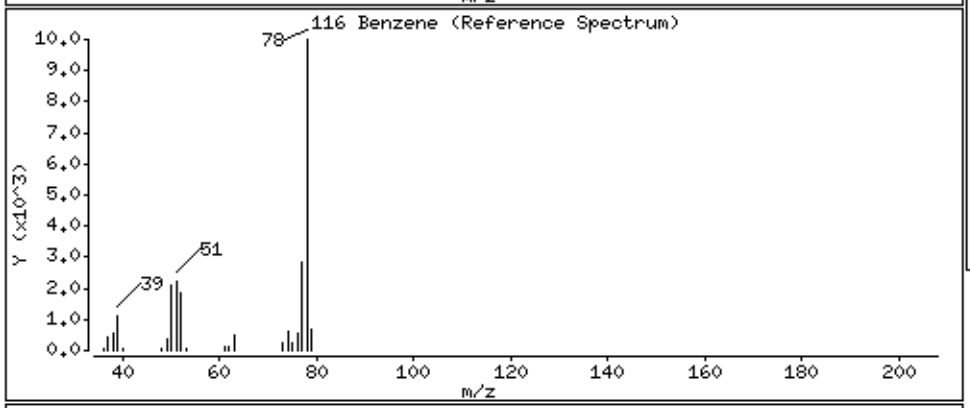
Column diameter: 0.32

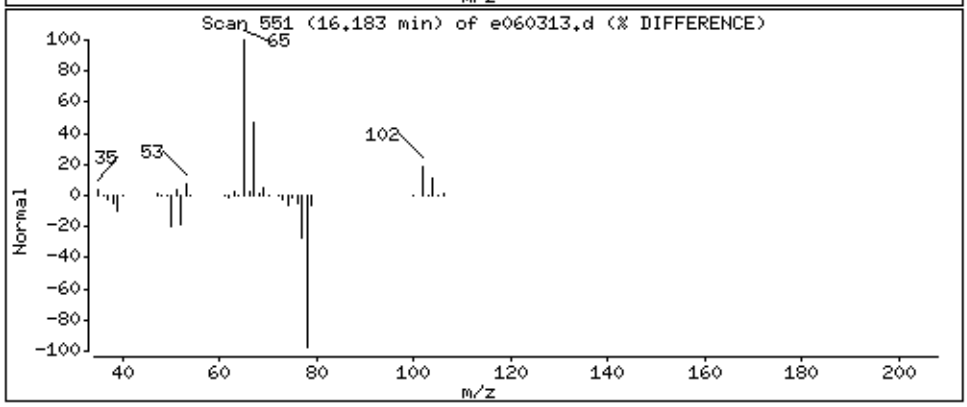
116 Benzene

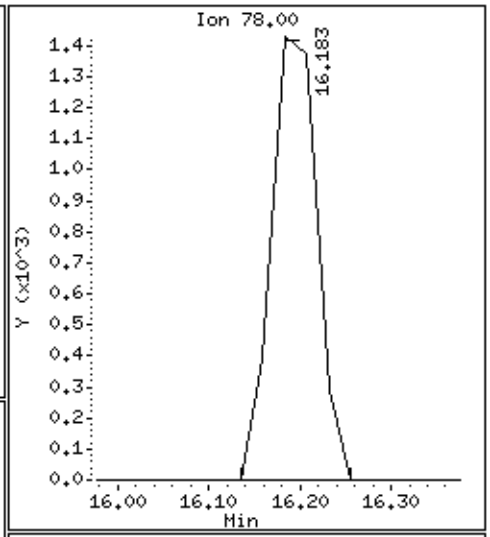
Concentration: 0.07311 PPBV

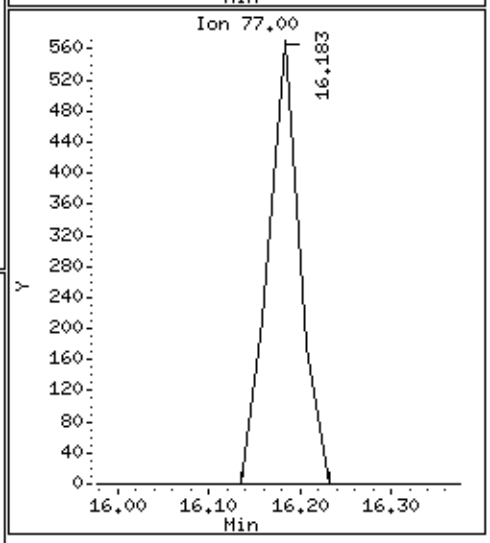












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

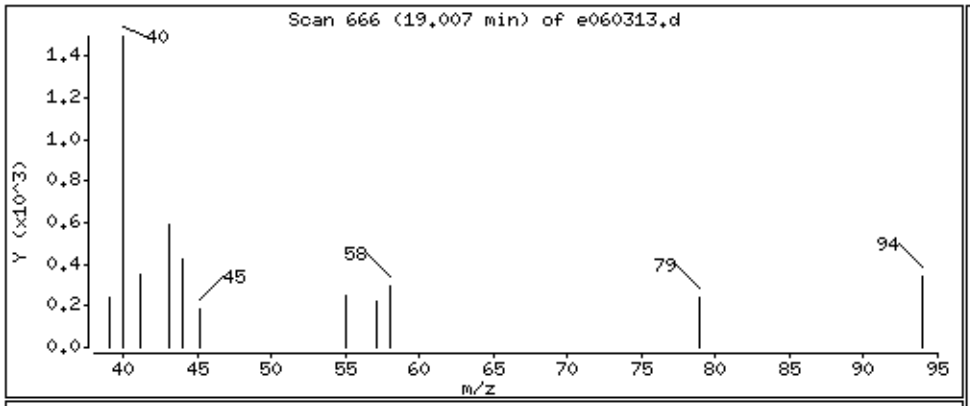
Operator: ea

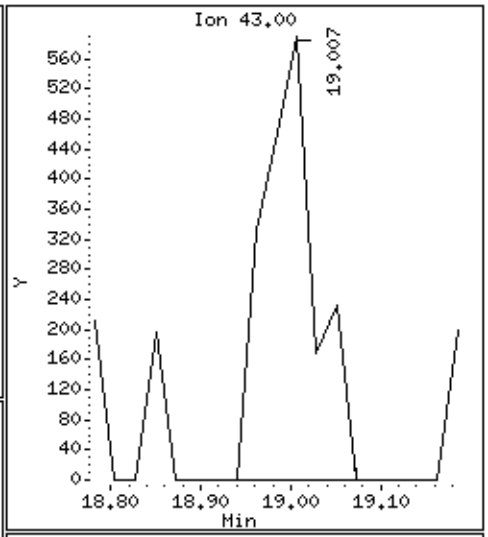
Column phase: RTX-624

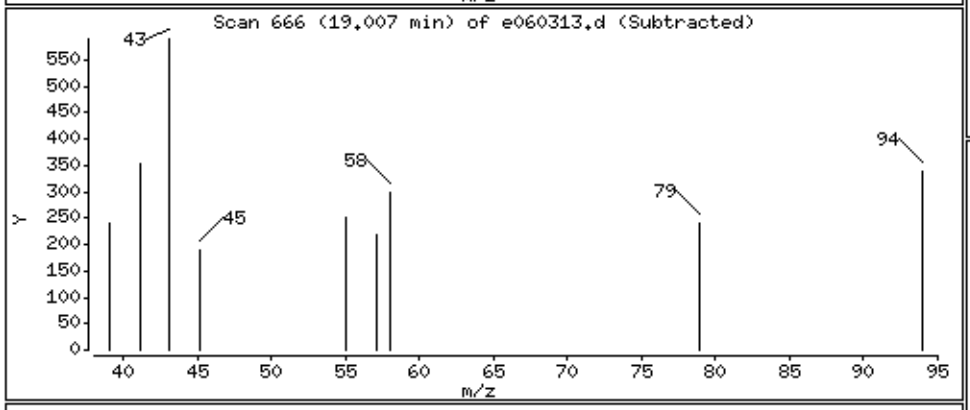
Column diameter: 0.32

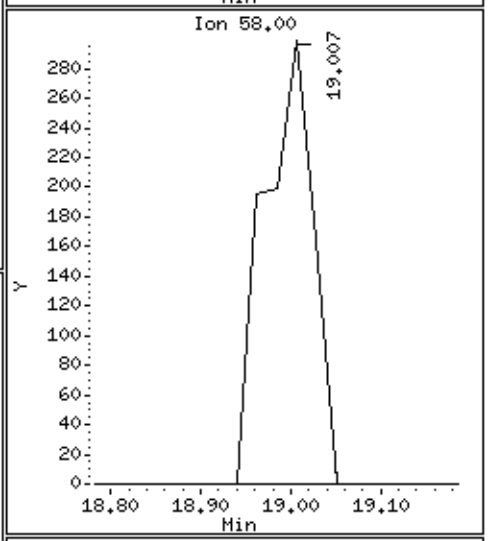
145 4-Methyl-2-pentanone

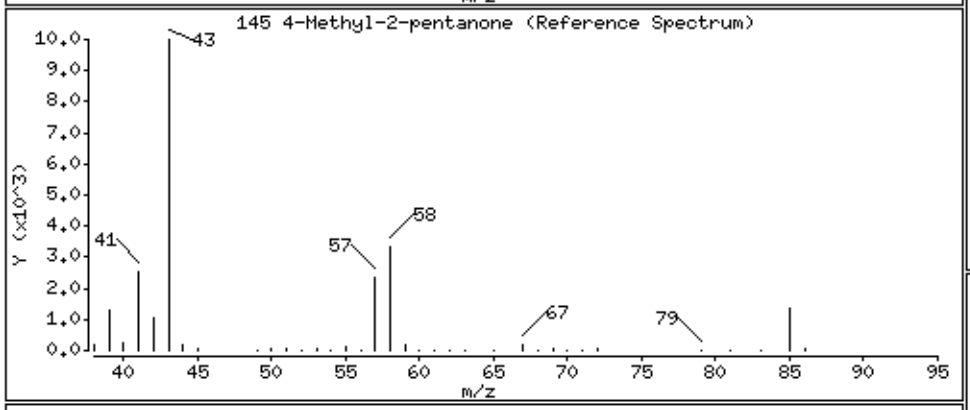
Concentration: 0.06748 PPBV

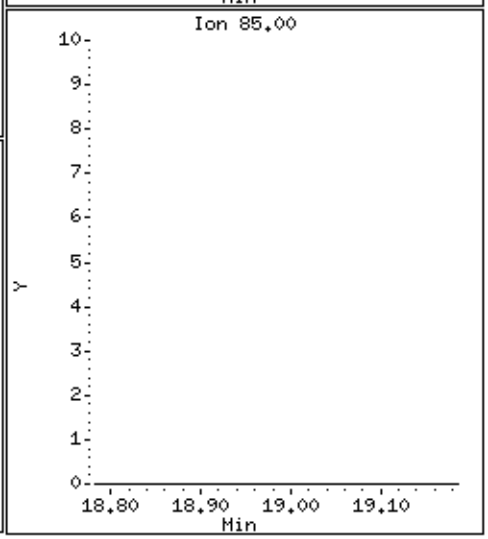


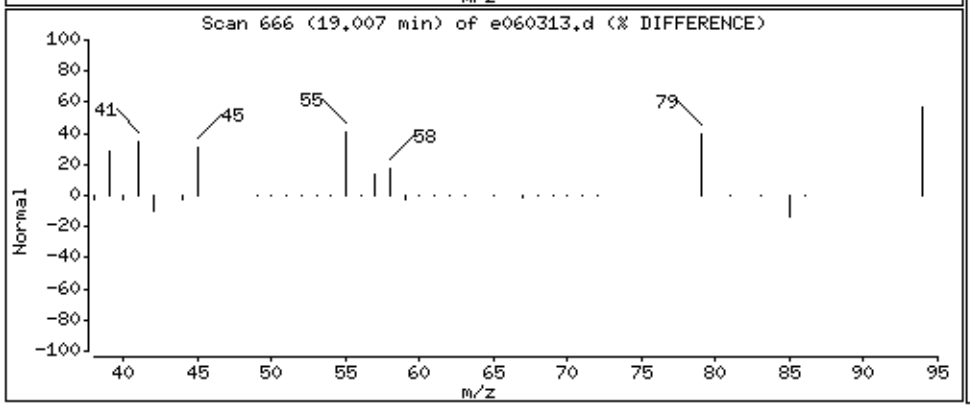












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

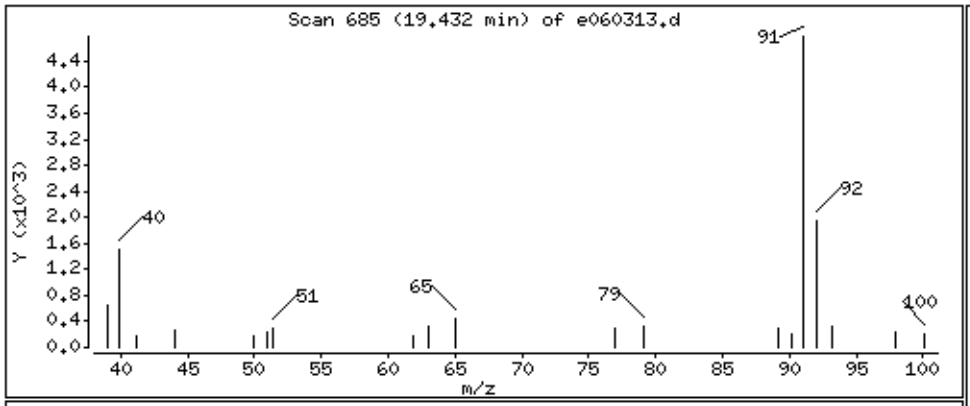
Operator: ea

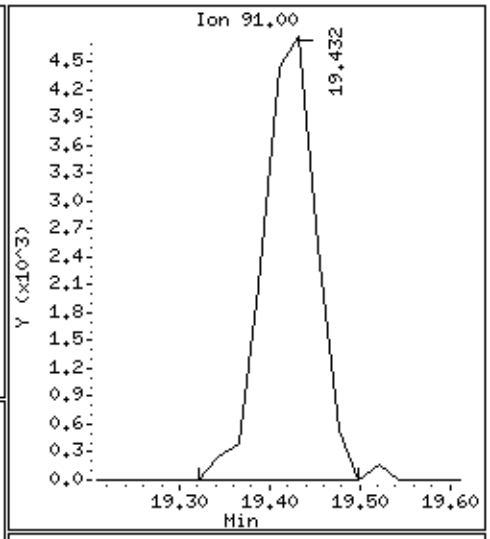
Column phase: RTX-624

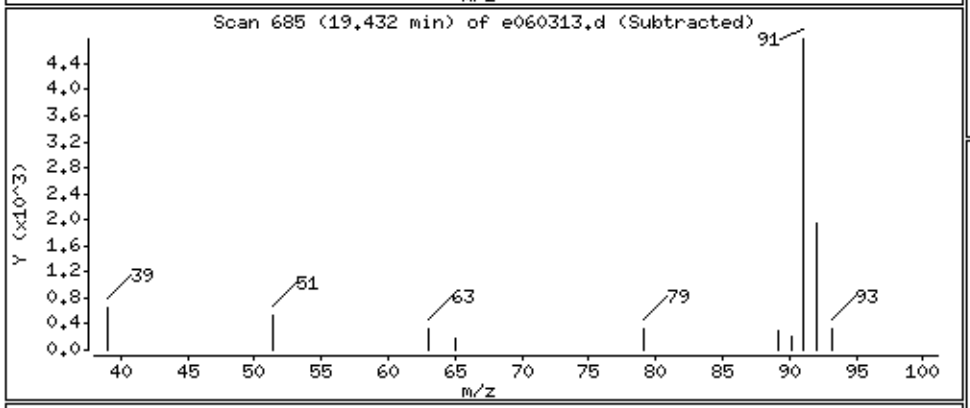
Column diameter: 0.32

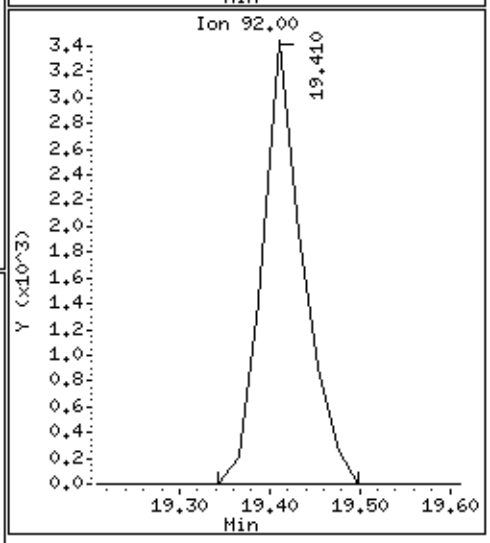
147 Toluene

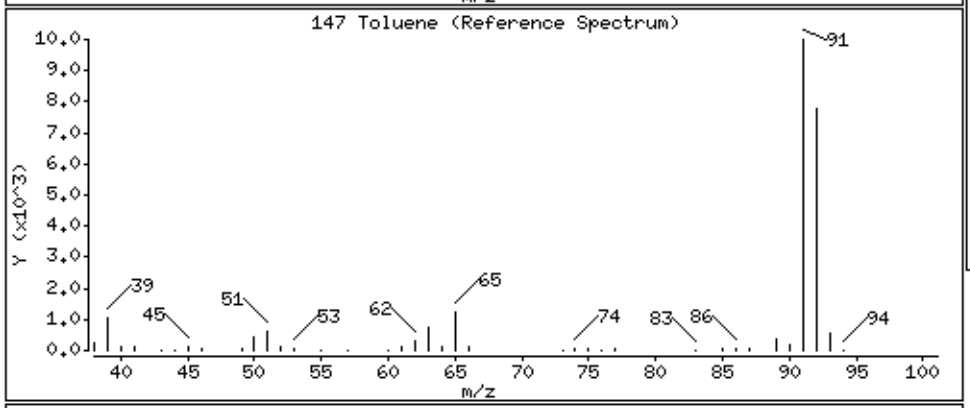
Concentration: 0.2461 PPBV

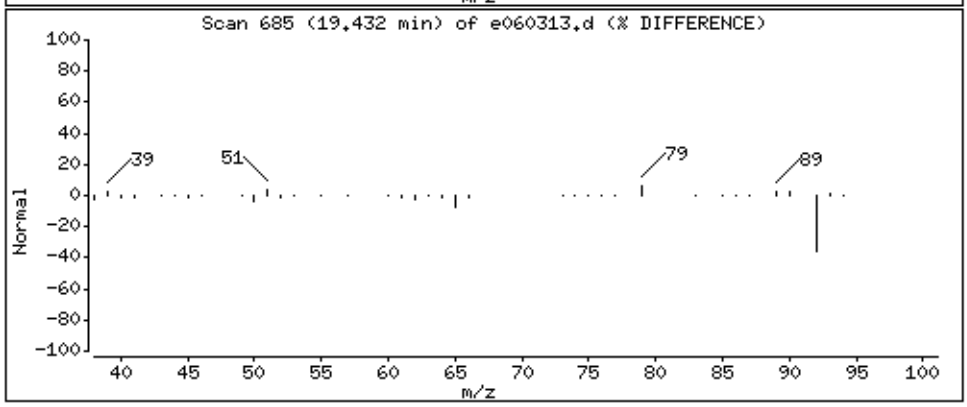












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

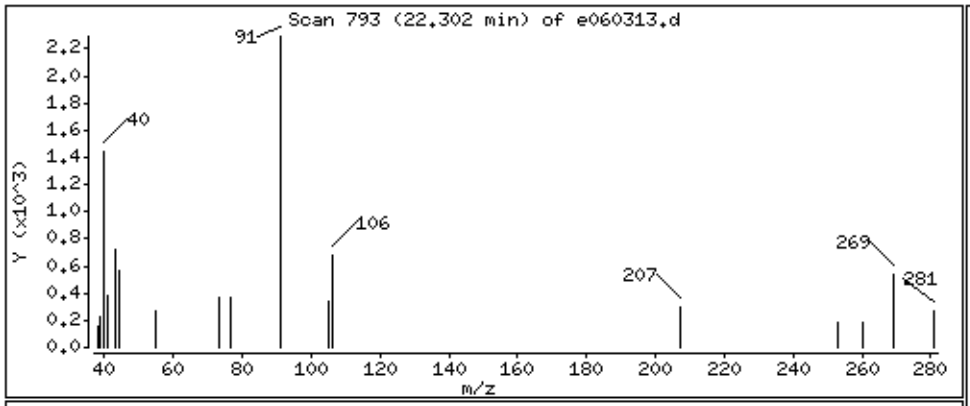
Operator: ea

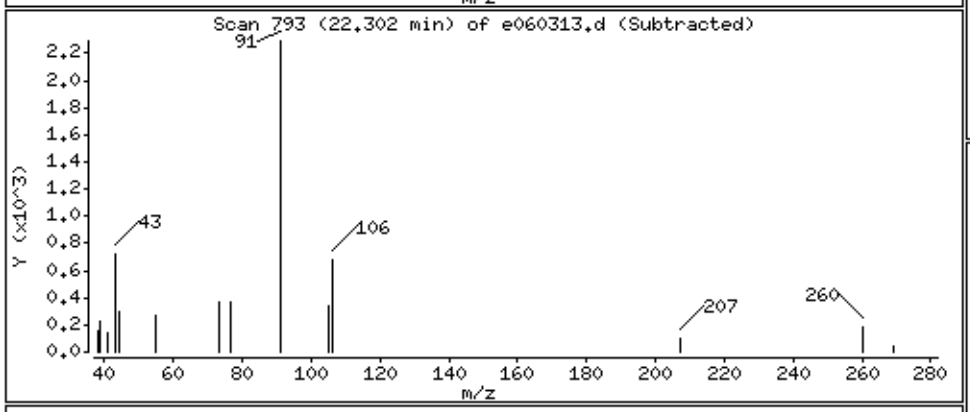
Column phase: RTX-624

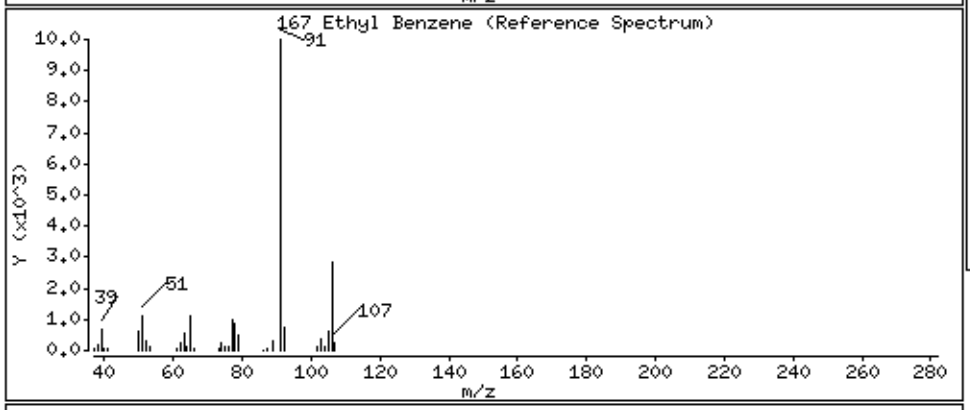
Column diameter: 0.32

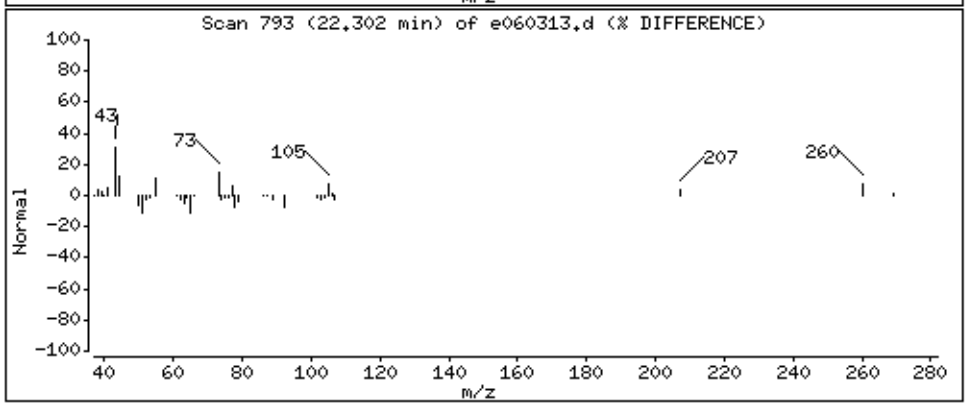
167 Ethyl Benzene

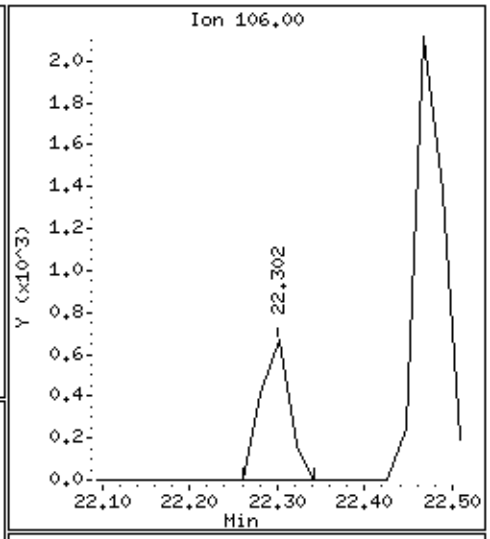
Concentration: 0.04447 PPBV

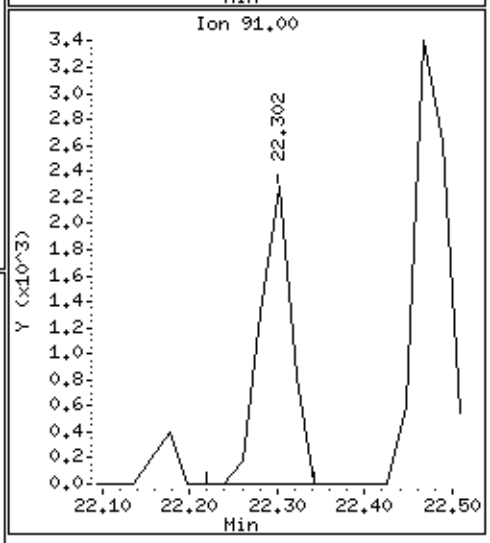












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

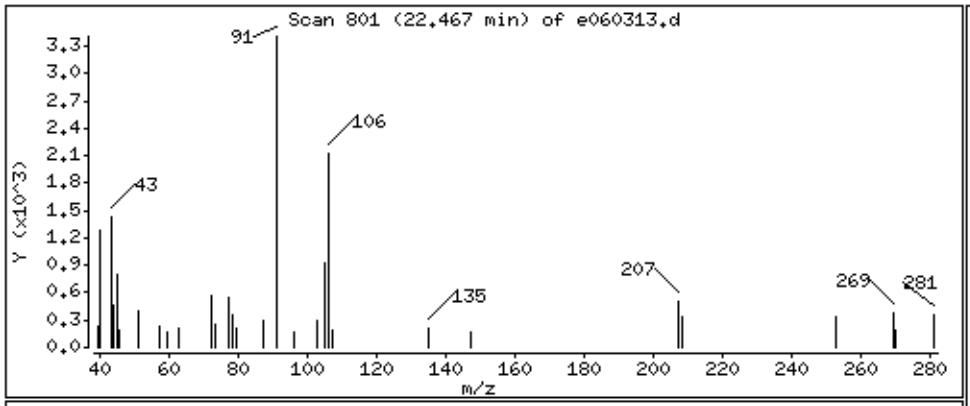
Operator: ea

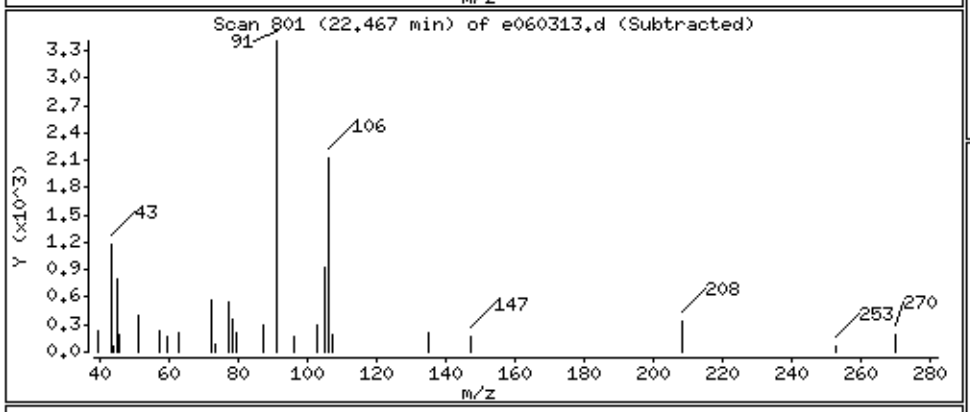
Column phase: RTX-624

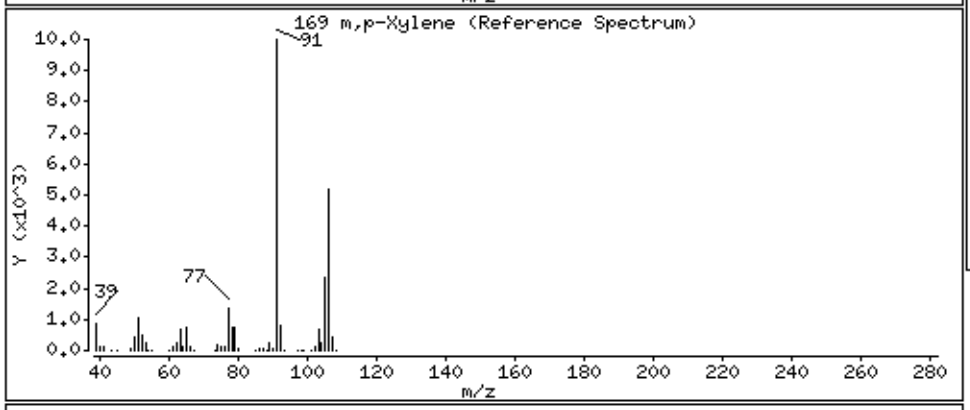
Column diameter: 0.32

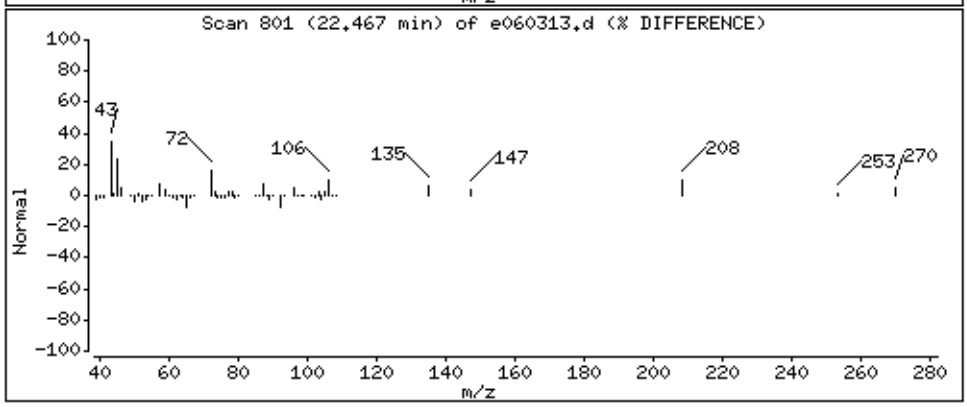
169 m,p-Xylene

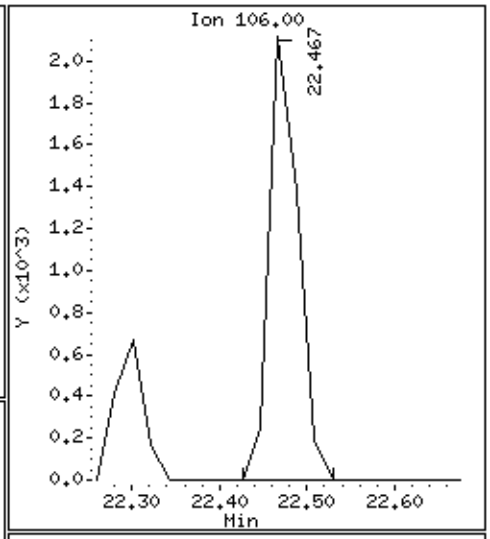
Concentration: 0.1201 PPBV

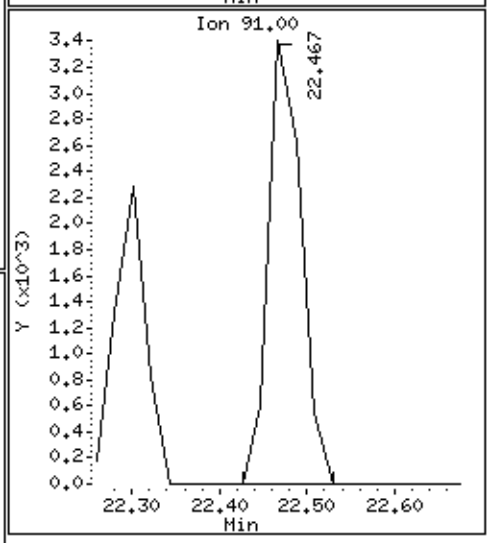












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

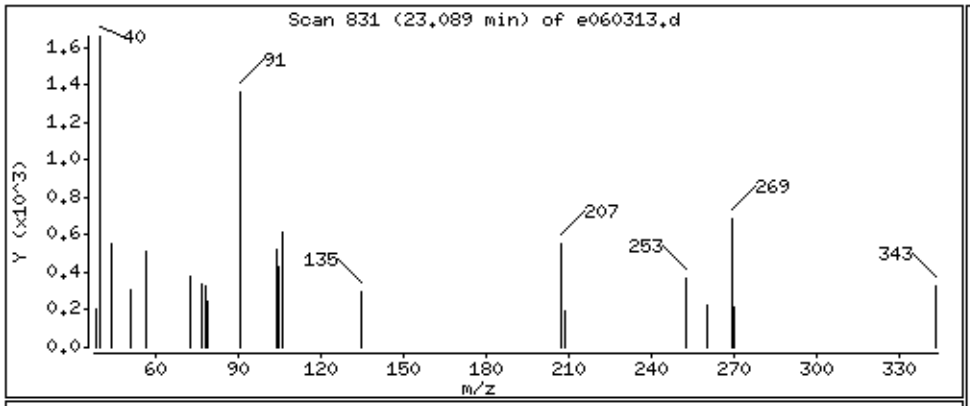
Operator: ea

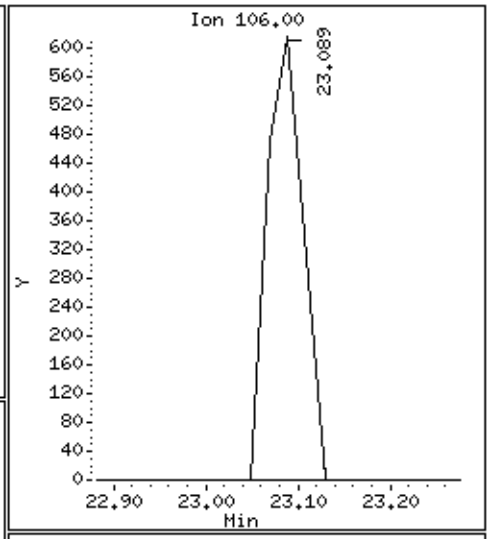
Column phase: RTX-624

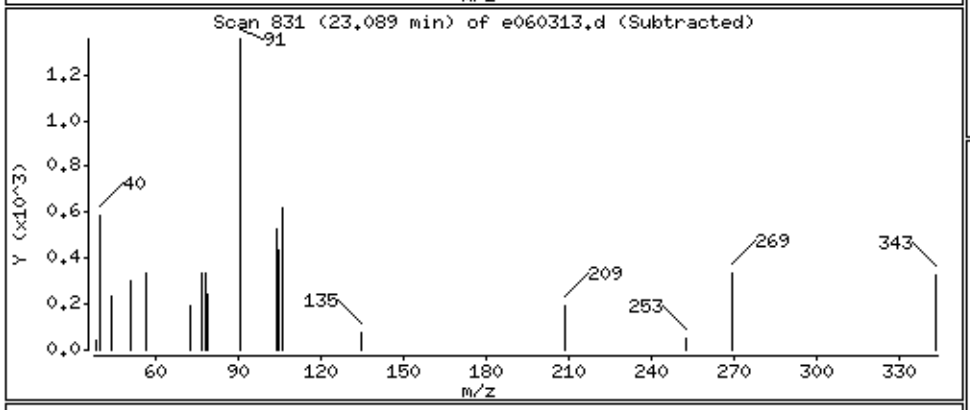
Column diameter: 0.32

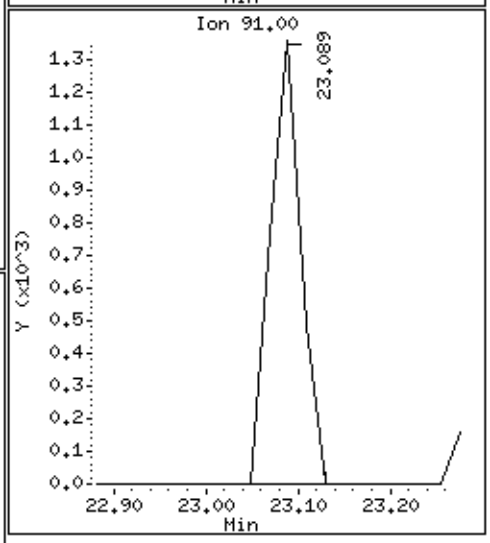
171 o-Xylene

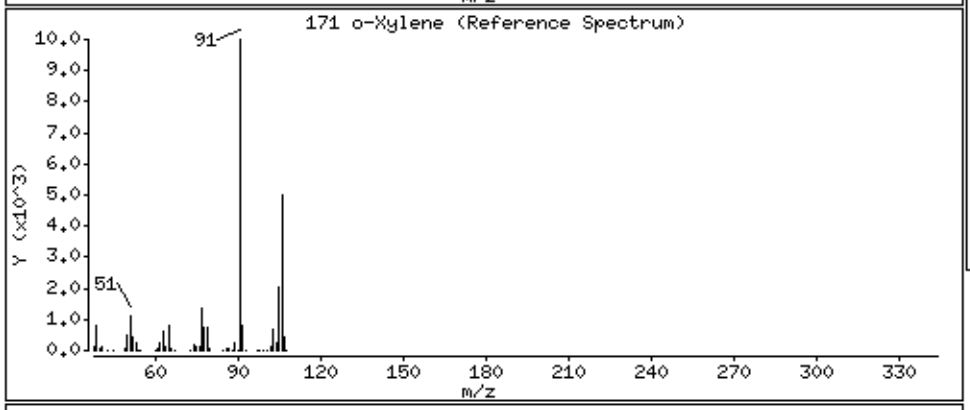
Concentration: 0.04646 PPBV

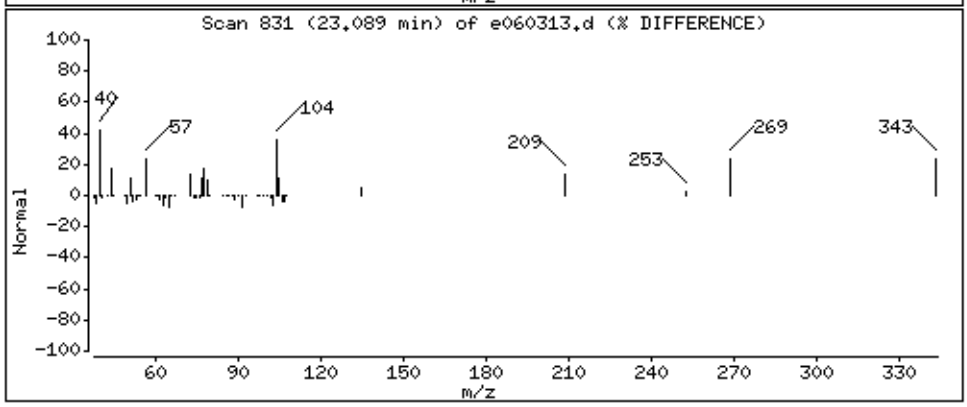












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

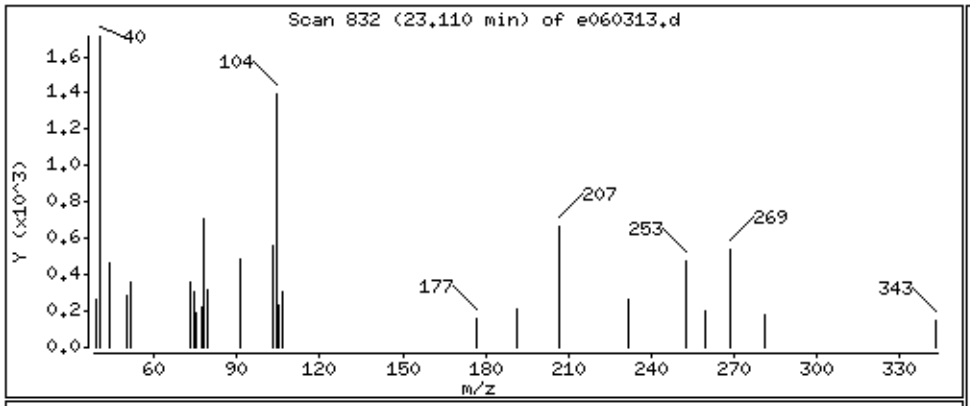
Operator: ea

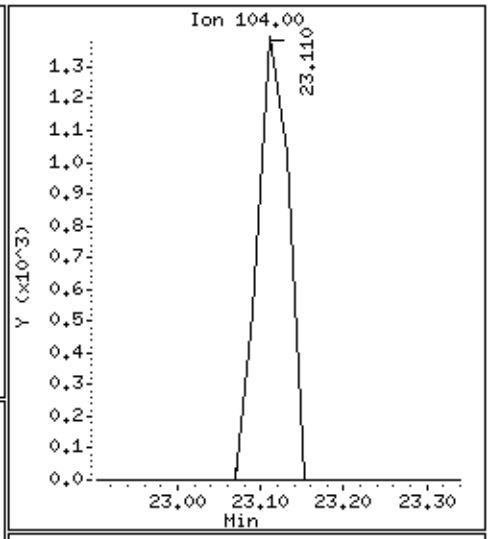
Column phase: RTX-624

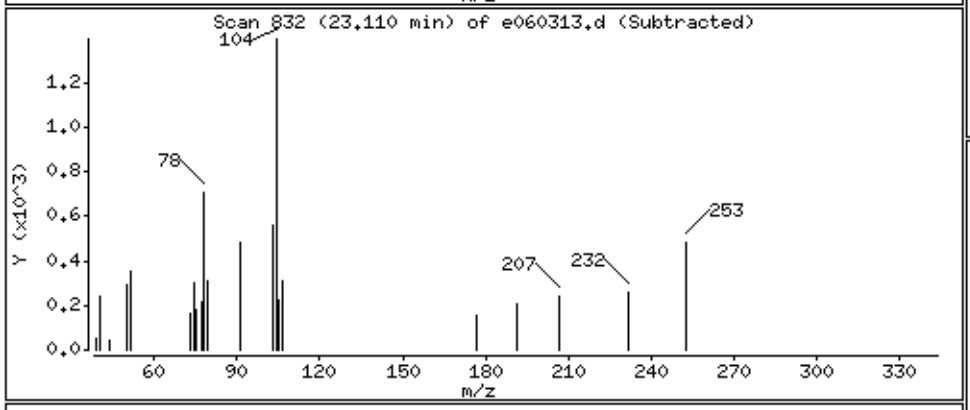
Column diameter: 0.32

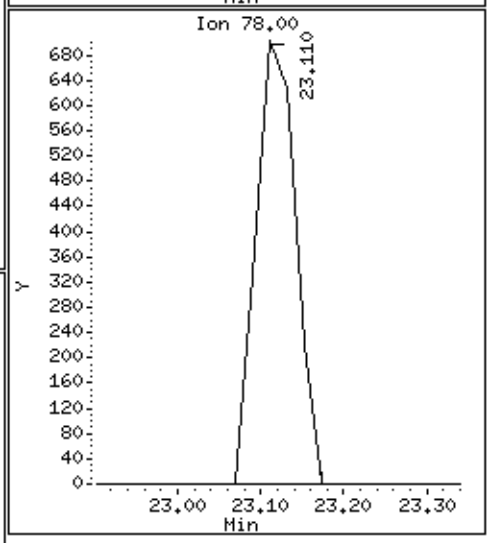
172 Styrene

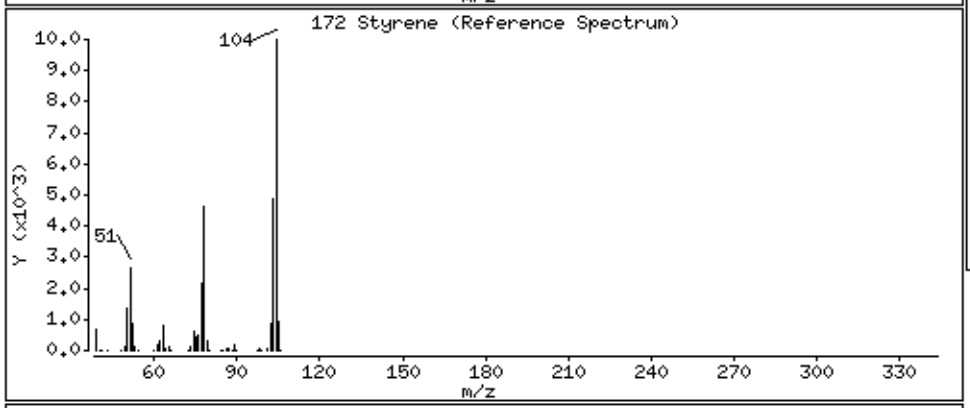
Concentration: 0.05785 PPBV

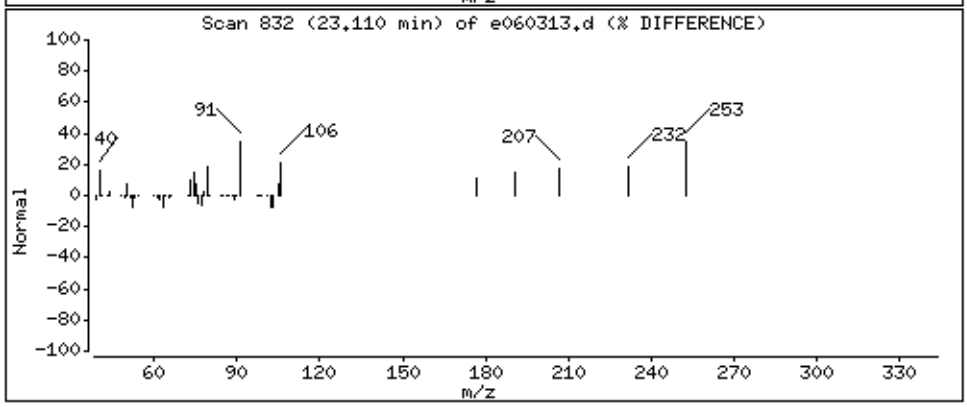












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

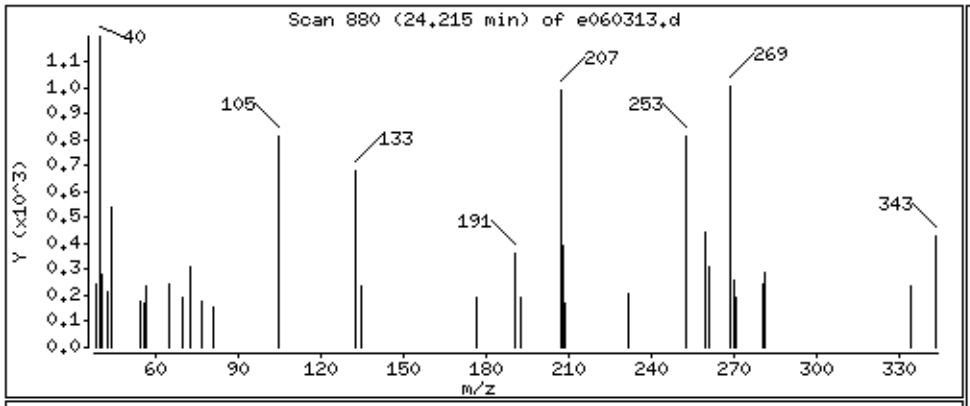
Operator: ea

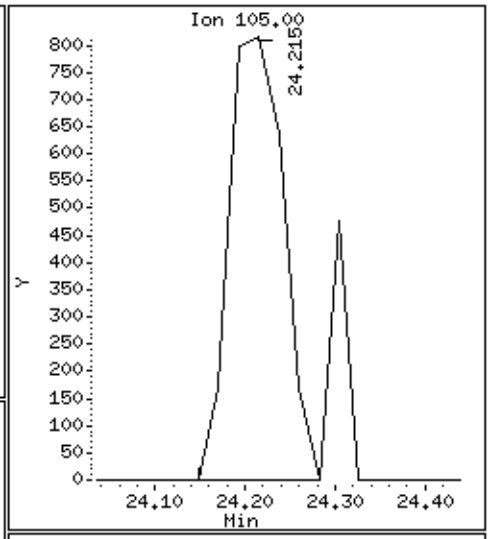
Column phase: RTX-624

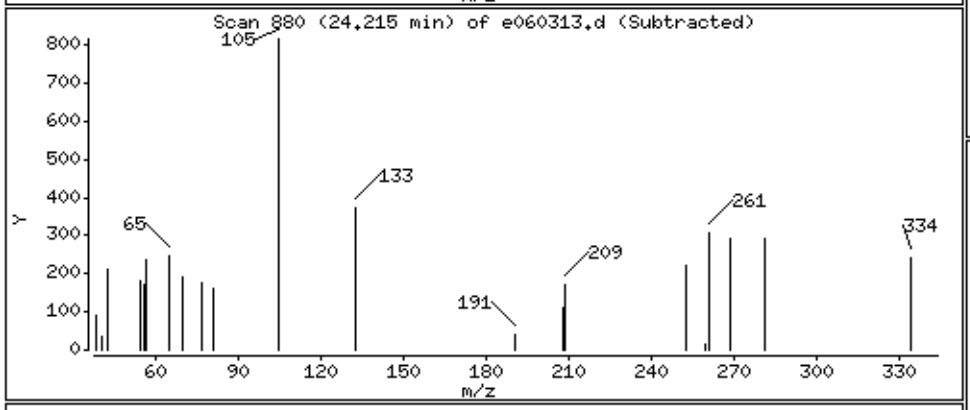
Column diameter: 0.32

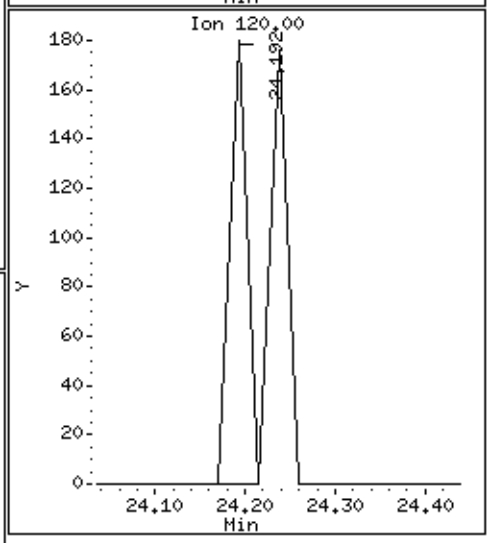
188 4-Ethyltoluene

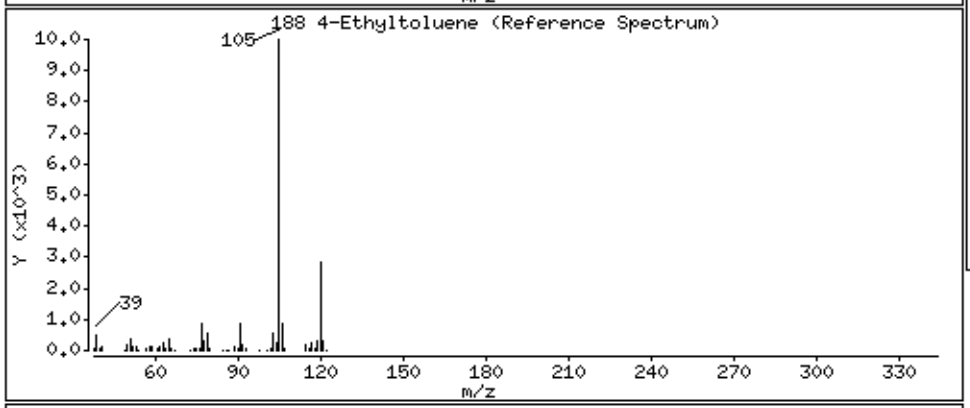
Concentration: 0.03063 PPBV

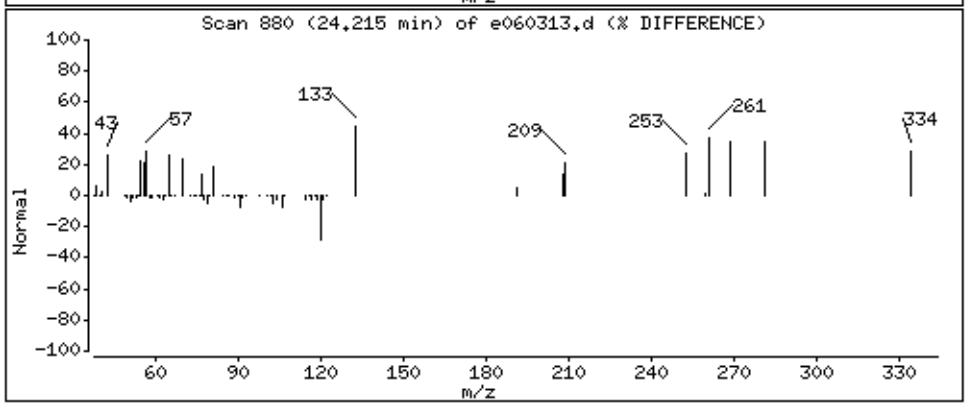












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

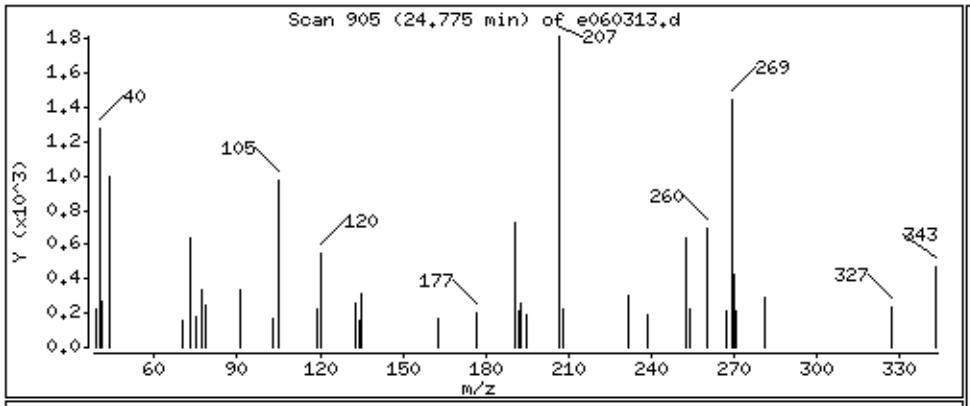
Operator: ea

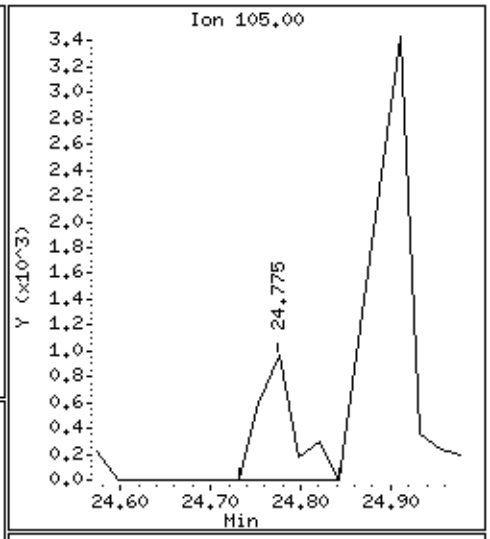
Column phase: RTX-624

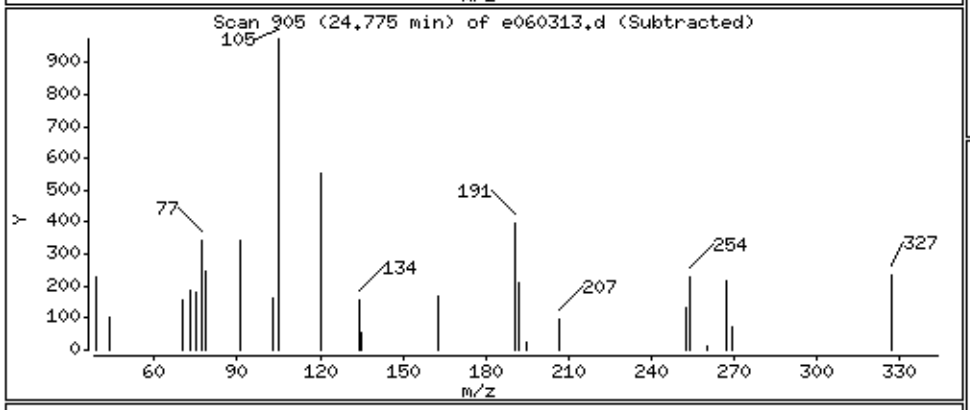
Column diameter: 0.32

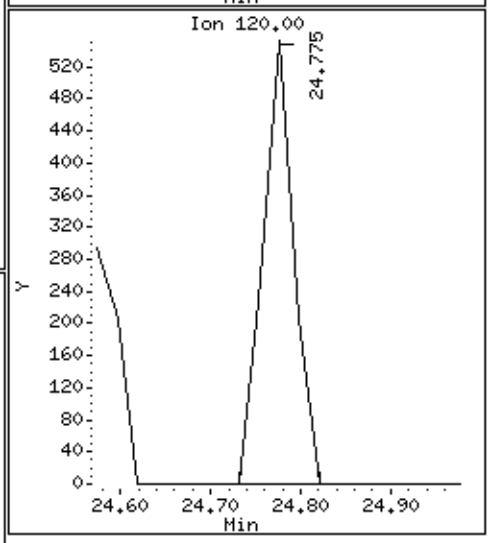
196 1,2,4-Trimethylbenzene

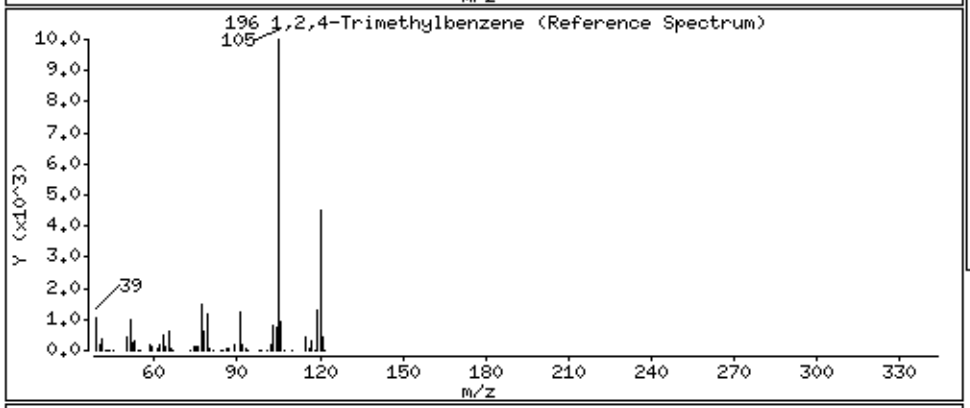
Concentration: 0.03603 PPBV

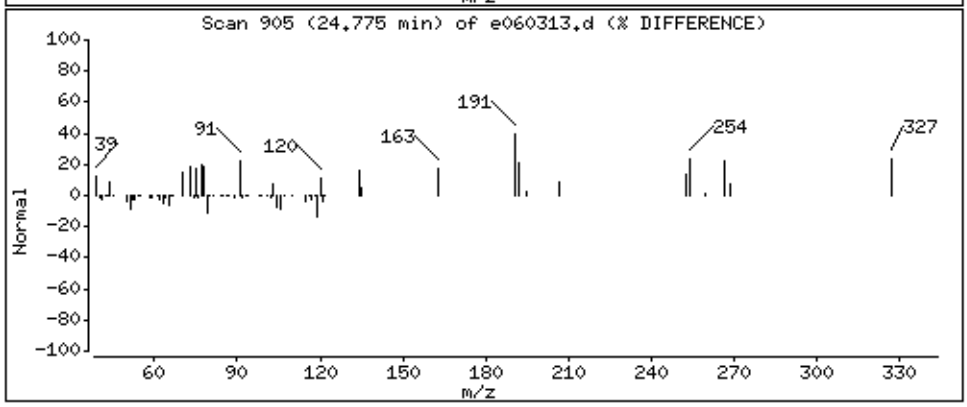












Data File: /chem/msde.i/03Jun2016.b/e060313.d

Date : 03-JUN-2016 16:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# 35258

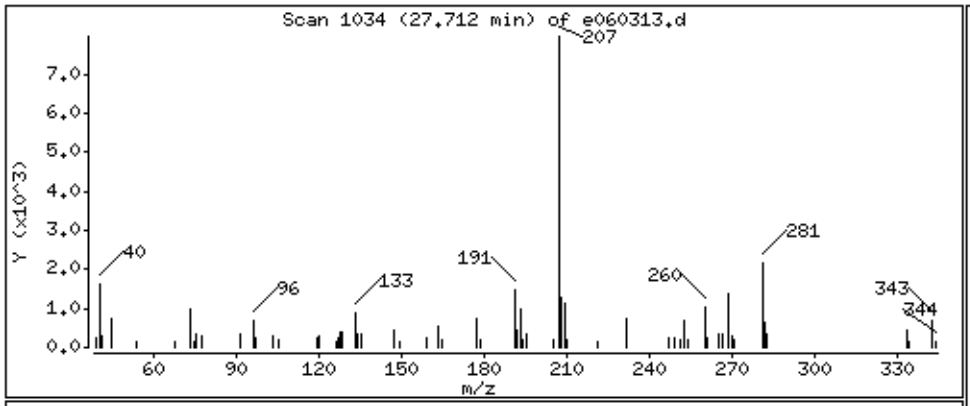
Operator: ea

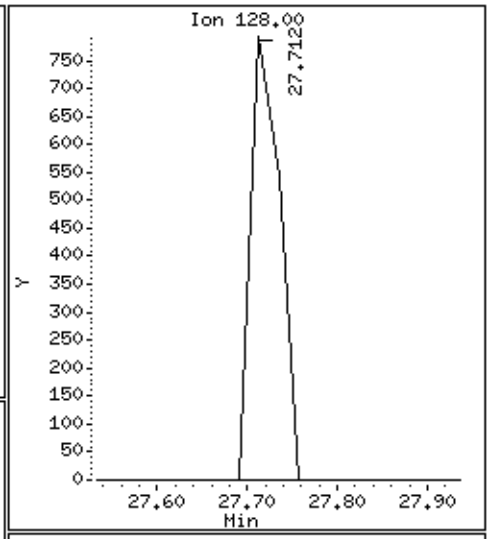
Column phase: RTX-624

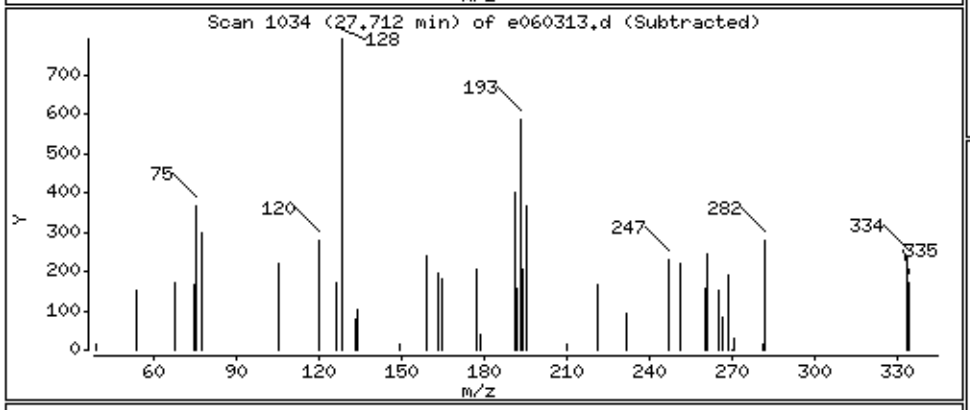
Column diameter: 0.32

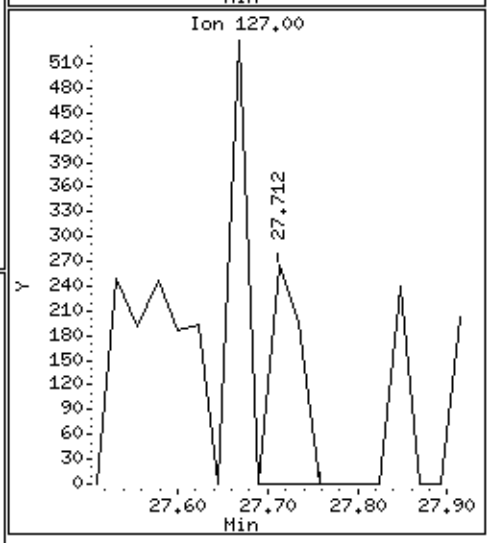
228 Naphthalene

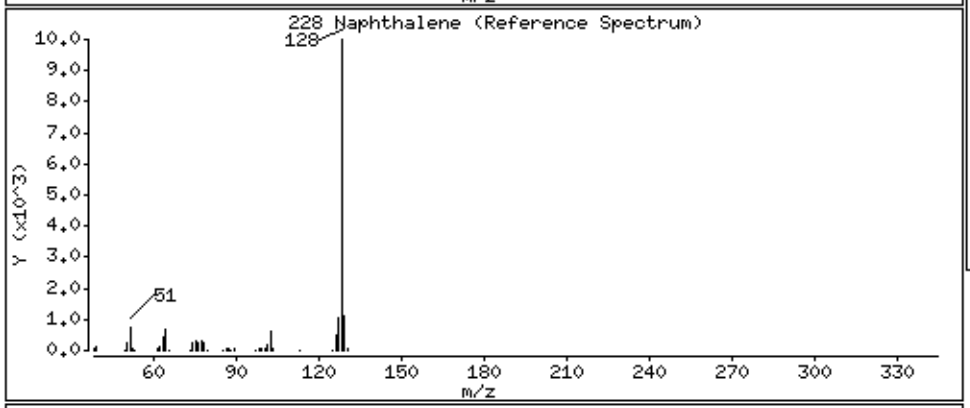
Concentration: 0.04376 PPBV

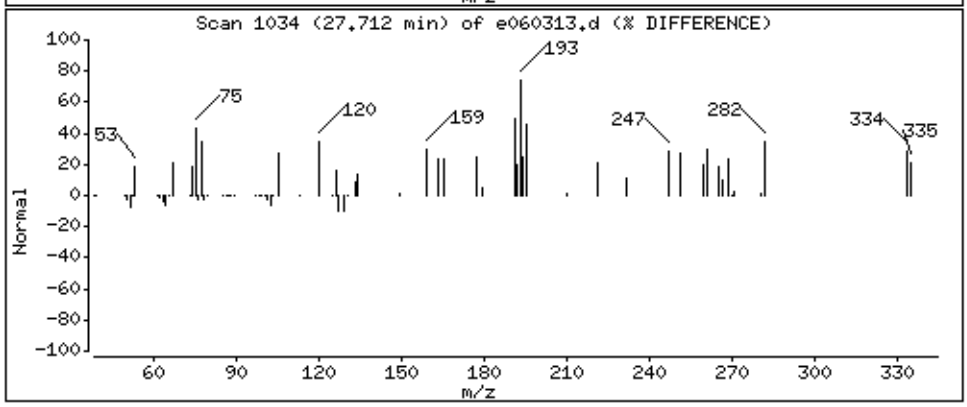












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-1D (052816)

Lab ID#: 1606028A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.77	2.2
Chloromethane	0.78	0.86	1.6	1.8
Freon 11	0.16	0.30	0.88	1.7
Ethanol	0.78	9.5	1.5	18
Freon 113	0.16	0.059 J	1.2	0.45 J
Acetone	0.78	10	1.8	24
2-Propanol	0.78	4.2	1.9	10
Carbon Disulfide	0.78	0.48 J	2.4	1.5 J
Methylene Chloride	0.31	0.098 J	1.1	0.34 J
Hexane	0.16	0.28	0.55	0.99
2-Butanone (Methyl Ethyl Ketone)	0.78	1.1	2.3	3.3
Carbon Tetrachloride	0.16	0.072 J	0.98	0.46 J
Benzene	0.16	0.14 J	0.50	0.43 J
Heptane	0.16	0.27	0.64	1.1
Trichloroethene	0.16	0.12 J	0.84	0.64 J
4-Methyl-2-pentanone	0.16	0.13 J	0.64	0.54 J
Toluene	0.16	0.25	0.59	0.96
2-Hexanone	0.78	0.15 J	3.2	0.61 J
Ethyl Benzene	0.16	0.082 J	0.68	0.35 J
m,p-Xylene	0.16	0.20	0.68	0.87
o-Xylene	0.16	0.081 J	0.68	0.35 J
Styrene	0.16	0.067 J	0.66	0.29 J
Cumene	0.16	0.022 J	0.77	0.11 J
Propylbenzene	0.16	0.040 J	0.77	0.20 J
4-Ethyltoluene	0.16	0.075 J	0.77	0.37 J
1,3,5-Trimethylbenzene	0.16	0.032 J	0.77	0.16 J
1,2,4-Trimethylbenzene	0.16	0.10 J	0.77	0.51 J
Naphthalene	0.78	0.12 J	4.1	0.64 J

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Client Sample ID: B30IA-1D (052816)

Lab ID#: 1606028A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060314**	**Date of Collection:**	**5/29/16 5:39:00 PM**
Dil. Factor:	**1.56**	**Date of Analysis:**	**6/3/16 05:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.77	2.2
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.78	0.86	1.6	1.8
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.34	Not Detected
Bromomethane	0.78	Not Detected	3.0	Not Detected
Chloroethane	0.78	Not Detected	2.0	Not Detected
Freon 11	0.16	0.30	0.88	1.7
Ethanol	0.78	9.5	1.5	18
Freon 113	0.16	0.059 J	1.2	0.45 J
1,1-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Acetone	0.78	10	1.8	24
2-Propanol	0.78	4.2	1.9	10
Carbon Disulfide	0.78	0.48 J	2.4	1.5 J
3-Chloropropene	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	0.098 J	1.1	0.34 J
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Hexane	0.16	0.28	0.55	0.99
1,1-Dichloroethane	0.16	Not Detected	0.63	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	1.1	2.3	3.3
cis-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.76	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.85	Not Detected
Cyclohexane	0.16	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.16	0.072 J	0.98	0.46 J
2,2,4-Trimethylpentane	0.78	Not Detected	3.6	Not Detected
Benzene	0.16	0.14 J	0.50	0.43 J
1,2-Dichloroethane	0.16	Not Detected	0.63	Not Detected
Heptane	0.16	0.27	0.64	1.1
Trichloroethene	0.16	0.12 J	0.84	0.64 J
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
1,4-Dioxane	0.16	Not Detected	0.56	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.71	Not Detected
4-Methyl-2-pentanone	0.16	0.13 J	0.64	0.54 J
Toluene	0.16	0.25	0.59	0.96
trans-1,3-Dichloropropene	0.16	Not Detected	0.71	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.85	Not Detected
Tetrachloroethene	0.16	Not Detected	1.0	Not Detected
2-Hexanone	0.78	0.15 J	3.2	0.61 J

eurofins | Air Toxics

Client Sample ID: B30IA-1D (052816)

Lab ID#: 1606028A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060314**	**Date of Collection:**	**5/29/16 5:39:00 PM**
Dil. Factor:	**1.56**	**Date of Analysis:**	**6/3/16 05:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.72	Not Detected
Ethyl Benzene	0.16	0.082 J	0.68	0.35 J
m,p-Xylene	0.16	0.20	0.68	0.87
o-Xylene	0.16	0.081 J	0.68	0.35 J
Styrene	0.16	0.067 J	0.66	0.29 J
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	0.022 J	0.77	0.11 J
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	0.040 J	0.77	0.20 J
4-Ethyltoluene	0.16	0.075 J	0.77	0.37 J
1,3,5-Trimethylbenzene	0.16	0.032 J	0.77	0.16 J
1,2,4-Trimethylbenzene	0.16	0.10 J	0.77	0.51 J
1,3-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.81	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Hexachlorobutadiene	0.78	Not Detected	8.3	Not Detected
Naphthalene	0.78	0.12 J	4.1	0.64 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/03Jun2016.b/e060314.d
Lab Smp Id: 1606028A-03A
Inj Date : 03-JUN-2016 17:40
Operator : ea Inst ID: msde.i
Smp Info : 250mL# 14038
Misc Info : 4.3"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/03Jun2016.b/e16l0317f.m
Meth Date : 03-Jun-2016 10:38 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1
Dil Factor: 1.56000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12						CAS #: 75-71-8		
5.221	5.196	(0.339)	85	29988	0.28615	0.4464	80.00- 120.00	100.00
5.221	5.220	(0.339)	87	9451			2.00- 62.00	31.52
17 Chloromethane						CAS #: 74-87-3		
6.908	6.956	(0.449)	50	10921	0.54923	0.8568	80.00- 120.00	100.00
6.956	6.932	(0.452)	52	3487			5.50- 65.50	31.93
35 Freon 11						CAS #: 75-69-4		
10.747	10.747	(0.698)	101	21391	0.18956	0.2957	80.00- 120.00	100.00
10.747	10.747	(0.698)	103	13895			37.17- 97.17	64.96
42 Ethanol						CAS #: 64-17-5		
11.681	11.681	(0.759)	45	49959	6.10980	9.531	80.00- 120.00	100.00
11.681	11.681	(0.759)	46	19095			6.61- 66.61	38.22
11.681	11.681	(0.759)	43	13856			0.00- 54.66	27.73
49 Freon 113						CAS #: 76-13-1		
12.081	12.081	(0.785)	151	3206	0.03791	0.05914	80.00- 120.00	100.00(a)
12.081	12.081	(0.785)	153	2247			33.64- 93.64	70.09

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   49 Freon 113 (continued)
 12.062  12.081 (0.784)   101      3845                    80.40- 140.40   119.93
-------------------------------------------------------------------------------
   52 Acetone                                        CAS #: 67-64-1
 12.366  12.366 (0.803)    58     91028 6.60130   10.298  80.00- 120.00   100.00
 12.366  12.366 (0.803)    43    313453                  321.47- 381.47   344.34
-------------------------------------------------------------------------------
   56 Carbon Disulfide                               CAS #: 75-15-0
 12.443  12.443 (0.808)    76     32035 0.30481   0.4755  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                     CAS #: 67-63-0
 12.728  12.709 (0.827)    45    114622 2.71726    4.239  80.00- 120.00   100.00
 12.728  12.709 (0.827)    43     31345                     0.00-  54.09    27.35
 12.728  12.709 (0.827)    59      4976                     0.00-  34.43     4.34
-------------------------------------------------------------------------------
   66 Methylene Chloride                             CAS #: 75-09-2
 13.149  13.149 (0.854)    84      2083 0.06304  0.09834  80.00- 120.00   100.00(a)
 13.149  13.149 (0.854)    49      2614                    63.99- 123.99   125.45
  0.000  13.149 (0.000)    51         0                     0.29-  60.29     0.00
-------------------------------------------------------------------------------
   78 Hexane                                         CAS #: 110-54-3
 13.835  13.835 (0.899)    57      7445 0.18063   0.2818  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43      5831                    21.48-  81.48    78.33
 13.835  13.835 (0.899)    86      1537                     0.00-  51.51    20.65
-------------------------------------------------------------------------------
   92 2-Butanone                                     CAS #: 78-93-3
 15.047  15.047 (0.978)    72     12092 0.72800    1.136  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43     38224                   262.26- 322.26   316.09
 15.047  15.047 (0.978)    57      3463                     0.00-  55.71    28.64
-------------------------------------------------------------------------------
*  98 Bromochloromethane                            CAS #: 74-97-5
 15.391  15.391 (1.000)   130    124599 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128     93683                    52.25- 112.25    75.19
 15.391  15.391 (1.000)    49     87343                    89.81- 149.81    70.10
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
 15.854  15.854 (1.030)   119      4753 0.04638  0.07235  80.00- 120.00   100.00(a)
 15.854  15.854 (1.030)   117      4081                    74.09- 134.09    85.87
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.183  16.183 (0.967)    78      9340 0.08657   0.1350  80.00- 120.00   100.00(a)
 16.183  16.183 (0.967)    77      1603                     0.00-  53.97    17.17
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    172967 4.83557    4.836  80.00- 120.00   100.00
 16.183  16.183 (1.051)    67     88660                    21.16-  81.16    51.26
-------------------------------------------------------------------------------
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57      4456 0.17425   0.2718  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100      1209                   28.67-  88.67    27.14
 16.352  16.352 (0.977)    43      6204                  128.92- 188.92   139.23
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    450204 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     64807                    0.00-  45.20    14.40
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.123  17.123 (1.023)   130      4291 0.07668   0.1196  80.00- 120.00   100.00(a)
 17.123  17.123 (1.023)    95      4493                   63.99- 123.99   104.70
 17.123  17.123 (1.023)    97      1944                   29.21-  89.21    45.32
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 18.984  18.984 (1.134)    43      4708 0.08457   0.1319  80.00- 120.00   100.00(a)
 19.007  18.984 (1.136)    58      1697                   15.64-  75.64    36.06
 18.984  18.984 (1.134)    85      1511                    0.00-  56.71    32.10
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 19.276  19.275 (1.152)    98    430023 4.86351    4.864  80.00- 120.00   100.00
 19.276  19.275 (1.152)    70     51912                    0.00-  40.11    12.07
 19.276  19.275 (1.152)   100    288443                   37.58-  97.58    67.08
-------------------------------------------------------------------------------
  147 Toluene                                       CAS #: 108-88-3
 19.410  19.410 (1.160)    91     20998 0.16340   0.2549  80.00- 120.00   100.00
 19.432  19.410 (1.161)    92     12126                   28.92-  88.92    57.75
-------------------------------------------------------------------------------
  158 2-Hexanone                                    CAS #: 591-78-6
 20.795  20.795 (0.938)    58      3109 0.09506   0.1483  80.00- 120.00   100.00(a)
 20.795  20.795 (0.938)    43      6142                  140.44- 200.44   197.51
 20.795  20.795 (0.938)   100       952                    0.00-  59.62    30.63
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    421638 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    210405                   20.64-  80.64    49.90
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                 CAS #: 100-41-4
 22.302  22.302 (1.006)   106      2912 0.05241  0.08176  80.00- 120.00   100.00(a)
 22.302  22.302 (1.006)    91     10233                  282.51- 342.51   351.31
-------------------------------------------------------------------------------
  169 m,p-Xylene                                    CAS #: 108-38-3
 22.467  22.467 (1.013)   106      8313 0.12880   0.2009  80.00- 120.00   100.00
 22.467  22.467 (1.013)    91     18331                  166.46- 226.46   220.51
-------------------------------------------------------------------------------
  171 o-Xylene                                      CAS #: 95-47-6
 23.089  23.089 (1.041)   106      3077 0.05198  0.08108  80.00- 120.00   100.00(a)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
171 o-Xylene (continued)							
23.089	23.089 (1.041)	91	5746			184.01- 244.01	186.70
172 Styrene					CAS #: 100-42-5		
23.131	23.110 (1.043)	104	4331	0.04323	0.06744	80.00- 120.00	100.00(a)
23.110	23.110 (1.042)	78	2292			20.27- 80.27	52.93
175 Cumene					CAS #: 98-82-8		
23.564	23.564 (1.063)	105	2882	0.01432	0.02234	80.00- 120.00	100.00(a)
23.542	23.564 (1.062)	120	862			0.00- 57.47	29.93
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	282304	4.87952	4.880	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	283467			77.42- 137.42	100.41
23.856	23.856 (1.076)	176	269316			65.38- 125.38	95.40
182 Propylbenzene					CAS #: 103-65-1		
24.103	24.102 (1.087)	91	5399	0.02547	0.03973	80.00- 120.00	100.00(a)
24.103	24.102 (1.087)	120	1228			0.00- 55.24	22.76
188 4-Ethyltoluene					CAS #: 622-96-8		
24.192	24.237 (1.091)	105	8657	0.04818	0.07516	80.00- 120.00	100.00(a)
24.192	24.237 (1.091)	120	3062			1.08- 61.08	35.38
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.304	24.304 (1.096)	105	2901	0.02079	0.03243	80.00- 120.00	100.00(a)
24.304	24.304 (1.096)	120	1029			18.44- 78.44	35.48
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	8083	0.06686	0.1043	80.00- 120.00	100.00(a)
24.775	24.775 (1.117)	120	4064			16.20- 76.20	50.28
228 Naphthalene					CAS #: 91-20-3		
27.712	27.735 (1.250)	128	5042	0.07776	0.1213	80.00- 120.00	100.00(a)
27.712	27.712 (1.250)	127	1713			0.00- 46.39	33.98

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Report Date: 14-Jun-2016 06:32

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060314.d
Lab Smp Id: 1606028A-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 4.3"Hg -> 5.0psi

Calibration Date: 03-JUN-2016
Calibration Time: 07:24

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	115058	69035	161081	124599	8.29
123 1,4-Difluorobenze	430856	258514	603198	450204	4.49
163 Chlorobenzene-d5	386725	232035	541415	421638	9.03

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 14-Jun-2016 06:32

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606028A-03A
Level: LOW Operator: ea
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 4.3"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.836	96.71	70-130
$ 146 Toluene-d8	5.000	4.864	97.27	70-130
$ 177 4-Bromofluorobenze	5.000	4.880	97.59	70-130

Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

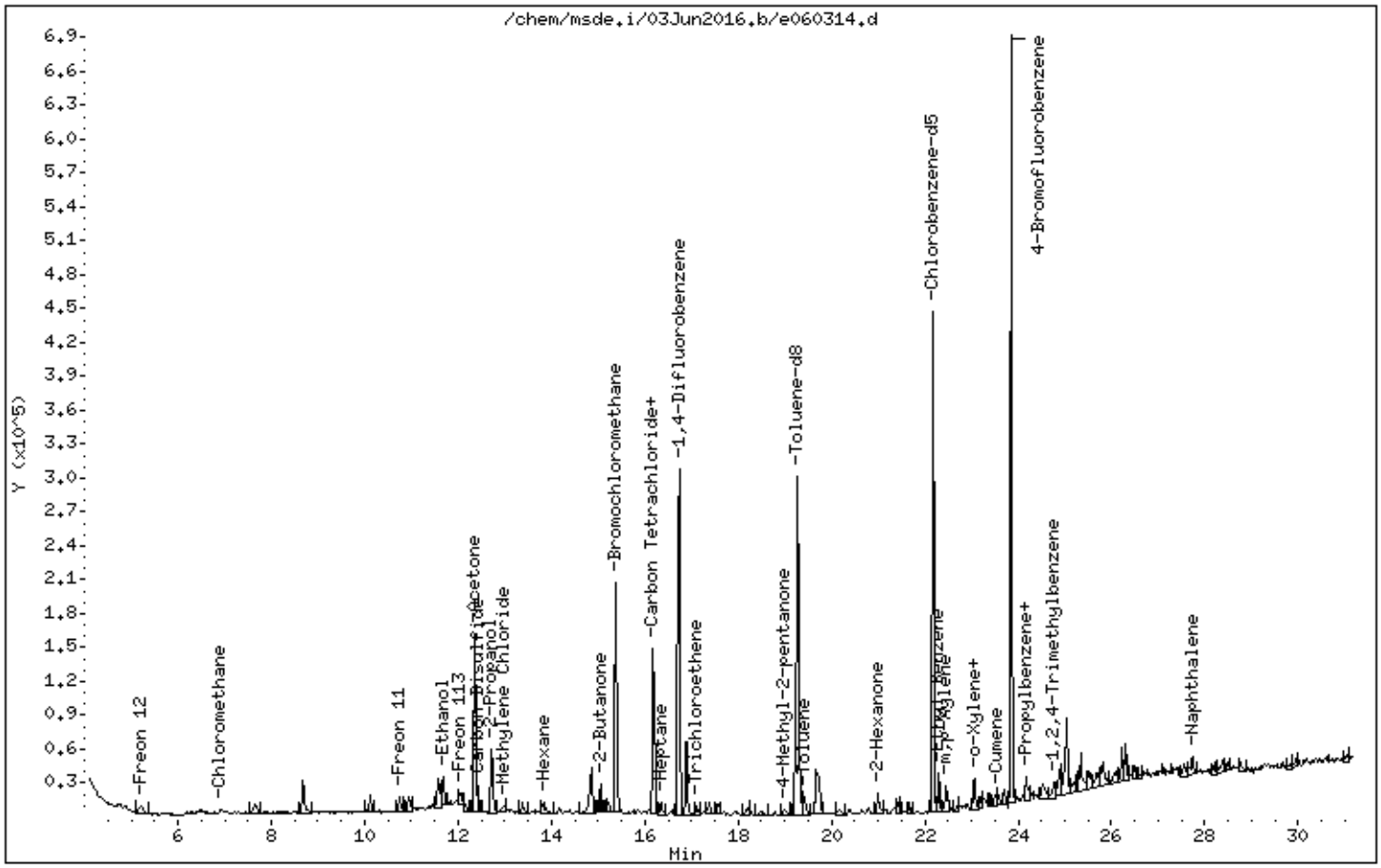
Instrument: msde.i

Sample Info: 250mL# 14038

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

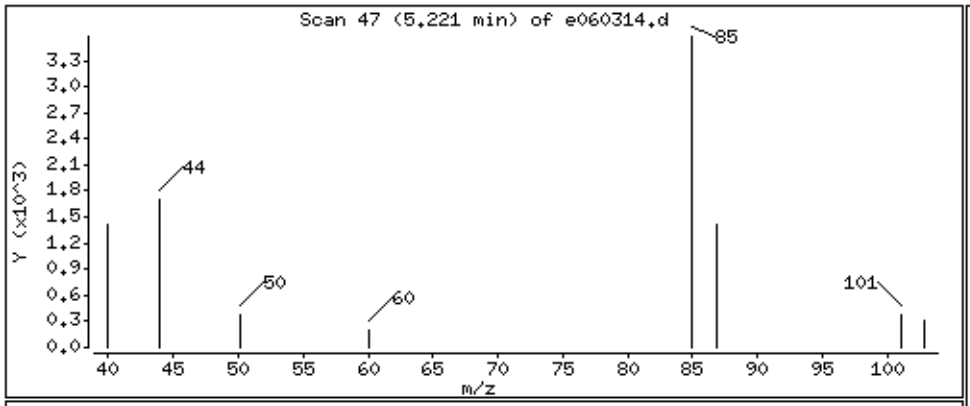
Operator: ea

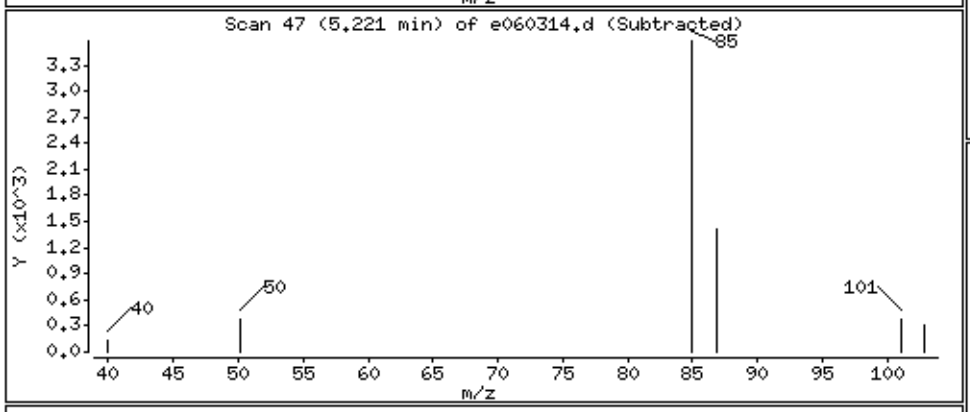
Column phase: RTX-624

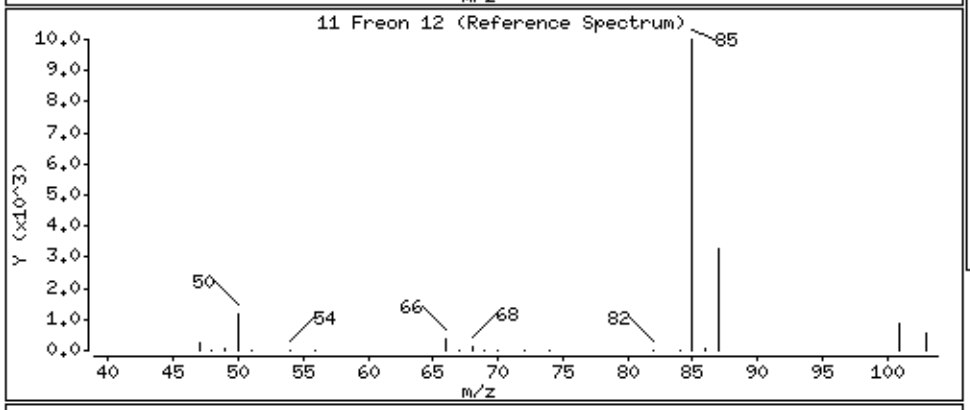
Column diameter: 0.32

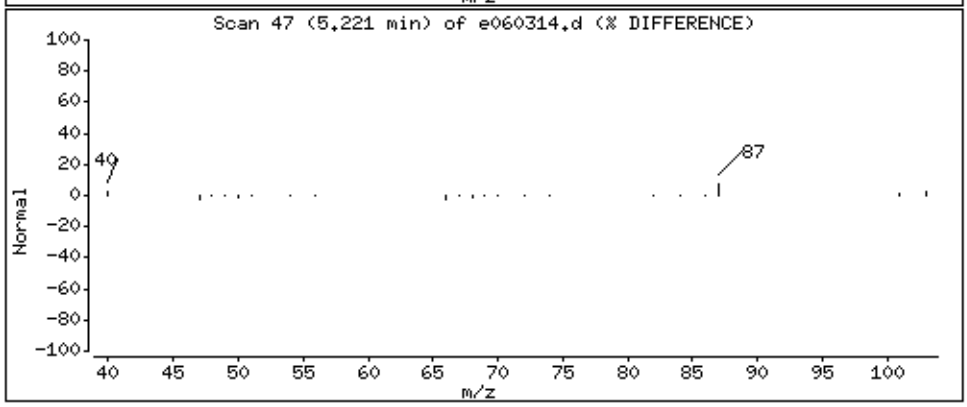
11 Freon 12

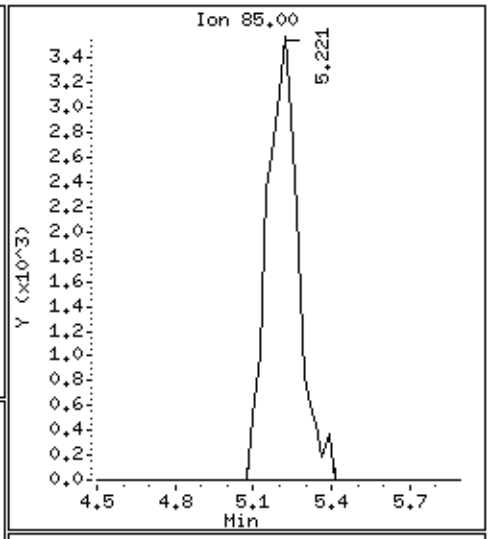
Concentration: 0.4464 PPBV

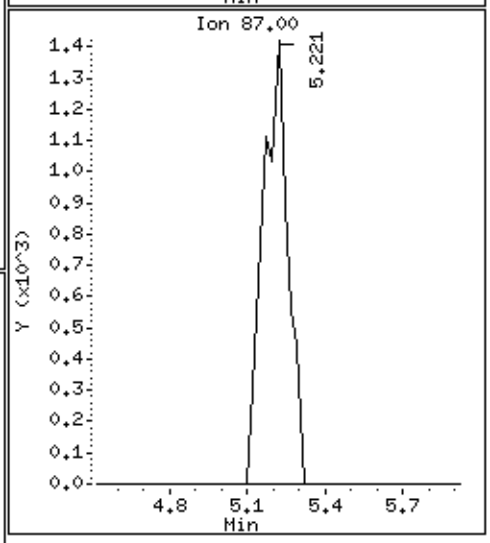












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

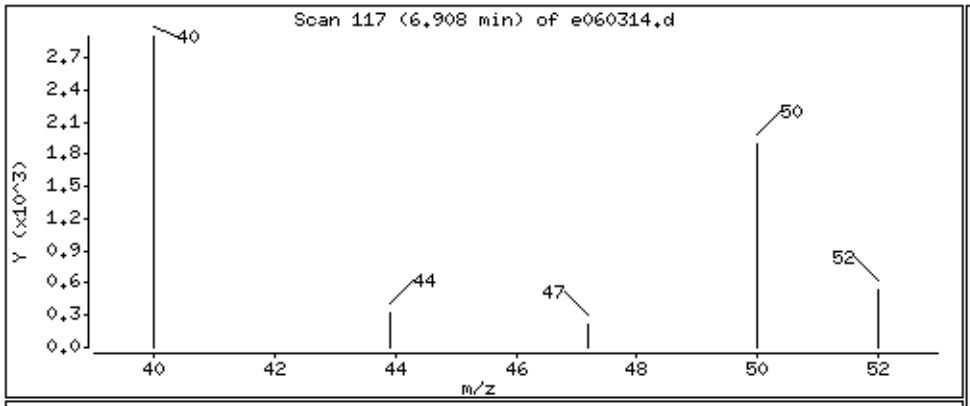
Operator: ea

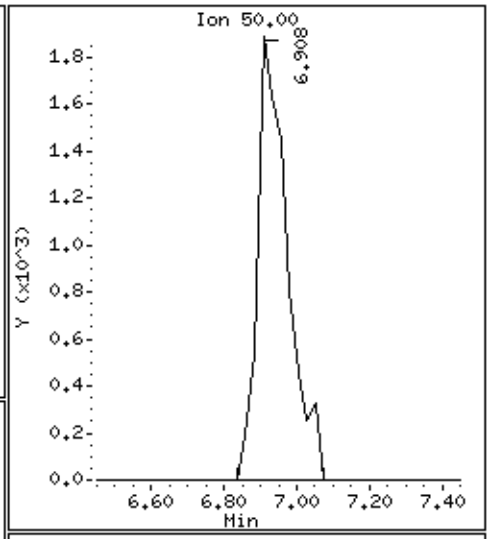
Column phase: RTX-624

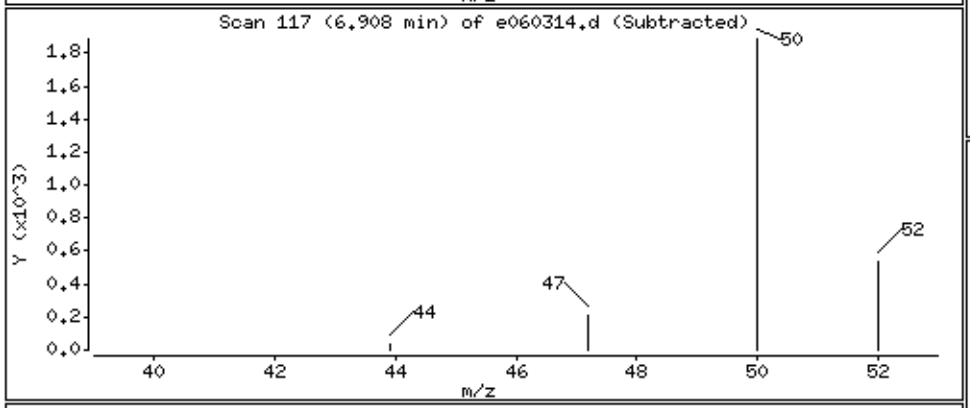
Column diameter: 0.32

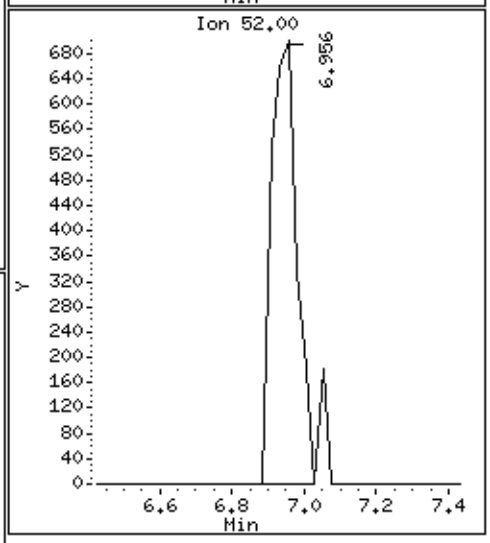
17 Chloromethane

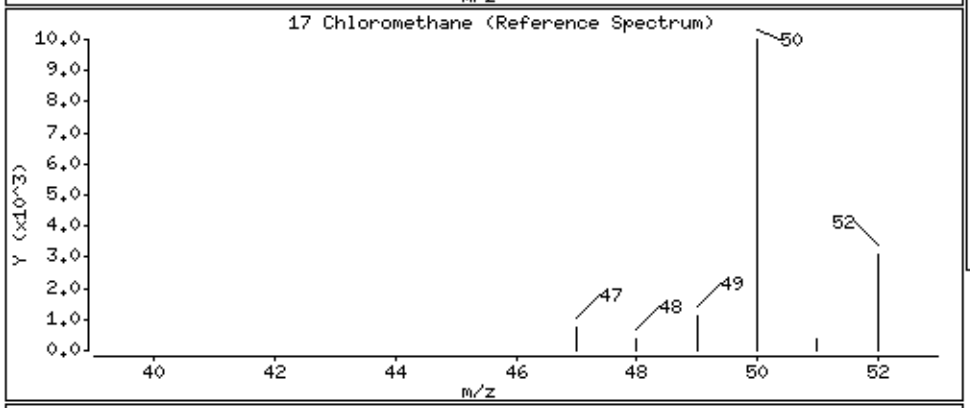
Concentration: 0.8568 PPBV

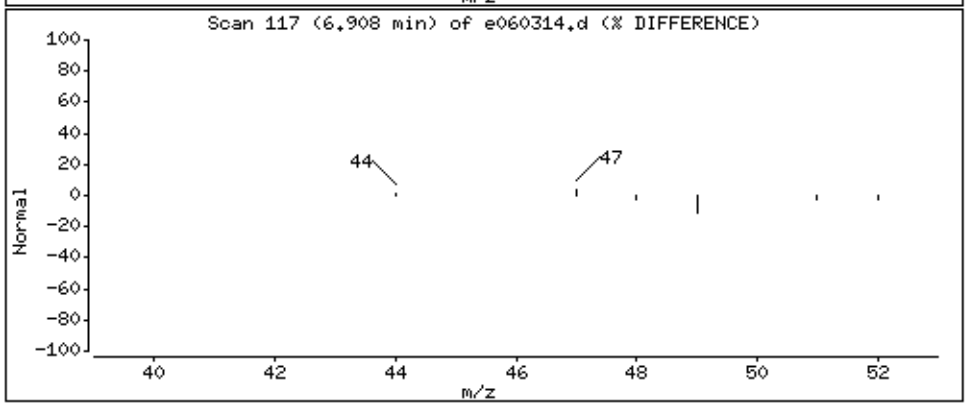












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

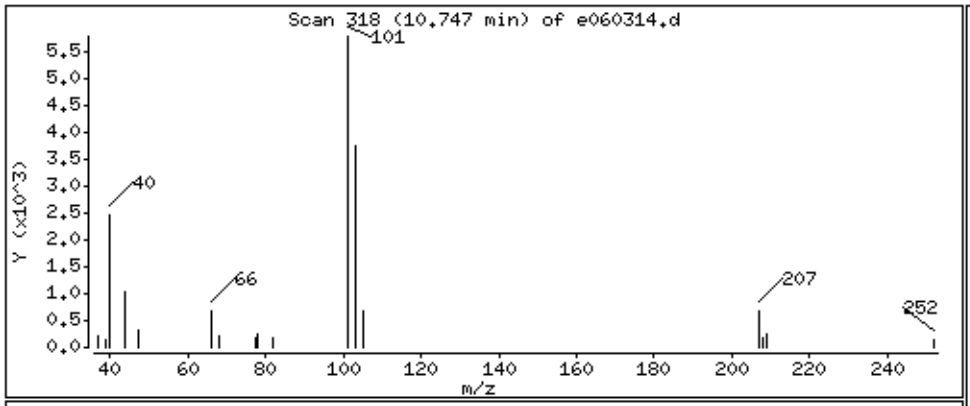
Operator: ea

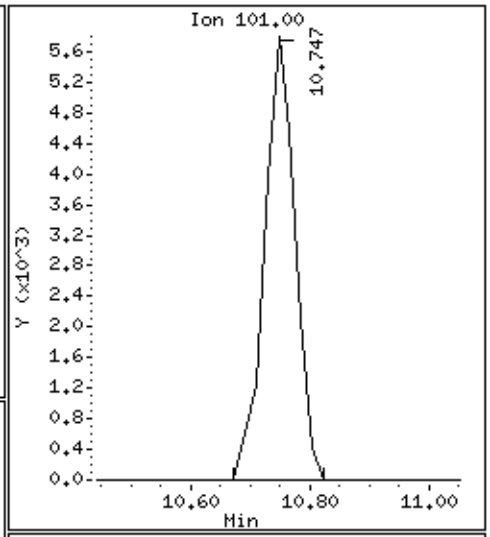
Column phase: RTX-624

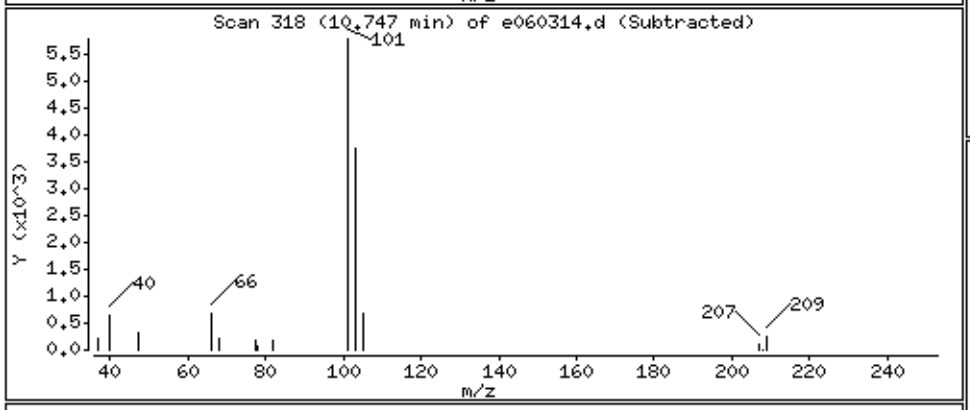
Column diameter: 0.32

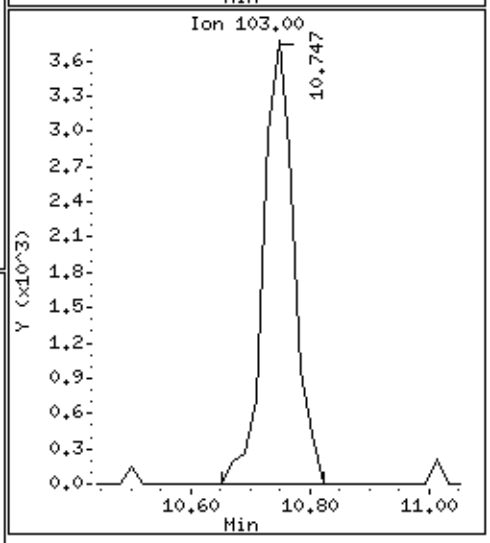
35 Freon 11

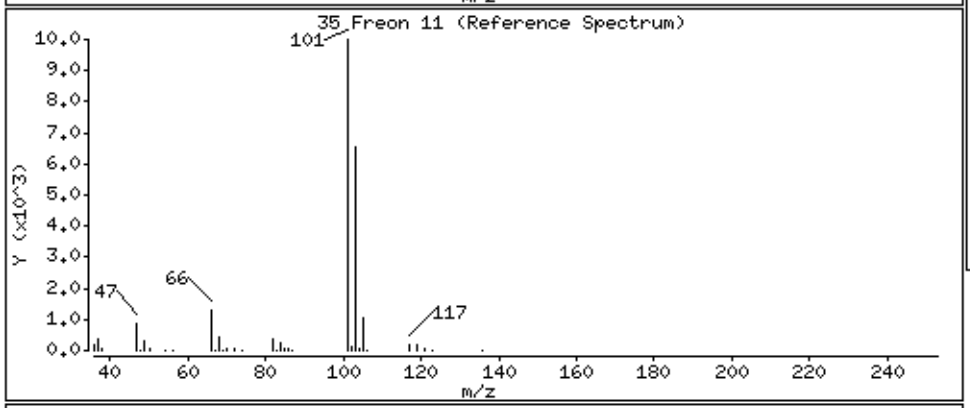
Concentration: 0.2957 PPBV

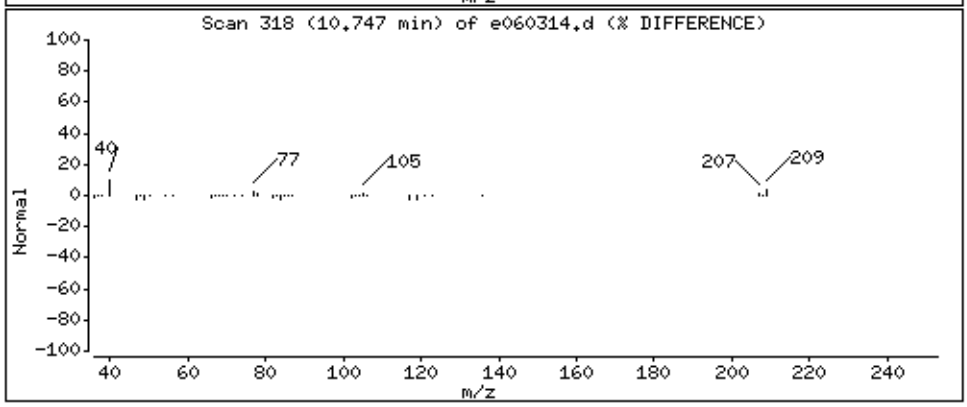












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

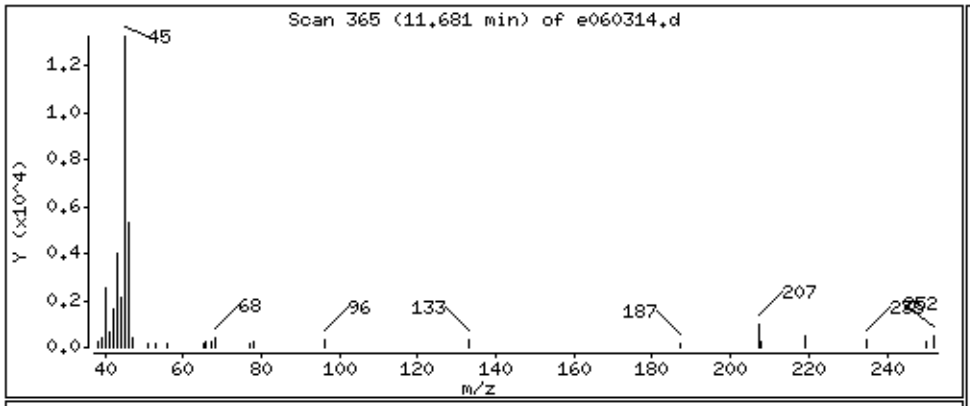
Operator: ea

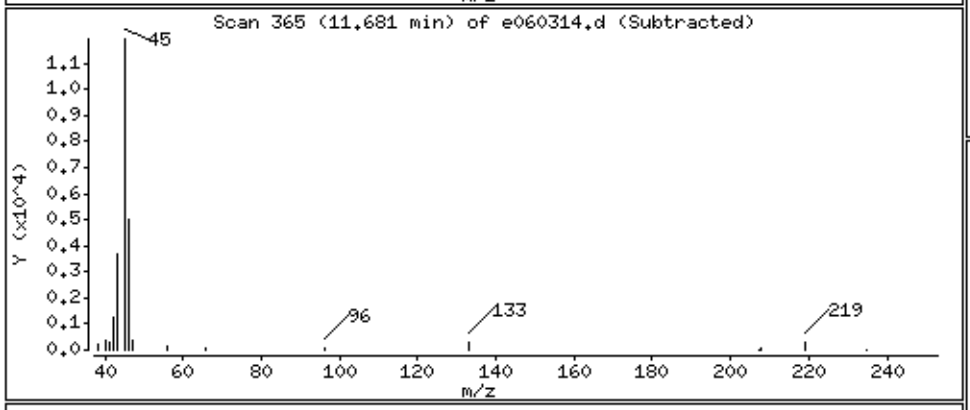
Column phase: RTX-624

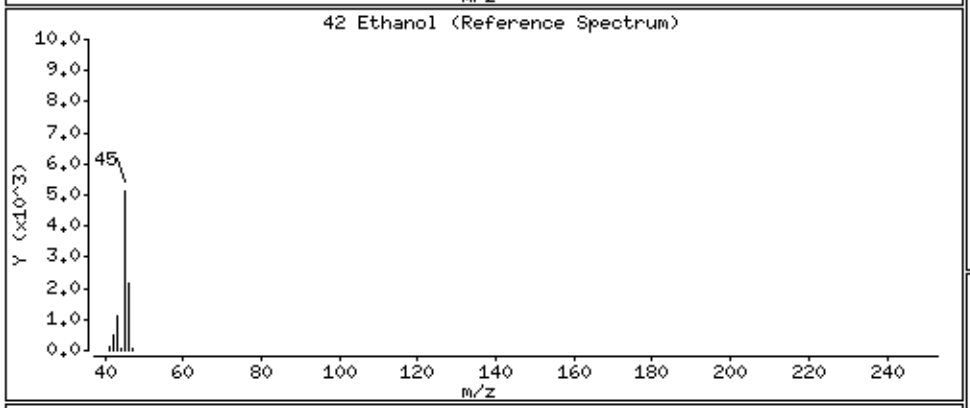
Column diameter: 0.32

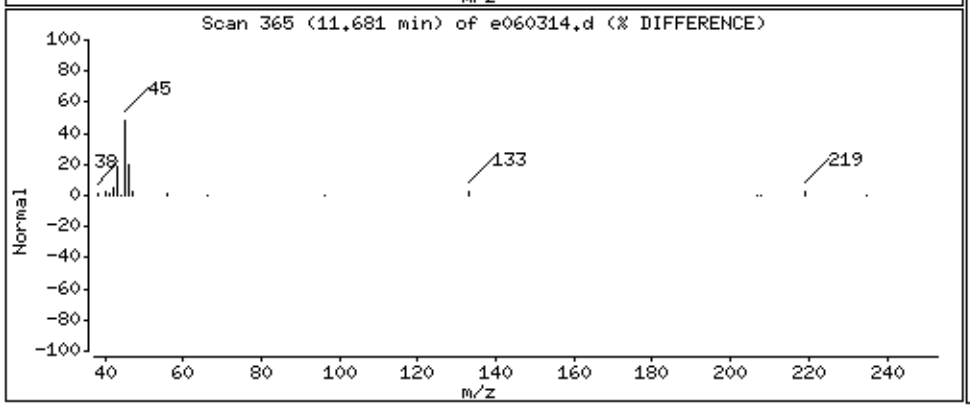
42 Ethanol

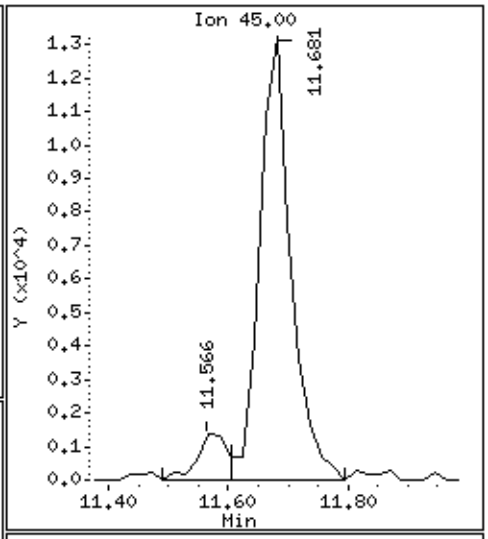
Concentration: 9.531 PPBV

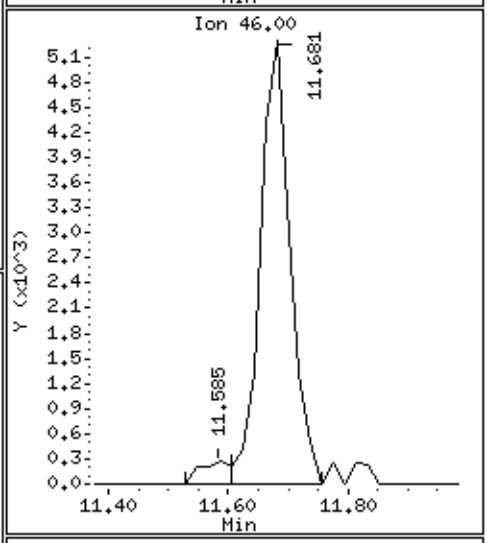


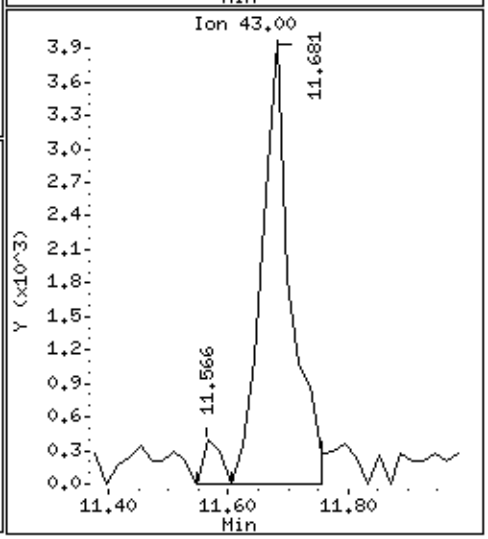












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

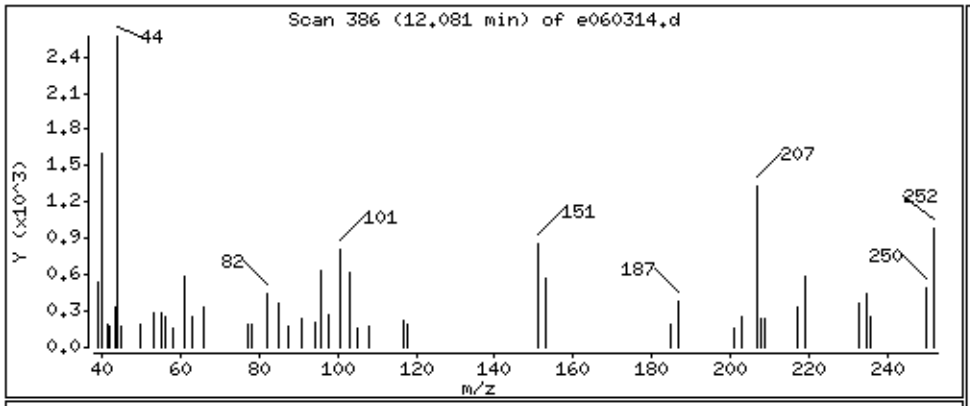
Operator: ea

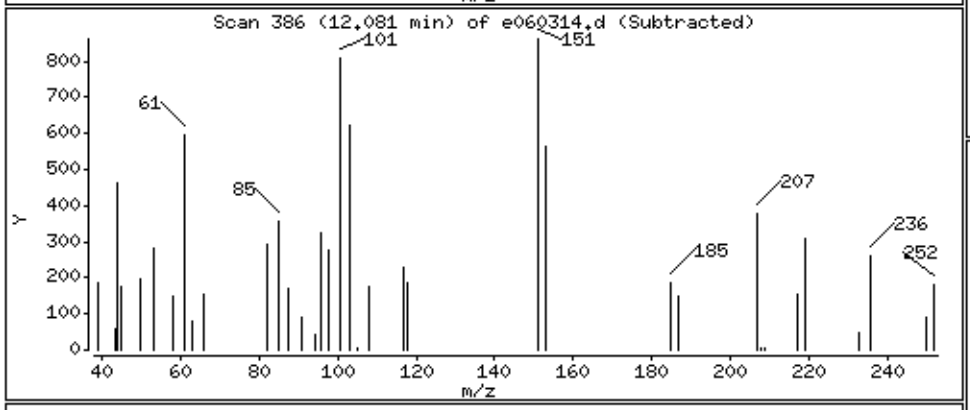
Column phase: RTX-624

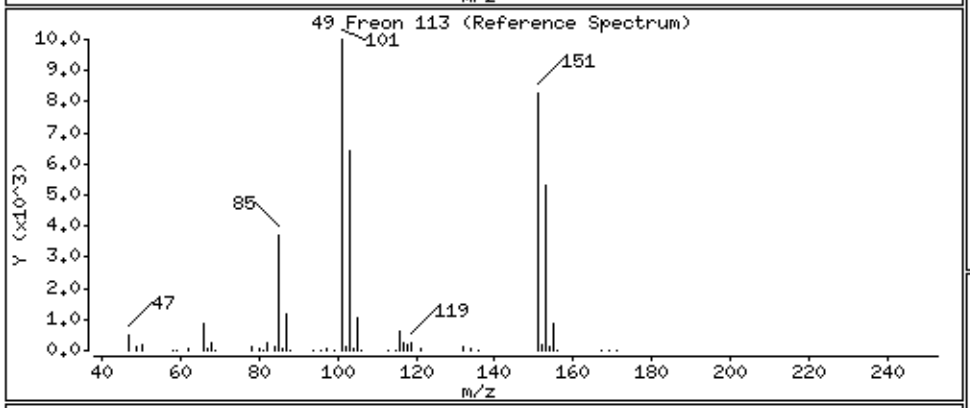
Column diameter: 0.32

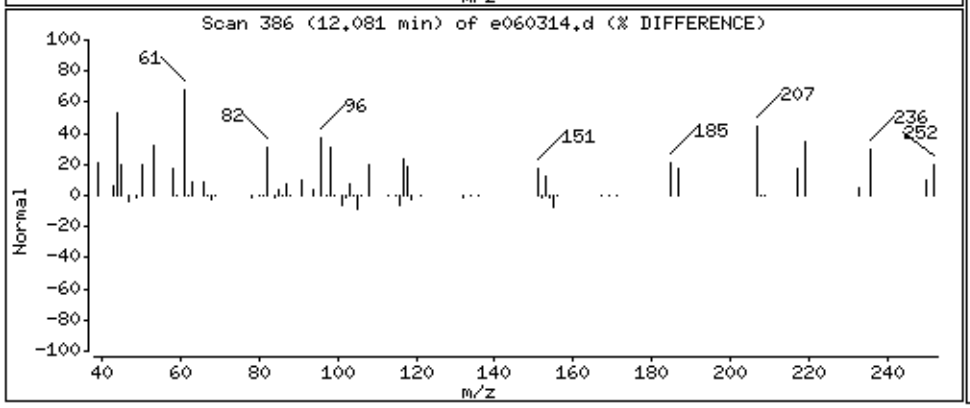
49 Freon 113

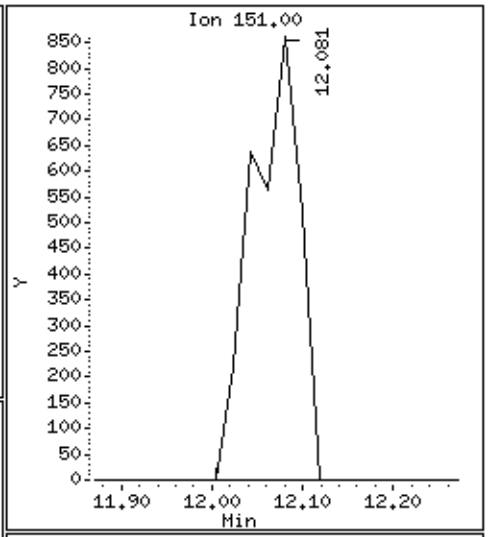
Concentration: 0.05914 PPBV

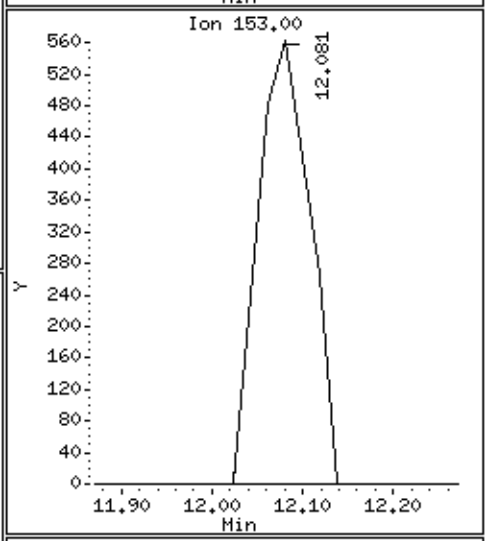


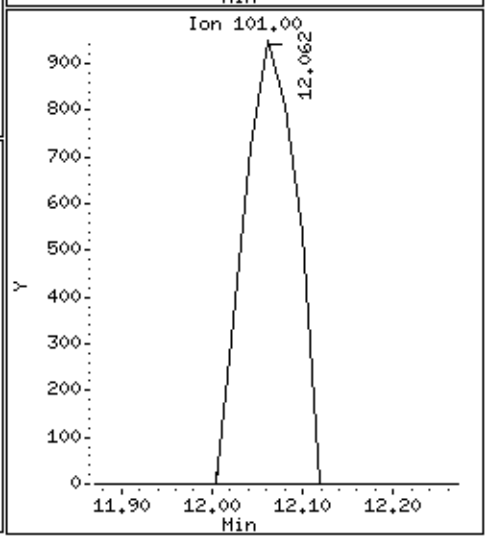












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

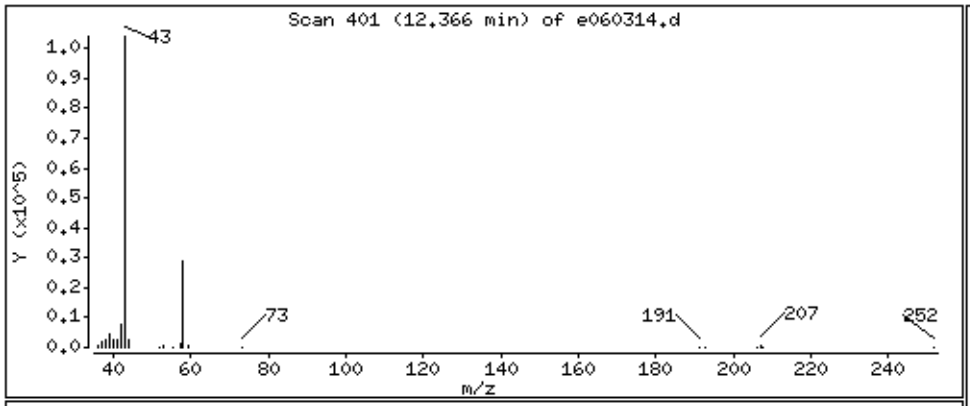
Operator: ea

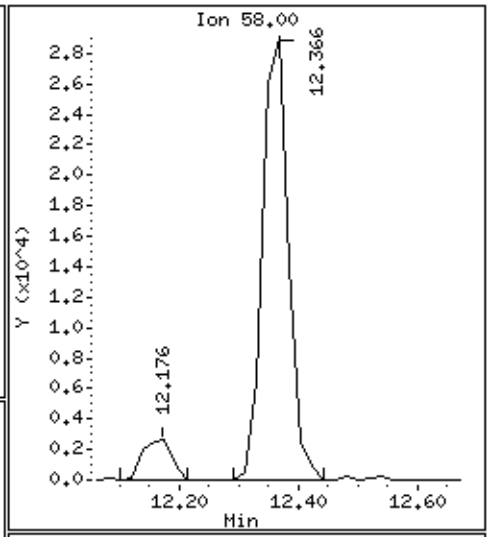
Column phase: RTX-624

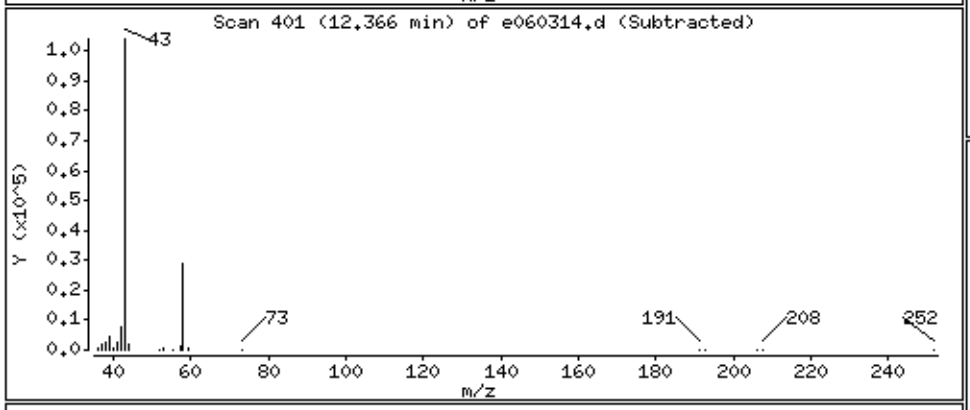
Column diameter: 0.32

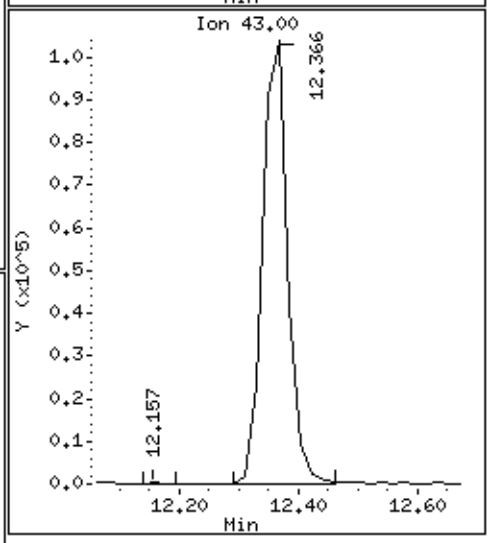
52 Acetone

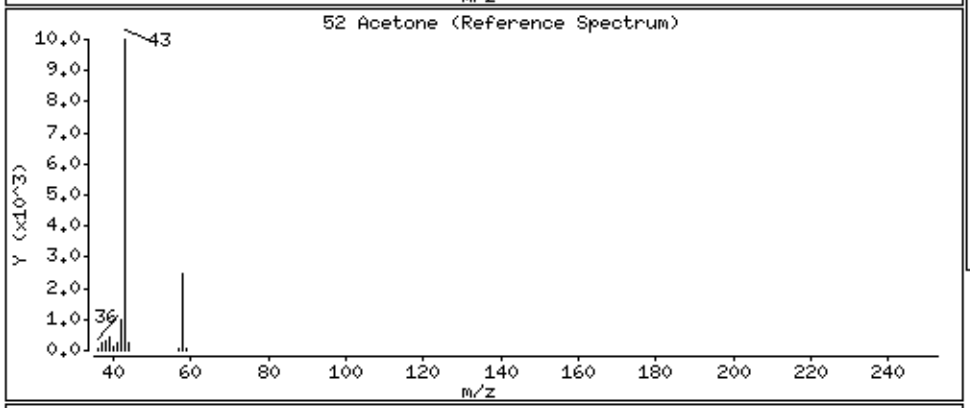
Concentration: 10.298 PPBV

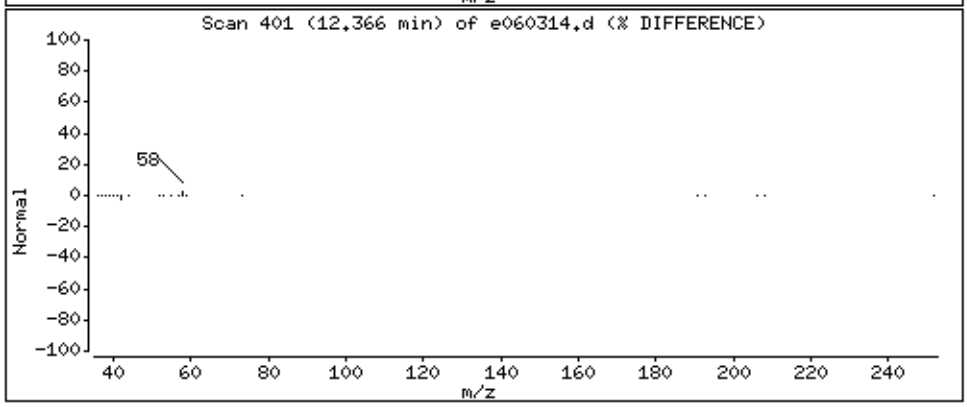












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

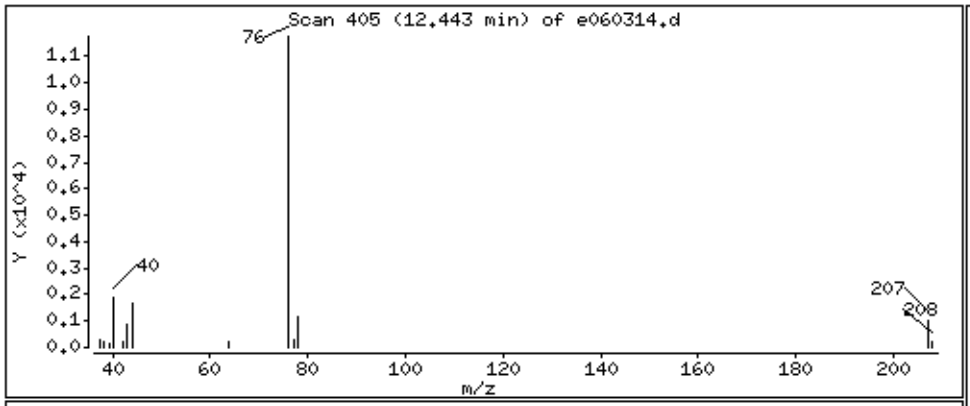
Operator: ea

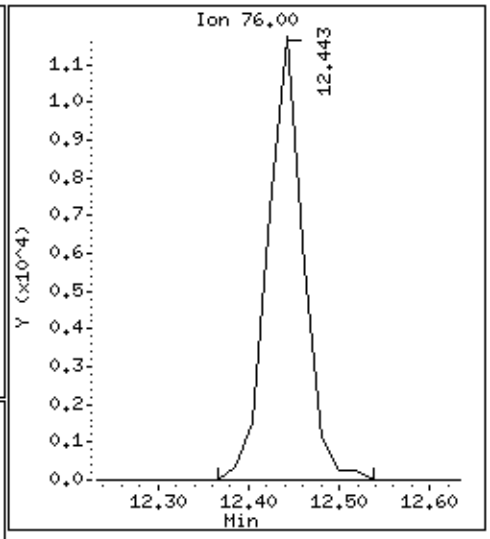
Column phase: RTX-624

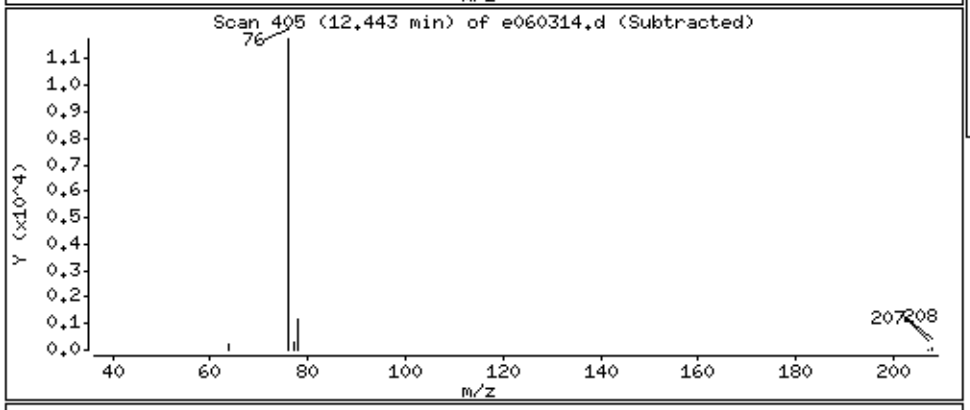
Column diameter: 0.32

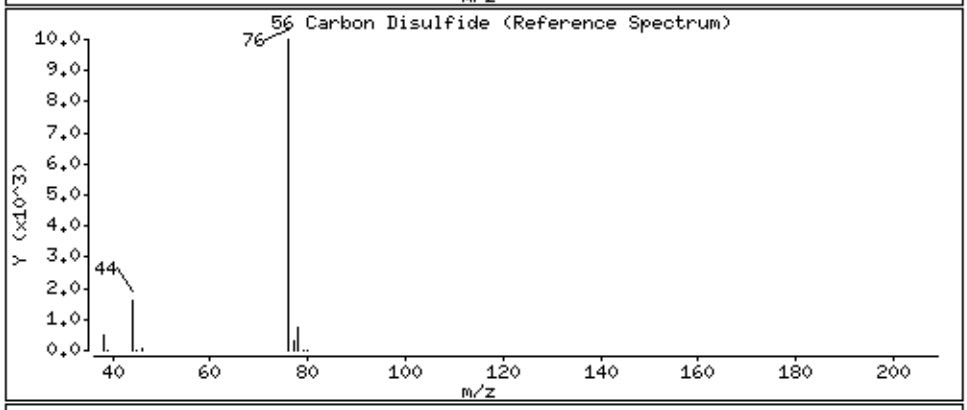
56 Carbon Disulfide

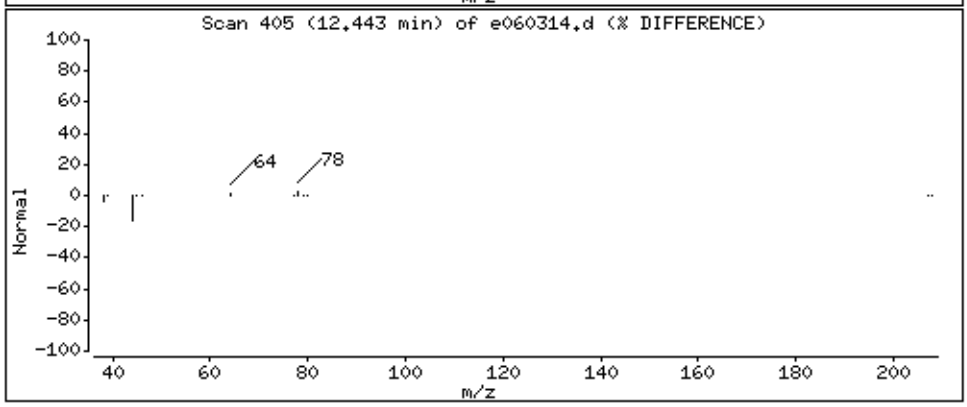
Concentration: 0.4755 PPBV











Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

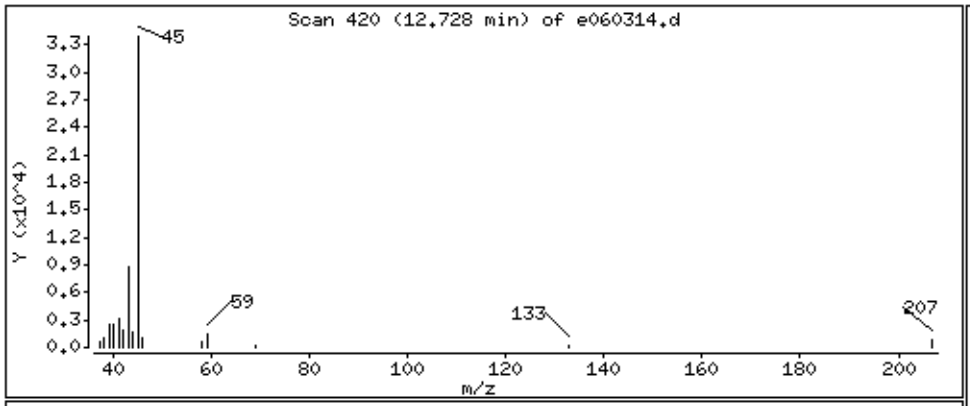
Operator: ea

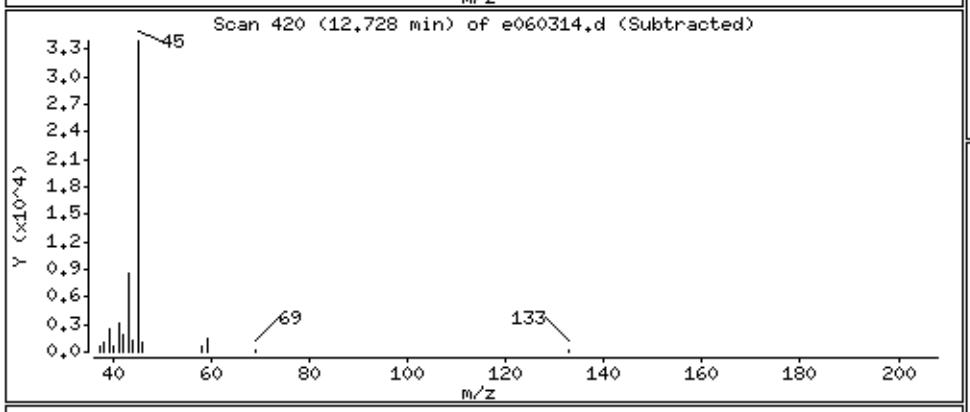
Column phase: RTX-624

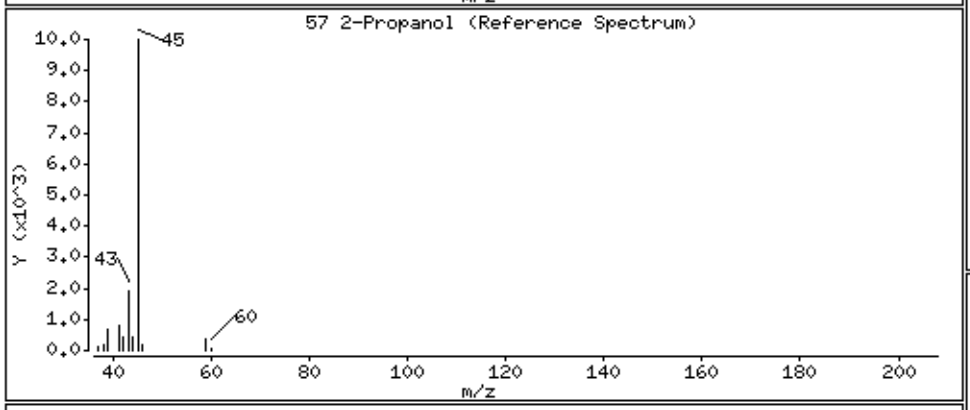
Column diameter: 0.32

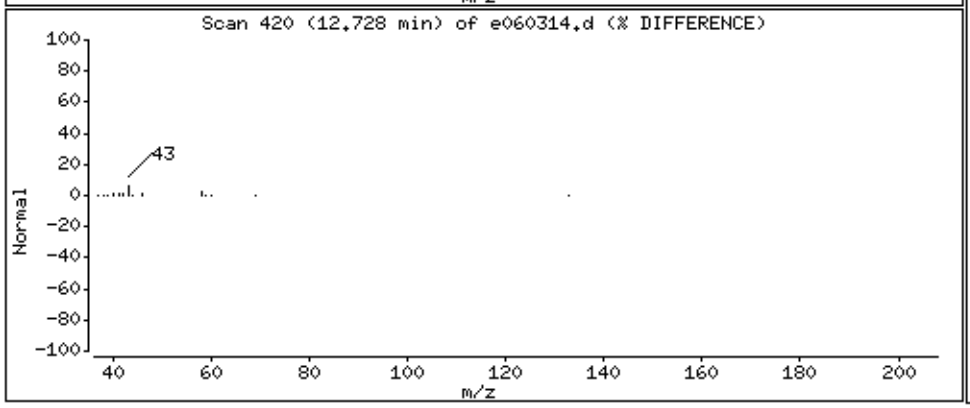
57 2-Propanol

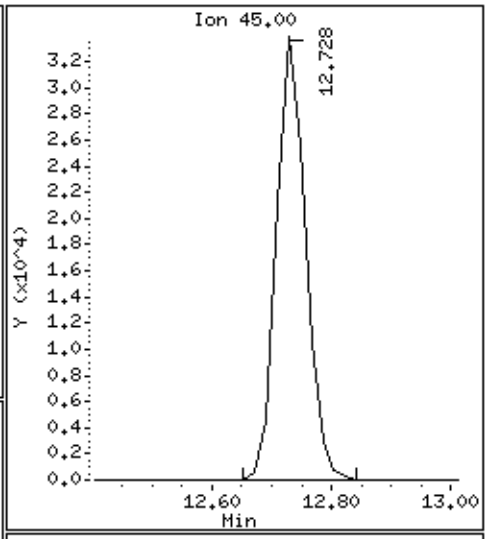
Concentration: 4.239 PPBV

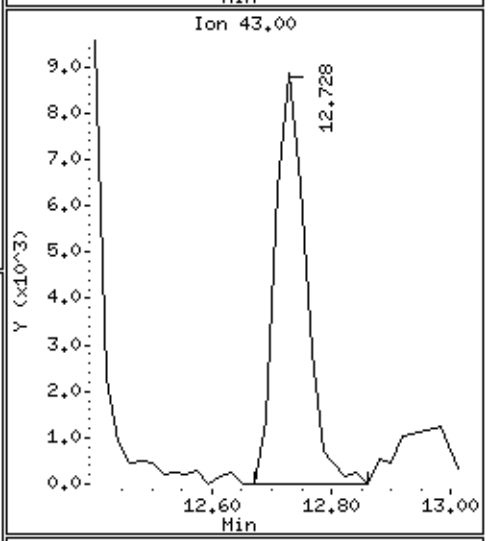


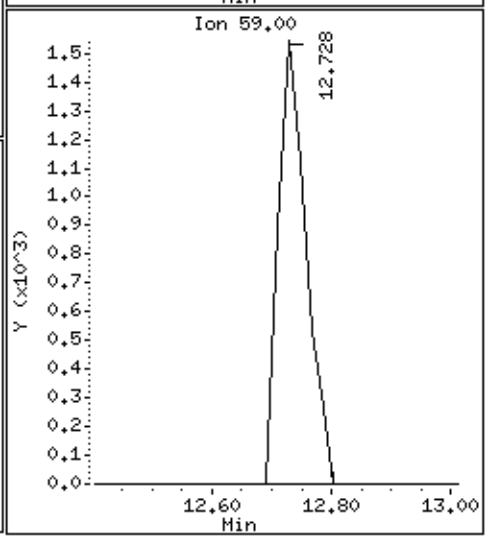












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

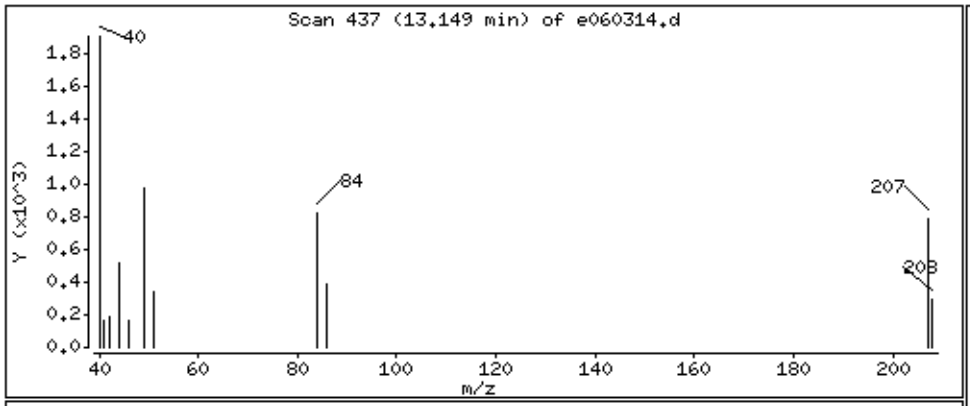
Operator: ea

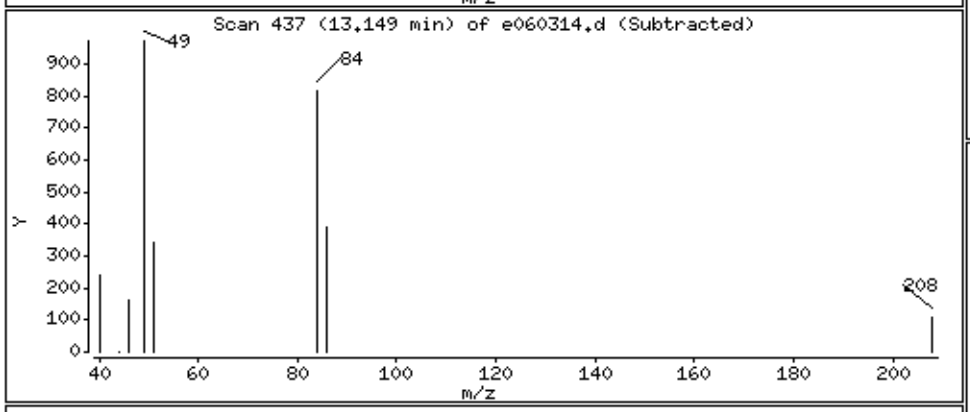
Column phase: RTX-624

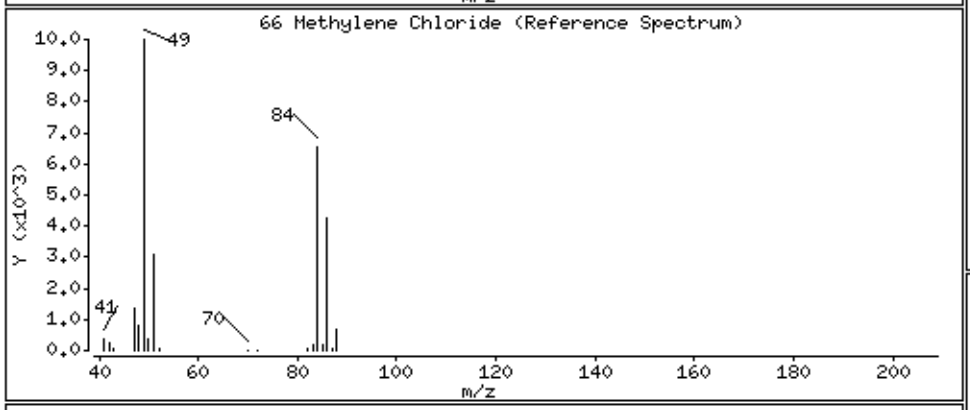
Column diameter: 0.32

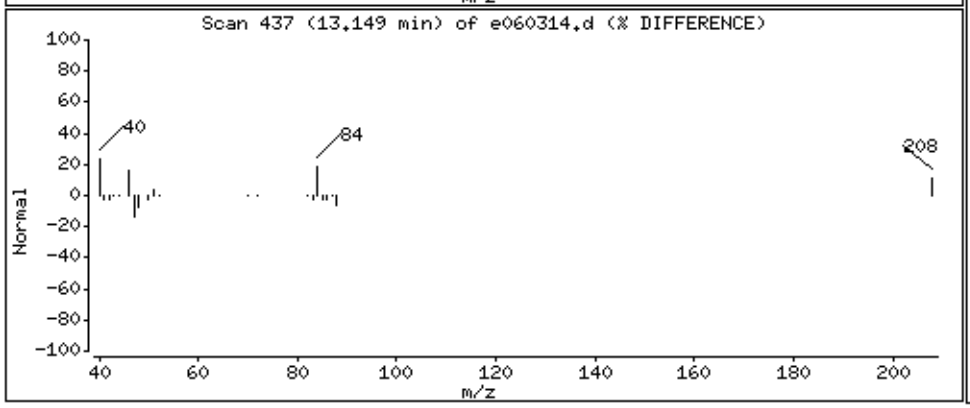
66 Methylene Chloride

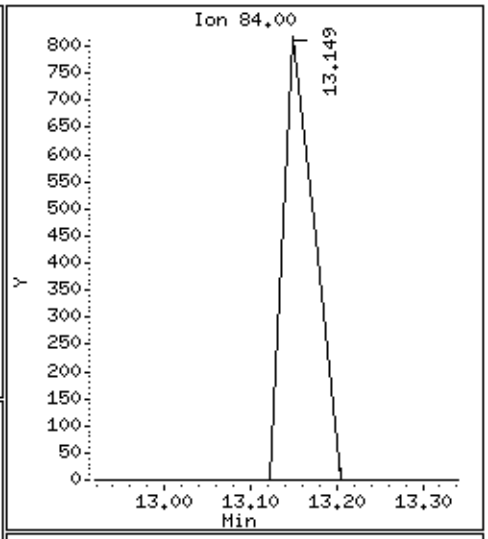
Concentration: 0.09834 PPBV

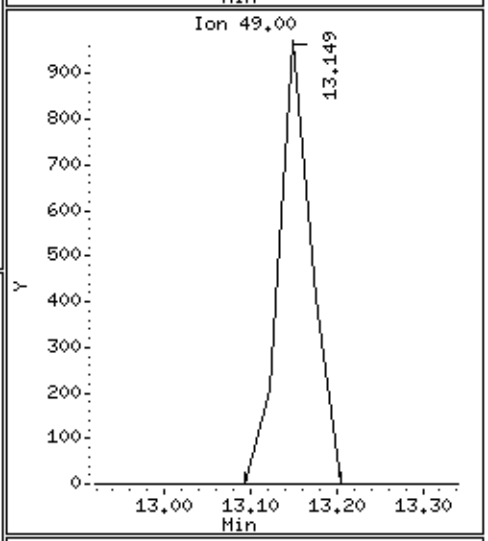


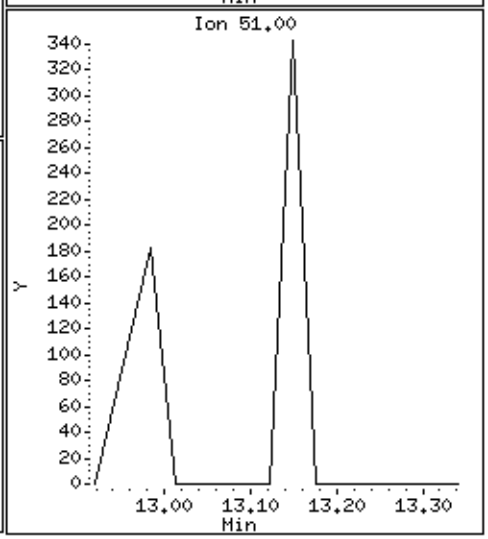












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

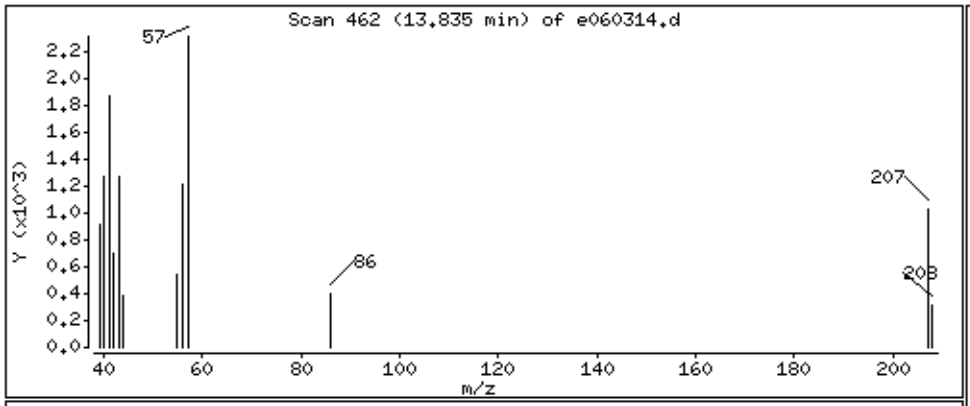
Operator: ea

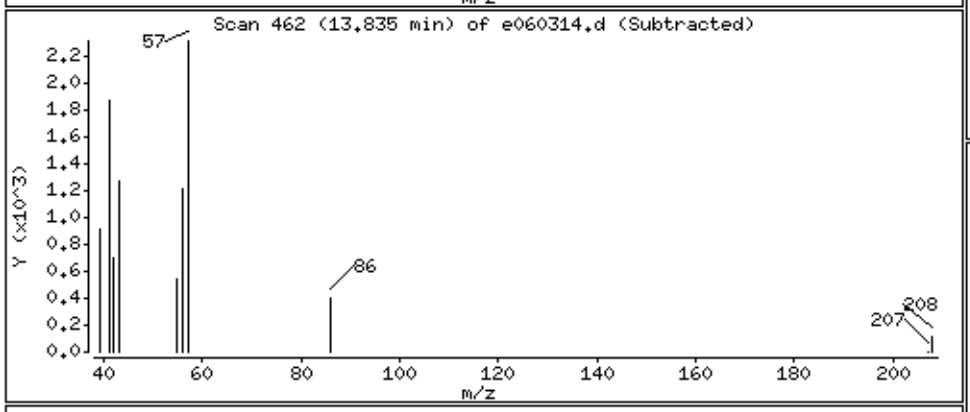
Column phase: RTX-624

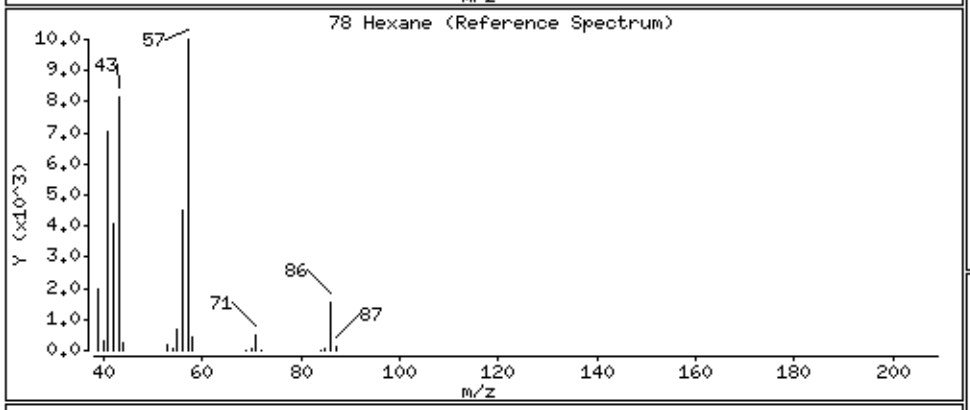
Column diameter: 0.32

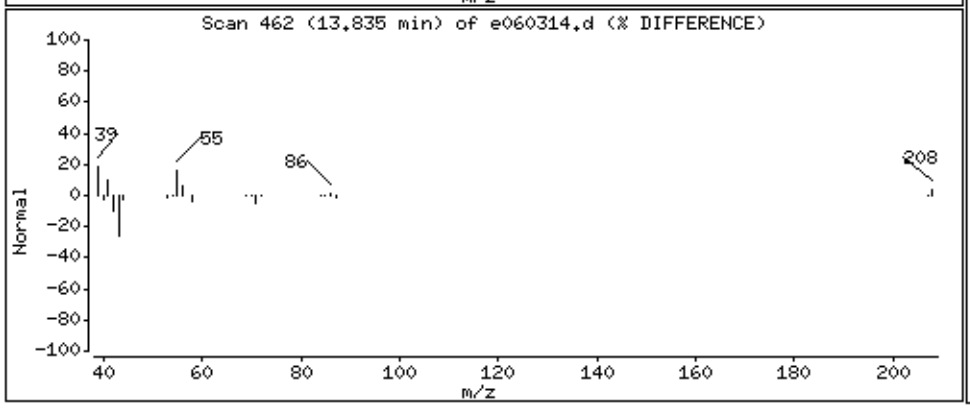
78 Hexane

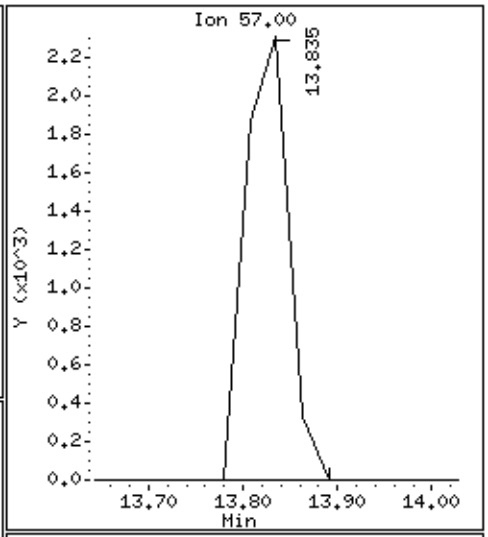
Concentration: 0.2818 PPBV

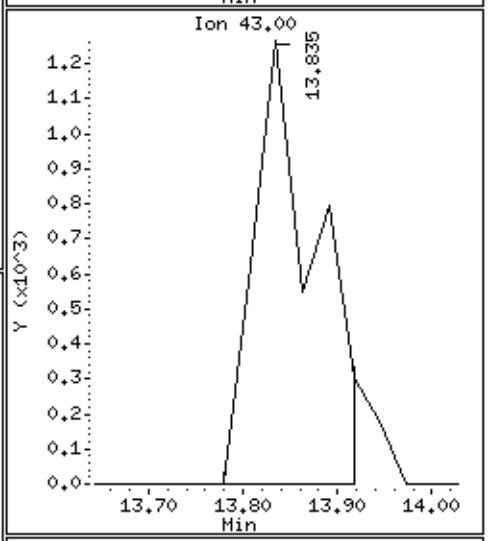


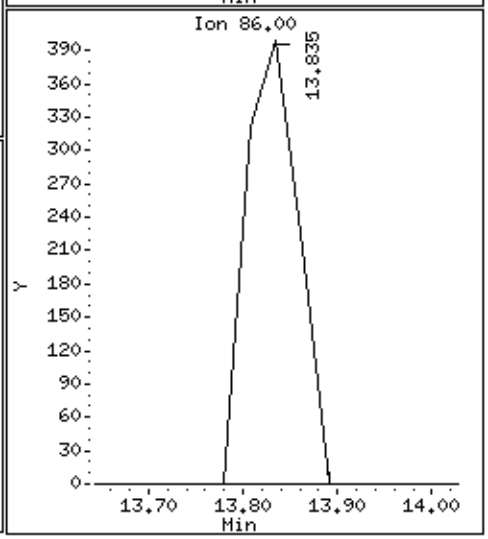












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

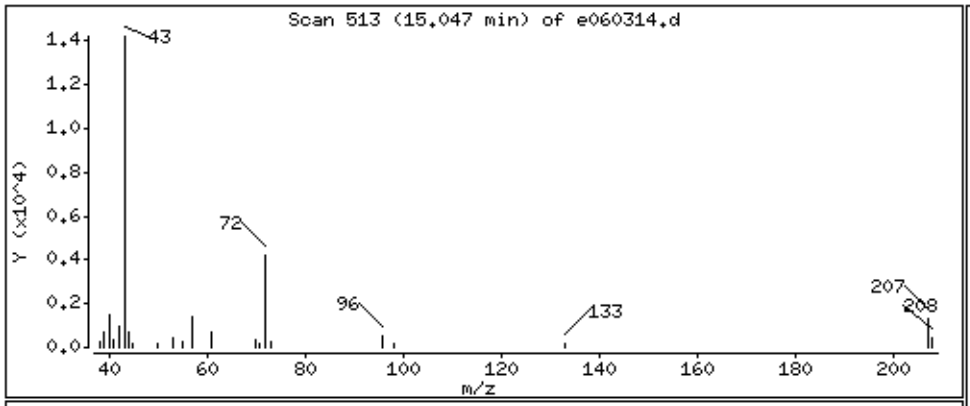
Operator: ea

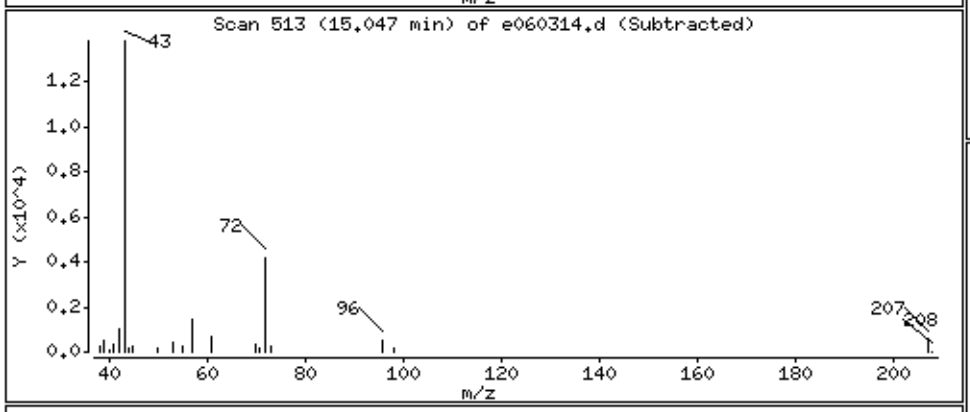
Column phase: RTX-624

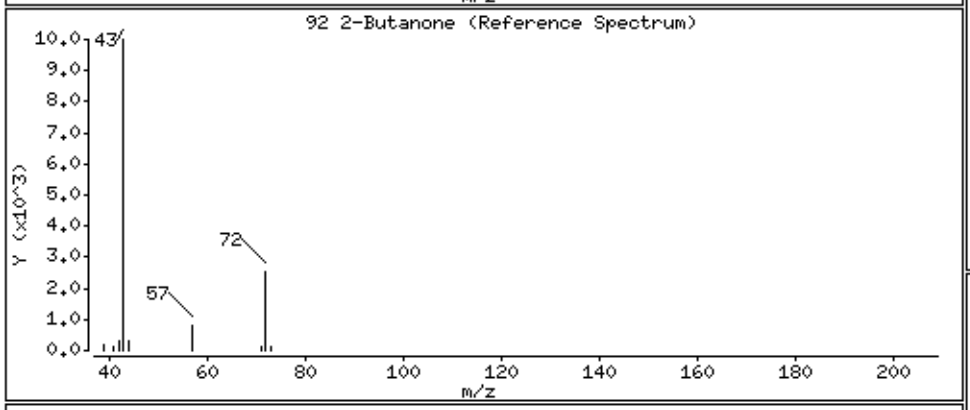
Column diameter: 0.32

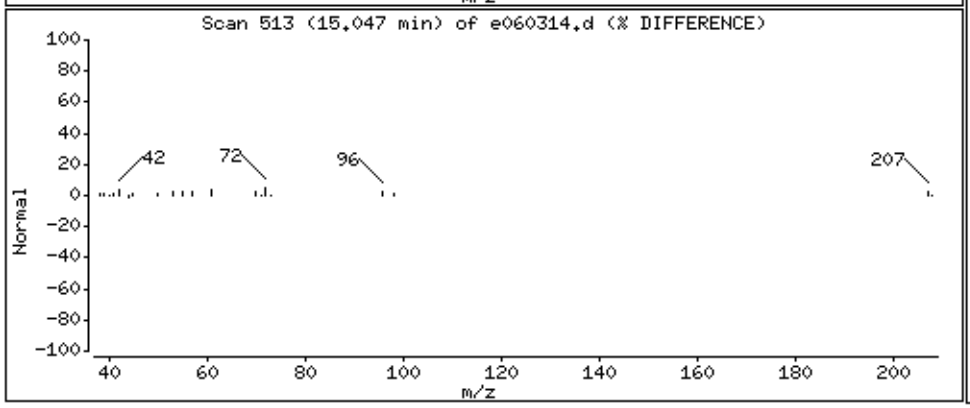
92 2-Butanone

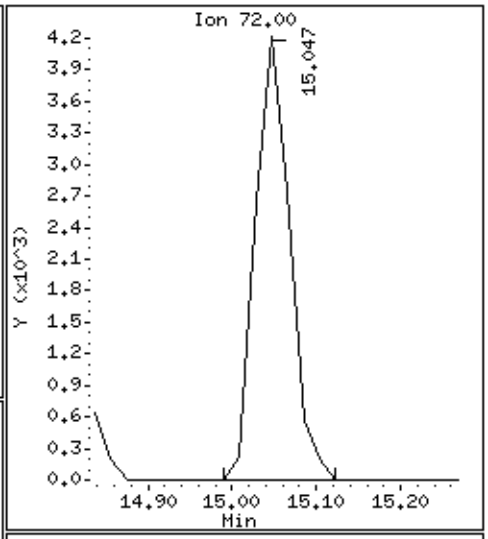
Concentration: 1.136 PPBV

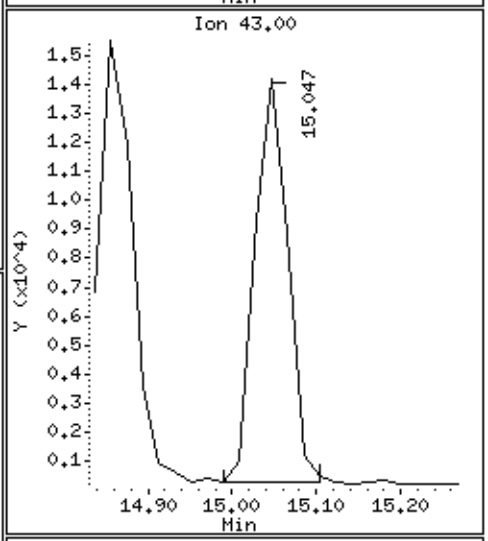


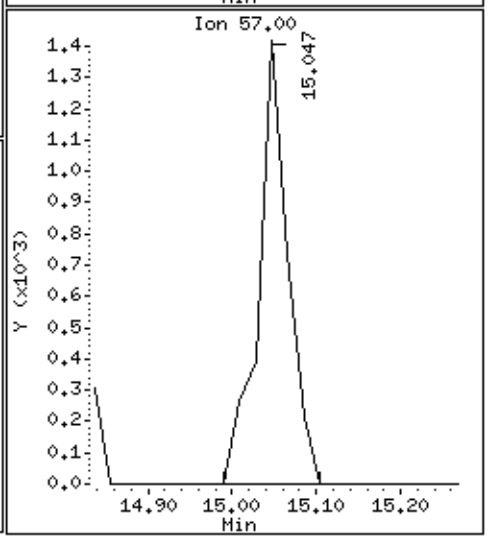












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

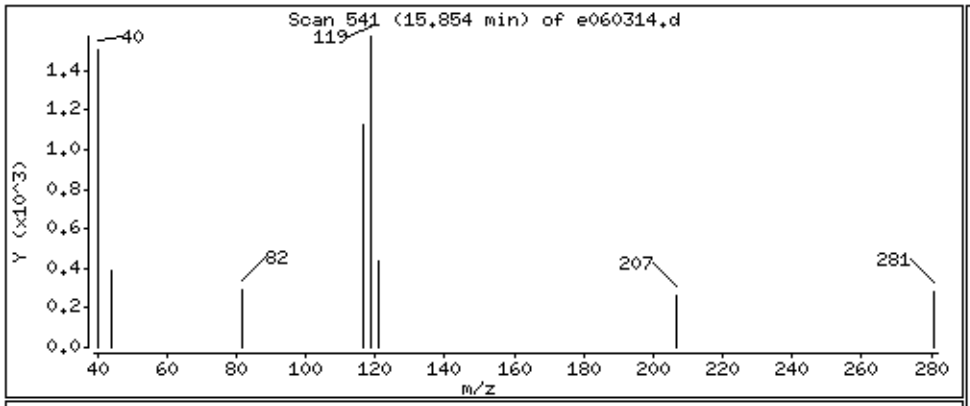
Operator: ea

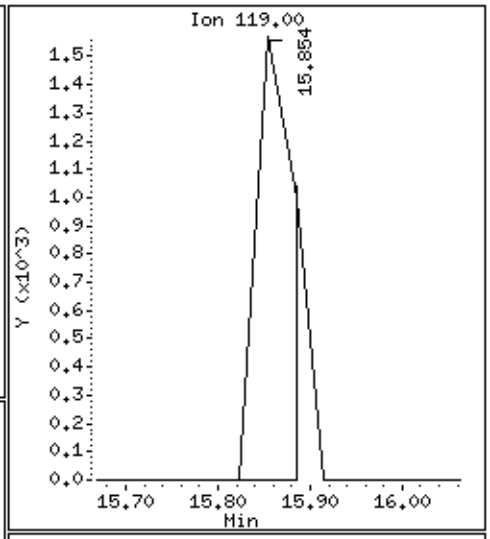
Column phase: RTX-624

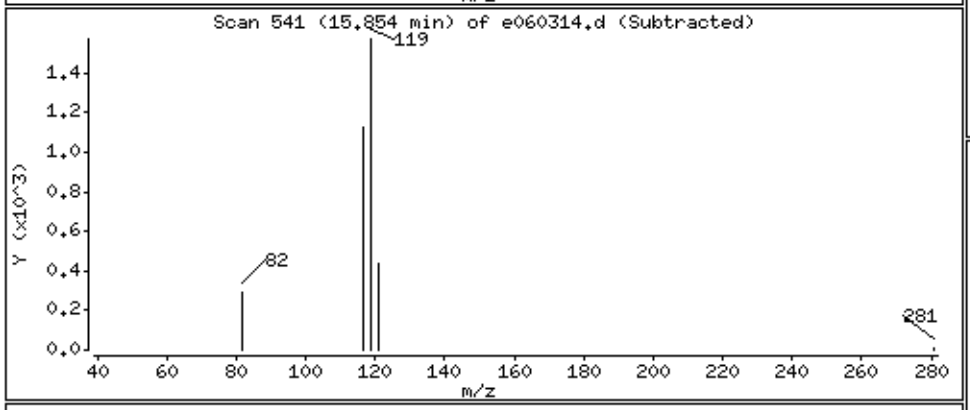
Column diameter: 0.32

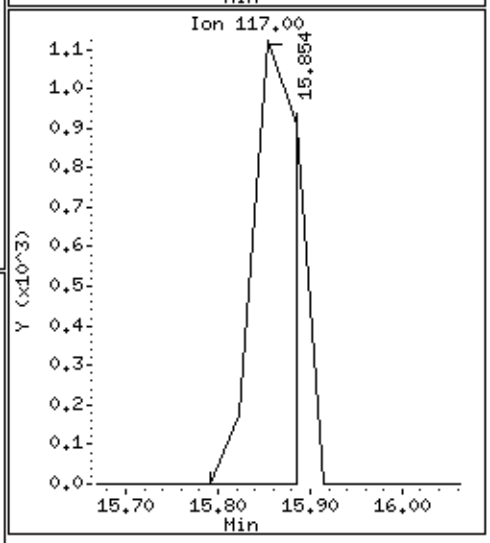
106 Carbon Tetrachloride

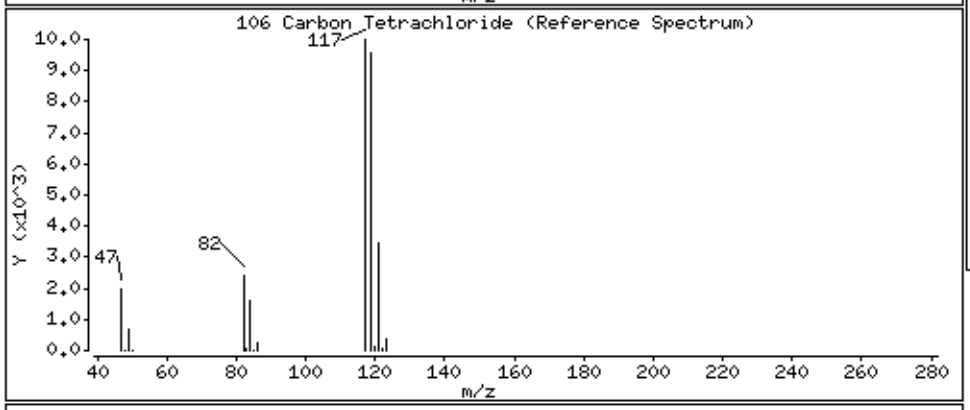
Concentration: 0.07235 PPBV

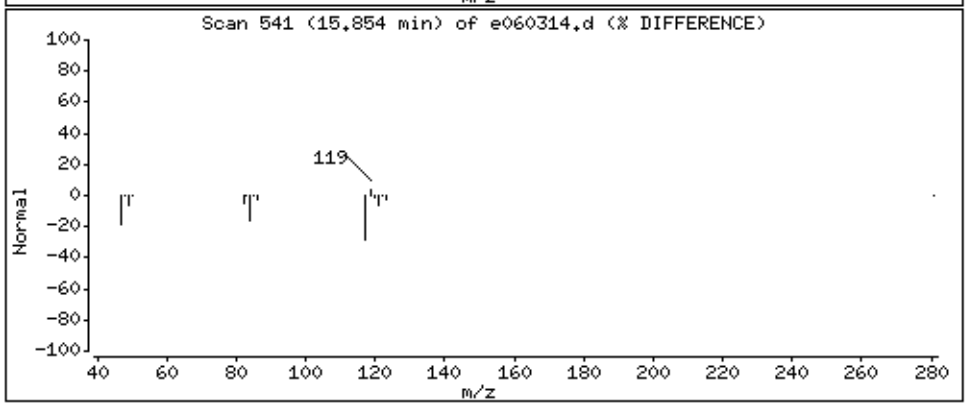












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

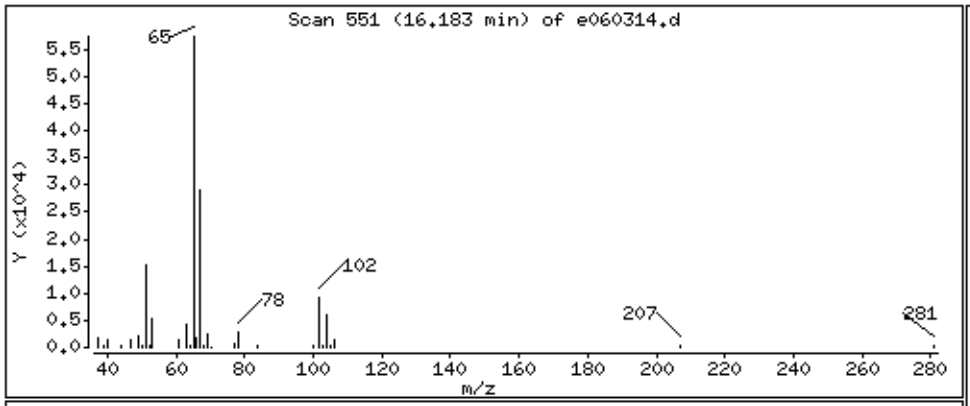
Operator: ea

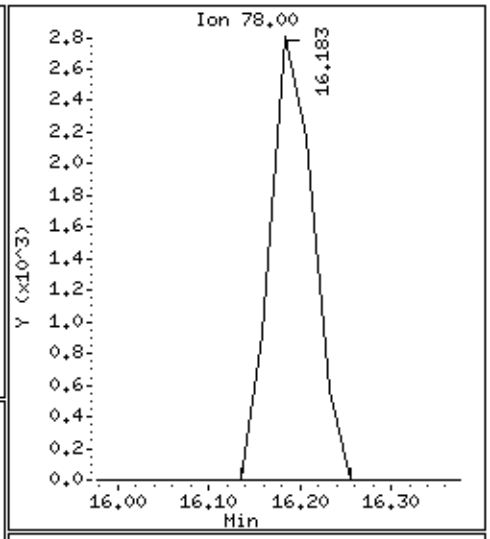
Column phase: RTX-624

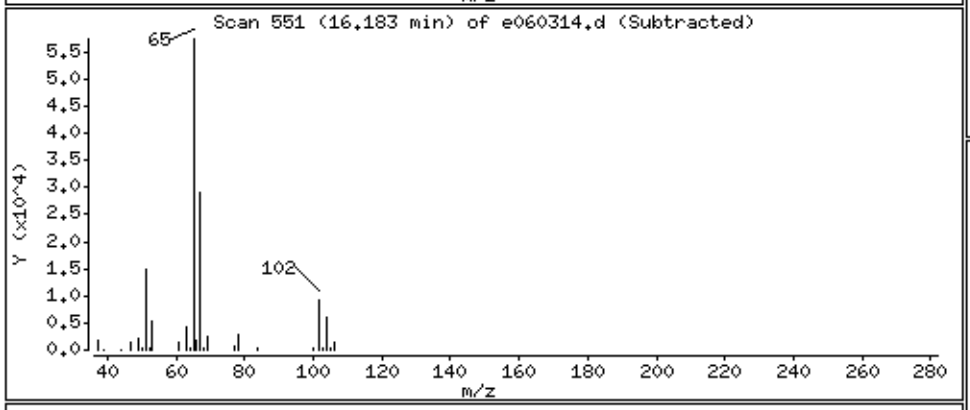
Column diameter: 0.32

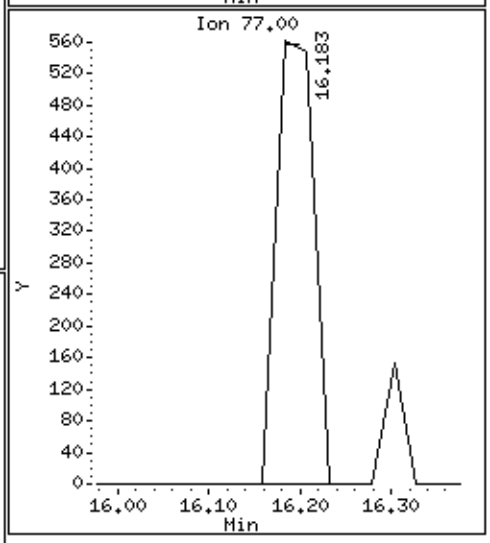
116 Benzene

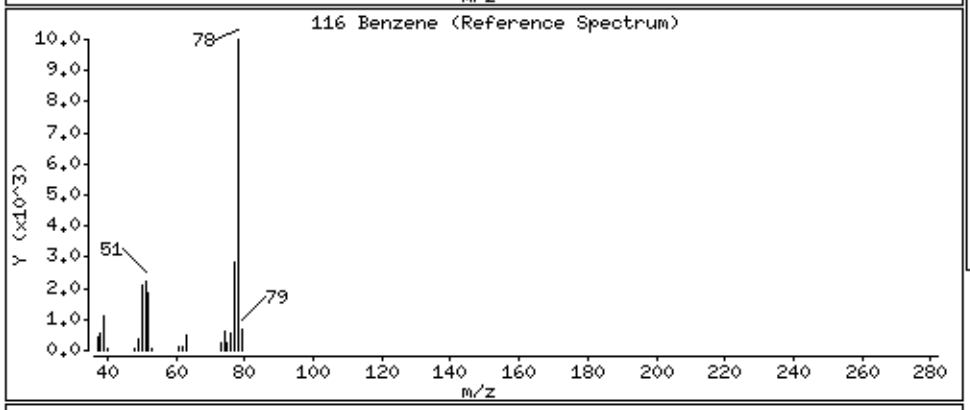
Concentration: 0.1350 PPBV

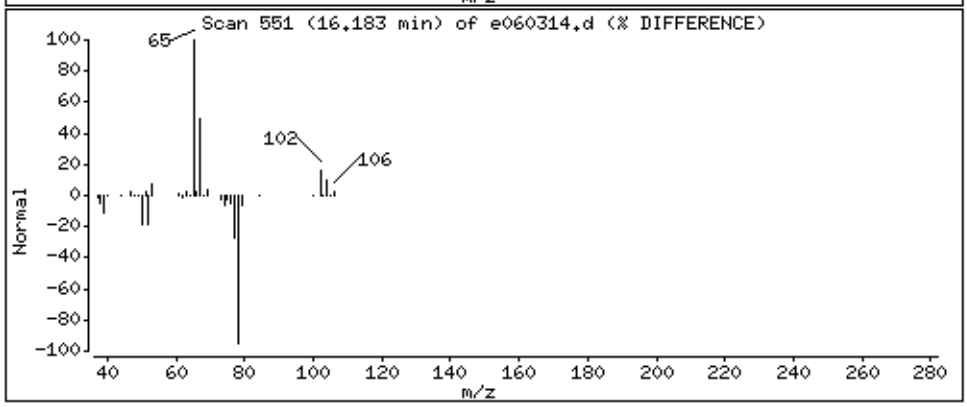












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

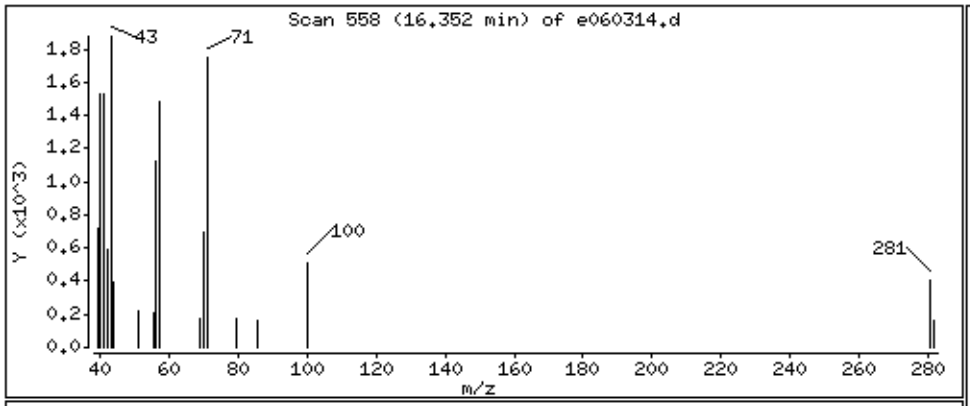
Operator: ea

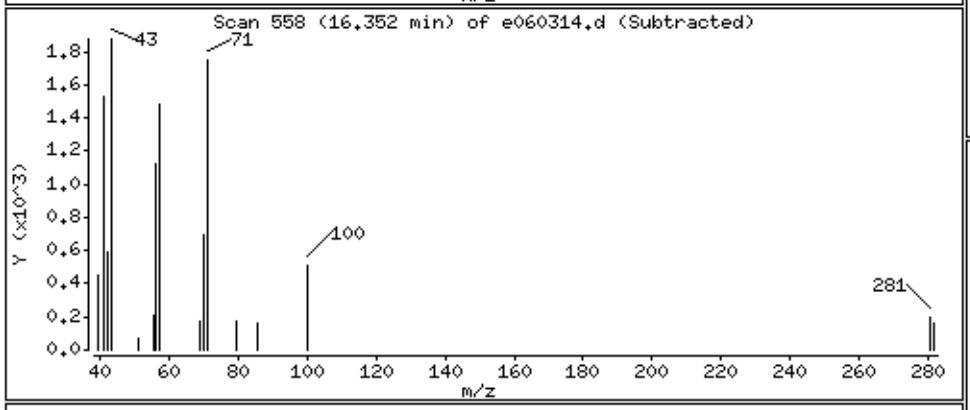
Column phase: RTX-624

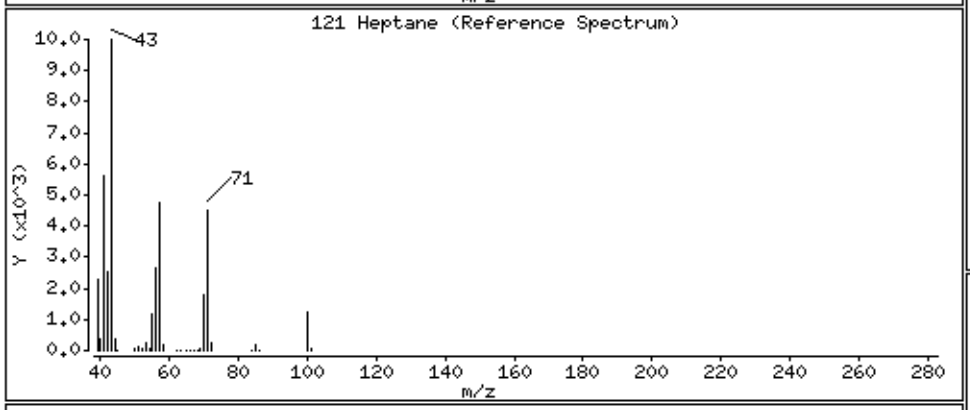
Column diameter: 0.32

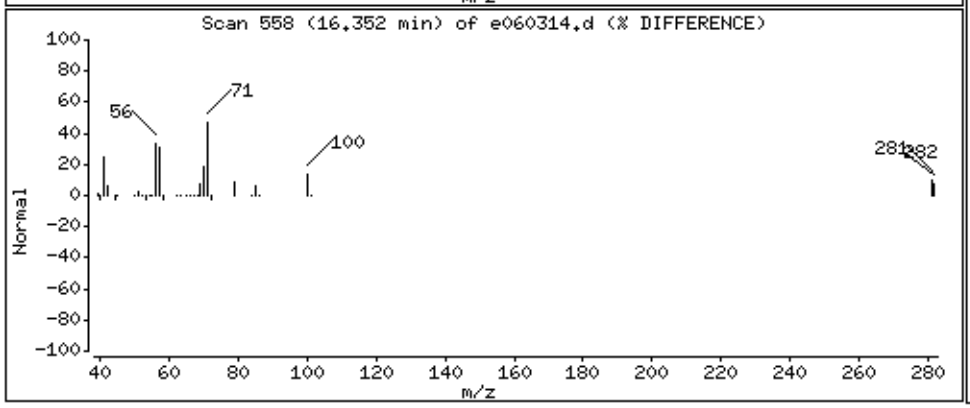
121 Heptane

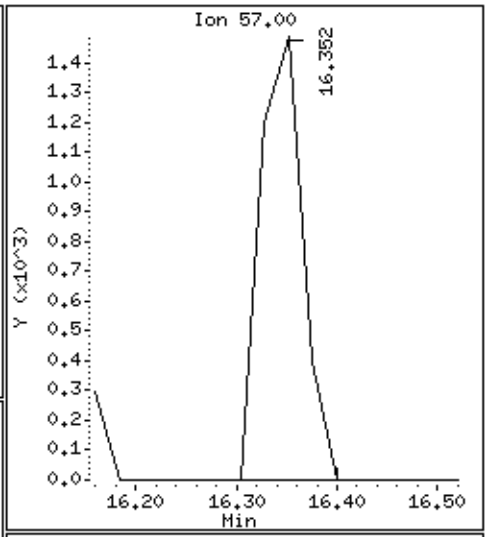
Concentration: 0.2718 PPBV

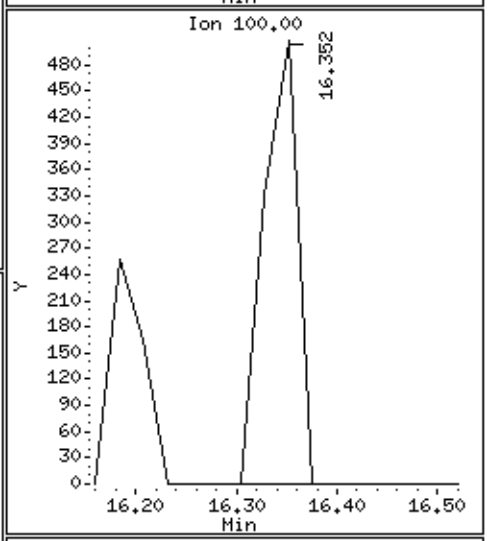


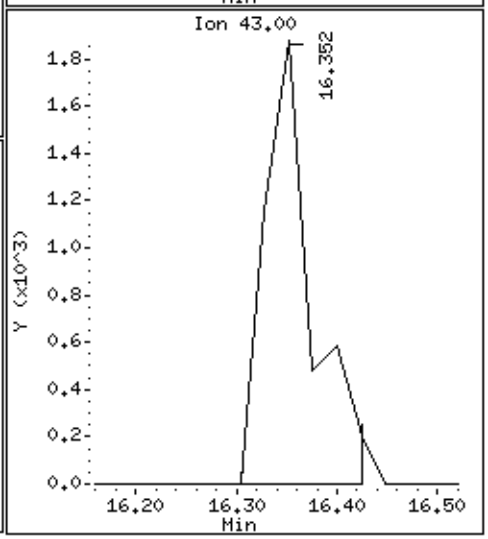












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

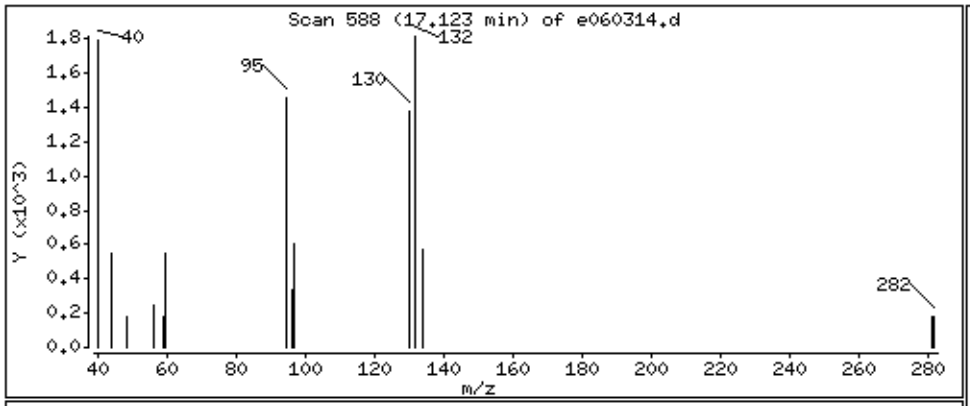
Operator: ea

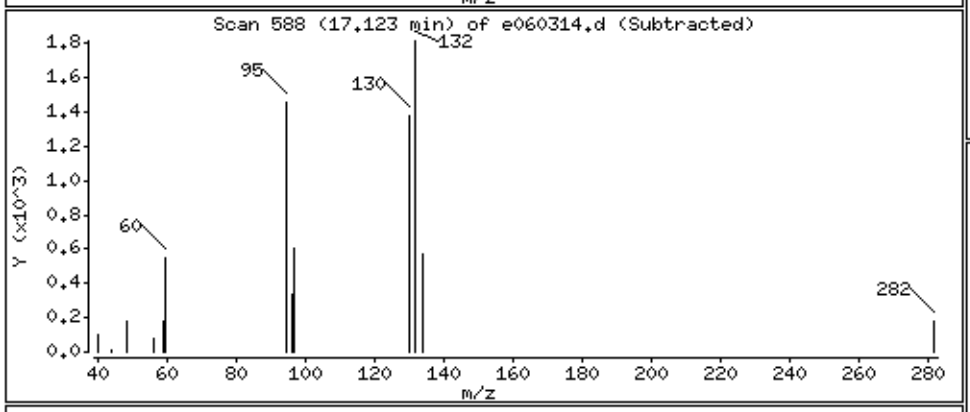
Column phase: RTX-624

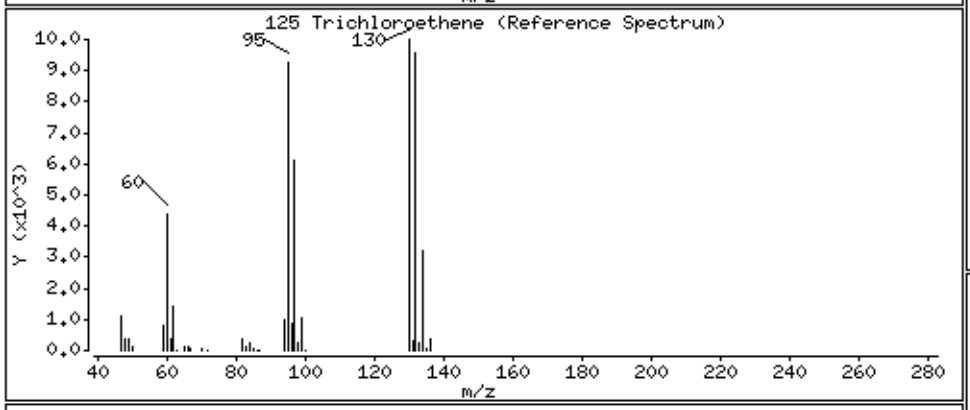
Column diameter: 0.32

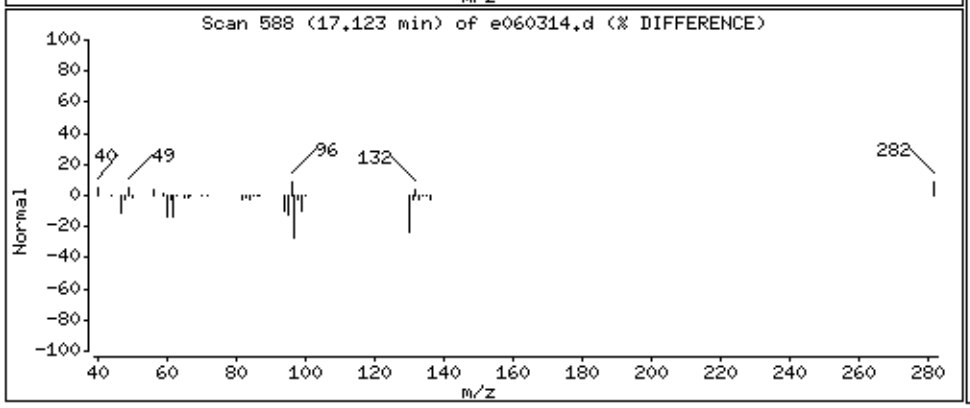
125 Trichloroethene

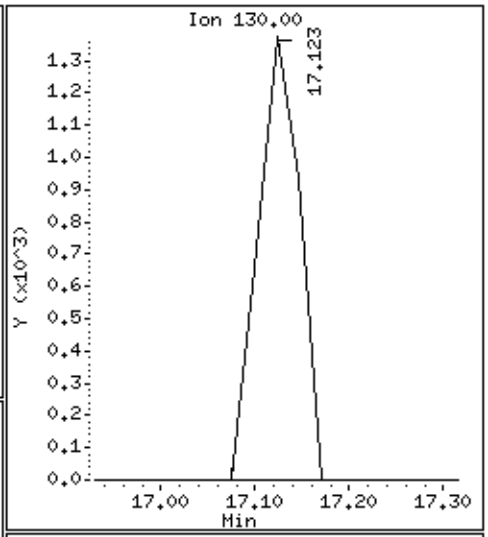
Concentration: 0.1196 PPBV

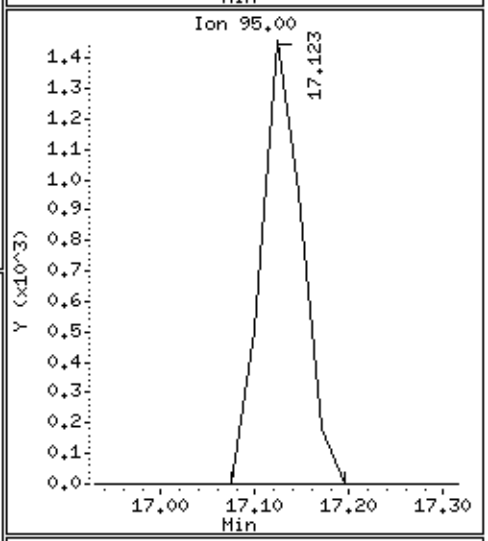


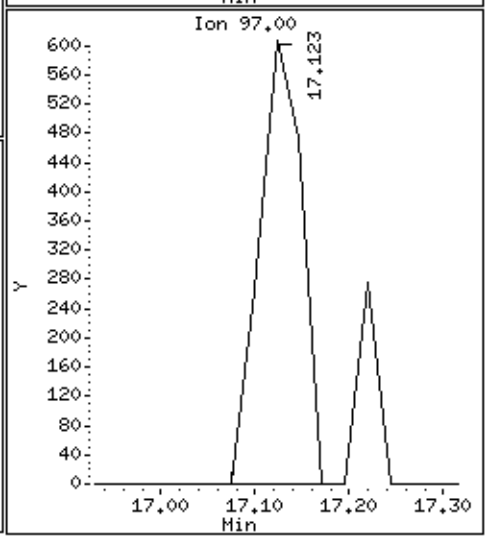












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

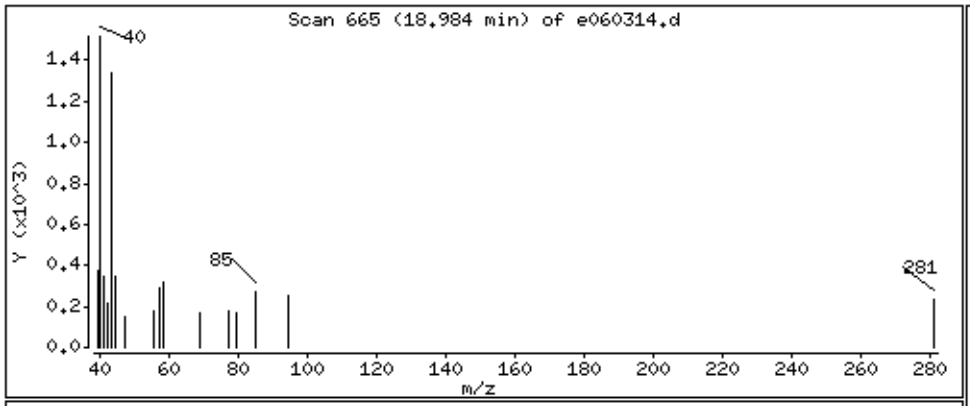
Operator: ea

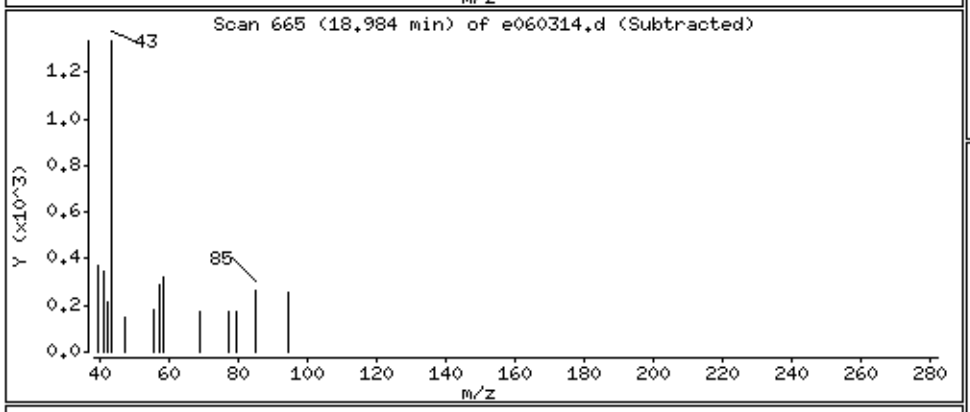
Column phase: RTX-624

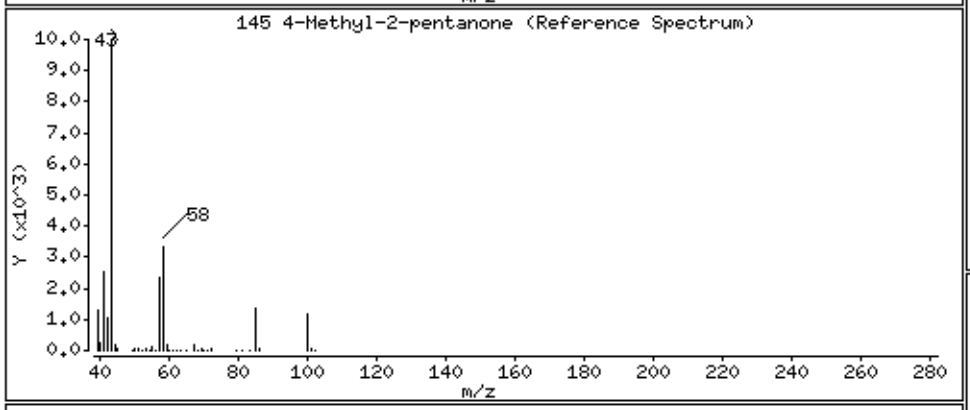
Column diameter: 0.32

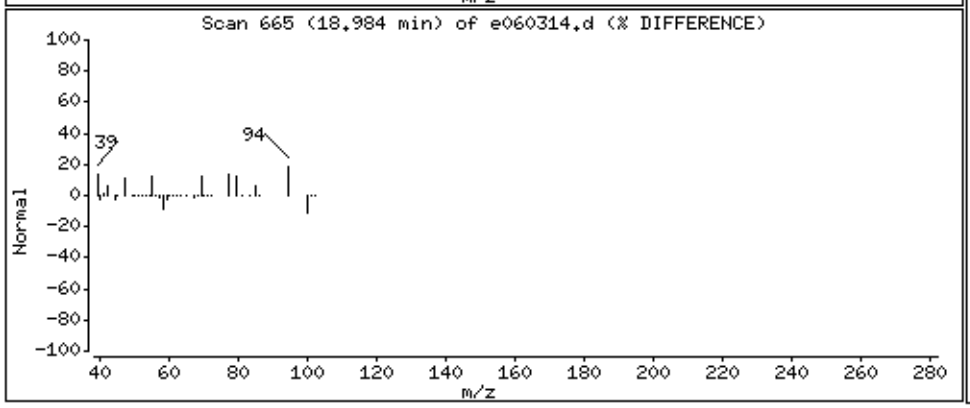
145 4-Methyl-2-pentanone

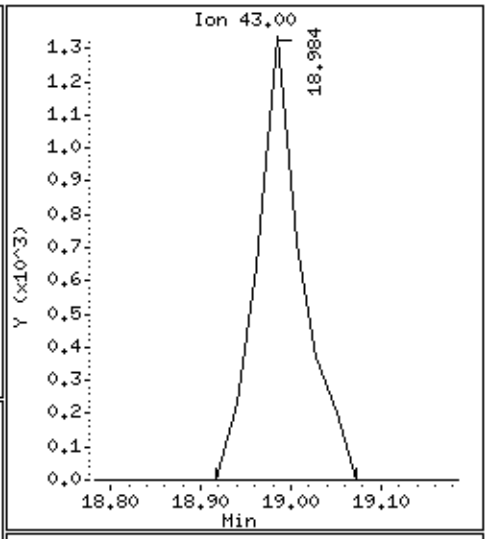
Concentration: 0.1319 PPBV

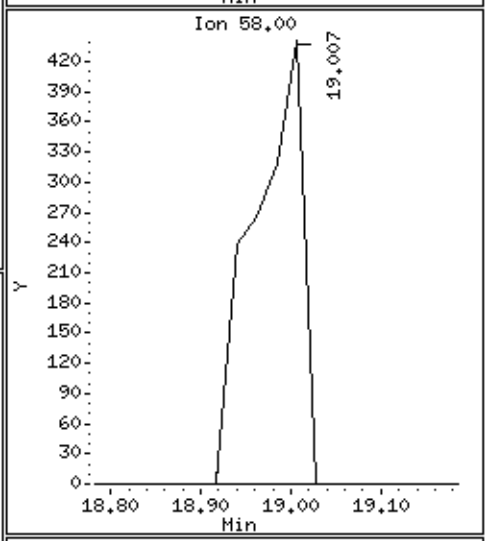


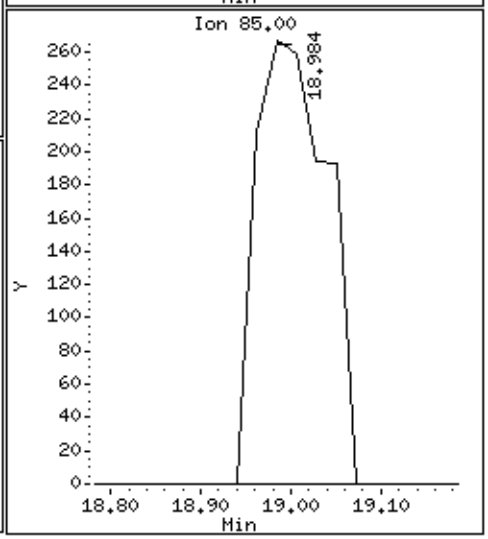












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

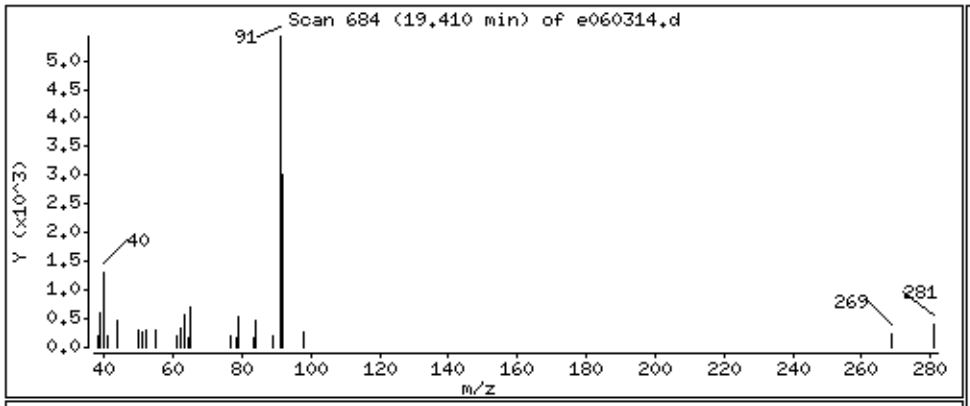
Operator: ea

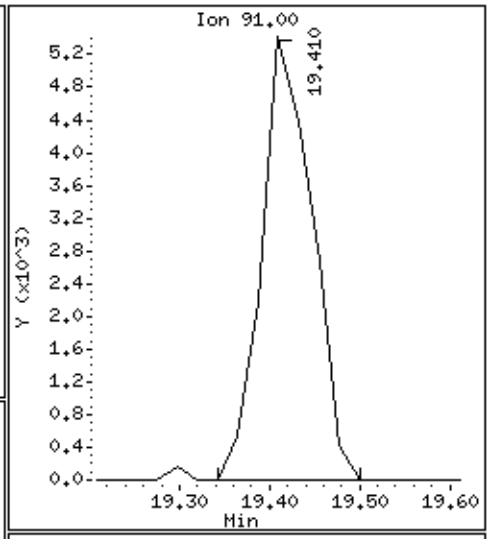
Column phase: RTX-624

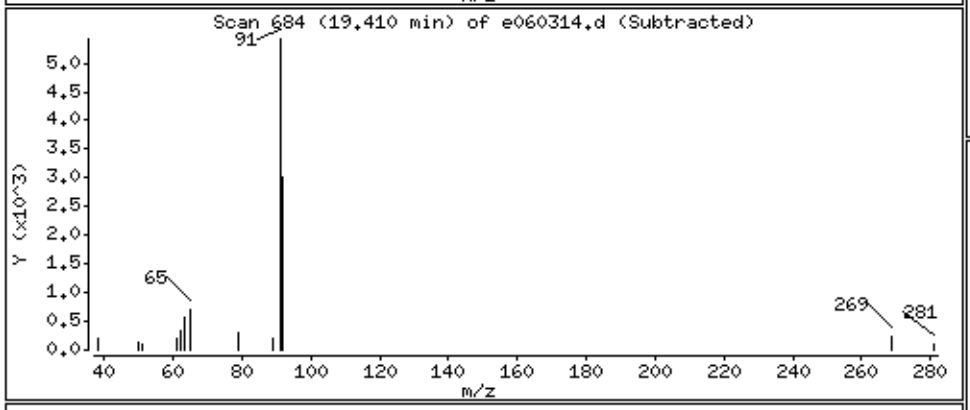
Column diameter: 0.32

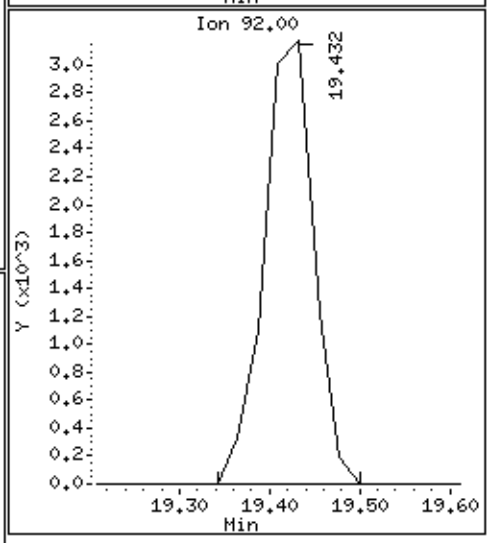
147 Toluene

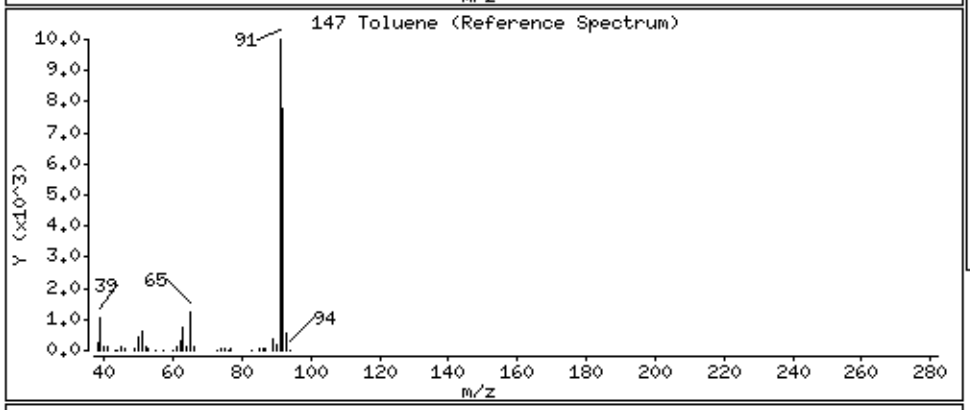
Concentration: 0.2549 PPBV

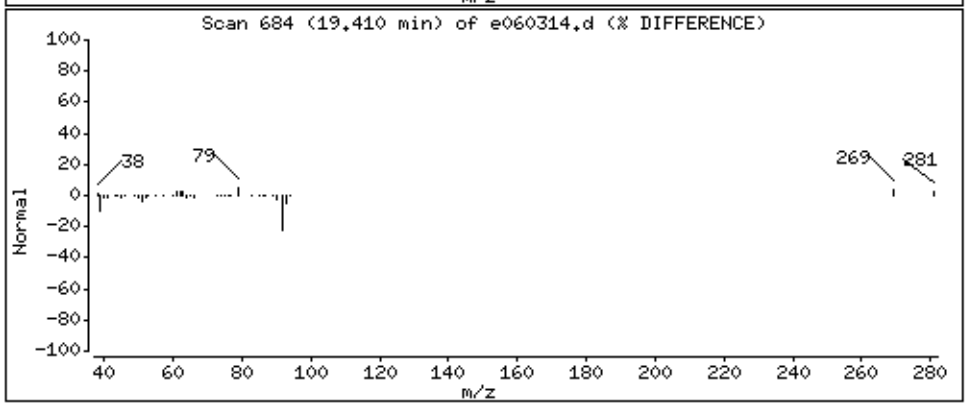












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

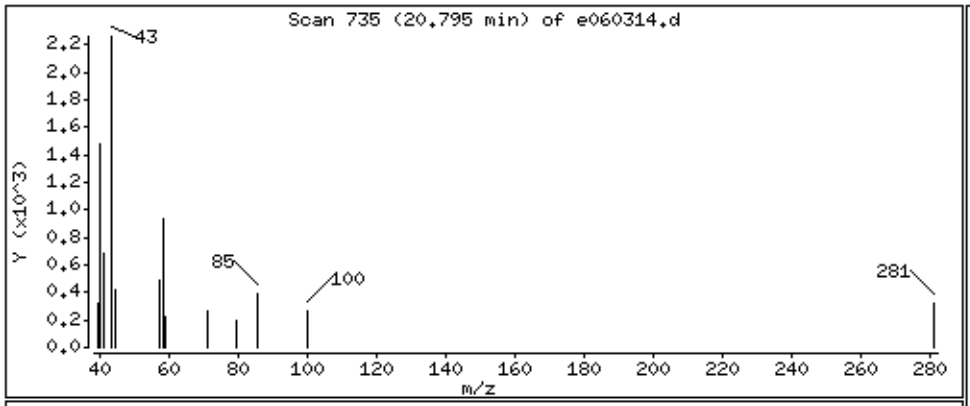
Operator: ea

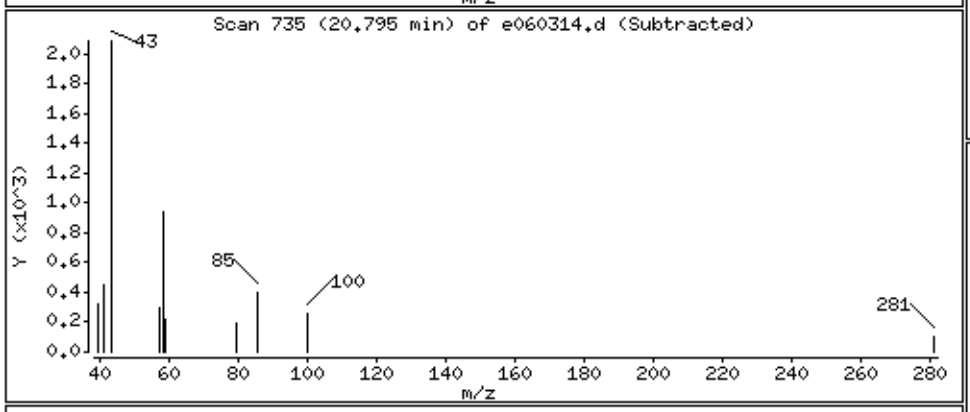
Column phase: RTX-624

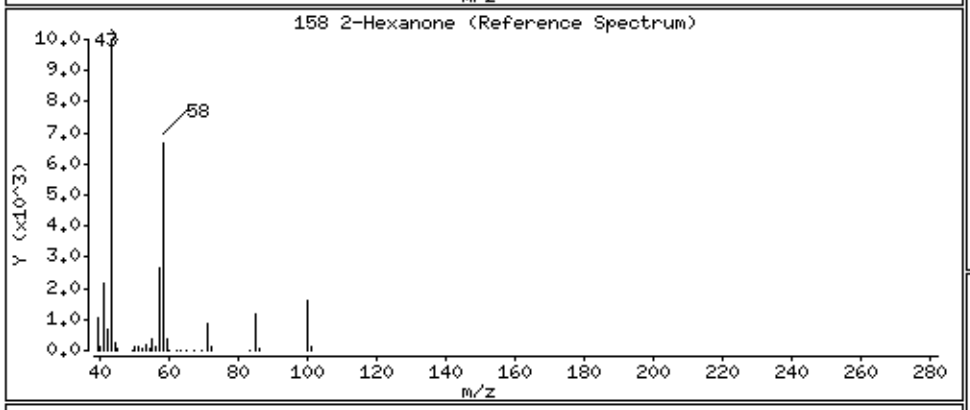
Column diameter: 0.32

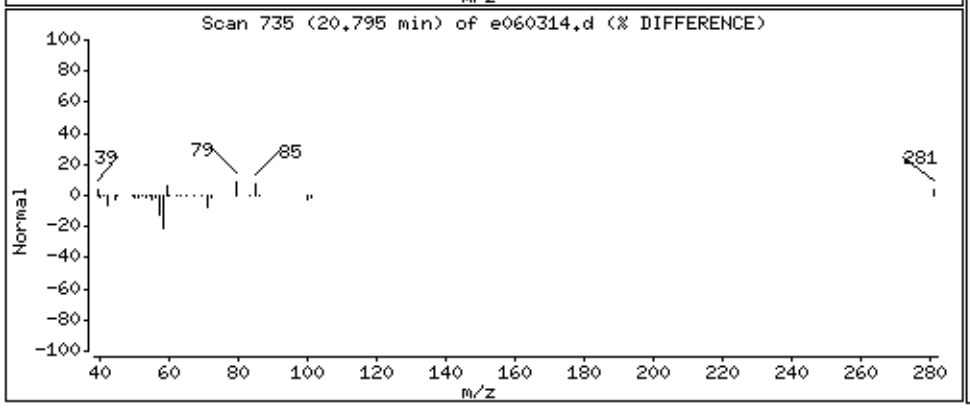
158 2-Hexanone

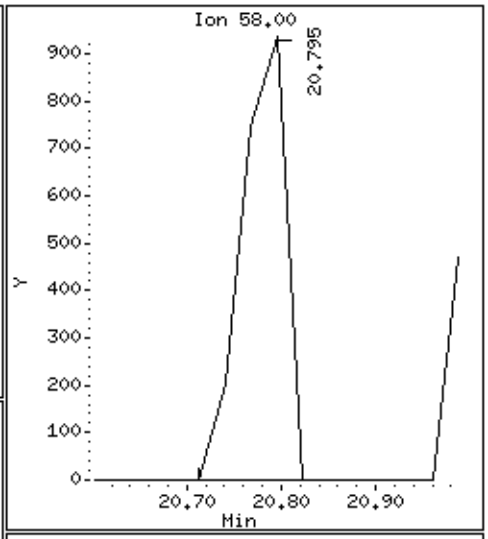
Concentration: 0.1483 PPBV

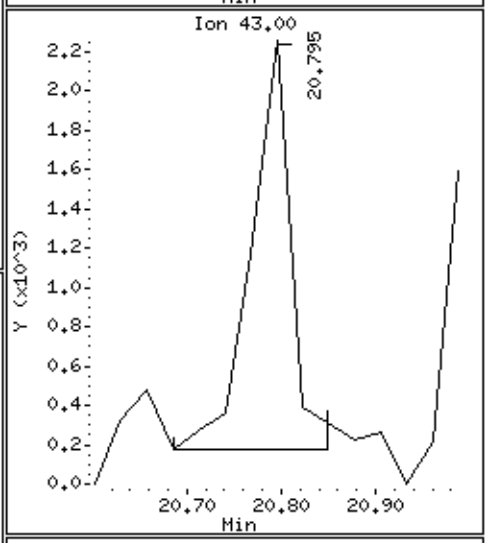


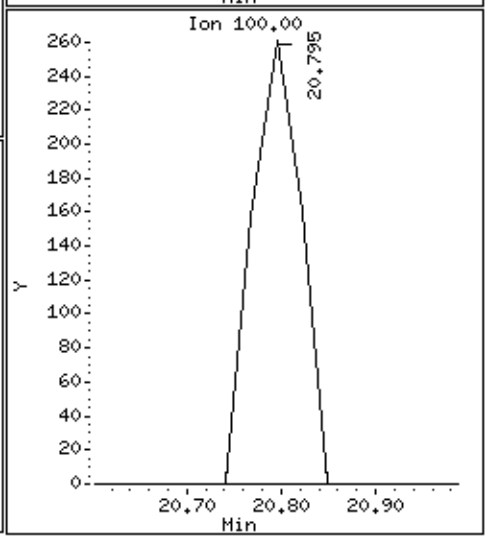












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

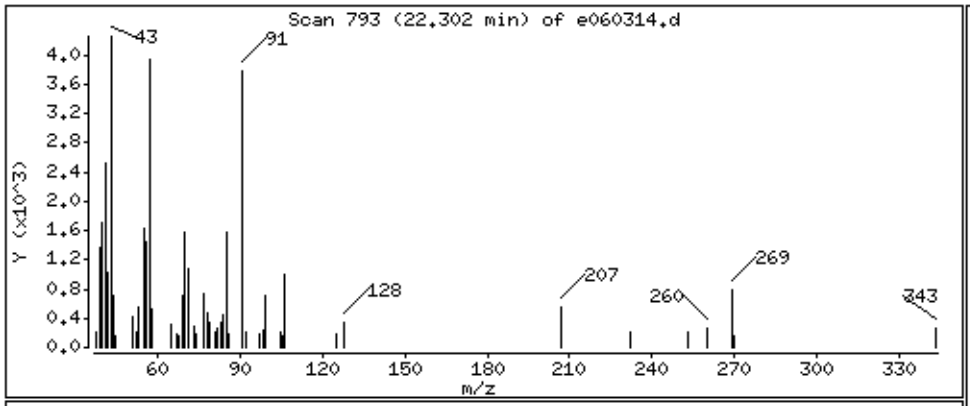
Operator: ea

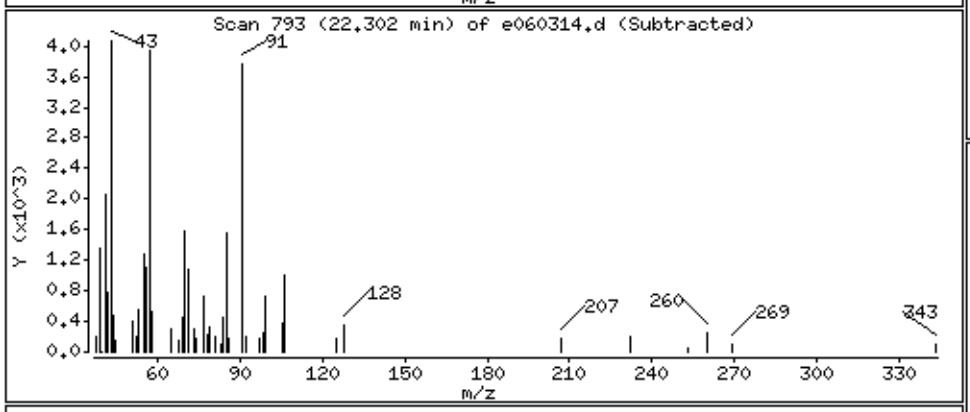
Column phase: RTX-624

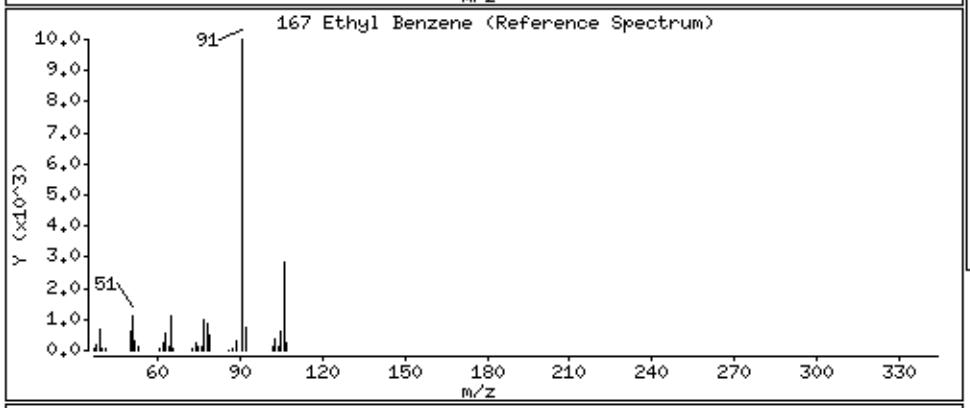
Column diameter: 0.32

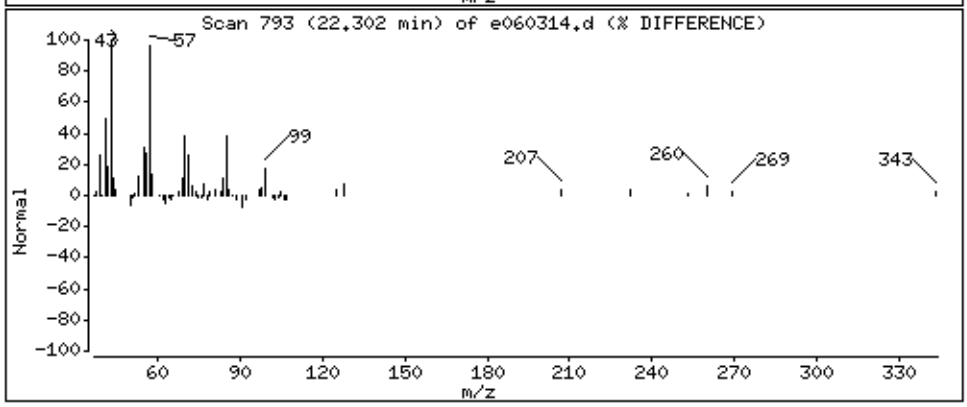
167 Ethyl Benzene

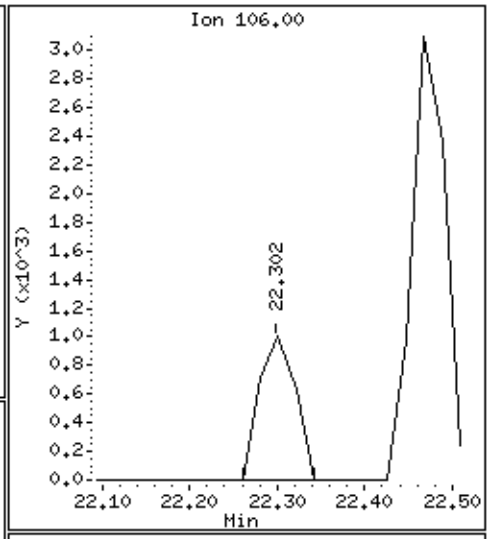
Concentration: 0.08176 PPBV

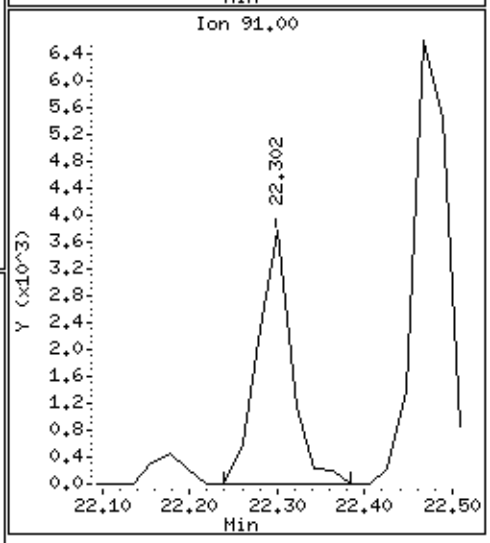












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

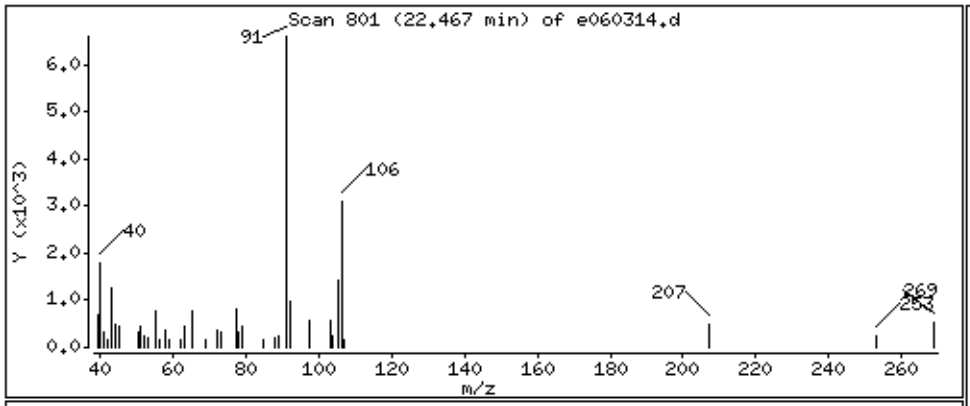
Operator: ea

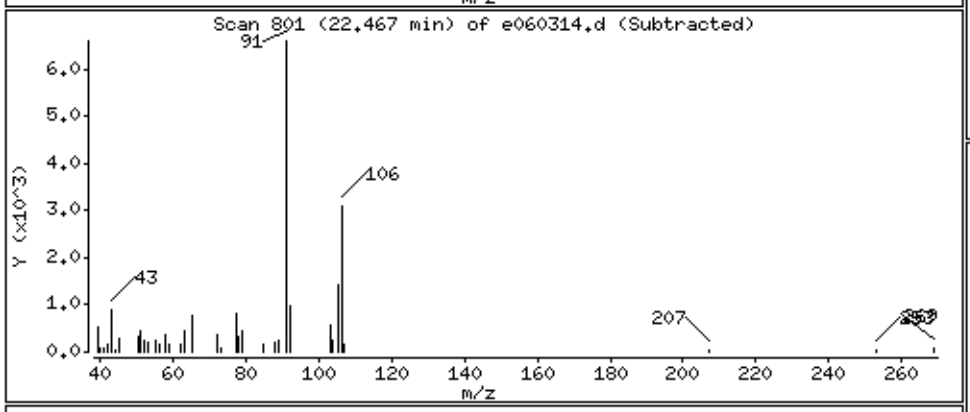
Column phase: RTX-624

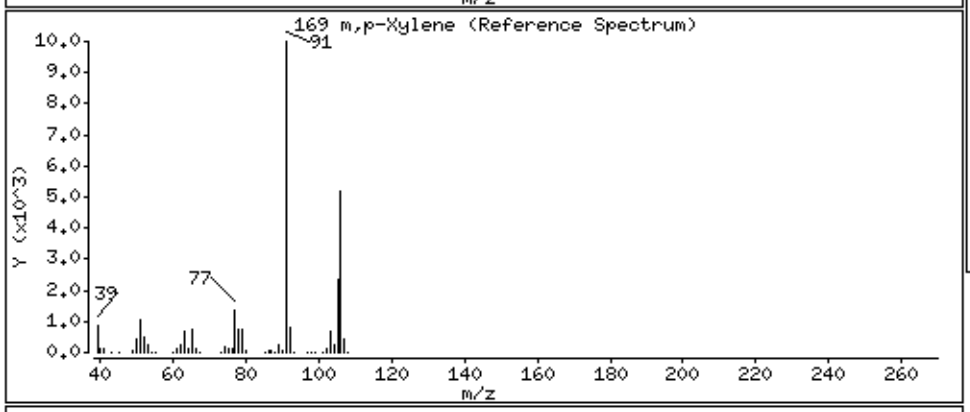
Column diameter: 0.32

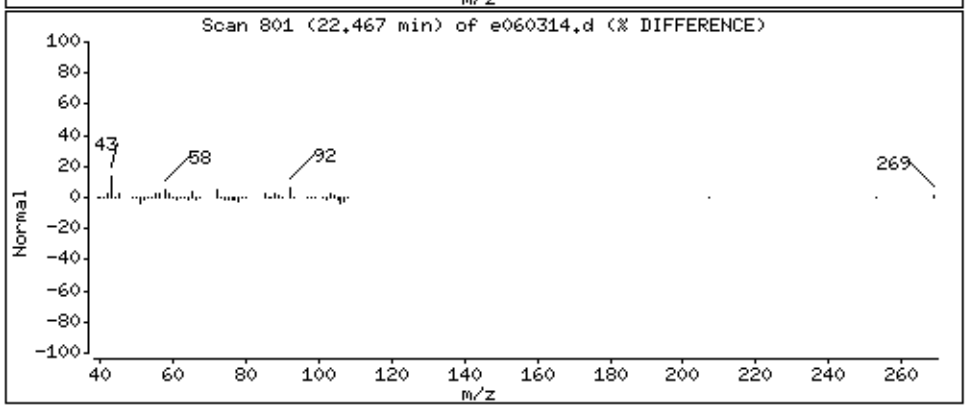
169 m,p-Xylene

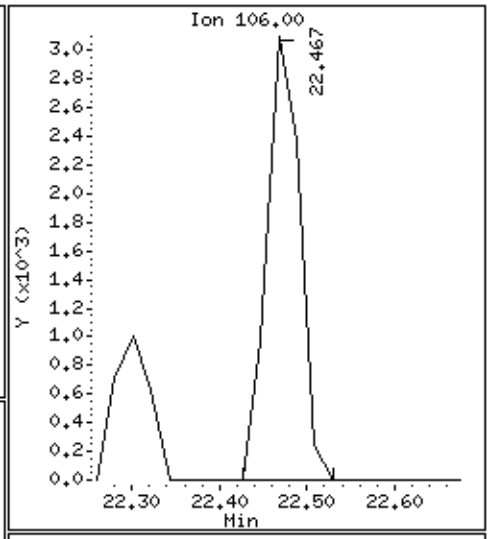
Concentration: 0.2009 PPBV

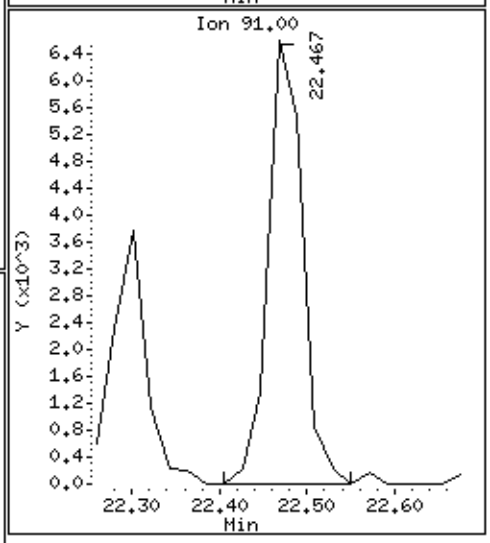












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

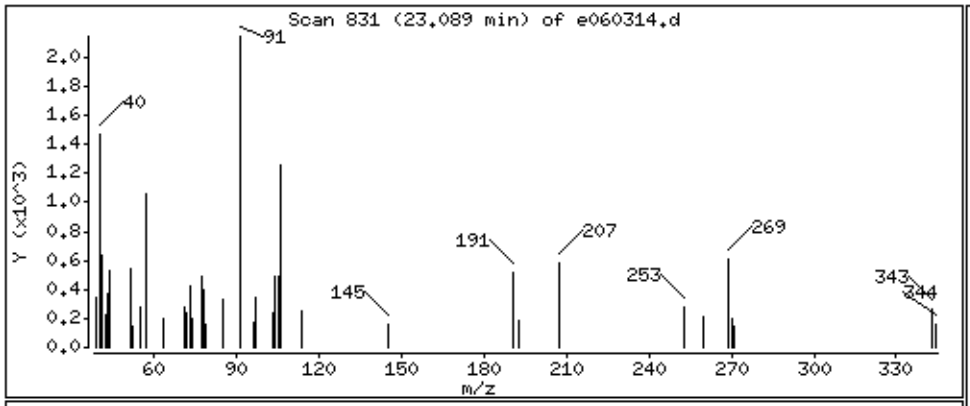
Operator: ea

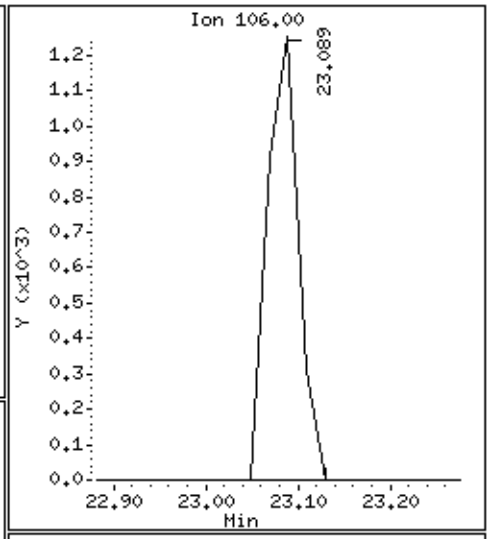
Column phase: RTX-624

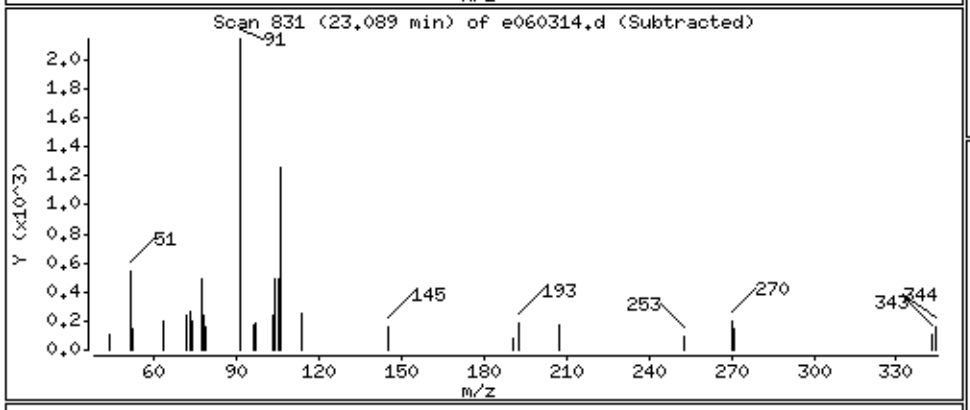
Column diameter: 0.32

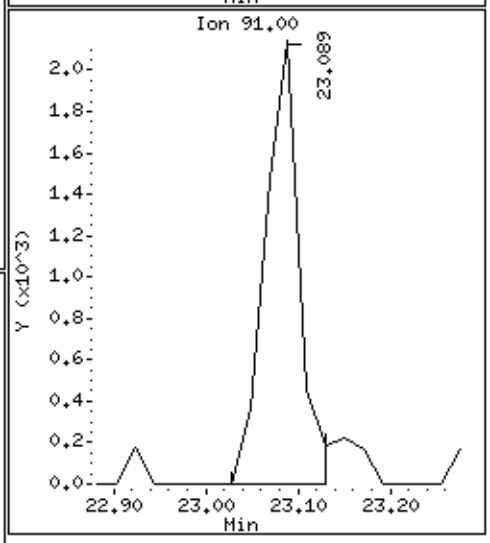
171 o-Xylene

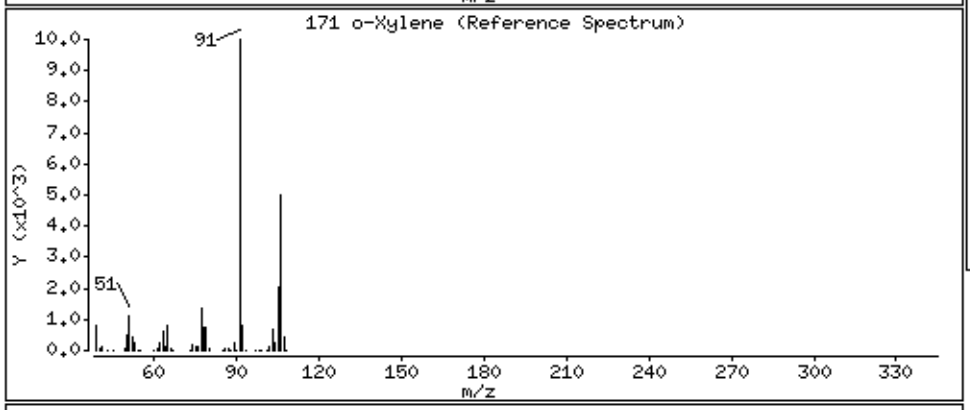
Concentration: 0.08108 PPBV

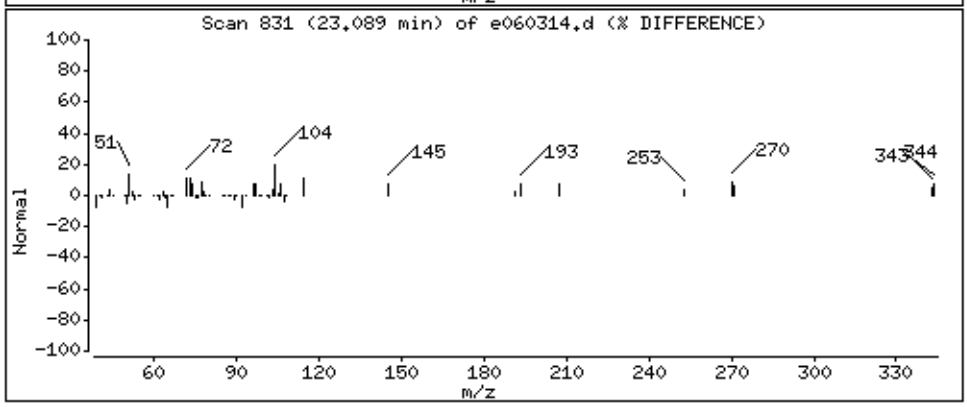












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

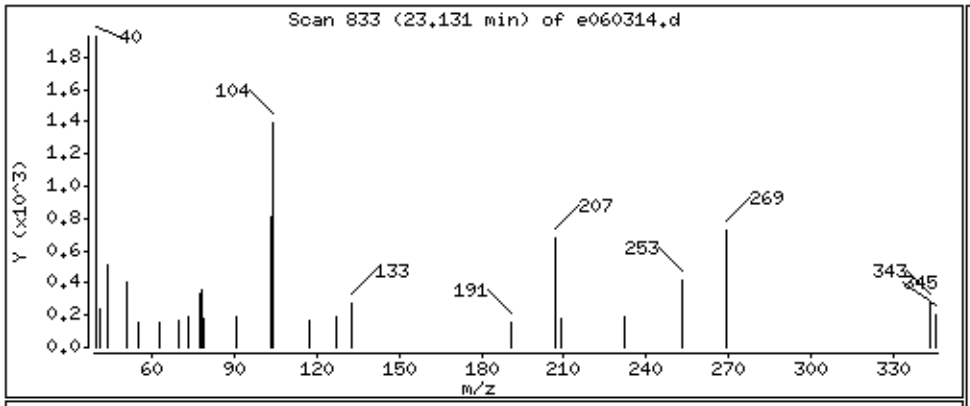
Operator: ea

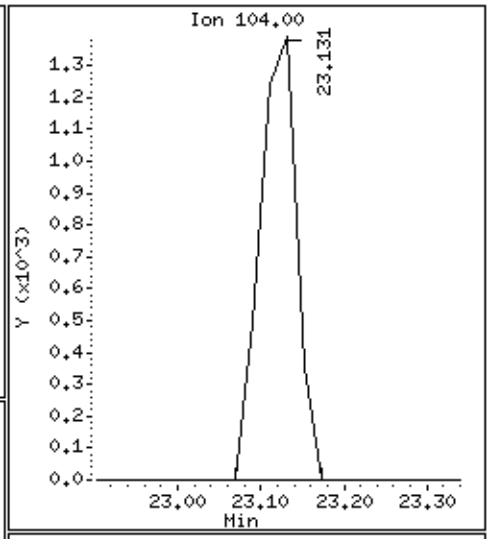
Column phase: RTX-624

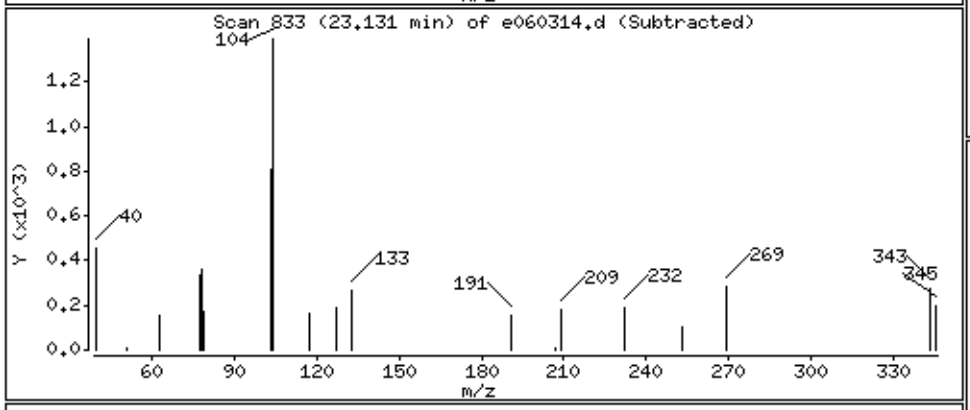
Column diameter: 0.32

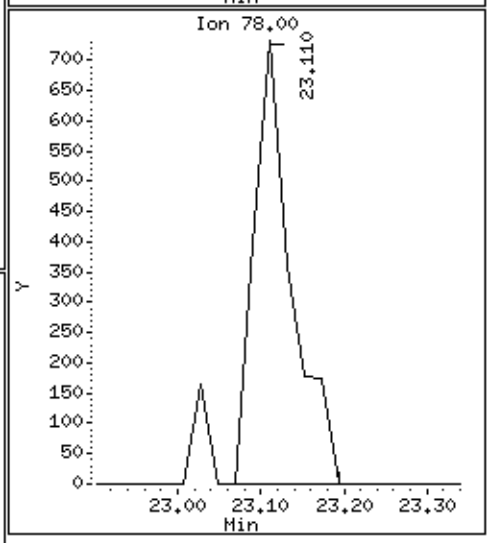
172 Styrene

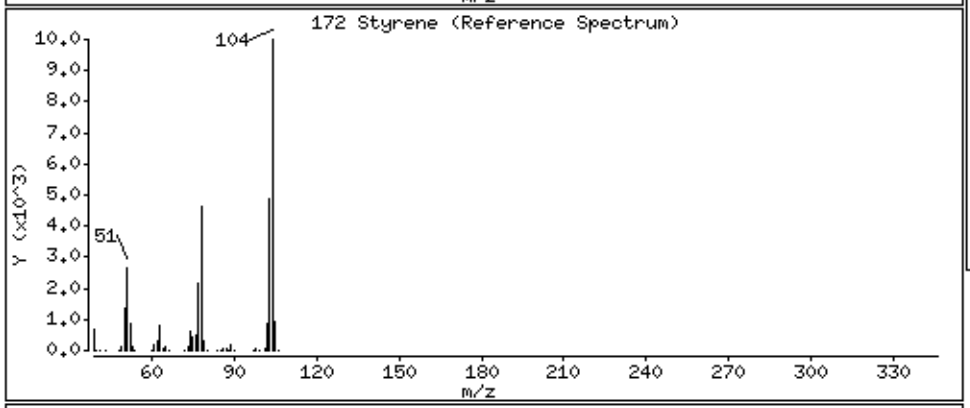
Concentration: 0.06744 PPBV

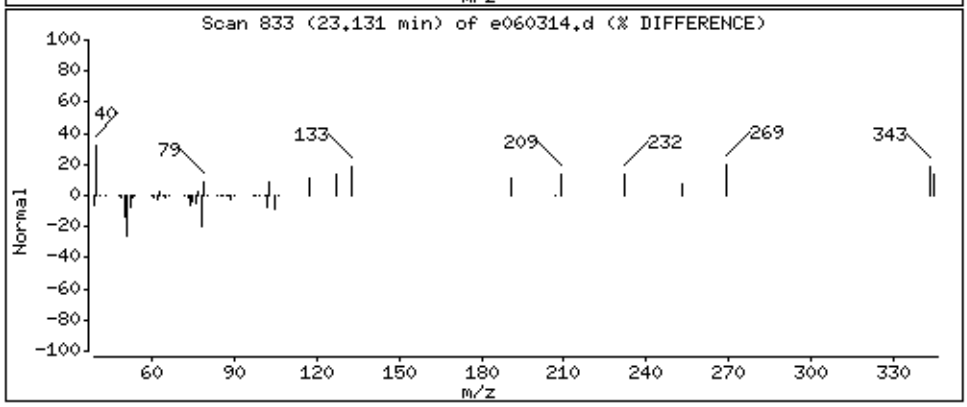












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

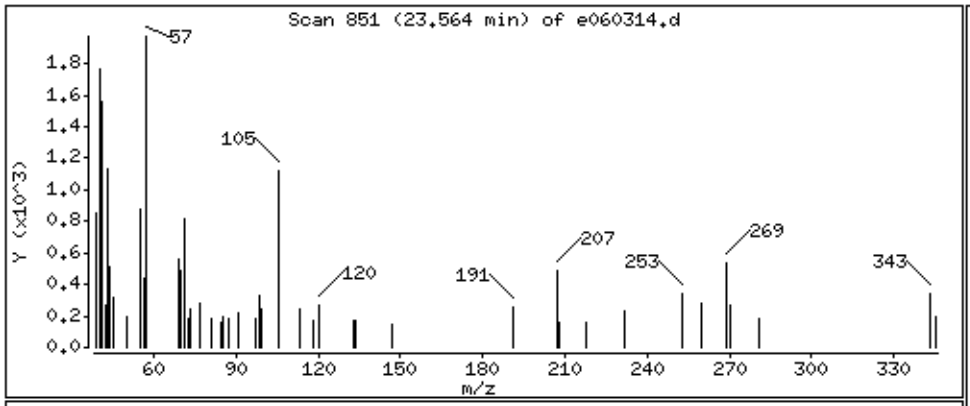
Operator: ea

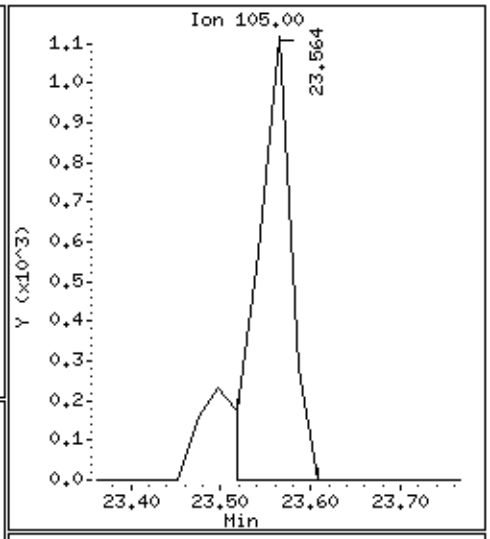
Column phase: RTX-624

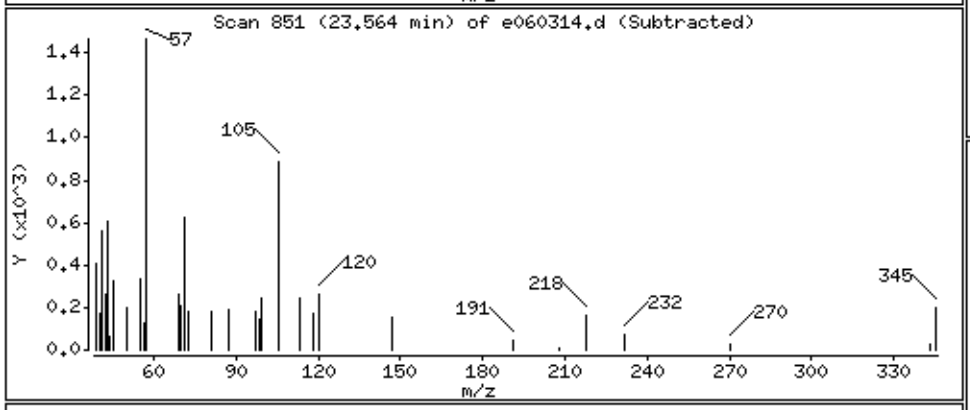
Column diameter: 0.32

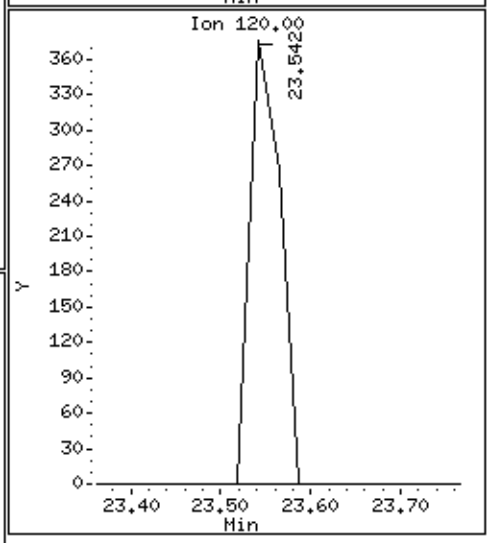
175 Cumene

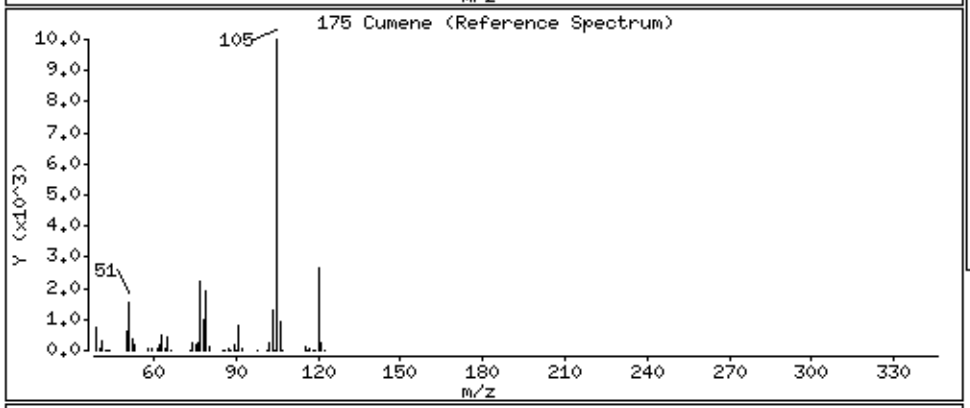
Concentration: 0.02234 PPBV

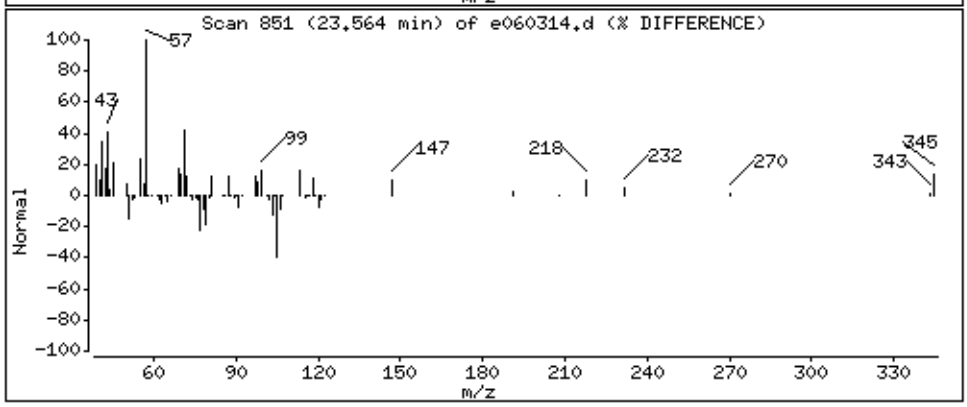












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

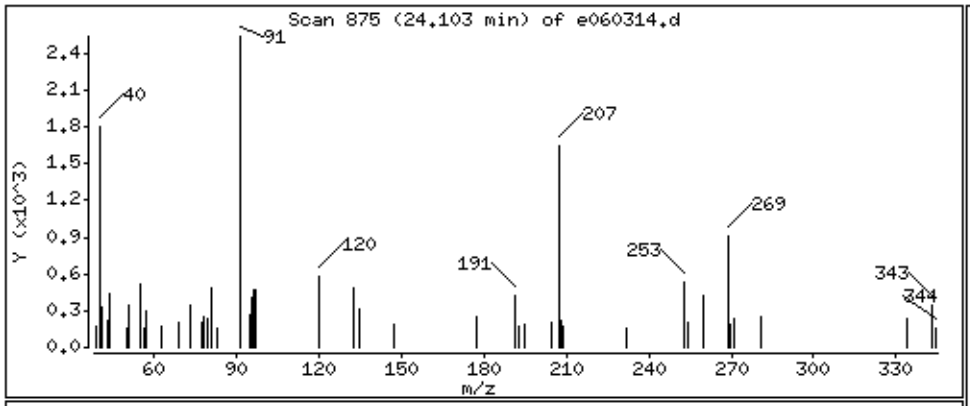
Operator: ea

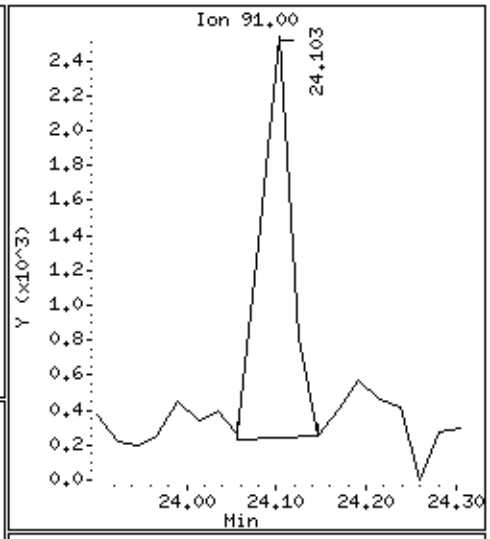
Column phase: RTX-624

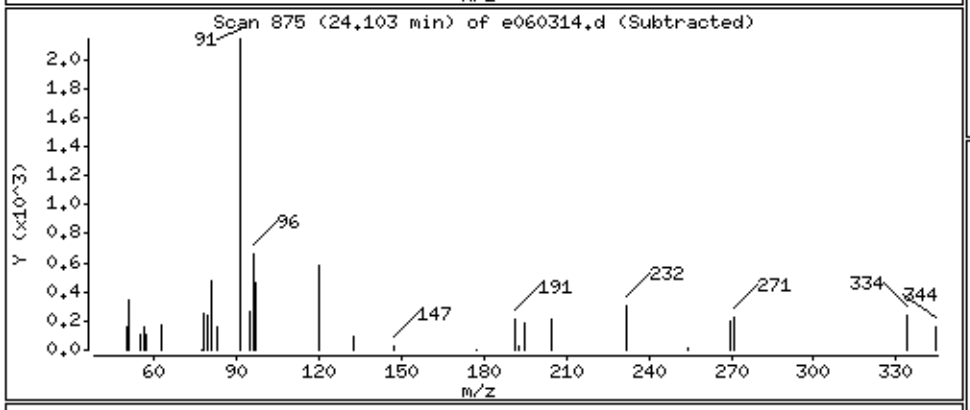
Column diameter: 0.32

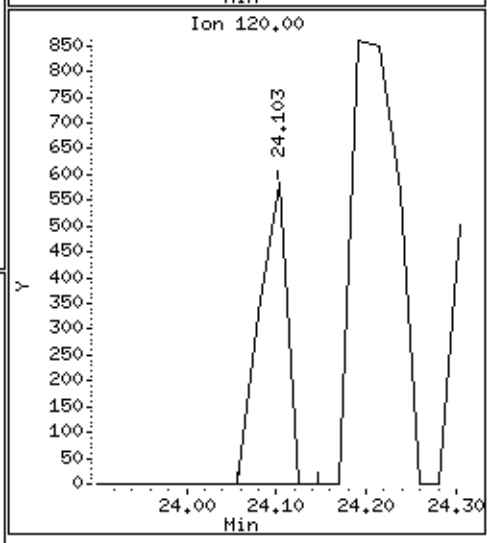
182 Propylbenzene

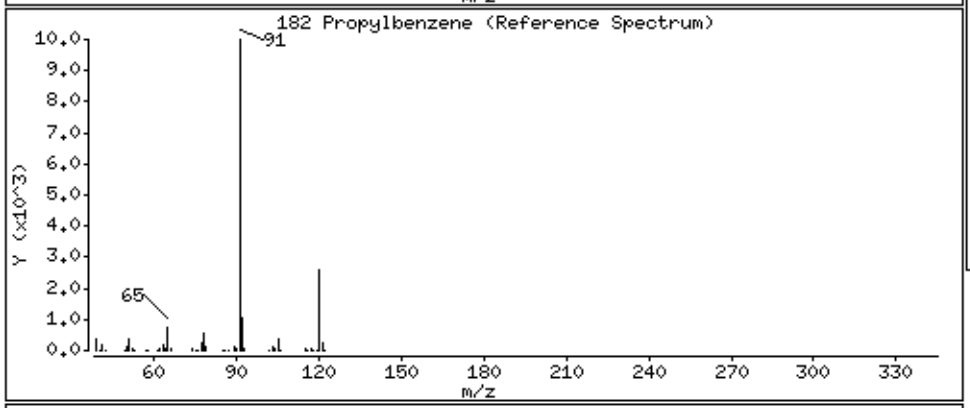
Concentration: 0.03973 PPBV

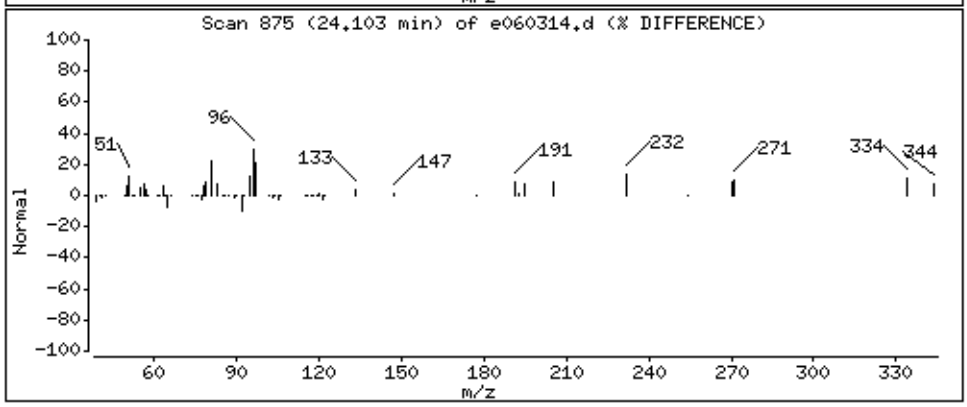












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

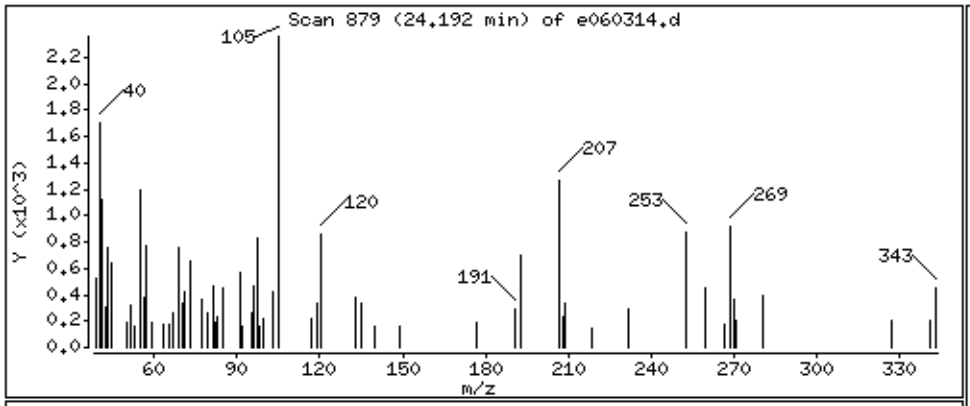
Operator: ea

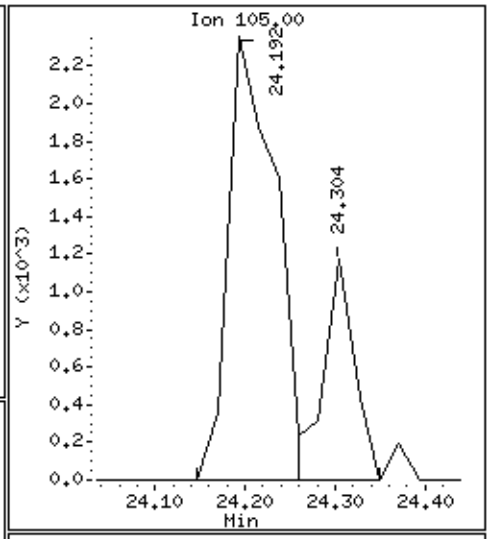
Column phase: RTX-624

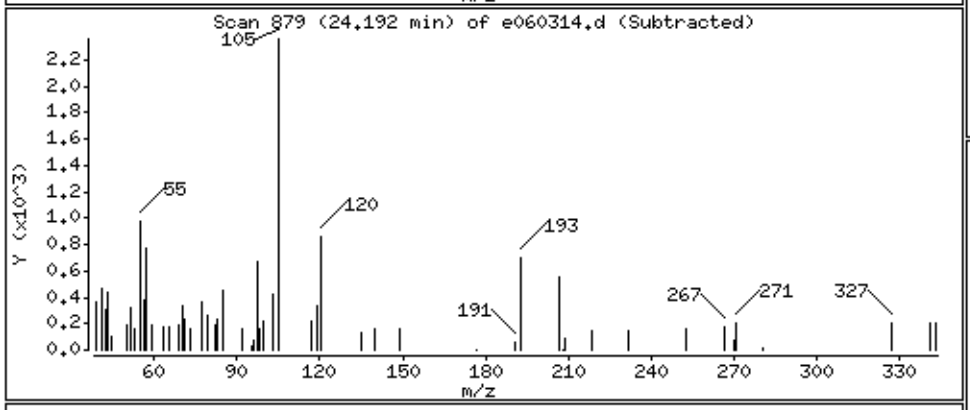
Column diameter: 0.32

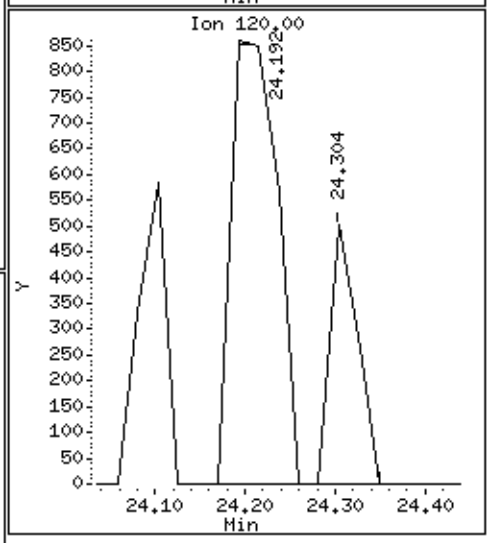
188 4-Ethyltoluene

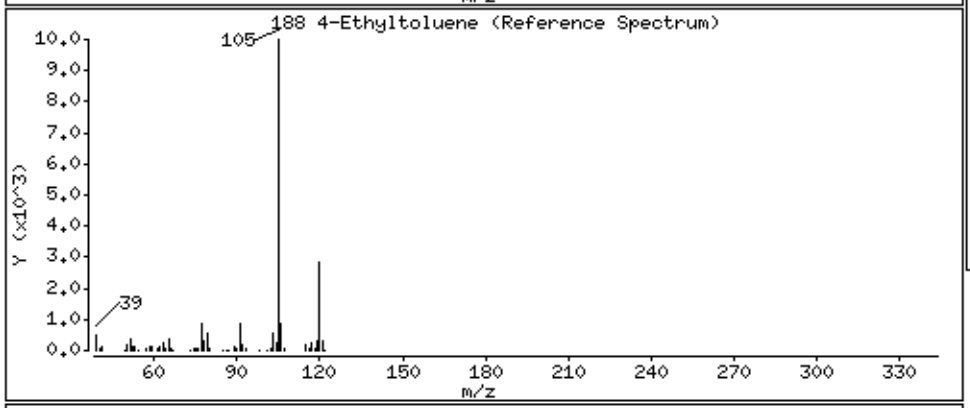
Concentration: 0.07516 PPBV

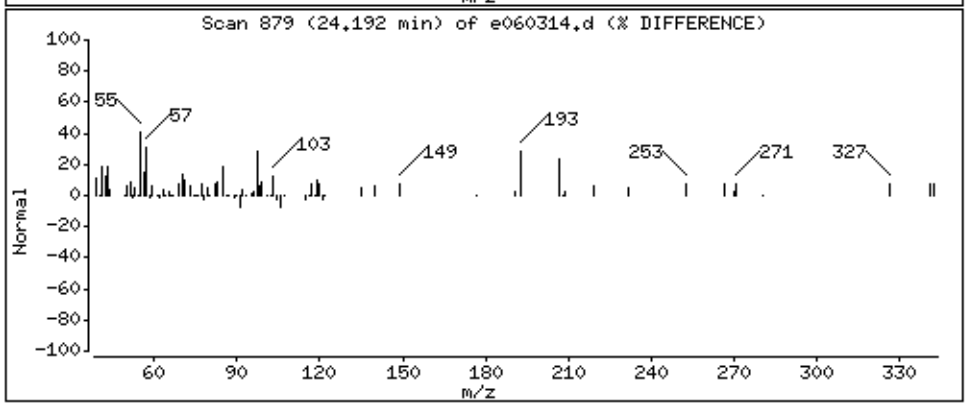












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

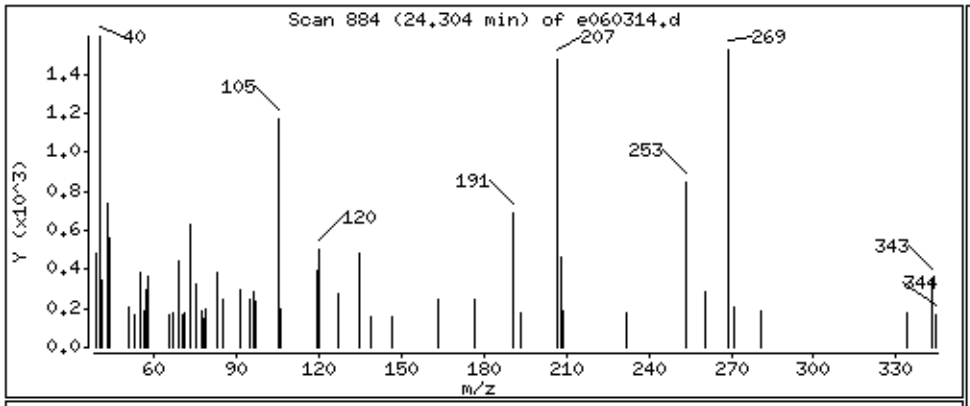
Operator: ea

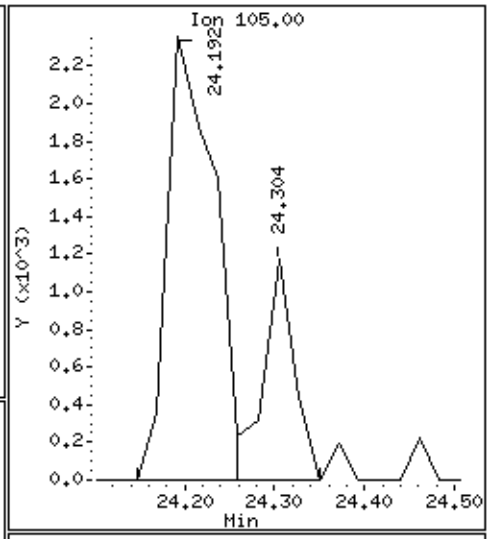
Column phase: RTX-624

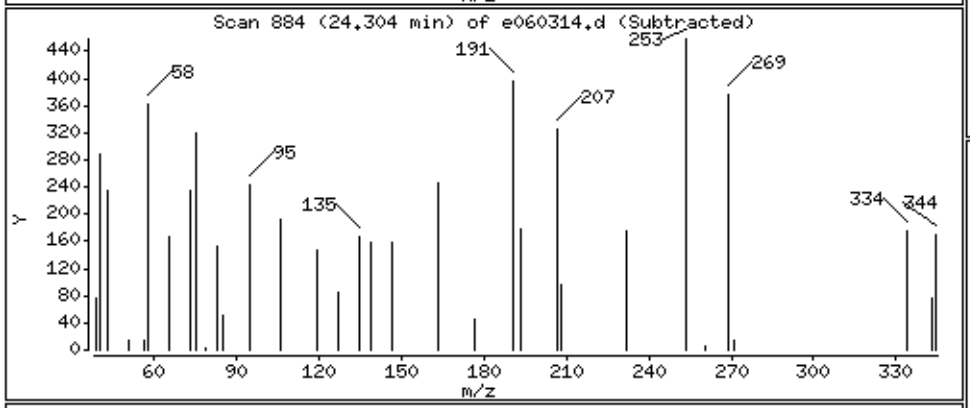
Column diameter: 0.32

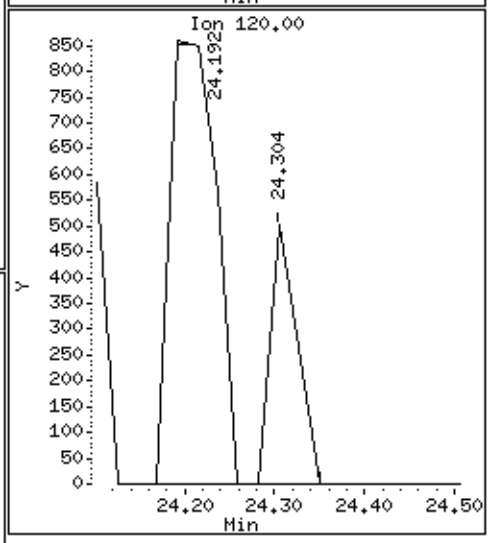
190 1,3,5-Trimethylbenzene

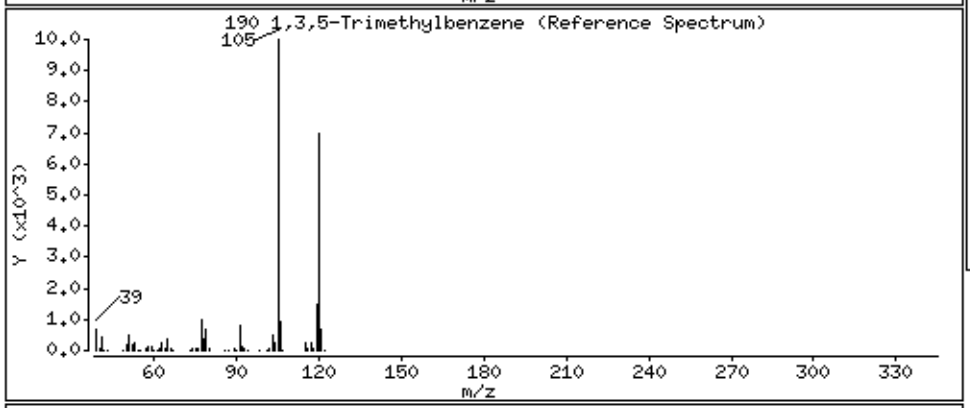
Concentration: 0.03243 PPBV

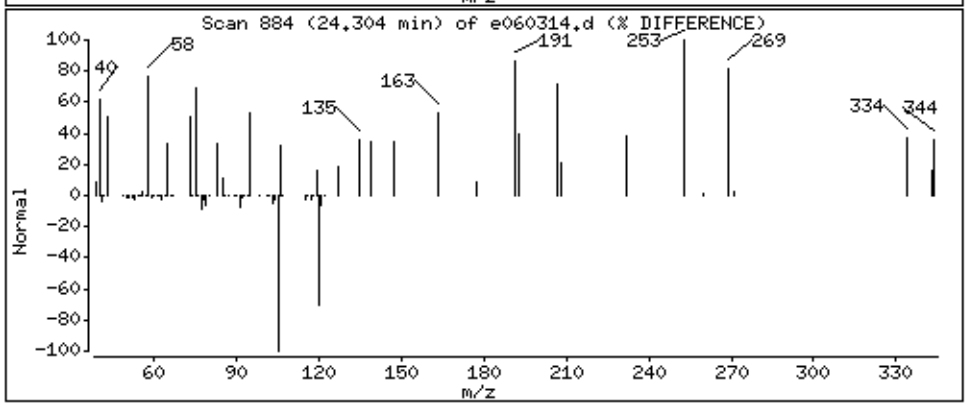












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

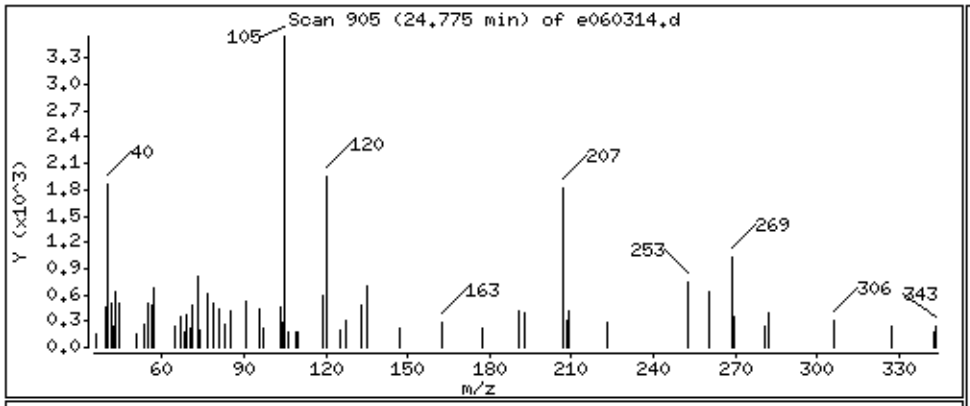
Operator: ea

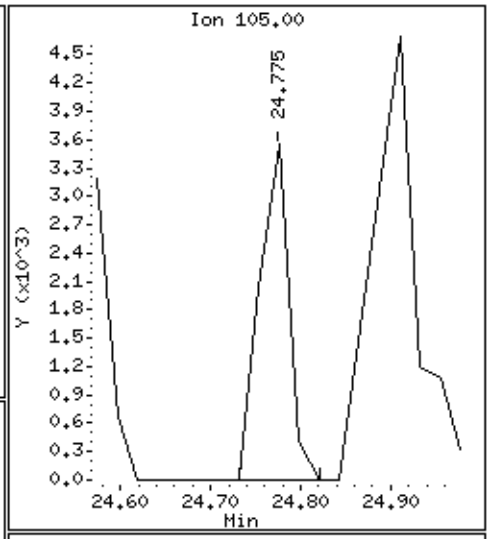
Column phase: RTX-624

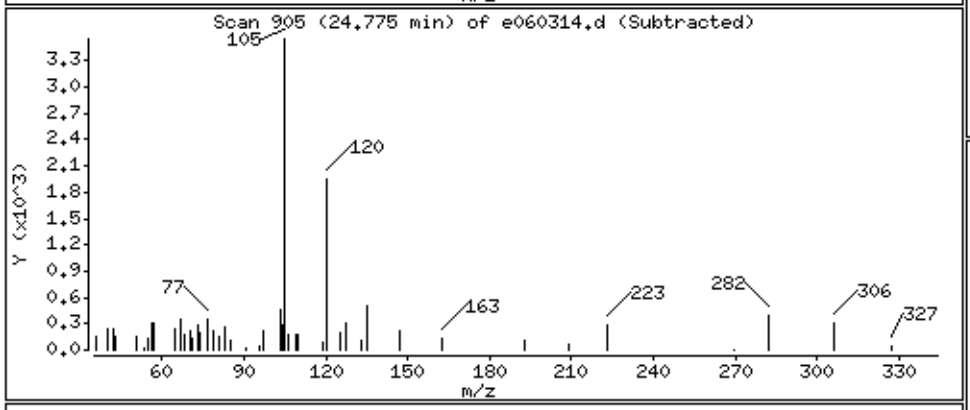
Column diameter: 0.32

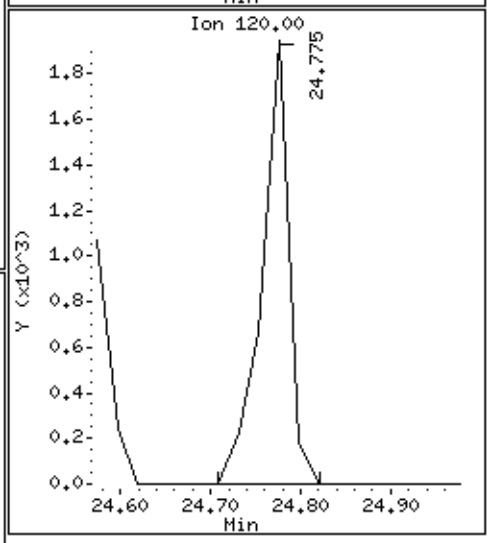
196 1,2,4-Trimethylbenzene

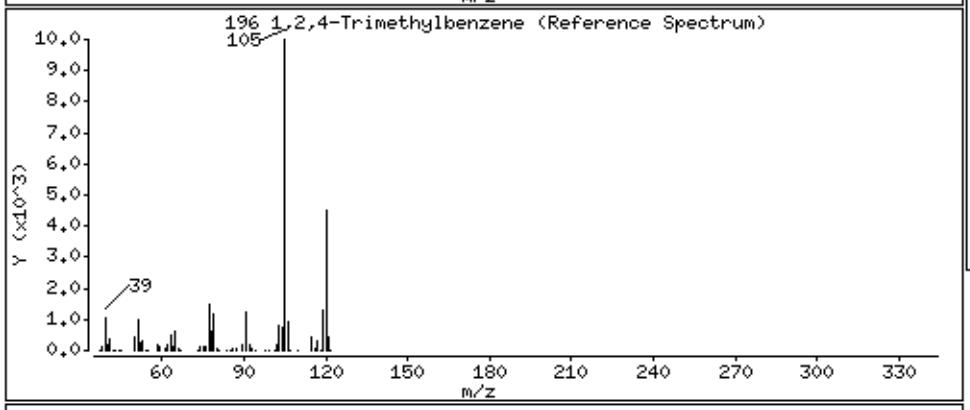
Concentration: 0.1043 PPBV

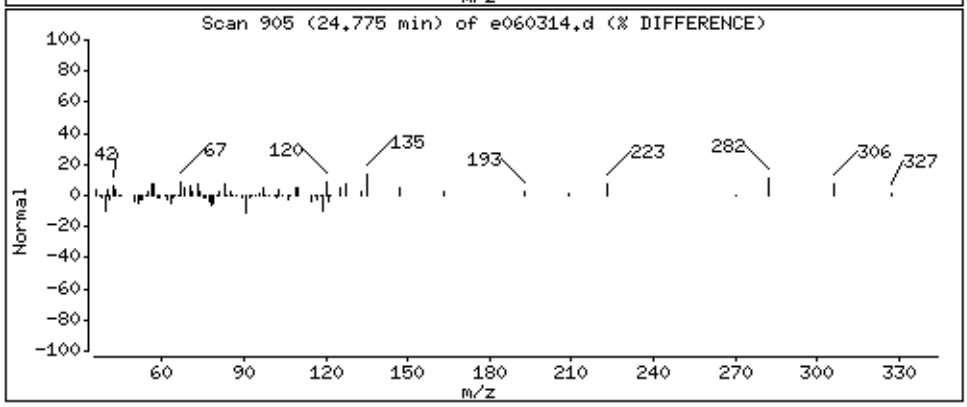












Data File: /chem/msde.i/03Jun2016.b/e060314.d

Date : 03-JUN-2016 17:40

Client ID:

Instrument: msde.i

Sample Info: 250mL# 14038

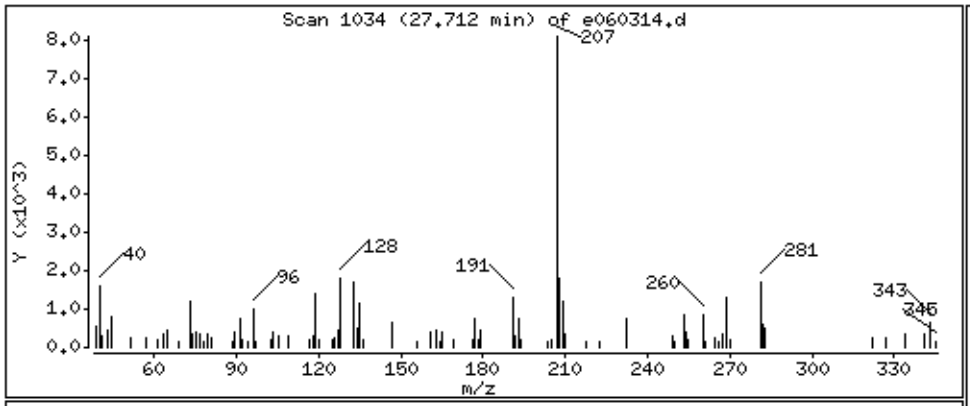
Operator: ea

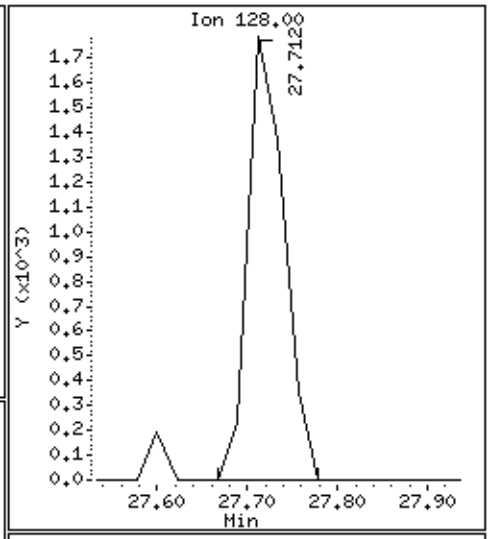
Column phase: RTX-624

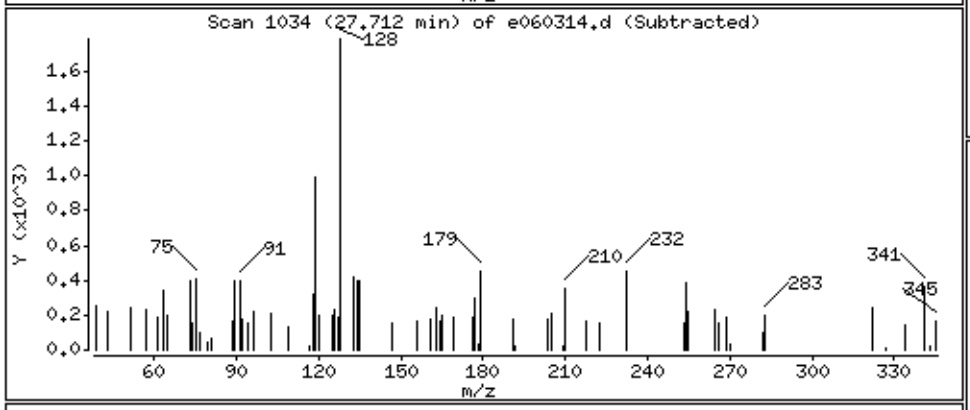
Column diameter: 0.32

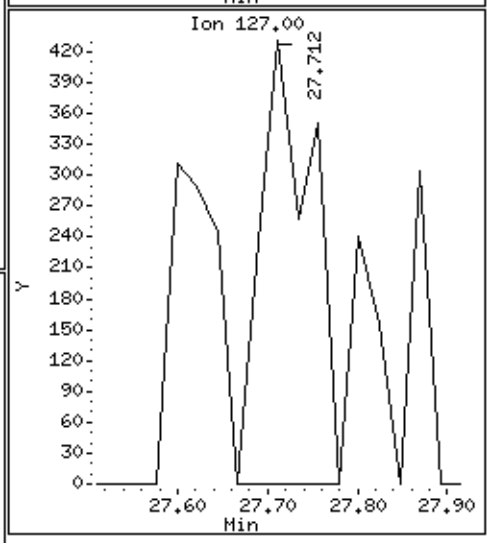
228 Naphthalene

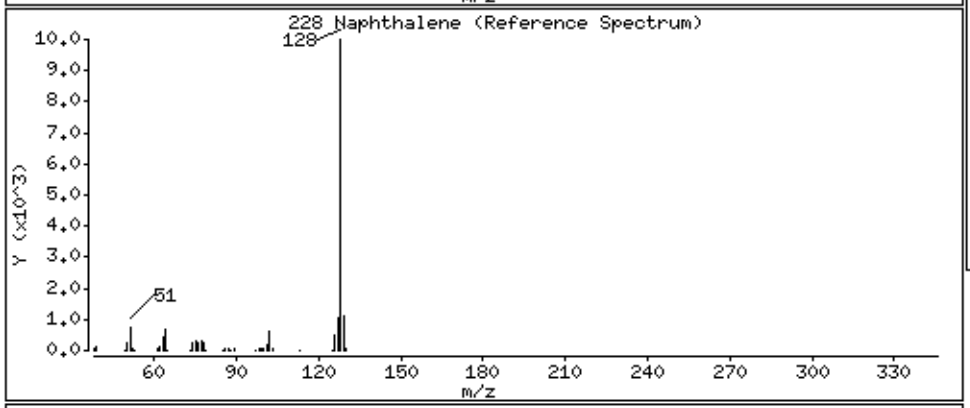
Concentration: 0.1213 PPBV

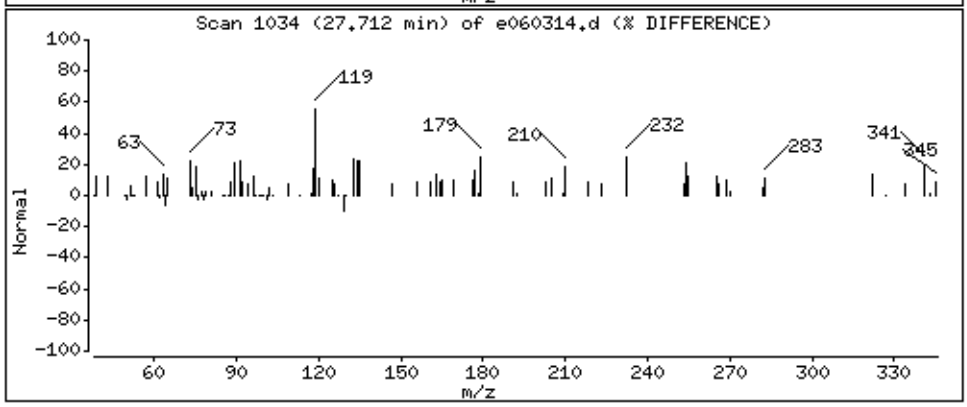












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-2 (052816)

Lab ID#: 1606028A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.42	0.65	2.1
Chloromethane	0.66	0.64 J	1.4	1.3 J
Freon 11	0.13	0.24	0.74	1.3
Ethanol	0.66	3.8	1.2	7.1
Freon 113	0.13	0.055 J	1.0	0.42 J
Acetone	0.66	5.9	1.6	14
2-Propanol	0.66	3.4	1.6	8.4
Carbon Disulfide	0.66	0.30 J	2.0	0.93 J
Methylene Chloride	0.26	0.13 J	0.92	0.44 J
Hexane	0.13	0.69	0.46	2.4
2-Butanone (Methyl Ethyl Ketone)	0.66	0.92	1.9	2.7
Carbon Tetrachloride	0.13	0.061 J	0.83	0.38 J
Benzene	0.13	0.11 J	0.42	0.36 J
1,2-Dichloroethane	0.13	0.13 J	0.53	0.52 J
Heptane	0.13	0.52	0.54	2.1
4-Methyl-2-pentanone	0.13	0.070 J	0.54	0.28 J
Toluene	0.13	0.39	0.50	1.5
Ethyl Benzene	0.13	0.040 J	0.57	0.17 J
m,p-Xylene	0.13	0.088 J	0.57	0.38 J
o-Xylene	0.13	0.040 J	0.57	0.17 J
Styrene	0.13	0.054 J	0.56	0.23 J
4-Ethyltoluene	0.13	0.025 J	0.65	0.12 J

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Client Sample ID: B30IA-2 (052816)

Lab ID#: 1606028A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060818**	**Date of Collection:**	**5/29/16 10:45:00 AM**
Dil. Factor:	**1.32**	**Date of Analysis:**	**6/8/16 09:01 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.13	0.42	0.65	2.1
Freon 114	0.13	Not Detected	0.92	Not Detected
Chloromethane	0.66	0.64 J	1.4	1.3 J
Vinyl Chloride	0.13	Not Detected	0.34	Not Detected
1,3-Butadiene	0.13	Not Detected	0.29	Not Detected
Bromomethane	0.66	Not Detected	2.6	Not Detected
Chloroethane	0.66	Not Detected	1.7	Not Detected
Freon 11	0.13	0.24	0.74	1.3
Ethanol	0.66	3.8	1.2	7.1
Freon 113	0.13	0.055 J	1.0	0.42 J
1,1-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Acetone	0.66	5.9	1.6	14
2-Propanol	0.66	3.4	1.6	8.4
Carbon Disulfide	0.66	0.30 J	2.0	0.93 J
3-Chloropropene	0.66	Not Detected	2.1	Not Detected
Methylene Chloride	0.26	0.13 J	0.92	0.44 J
Methyl tert-butyl ether	0.13	Not Detected	0.48	Not Detected
trans-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Hexane	0.13	0.69	0.46	2.4
1,1-Dichloroethane	0.13	Not Detected	0.53	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.66	0.92	1.9	2.7
cis-1,2-Dichloroethene	0.13	Not Detected	0.52	Not Detected
Tetrahydrofuran	0.66	Not Detected	1.9	Not Detected
Chloroform	0.13	Not Detected	0.64	Not Detected
1,1,1-Trichloroethane	0.13	Not Detected	0.72	Not Detected
Cyclohexane	0.13	Not Detected	0.45	Not Detected
Carbon Tetrachloride	0.13	0.061 J	0.83	0.38 J
2,2,4-Trimethylpentane	0.66	Not Detected	3.1	Not Detected
Benzene	0.13	0.11 J	0.42	0.36 J
1,2-Dichloroethane	0.13	0.13 J	0.53	0.52 J
Heptane	0.13	0.52	0.54	2.1
Trichloroethene	0.13	Not Detected	0.71	Not Detected
1,2-Dichloropropane	0.13	Not Detected	0.61	Not Detected
1,4-Dioxane	0.13	Not Detected	0.48	Not Detected
Bromodichloromethane	0.13	Not Detected	0.88	Not Detected
cis-1,3-Dichloropropene	0.13	Not Detected	0.60	Not Detected
4-Methyl-2-pentanone	0.13	0.070 J	0.54	0.28 J
Toluene	0.13	0.39	0.50	1.5
trans-1,3-Dichloropropene	0.13	Not Detected	0.60	Not Detected
1,1,2-Trichloroethane	0.13	Not Detected	0.72	Not Detected
Tetrachloroethene	0.13	Not Detected	0.90	Not Detected
2-Hexanone	0.66	Not Detected	2.7	Not Detected

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Client Sample ID: B30IA-2 (052816)

Lab ID#: 1606028A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060818**	**Date of Collection:**	**5/29/16 10:45:00 AM**
Dil. Factor:	**1.32**	**Date of Analysis:**	**6/8/16 09:01 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.13	Not Detected	1.1	Not Detected
1,2-Dibromoethane (EDB)	0.13	Not Detected	1.0	Not Detected
Chlorobenzene	0.13	Not Detected	0.61	Not Detected
Ethyl Benzene	0.13	0.040 J	0.57	0.17 J
m,p-Xylene	0.13	0.088 J	0.57	0.38 J
o-Xylene	0.13	0.040 J	0.57	0.17 J
Styrene	0.13	0.054 J	0.56	0.23 J
Bromoform	0.13	Not Detected	1.4	Not Detected
Cumene	0.13	Not Detected	0.65	Not Detected
1,1,2,2-Tetrachloroethane	0.13	Not Detected	0.91	Not Detected
Propylbenzene	0.13	Not Detected	0.65	Not Detected
4-Ethyltoluene	0.13	0.025 J	0.65	0.12 J
1,3,5-Trimethylbenzene	0.13	Not Detected	0.65	Not Detected
1,2,4-Trimethylbenzene	0.13	Not Detected	0.65	Not Detected
1,3-Dichlorobenzene	0.13	Not Detected	0.79	Not Detected
1,4-Dichlorobenzene	0.13	Not Detected	0.79	Not Detected
alpha-Chlorotoluene	0.13	Not Detected	0.68	Not Detected
1,2-Dichlorobenzene	0.13	Not Detected	0.79	Not Detected
1,2,4-Trichlorobenzene	0.66	Not Detected	4.9	Not Detected
Hexachlorobutadiene	0.66	Not Detected	7.0	Not Detected
Naphthalene	0.66	Not Detected	3.4	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/08Jun2016.b/e060818.d
Lab Smp Id: 1606028A-04A
Inj Date : 08-JUN-2016 21:01
Operator : gd Inst ID: msde.i
Smp Info : 250mL# 33586
Misc Info : 0.2psi -> 4.9psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/08Jun2016.b/e16l0317f.m
Meth Date : 08-Jun-2016 12:14 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 6
Dil Factor: 1.32000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12						CAS #: 75-71-8		
5.196	5.220	(0.338)	85	32001	0.31925	0.4214	80.00- 120.00	100.00
5.220	5.220	(0.339)	87	11150			2.00- 62.00	34.84
17 Chloromethane						CAS #: 74-87-3		
6.932	6.932	(0.450)	50	9241	0.48589	0.6414	80.00- 120.00	100.00(a)
6.932	6.956	(0.450)	52	2940			5.50- 65.50	31.81
35 Freon 11						CAS #: 75-69-4		
10.766	10.747	(0.700)	101	19288	0.17870	0.2359	80.00- 120.00	100.00
10.747	10.747	(0.698)	103	13508			37.17- 97.17	70.04
42 Ethanol						CAS #: 64-17-5		
11.681	11.680	(0.759)	45	22331	2.85527	3.769	80.00- 120.00	100.00
11.681	11.680	(0.759)	46	9385			6.61- 66.61	42.03
11.681	11.680	(0.759)	43	8026			0.00- 54.66	35.94
49 Freon 113						CAS #: 76-13-1		
12.081	12.080	(0.785)	151	3358	0.04152	0.05480	80.00- 120.00	100.00(a)
12.081	12.080	(0.785)	153	2193			33.64- 93.64	65.29

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   49 Freon 113 (continued)
 12.081  12.080 (0.785)   101      3656                    80.40- 140.40   108.85
-------------------------------------------------------------------------------
   52 Acetone                                     CAS #: 67-64-1
 12.366  12.366 (0.803)    58     59110 4.48168    5.916  80.00- 120.00   100.00
 12.366  12.366 (0.803)    43    193730                   321.47- 381.47   327.74
-------------------------------------------------------------------------------
   56 Carbon Disulfide                            CAS #: 75-15-0
 12.443  12.442 (0.808)    76     22848 0.22729   0.3000  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                  CAS #: 67-63-0
 12.728  12.709 (0.827)    45    105198 2.60733    3.442  80.00- 120.00   100.00
 12.728  12.709 (0.827)    43     29497                     0.00-  54.09    28.04
 12.728  12.709 (0.827)    59      4714                     0.00-  34.43     4.48
-------------------------------------------------------------------------------
   66 Methylene Chloride                          CAS #: 75-09-2
 13.149  13.176 (0.854)    84      3067 0.09704   0.1281  80.00- 120.00   100.00(a)
 13.149  13.149 (0.854)    49      2899                    63.99- 123.99    94.52
  0.000  13.176 (0.000)    51         0                     0.29-  60.29     0.00
-------------------------------------------------------------------------------
   78 Hexane                                      CAS #: 110-54-3
 13.835  13.835 (0.899)    57     20567 0.52169   0.6886  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43     13125                    21.48-  81.48    63.82
 13.835  13.835 (0.899)    86      4543                     0.00-  51.51    22.09
-------------------------------------------------------------------------------
   92 2-Butanone                                  CAS #: 78-93-3
 15.047  15.047 (0.978)    72     11104 0.69893   0.9226  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43     34029                   262.26- 322.26   306.43
 15.047  15.047 (0.978)    57      3252                     0.00-  55.71    29.29
-------------------------------------------------------------------------------
*  98 Bromochloromethane                         CAS #: 74-97-5
 15.391  15.391 (1.000)   130    119176 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128     95225                    52.25- 112.25    79.90
 15.391  15.391 (1.000)    49     86304                    89.81- 149.81    72.42
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                       CAS #: 56-23-5
 15.854  15.854 (1.030)   119      4545 0.04637  0.06121  80.00- 120.00   100.00(aM)
 15.884  15.854 (1.032)   117      4364                    74.09- 134.09    96.02
-------------------------------------------------------------------------------
  116 Benzene                                    CAS #: 71-43-2
 16.183  16.183 (0.967)    78      9632 0.08613   0.1137  80.00- 120.00   100.00(a)
 16.183  16.183 (0.967)    77      2534                     0.00-  53.97    26.31
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                      CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    185301 5.41611    5.416  80.00- 120.00   100.00
 16.183  16.183 (1.051)    67     91534                    21.16-  81.16    49.40
-------------------------------------------------------------------------------
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.304  16.303 (0.974)    62      5639 0.09674   0.1277  80.00- 120.00   100.00(a)
 16.304  16.303 (0.974)    64      2142                    1.03-  61.03    38.00
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57     10509 0.39644   0.5233  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100      6207                   28.67-  88.67    59.07
 16.352  16.352 (0.977)    43     15419                  128.92- 188.92   146.72
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.737  16.737 (1.000)   114    466674 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     65517                    0.00-  45.20    14.04
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 19.007  18.984 (1.136)    43      3041 0.05270  0.06956  80.00- 120.00   100.00(a)
 18.984  18.984 (1.134)    58       870                   15.64-  75.64    28.61
  0.000  18.984 (0.000)    85         0                    0.00-  56.71     0.00
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 19.275  19.275 (1.152)    98    440457 4.80571    4.806  80.00- 120.00   100.00
 19.275  19.275 (1.152)    70     54495                    0.00-  40.11    12.37
 19.275  19.275 (1.152)   100    298399                   37.58-  97.58    67.75
-------------------------------------------------------------------------------
  147 Toluene                                       CAS #: 108-88-3
 19.432  19.432 (1.161)    91     39673 0.29783   0.3931  80.00- 120.00   100.00
 19.410  19.432 (1.160)    92     23570                   28.92-  88.92    59.41
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    445454 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    213796                   20.64-  80.64    48.00
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                 CAS #: 100-41-4
 22.302  22.301 (1.006)   106      1786 0.03043  0.04016  80.00- 120.00   100.00(a)
 22.302  22.301 (1.006)    91      5044                  282.51- 342.51   282.41
-------------------------------------------------------------------------------
  169 m,p-Xylene                                    CAS #: 108-38-3
 22.467  22.467 (1.013)   106      4572 0.06705  0.08851  80.00- 120.00   100.00(a)
 22.467  22.467 (1.013)    91      9743                  166.46- 226.46   213.06
-------------------------------------------------------------------------------
  171 o-Xylene                                      CAS #: 95-47-6
 23.089  23.089 (1.041)   106      1886 0.03016  0.03980  80.00- 120.00   100.00(a)
 23.089  23.089 (1.041)    91      4847                  184.01- 244.01   256.90
-------------------------------------------------------------------------------
  172 Styrene                                       CAS #: 100-42-5
 23.110  23.110 (1.042)   104      4344 0.04105  0.05418  80.00- 120.00   100.00(a)
 23.110  23.110 (1.042)    78      2391                   20.27-  80.27    55.05
-------------------------------------------------------------------------------
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4		
23.856	23.856	(1.076)	174	286056	4.68002	4.680	80.00- 120.00	100.00
23.856	23.856	(1.076)	95	287877			77.42- 137.42	100.64
23.856	23.856	(1.076)	176	281553			65.38- 125.38	98.43
188 4-Ethyltoluene						CAS #: 622-96-8		
24.215	24.237	(1.092)	105	3574	0.01883	0.02485	80.00- 120.00	100.00(a)
24.215	24.237	(1.092)	120	1266			1.08- 61.08	35.43

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Report Date: 14-Jun-2016 06:41

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060818.d
Lab Smp Id: 1606028A-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msde.i/08Jun2016.b/e16l0317f.m
Misc Info: 0.2psi -> 4.9psi

Calibration Date: 08-JUN-2016
Calibration Time: 08:32

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	121899	73139	170659	119176	-2.23
123 1,4-Difluorobenze	451721	271033	632409	466674	3.31
163 Chlorobenzene-d5	400528	240317	560739	445454	11.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 14-Jun-2016 06:41

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 08Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606028A-04A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT09Bromo.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/08Jun2016.b/e16l0317f.m
Misc Info: 0.2psi -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.416	108.32	70-130
$ 146 Toluene-d8	5.000	4.806	96.11	70-130
$ 177 4-Bromofluorobenze	5.000	4.680	93.60	70-130

Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

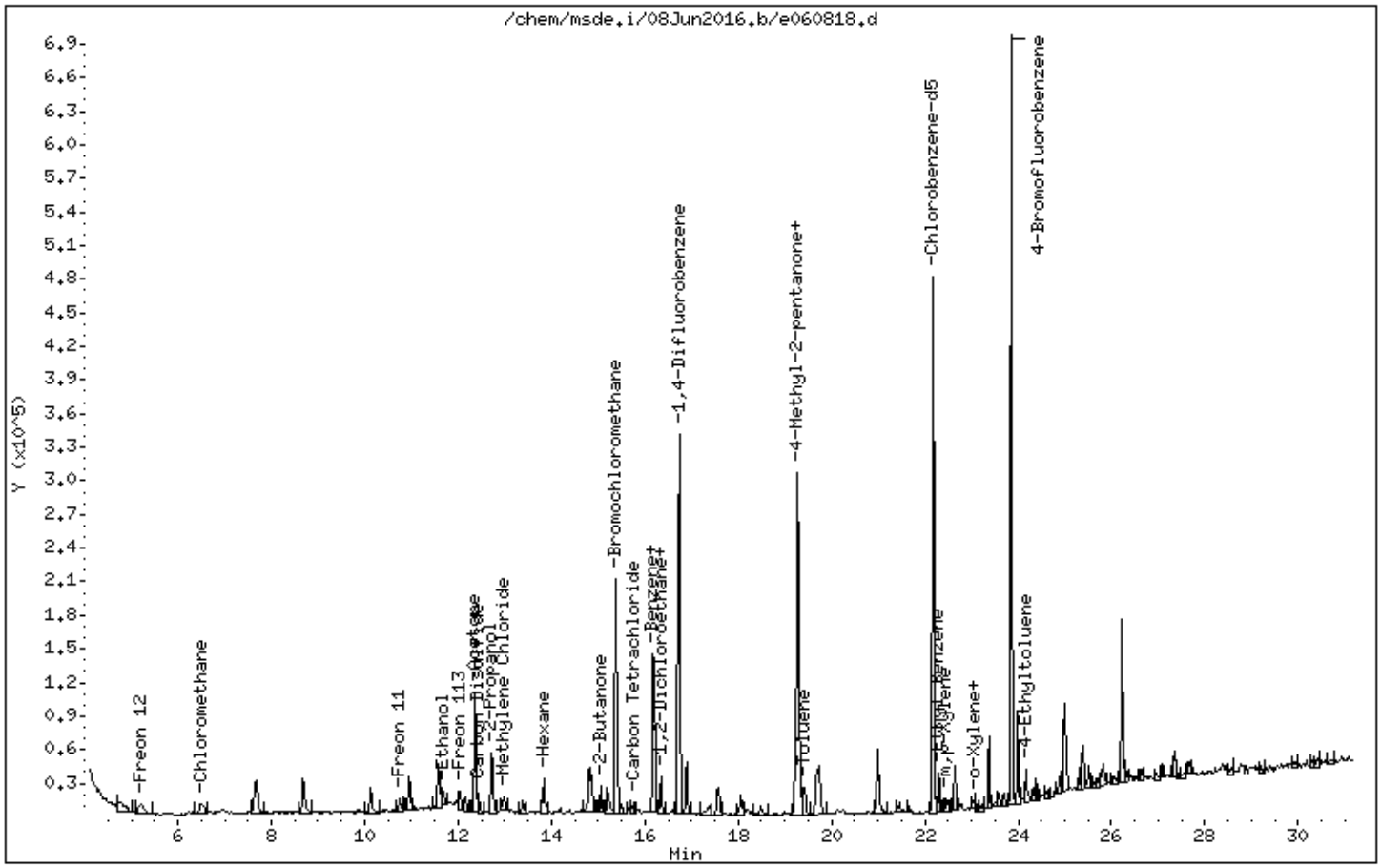
Instrument: msde.i

Sample Info: 250mL# 33586

Operator: gd

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

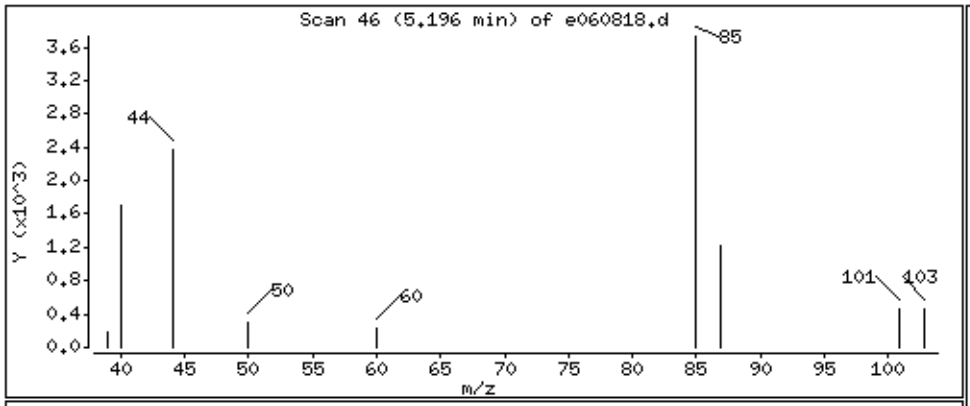
Operator: gd

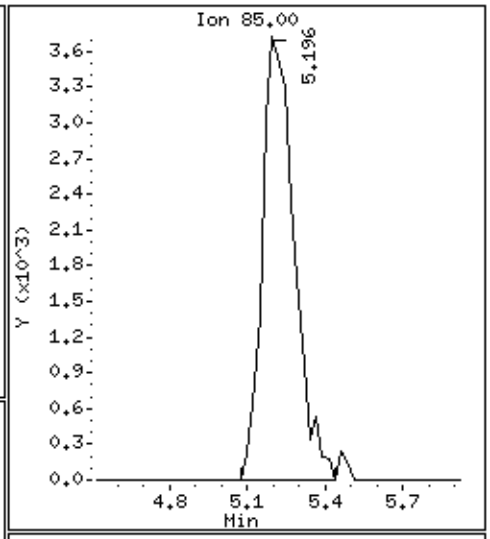
Column phase: RTX-624

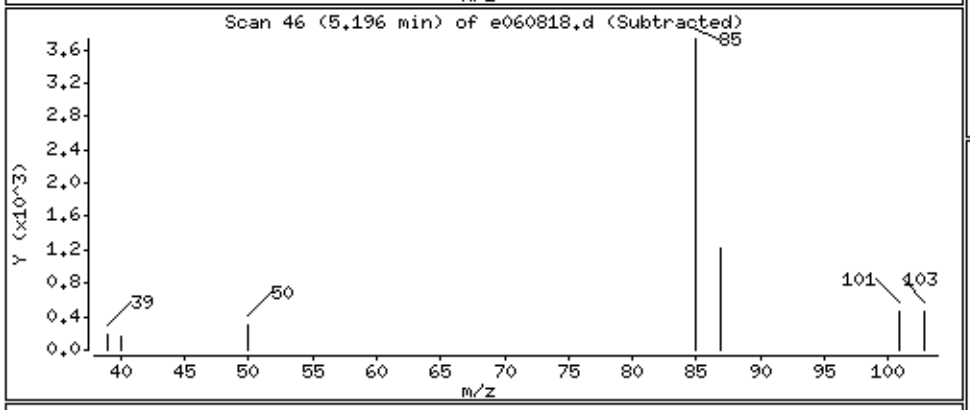
Column diameter: 0.32

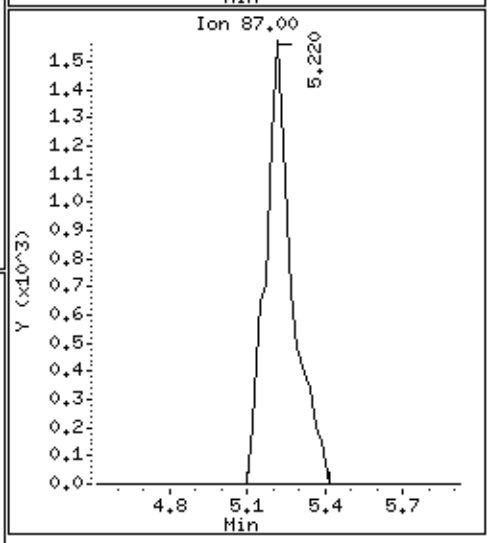
11 Freon 12

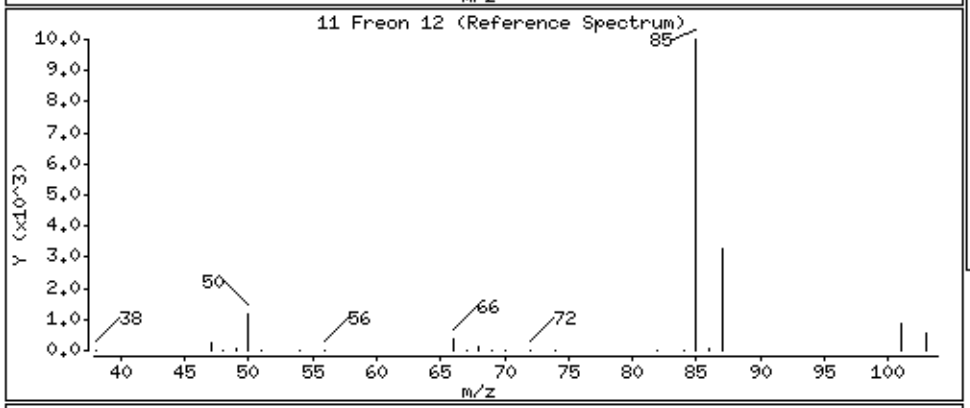
Concentration: 0.4214 PPBV

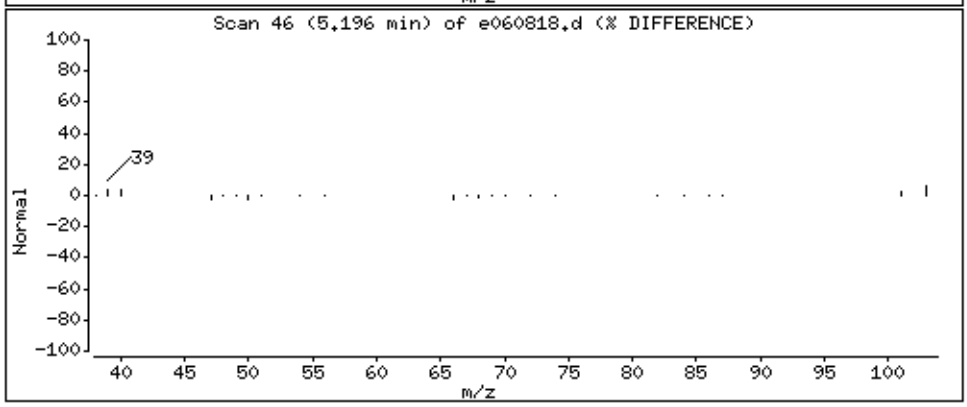












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

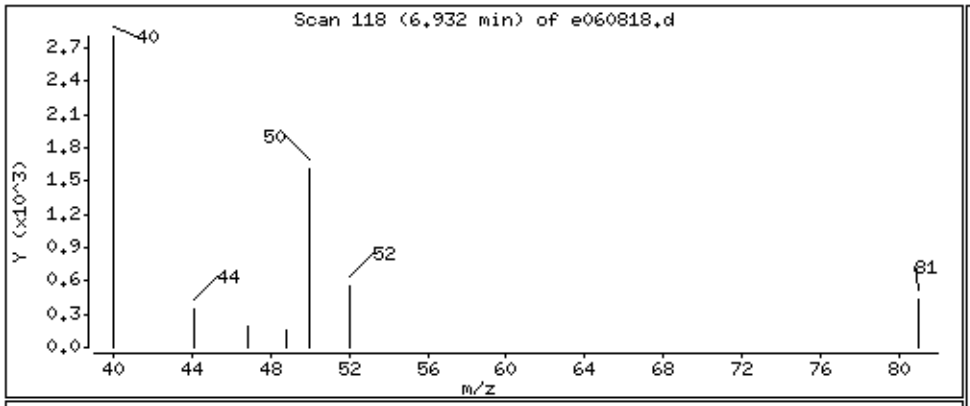
Operator: gd

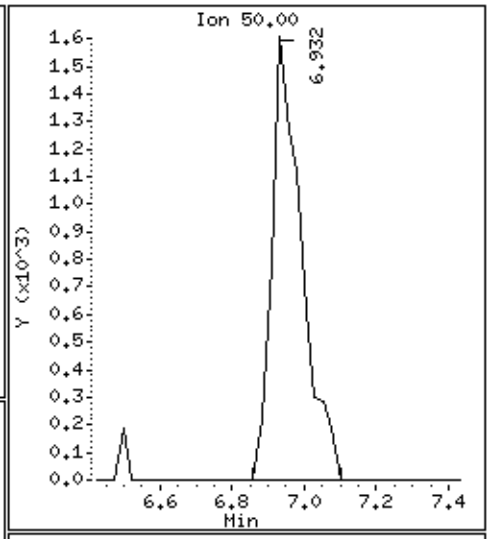
Column phase: RTX-624

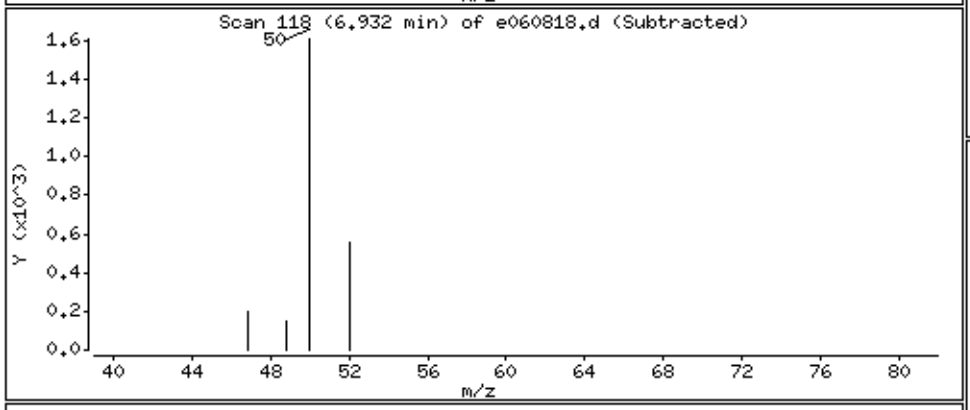
Column diameter: 0.32

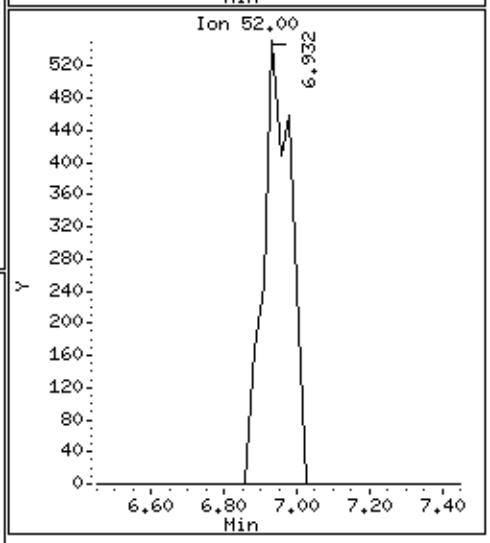
17 Chloromethane

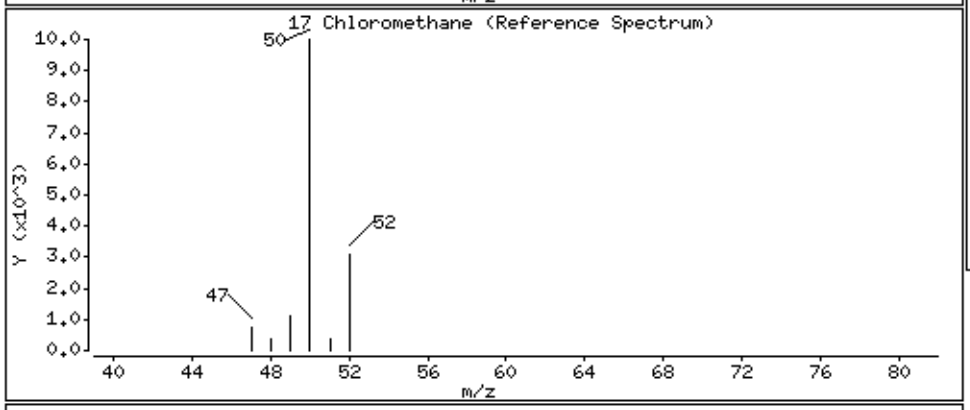
Concentration: 0.6414 PPBV

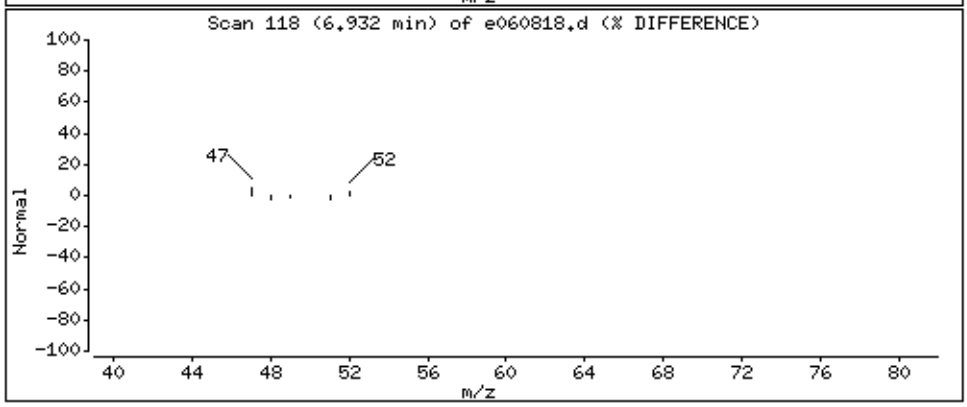












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

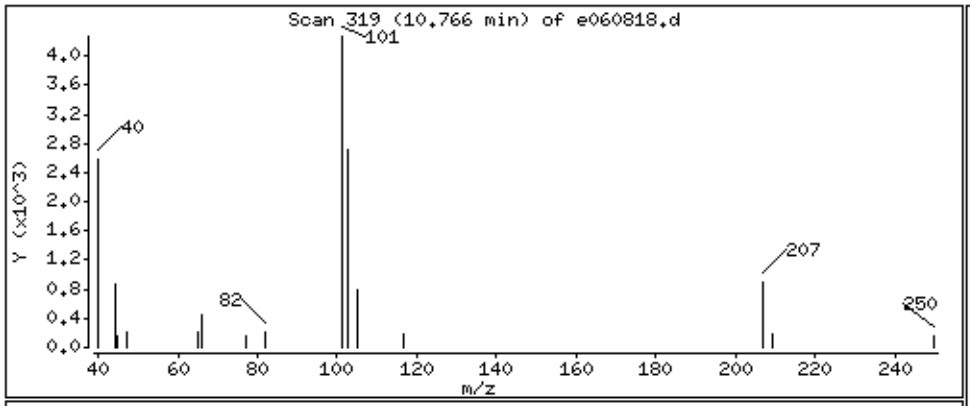
Operator: gd

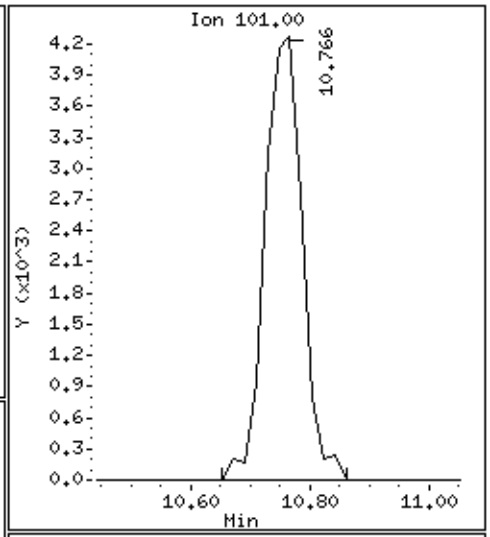
Column phase: RTX-624

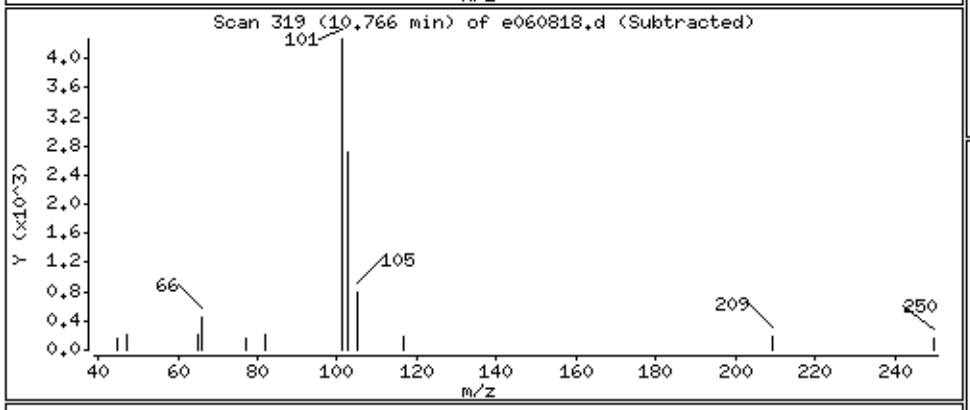
Column diameter: 0.32

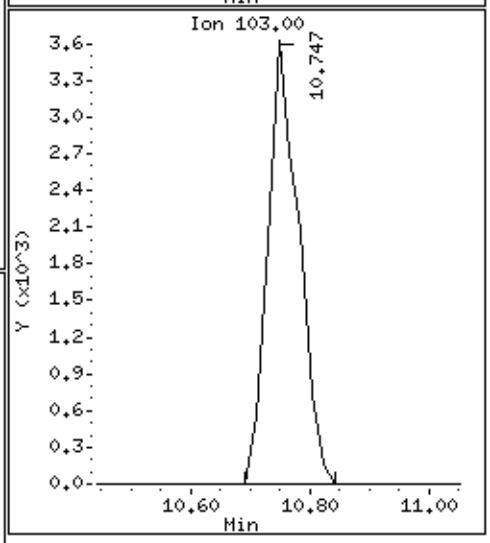
35 Freon 11

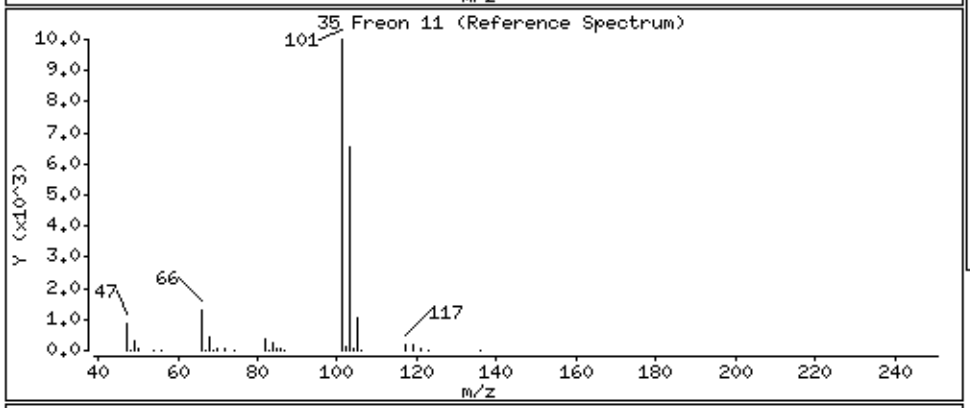
Concentration: 0.2359 PPBV

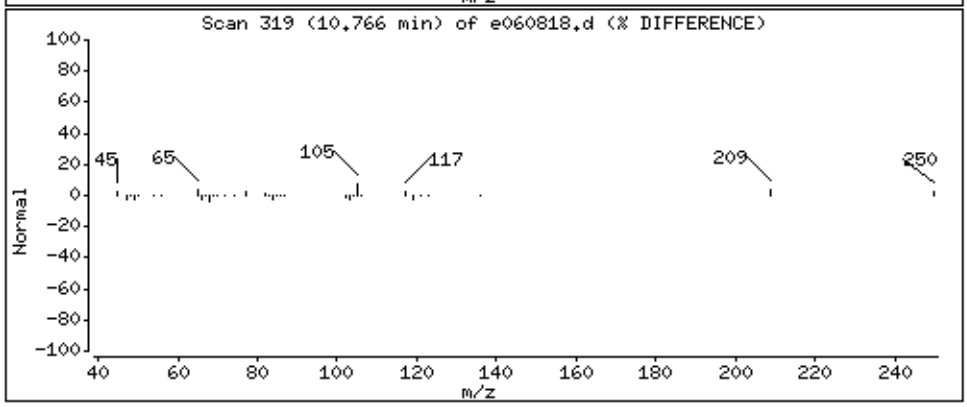












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

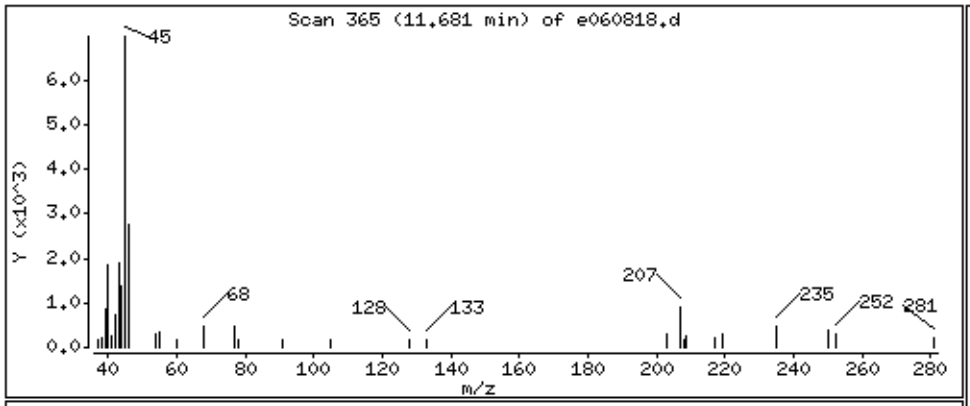
Operator: gd

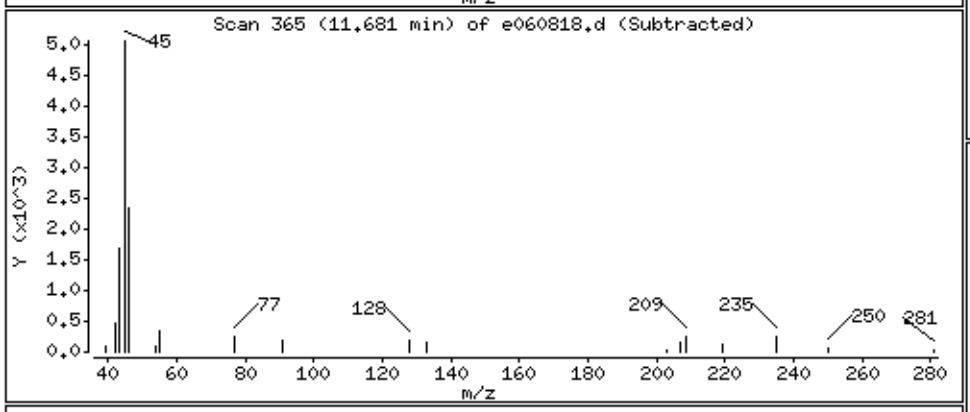
Column phase: RTX-624

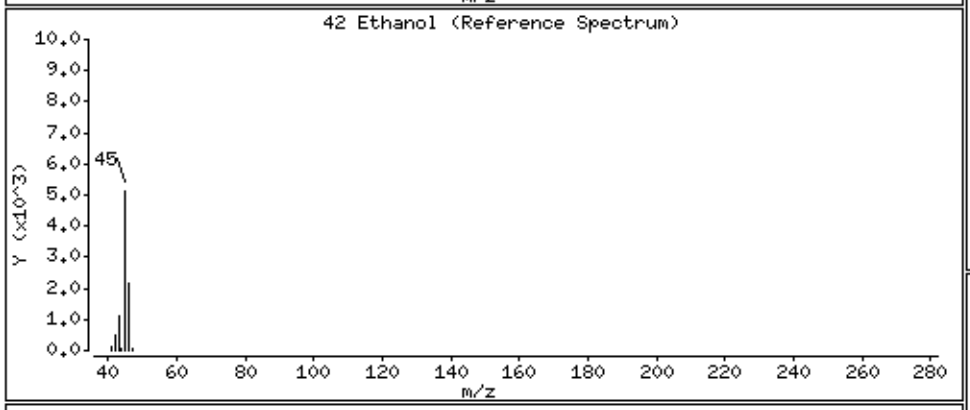
Column diameter: 0.32

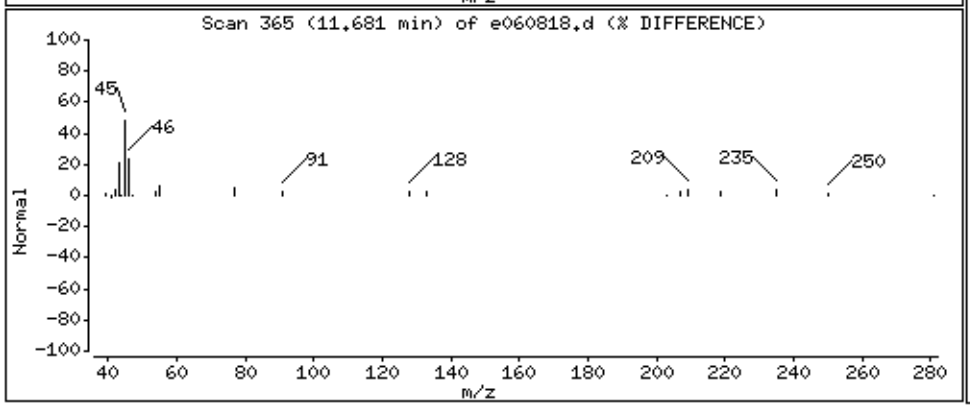
42 Ethanol

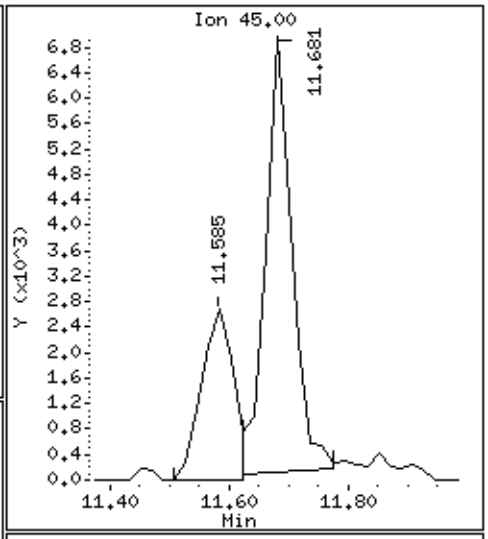
Concentration: 3.769 PPBV

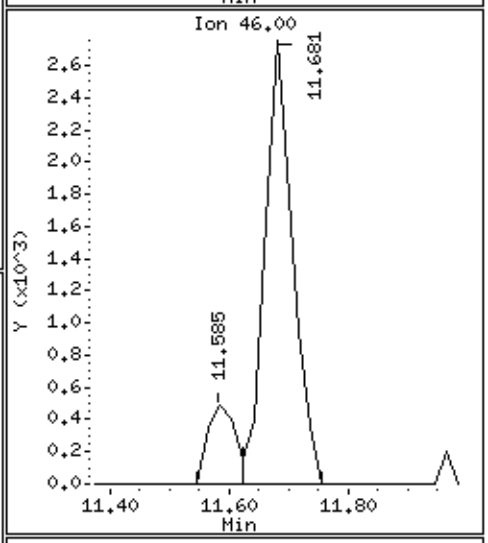


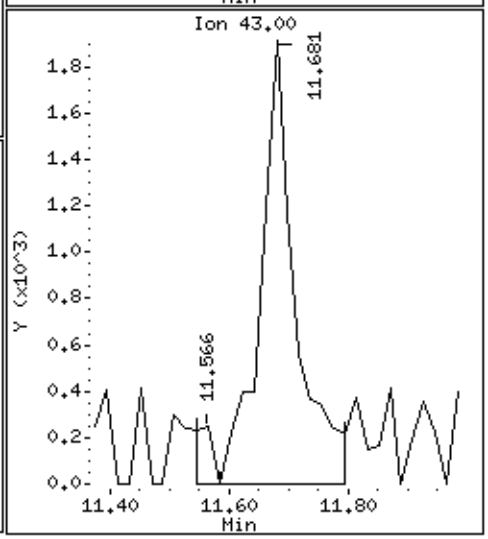












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

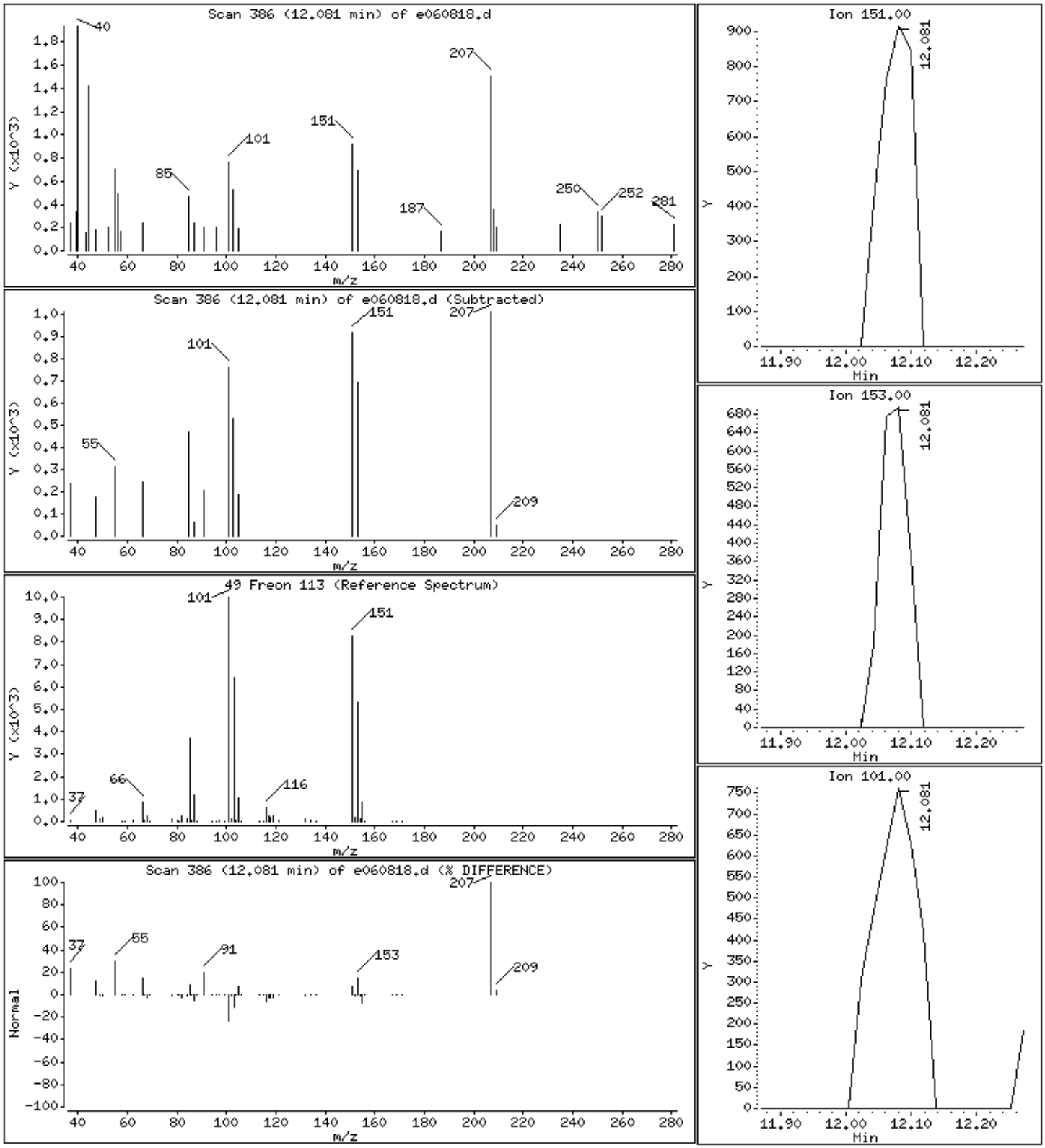
Operator: gd

Column phase: RTX-624

Column diameter: 0.32

49 Freon 113

Concentration: 0.05480 PPBV



Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

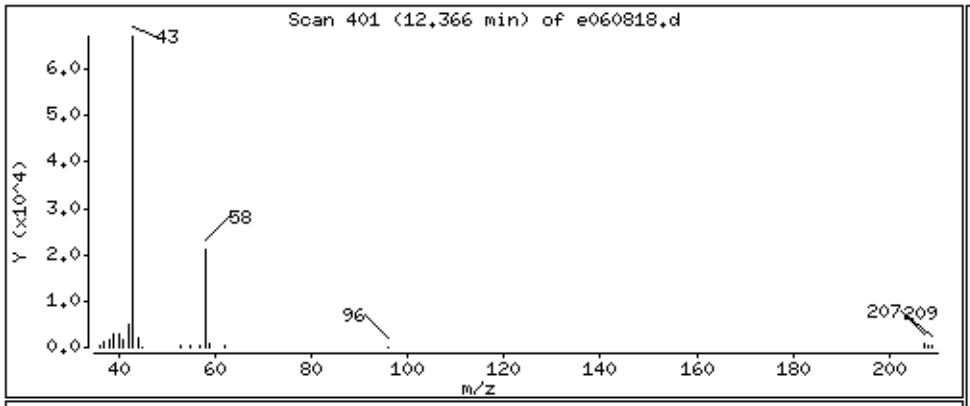
Operator: gd

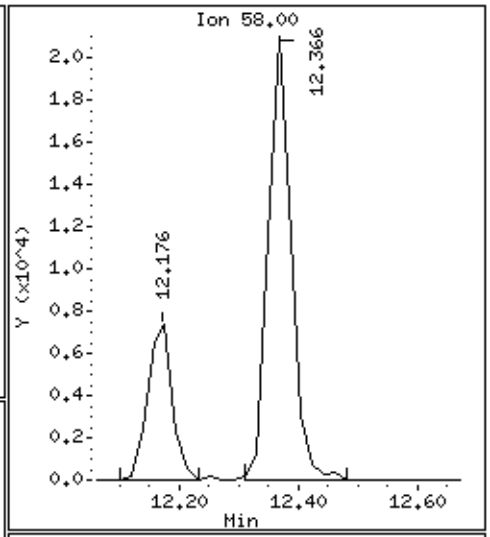
Column phase: RTX-624

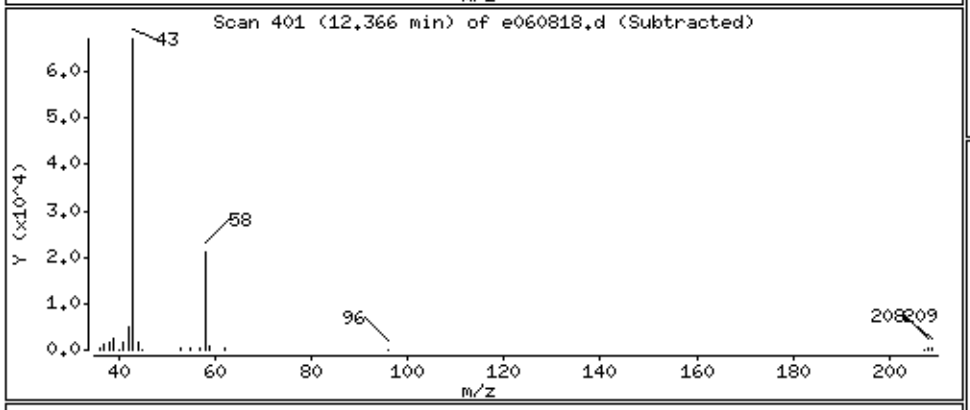
Column diameter: 0.32

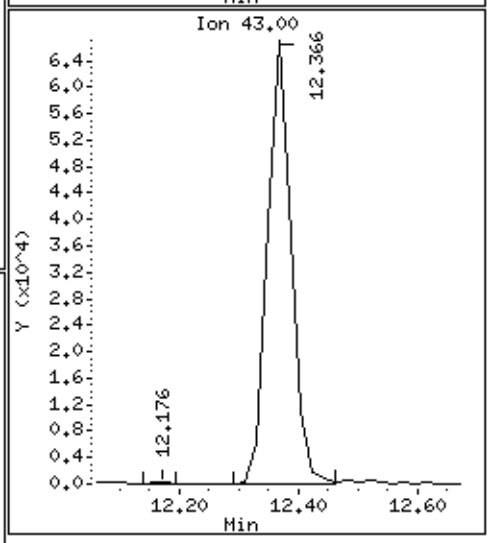
52 Acetone

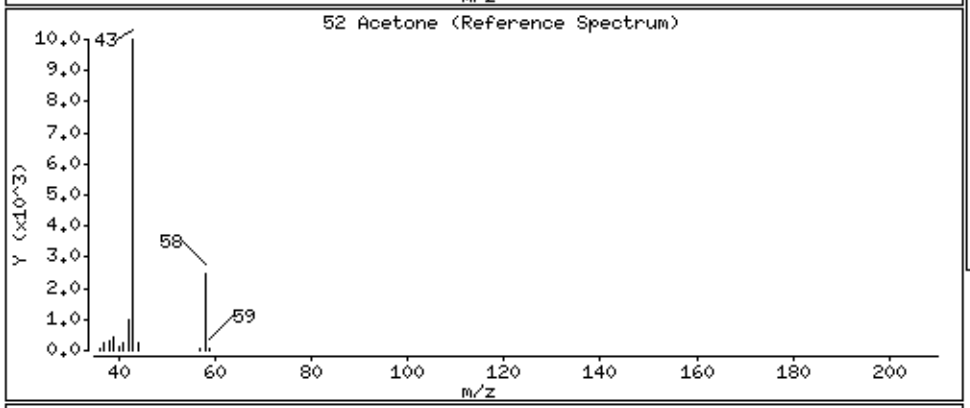
Concentration: 5.916 PPBV

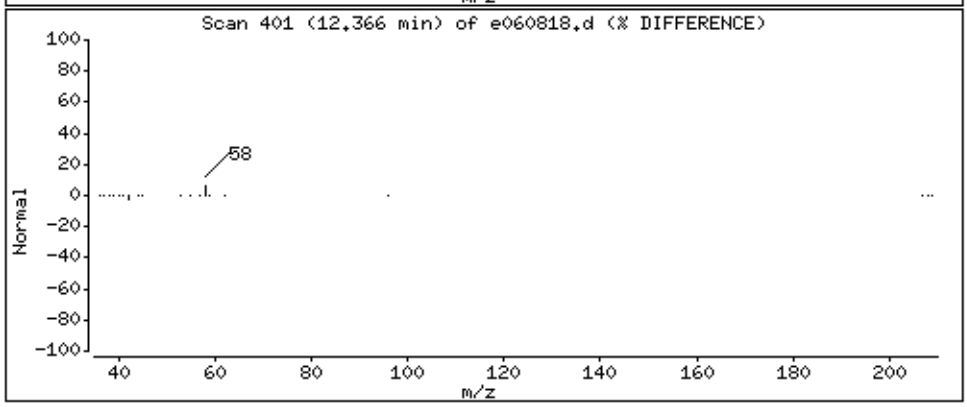












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

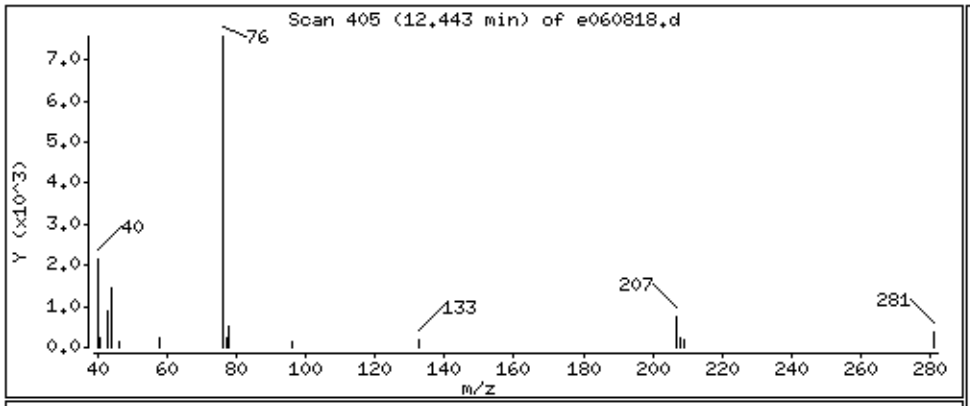
Operator: gd

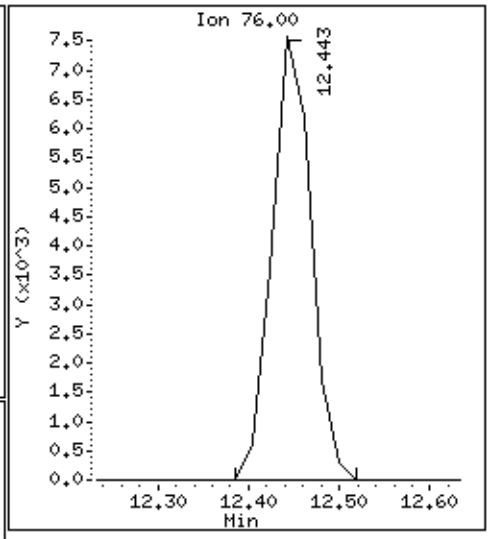
Column phase: RTX-624

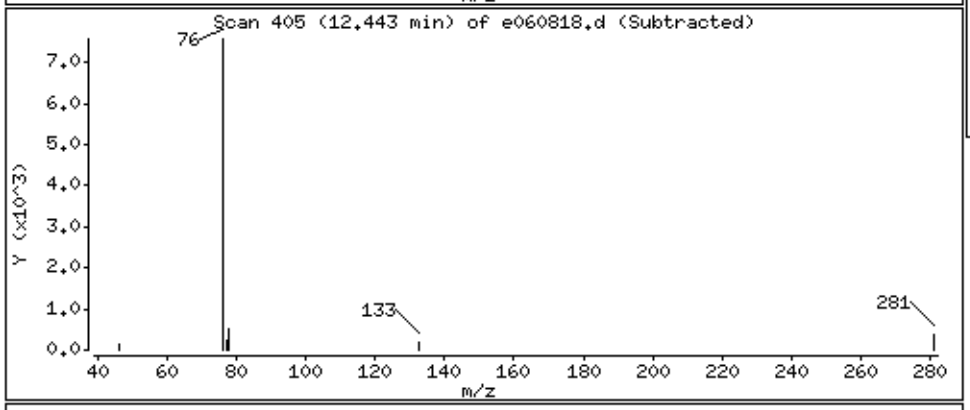
Column diameter: 0.32

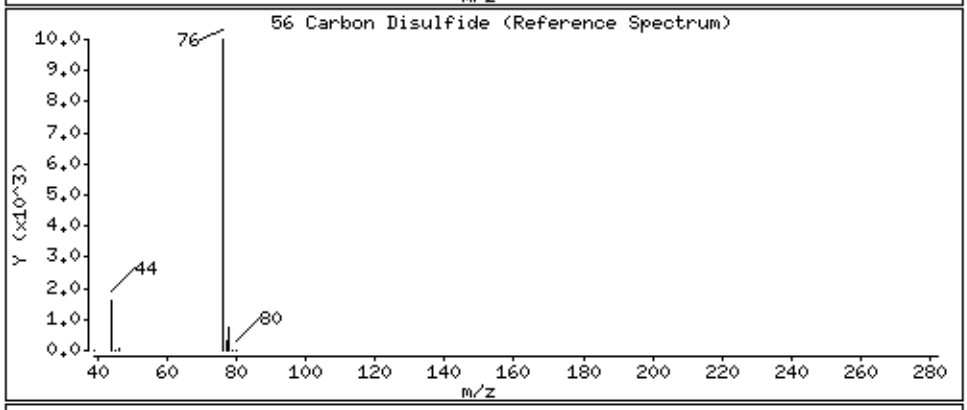
56 Carbon Disulfide

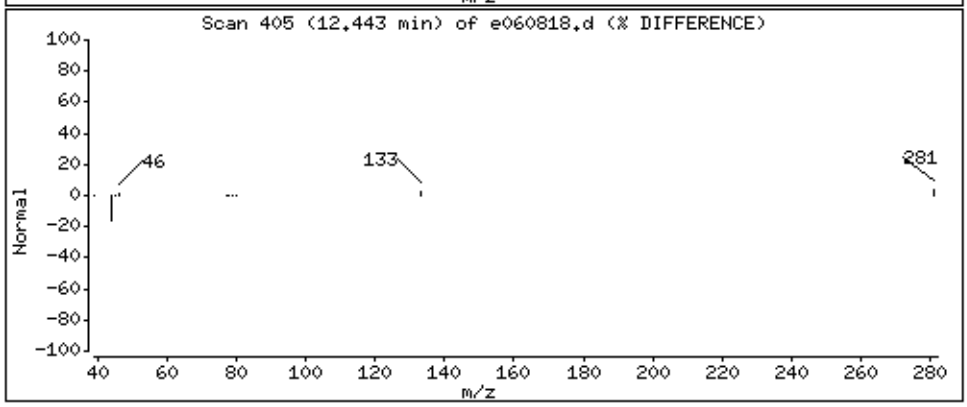
Concentration: 0.3000 PPBV











Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

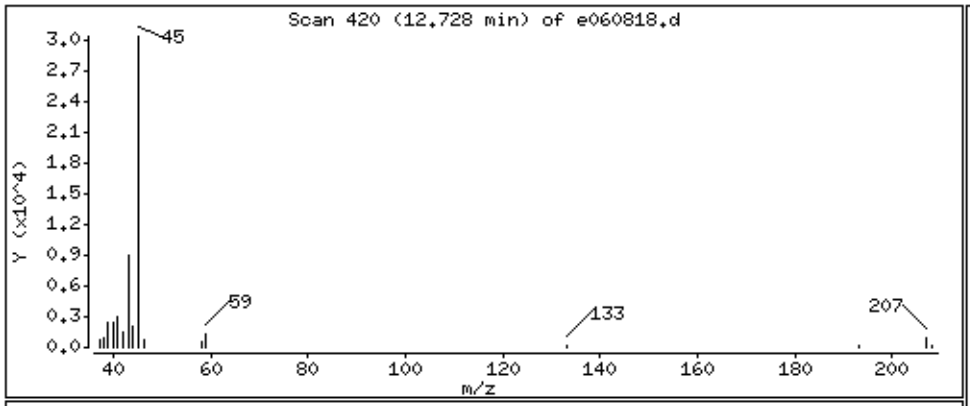
Operator: gd

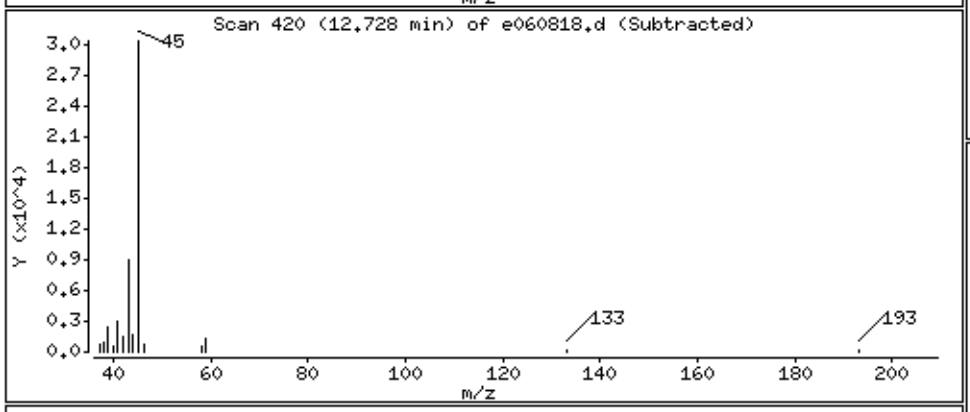
Column phase: RTX-624

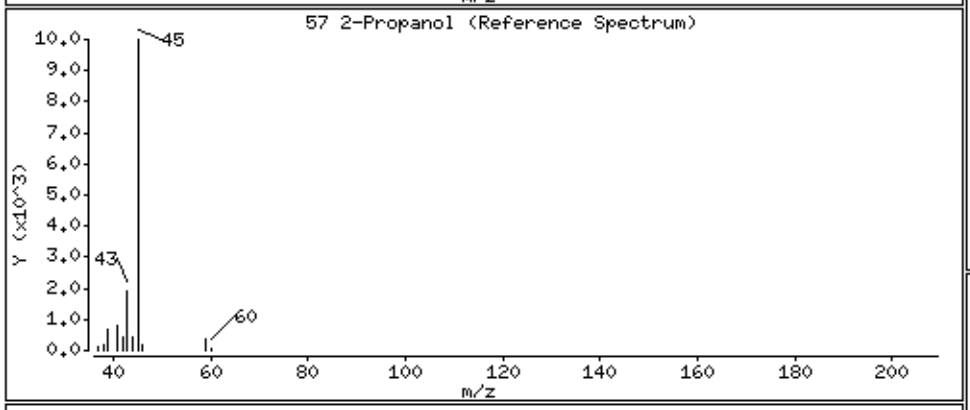
Column diameter: 0.32

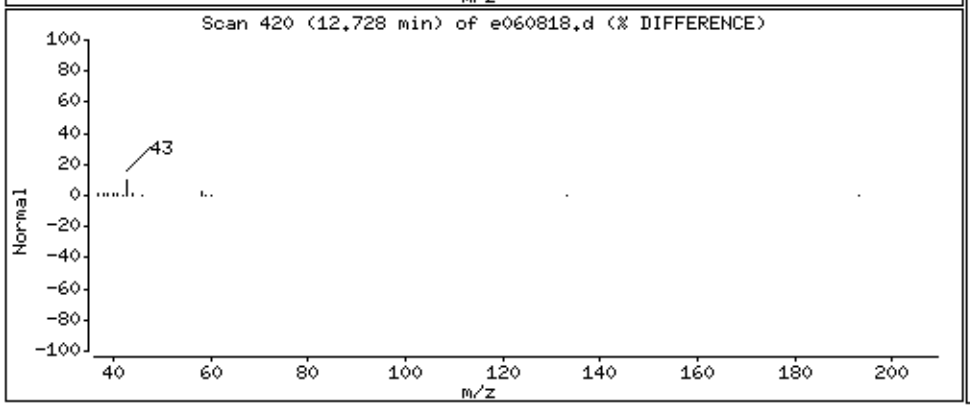
57 2-Propanol

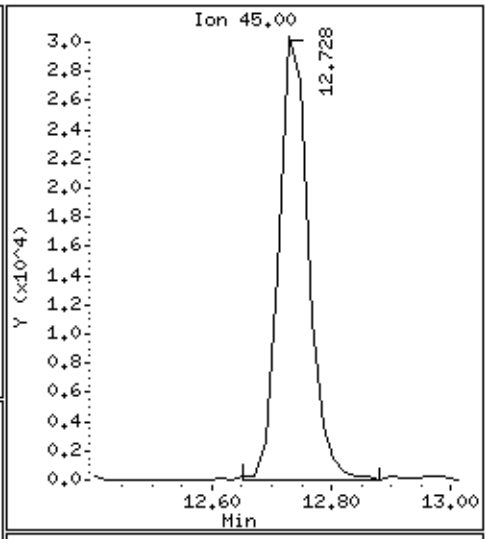
Concentration: 3.442 PPBV

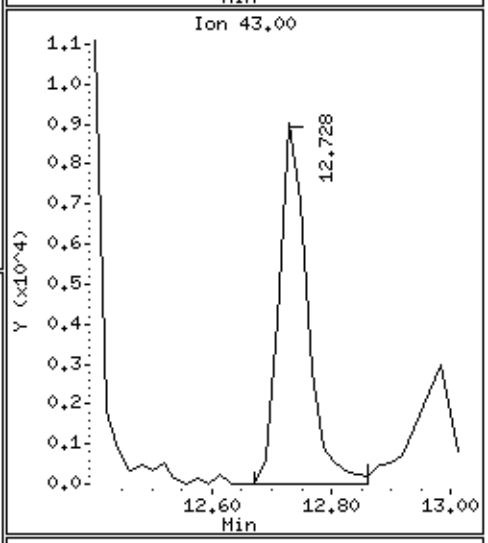


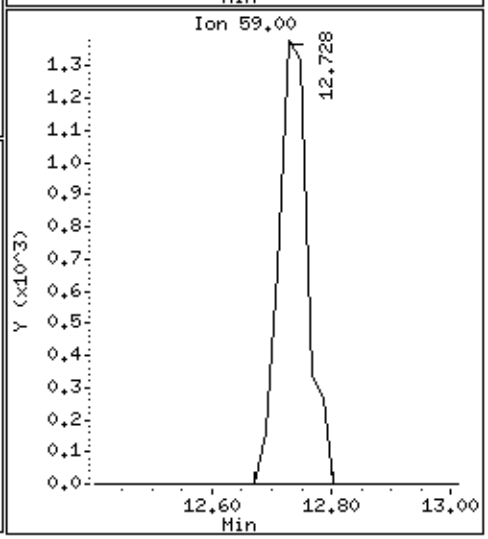












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

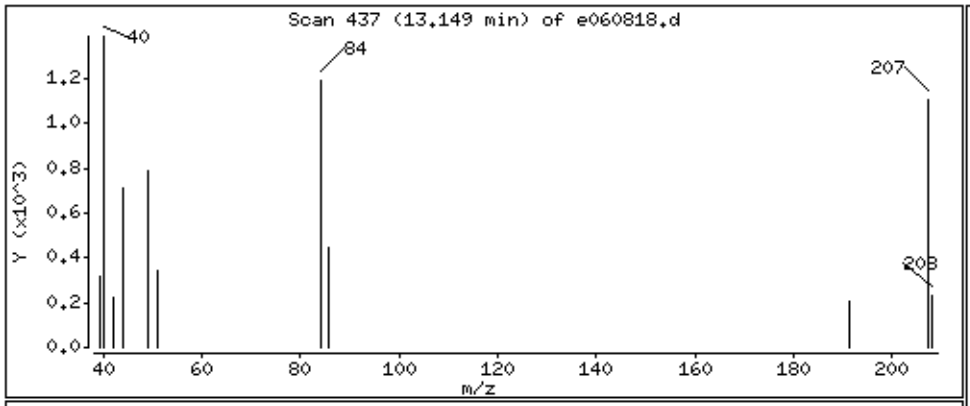
Operator: gd

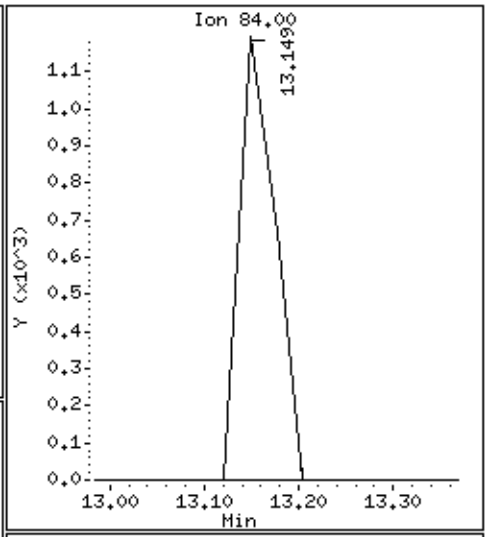
Column phase: RTX-624

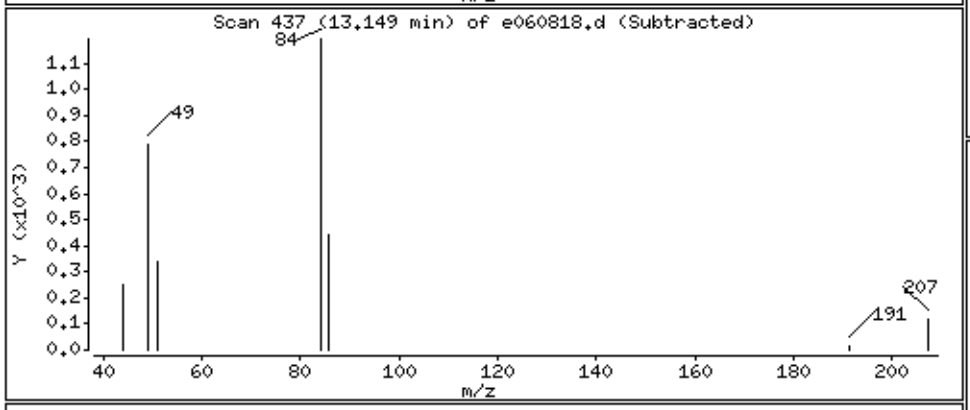
Column diameter: 0.32

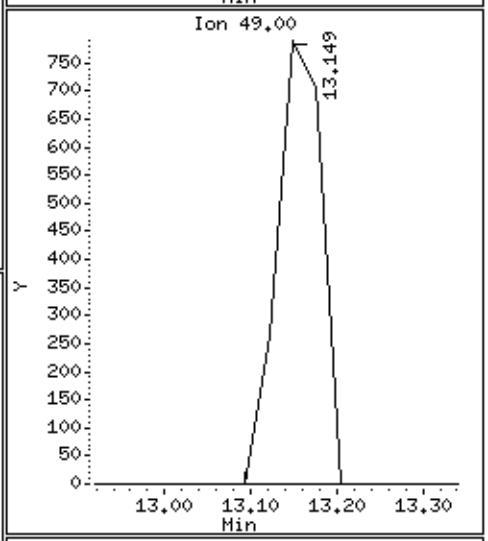
66 Methylene Chloride

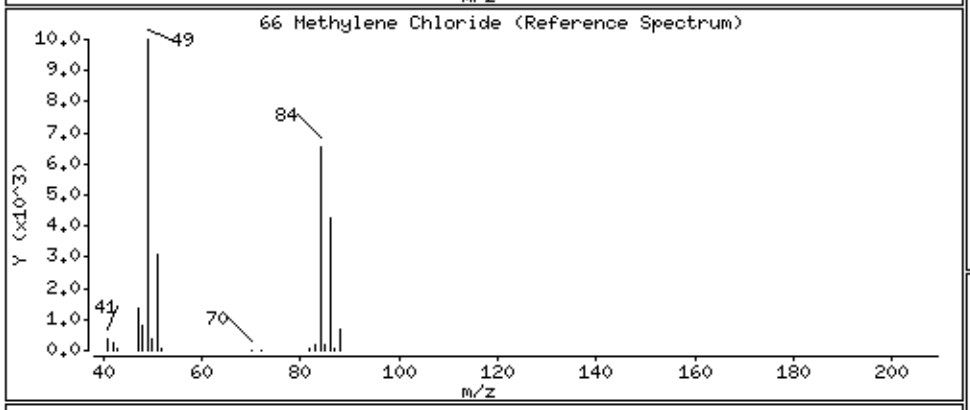
Concentration: 0.1281 PPBV

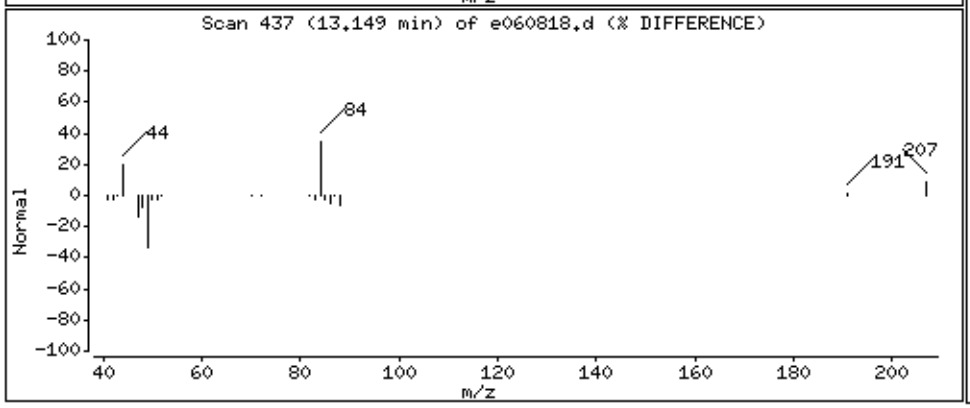


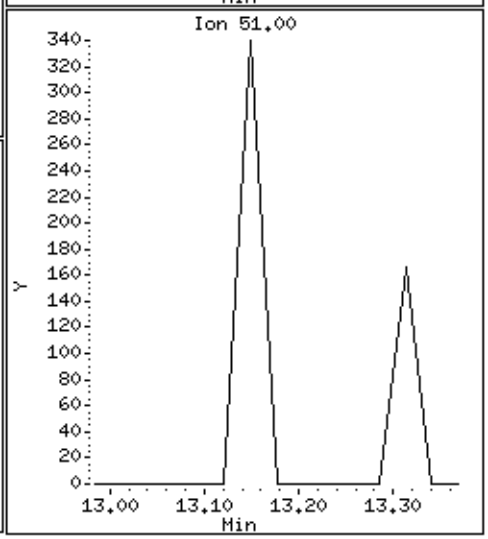












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

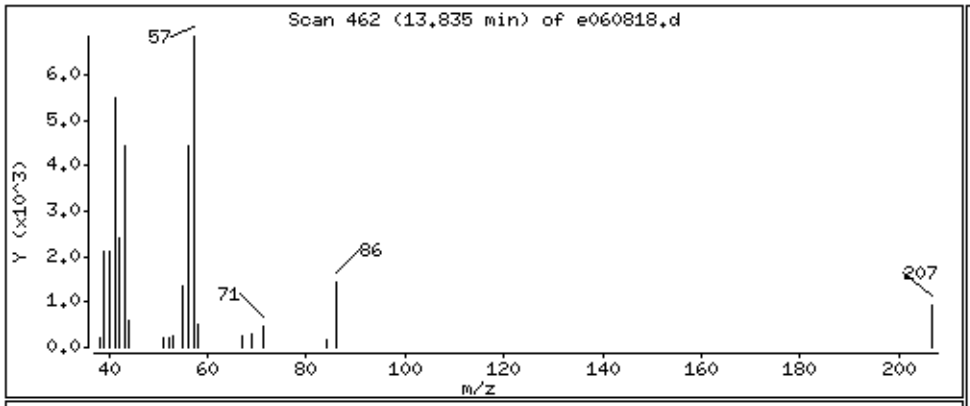
Operator: gd

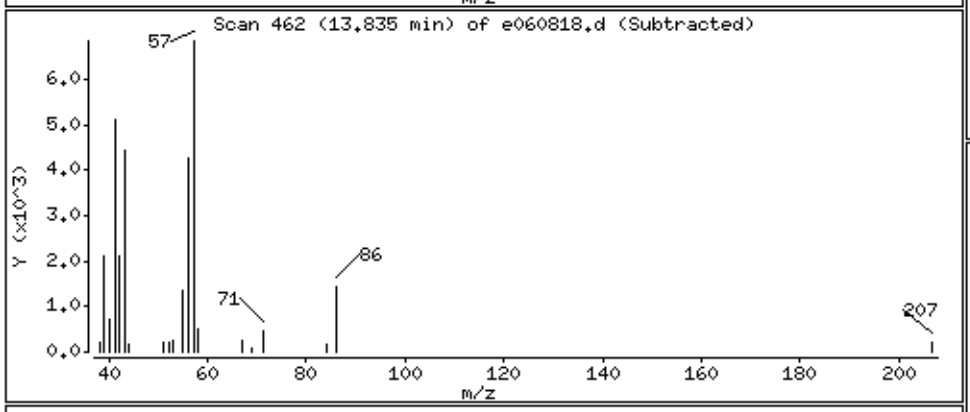
Column phase: RTX-624

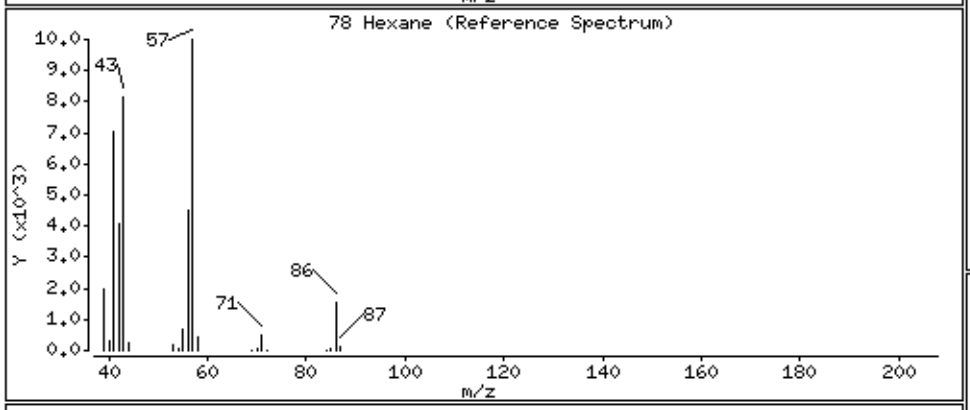
Column diameter: 0.32

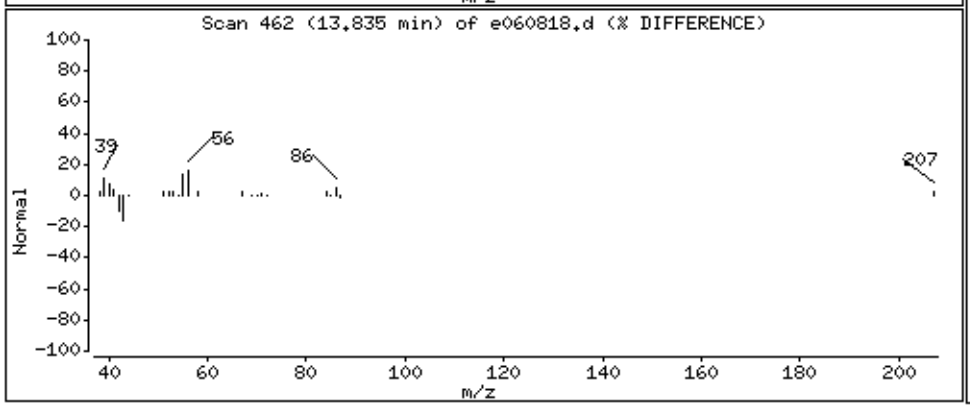
78 Hexane

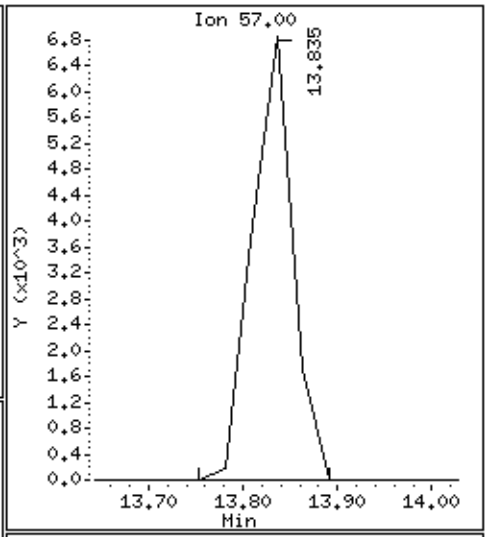
Concentration: 0.6886 PPBV

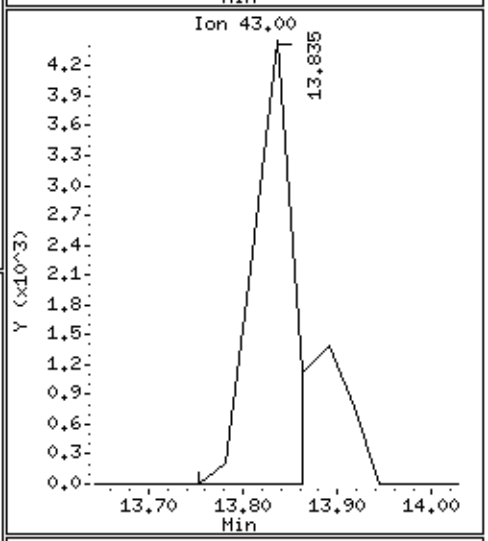


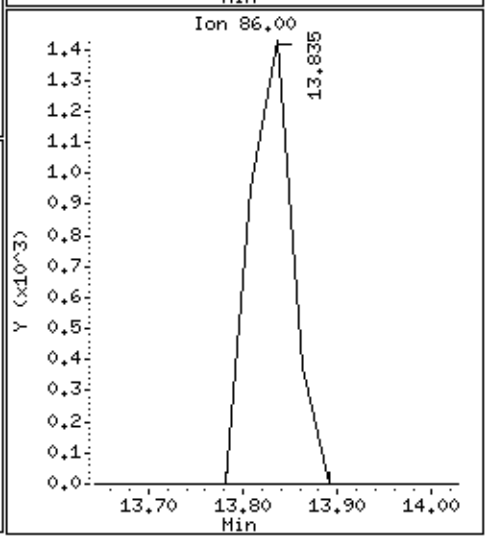












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

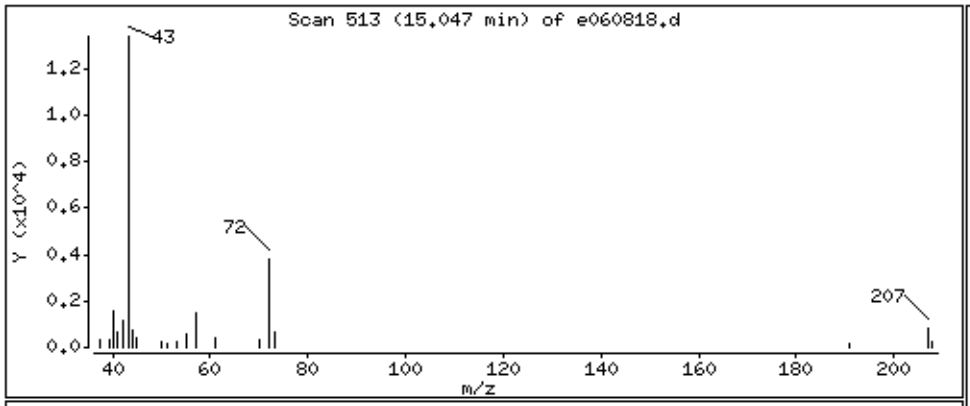
Operator: gd

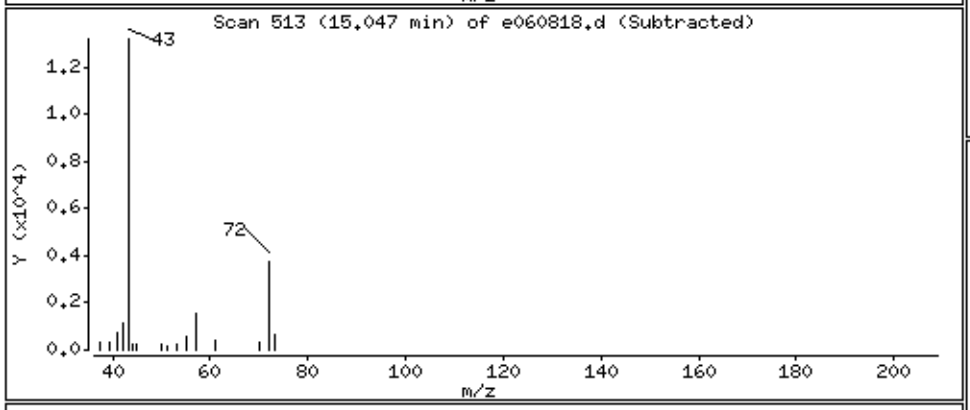
Column phase: RTX-624

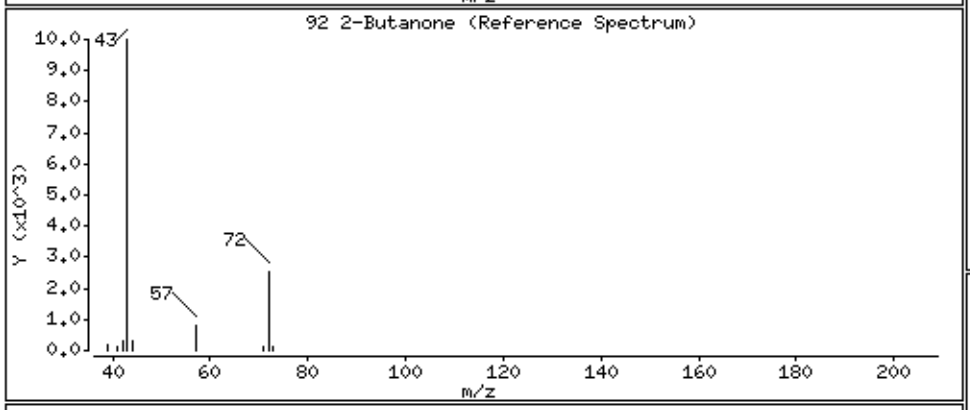
Column diameter: 0.32

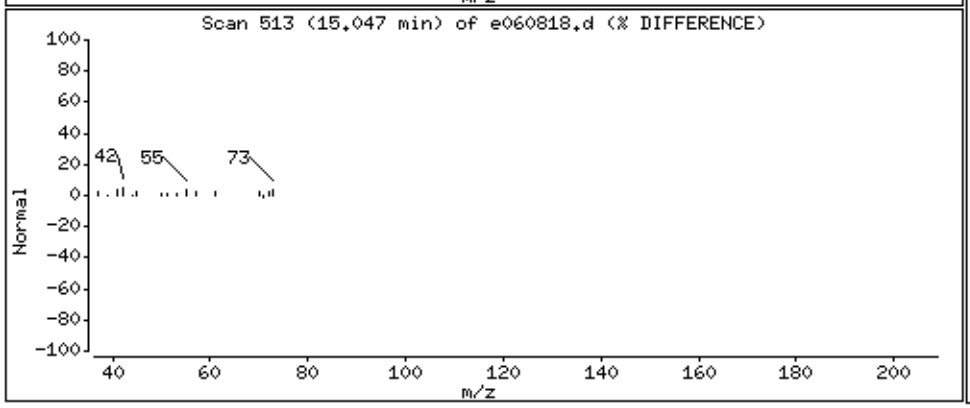
92 2-Butanone

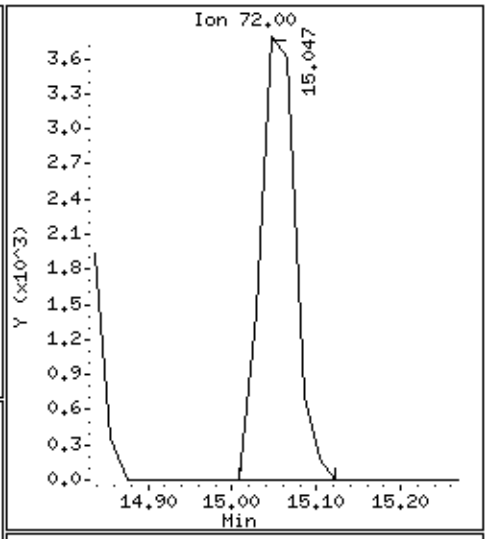
Concentration: 0.9226 PPBV

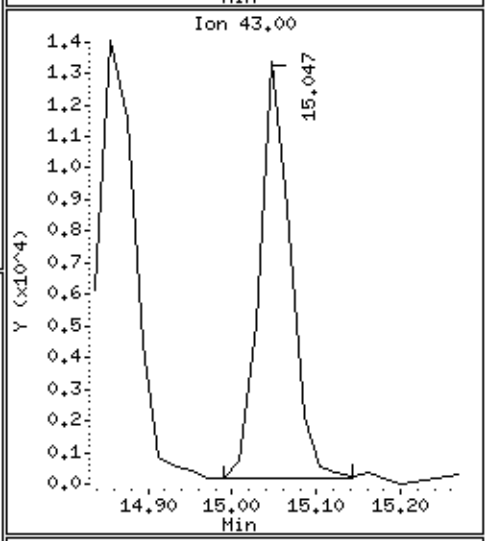


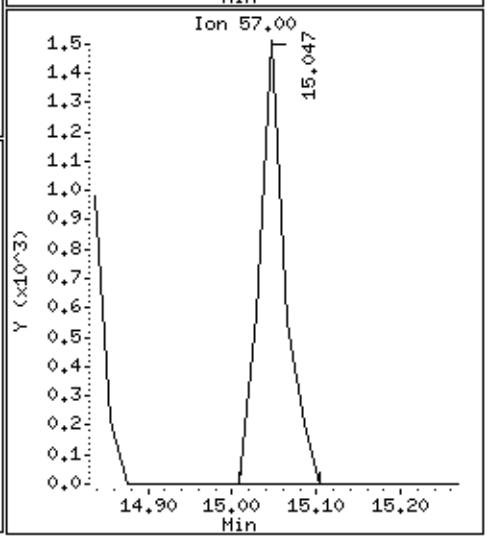












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

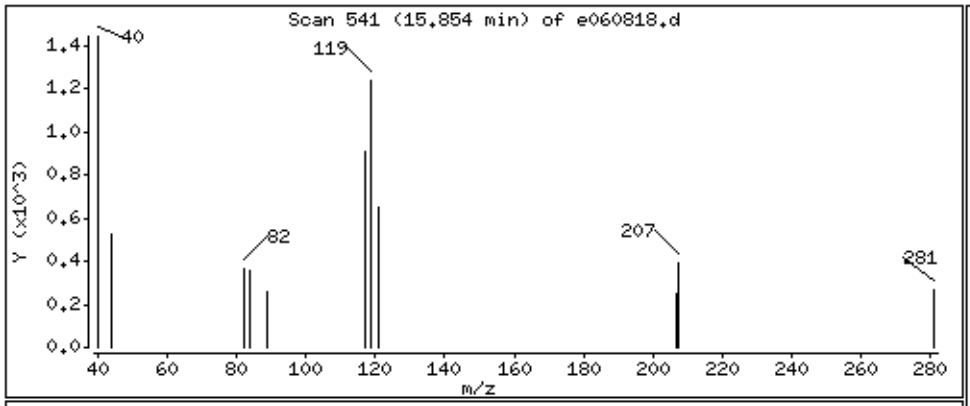
Operator: gd

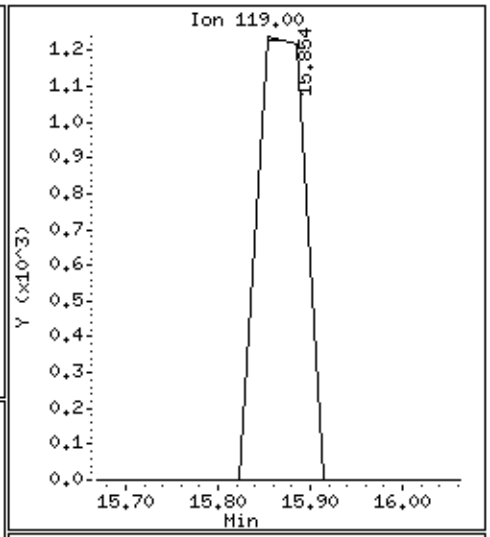
Column phase: RTX-624

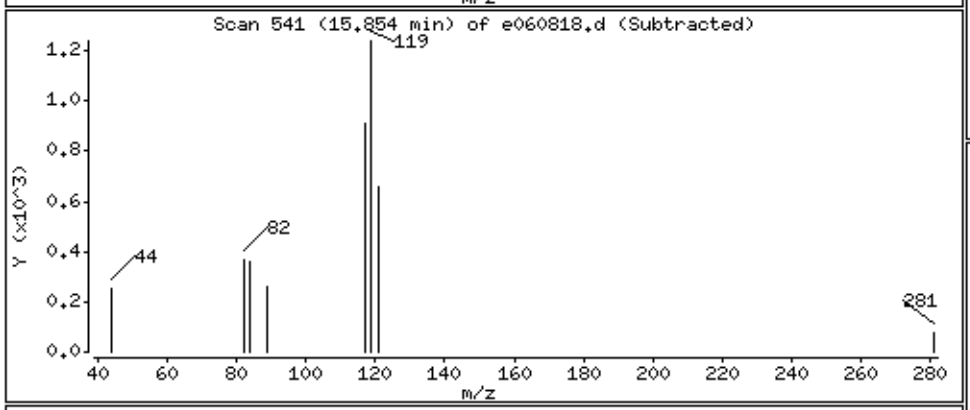
Column diameter: 0.32

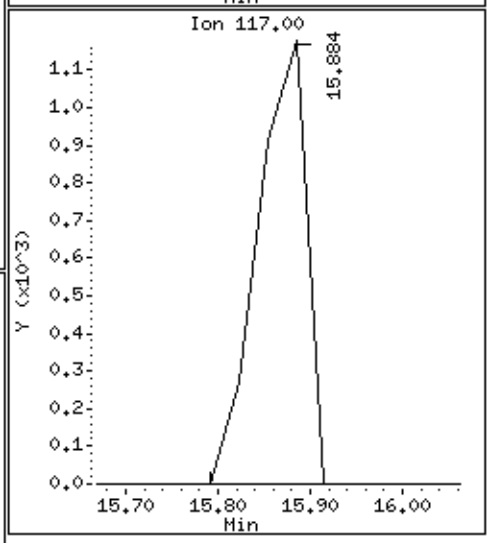
106 Carbon Tetrachloride

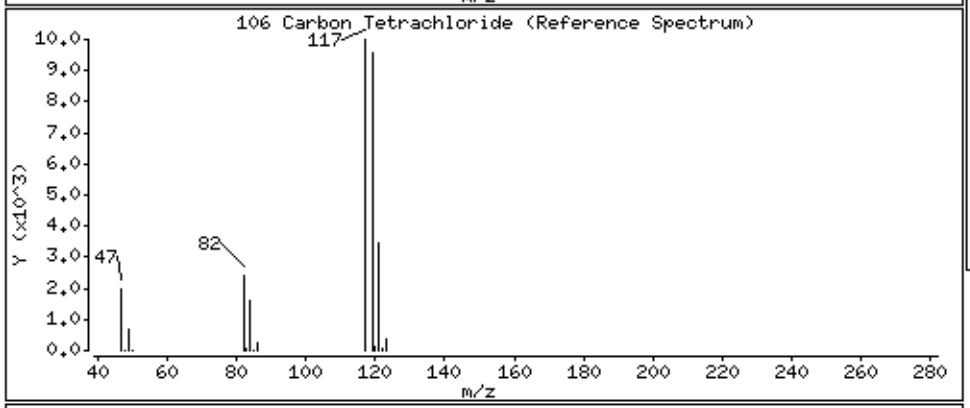
Concentration: 0.06121 PPBV

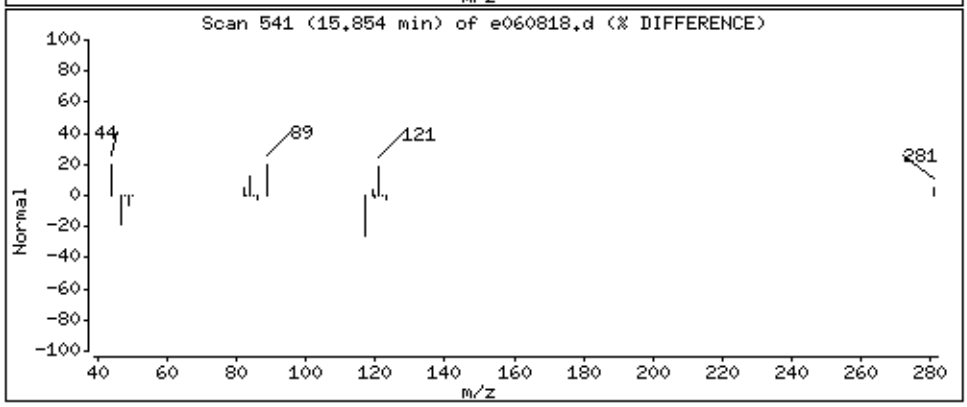












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

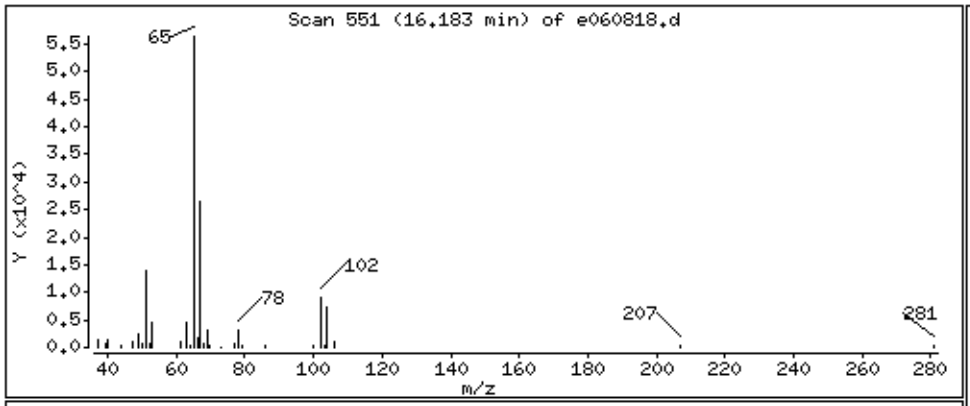
Operator: gd

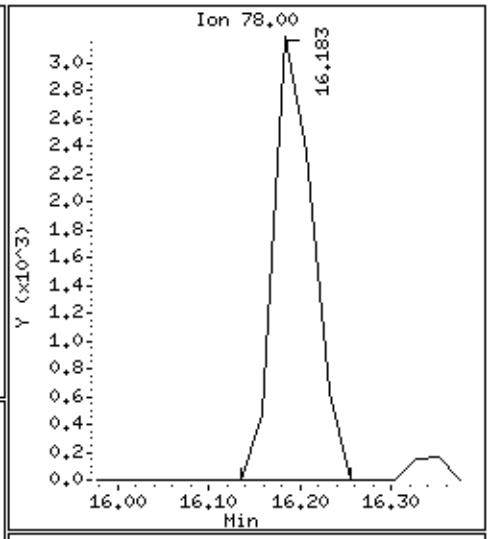
Column phase: RTX-624

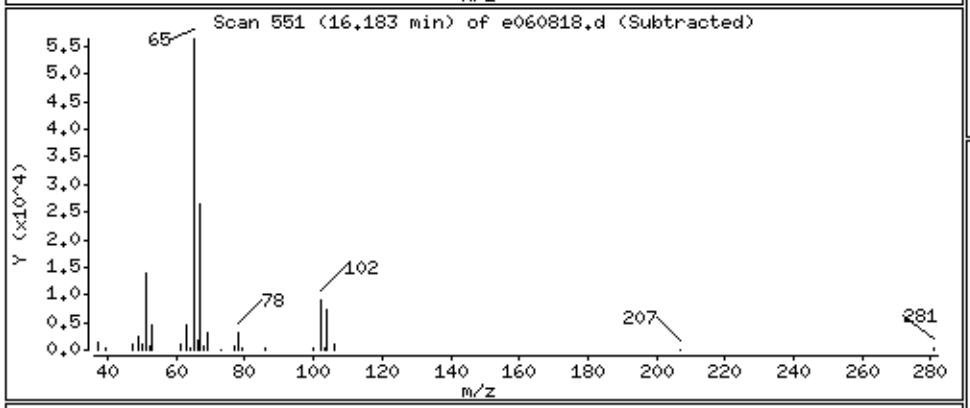
Column diameter: 0.32

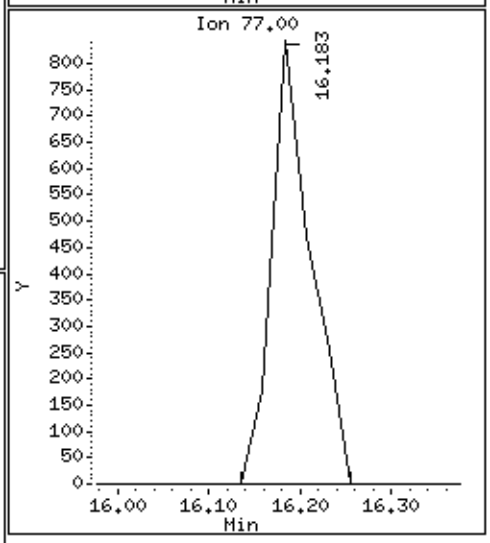
116 Benzene

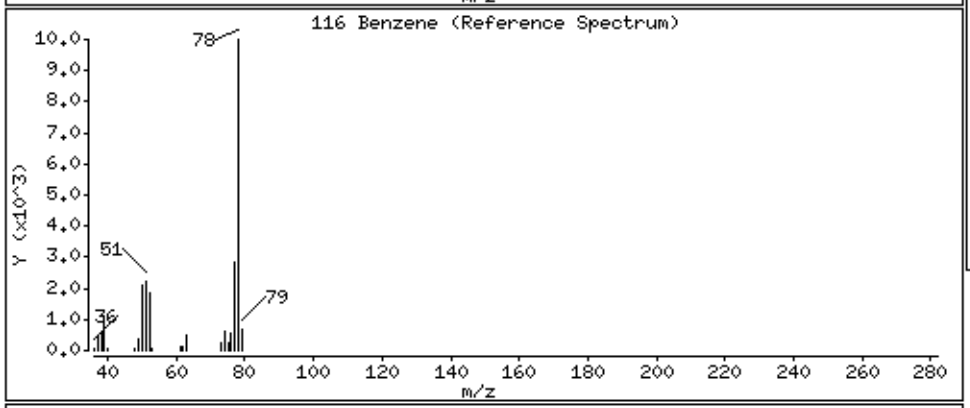
Concentration: 0.1137 PPBV

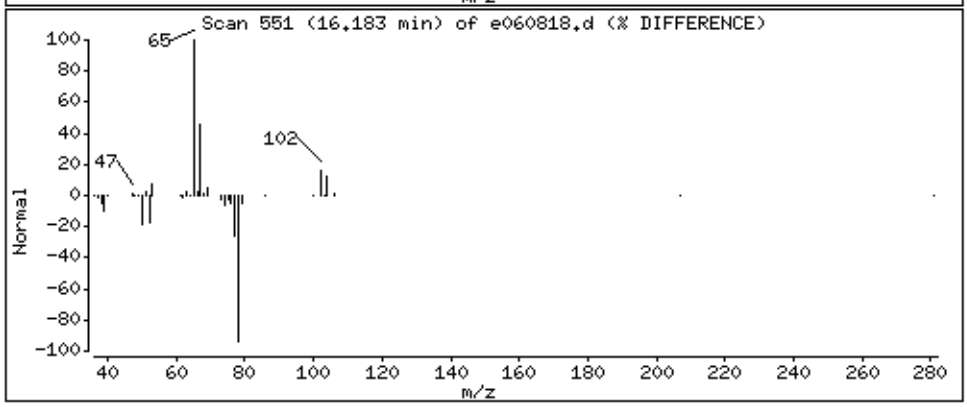












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

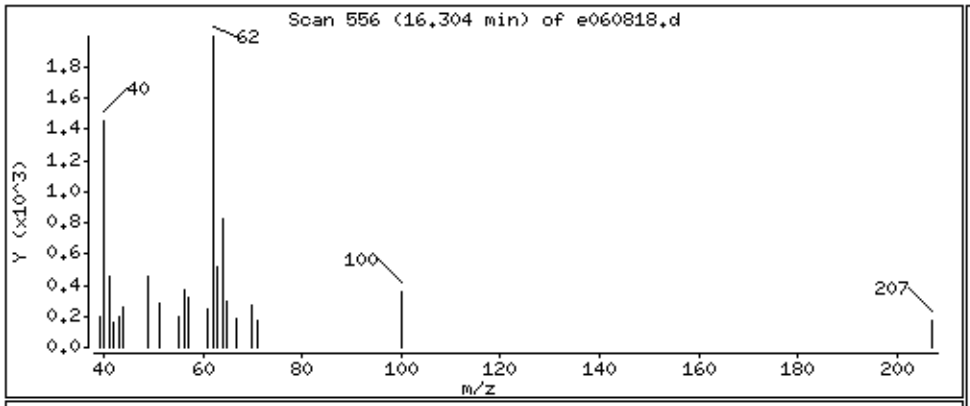
Operator: gd

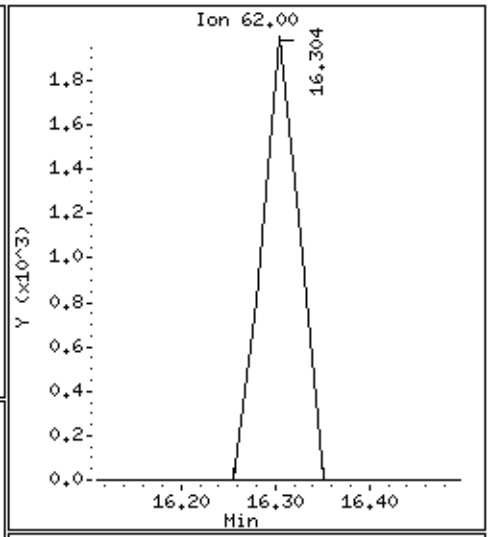
Column phase: RTX-624

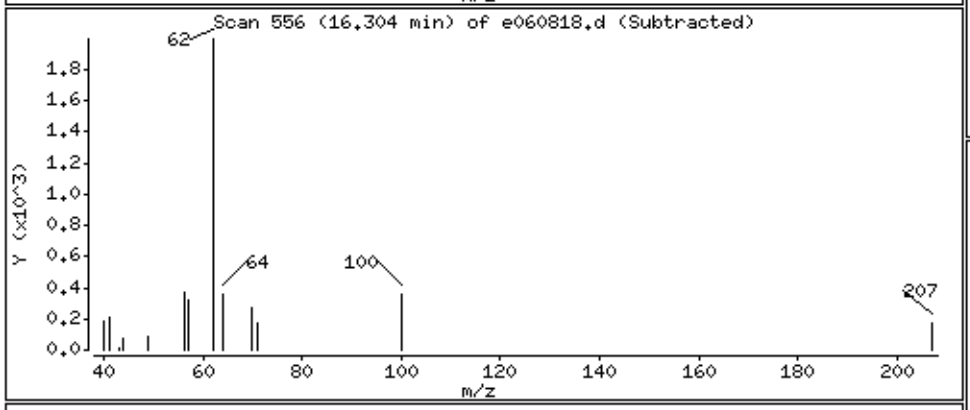
Column diameter: 0.32

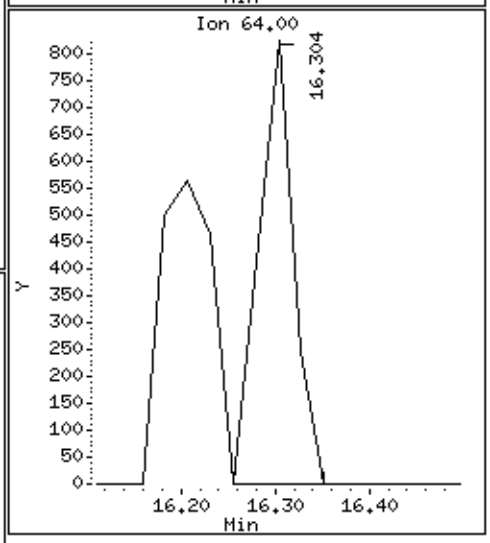
120 1,2-Dichloroethane

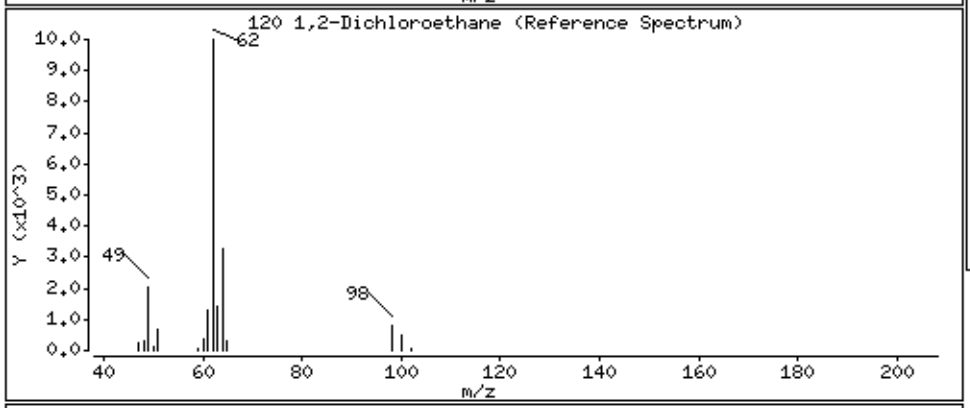
Concentration: 0.1277 PPBV

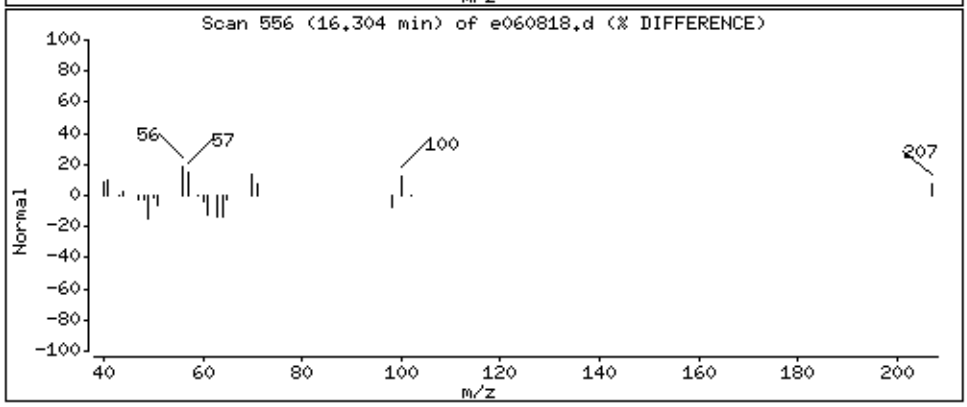












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

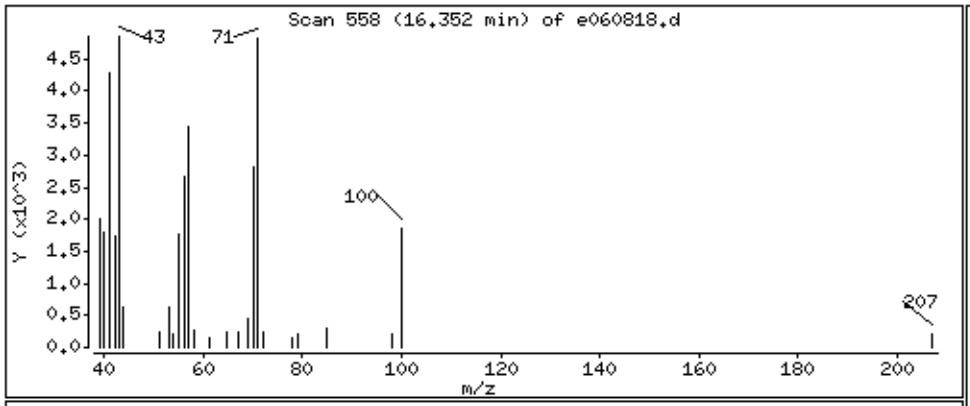
Operator: gd

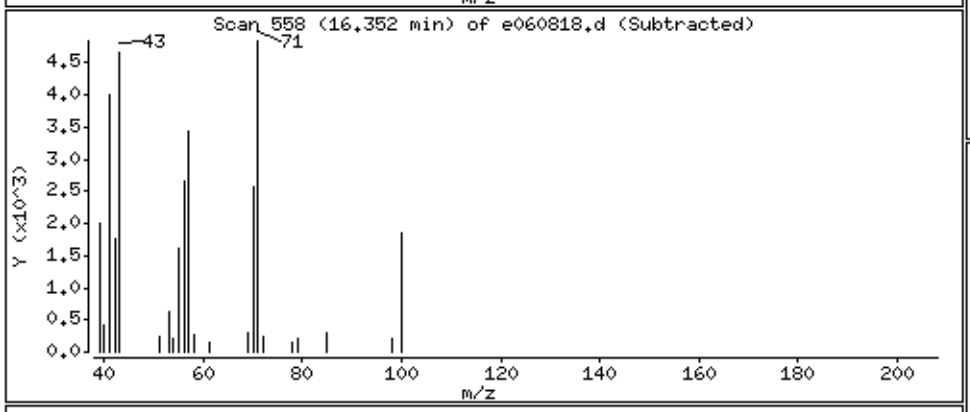
Column phase: RTX-624

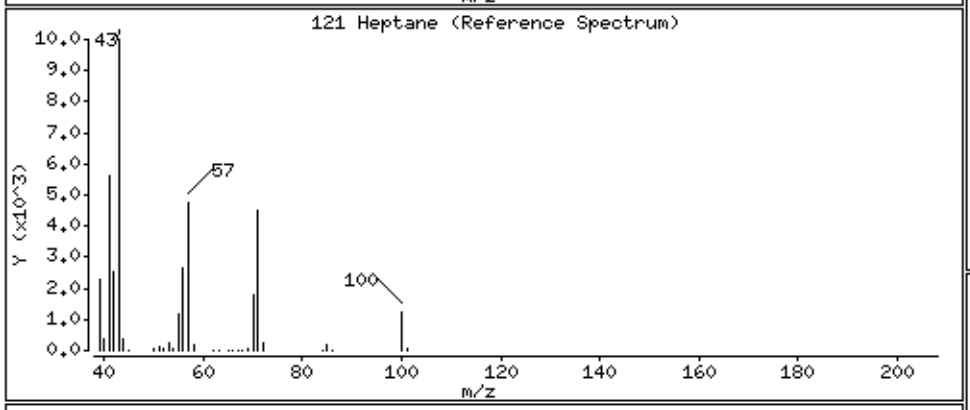
Column diameter: 0.32

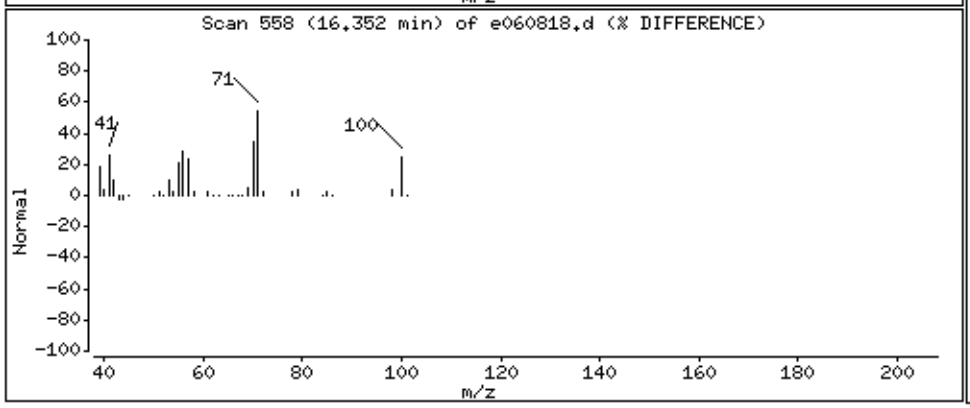
121 Heptane

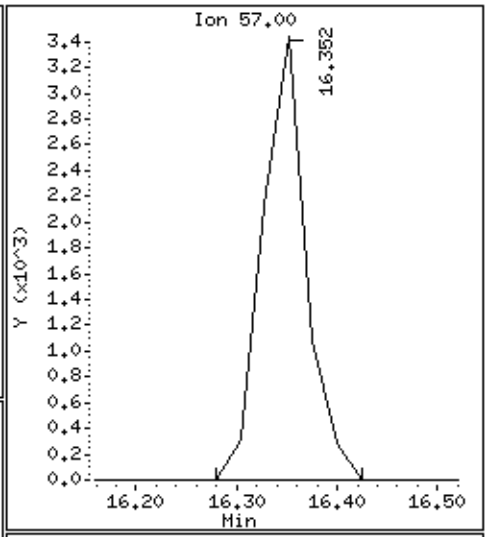
Concentration: 0.5233 PPBV

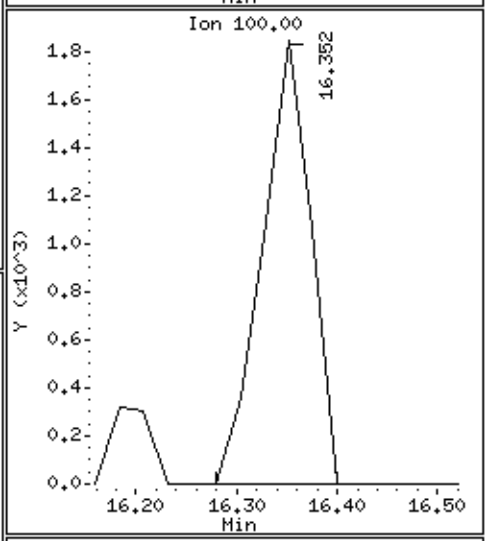


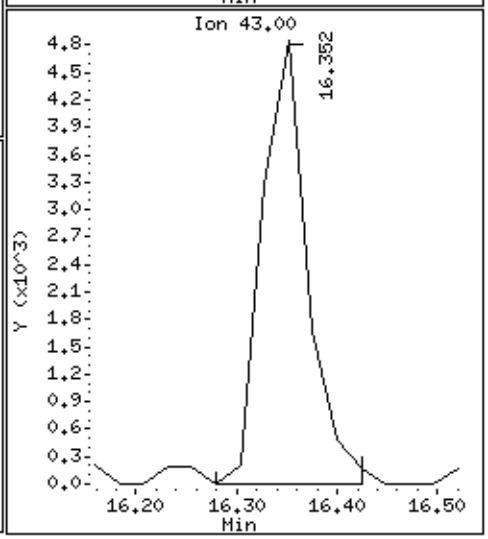












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

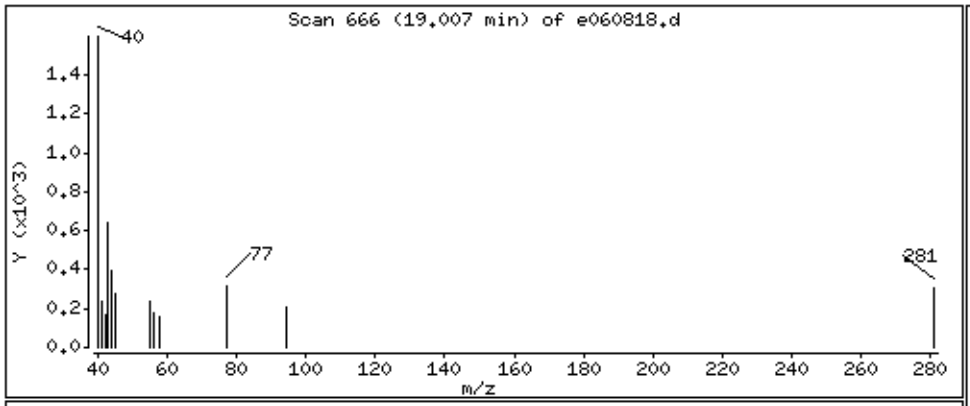
Operator: gd

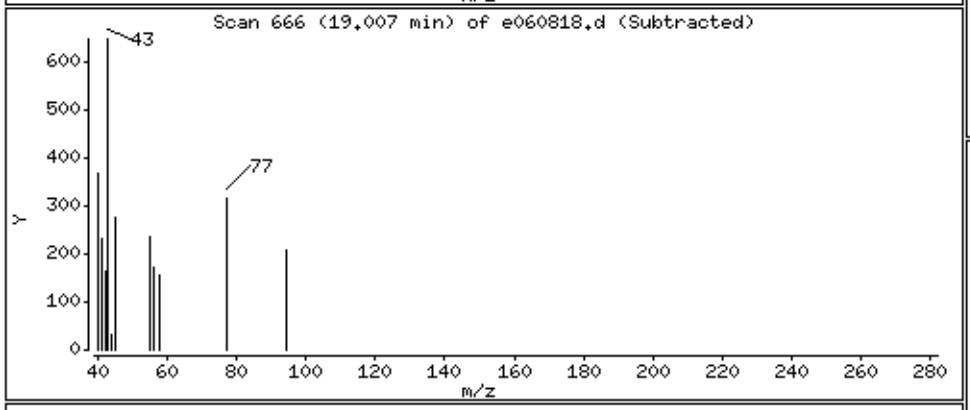
Column phase: RTX-624

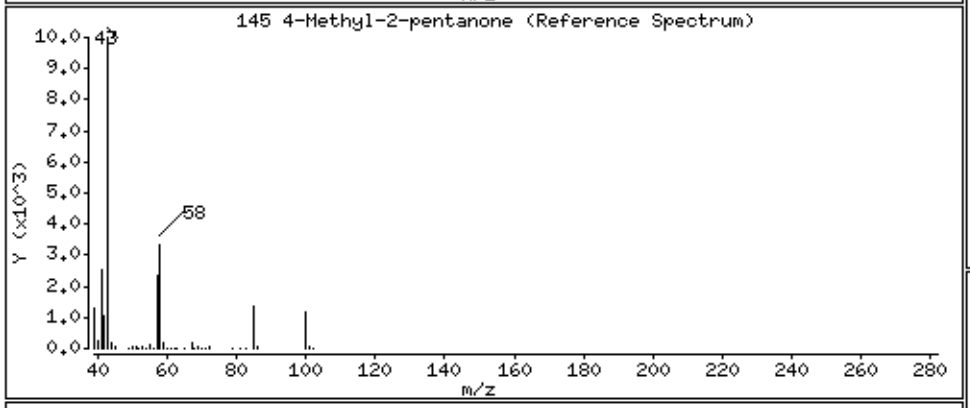
Column diameter: 0.32

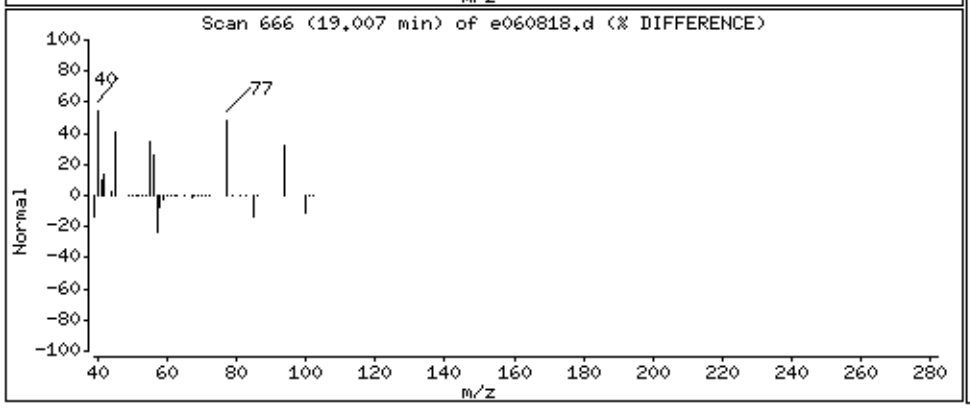
145 4-Methyl-2-pentanone

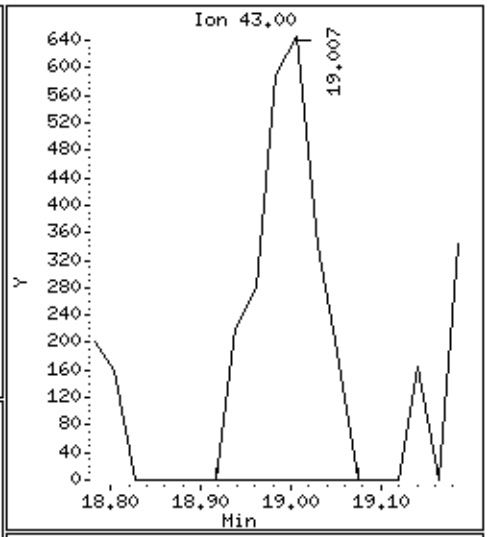
Concentration: 0.06956 PPBV

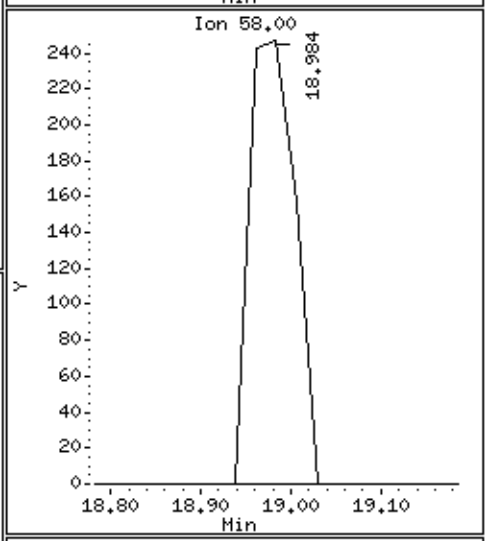


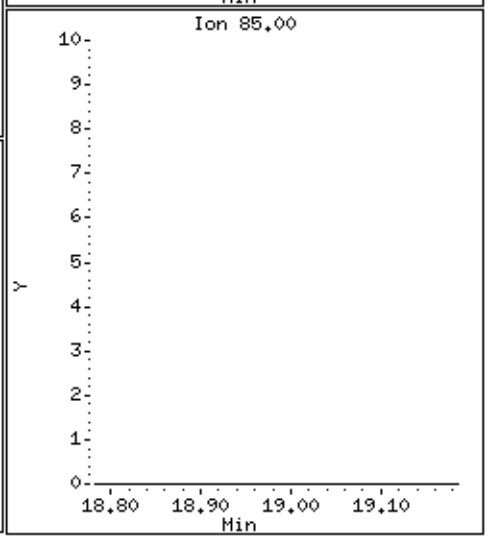












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

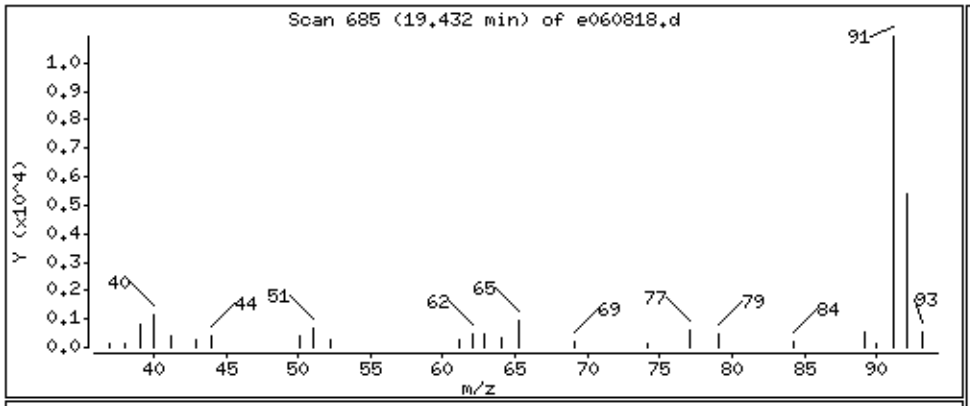
Operator: gd

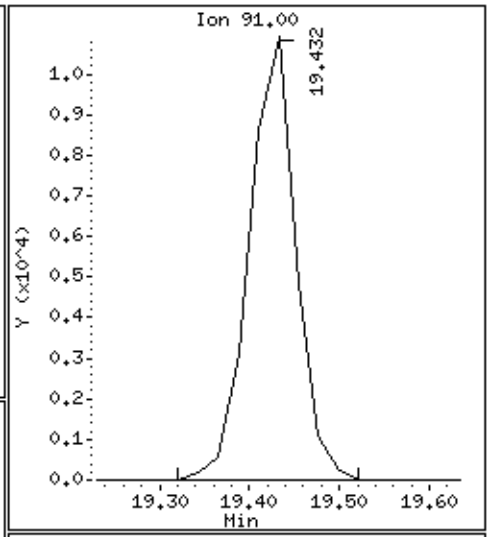
Column phase: RTX-624

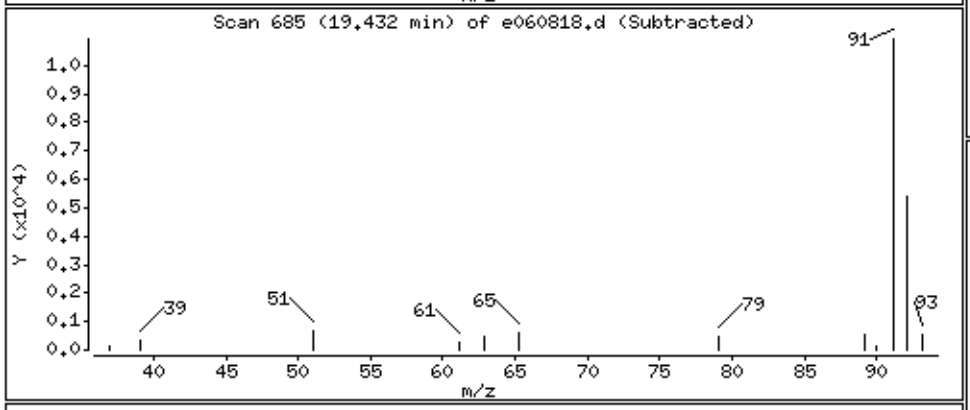
Column diameter: 0.32

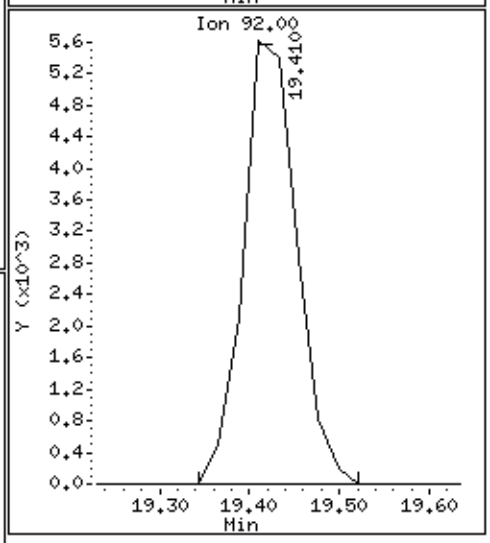
147 Toluene

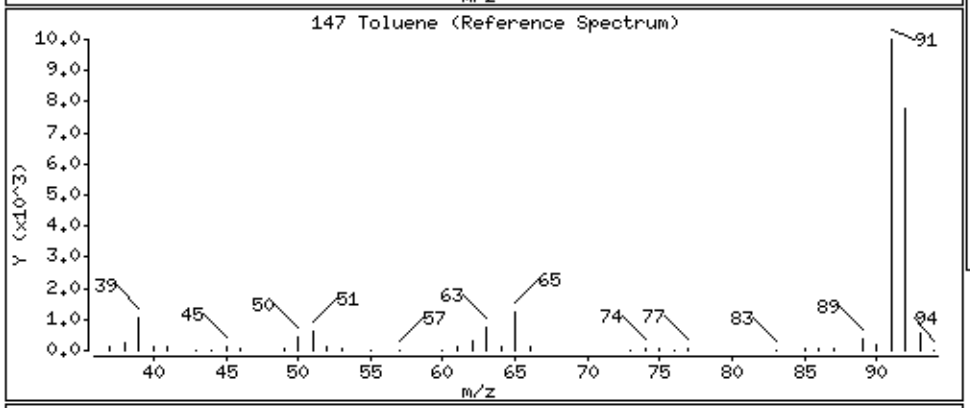
Concentration: 0.3931 PPBV

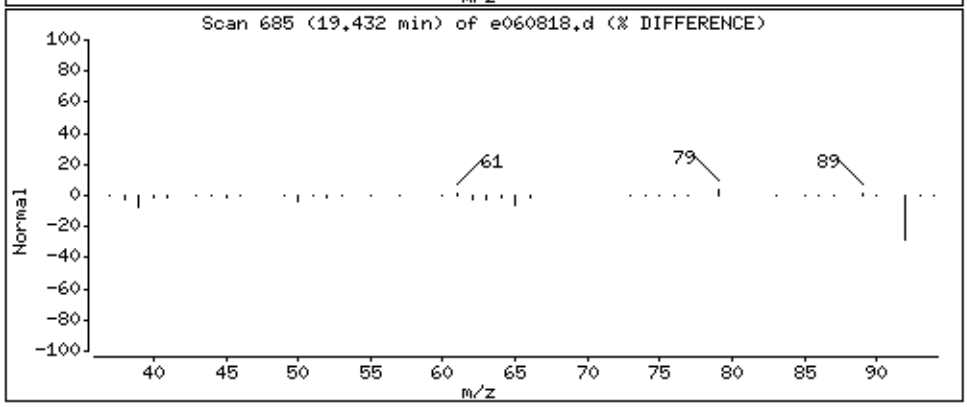












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

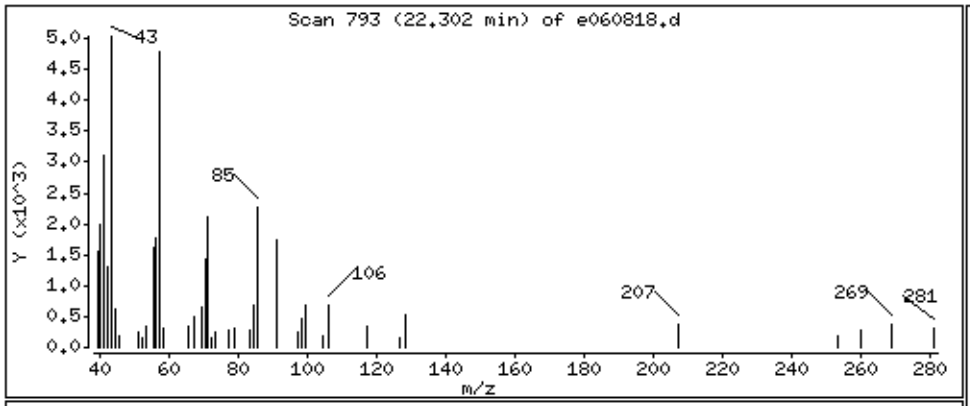
Operator: gd

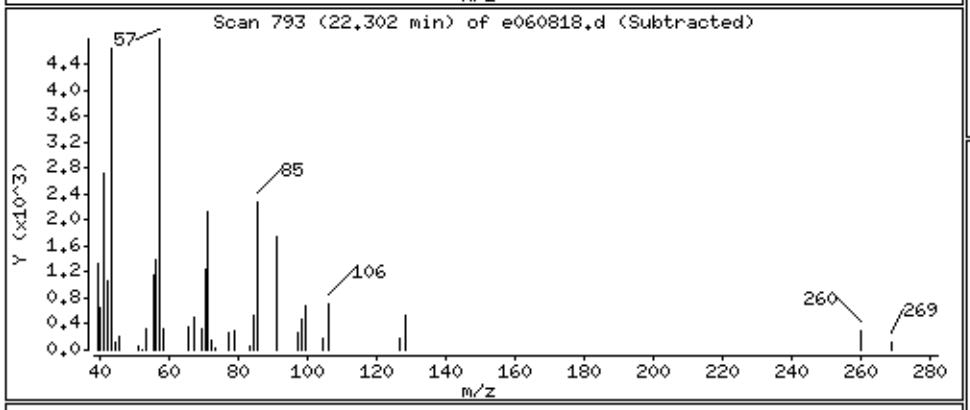
Column phase: RTX-624

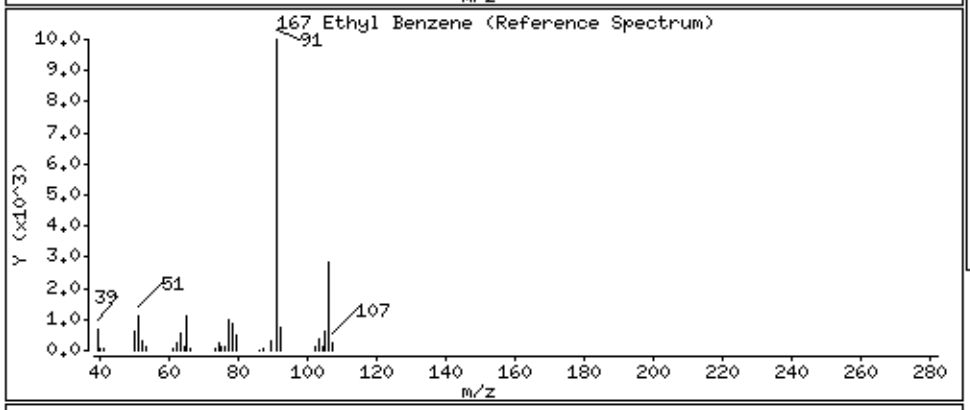
Column diameter: 0.32

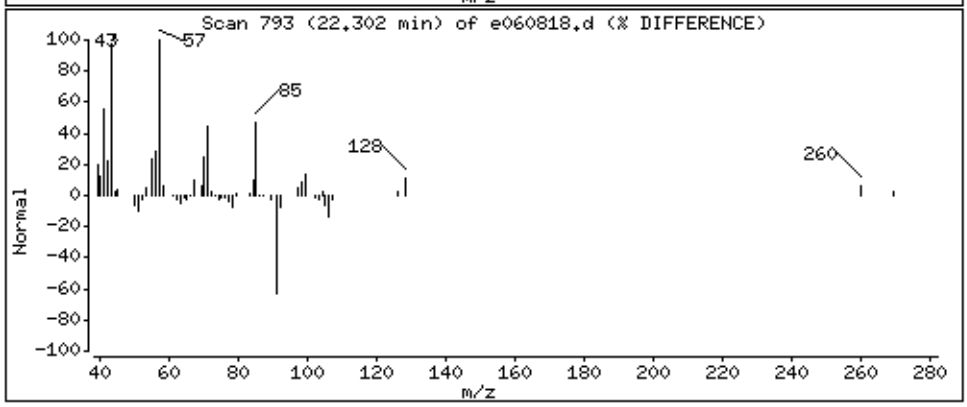
167 Ethyl Benzene

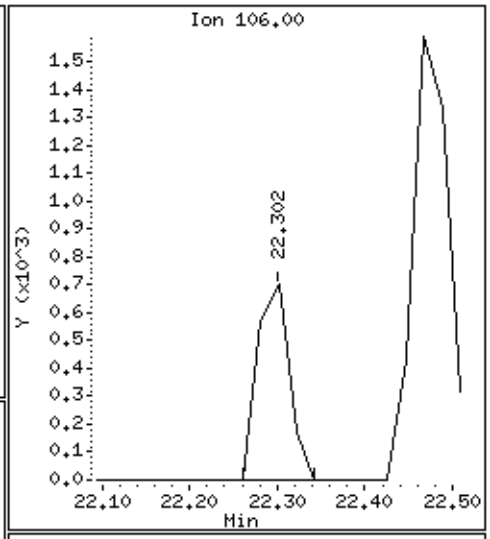
Concentration: 0.04016 PPBV

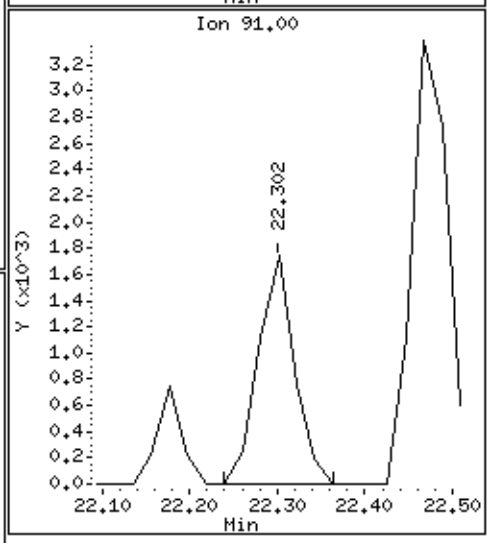












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

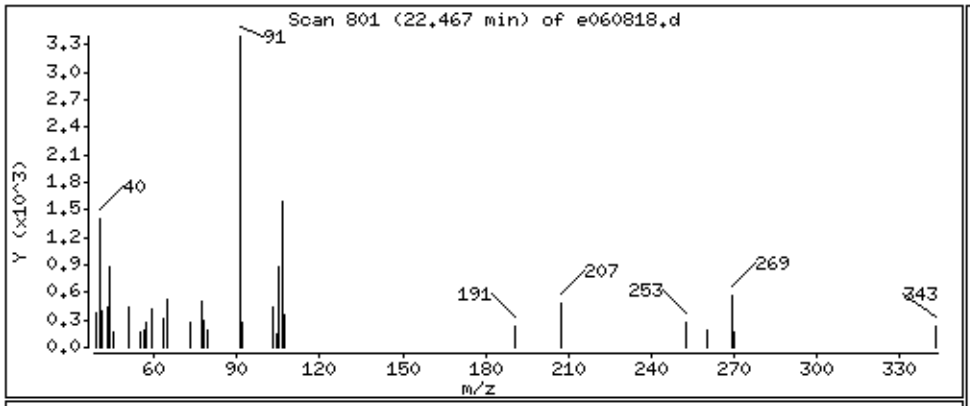
Operator: gd

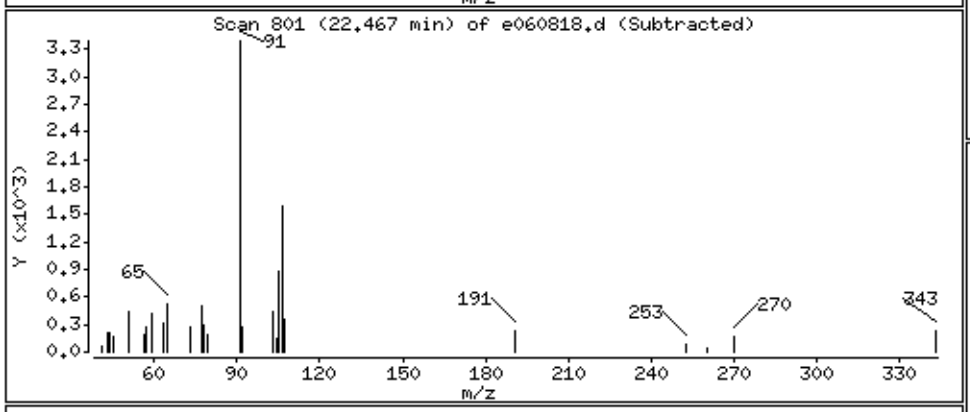
Column phase: RTX-624

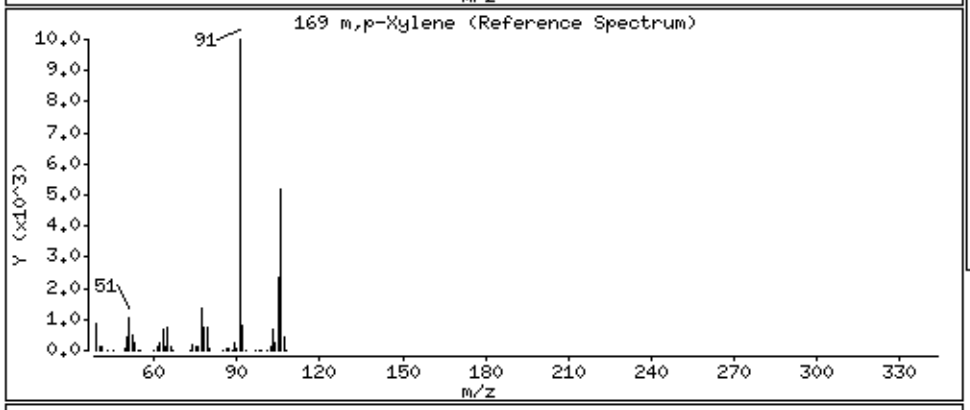
Column diameter: 0.32

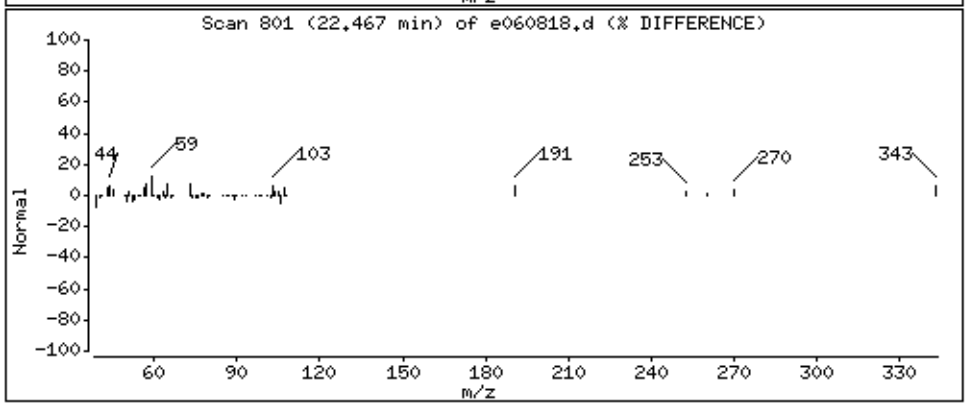
169 m,p-Xylene

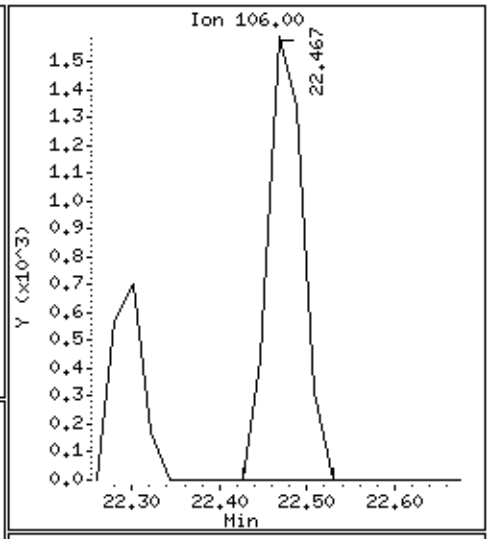
Concentration: 0.08851 PPBV

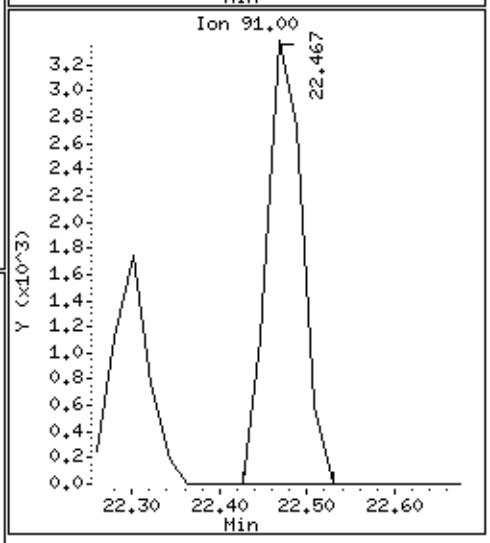












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

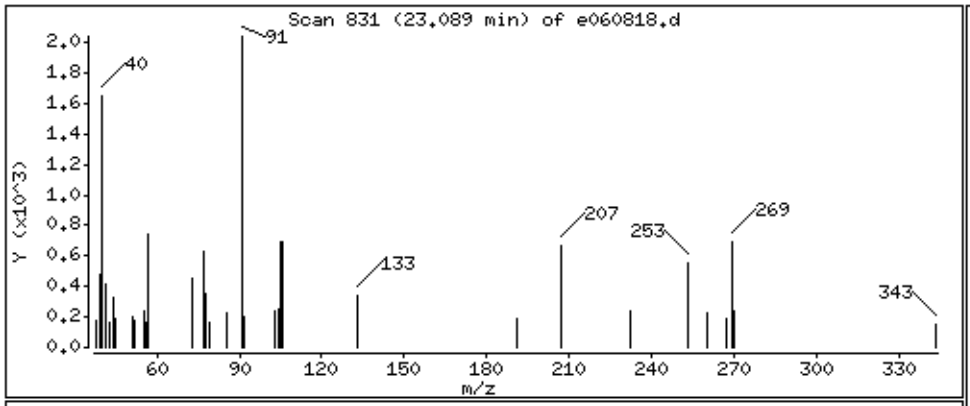
Operator: gd

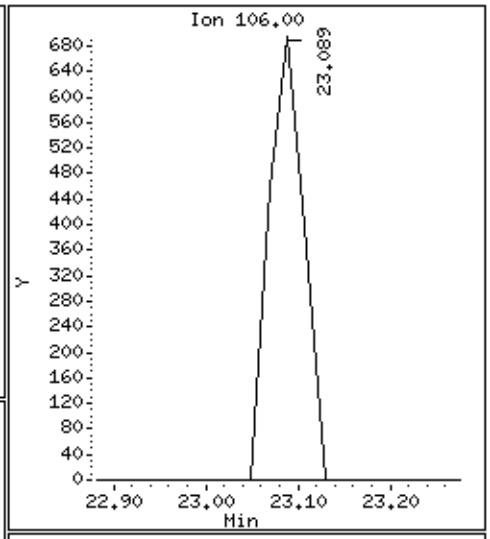
Column phase: RTX-624

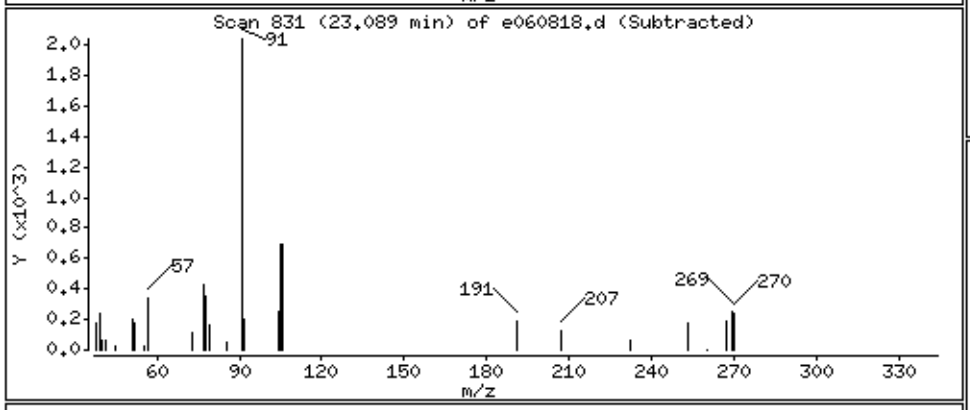
Column diameter: 0.32

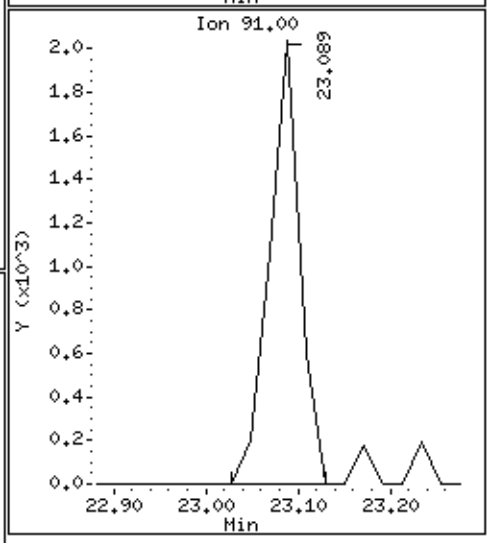
171 o-Xylene

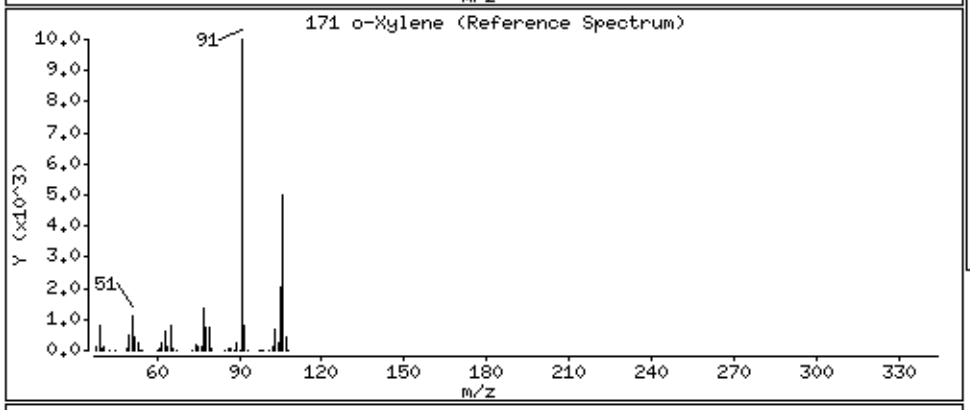
Concentration: 0.03980 PPBV

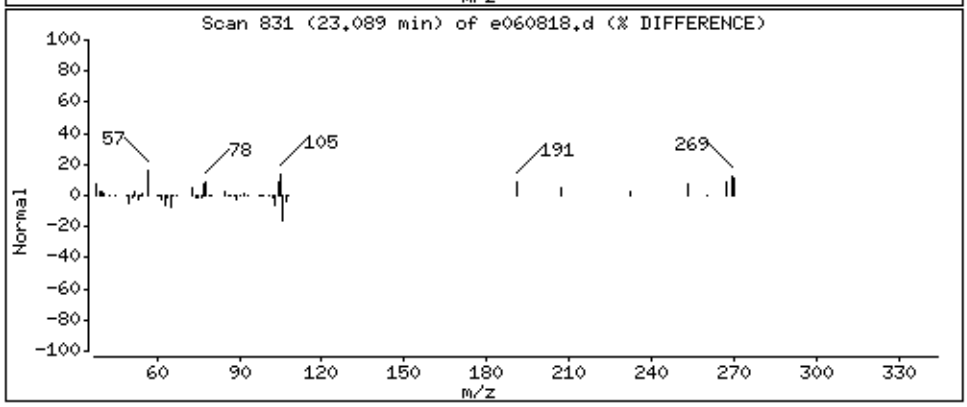












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

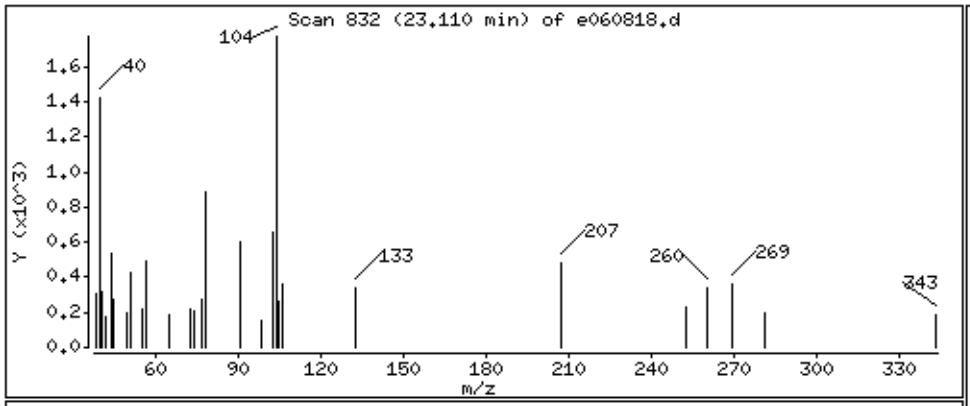
Operator: gd

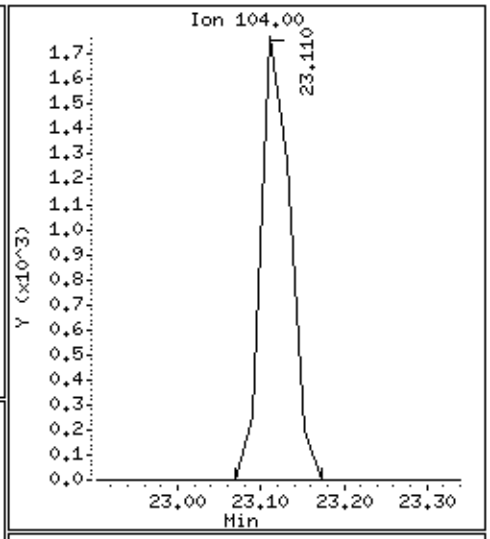
Column phase: RTX-624

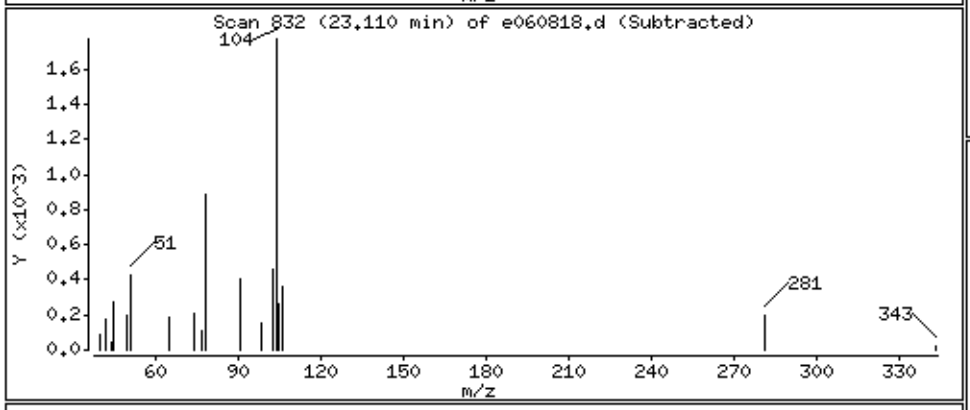
Column diameter: 0.32

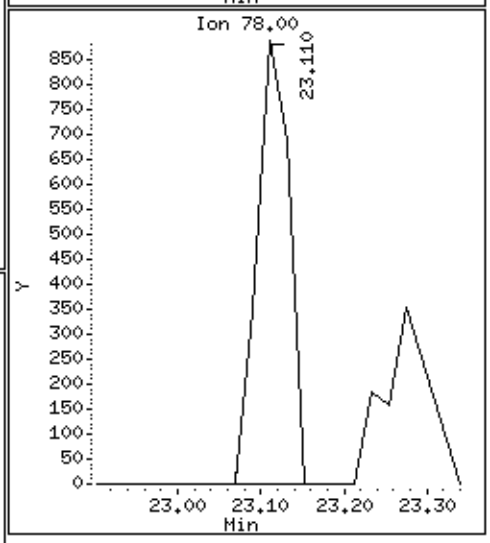
172 Styrene

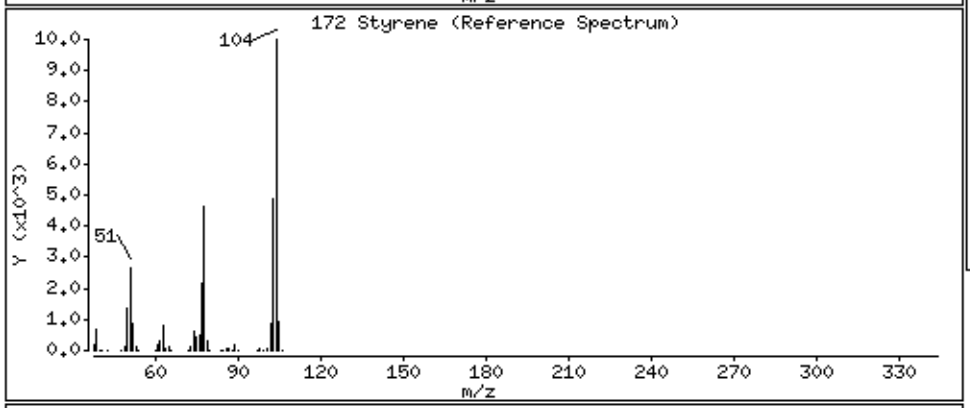
Concentration: 0.05418 PPBV

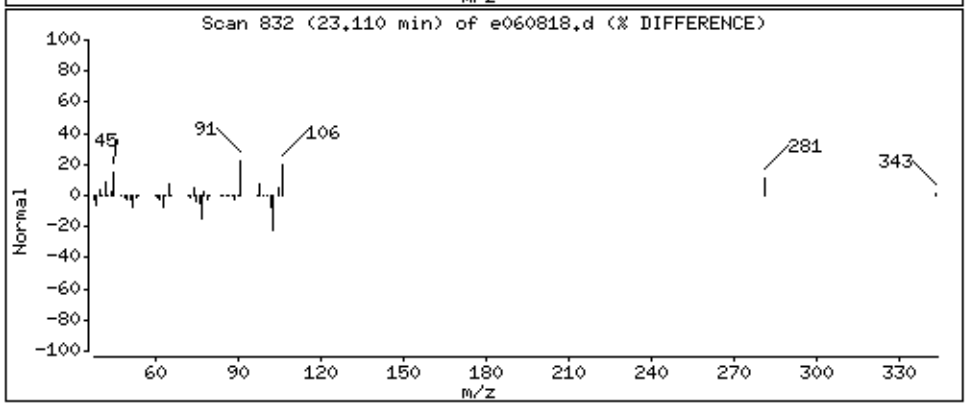












Data File: /chem/msde.i/08Jun2016.b/e060818.d

Date : 08-JUN-2016 21:01

Client ID:

Instrument: msde.i

Sample Info: 250mL# 33586

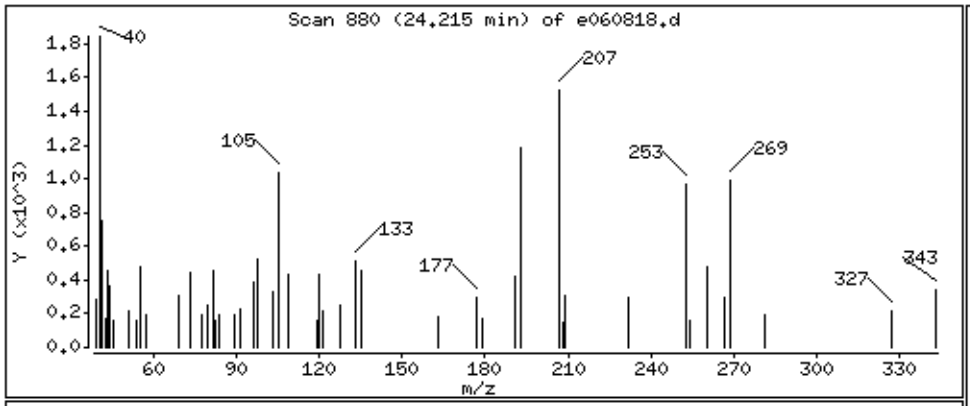
Operator: gd

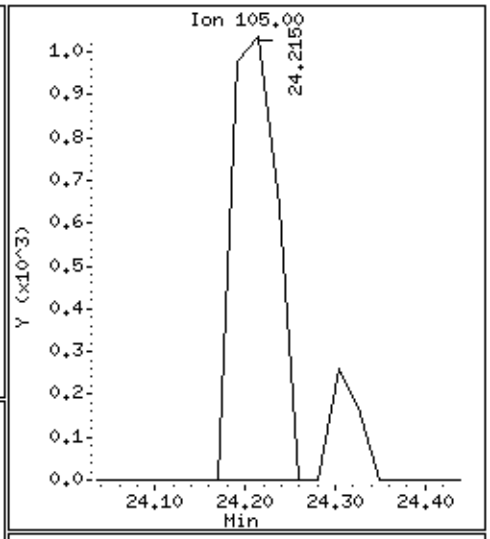
Column phase: RTX-624

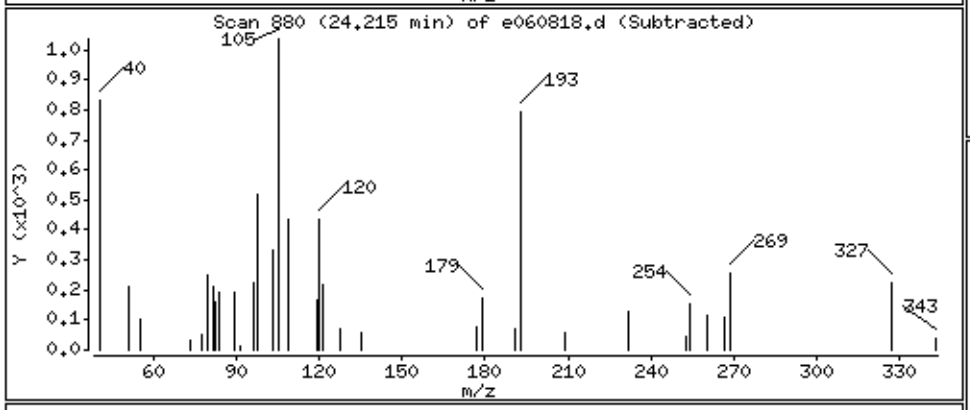
Column diameter: 0.32

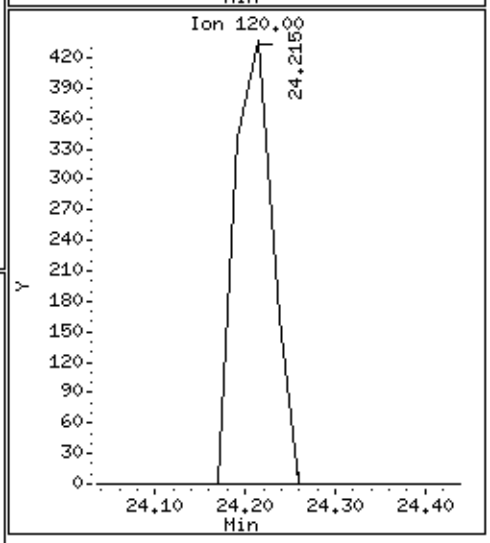
188 4-Ethyltoluene

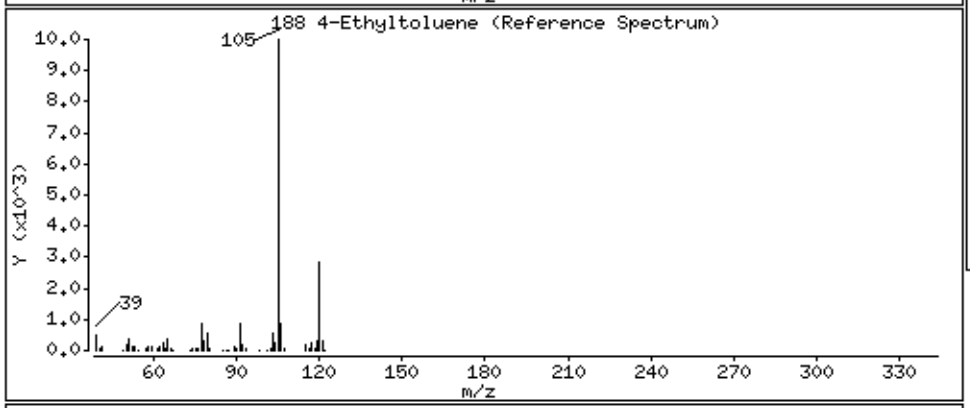
Concentration: 0.02485 PPBV

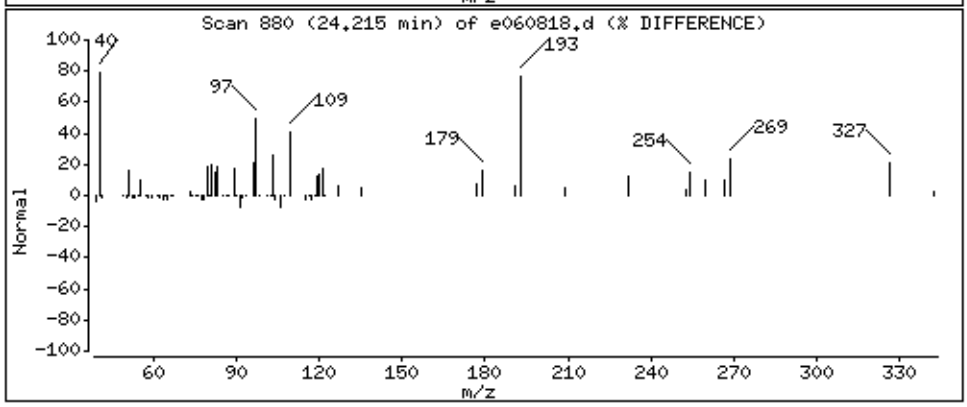












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-3 (052816)

Lab ID#: 1606028A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.44	0.75	2.2
Chloromethane	0.76	0.71 J	1.6	1.4 J
Freon 11	0.15	0.26	0.85	1.4
Ethanol	0.76	12	1.4	24
Freon 113	0.15	0.057 J	1.2	0.44 J
Acetone	0.76	7.5	1.8	18
2-Propanol	0.76	6.9	1.9	17
Carbon Disulfide	0.76	0.50 J	2.4	1.5 J
Methylene Chloride	0.30	0.40	1.0	1.4
Hexane	0.15	0.20	0.54	0.72
2-Butanone (Methyl Ethyl Ketone)	0.76	1.0	2.2	3.1
Carbon Tetrachloride	0.15	0.058 J	0.96	0.36 J
Benzene	0.15	0.11 J	0.48	0.37 J
Heptane	0.15	0.26	0.62	1.0
4-Methyl-2-pentanone	0.15	0.087 J	0.62	0.36 J
Toluene	0.15	1.6	0.57	5.9
Ethyl Benzene	0.15	0.051 J	0.66	0.22 J
m,p-Xylene	0.15	0.14 J	0.66	0.62 J
o-Xylene	0.15	0.052 J	0.66	0.23 J
Styrene	0.15	0.096 J	0.65	0.41 J
4-Ethyltoluene	0.15	0.035 J	0.75	0.17 J
1,2,4-Trimethylbenzene	0.15	0.038 J	0.75	0.19 J
Naphthalene	0.76	0.038 J	4.0	0.20 J

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Client Sample ID: B30IA-3 (052816)

Lab ID#: 1606028A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060315**	**Date of Collection:**	**5/29/16 6:00:00 PM**
Dil. Factor:	**1.52**	**Date of Analysis:**	**6/3/16 06:34 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.44	0.75	2.2
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.76	0.71 J	1.6	1.4 J
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.76	Not Detected	3.0	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.26	0.85	1.4
Ethanol	0.76	12	1.4	24
Freon 113	0.15	0.057 J	1.2	0.44 J
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	7.5	1.8	18
2-Propanol	0.76	6.9	1.9	17
Carbon Disulfide	0.76	0.50 J	2.4	1.5 J
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.30	0.40	1.0	1.4
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Hexane	0.15	0.20	0.54	0.72
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	1.0	2.2	3.1
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	0.058 J	0.96	0.36 J
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Benzene	0.15	0.11 J	0.48	0.37 J
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	0.26	0.62	1.0
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	0.087 J	0.62	0.36 J
Toluene	0.15	1.6	0.57	5.9
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected

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Client Sample ID: B30IA-3 (052816)

Lab ID#: 1606028A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060315**	**Date of Collection:**	**5/29/16 6:00:00 PM**
Dil. Factor:	**1.52**	**Date of Analysis:**	**6/3/16 06:34 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	0.051 J	0.66	0.22 J
m,p-Xylene	0.15	0.14 J	0.66	0.62 J
o-Xylene	0.15	0.052 J	0.66	0.23 J
Styrene	0.15	0.096 J	0.65	0.41 J
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.75	Not Detected
4-Ethyltoluene	0.15	0.035 J	0.75	0.17 J
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	0.038 J	0.75	0.19 J
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected
Naphthalene	0.76	0.038 J	4.0	0.20 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	95	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/03Jun2016.b/e060315.d
Lab Smp Id: 1606028A-05A
Inj Date : 03-JUN-2016 18:34
Operator : ea Inst ID: msde.i
Smp Info : 250mL#33926
Misc Info : 3.5"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/03Jun2016.b/e16l0317f.m
Meth Date : 03-Jun-2016 10:38 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1
Dil Factor: 1.52000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
5.196	5.196 (0.338)	85	29466	0.28653	0.4355	80.00- 120.00	100.00
5.196	5.220 (0.338)	87	6856			2.00- 62.00	23.27
17 Chloromethane					CAS #: 74-87-3		
6.980	6.956 (0.453)	50	9063	0.46450	0.7060	80.00- 120.00	100.00(aM)
6.932	6.932 (0.450)	52	3154			5.50- 65.50	34.80
35 Freon 11					CAS #: 75-69-4		
10.747	10.747 (0.698)	101	18684	0.16873	0.2565	80.00- 120.00	100.00
10.747	10.747 (0.698)	103	13118			37.17- 97.17	70.21
42 Ethanol					CAS #: 64-17-5		
11.680	11.681 (0.759)	45	66475	8.28463	12.593	80.00- 120.00	100.00
11.680	11.681 (0.759)	46	25534			6.61- 66.61	38.41
11.680	11.681 (0.759)	43	16813			0.00- 54.66	25.29
49 Freon 113					CAS #: 76-13-1		
12.061	12.081 (0.784)	151	3138	0.03781	0.05748	80.00- 120.00	100.00(a)
12.080	12.081 (0.785)	153	2486			33.64- 93.64	79.24

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   49 Freon 113 (continued)
 12.061  12.081 (0.784)   101      4062                    80.40- 140.40   129.46
-------------------------------------------------------------------------------
   52 Acetone                                      CAS #: 67-64-1
 12.366  12.366 (0.803)    58     66863 4.94131    7.511  80.00- 120.00   100.00
 12.366  12.366 (0.803)    43    226835                   321.47- 381.47   339.25
-------------------------------------------------------------------------------
   56 Carbon Disulfide                             CAS #: 75-15-0
 12.442  12.443 (0.808)    76     33680 0.32657   0.4964  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                   CAS #: 67-63-0
 12.728  12.709 (0.827)    45    188803 4.56114    6.933  80.00- 120.00   100.00
 12.728  12.709 (0.827)    43     51293                     0.00-  54.09    27.17
 12.728  12.709 (0.827)    59      8675                     0.00-  34.43     4.59
-------------------------------------------------------------------------------
   66 Methylene Chloride                           CAS #: 75-09-2
 13.149  13.149 (0.854)    84      8440 0.26030   0.3956  80.00- 120.00   100.00
 13.149  13.149 (0.854)    49      6328                    63.99- 123.99    74.98
 13.149  13.149 (0.854)    51      1861                     0.29-  60.29    22.06
-------------------------------------------------------------------------------
   78 Hexane                                       CAS #: 110-54-3
 13.835  13.835 (0.899)    57      5460 0.13499   0.2052  80.00- 120.00   100.00
 13.890  13.835 (0.902)    43      8522                    21.48-  81.48   156.07
 13.808  13.835 (0.897)    86      1660                     0.00-  51.51    30.41
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.046  15.047 (0.978)    72     11266 0.69120    1.051  80.00- 120.00   100.00
 15.046  15.047 (0.978)    43     93324                   262.26- 322.26   828.34
 15.046  15.047 (0.978)    57      3511                     0.00-  55.71    31.17
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    122268 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128     93817                    52.25- 112.25    76.73
 15.391  15.391 (1.000)    49     83740                    89.81- 149.81    68.49
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 15.853  15.854 (1.030)   119      3809 0.03788  0.05757  80.00- 120.00   100.00(a)
 15.853  15.854 (1.030)   117      3622                    74.09- 134.09    95.10
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 16.183  16.183 (0.967)    78      8357 0.07553   0.1148  80.00- 120.00   100.00(a)
 16.207  16.183 (0.968)    77      1832                     0.00-  53.97    21.92
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    177006 5.04283    5.043  80.00- 120.00   100.00
 16.183  16.183 (1.051)    67     83032                    21.16-  81.16    46.91
-------------------------------------------------------------------------------
```

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  121 Heptane                                        CAS #: 142-82-5
 16.351  16.352 (0.977)    57      4403 0.16788   0.2552  80.00- 120.00   100.00
 16.351  16.352 (0.977)   100      1147                   28.67-  88.67    26.05
 16.327  16.352 (0.976)    43      7522                  128.92- 188.92   170.82
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                            CAS #: 540-36-3
 16.737  16.737 (1.000)   114    461724 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     67365                    0.00-  45.20    14.59
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                           CAS #: 108-10-1
 18.984  18.984 (1.134)    43      3276 0.05738  0.08721  80.00- 120.00   100.00(a)
 19.006  18.984 (1.136)    58       895                   15.64-  75.64    27.33
  0.000  18.984 (0.000)    85         0                    0.00-  56.71     0.00
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                     CAS #: 2037-26-5
 19.275  19.275 (1.152)    98    425712 4.69462    4.695  80.00- 120.00   100.00
 19.275  19.275 (1.152)    70     45404                    0.00-  40.11    10.67
 19.275  19.275 (1.152)   100    291683                   37.58-  97.58    68.52
-------------------------------------------------------------------------------
  147 Toluene                                        CAS #: 108-88-3
 19.410  19.410 (1.160)    91    135081 1.02495    1.558  80.00- 120.00   100.00
 19.432  19.410 (1.161)    92     77783                   28.92-  88.92    57.58
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    426641 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    217036                   20.64-  80.64    50.87
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 22.301  22.302 (1.006)   106      1898 0.03376  0.05132  80.00- 120.00   100.00(a)
 22.301  22.302 (1.006)    91      7240                  282.51- 342.51   381.39
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 22.488  22.467 (1.014)   106      6158 0.09429   0.1433  80.00- 120.00   100.00(a)
 22.467  22.467 (1.013)    91     12762                  166.46- 226.46   207.26
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 23.089  23.089 (1.041)   106      2062 0.03442  0.05232  80.00- 120.00   100.00(a)
 23.089  23.089 (1.041)    91      4841                  184.01- 244.01   234.74
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 23.110  23.110 (1.042)   104      6439 0.06352  0.09656  80.00- 120.00   100.00(a)
 23.110  23.110 (1.042)    78      3508                   20.27-  80.27    54.49
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                           CAS #: 460-00-4
 23.855  23.856 (1.076)   174    277979 4.74842    4.748  80.00- 120.00   100.00
 23.855  23.856 (1.076)    95    280403                   77.42- 137.42   100.87
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene (continued)
 23.855  23.856 (1.076)   176    267776                   65.38- 125.38    96.33
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 24.192  24.237 (1.091)   105      4211 0.02316  0.03520  80.00- 120.00   100.00(a)
 24.192  24.237 (1.091)   120       733                    1.08-  61.08    17.42
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.775  24.775 (1.117)   105      3088 0.02524  0.03837  80.00- 120.00   100.00(a)
 24.775  24.775 (1.117)   120      1826                   16.20-  76.20    59.13
-------------------------------------------------------------------------------
  228 Naphthalene                                   CAS #: 91-20-3
 27.712  27.735 (1.250)   128      1647 0.02510  0.03816  80.00- 120.00   100.00(a)
 27.689  27.712 (1.249)   127      1271                    0.00-  46.39    77.14
-------------------------------------------------------------------------------
```

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060315.d
Lab Smp Id: 1606028A-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 3.5"Hg -> 5.0psi

Calibration Date: 03-JUN-2016
Calibration Time: 07:24

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	115058	69035	161081	122268	6.27
123 1,4-Difluorobenze	430856	258514	603198	461724	7.16
163 Chlorobenzene-d5	386725	232035	541415	426641	10.32

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 14-Jun-2016 06:34

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606028A-05A
Level: LOW Operator: ea
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 3.5"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.043	100.86	70-130
$ 146 Toluene-d8	5.000	4.695	93.89	70-130
$ 177 4-Bromofluorobenze	5.000	4.748	94.97	70-130

Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

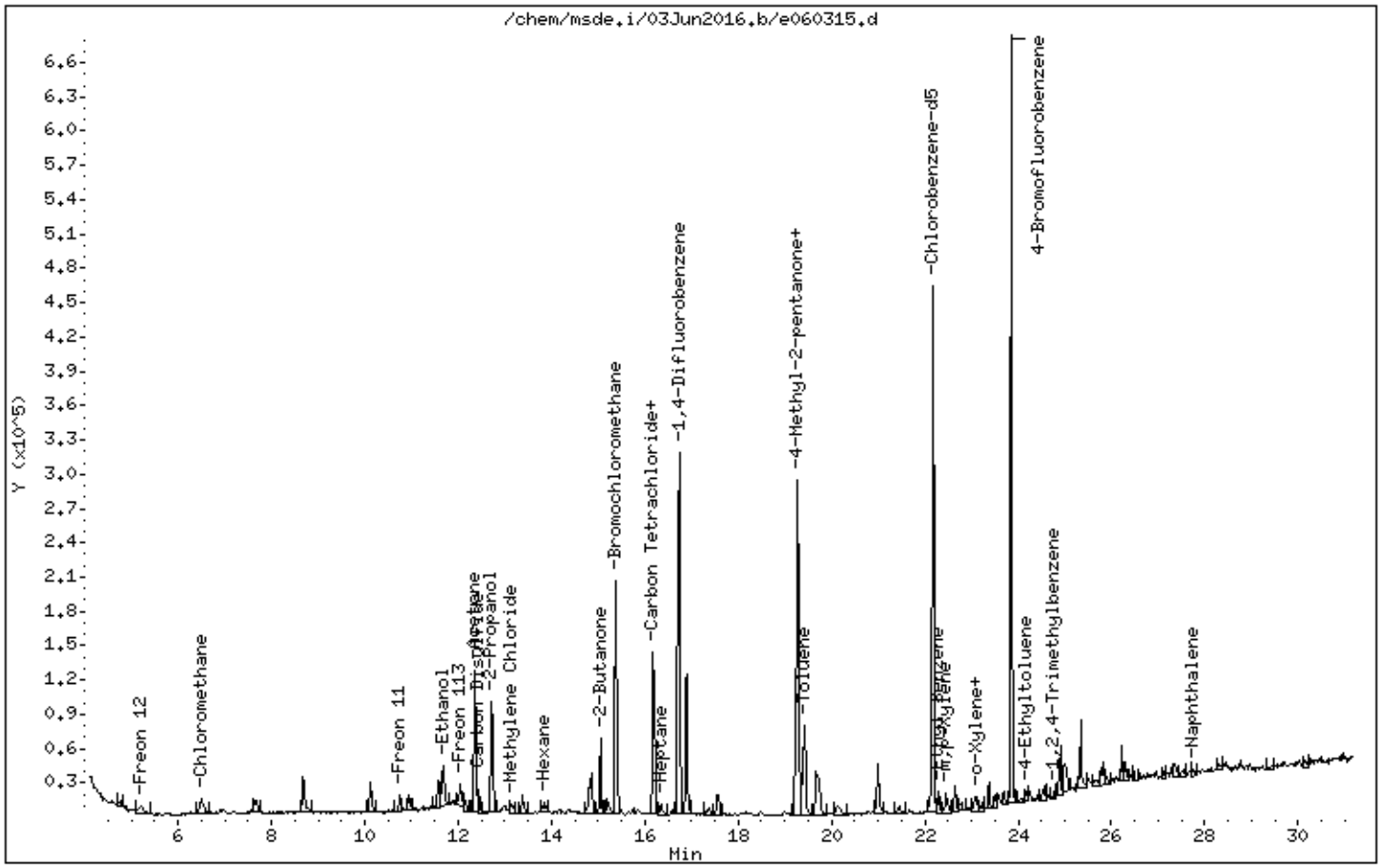
Instrument: msde.i

Sample Info: 250mL#33926

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

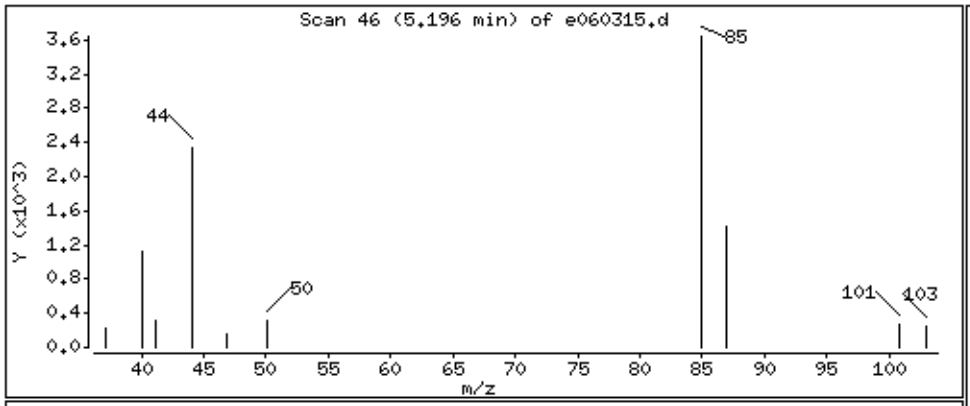
Operator: ea

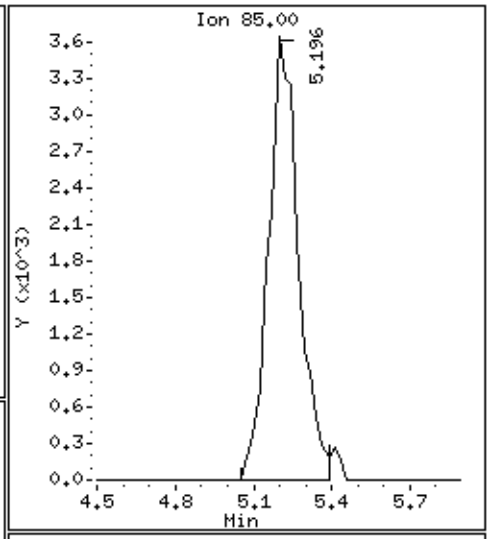
Column phase: RTX-624

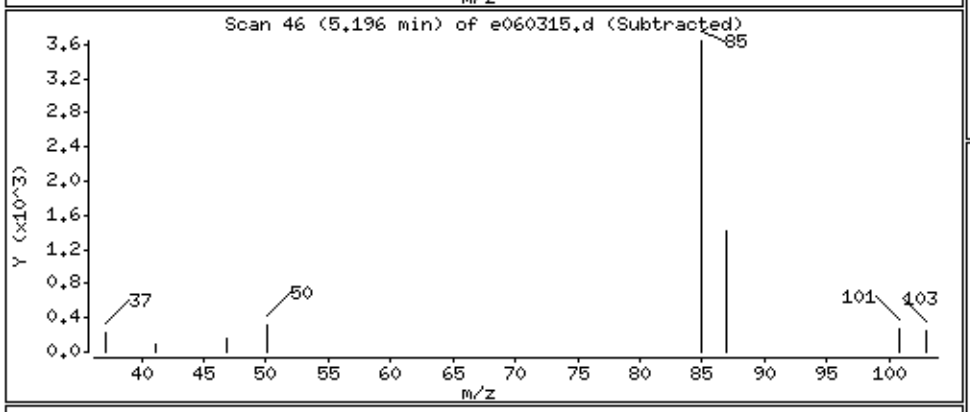
Column diameter: 0.32

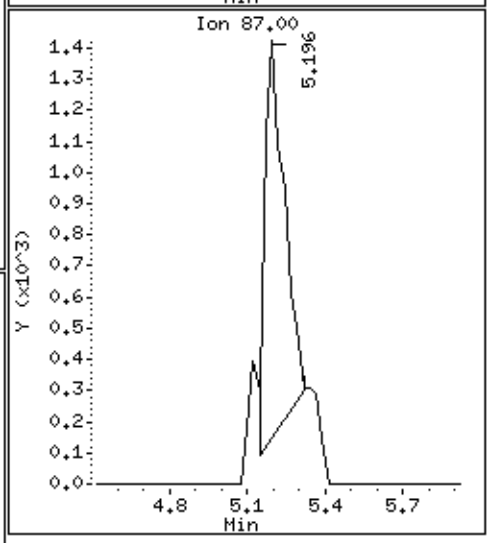
11 Freon 12

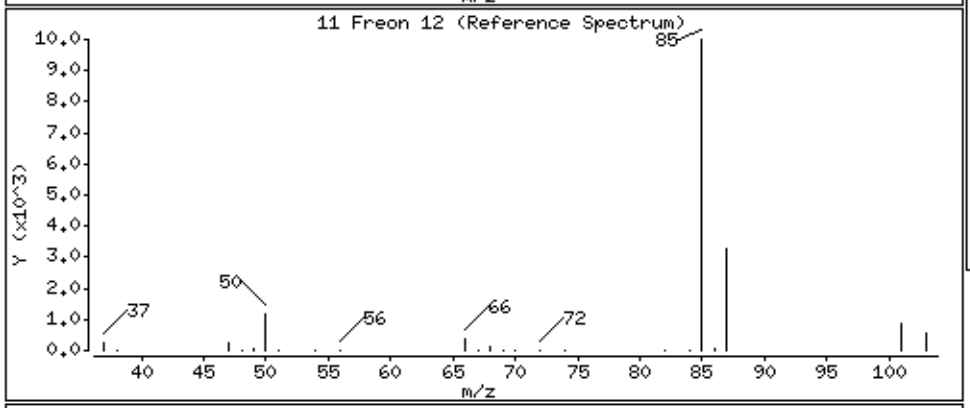
Concentration: 0.4355 PPBV

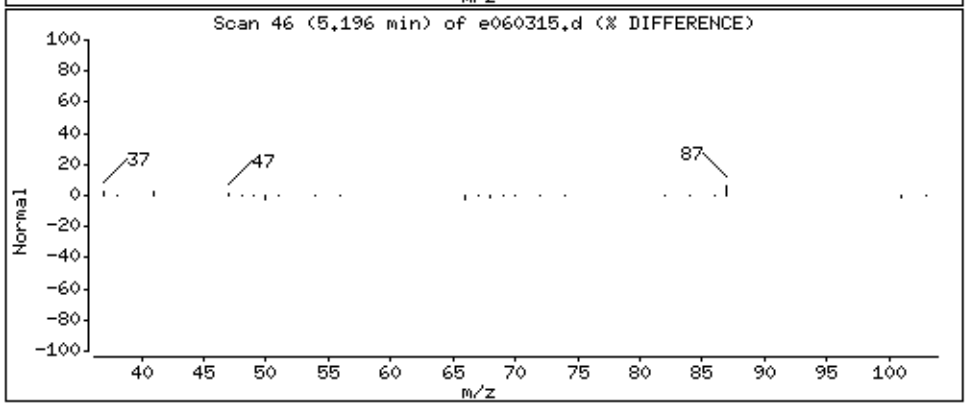












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

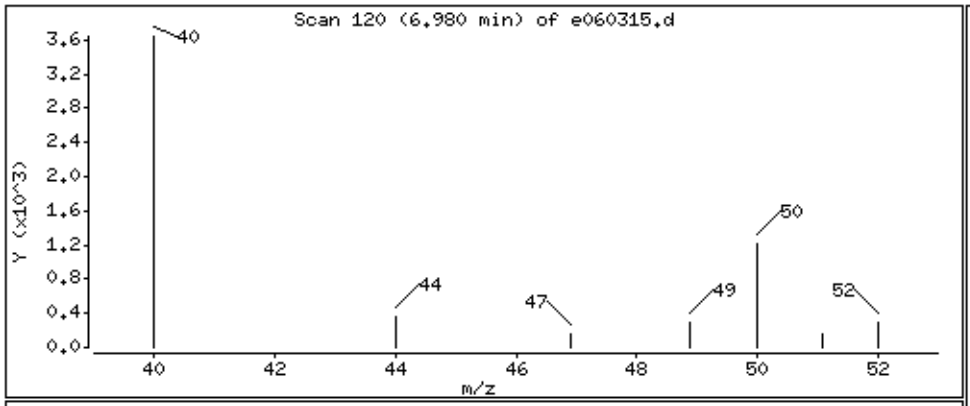
Operator: ea

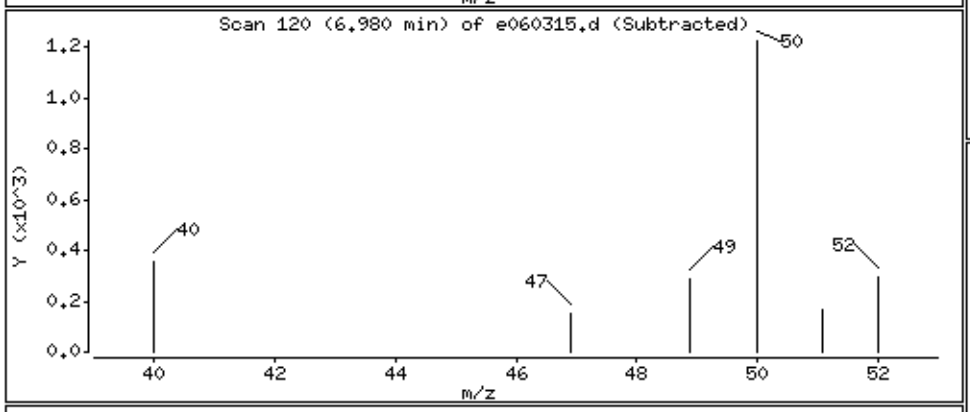
Column phase: RTX-624

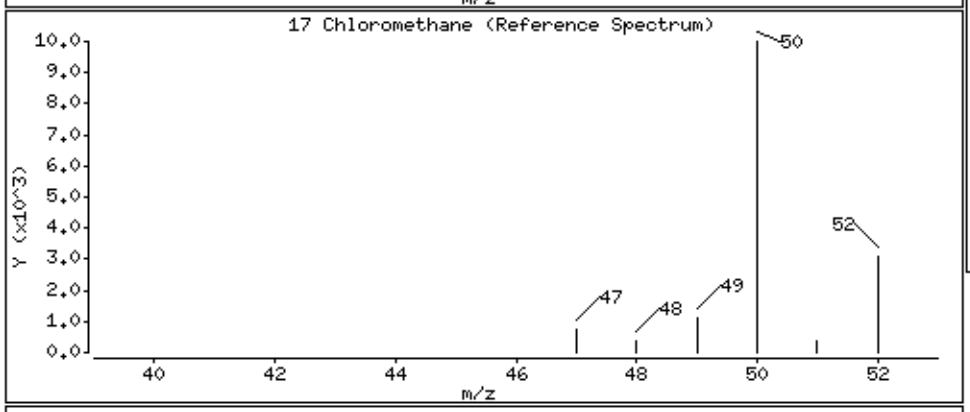
Column diameter: 0.32

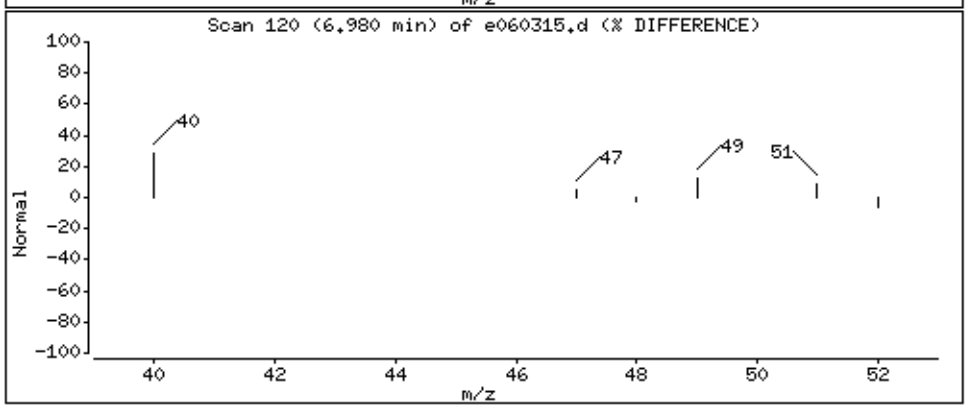
17 Chloromethane

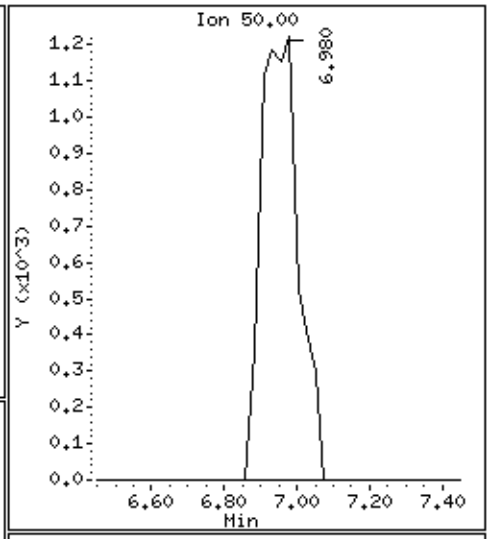
Concentration: 0.7060 PPBV

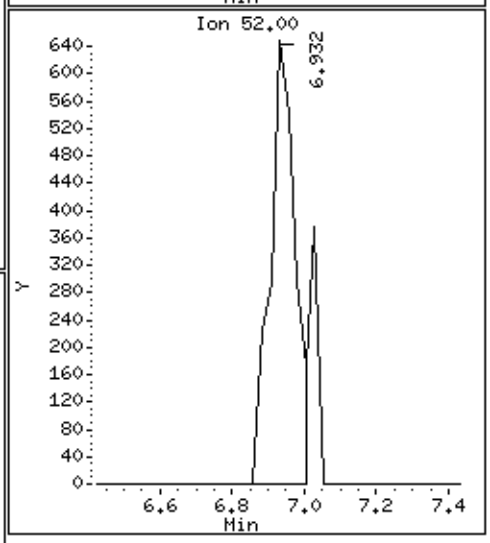












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

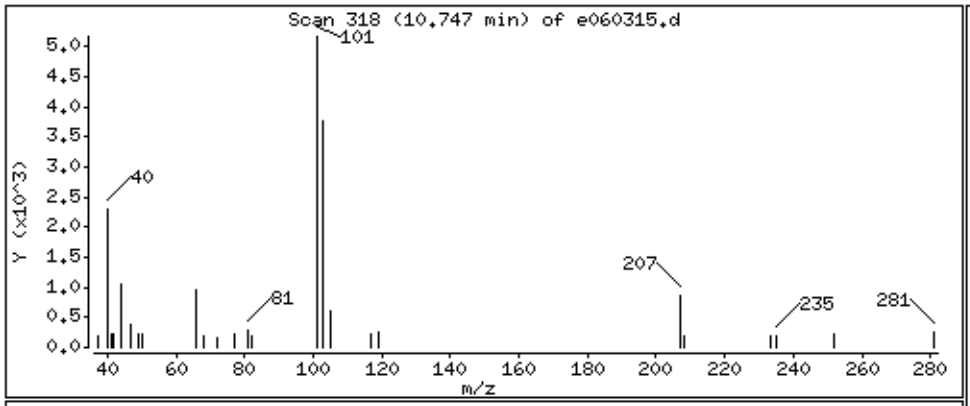
Operator: ea

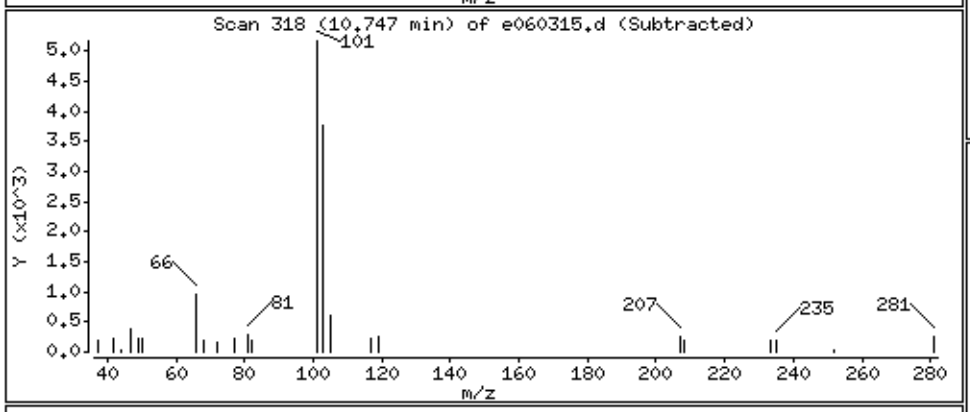
Column phase: RTX-624

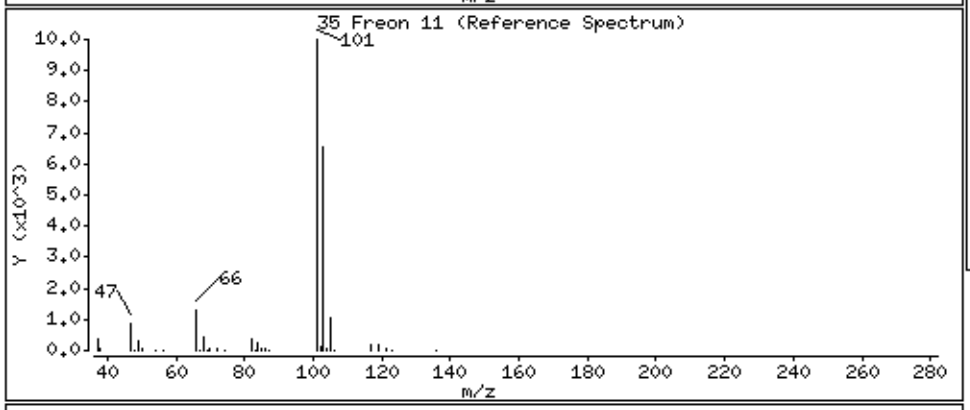
Column diameter: 0.32

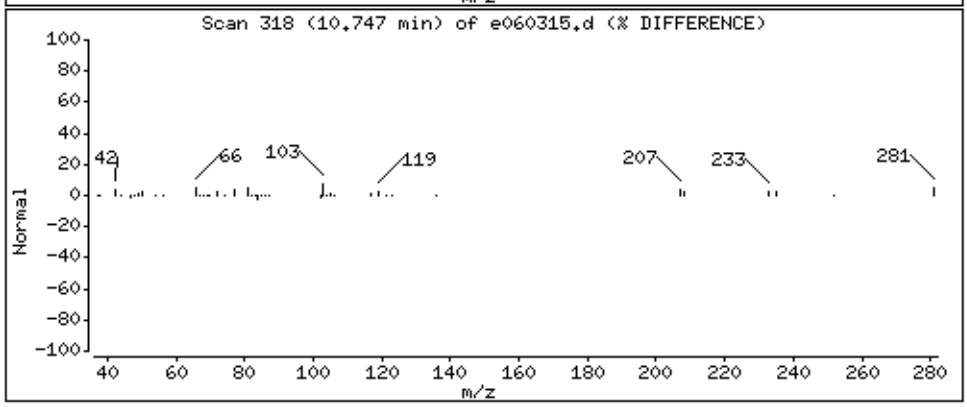
35 Freon 11

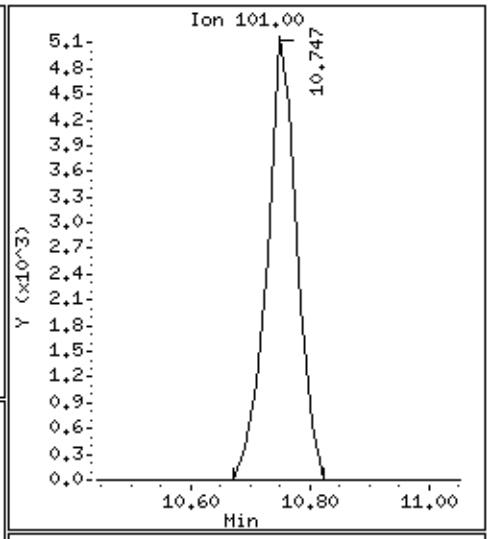
Concentration: 0.2565 PPBV

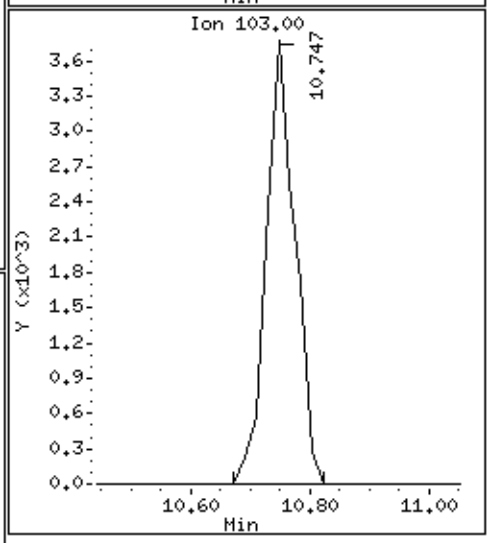












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

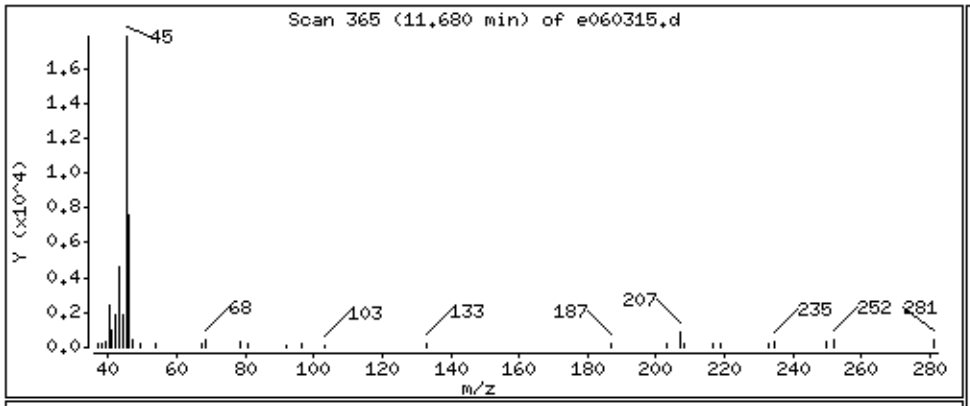
Operator: ea

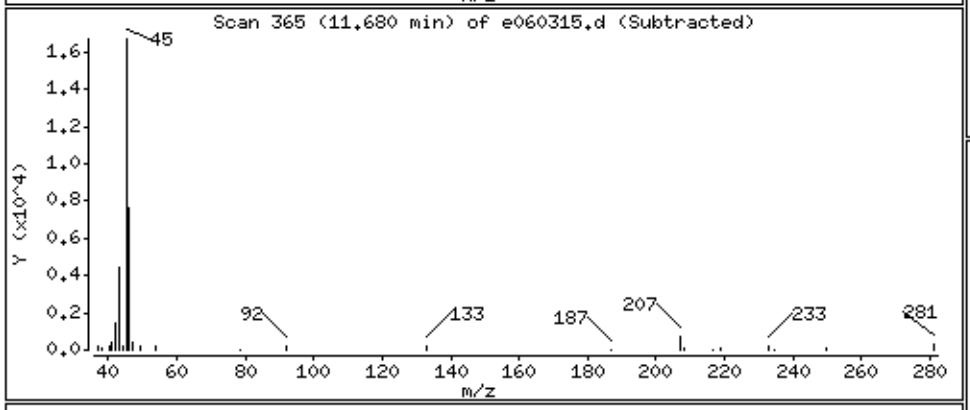
Column phase: RTX-624

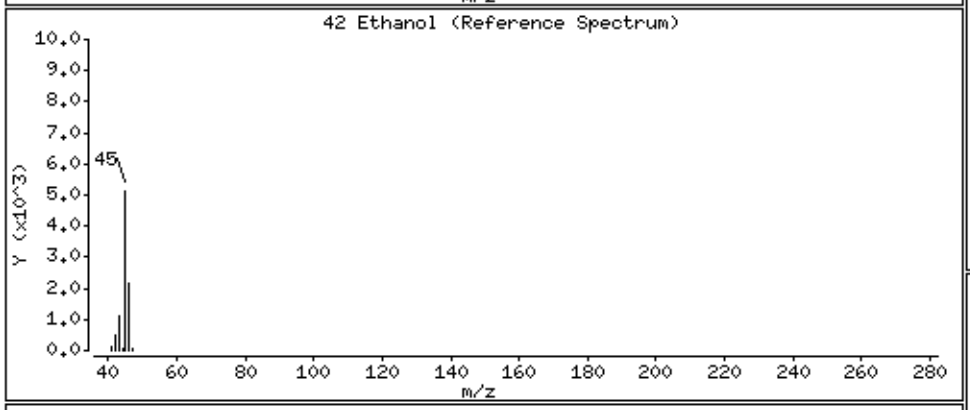
Column diameter: 0.32

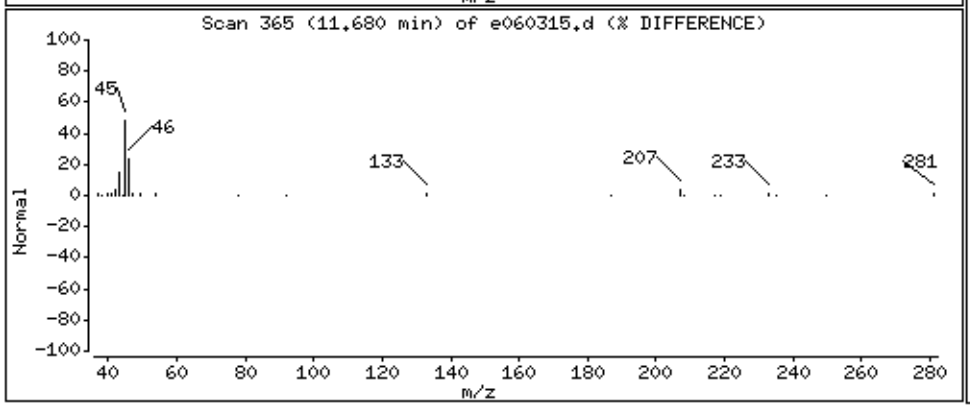
42 Ethanol

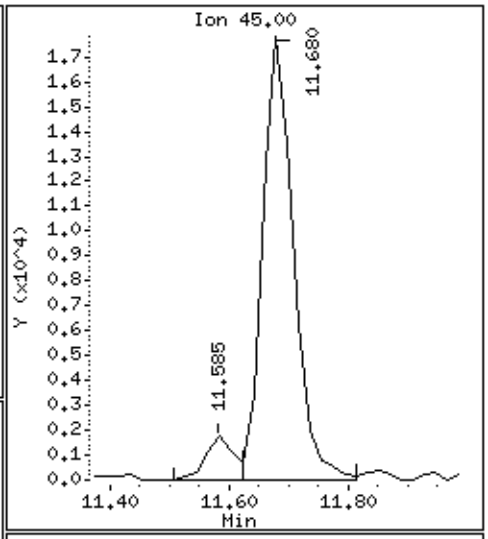
Concentration: 12.593 PPBV

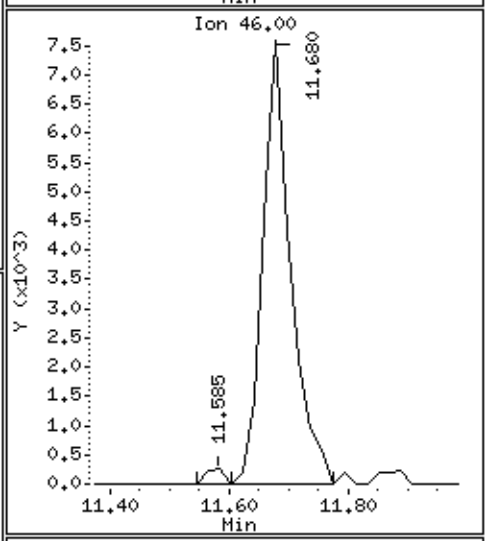


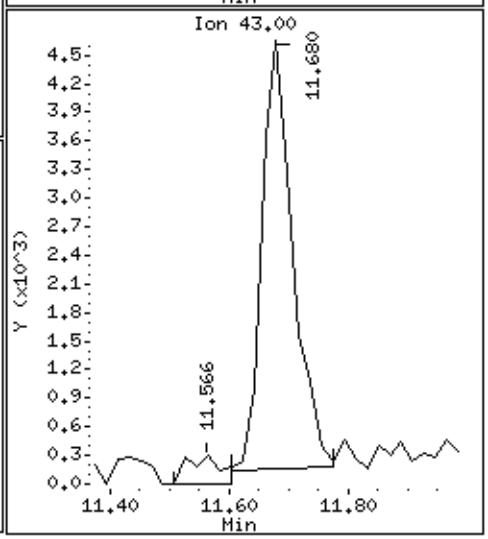












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

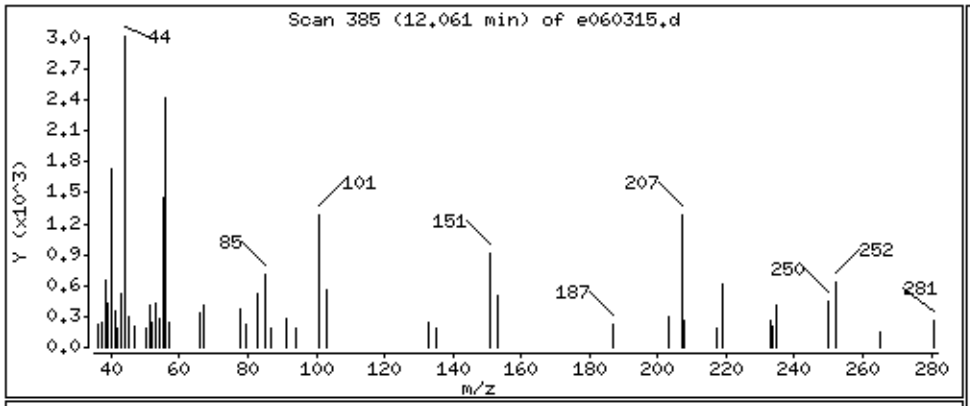
Operator: ea

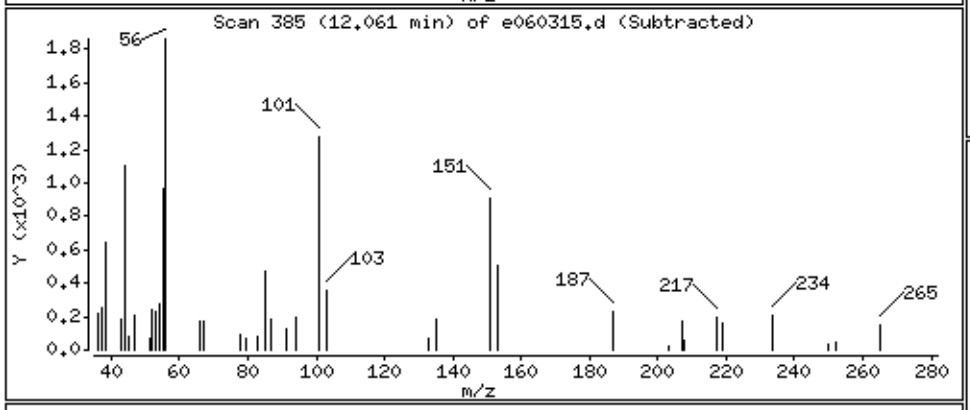
Column phase: RTX-624

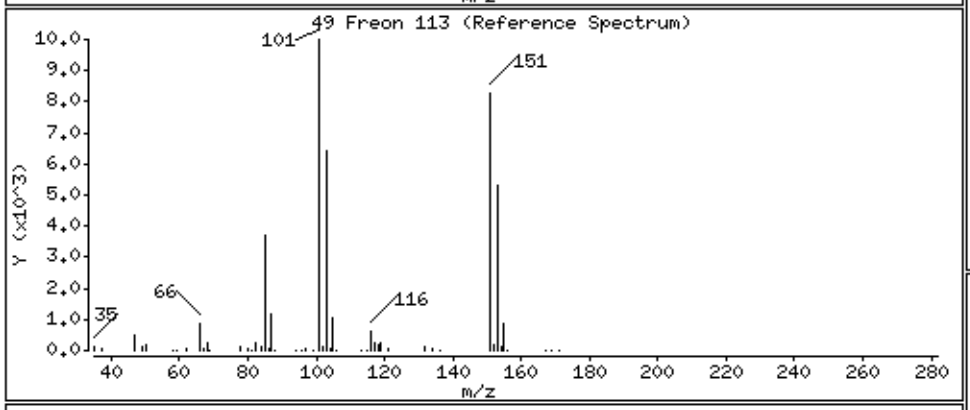
Column diameter: 0.32

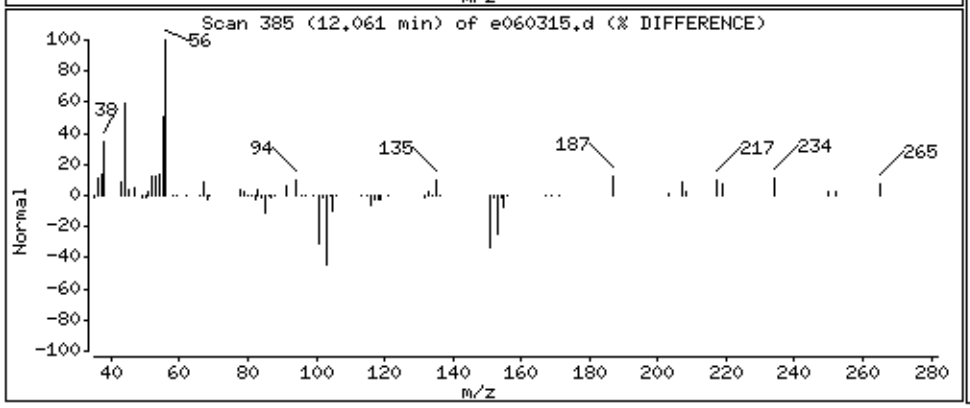
49 Freon 113

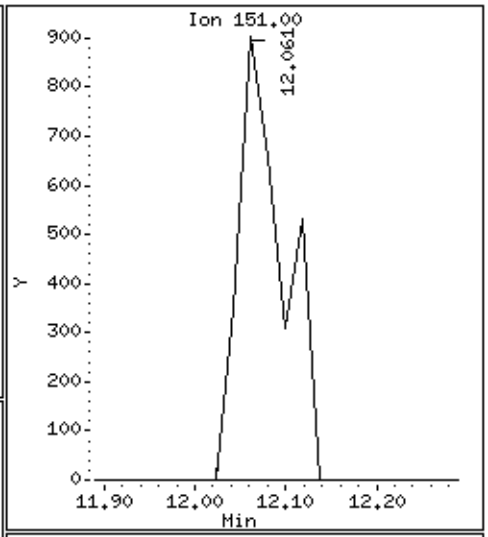
Concentration: 0.05748 PPBV

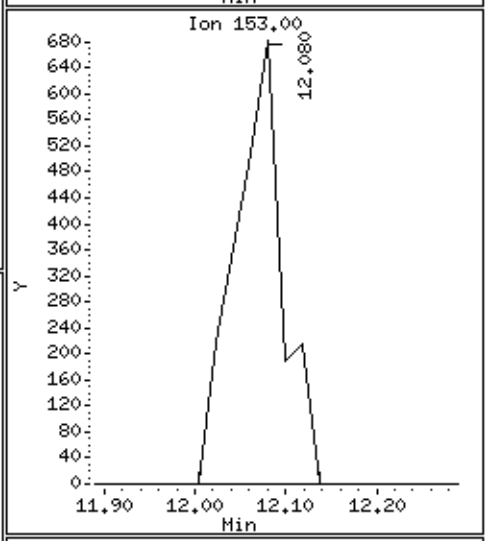


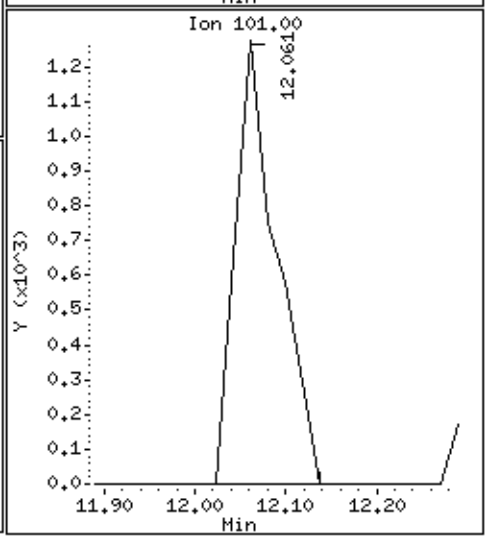












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

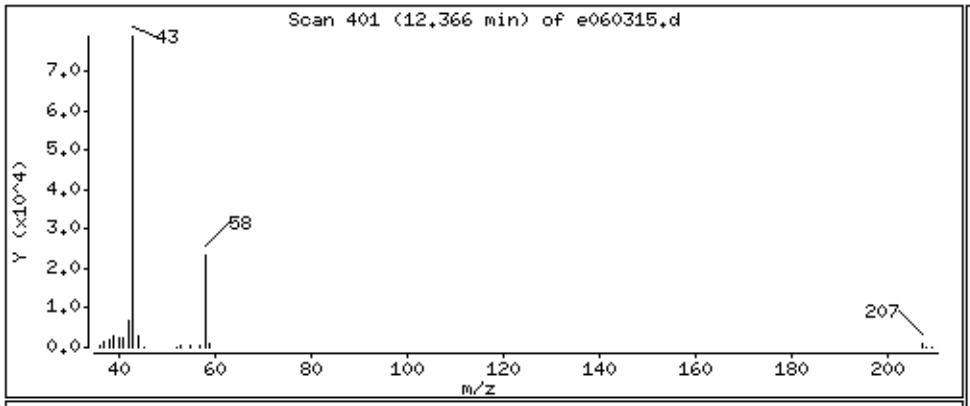
Operator: ea

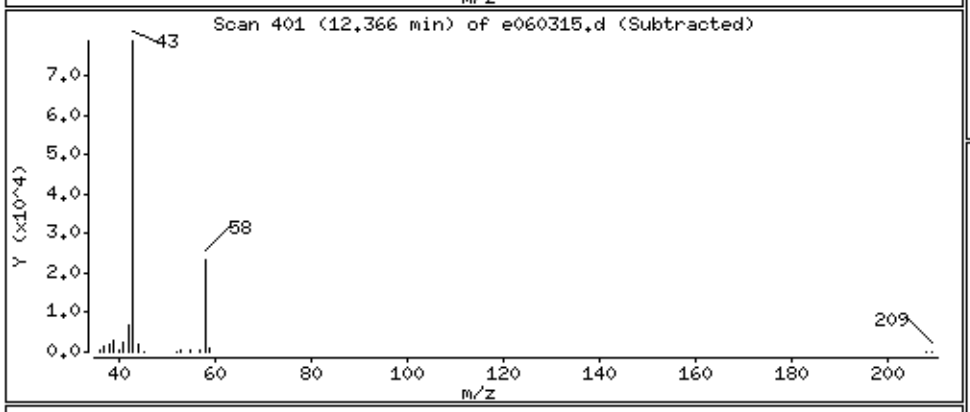
Column phase: RTX-624

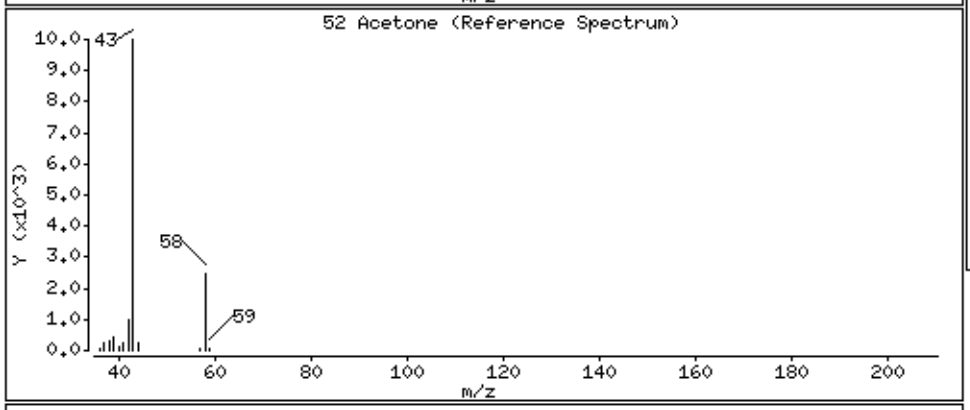
Column diameter: 0.32

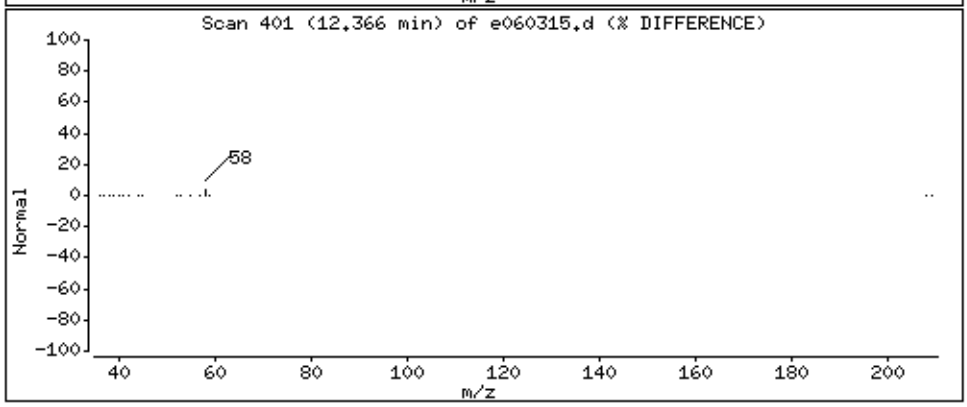
52 Acetone

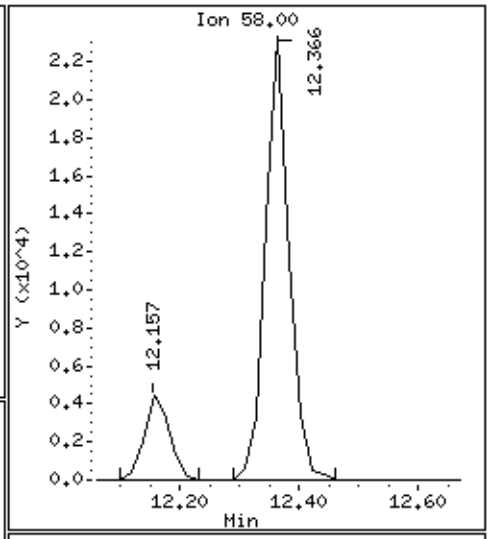
Concentration: 7.511 PPBV

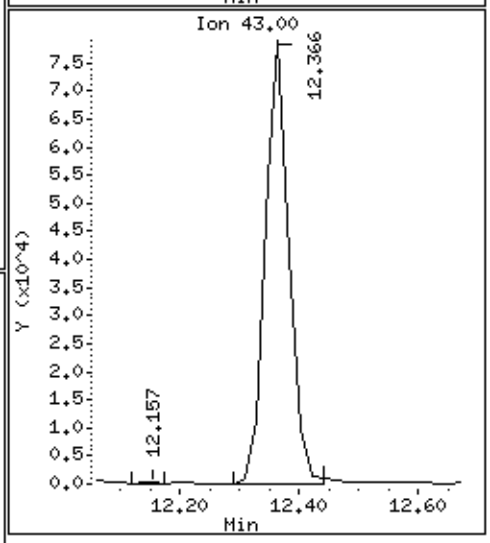












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

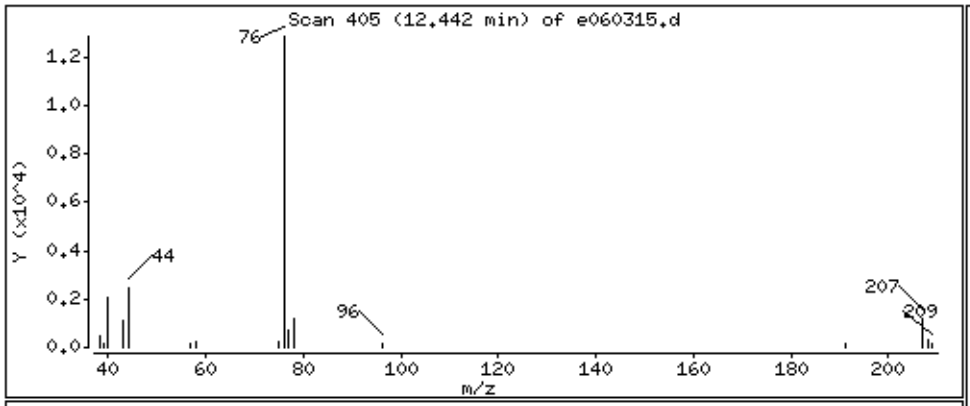
Operator: ea

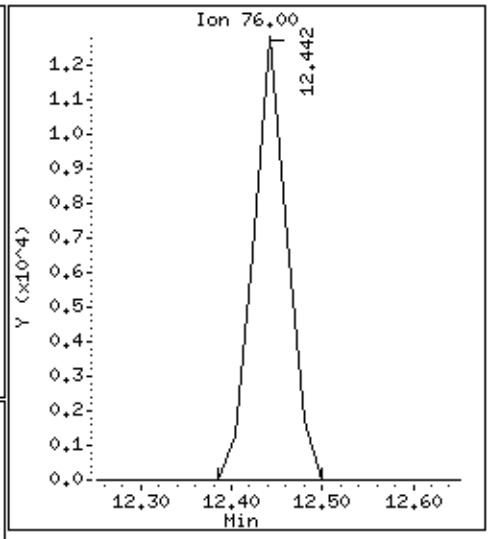
Column phase: RTX-624

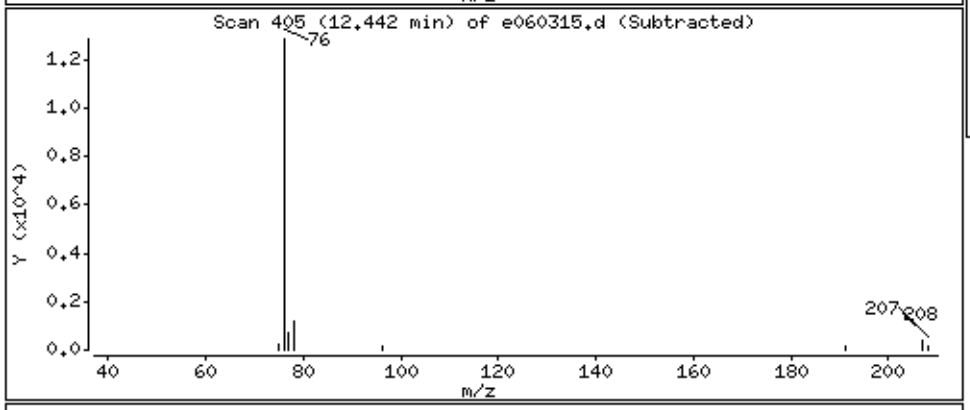
Column diameter: 0.32

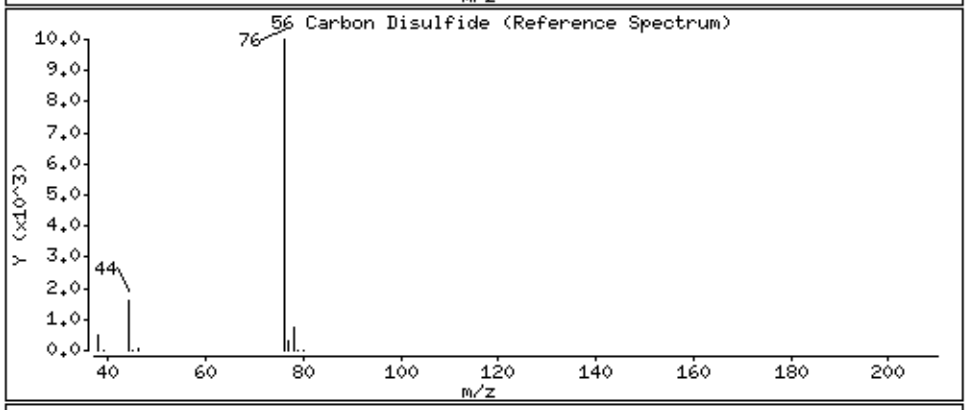
56 Carbon Disulfide

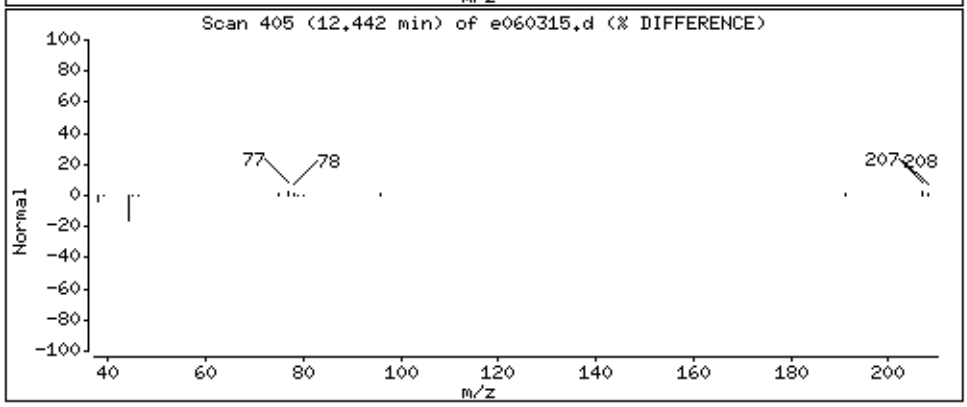
Concentration: 0.4964 PPBV











Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

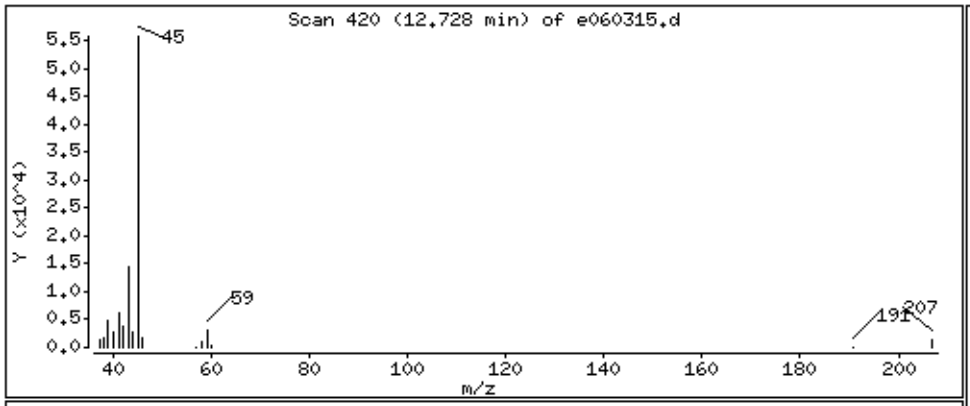
Operator: ea

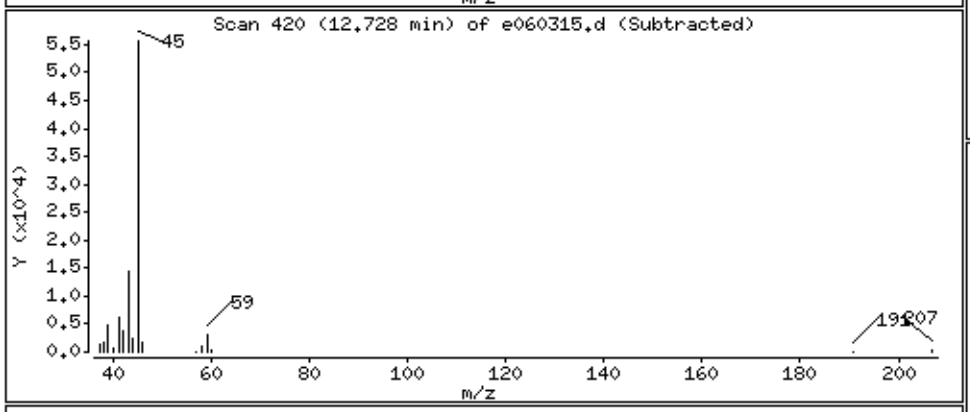
Column phase: RTX-624

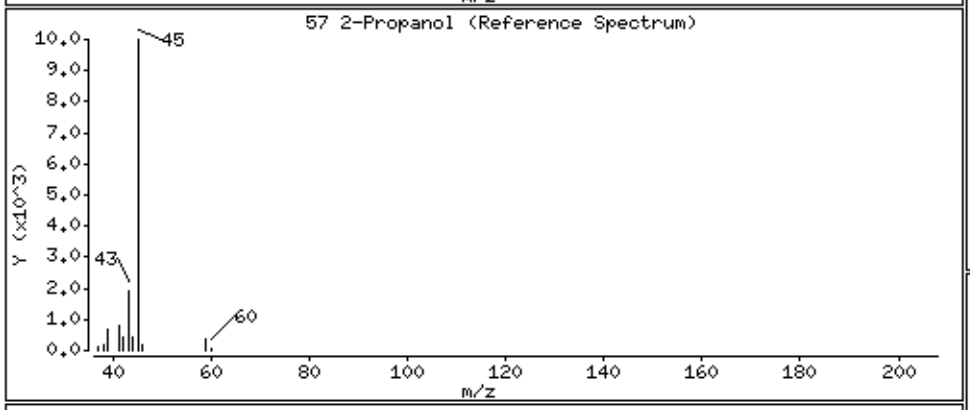
Column diameter: 0.32

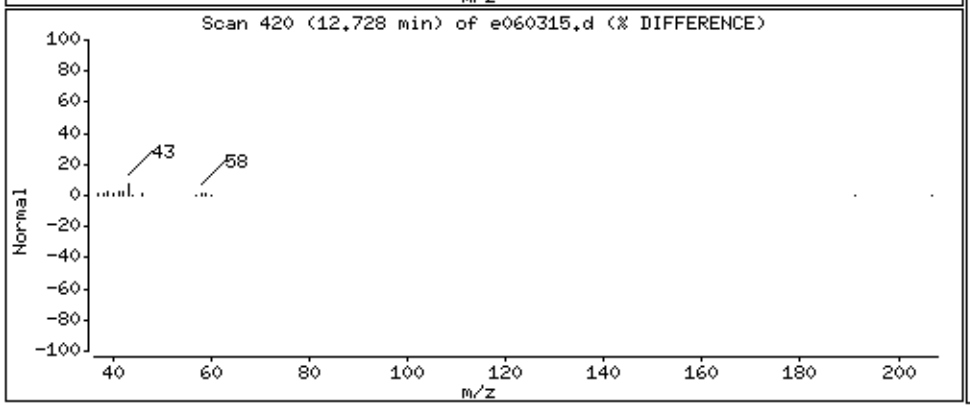
57 2-Propanol

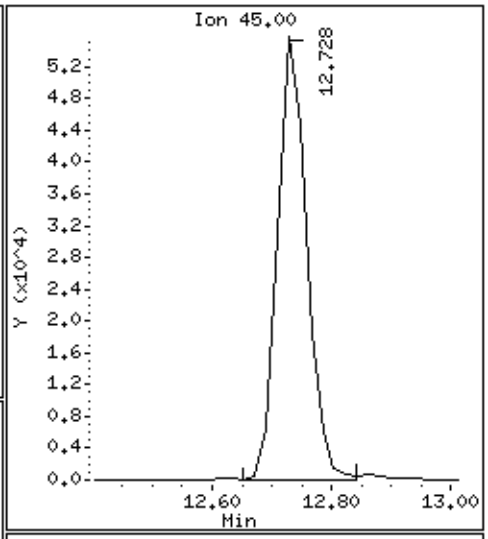
Concentration: 6.933 PPBV

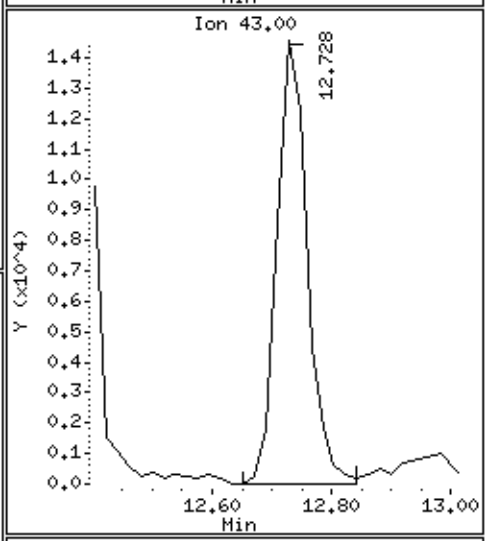


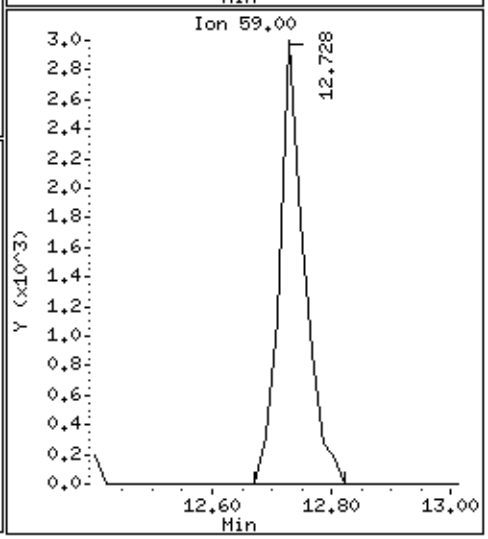












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

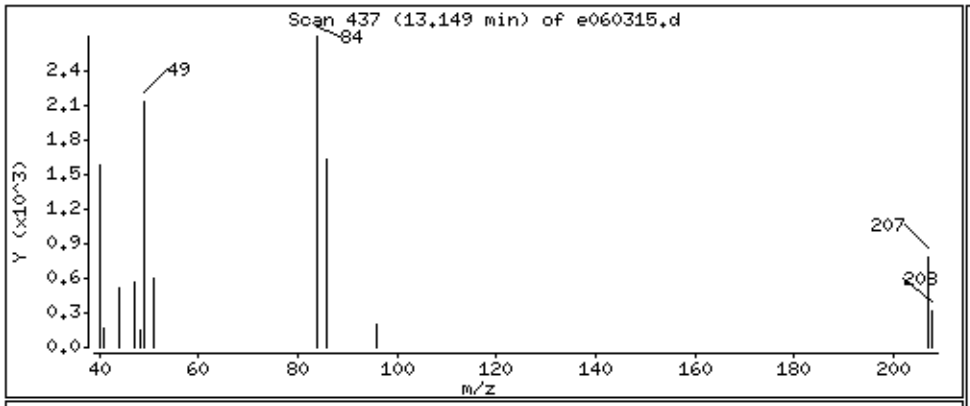
Operator: ea

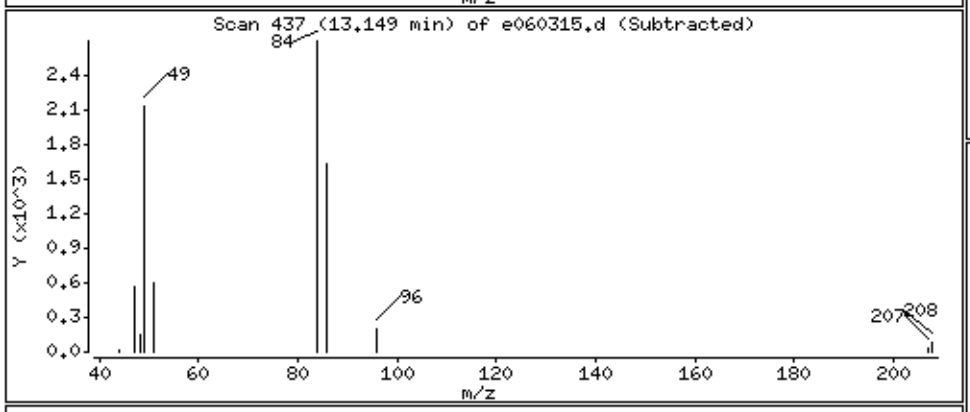
Column phase: RTX-624

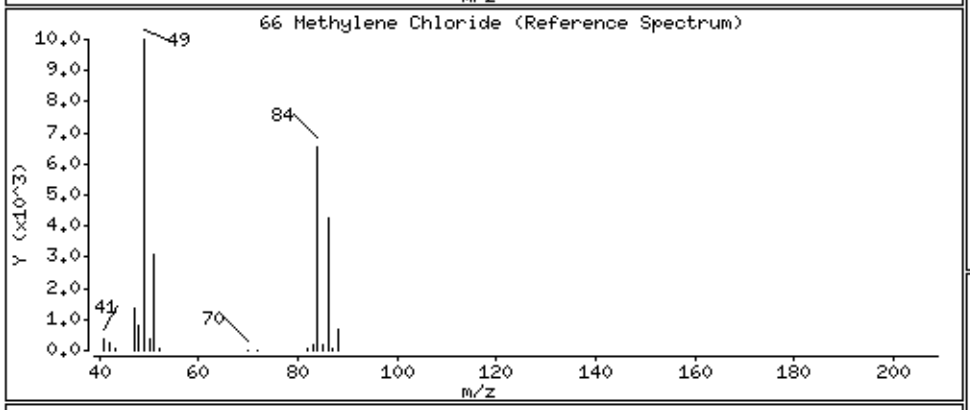
Column diameter: 0.32

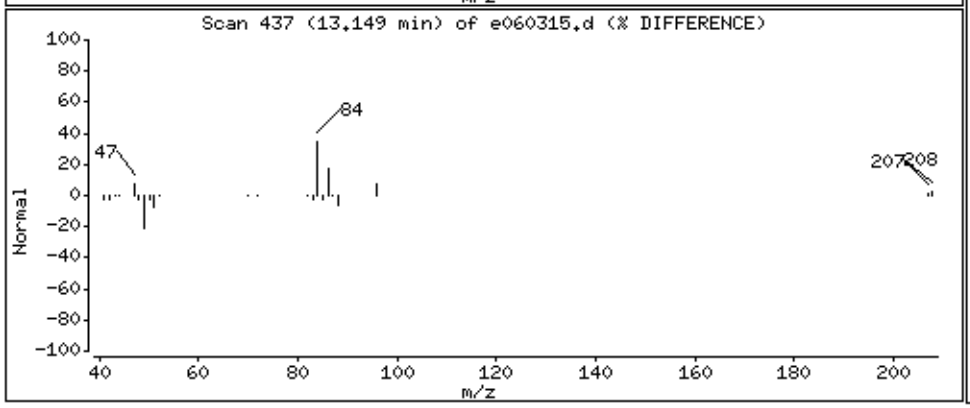
66 Methylene Chloride

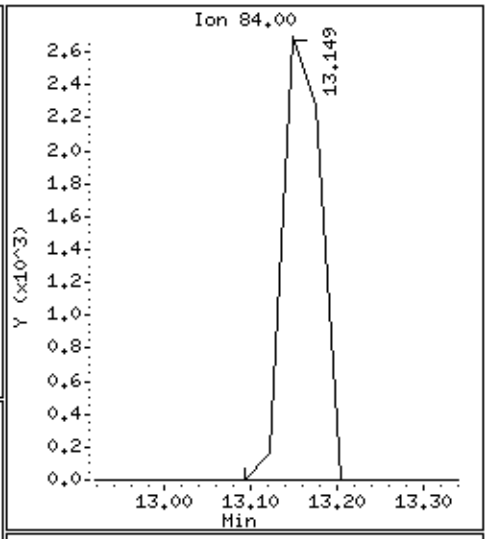
Concentration: 0.3956 PPBV

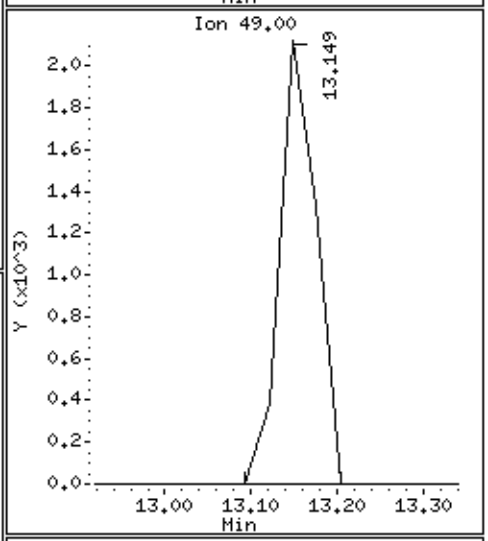


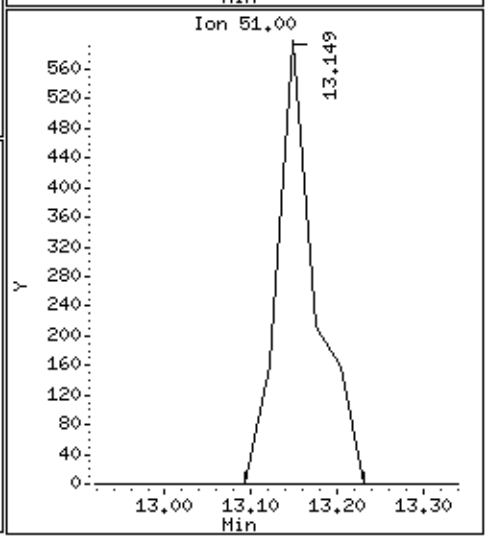












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

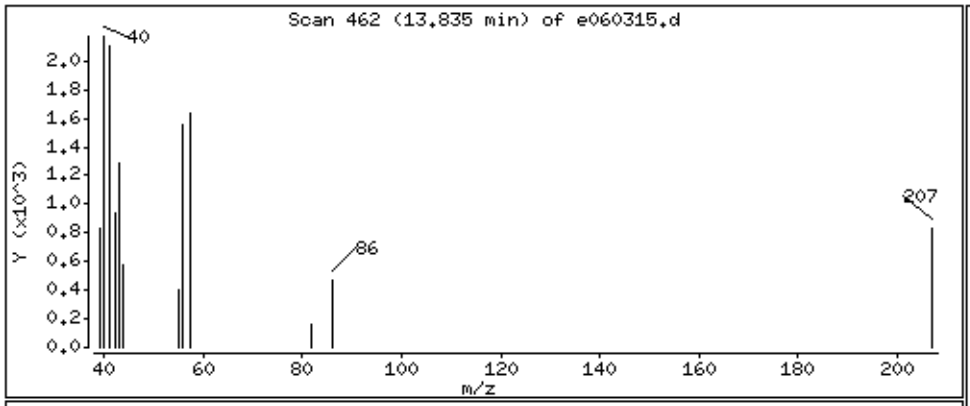
Operator: ea

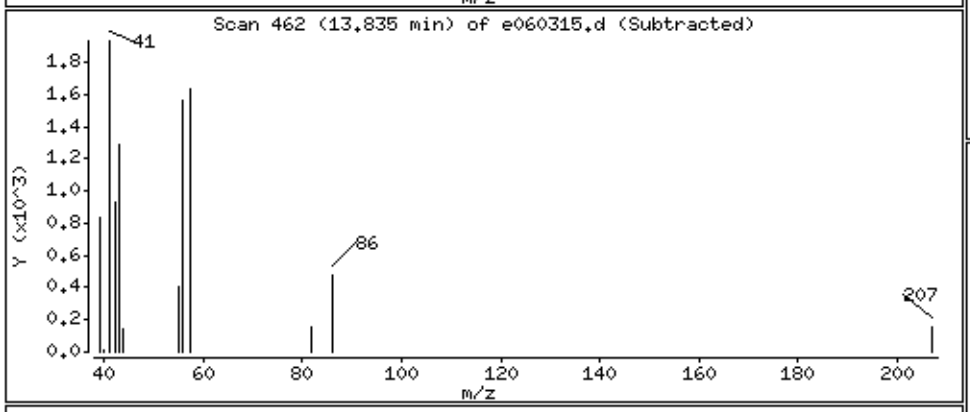
Column phase: RTX-624

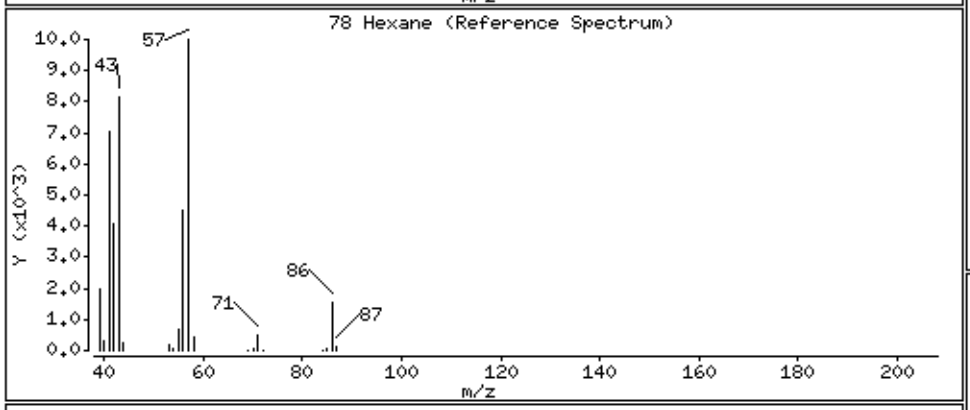
Column diameter: 0.32

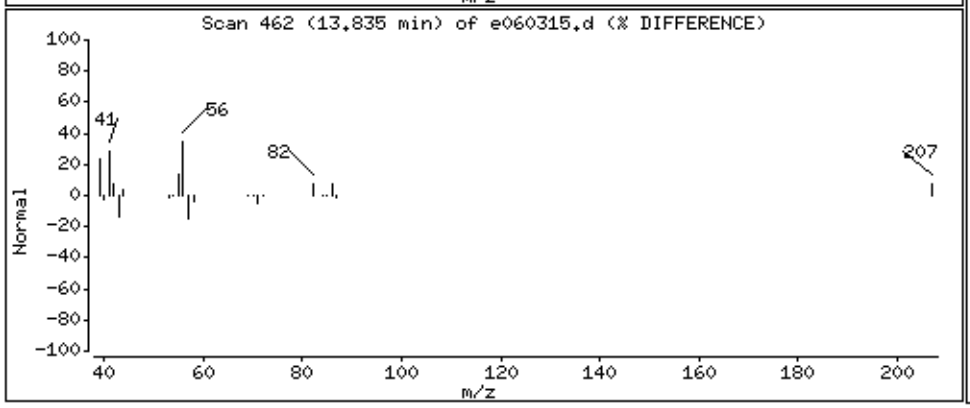
78 Hexane

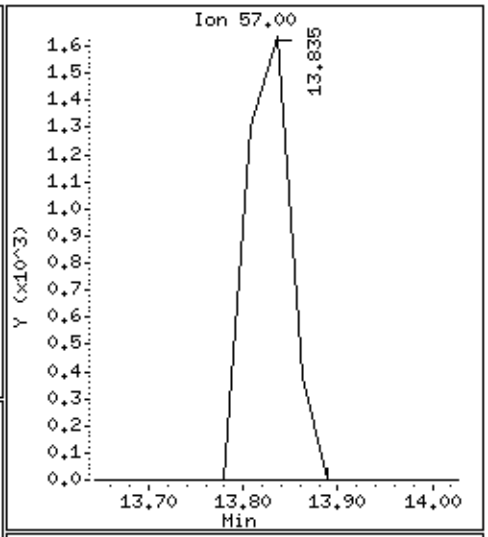
Concentration: 0.2052 PPBV

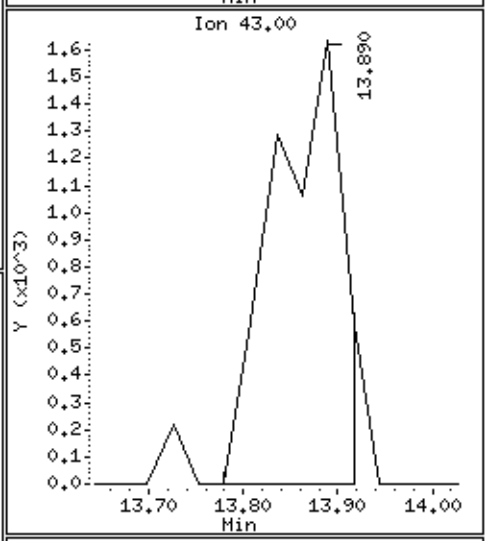


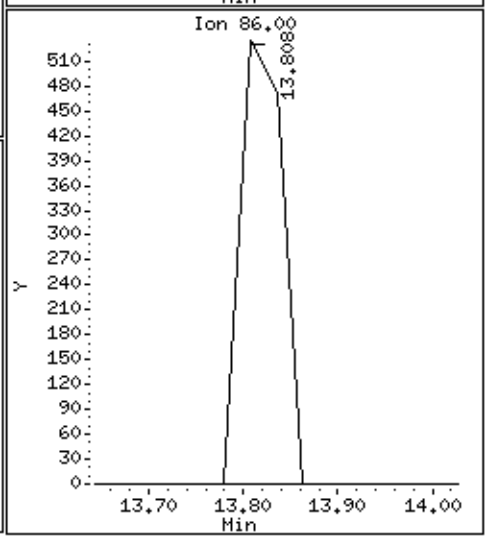












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

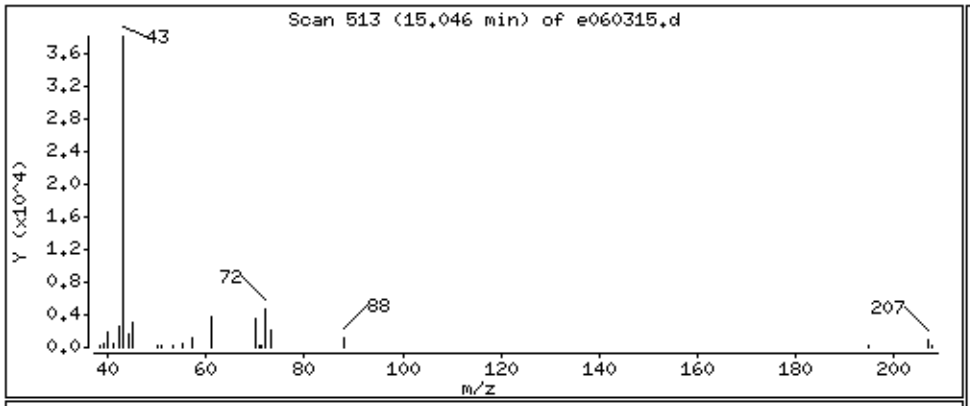
Operator: ea

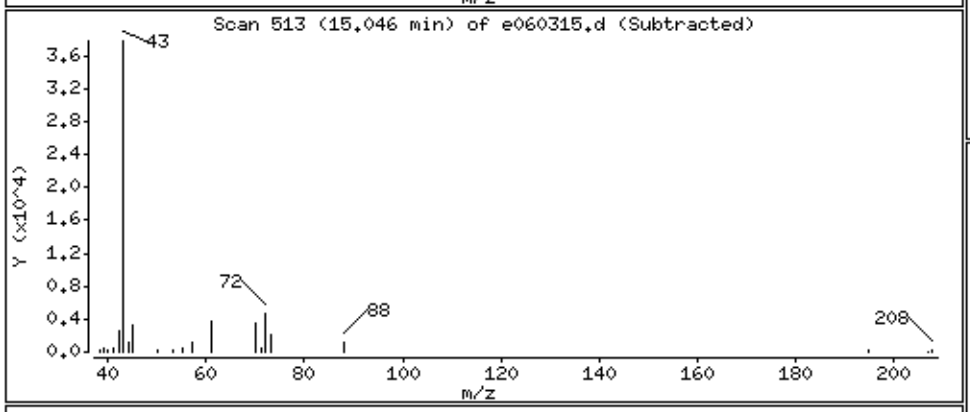
Column phase: RTX-624

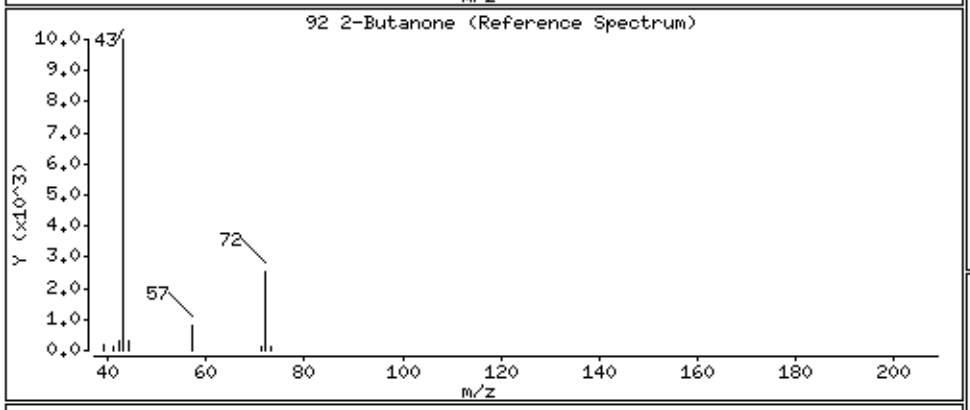
Column diameter: 0.32

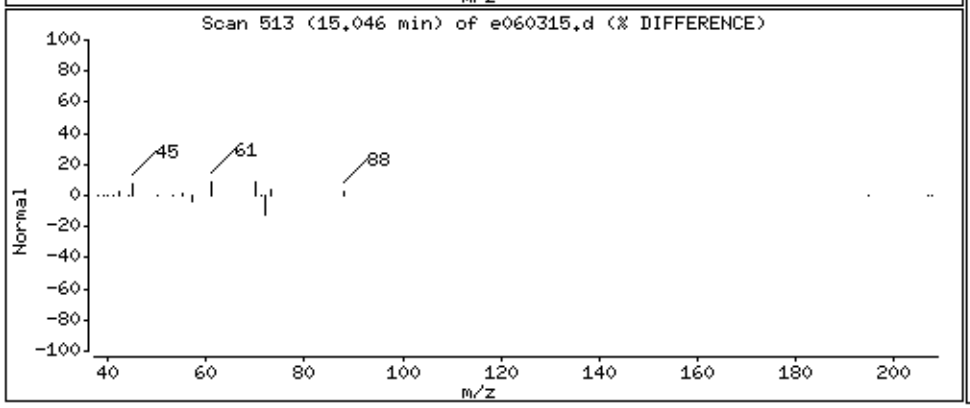
92 2-Butanone

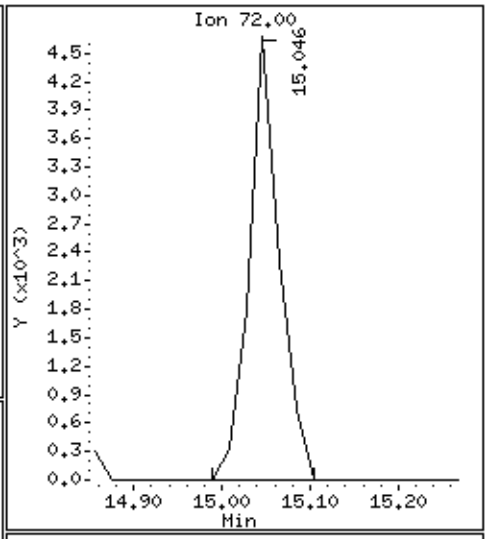
Concentration: 1.051 PPBV

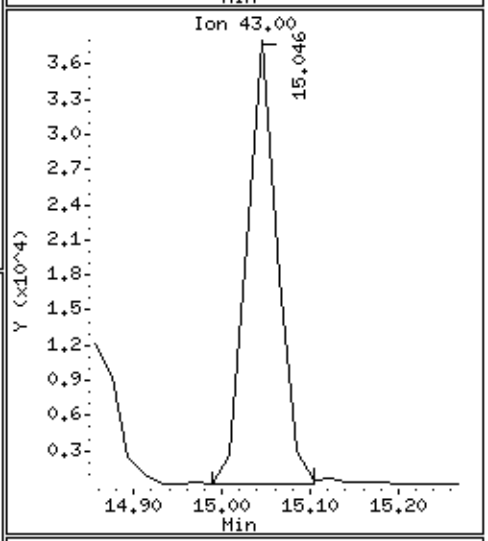


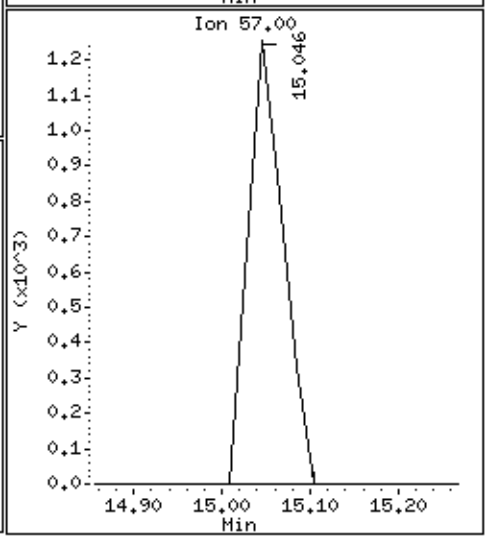












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

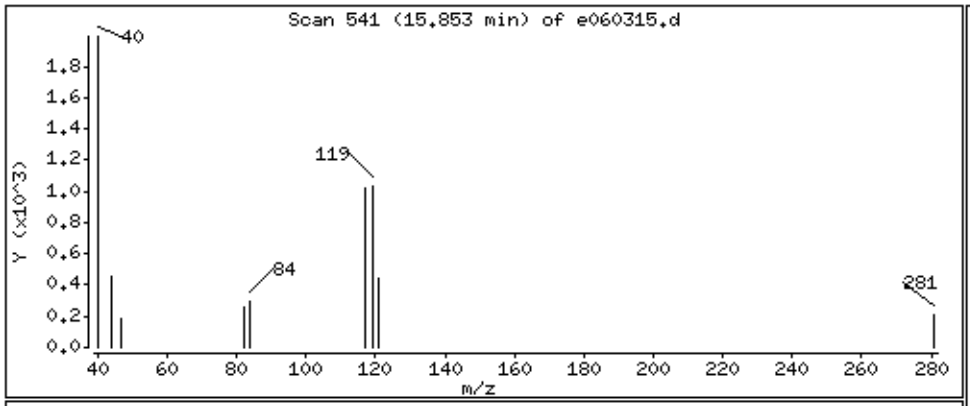
Operator: ea

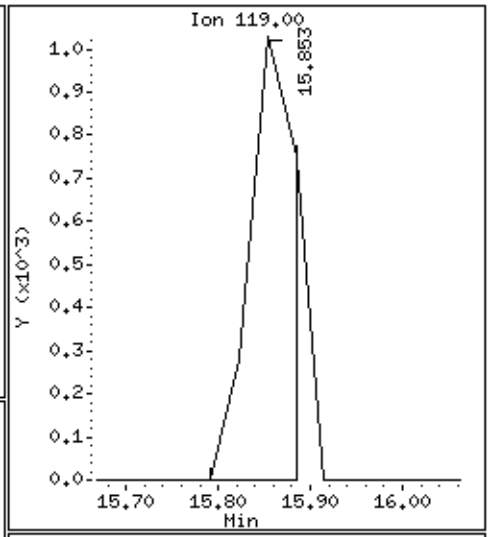
Column phase: RTX-624

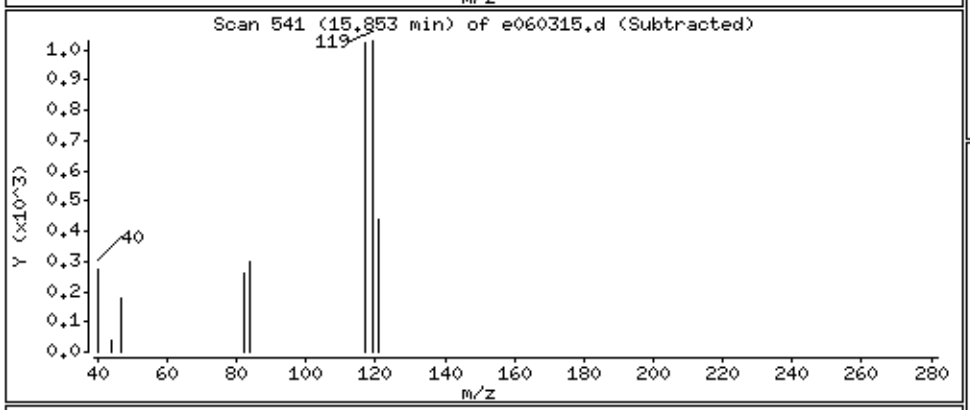
Column diameter: 0.32

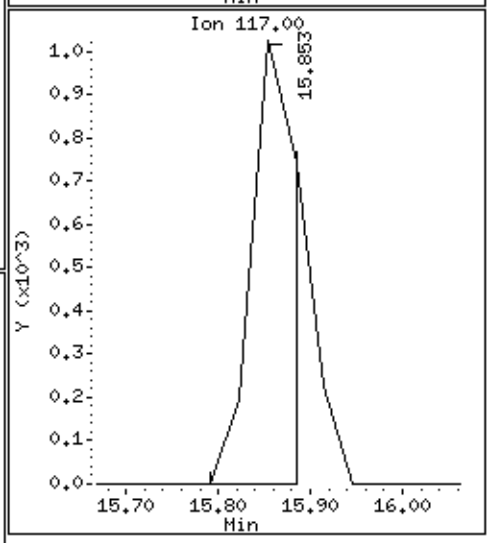
106 Carbon Tetrachloride

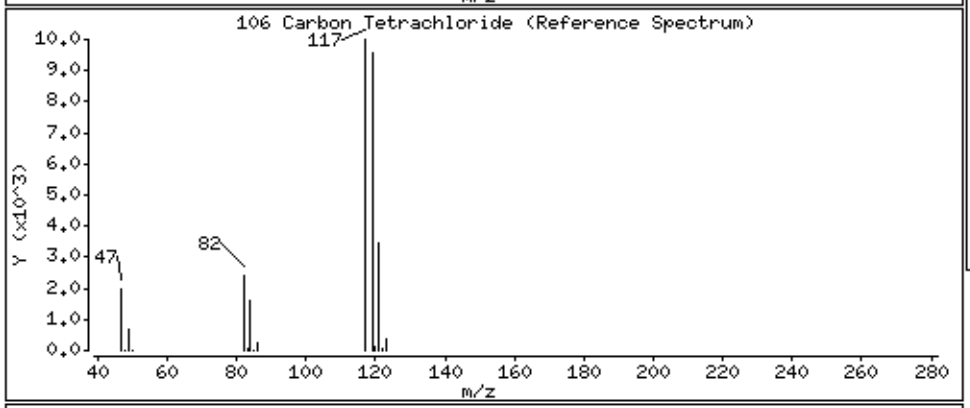
Concentration: 0.05757 PPBV

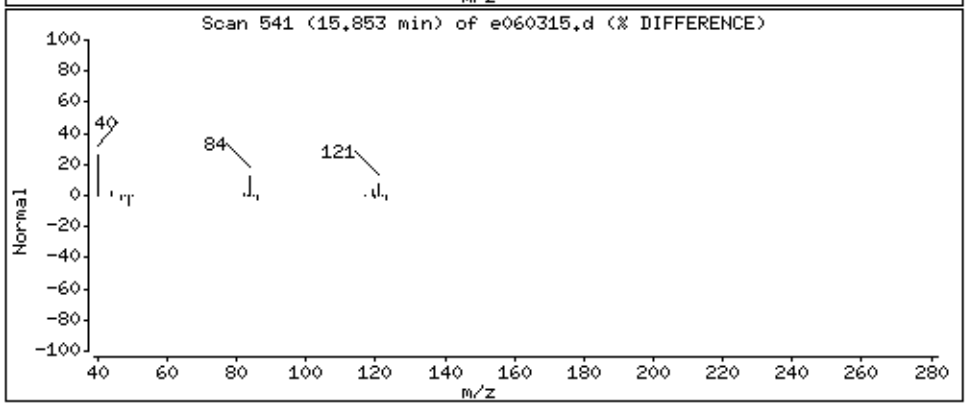












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

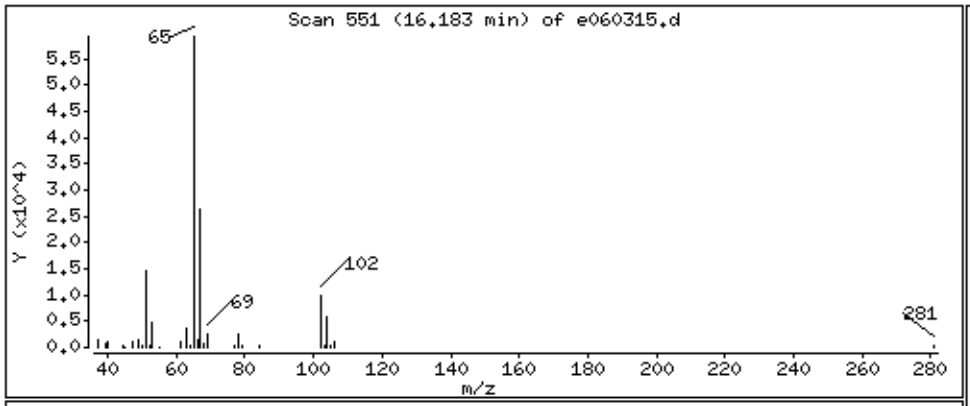
Operator: ea

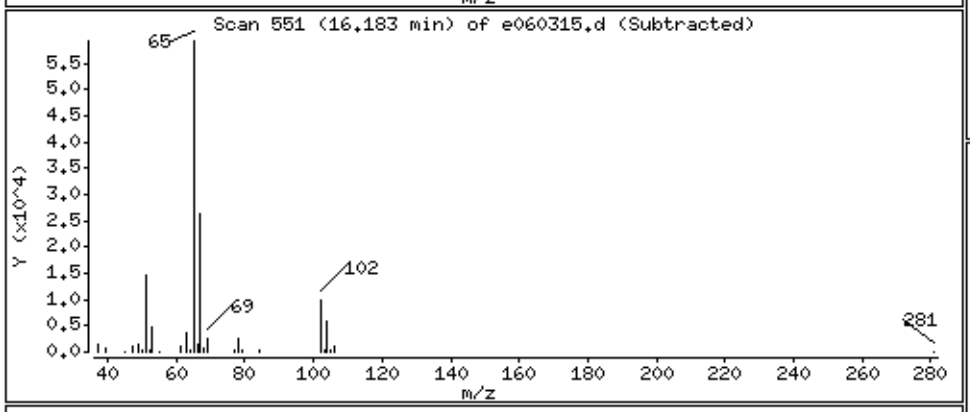
Column phase: RTX-624

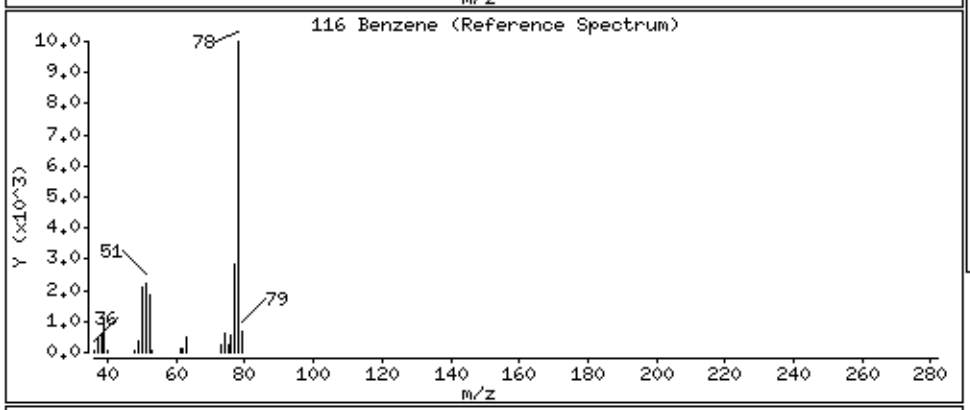
Column diameter: 0.32

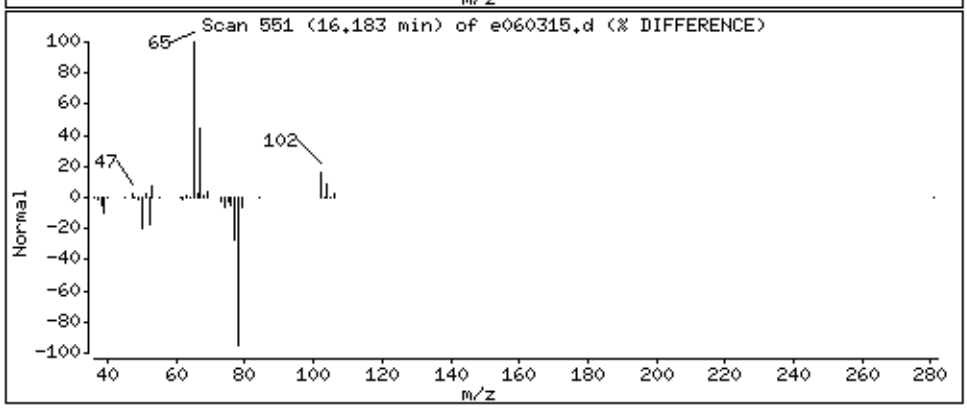
116 Benzene

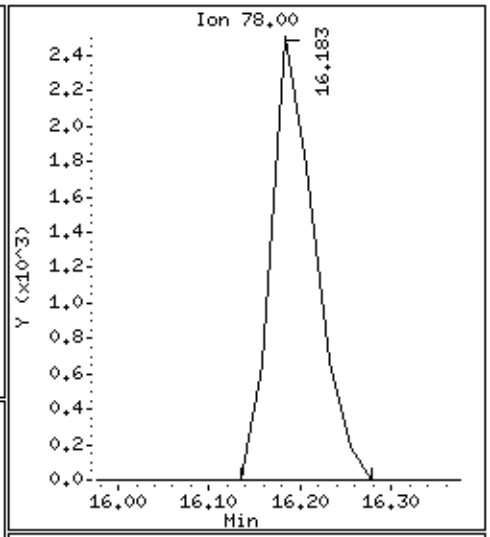
Concentration: 0.1148 PPBV

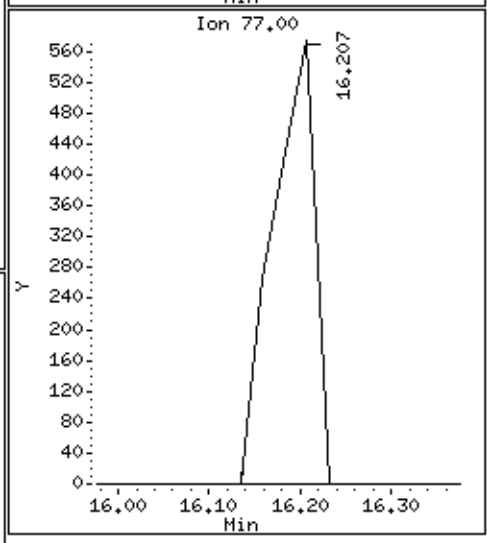












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

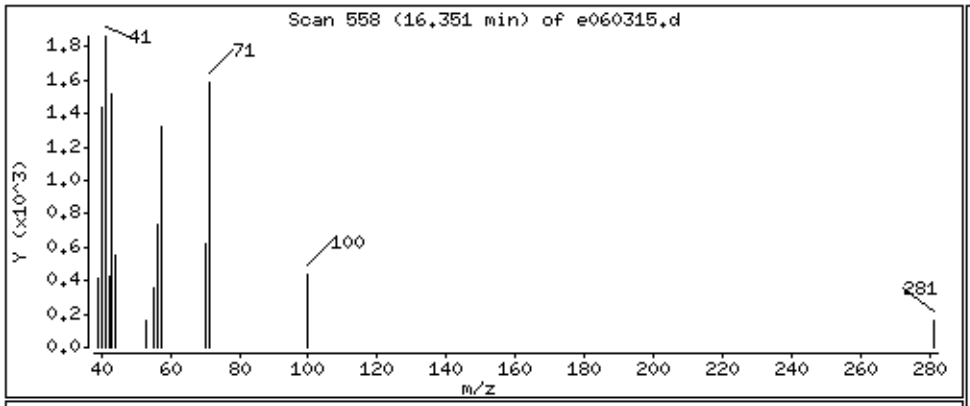
Operator: ea

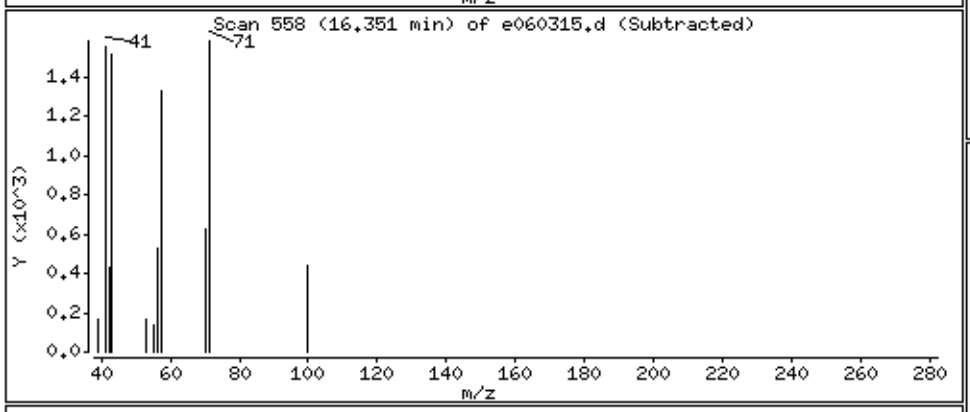
Column phase: RTX-624

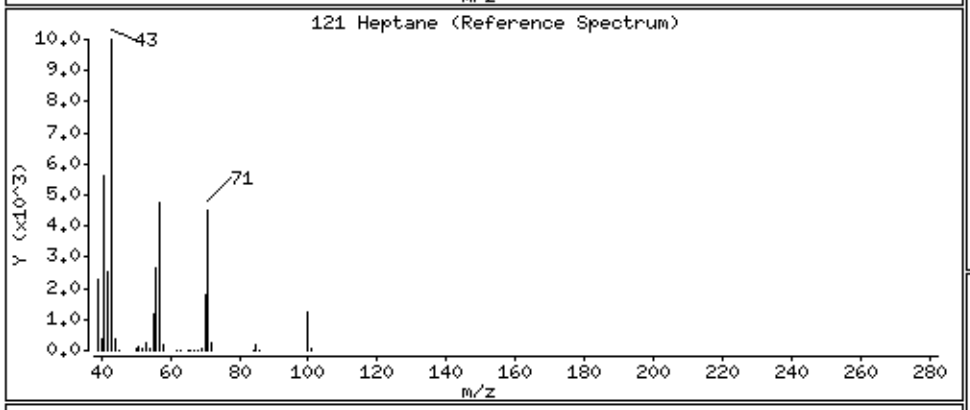
Column diameter: 0.32

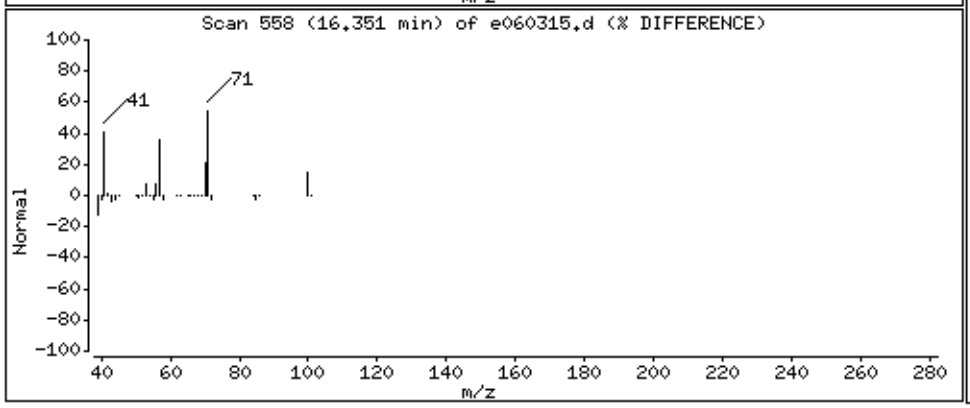
121 Heptane

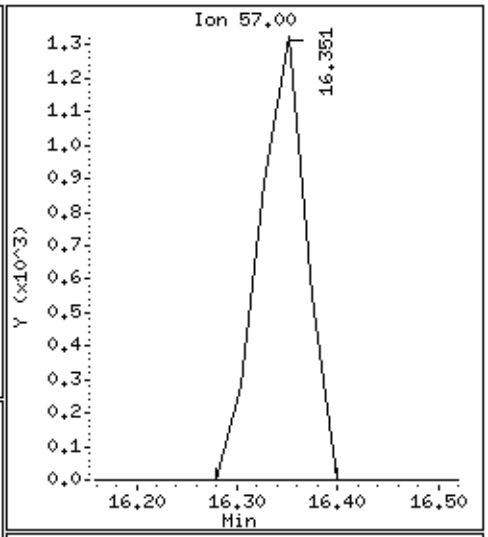
Concentration: 0.2552 PPBV

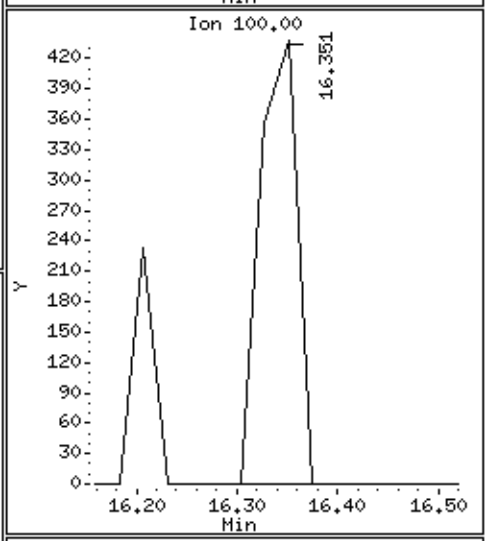


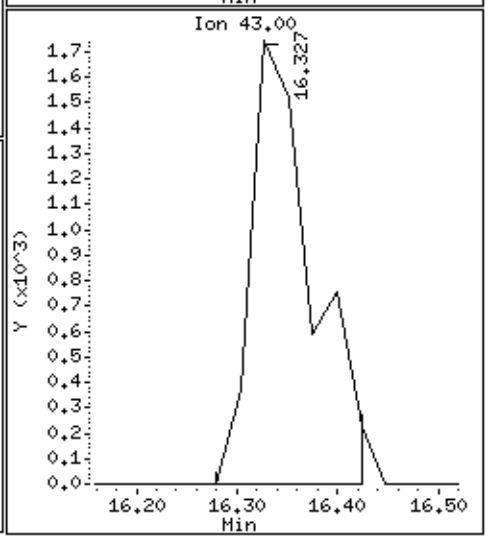












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

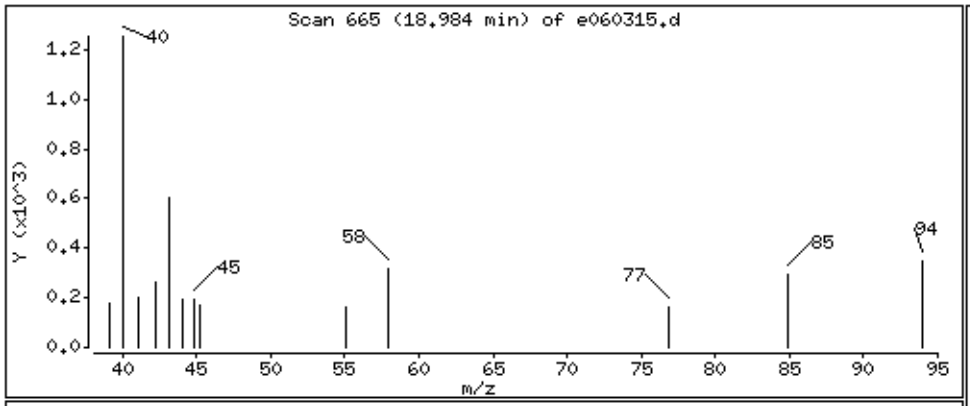
Operator: ea

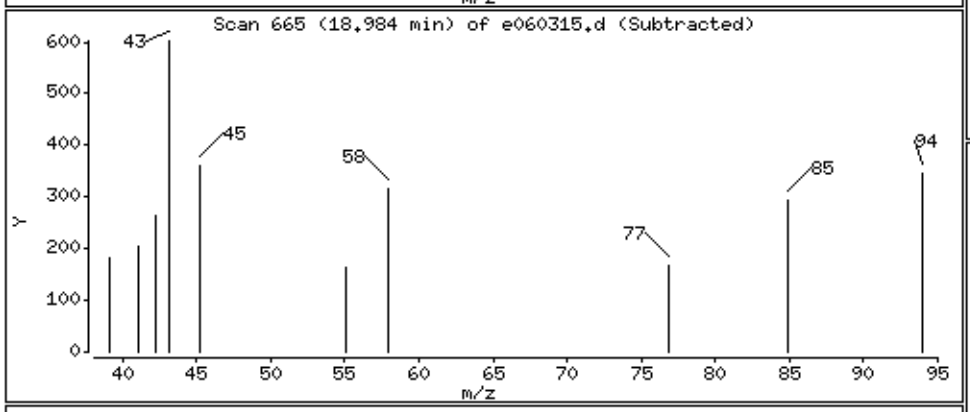
Column phase: RTX-624

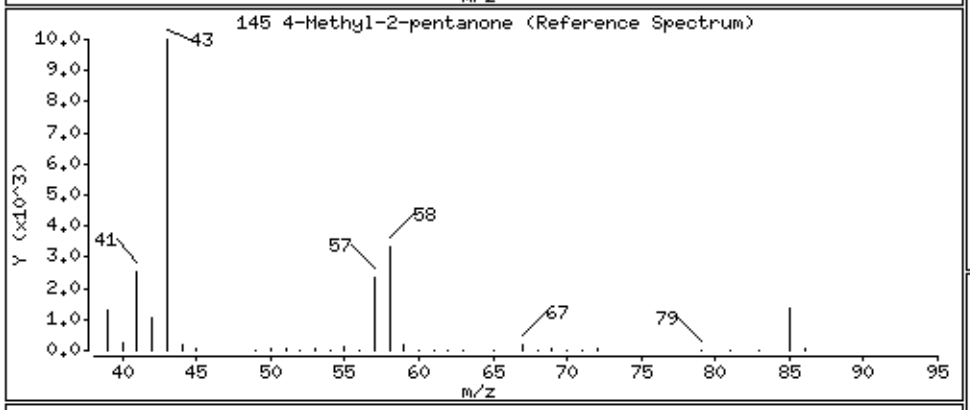
Column diameter: 0.32

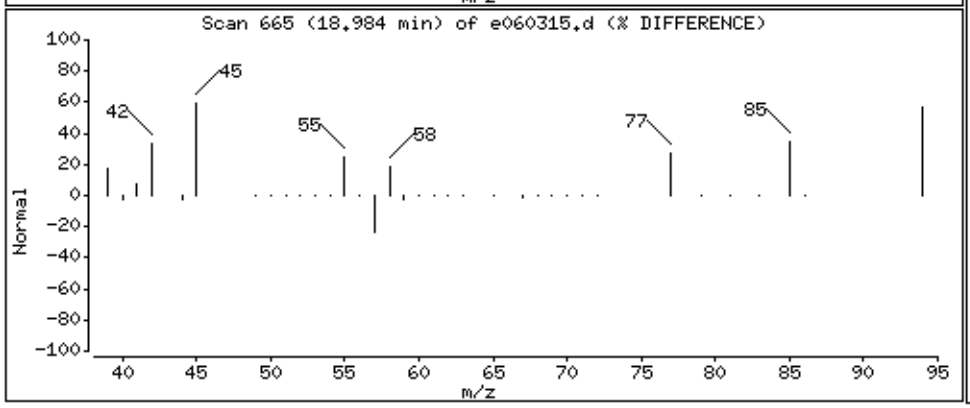
145 4-Methyl-2-pentanone

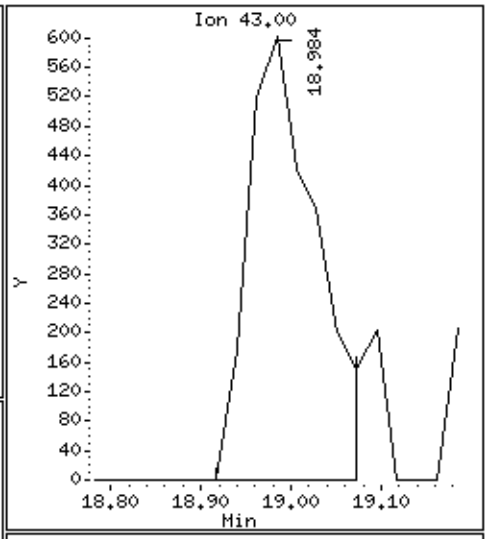
Concentration: 0.08721 PPBV

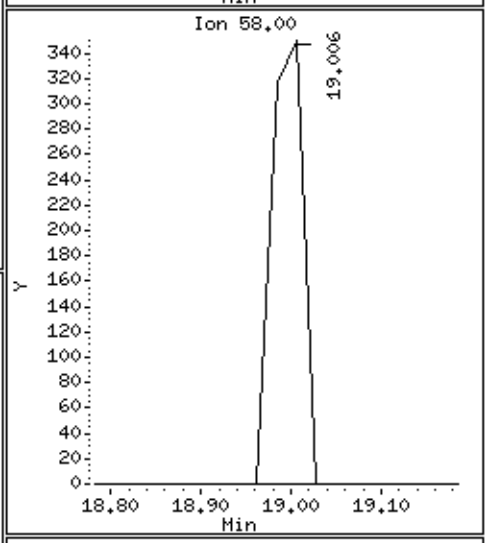


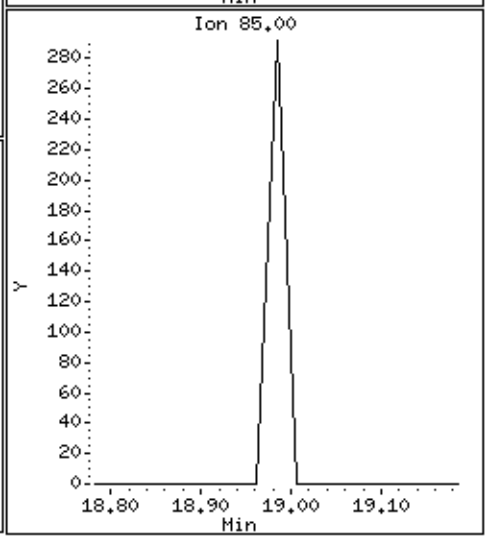












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

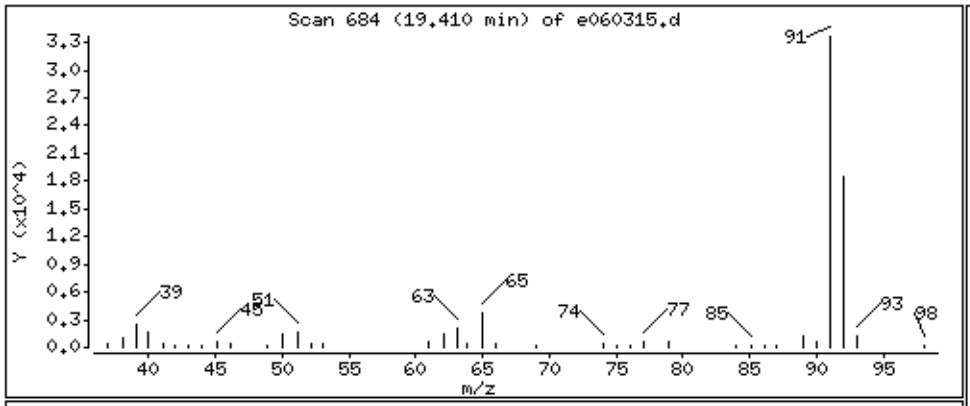
Operator: ea

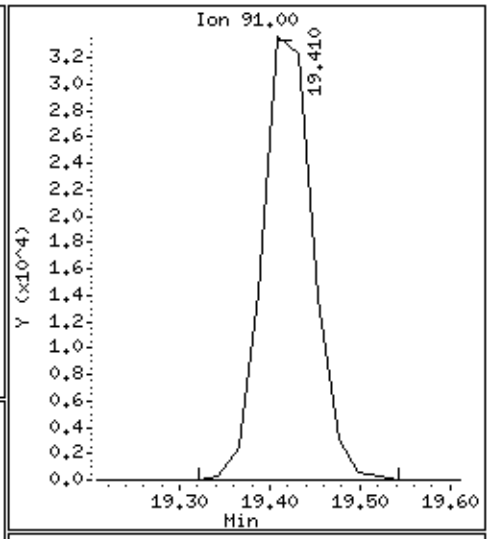
Column phase: RTX-624

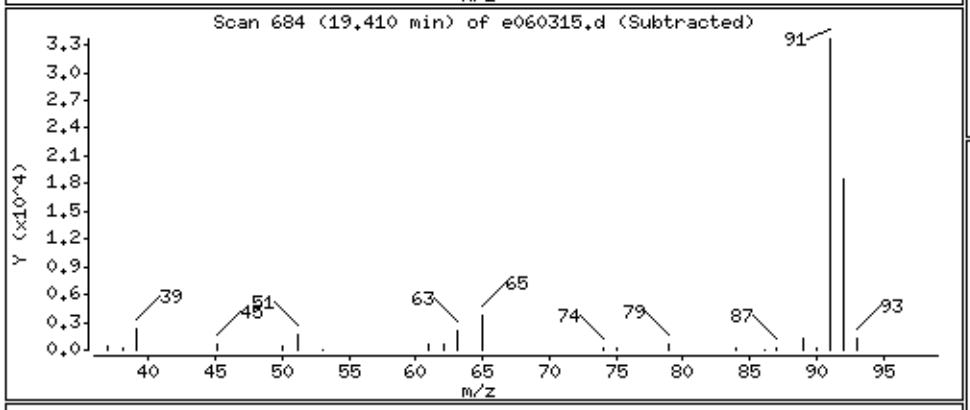
Column diameter: 0.32

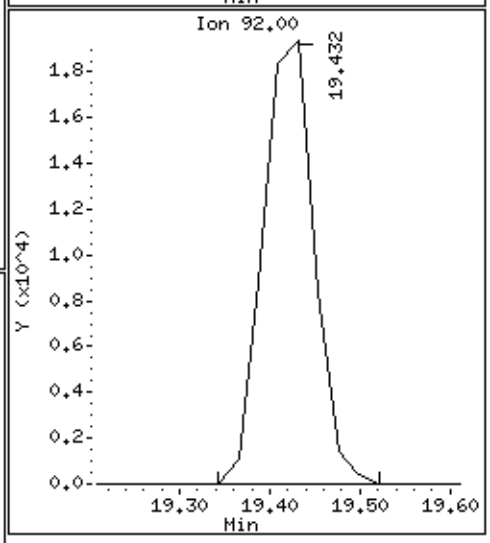
147 Toluene

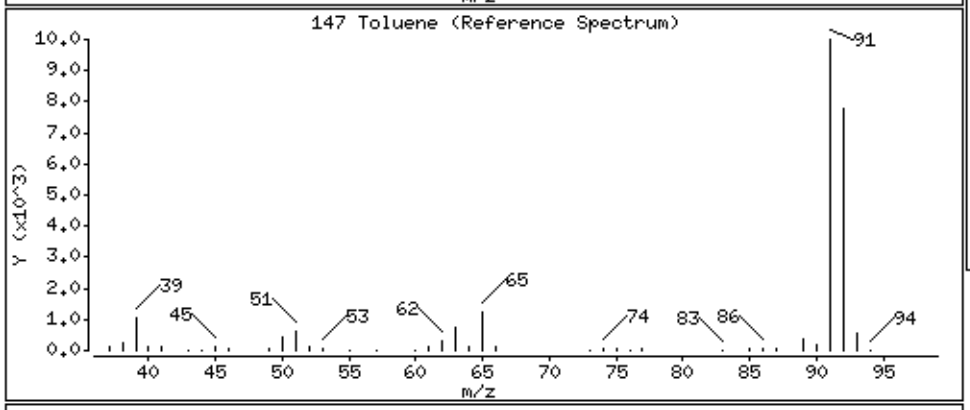
Concentration: 1.558 PPBV

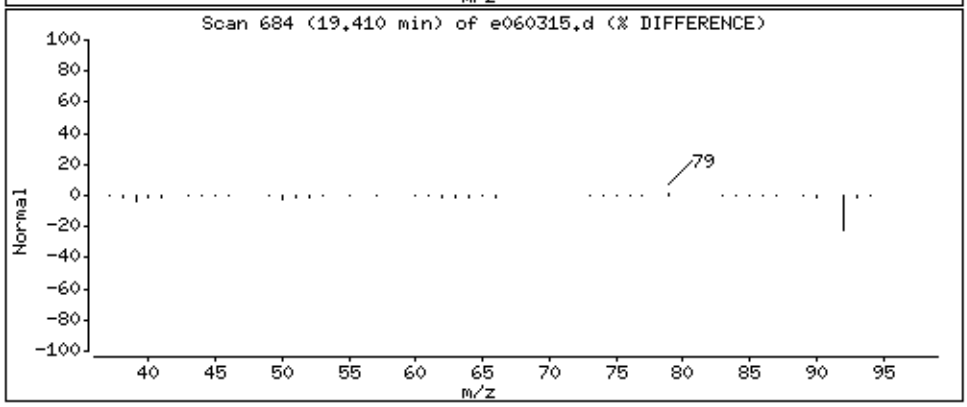












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

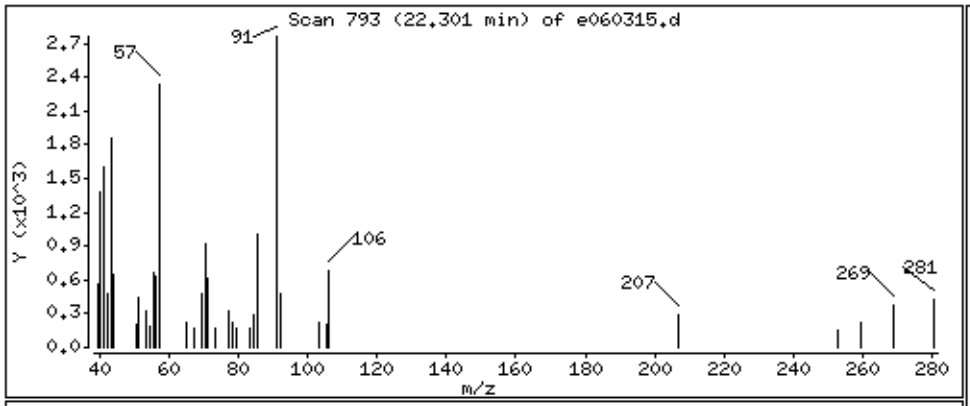
Operator: ea

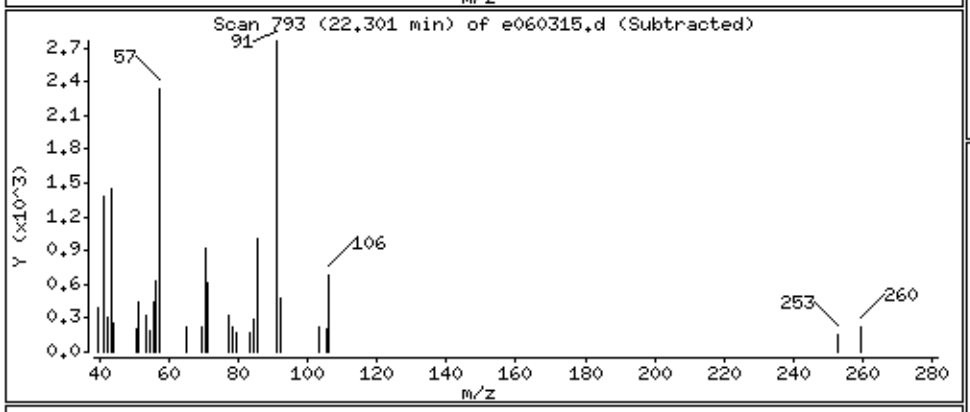
Column phase: RTX-624

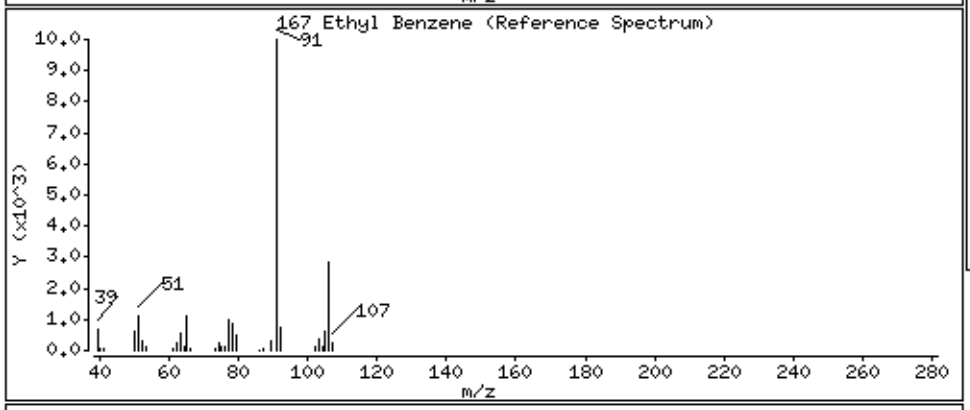
Column diameter: 0.32

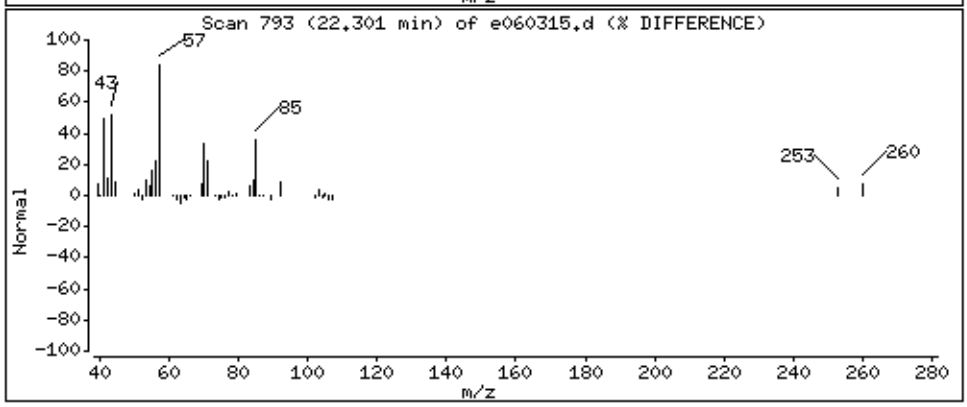
167 Ethyl Benzene

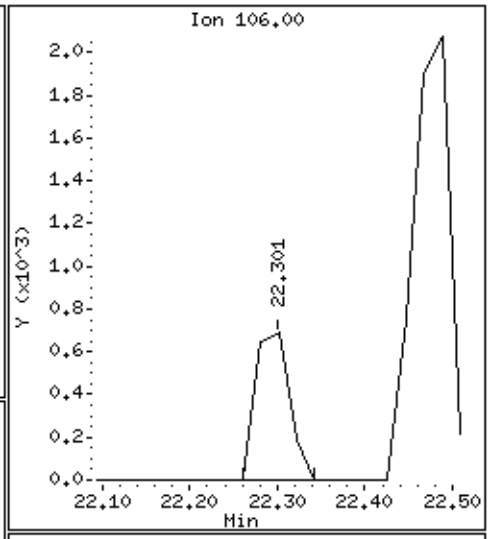
Concentration: 0.05132 PPBV

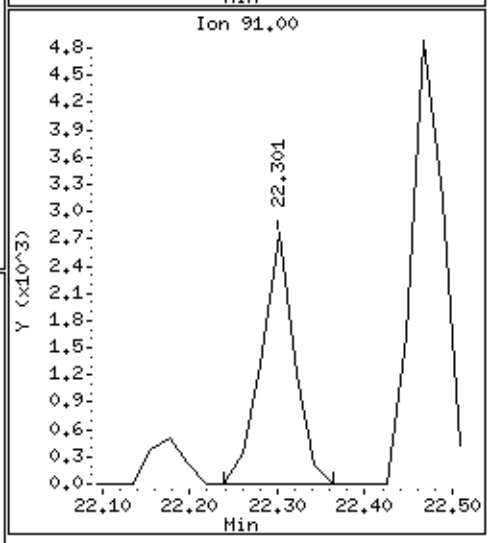












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

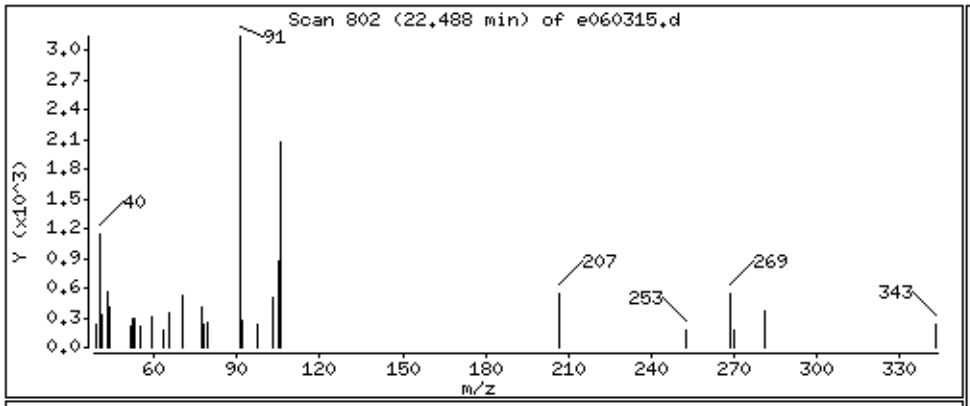
Operator: ea

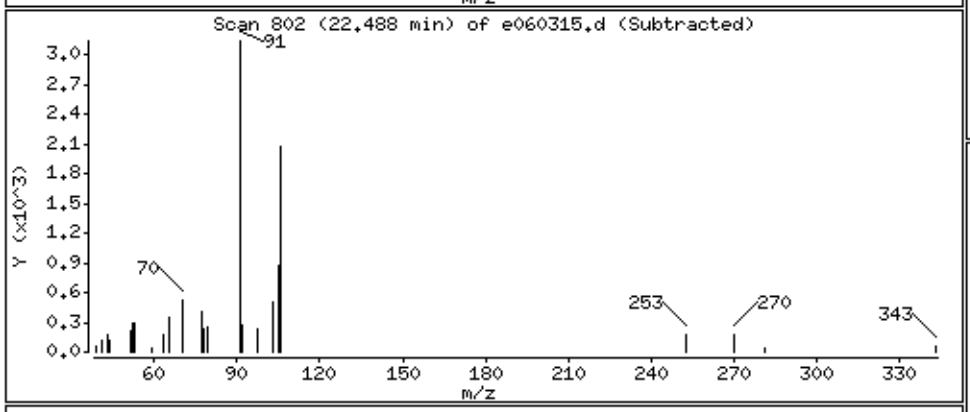
Column phase: RTX-624

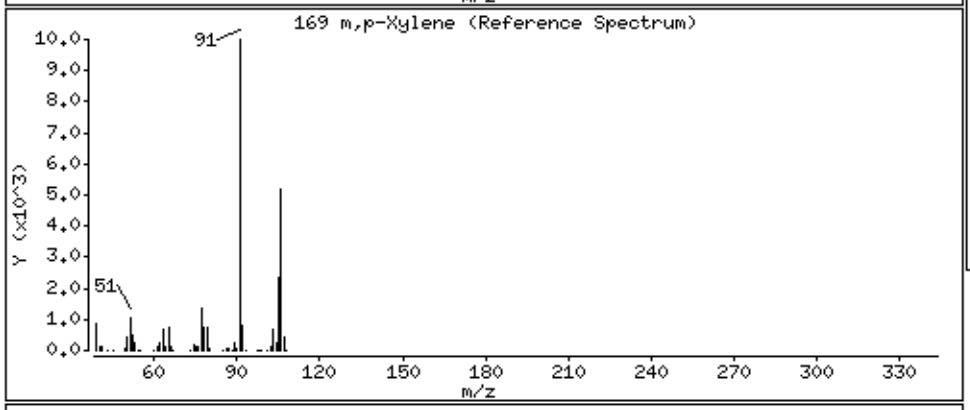
Column diameter: 0.32

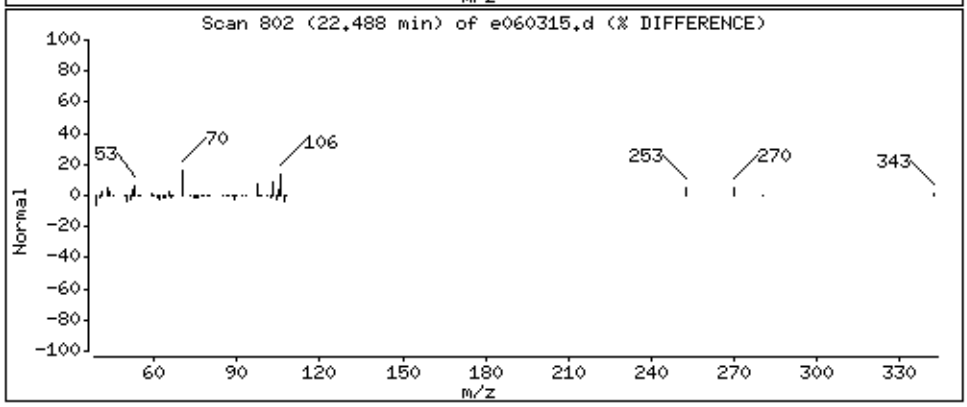
169 m,p-Xylene

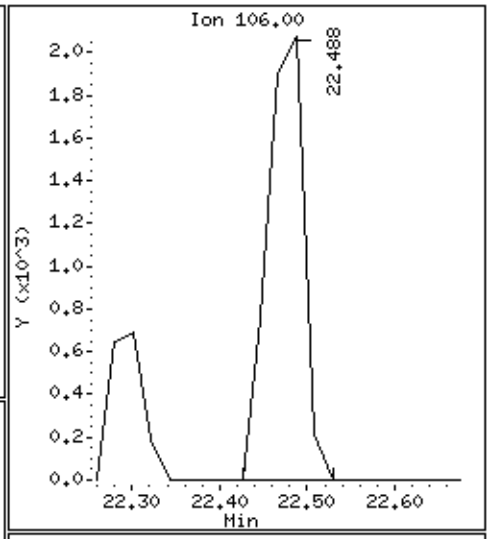
Concentration: 0.1433 PPBV

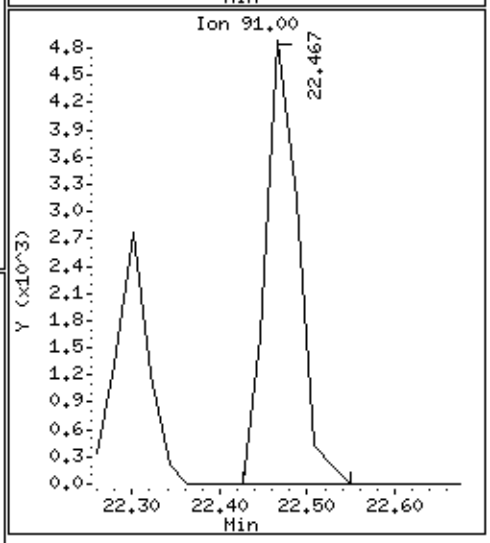












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

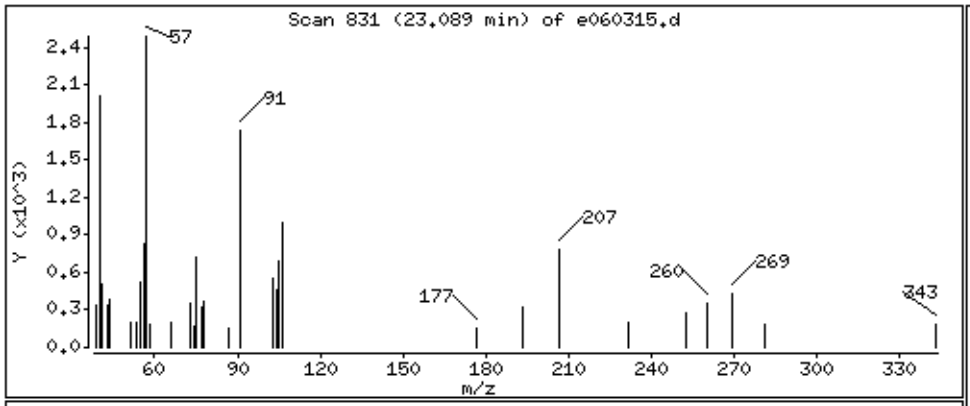
Operator: ea

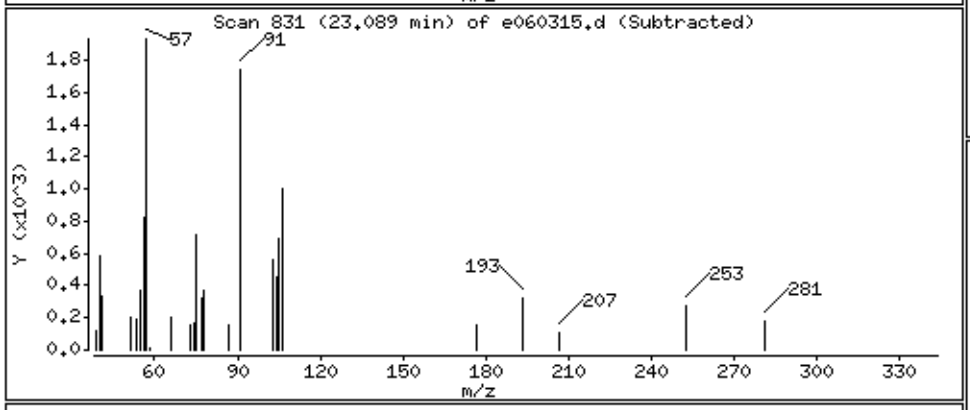
Column phase: RTX-624

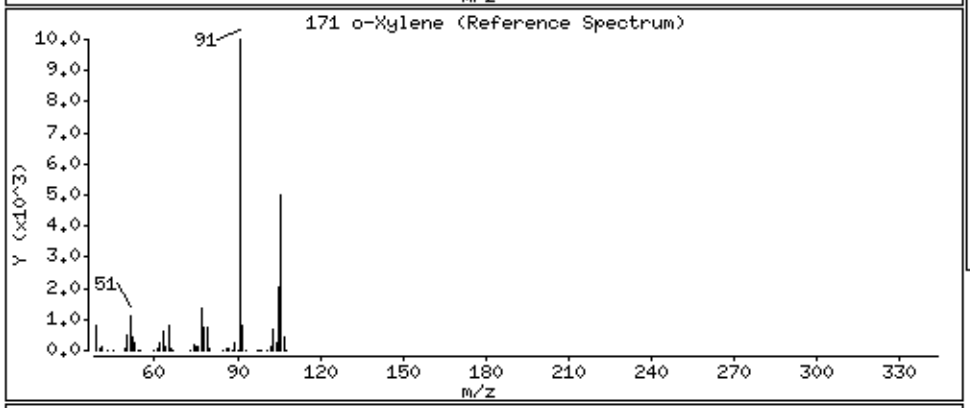
Column diameter: 0.32

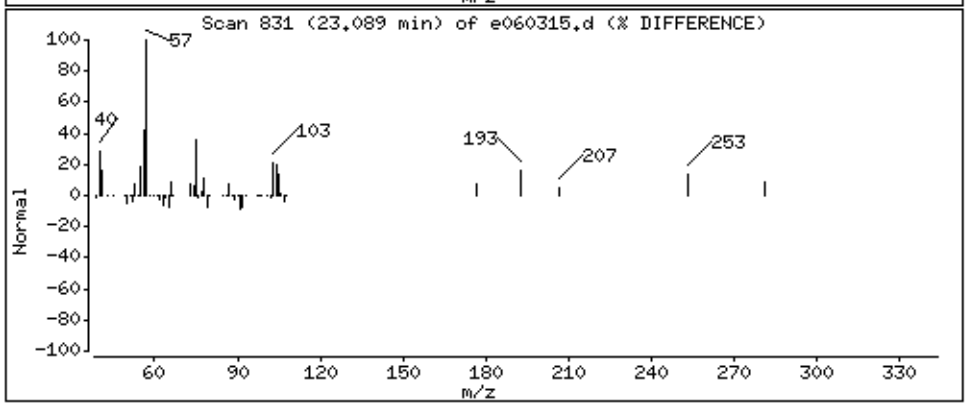
171 o-Xylene

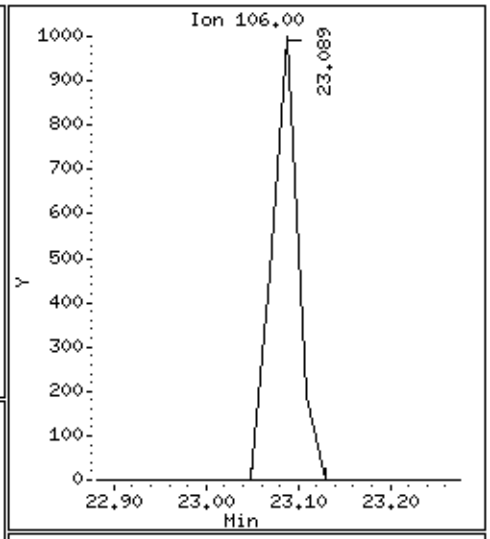
Concentration: 0.05232 PPBV

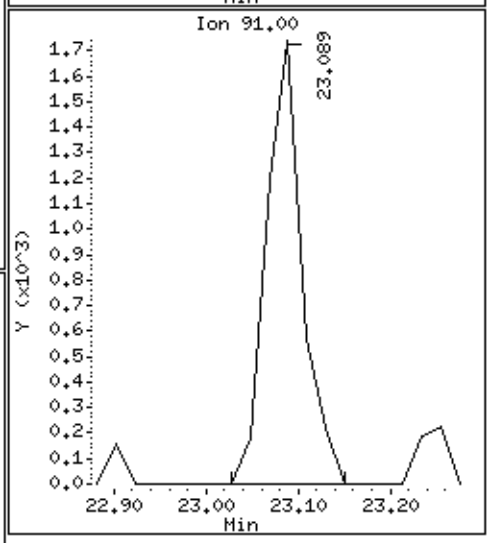












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

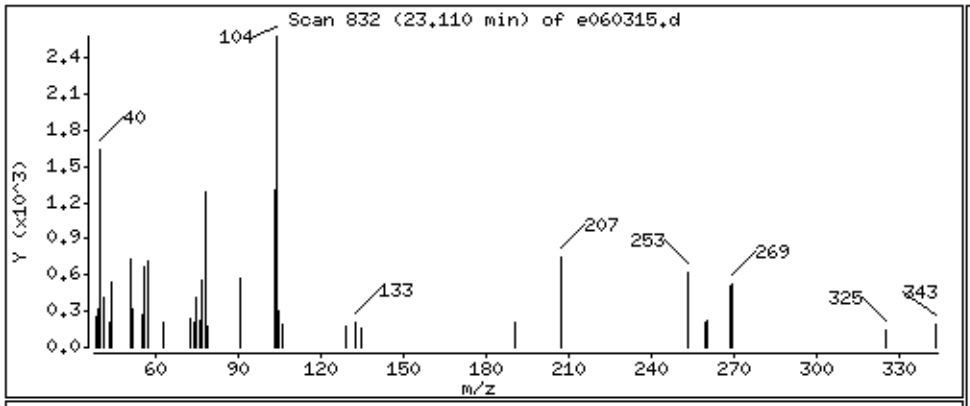
Operator: ea

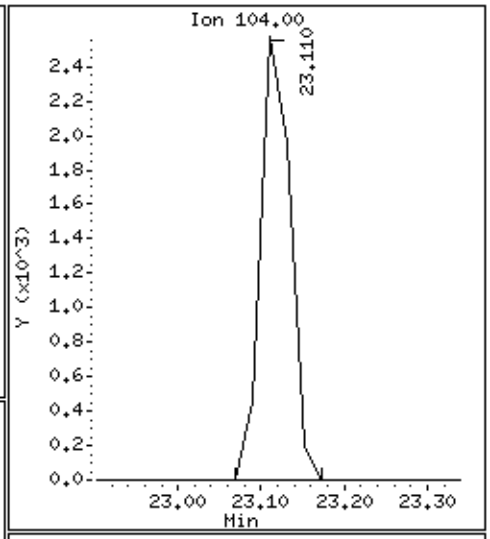
Column phase: RTX-624

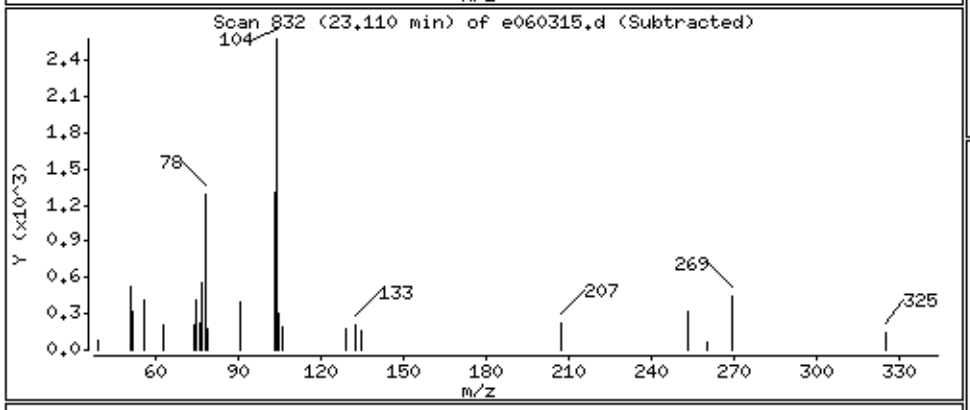
Column diameter: 0.32

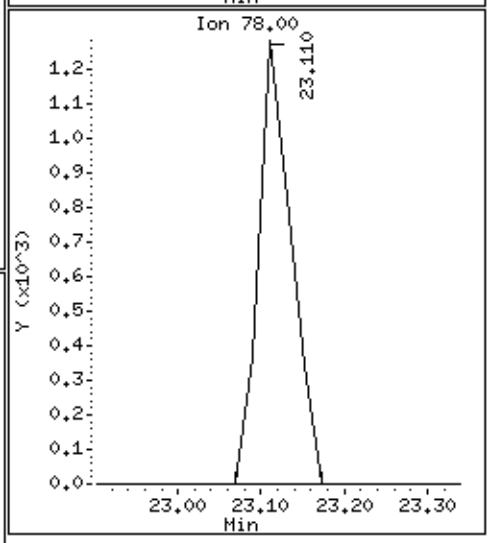
172 Styrene

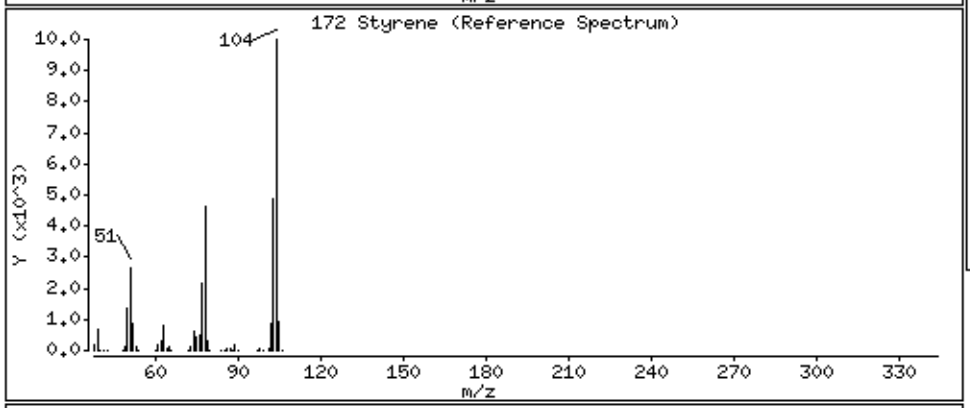
Concentration: 0.09656 PPBV

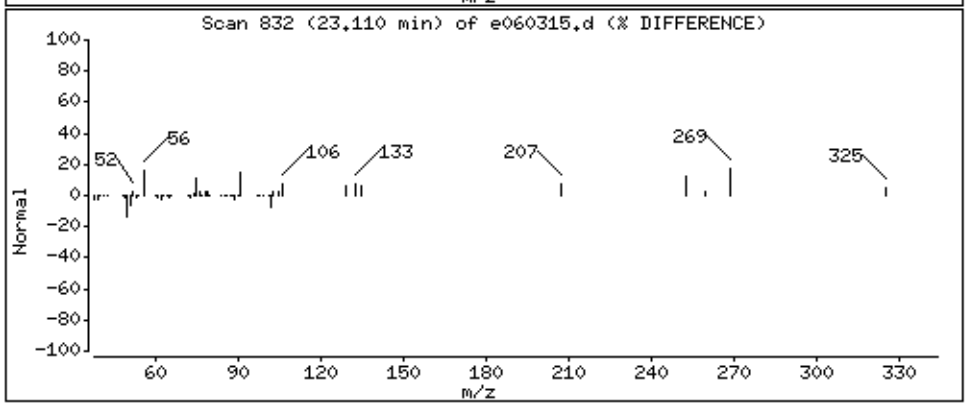












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

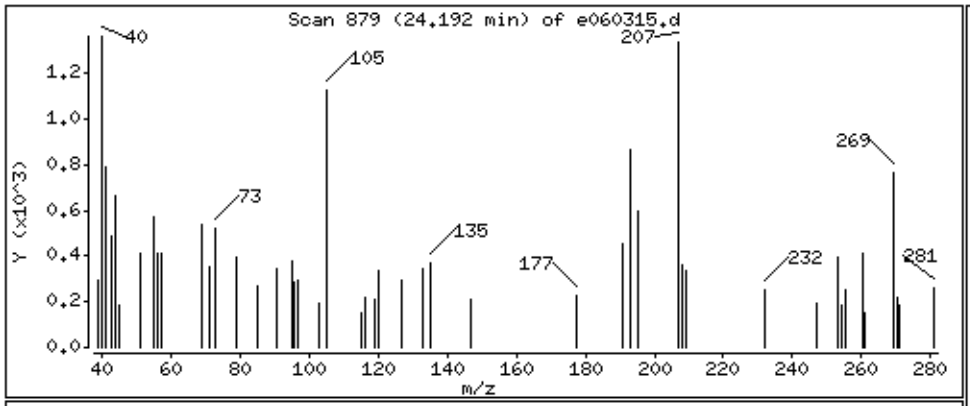
Operator: ea

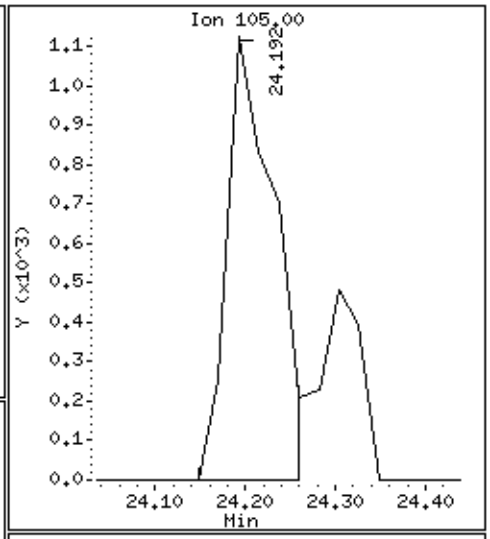
Column phase: RTX-624

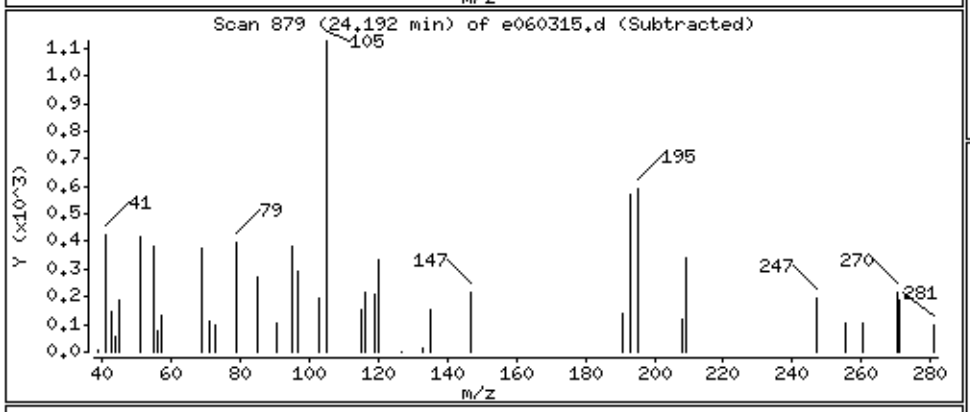
Column diameter: 0.32

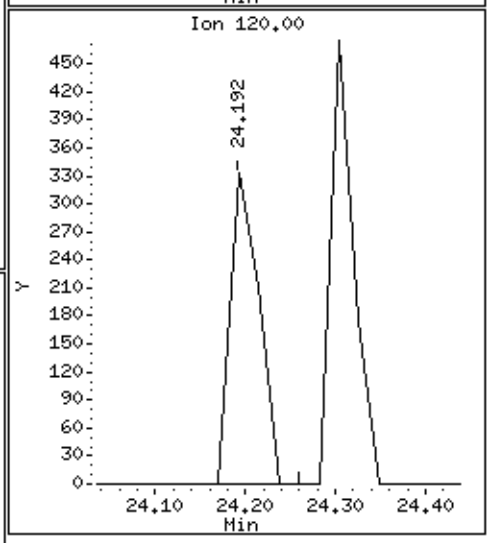
188 4-Ethyltoluene

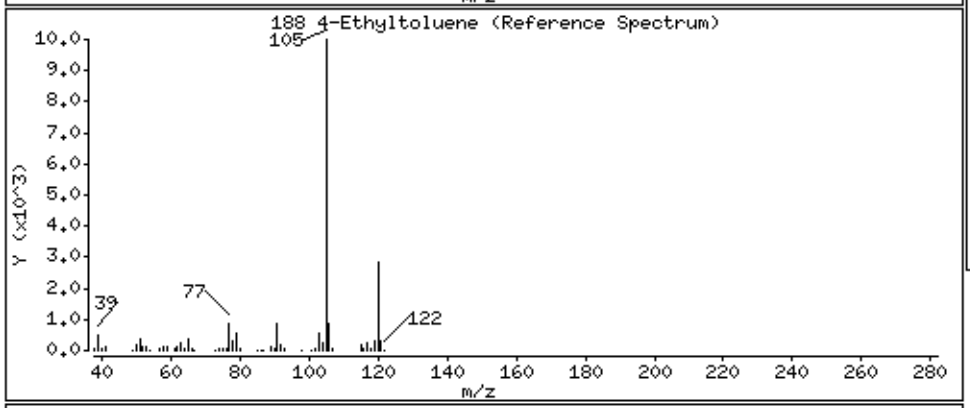
Concentration: 0.03520 PPBV

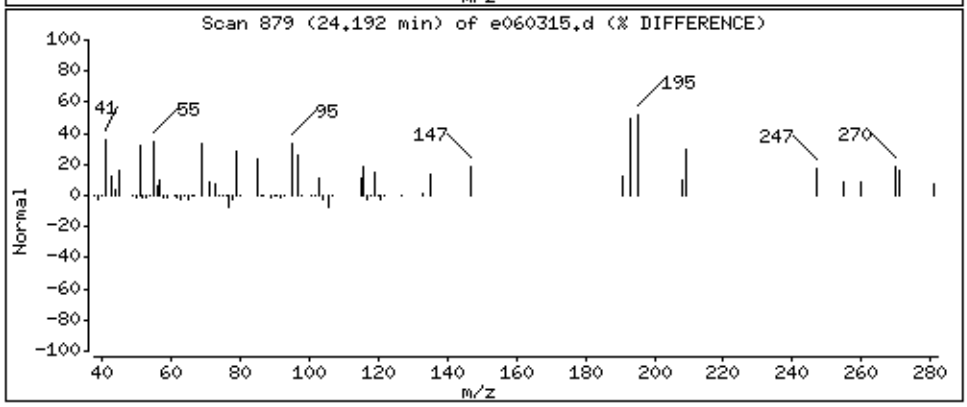












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

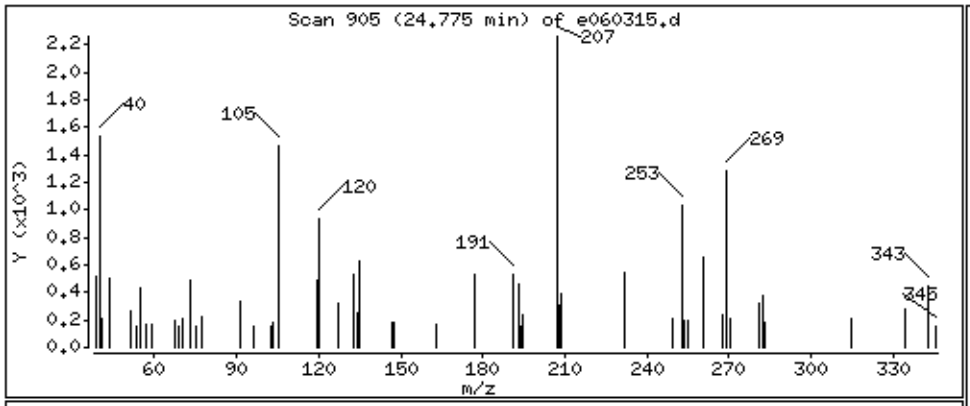
Operator: ea

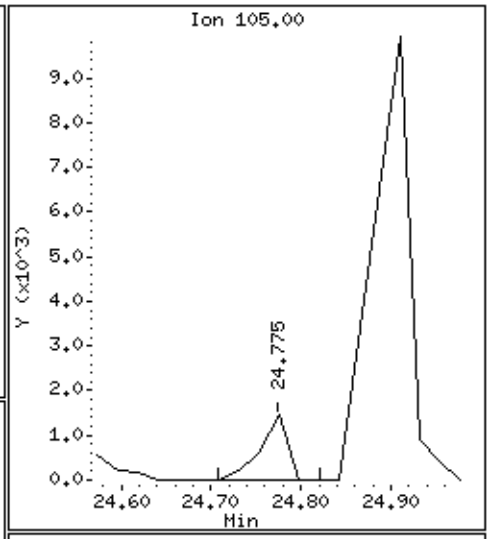
Column phase: RTX-624

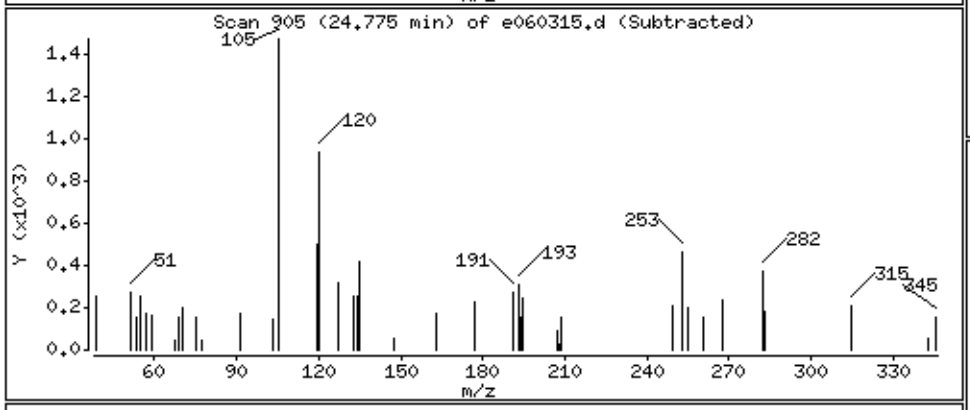
Column diameter: 0.32

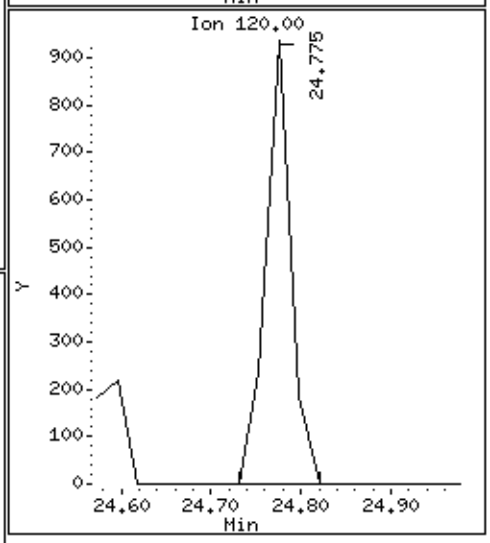
196 1,2,4-Trimethylbenzene

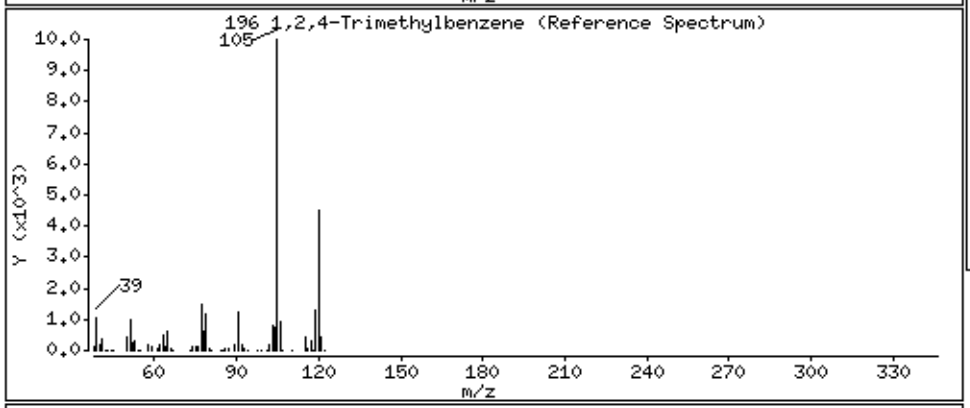
Concentration: 0.03837 PPBV

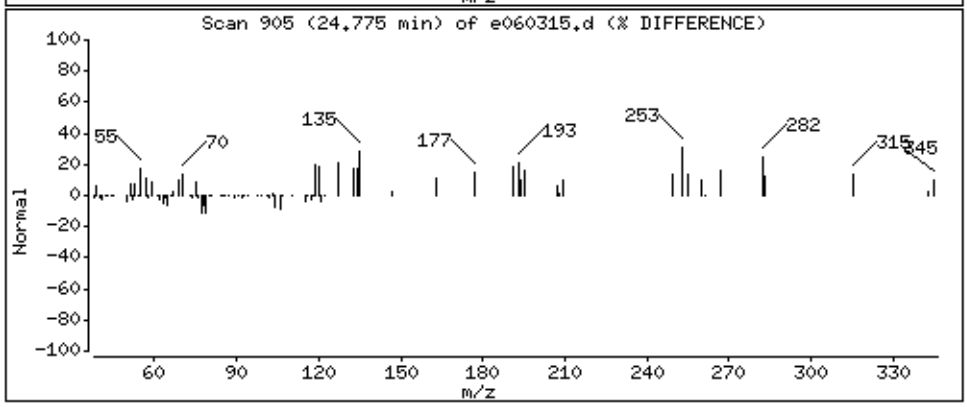












Data File: /chem/msde.i/03Jun2016.b/e060315.d

Date : 03-JUN-2016 18:34

Client ID:

Instrument: msde.i

Sample Info: 250mL#33926

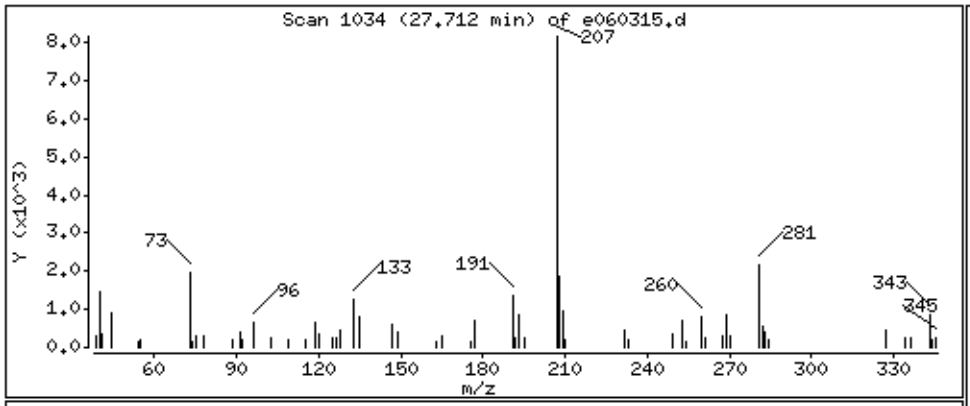
Operator: ea

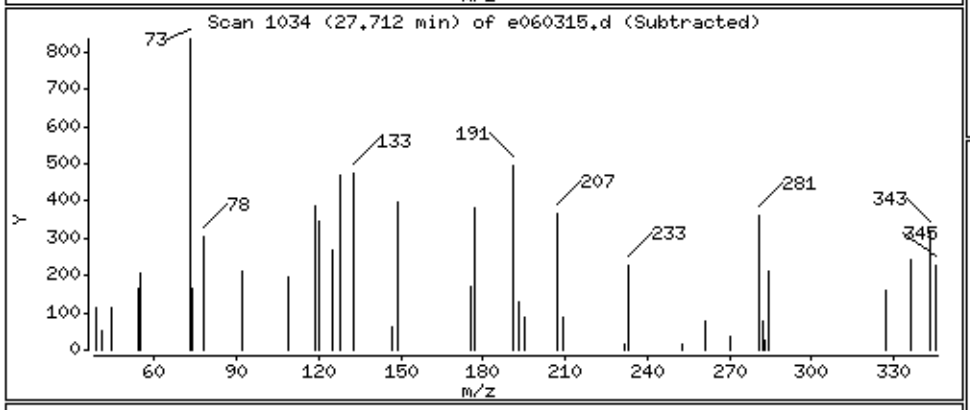
Column phase: RTX-624

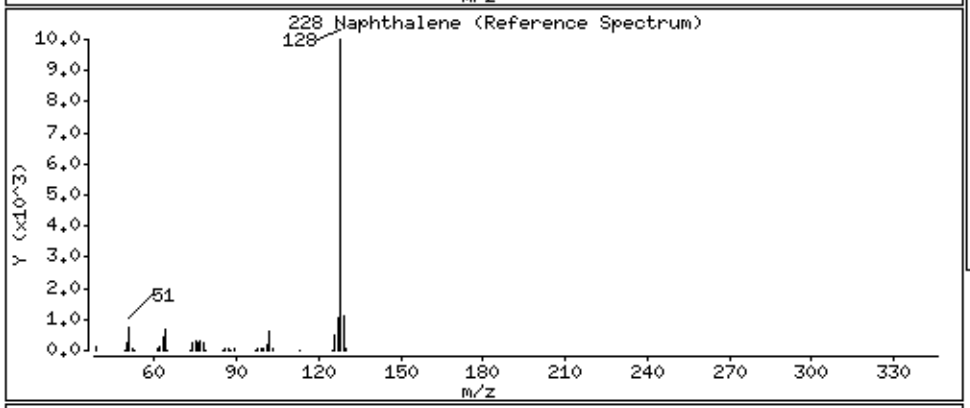
Column diameter: 0.32

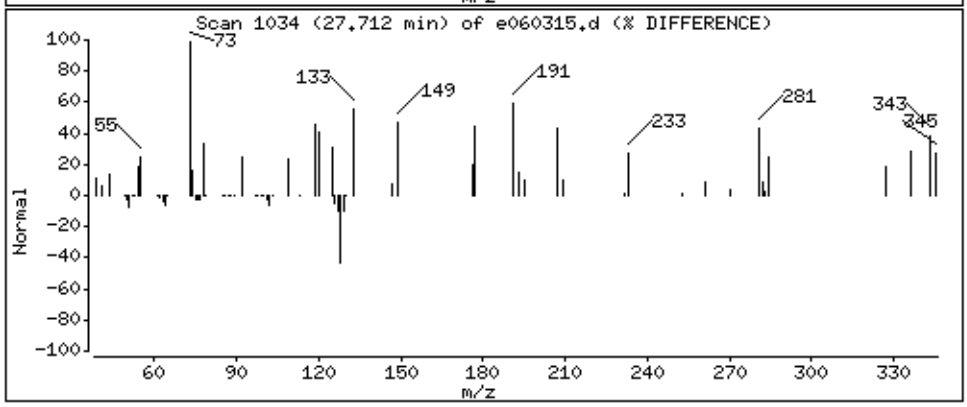
228 Naphthalene

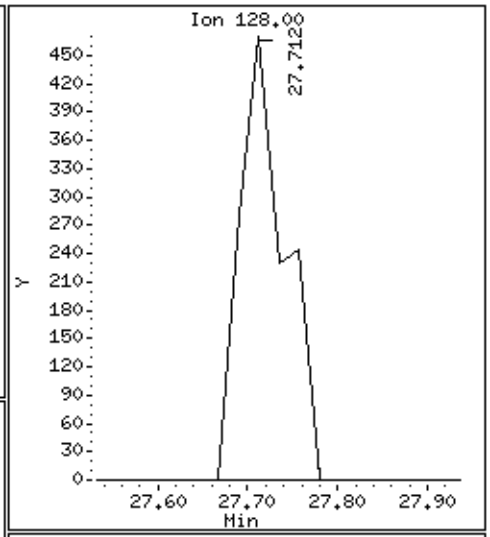
Concentration: 0.03816 PPBV

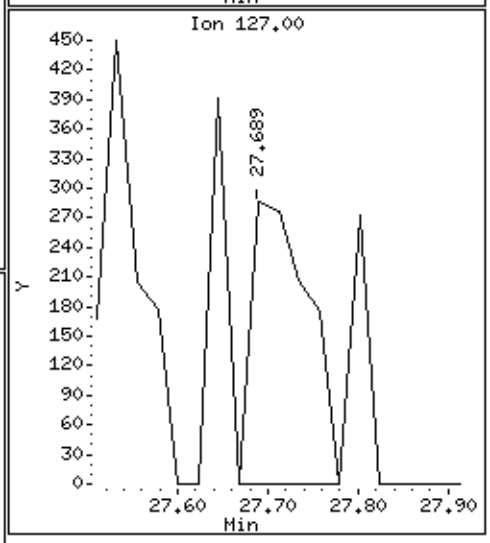












eurofins | Air Toxics

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-4 (052816)

Lab ID#: 1606028A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.38	0.87	1.9
Chloromethane	0.88	0.67 J	1.8	1.4 J
Freon 11	0.18	0.27	0.99	1.5
Ethanol	0.88	26	1.6	48
Freon 113	0.18	0.055 J	1.3	0.42 J
Acetone	0.88	8.1	2.1	19
2-Propanol	0.88	6.2	2.2	15
Carbon Disulfide	0.88	0.53 J	2.7	1.7 J
Methylene Chloride	0.35	0.12 J	1.2	0.42 J
2-Butanone (Methyl Ethyl Ketone)	0.88	1.0	2.6	3.0
Benzene	0.18	0.084 J	0.56	0.27 J
1,2-Dichloroethane	0.18	0.076 J	0.71	0.31 J
4-Methyl-2-pentanone	0.18	0.093 J	0.72	0.38 J
Toluene	0.18	0.25	0.66	0.94
2-Hexanone	0.88	0.16 J	3.6	0.66 J
m,p-Xylene	0.18	0.13 J	0.76	0.57 J
o-Xylene	0.18	0.045 J	0.76	0.20 J
Styrene	0.18	0.098 J	0.75	0.42 J
1,2,4-Trimethylbenzene	0.18	0.041 J	0.86	0.20 J

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Client Sample ID: B30IA-4 (052816)

Lab ID#: 1606028A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060316**	**Date of Collection:**	**5/29/16 6:04:00 PM**
Dil. Factor:	**1.76**	**Date of Analysis:**	**6/3/16 07:22 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.38	0.87	1.9
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.88	0.67 J	1.8	1.4 J
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
1,3-Butadiene	0.18	Not Detected	0.39	Not Detected
Bromomethane	0.88	Not Detected	3.4	Not Detected
Chloroethane	0.88	Not Detected	2.3	Not Detected
Freon 11	0.18	0.27	0.99	1.5
Ethanol	0.88	26	1.6	48
Freon 113	0.18	0.055 J	1.3	0.42 J
1,1-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Acetone	0.88	8.1	2.1	19
2-Propanol	0.88	6.2	2.2	15
Carbon Disulfide	0.88	0.53 J	2.7	1.7 J
3-Chloropropene	0.88	Not Detected	2.8	Not Detected
Methylene Chloride	0.35	0.12 J	1.2	0.42 J
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Hexane	0.18	Not Detected	0.62	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	1.0	2.6	3.0
cis-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.86	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.96	Not Detected
Cyclohexane	0.18	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.88	Not Detected	4.1	Not Detected
Benzene	0.18	0.084 J	0.56	0.27 J
1,2-Dichloroethane	0.18	0.076 J	0.71	0.31 J
Heptane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
1,4-Dioxane	0.18	Not Detected	0.63	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.80	Not Detected
4-Methyl-2-pentanone	0.18	0.093 J	0.72	0.38 J
Toluene	0.18	0.25	0.66	0.94
trans-1,3-Dichloropropene	0.18	Not Detected	0.80	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.96	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	0.16 J	3.6	0.66 J

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Client Sample ID: B30IA-4 (052816)

Lab ID#: 1606028A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060316**	**Date of Collection:**	**5/29/16 6:04:00 PM**
Dil. Factor:	**1.76**	**Date of Analysis:**	**6/3/16 07:22 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.81	Not Detected
Ethyl Benzene	0.18	Not Detected	0.76	Not Detected
m,p-Xylene	0.18	0.13 J	0.76	0.57 J
o-Xylene	0.18	0.045 J	0.76	0.20 J
Styrene	0.18	0.098 J	0.75	0.42 J
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.86	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.86	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.18	0.041 J	0.86	0.20 J
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.91	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.4	Not Detected
Naphthalene	0.88	Not Detected	4.6	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/03Jun2016.b/e060316.d
Lab Smp Id: 1606028A-06A
Inj Date : 03-JUN-2016 19:22
Operator : ea Inst ID: msde.i
Smp Info : 250mL#O0337
Misc Info : 7.1"Hg -> 5.1psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/03Jun2016.b/e16l0317f.m
Meth Date : 03-Jun-2016 10:38 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1
Dil Factor: 1.76000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12						CAS #: 75-71-8		
5.220	5.196	(0.339)	85	22396	0.21910	0.3856	80.00- 120.00	100.00
5.220	5.220	(0.339)	87	7760			2.00- 62.00	34.65
17 Chloromethane						CAS #: 74-87-3		
6.980	6.956	(0.454)	50	7430	0.38310	0.6742	80.00- 120.00	100.00(a)
6.980	6.932	(0.454)	52	3149			5.50- 65.50	42.39
35 Freon 11						CAS #: 75-69-4		
10.766	10.747	(0.700)	101	16828	0.15289	0.2691	80.00- 120.00	100.00
10.766	10.747	(0.700)	103	10851			37.17- 97.17	64.49
42 Ethanol						CAS #: 64-17-5		
11.680	11.681	(0.759)	45	115832	14.5234	25.561	80.00- 120.00	100.00
11.680	11.681	(0.759)	46	43963			6.61- 66.61	37.95
11.680	11.681	(0.759)	43	28019			0.00- 54.66	24.19
49 Freon 113						CAS #: 76-13-1		
12.061	12.081	(0.784)	151	2559	0.03102	0.05460	80.00- 120.00	100.00(a)
12.061	12.081	(0.784)	153	1832			33.64- 93.64	71.59

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   49 Freon 113 (continued)
 12.080  12.081 (0.785)   101      3270                    80.40- 140.40   127.78
-------------------------------------------------------------------------------
   52 Acetone                                      CAS #: 67-64-1
 12.366  12.366 (0.803)    58     62252 4.62844    8.146  80.00- 120.00   100.00
 12.366  12.366 (0.803)    43    198981                   321.47- 381.47   319.64
-------------------------------------------------------------------------------
   56 Carbon Disulfide                             CAS #: 75-15-0
 12.442  12.443 (0.808)    76     31157 0.30394   0.5349  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                   CAS #: 67-63-0
 12.728  12.709 (0.827)    45    144584 3.51407    6.185  80.00- 120.00   100.00
 12.728  12.709 (0.827)    43     40020                     0.00-  54.09    27.68
 12.728  12.709 (0.827)    59      5709                     0.00-  34.43     3.95
-------------------------------------------------------------------------------
   66 Methylene Chloride                           CAS #: 75-09-2
 13.149  13.149 (0.854)    84      2236 0.06938   0.1221  80.00- 120.00   100.00(a)
 13.176  13.149 (0.856)    49      1192                    63.99- 123.99    53.31
  0.000  13.149 (0.000)    51         0                     0.29-  60.29     0.00
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72      9508 0.58688    1.033  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43     31298                   262.26- 322.26   329.16
 15.047  15.047 (0.978)    57      2612                     0.00-  55.71    27.48
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    121531 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128     92210                   52.25- 112.25    75.87
 15.391  15.391 (1.000)    49     90806                   89.81- 149.81    74.72
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 16.183  16.183 (0.967)    78      5088 0.04778  0.08410  80.00- 120.00   100.00(a)
 16.183  16.183 (0.967)    77      1594                     0.00-  53.97    31.33
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    173639 4.97690    4.977  80.00- 120.00   100.00
 16.183  16.183 (1.051)    67     85587                   21.16-  81.16    49.29
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 16.303  16.304 (0.974)    62      2410 0.04342  0.07642  80.00- 120.00   100.00(a)
 16.231  16.304 (0.970)    64      1753                     1.03-  61.03    72.73
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                         CAS #: 540-36-3
 16.737  16.737 (1.000)   114    444362 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     66723                     0.00-  45.20    15.02
-------------------------------------------------------------------------------
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 19.006  18.984 (1.136)    43      2916 0.05307  0.09340  80.00- 120.00   100.00(a)
 18.984  18.984 (1.134)    58       841                   15.64-  75.64    28.86
  0.000  18.984 (0.000)    85         0                    0.00-  56.71     0.00
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 19.275  19.275 (1.152)    98    429967 4.92681    4.927  80.00- 120.00   100.00
 19.275  19.275 (1.152)    70     47742                    0.00-  40.11    11.10
 19.275  19.275 (1.152)   100    281145                   37.58-  97.58    65.39
-------------------------------------------------------------------------------
  147 Toluene                                       CAS #: 108-88-3
 19.410  19.410 (1.160)    91     17957 0.14158   0.2492  80.00- 120.00   100.00
 19.432  19.410 (1.161)    92     11249                   28.92-  88.92    62.64
-------------------------------------------------------------------------------
  158 2-Hexanone                                    CAS #: 591-78-6
 20.795  20.795 (0.938)    58      2994 0.09183   0.1616  80.00- 120.00   100.00(a)
 20.795  20.795 (0.938)    43      5013                  140.44- 200.44   167.42
  0.000  20.795 (0.000)   100         0                    0.00-  59.62     0.00
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    420339 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    213250                   20.64-  80.64    50.73
-------------------------------------------------------------------------------
  169 m,p-Xylene                                    CAS #: 108-38-3
 22.467  22.467 (1.013)   106      4792 0.07448   0.1311  80.00- 120.00   100.00(a)
 22.467  22.467 (1.013)    91      7586                  166.46- 226.46   158.30
-------------------------------------------------------------------------------
  171 o-Xylene                                      CAS #: 95-47-6
 23.069  23.089 (1.040)   106      1520 0.02576  0.04533  80.00- 120.00   100.00(a)
 23.089  23.089 (1.041)    91      4115                  184.01- 244.01   270.70
-------------------------------------------------------------------------------
  172 Styrene                                       CAS #: 100-42-5
 23.110  23.110 (1.042)   104      5574 0.05581  0.09823  80.00- 120.00   100.00(a)
 23.110  23.110 (1.042)    78      3601                   20.27-  80.27    64.61
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 23.856  23.856 (1.076)   174    292806 5.07668    5.077  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    291996                   77.42- 137.42    99.72
 23.856  23.856 (1.076)   176    284165                   65.38- 125.38    97.05
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.775  24.775 (1.117)   105      2801 0.02324  0.04090  80.00- 120.00   100.00(a)
 24.775  24.775 (1.117)   120       589                   16.20-  76.20    21.04
-------------------------------------------------------------------------------
```

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Report Date: 14-Jun-2016 06:35

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060316.d
Lab Smp Id: 1606028A-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 7.1"Hg -> 5.1psi

Calibration Date: 03-JUN-2016
Calibration Time: 07:24

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	115058	69035	161081	121531	5.63
123 1,4-Difluorobenze	430856	258514	603198	444362	3.13
163 Chlorobenzene-d5	386725	232035	541415	420339	8.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 14-Jun-2016 06:35

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 03Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606028A-06A
Level: LOW
Operator: ea
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT09Bromo.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 7.1"Hg -> 5.1psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.977	99.54	70-130
$ 146 Toluene-d8	5.000	4.927	98.54	70-130
$ 177 4-Bromofluorobenze	5.000	5.077	101.53	70-130

Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

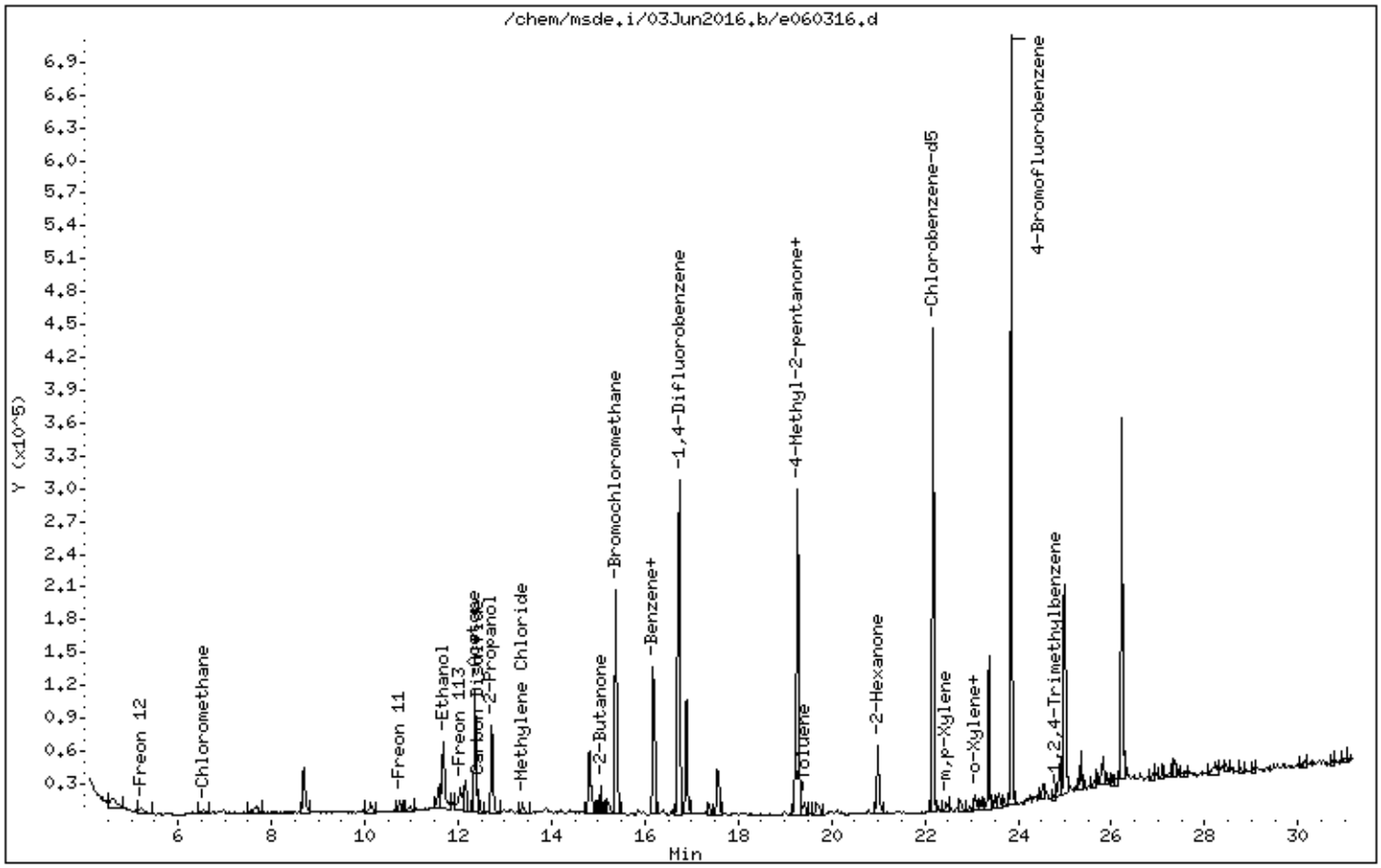
Instrument: msde.i

Sample Info: 250mL#00337

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

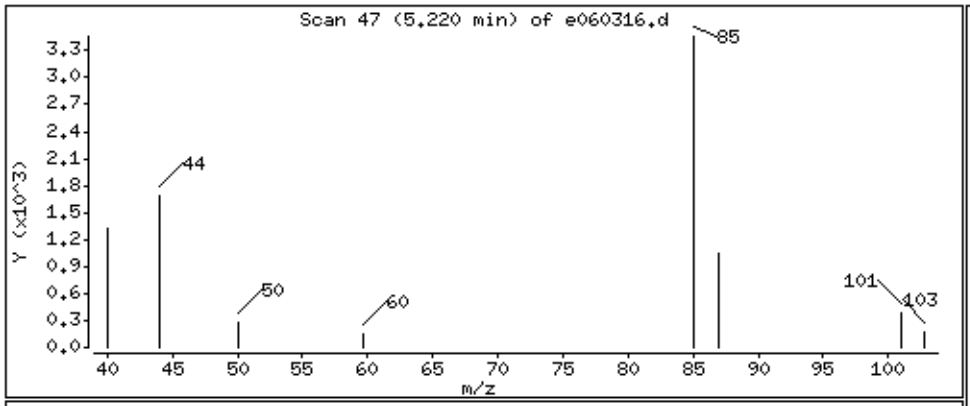
Operator: ea

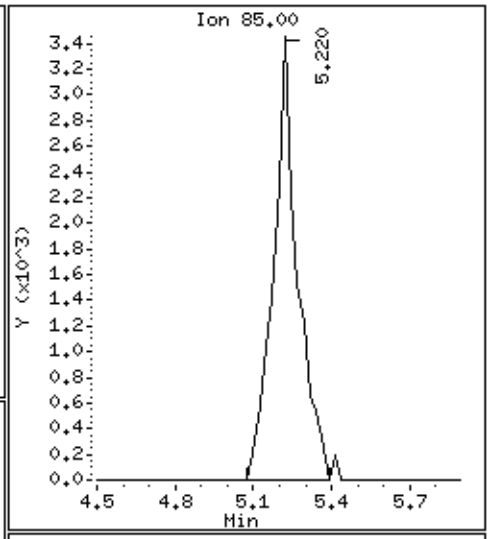
Column phase: RTX-624

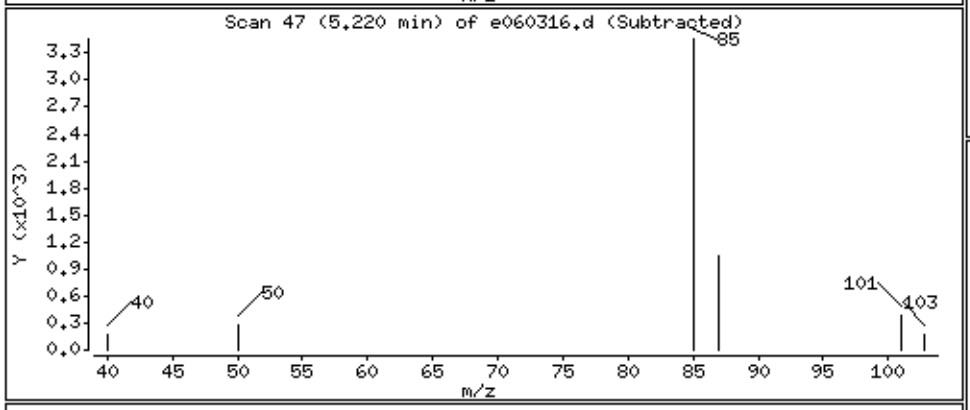
Column diameter: 0.32

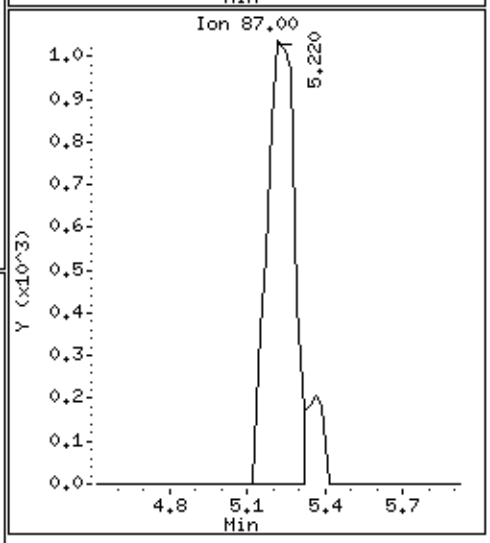
11 Freon 12

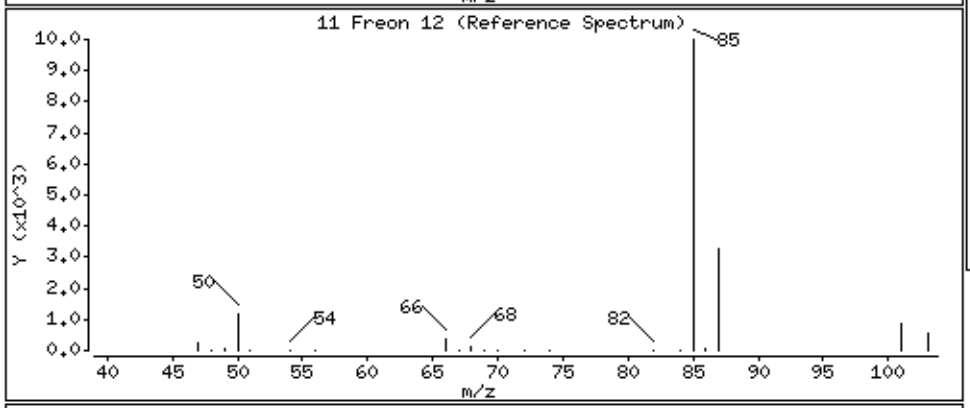
Concentration: 0.3856 PPBV

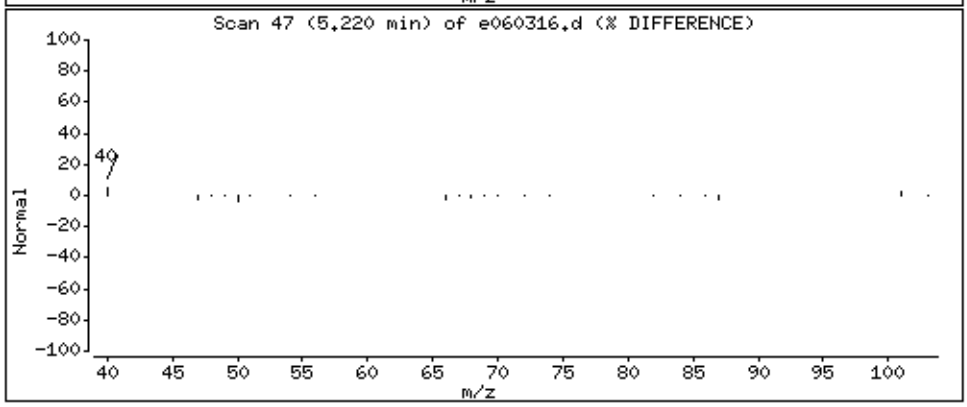












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

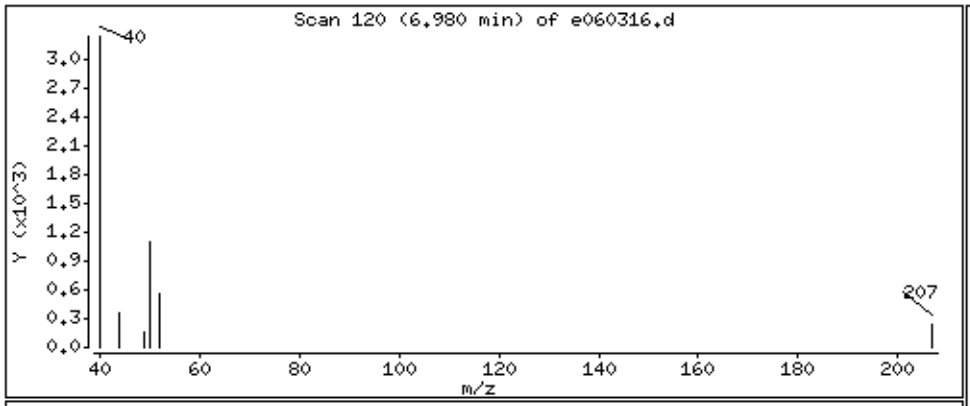
Operator: ea

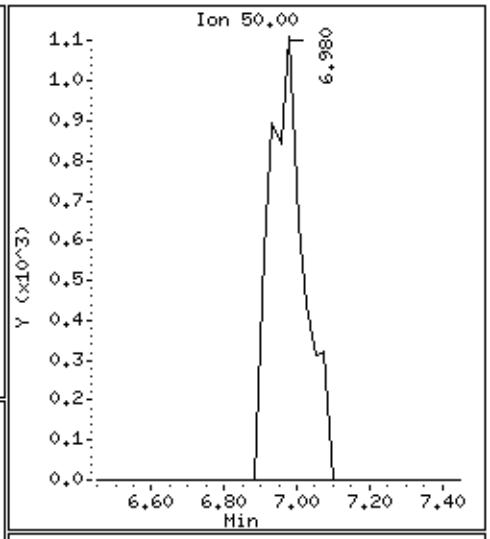
Column phase: RTX-624

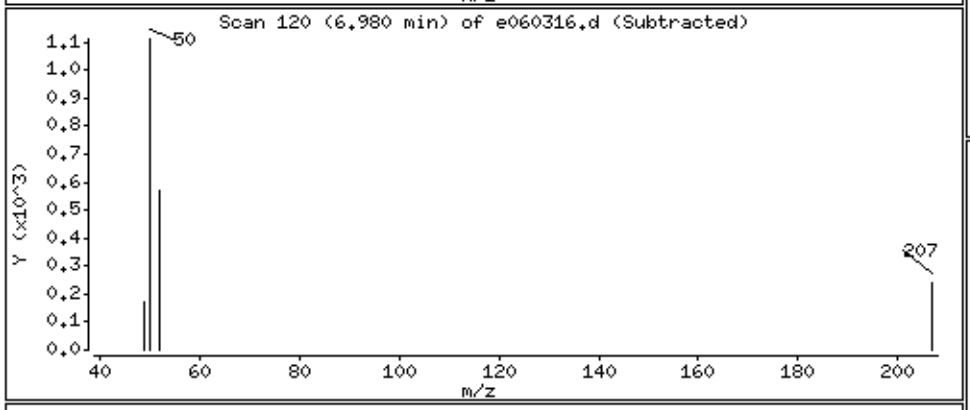
Column diameter: 0.32

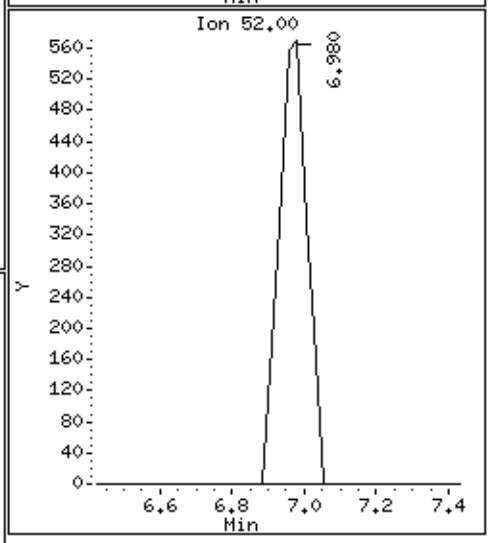
17 Chloromethane

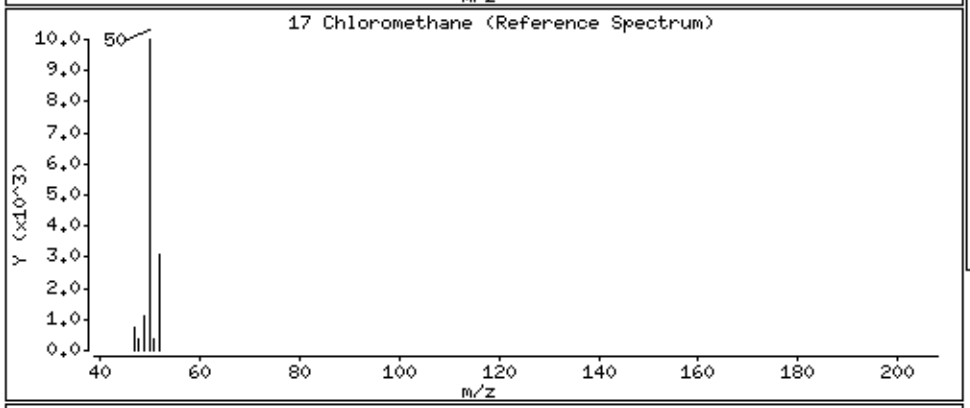
Concentration: 0.6742 PPBV

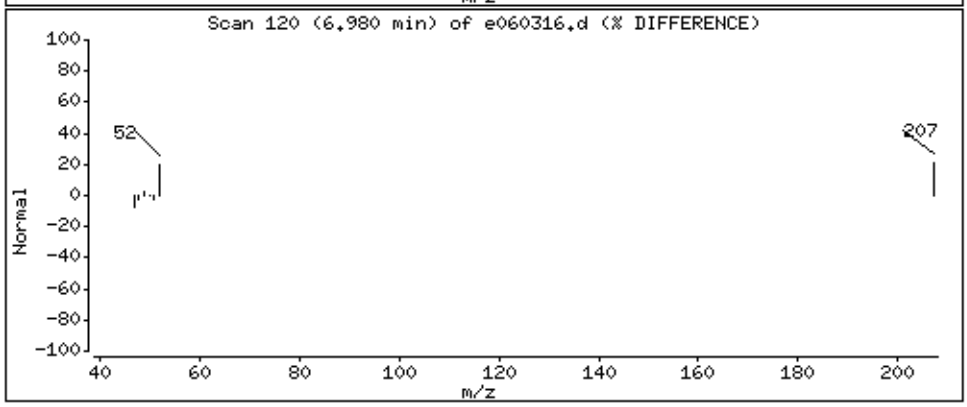












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

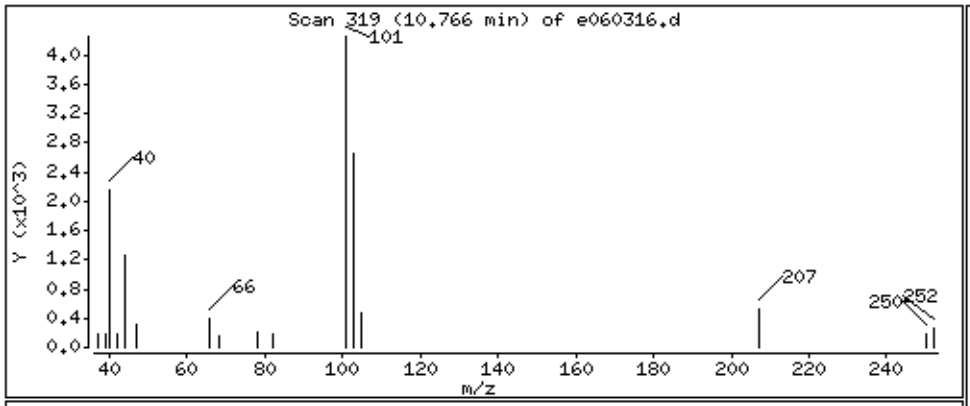
Operator: ea

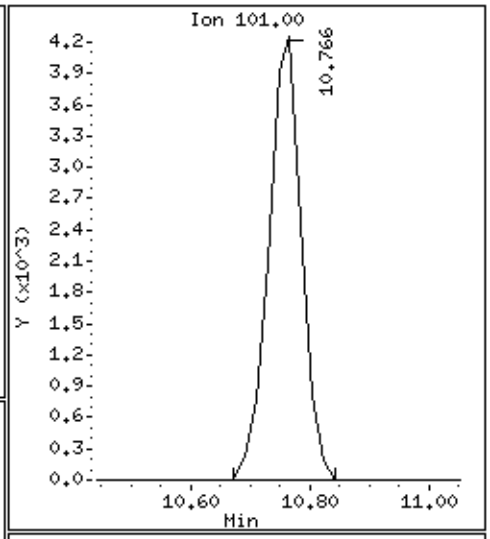
Column phase: RTX-624

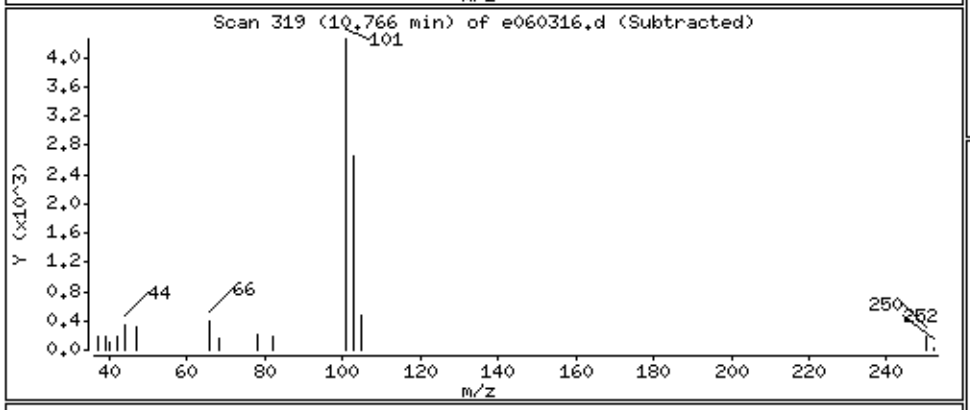
Column diameter: 0.32

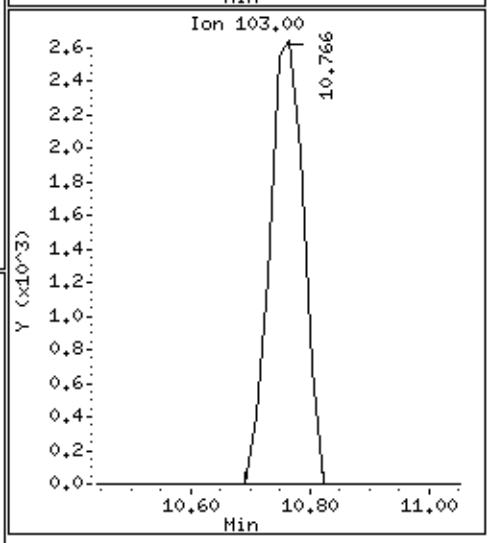
35 Freon 11

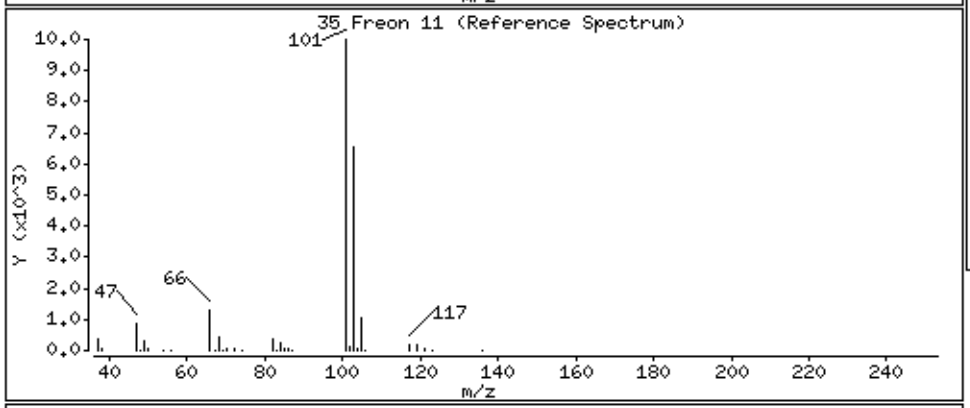
Concentration: 0.2691 PPBV

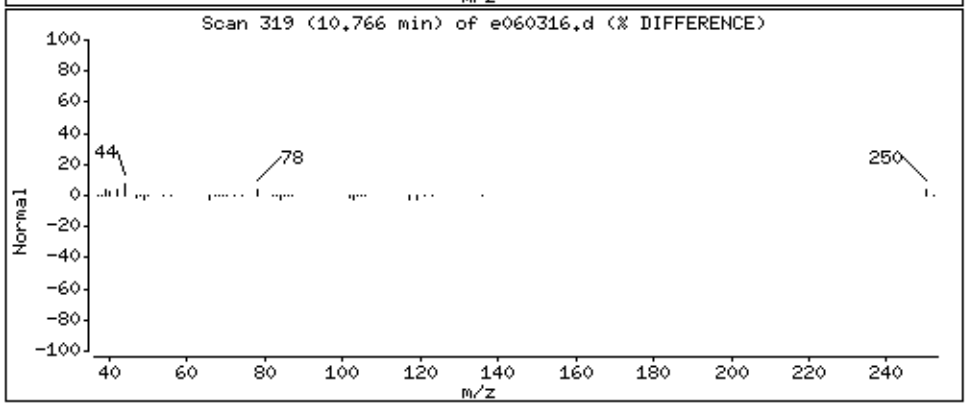












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

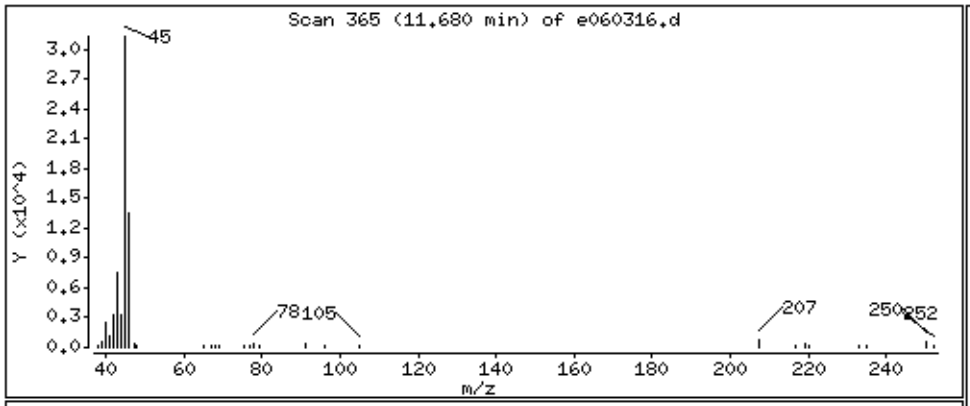
Operator: ea

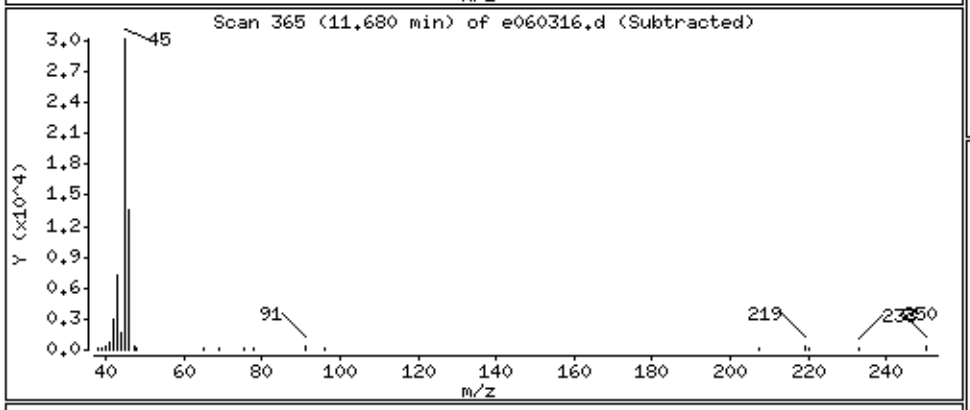
Column phase: RTX-624

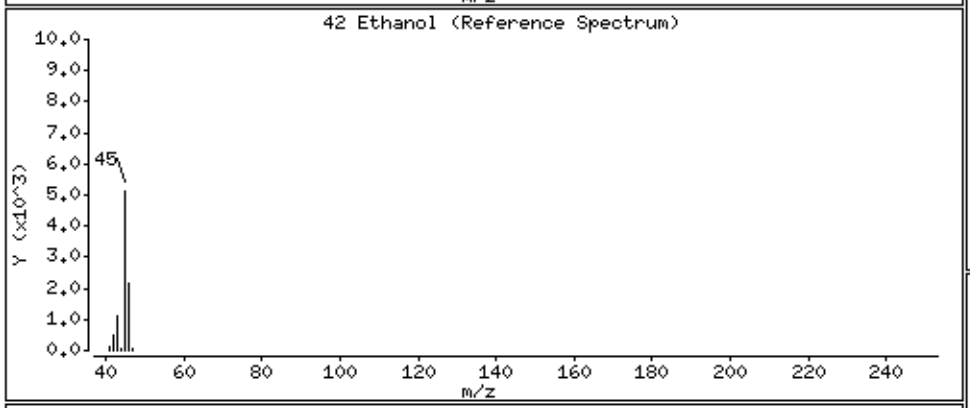
Column diameter: 0.32

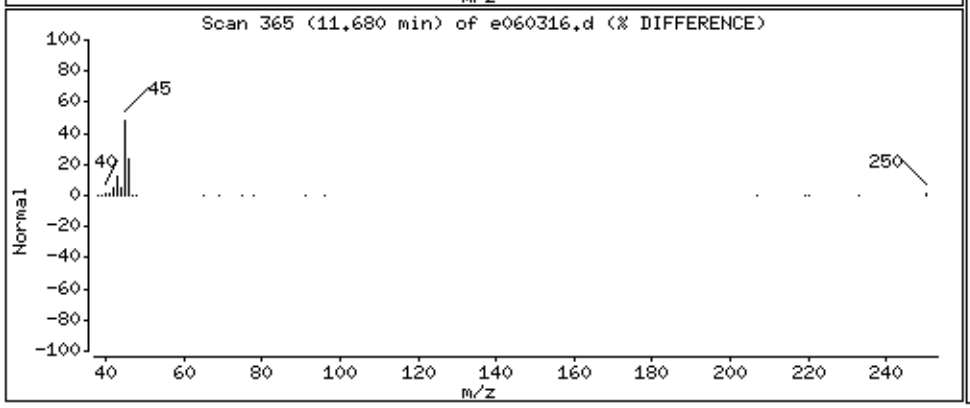
42 Ethanol

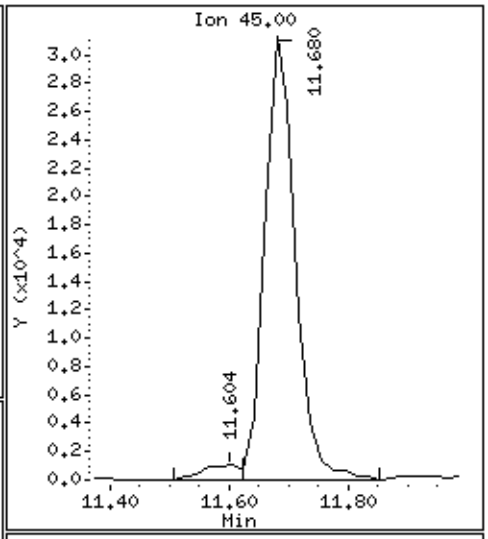
Concentration: 25.561 PPBV

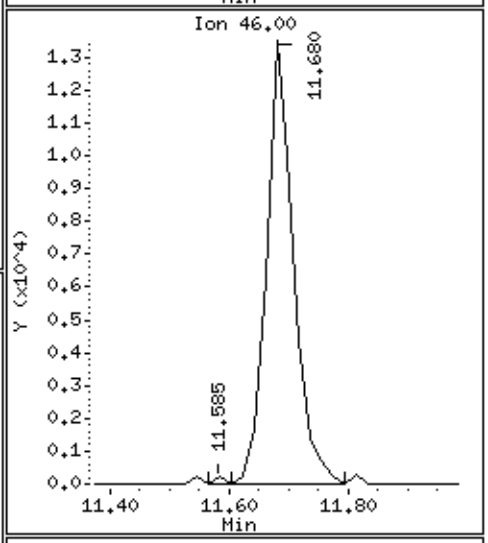


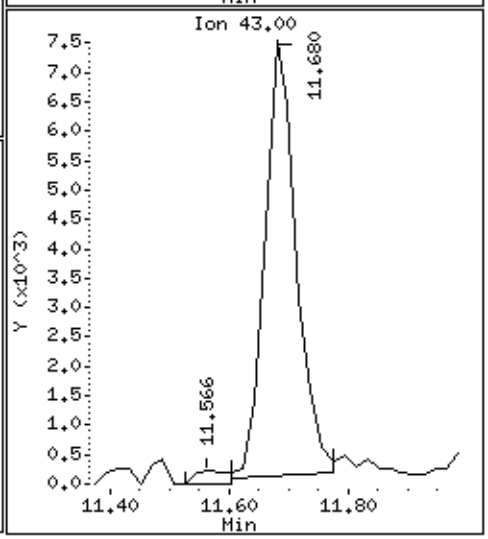












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

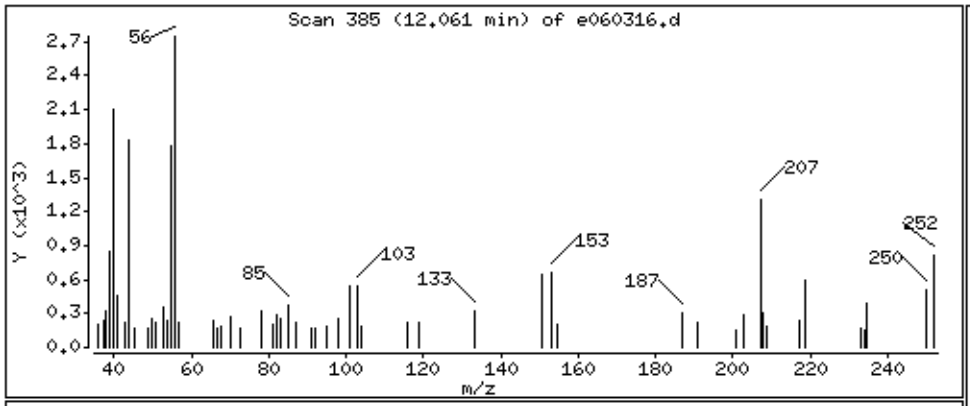
Operator: ea

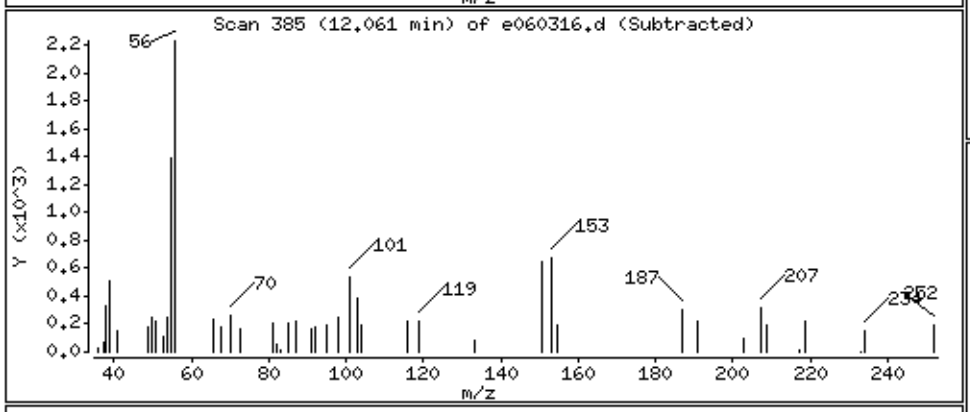
Column phase: RTX-624

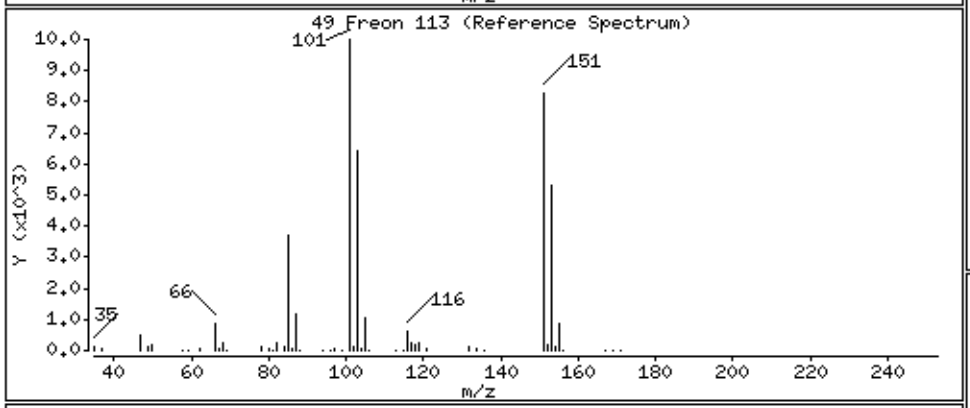
Column diameter: 0.32

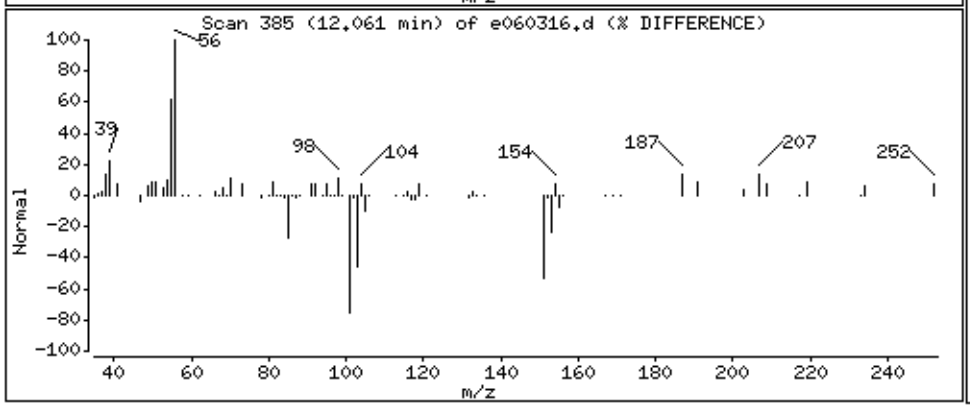
49 Freon 113

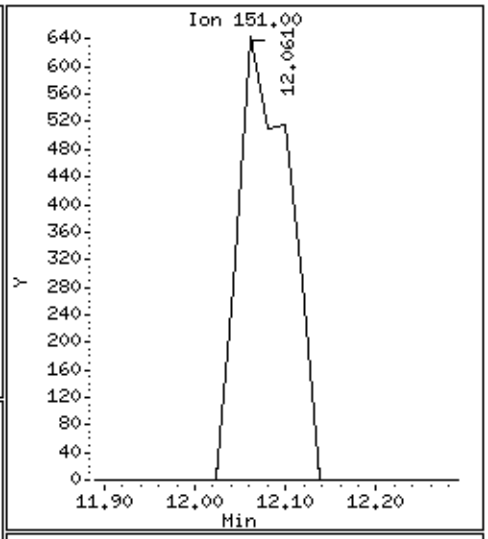
Concentration: 0.05460 PPBV

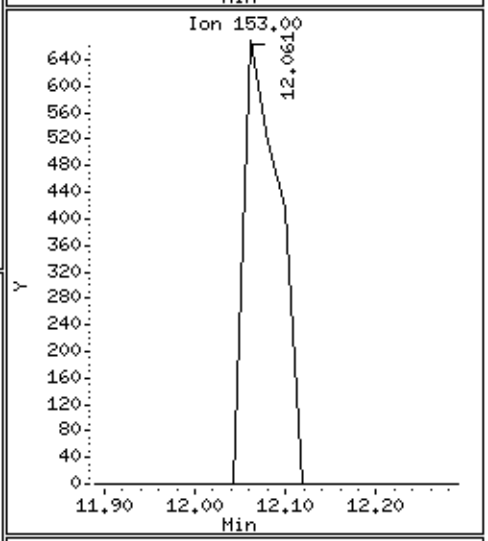


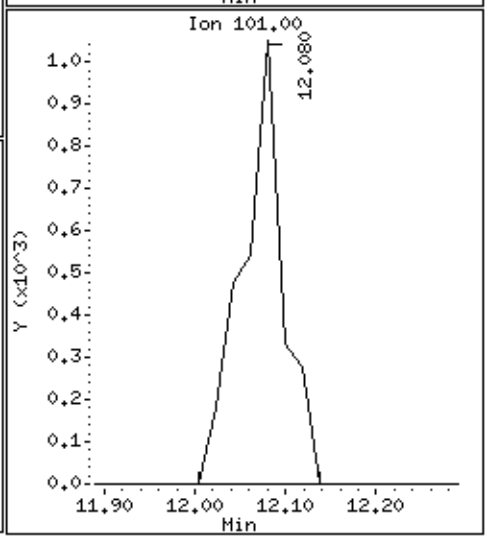












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

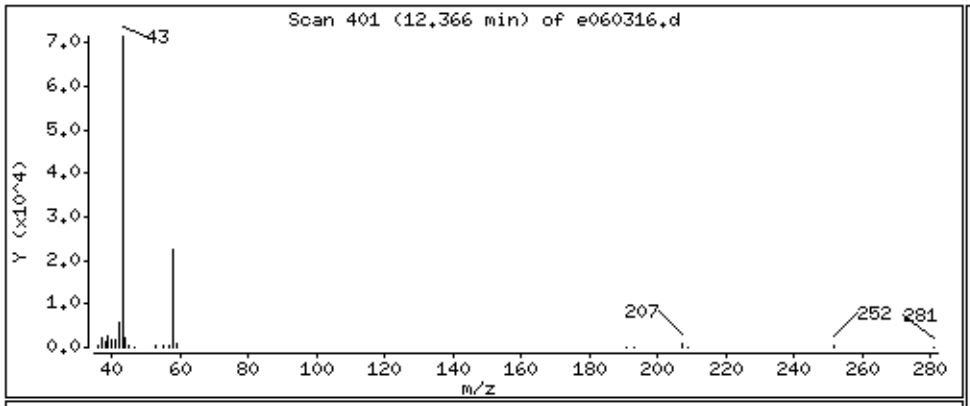
Operator: ea

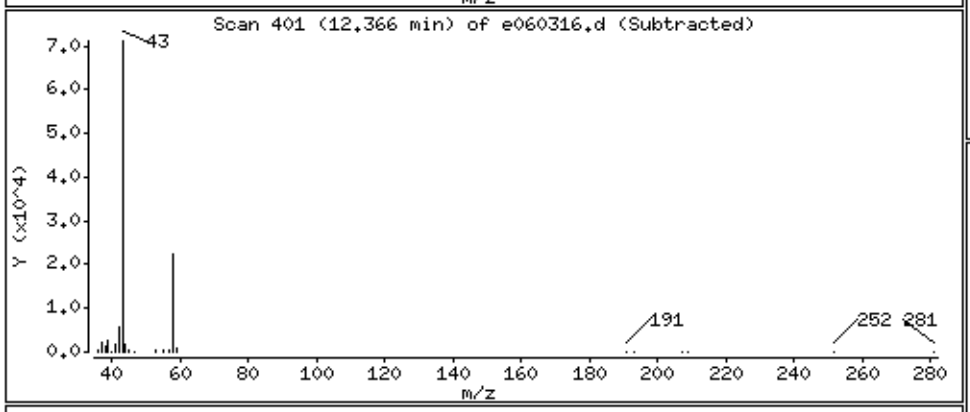
Column phase: RTX-624

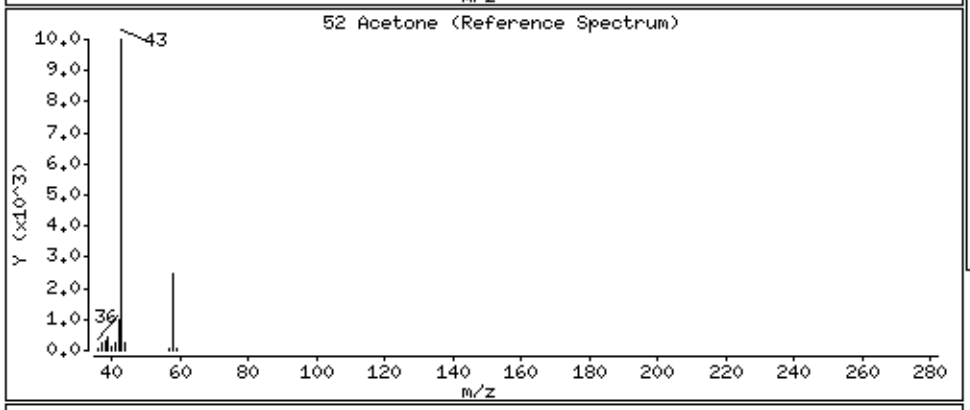
Column diameter: 0.32

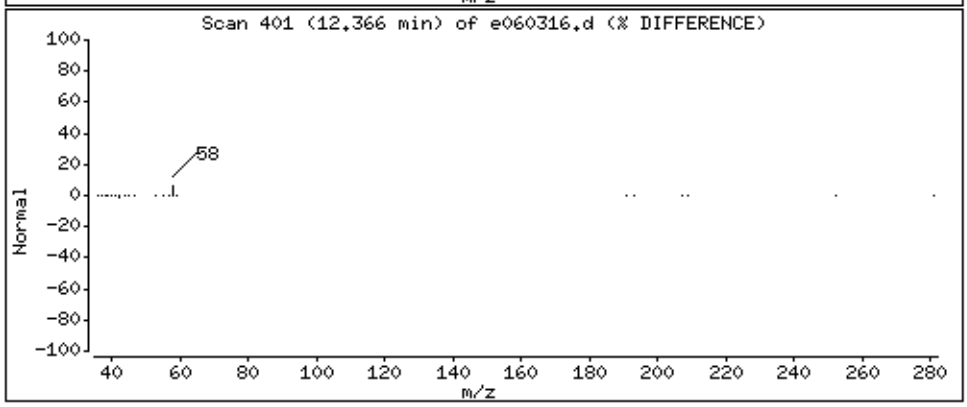
52 Acetone

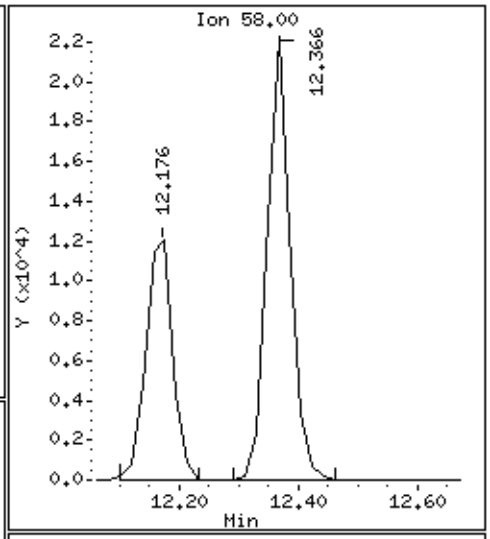
Concentration: 8.146 PPBV

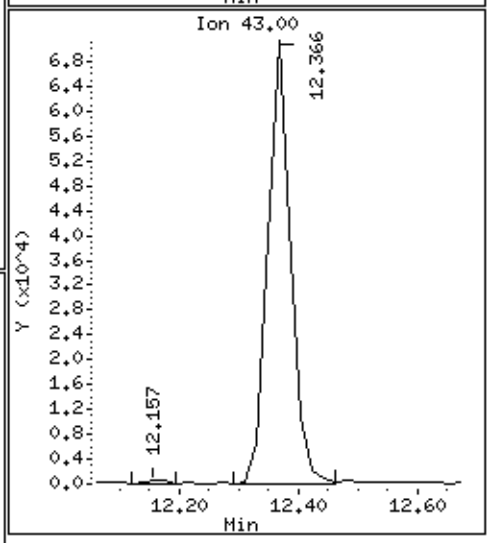












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

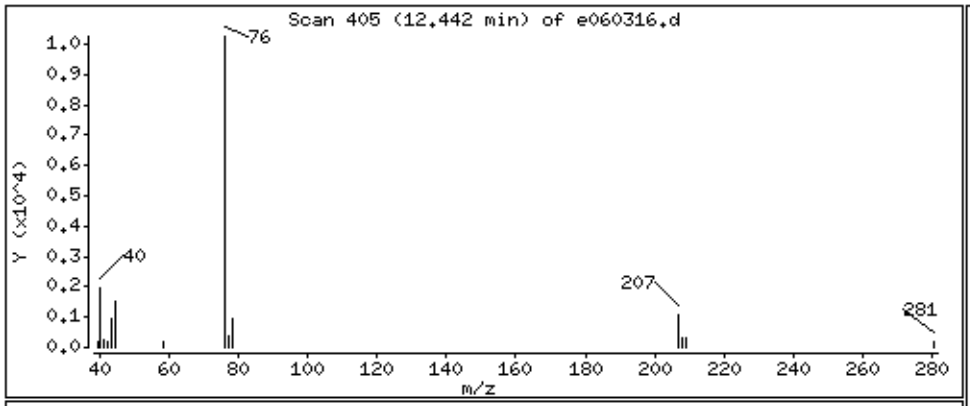
Operator: ea

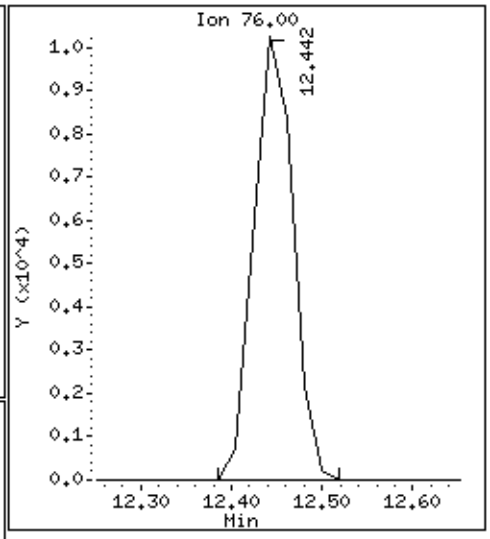
Column phase: RTX-624

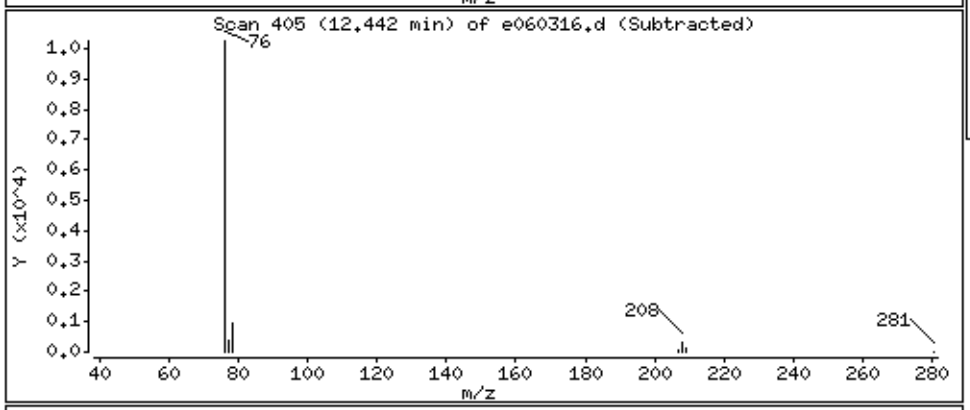
Column diameter: 0.32

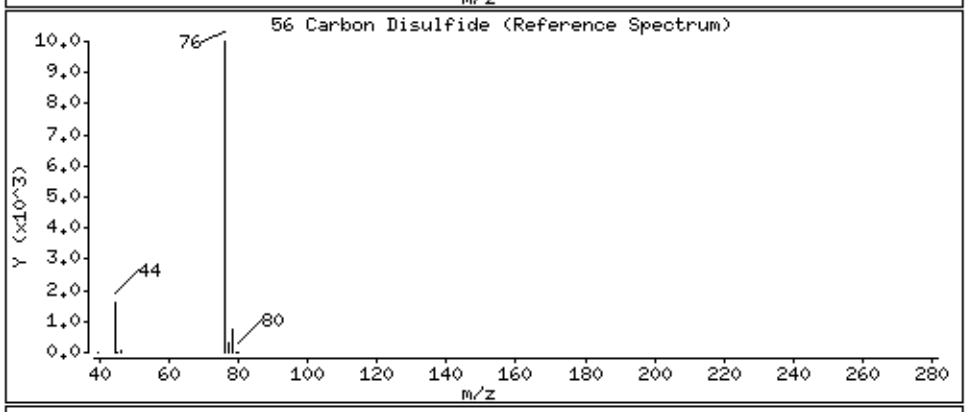
56 Carbon Disulfide

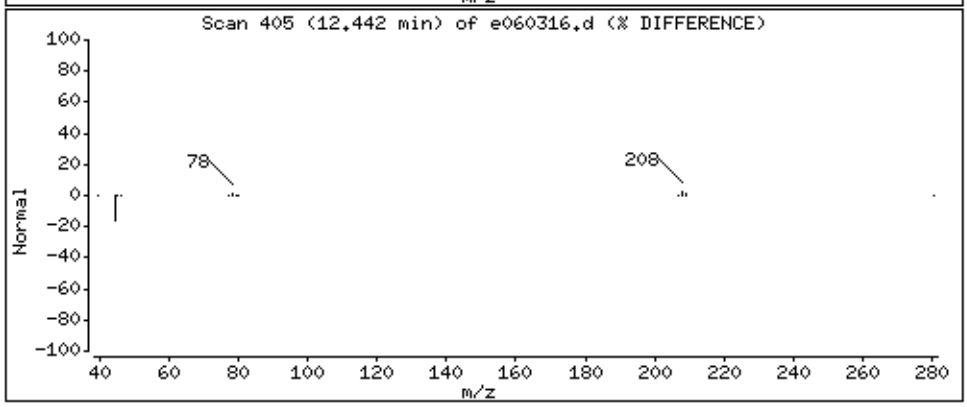
Concentration: 0.5349 PPBV











Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

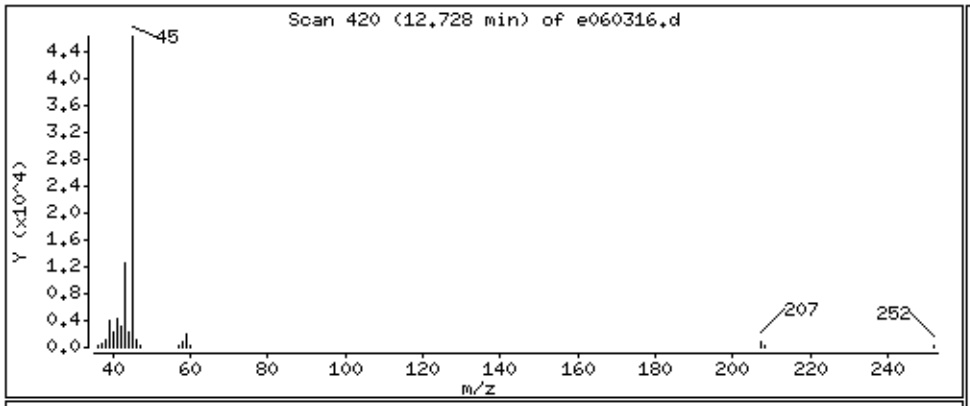
Operator: ea

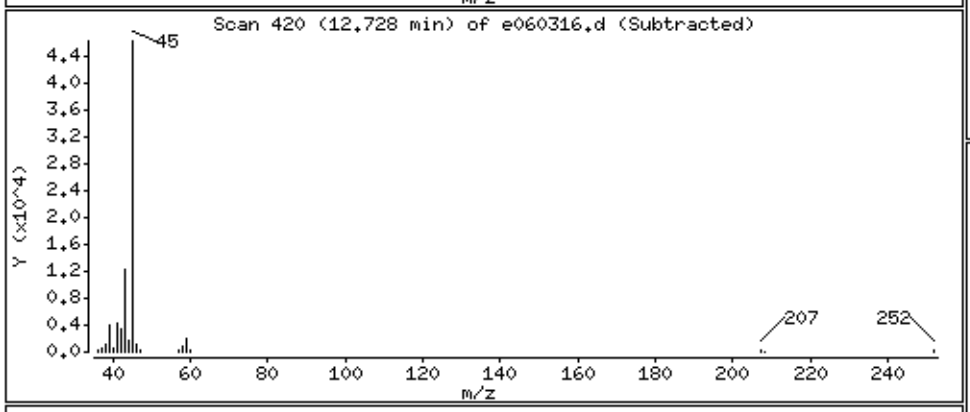
Column phase: RTX-624

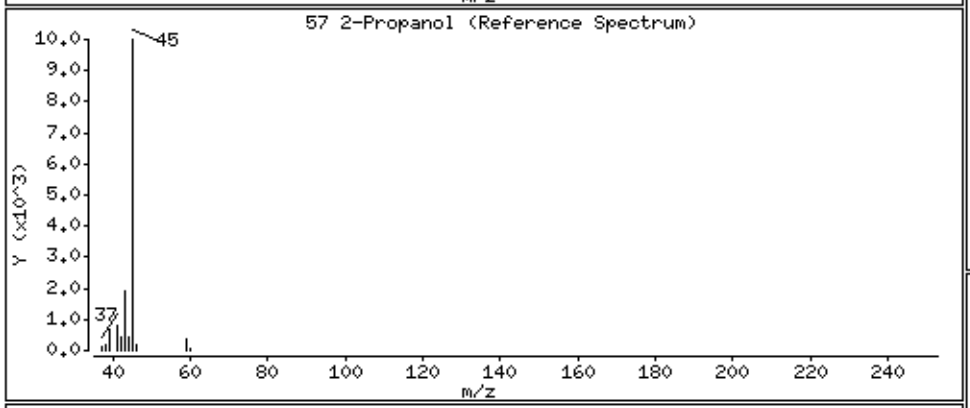
Column diameter: 0.32

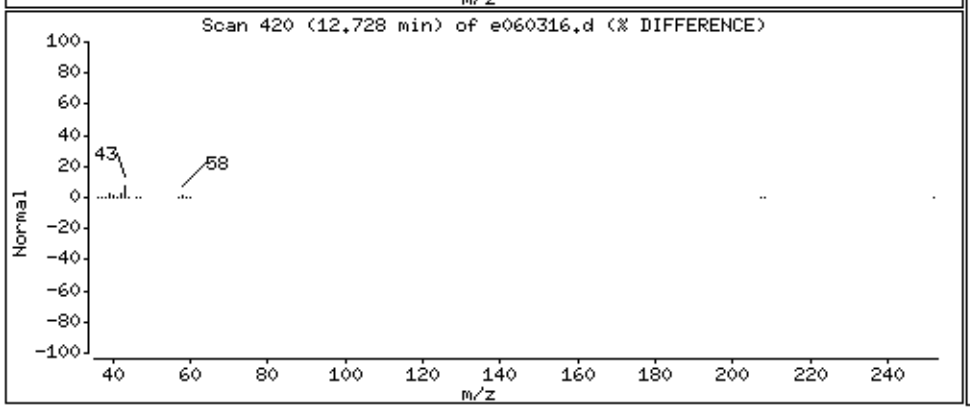
57 2-Propanol

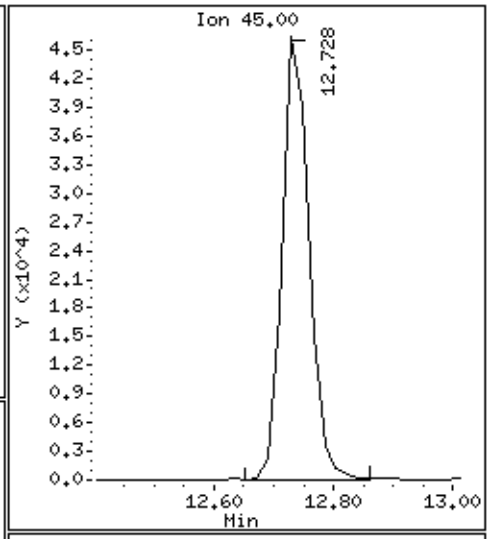
Concentration: 6.185 PPBV

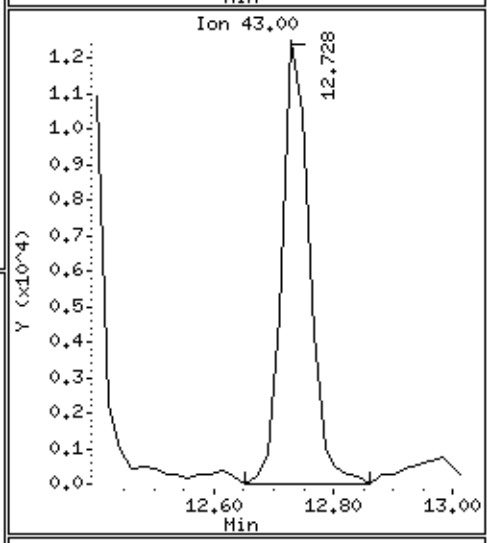


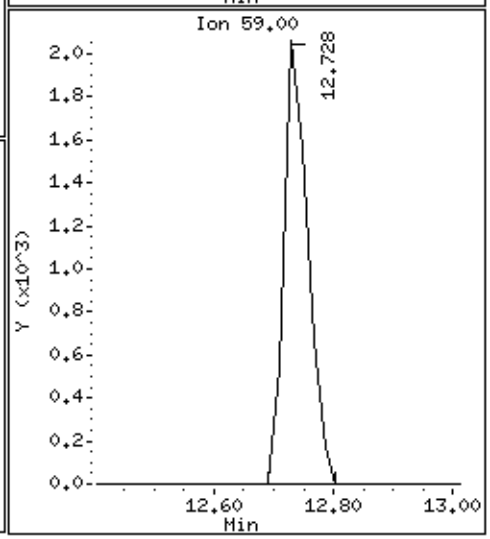












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

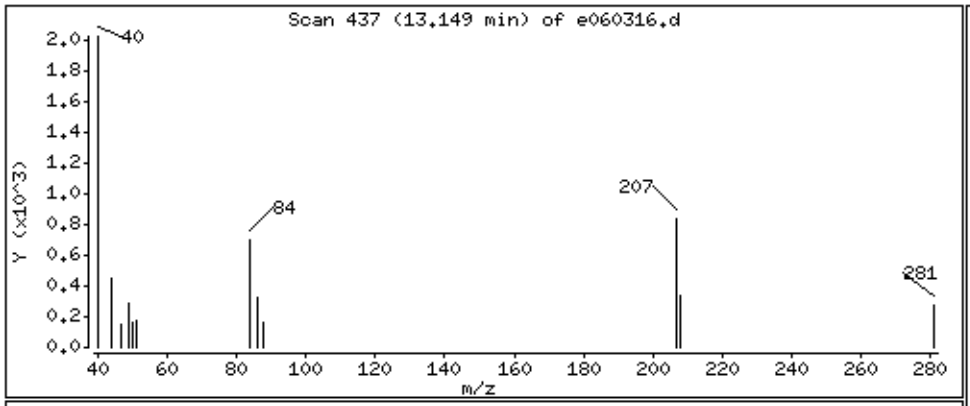
Operator: ea

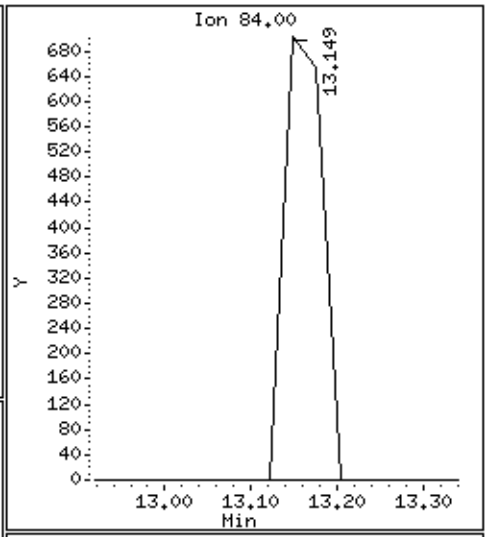
Column phase: RTX-624

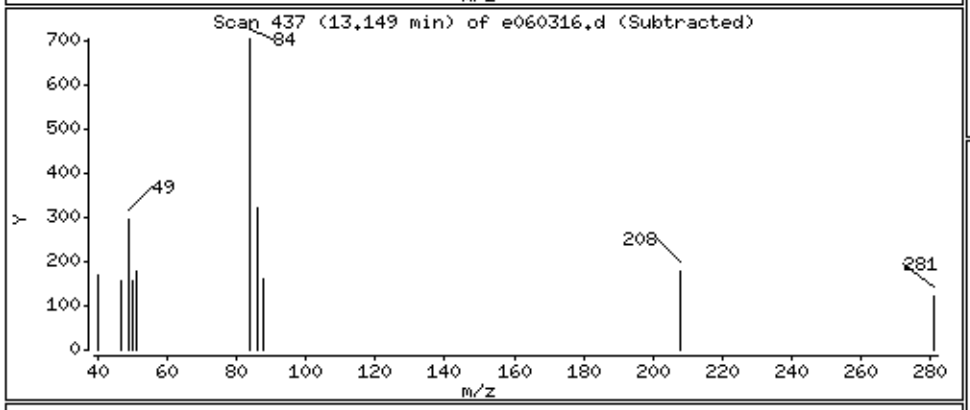
Column diameter: 0.32

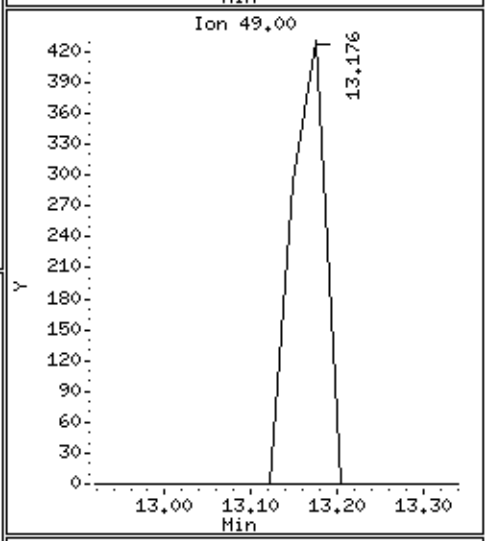
66 Methylene Chloride

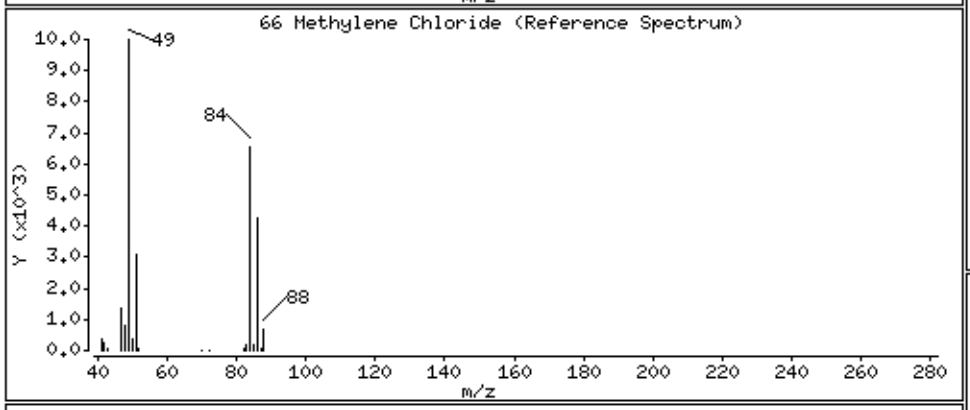
Concentration: 0.1221 PPBV

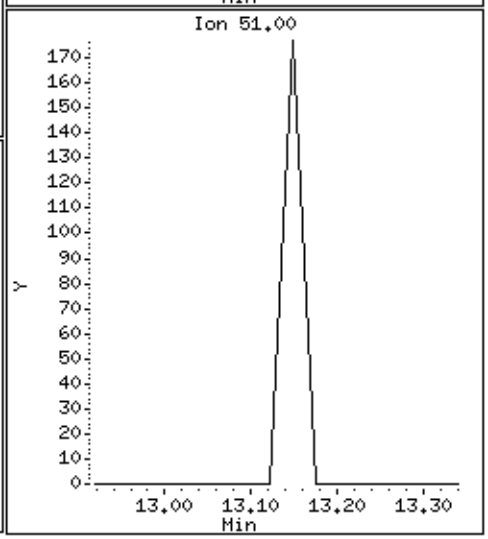


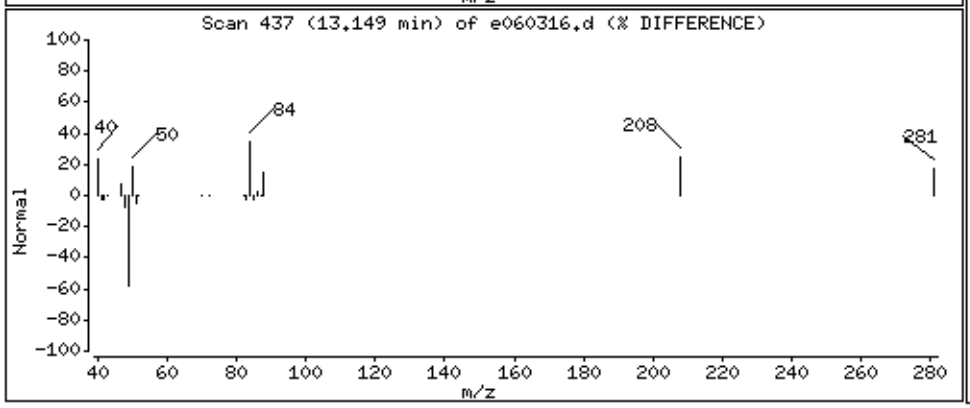












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

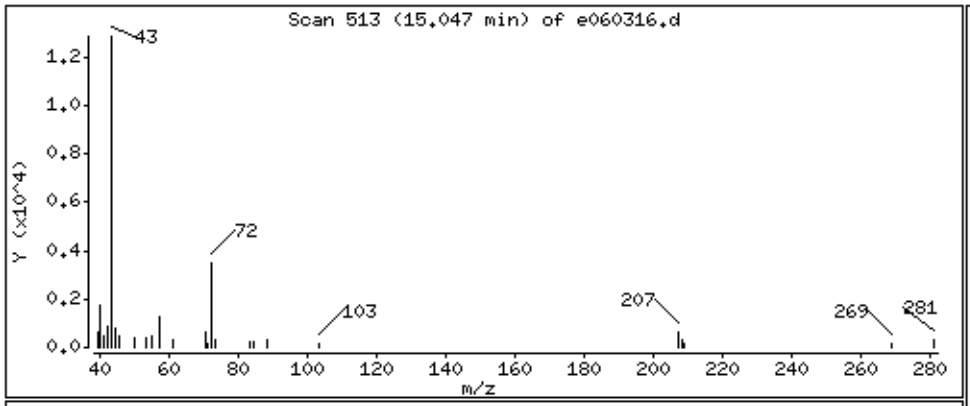
Operator: ea

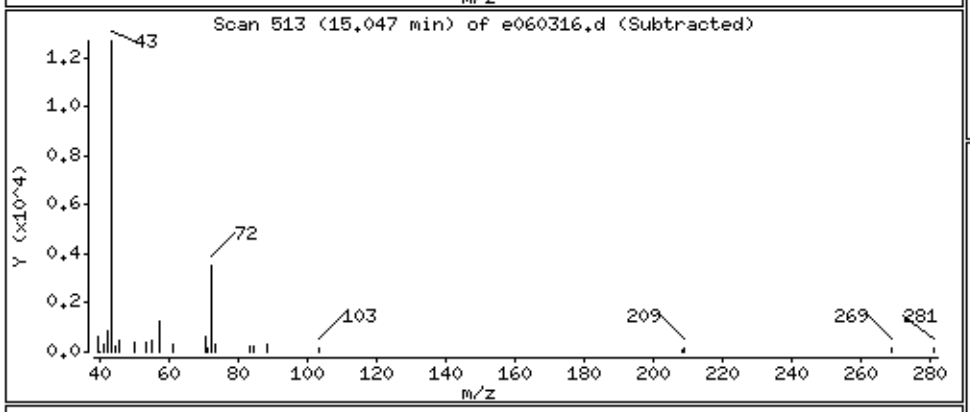
Column phase: RTX-624

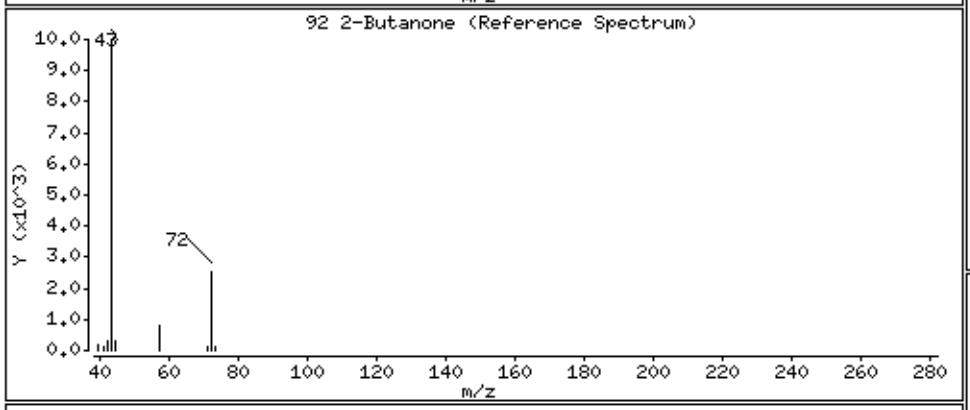
Column diameter: 0.32

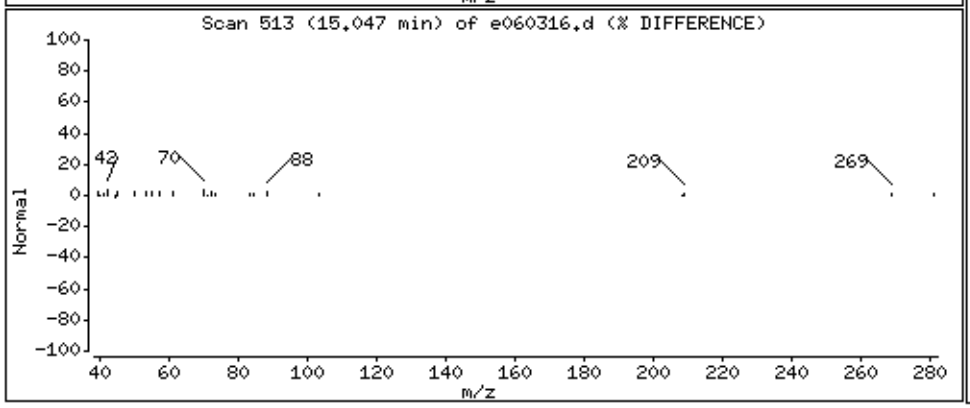
92 2-Butanone

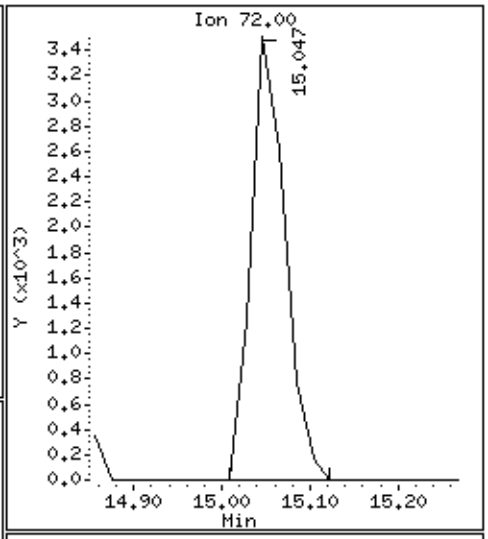
Concentration: 1.033 PPBV

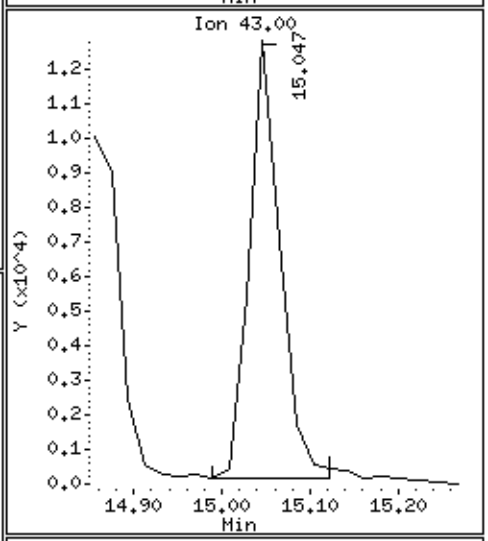


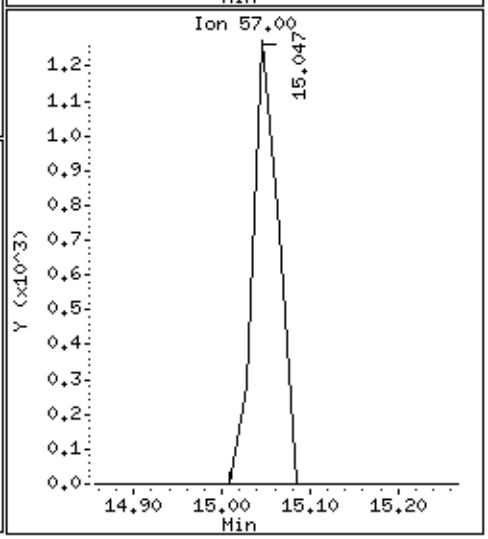












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

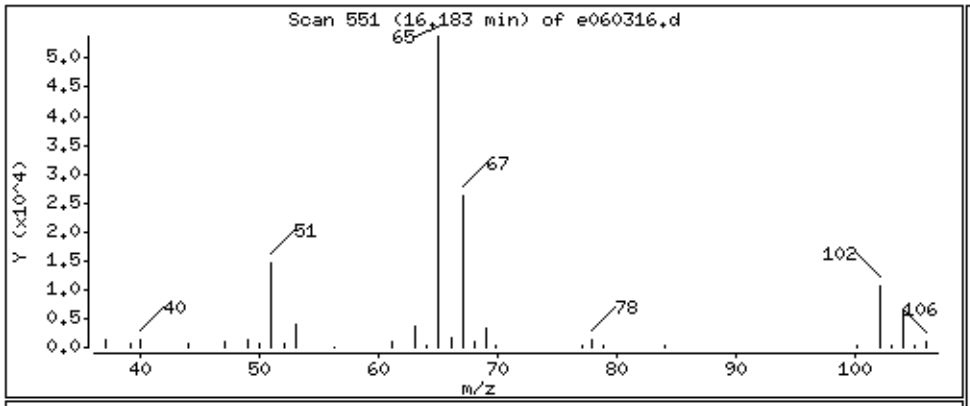
Operator: ea

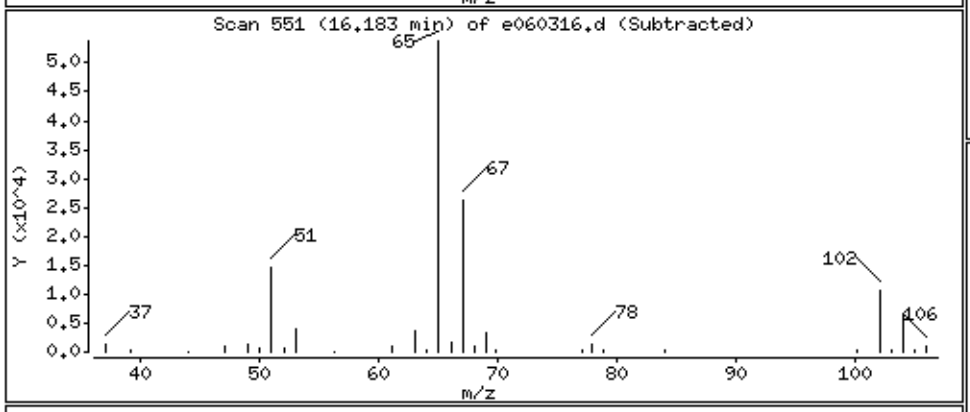
Column phase: RTX-624

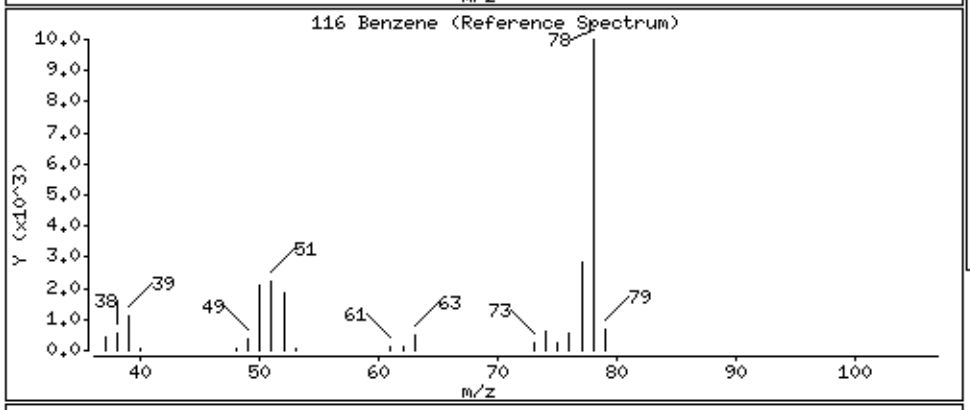
Column diameter: 0.32

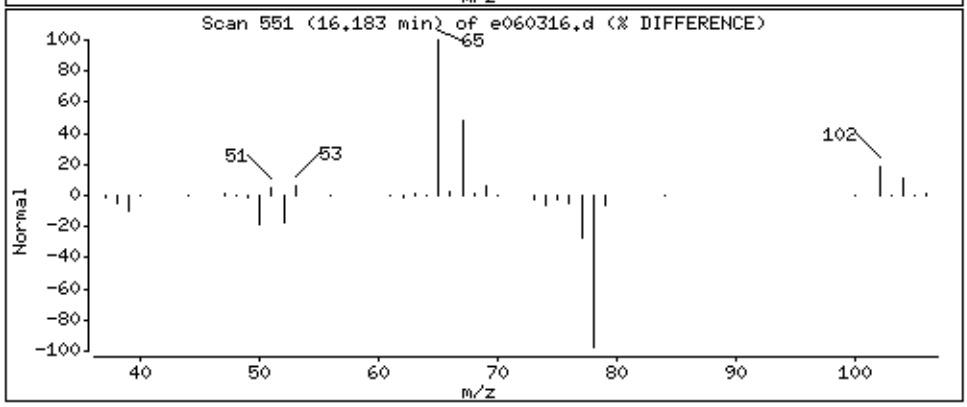
116 Benzene

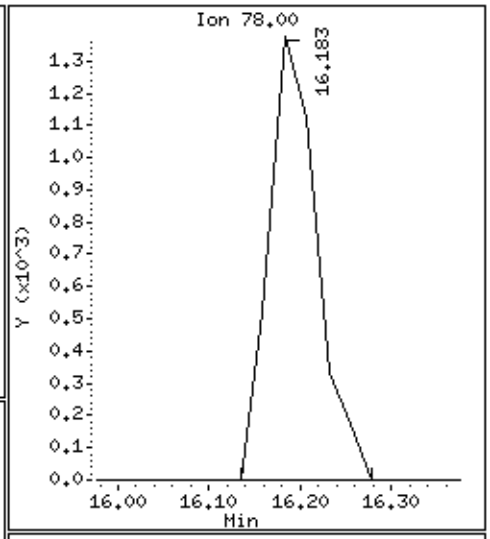
Concentration: 0.08410 PPBV

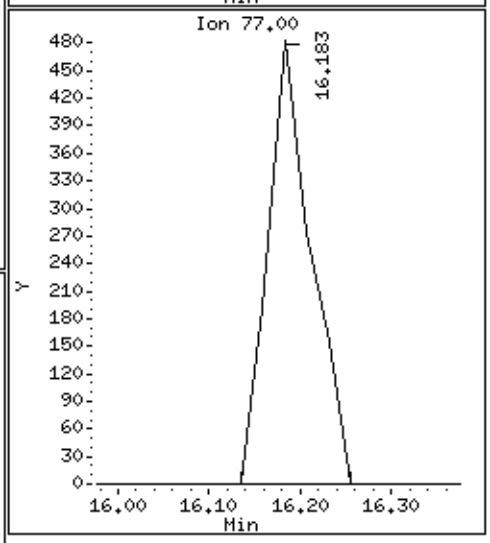












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

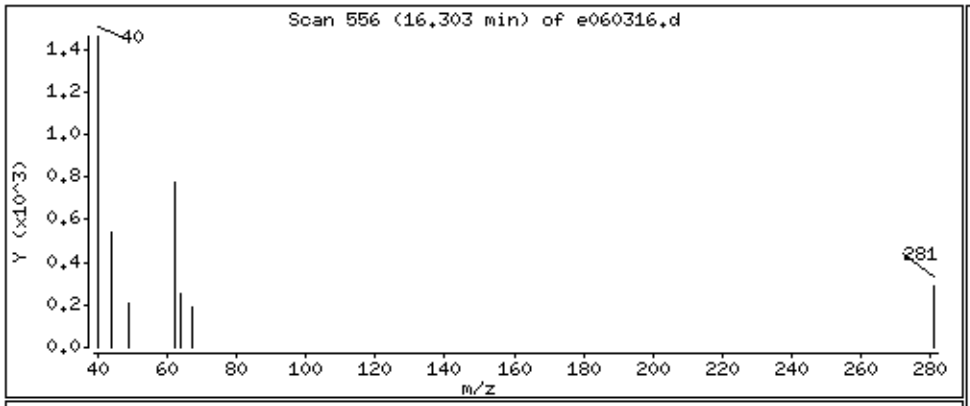
Operator: ea

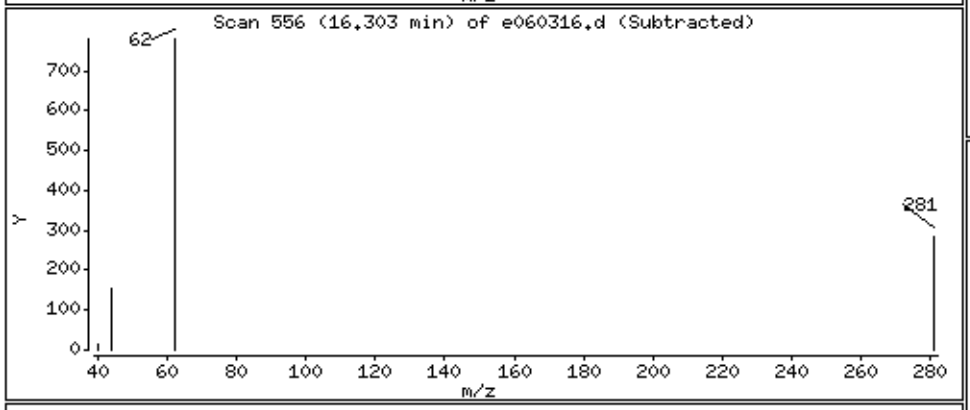
Column phase: RTX-624

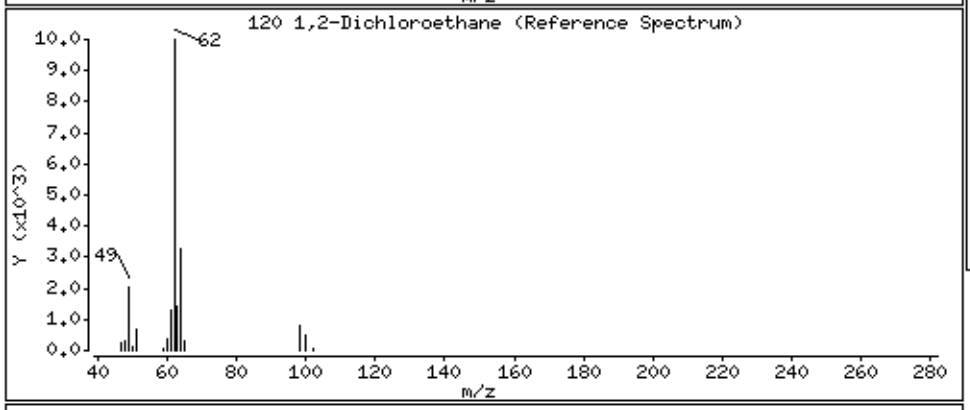
Column diameter: 0.32

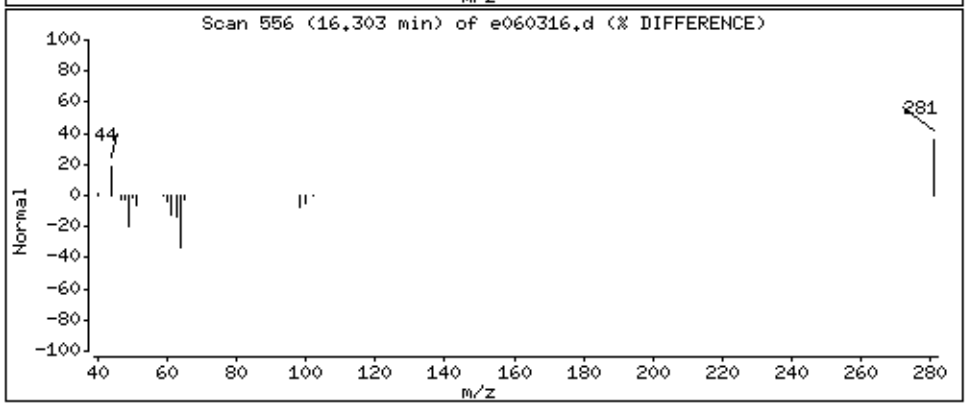
120 1,2-Dichloroethane

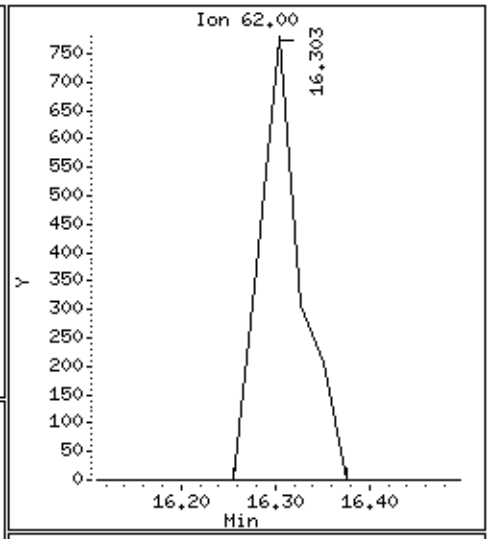
Concentration: 0.07642 PPBV

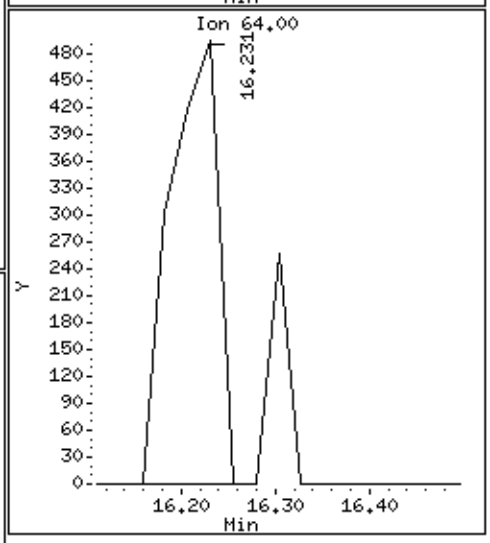












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

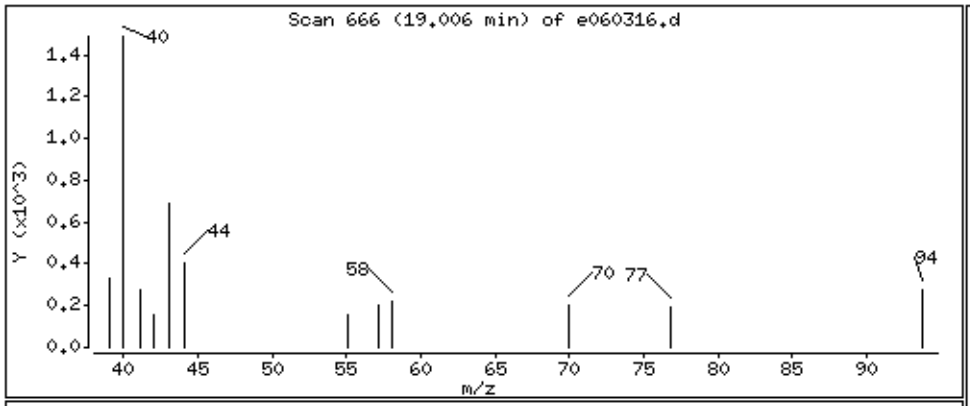
Operator: ea

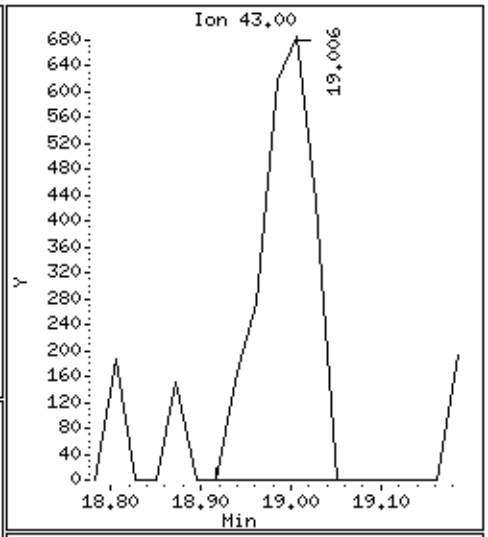
Column phase: RTX-624

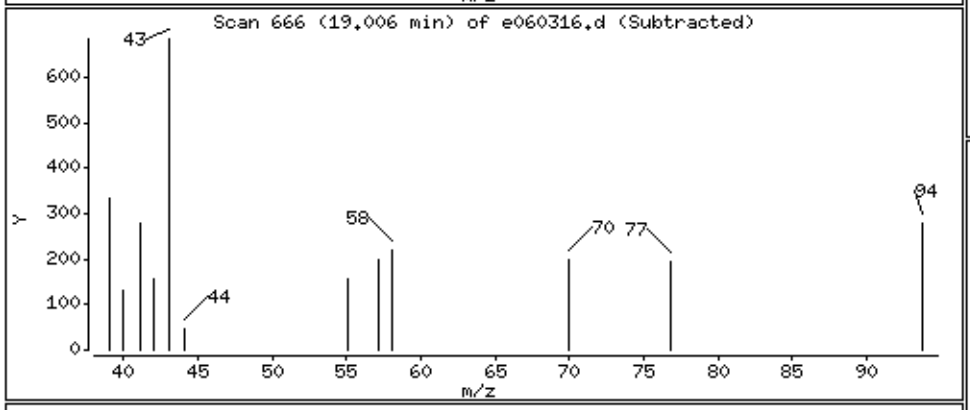
Column diameter: 0.32

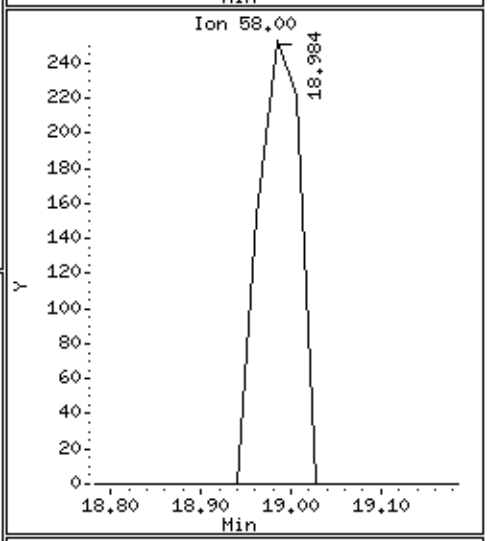
145 4-Methyl-2-pentanone

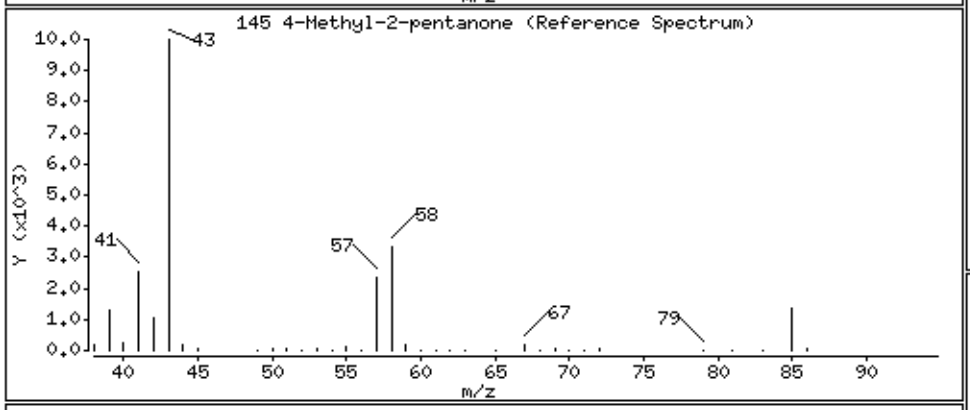
Concentration: 0.09340 PPBV

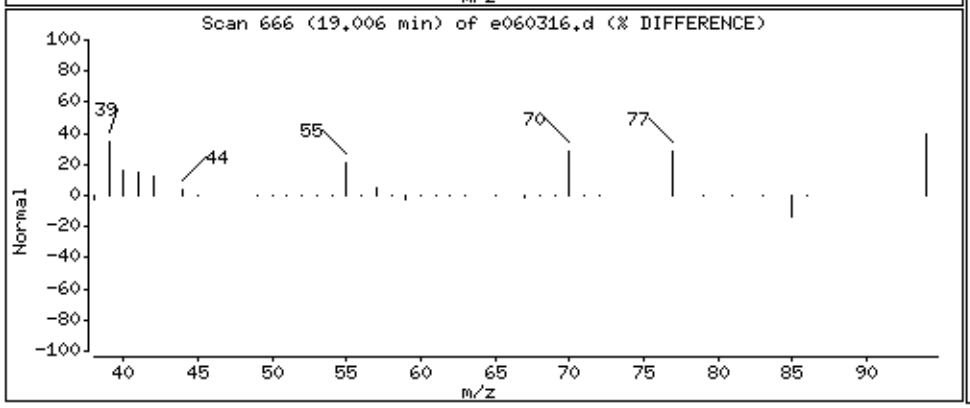


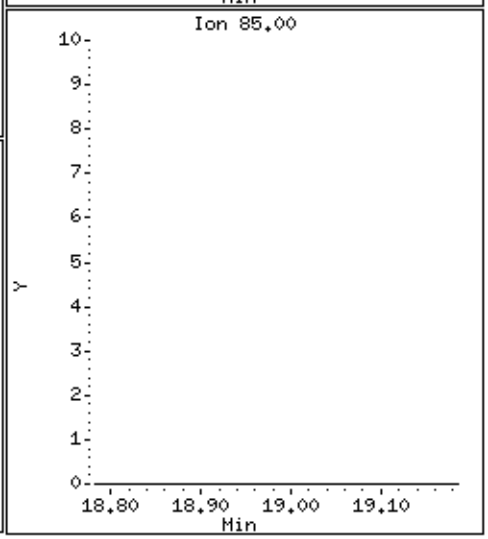












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

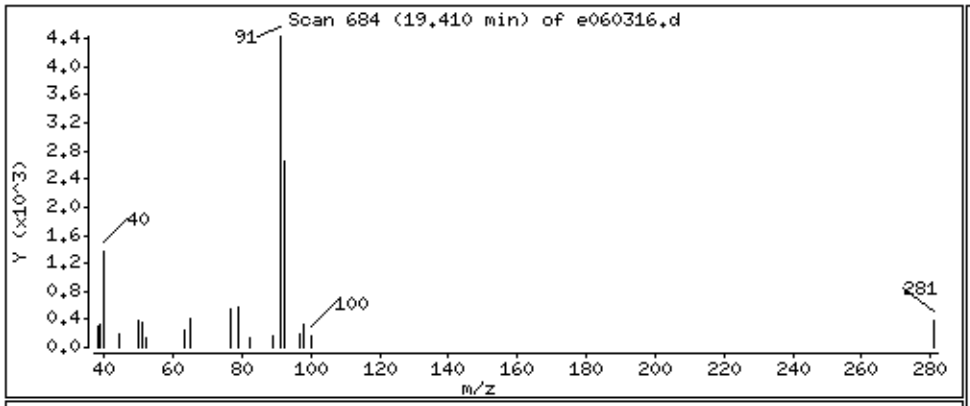
Operator: ea

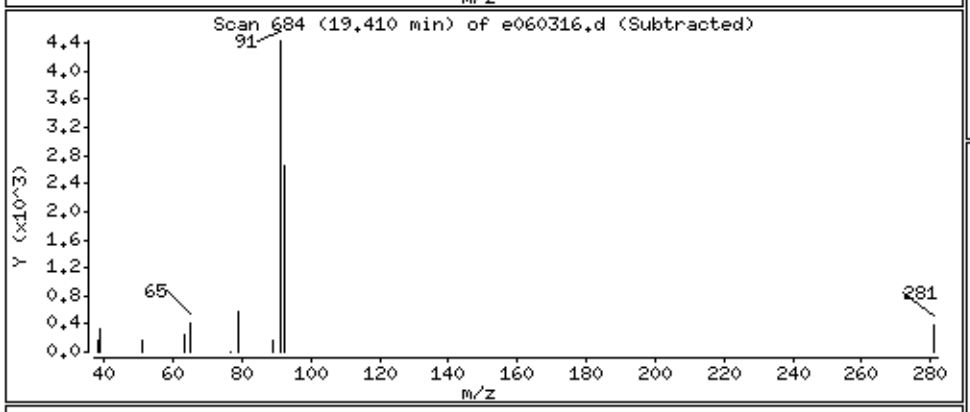
Column phase: RTX-624

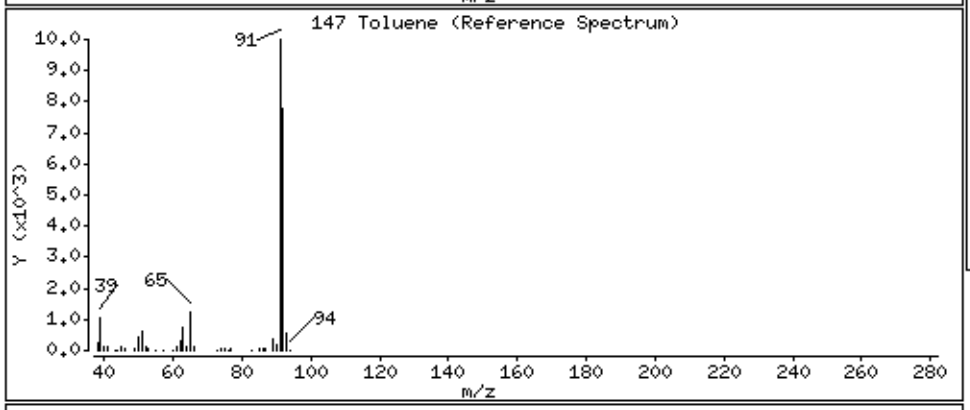
Column diameter: 0.32

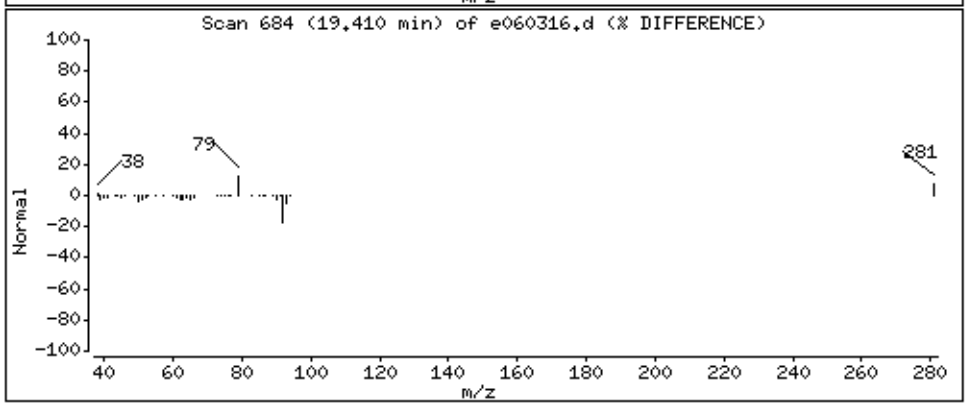
147 Toluene

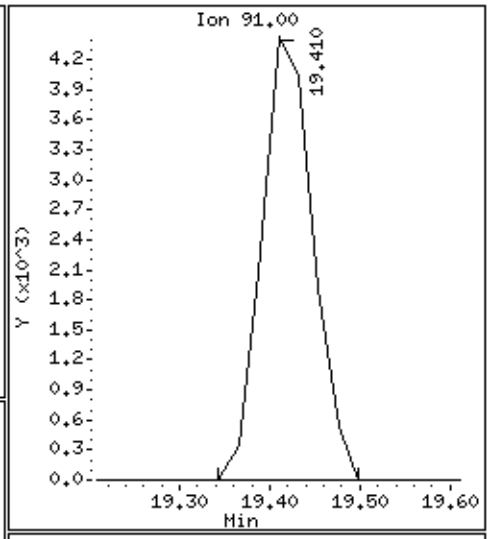
Concentration: 0.2492 PPBV

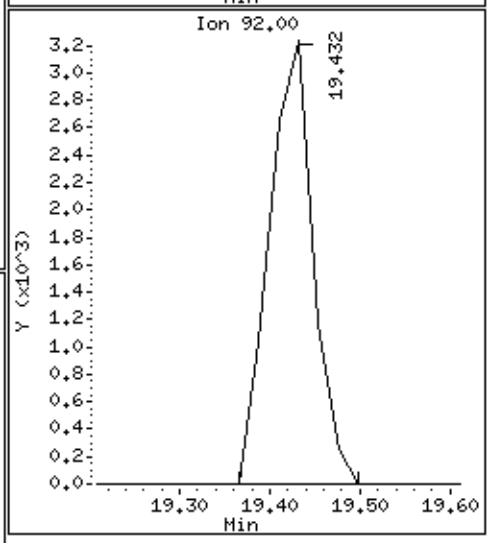












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

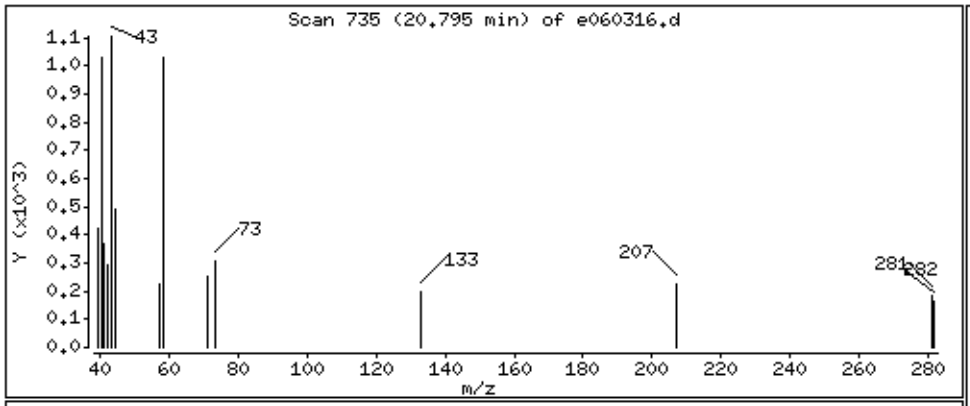
Operator: ea

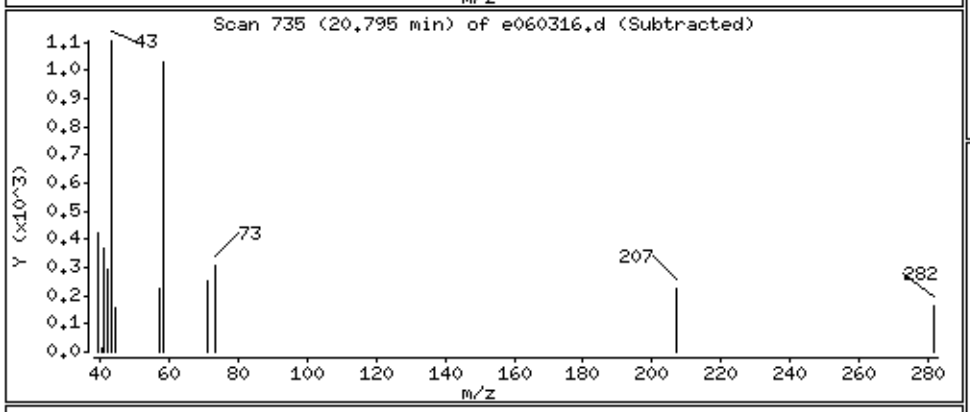
Column phase: RTX-624

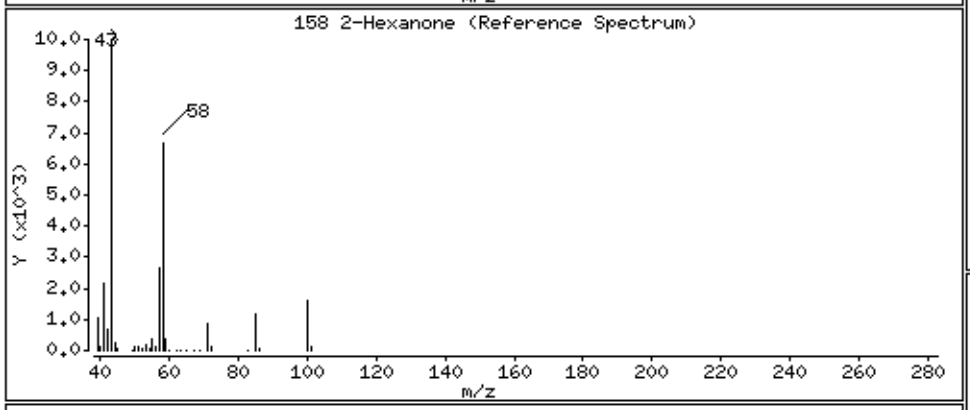
Column diameter: 0.32

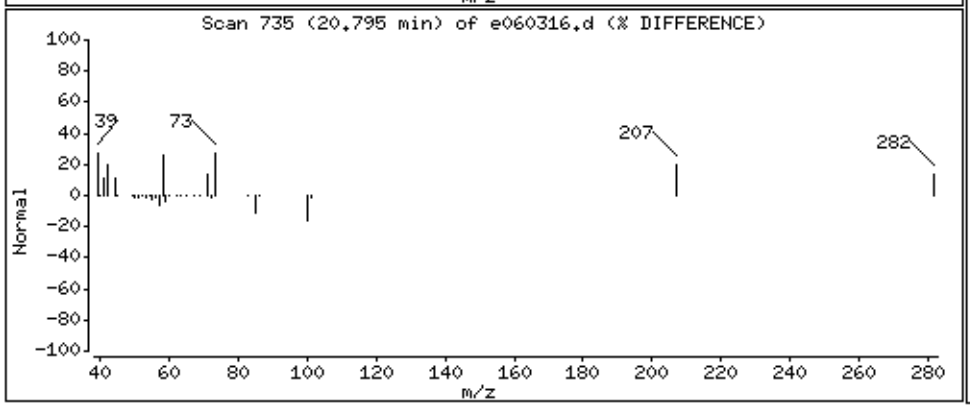
158 2-Hexanone

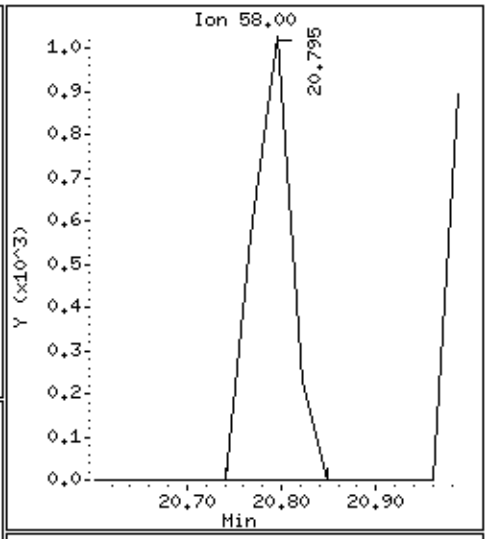
Concentration: 0.1616 PPBV

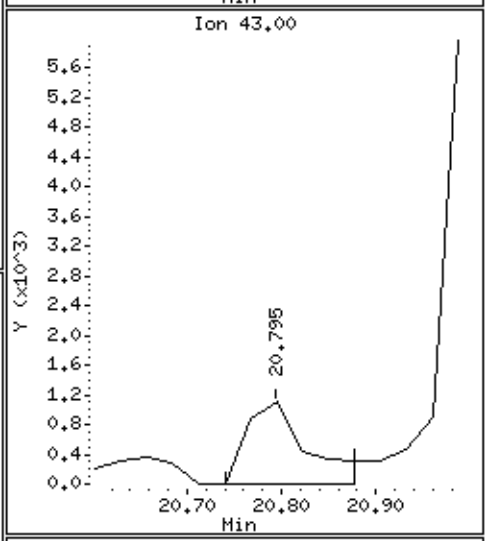


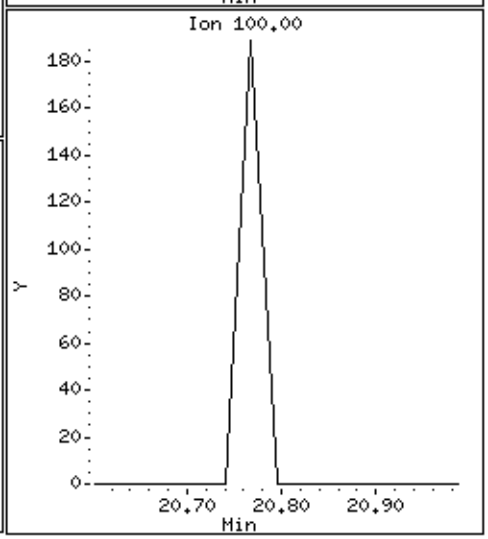












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

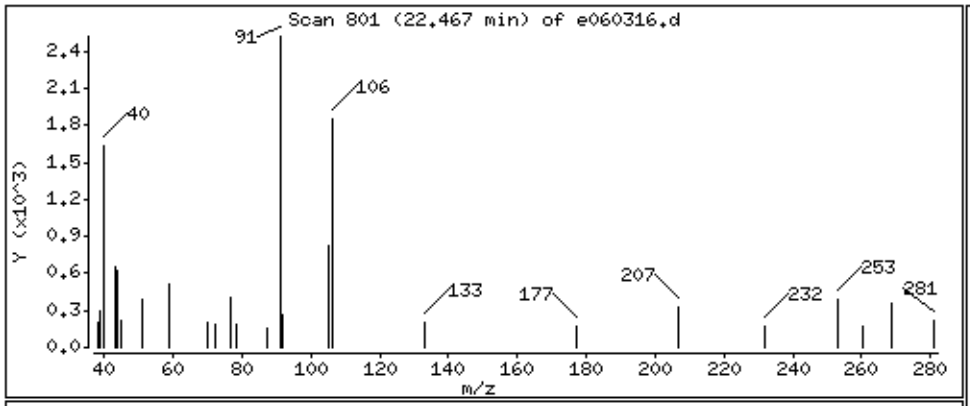
Operator: ea

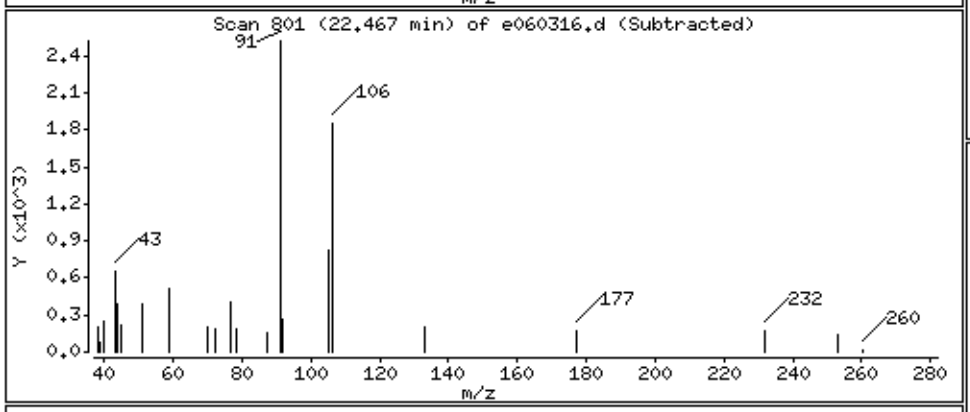
Column phase: RTX-624

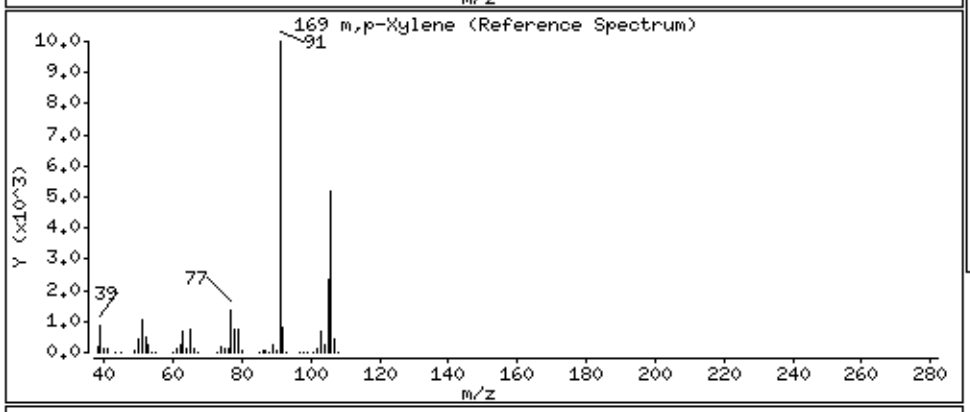
Column diameter: 0.32

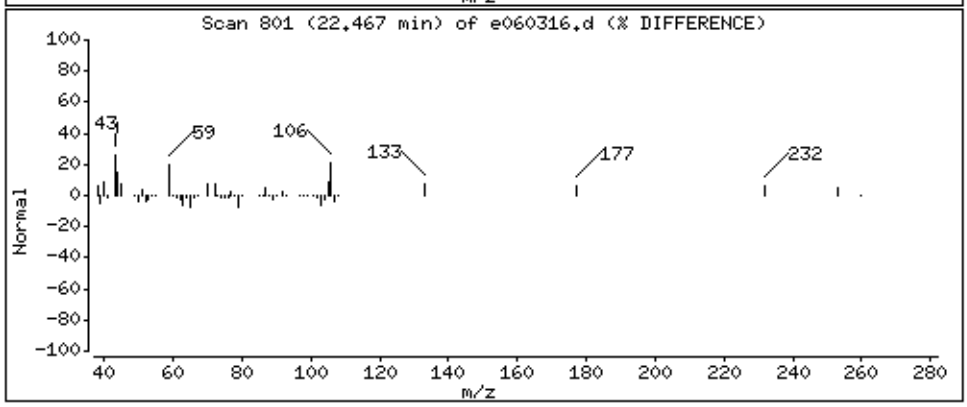
169 m,p-Xylene

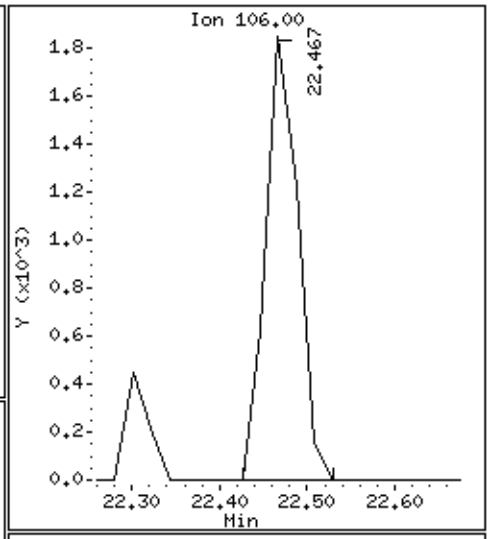
Concentration: 0.1311 PPBV

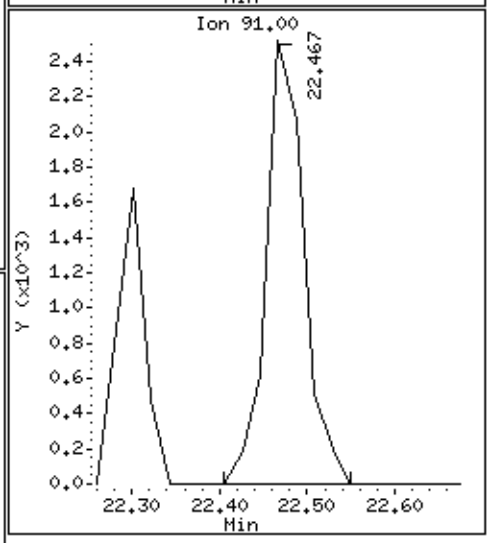












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

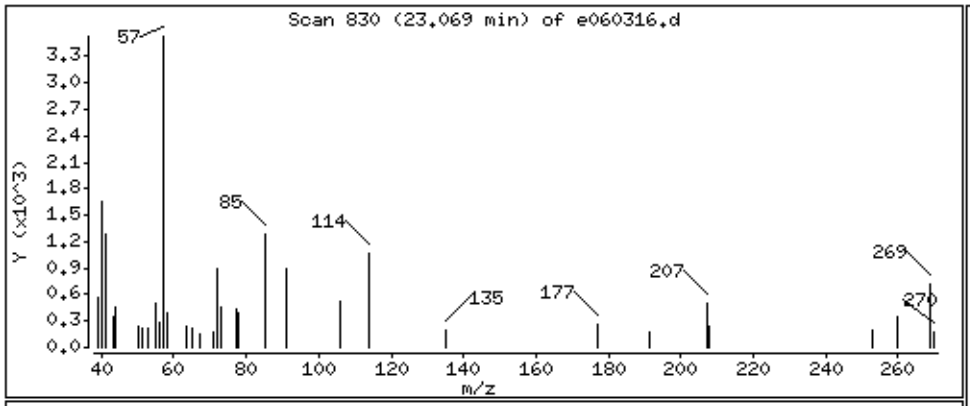
Operator: ea

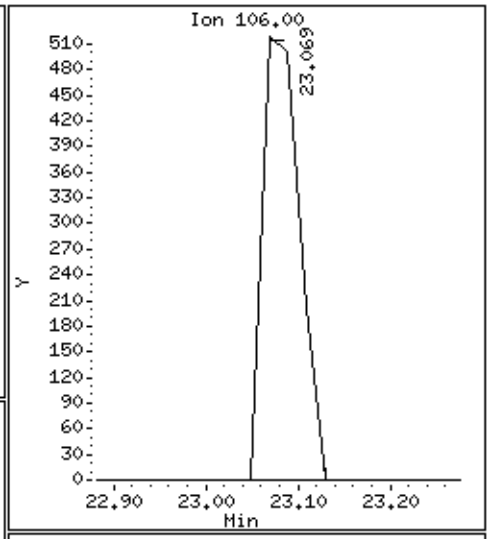
Column phase: RTX-624

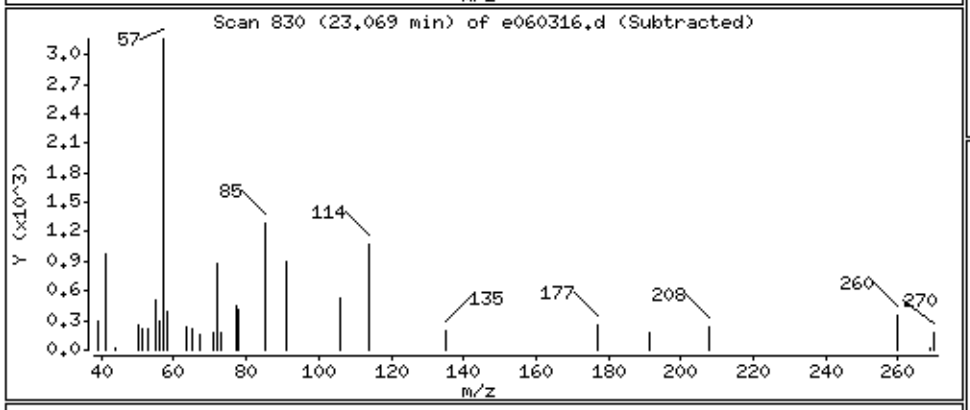
Column diameter: 0.32

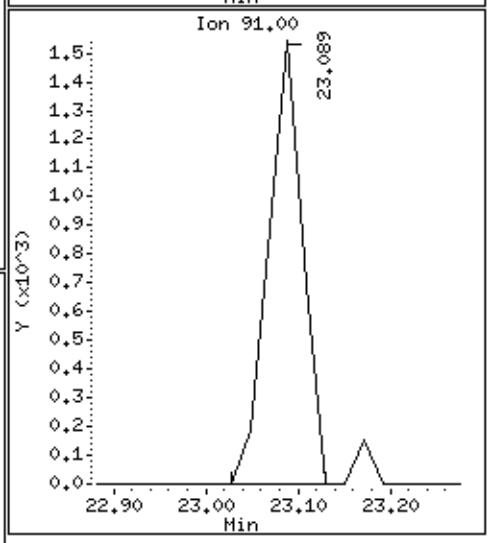
171 o-Xylene

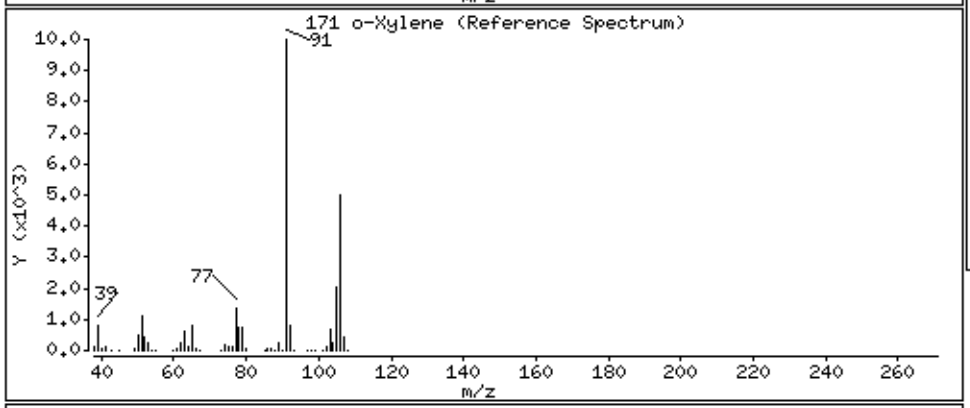
Concentration: 0.04533 PPBV

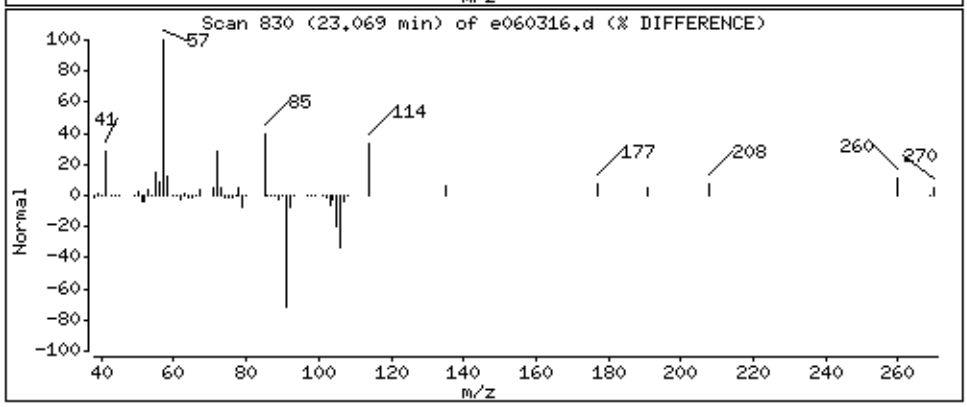












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

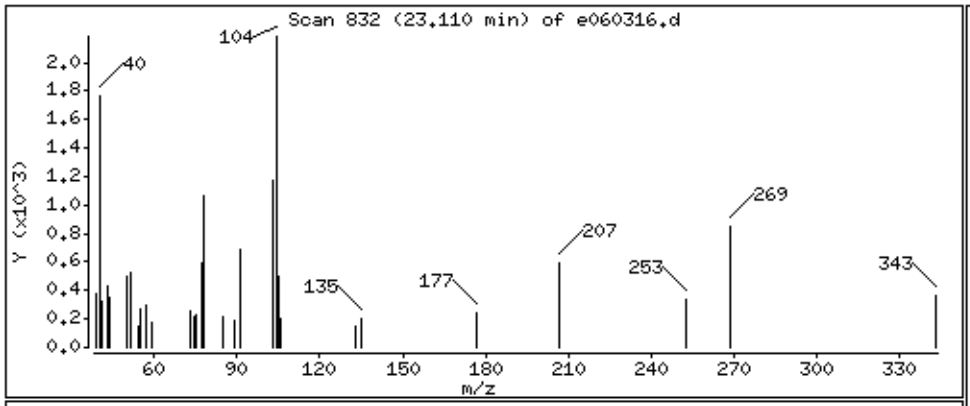
Operator: ea

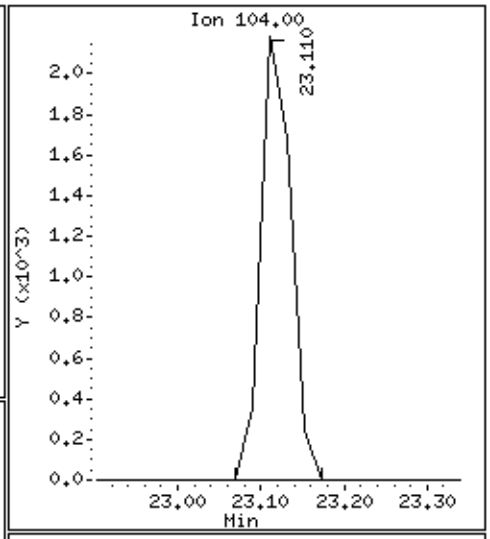
Column phase: RTX-624

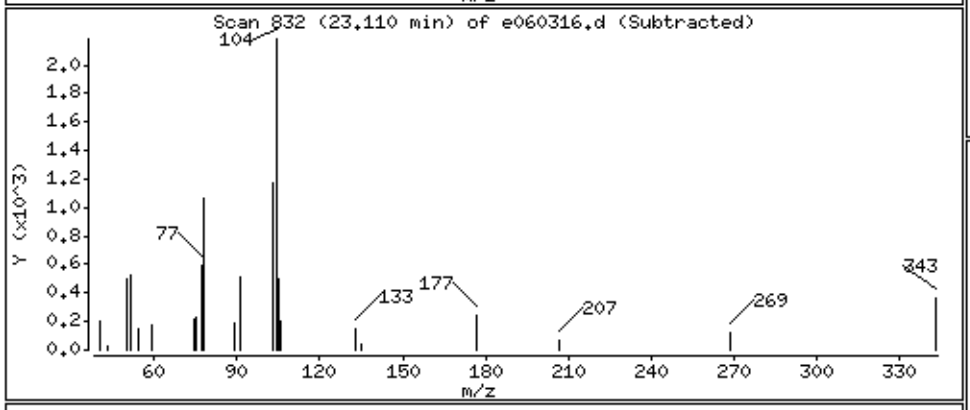
Column diameter: 0.32

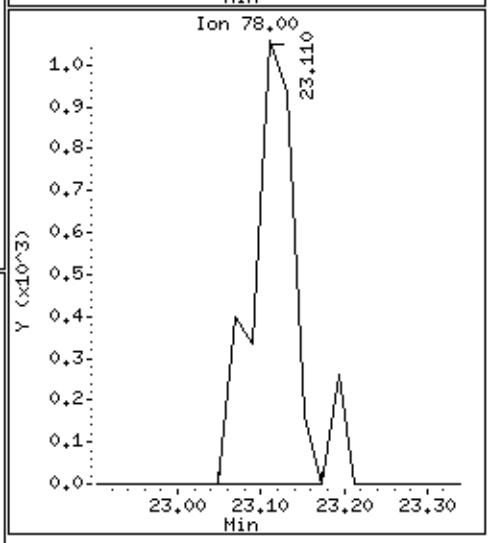
172 Styrene

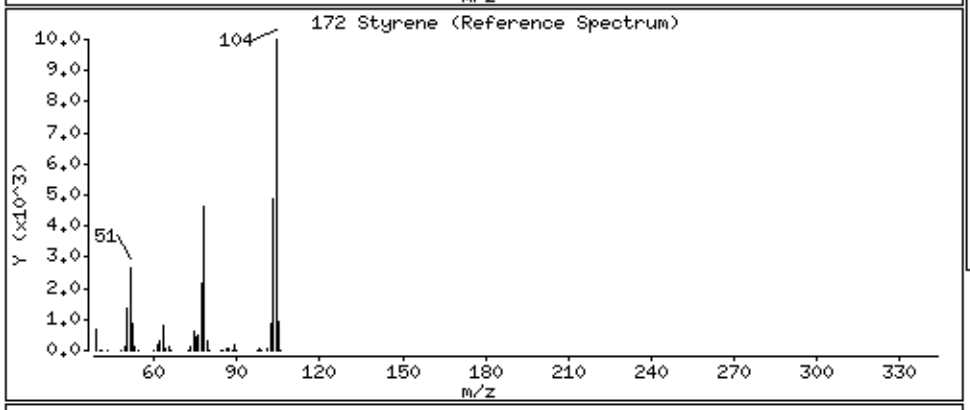
Concentration: 0.09823 PPBV

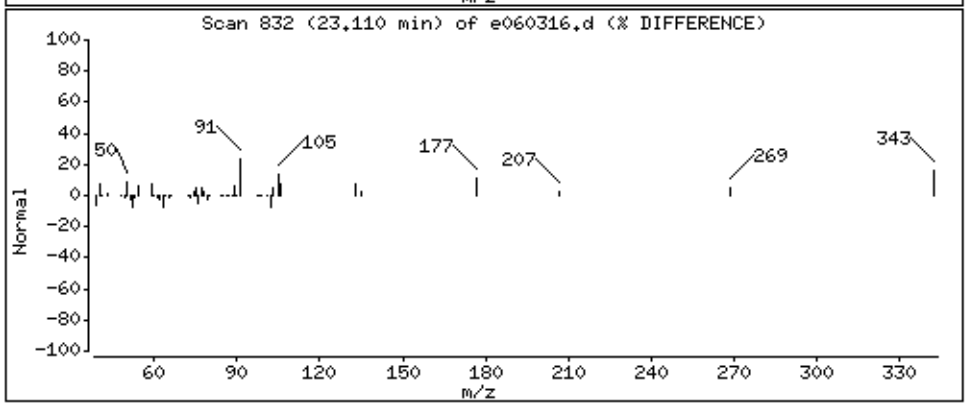












Data File: /chem/msde.i/03Jun2016.b/e060316.d

Date : 03-JUN-2016 19:22

Client ID:

Instrument: msde.i

Sample Info: 250mL#00337

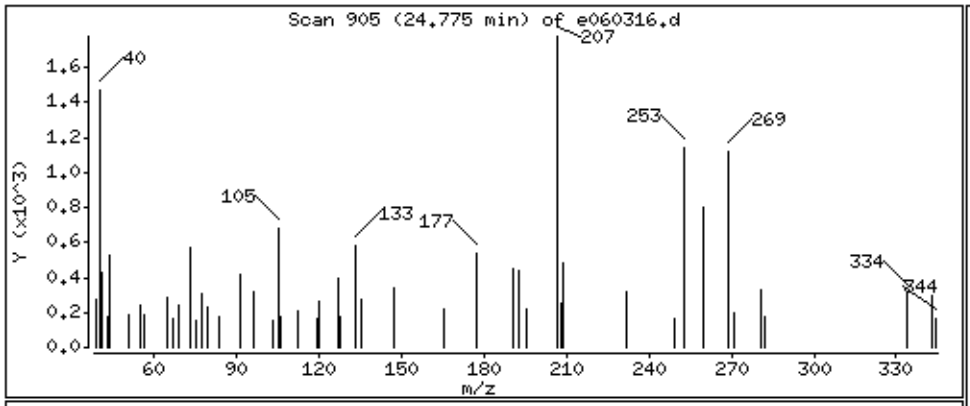
Operator: ea

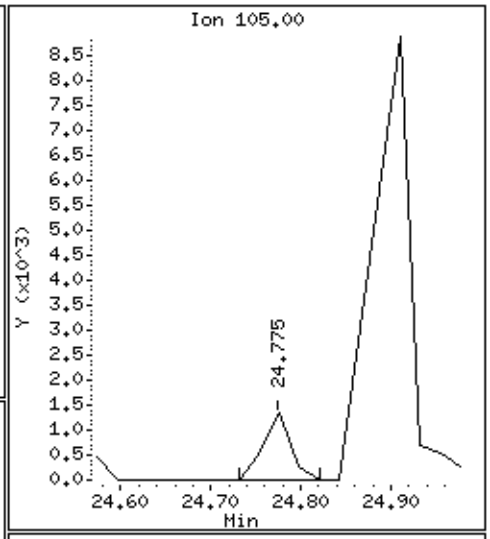
Column phase: RTX-624

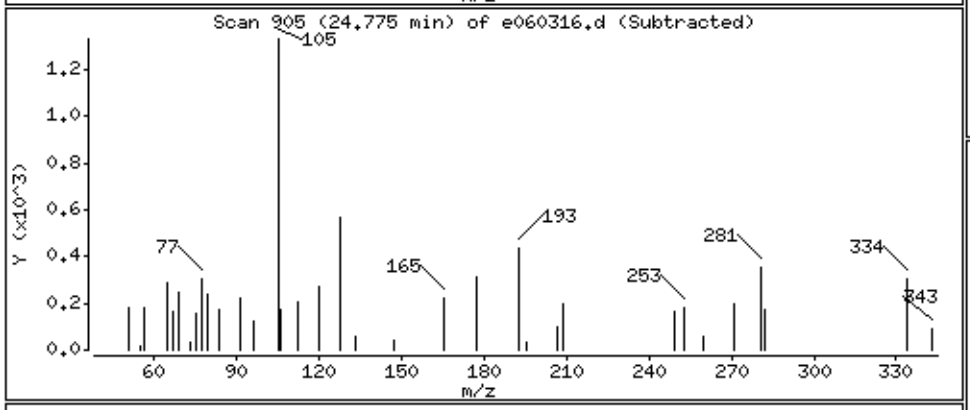
Column diameter: 0.32

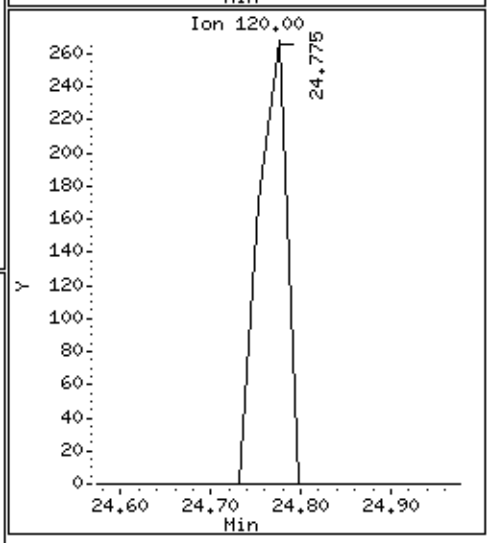
196 1,2,4-Trimethylbenzene

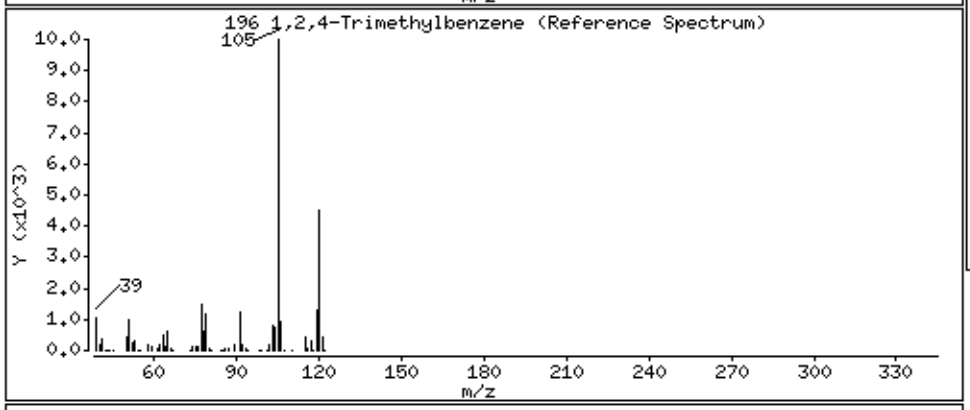
Concentration: 0.04090 PPBV

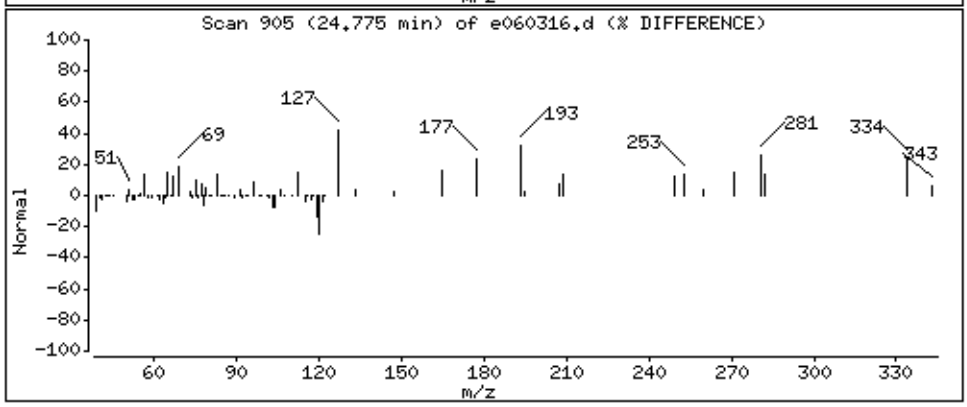












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B30IA-5 (052816)

Lab ID#: 1606028A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.45	0.76	2.2
Chloromethane	0.76	0.89	1.6	1.8
Freon 11	0.15	0.26	0.86	1.4
Ethanol	0.76	25	1.4	48
Freon 113	0.15	0.050 J	1.2	0.39 J
Acetone	0.76	7.9	1.8	19
2-Propanol	0.76	4.7	1.9	12
Carbon Disulfide	0.76	0.49 J	2.4	1.5 J
Methylene Chloride	0.31	0.32	1.1	1.1
Hexane	0.15	0.11 J	0.54	0.38 J
2-Butanone (Methyl Ethyl Ketone)	0.76	1.4	2.2	4.1
Carbon Tetrachloride	0.15	0.058 J	0.96	0.36 J
Benzene	0.15	0.13 J	0.49	0.41 J
4-Methyl-2-pentanone	0.15	0.10 J	0.63	0.43 J
Toluene	0.15	2.1	0.58	7.8
2-Hexanone	0.76	0.14 J	3.1	0.57 J
Ethyl Benzene	0.15	0.089 J	0.66	0.38 J
m,p-Xylene	0.15	0.21	0.66	0.90
o-Xylene	0.15	0.096 J	0.66	0.42 J
Styrene	0.15	0.21	0.65	0.91
4-Ethyltoluene	0.15	0.062 J	0.75	0.30 J
1,2,4-Trimethylbenzene	0.15	0.073 J	0.75	0.36 J
Naphthalene	0.76	0.066 J	4.0	0.35 J

eurofins | Air Toxics

Client Sample ID: B30IA-5 (052816)

Lab ID#: 1606028A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060317**	**Date of Collection:**	**5/29/16 5:36:00 PM**
Dil. Factor:	**1.53**	**Date of Analysis:**	**6/3/16 08:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.45	0.76	2.2
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.76	0.89	1.6	1.8
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.76	Not Detected	3.0	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.26	0.86	1.4
Ethanol	0.76	25	1.4	48
Freon 113	0.15	0.050 J	1.2	0.39 J
1,1-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Acetone	0.76	7.9	1.8	19
2-Propanol	0.76	4.7	1.9	12
Carbon Disulfide	0.76	0.49 J	2.4	1.5 J
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	0.32	1.1	1.1
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Hexane	0.15	0.11 J	0.54	0.38 J
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	1.4	2.2	4.1
cis-1,2-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.75	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	Not Detected	0.53	Not Detected
Carbon Tetrachloride	0.15	0.058 J	0.96	0.36 J
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Benzene	0.15	0.13 J	0.49	0.41 J
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	Not Detected	0.63	Not Detected
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.71	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	0.10 J	0.63	0.43 J
Toluene	0.15	2.1	0.58	7.8
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	0.14 J	3.1	0.57 J

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Client Sample ID: B30IA-5 (052816)

Lab ID#: 1606028A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060317**	**Date of Collection:**	**5/29/16 5:36:00 PM**
Dil. Factor:	**1.53**	**Date of Analysis:**	**6/3/16 08:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	0.089 J	0.66	0.38 J
m,p-Xylene	0.15	0.21	0.66	0.90
o-Xylene	0.15	0.096 J	0.66	0.42 J
Styrene	0.15	0.21	0.65	0.91
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.75	Not Detected
4-Ethyltoluene	0.15	0.062 J	0.75	0.30 J
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	0.073 J	0.75	0.36 J
1,3-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.7	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.2	Not Detected
Naphthalene	0.76	0.066 J	4.0	0.35 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/03Jun2016.b/e060317.d
Lab Smp Id: 1606028A-07A
Inj Date : 03-JUN-2016 20:16
Operator : ea Inst ID: msde.i
Smp Info : 250mL#6L1279
Misc Info : 3.3"Hg -> 5.3psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/03Jun2016.b/e16l0317f.m
Meth Date : 03-Jun-2016 10:38 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1
Dil Factor: 1.53000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
5.196	5.196 (0.338)	85	30625	0.29393	0.4497	80.00- 120.00	100.00
5.220	5.220 (0.339)	87	8344			2.00- 62.00	27.25
17 Chloromethane					CAS #: 74-87-3		
6.932	6.956 (0.450)	50	11477	0.58055	0.8882	80.00- 120.00	100.00
6.908	6.932 (0.449)	52	3475			5.50- 65.50	30.28
35 Freon 11					CAS #: 75-69-4		
10.747	10.747 (0.698)	101	18782	0.16741	0.2561	80.00- 120.00	100.00
10.747	10.747 (0.698)	103	13647			37.17- 97.17	72.66
42 Ethanol					CAS #: 64-17-5		
11.681	11.681 (0.759)	45	134193	16.5067	25.255	80.00- 120.00	100.00
11.681	11.681 (0.759)	46	50782			6.61- 66.61	37.84
11.681	11.681 (0.759)	43	36357			0.00- 54.66	27.09
49 Freon 113					CAS #: 76-13-1		
12.081	12.081 (0.785)	151	2774	0.03299	0.05048	80.00- 120.00	100.00(a)
12.062	12.081 (0.784)	153	1993			33.64- 93.64	71.86

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   49 Freon 113 (continued)
 12.062  12.081 (0.784)   101      4246                    80.40- 140.40   153.07
-------------------------------------------------------------------------------
   52 Acetone                                      CAS #: 67-64-1
 12.347  12.366 (0.802)    58     71200 5.19339    7.946  80.00- 120.00   100.00
 12.366  12.366 (0.803)    43    250467                   321.47- 381.47   351.78
-------------------------------------------------------------------------------
   56 Carbon Disulfide                             CAS #: 75-15-0
 12.443  12.443 (0.808)    76     33680 0.32233   0.4932  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                   CAS #: 67-63-0
 12.728  12.709 (0.827)    45    128923 3.07405    4.703  80.00- 120.00   100.00
 12.728  12.709 (0.827)    43     39088                     0.00-  54.09    30.32
 12.728  12.709 (0.827)    59      6021                     0.00-  34.43     4.67
-------------------------------------------------------------------------------
   66 Methylene Chloride                           CAS #: 75-09-2
 13.149  13.149 (0.854)    84      6829 0.20787   0.3180  80.00- 120.00   100.00
 13.149  13.149 (0.854)    49      6068                    63.99- 123.99    88.86
 13.149  13.149 (0.854)    51      2736                     0.29-  60.29    40.07
-------------------------------------------------------------------------------
   78 Hexane                                       CAS #: 110-54-3
 13.835  13.835 (0.899)    57      2919 0.07123   0.1090  80.00- 120.00   100.00(a)
 13.890  13.835 (0.902)    43      7846                    21.48-  81.48   268.79
  0.000  13.835 (0.000)    86         0                     0.00-  51.51     0.00
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72     15069 0.91250    1.396  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    129552                   262.26- 322.26   859.71
 15.047  15.047 (0.978)    57      3755                     0.00-  55.71    24.92
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    123879 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128     93544                    52.25- 112.25    75.51
 15.391  15.391 (1.000)    49     90139                    89.81- 149.81    72.76
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 15.854  15.854 (1.030)   119      3863 0.03791  0.05801  80.00- 120.00   100.00(a)
 15.854  15.854 (1.030)   117      4451                    74.09- 134.09   115.22
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 16.183  16.183 (0.967)    78      9373 0.08477   0.1297  80.00- 120.00   100.00(a)
 16.183  16.183 (0.967)    77      2233                     0.00-  53.97    23.83
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    180947 5.08806    5.088  80.00- 120.00   100.00
 16.183  16.183 (1.051)    67     95501                    21.16-  81.16    52.78
-------------------------------------------------------------------------------
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.737  16.737 (1.000)   114    461414 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     67035                    0.00-  45.20    14.53
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 18.984  18.984 (1.134)    43      3946 0.06916   0.1058  80.00- 120.00   100.00(a)
 18.984  18.984 (1.134)    58       618                   15.64-  75.64    15.67
  0.000  18.984 (0.000)    85         0                    0.00-  56.71     0.00
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.275  19.275 (1.152)    98    433431 4.78296    4.783  80.00- 120.00   100.00
 19.275  19.275 (1.152)    70     48356                    0.00-  40.11    11.16
 19.275  19.275 (1.152)   100    289559                   37.58-  97.58    66.81
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.410  19.410 (1.160)    91    177762 1.34970    2.065  80.00- 120.00   100.00
 19.410  19.410 (1.160)    92    105824                   28.92-  88.92    59.53
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 20.795  20.795 (0.938)    58      3073 0.09090   0.1391  80.00- 120.00   100.00(a)
 20.795  20.795 (0.938)    43      3808                  140.44- 200.44   123.91
  0.000  20.795 (0.000)   100         0                    0.00-  59.62     0.00
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    435844 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    211963                   20.64-  80.64    48.63
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 22.302  22.302 (1.006)   106      3327 0.05793  0.08863  80.00- 120.00   100.00(a)
 22.302  22.302 (1.006)    91     12631                  282.51- 342.51   379.65
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 22.467  22.467 (1.013)   106      9087 0.13621   0.2084  80.00- 120.00   100.00
 22.467  22.467 (1.013)    91     20795                  166.46- 226.46   228.85
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 23.089  23.089 (1.041)   106      3835 0.06267  0.09588  80.00- 120.00   100.00(a)
 23.089  23.089 (1.041)    91      9888                  184.01- 244.01   257.83
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 23.110  23.110 (1.042)   104     14502 0.14005   0.2143  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78      6521                   20.27-  80.27    44.96
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 23.856  23.856 (1.076)   174    282744 4.72783    4.728  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    281015                   77.42- 137.42    99.39
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene (continued)
 23.856  23.856 (1.076)   176    275341                   65.38- 125.38    97.38
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 24.192  24.237 (1.091)   105      7519 0.04048  0.06194  80.00- 120.00   100.00(a)
 24.215  24.237 (1.092)   120      1831                    1.08-  61.08    24.36
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.775  24.775 (1.117)   105      5972 0.04779  0.07312  80.00- 120.00   100.00(a)
 24.775  24.775 (1.117)   120      2871                   16.20-  76.20    48.08
-------------------------------------------------------------------------------
  228 Naphthalene                                   CAS #: 91-20-3
 27.712  27.735 (1.250)   128      2902 0.04330  0.06624  80.00- 120.00   100.00(a)
 27.757  27.712 (1.252)   127      1250                    0.00-  46.39    43.10
-------------------------------------------------------------------------------
```

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Report Date: 14-Jun-2016 06:36

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060317.d
Lab Smp Id: 1606028A-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 3.3"Hg -> 5.3psi

Calibration Date: 03-JUN-2016
Calibration Time: 07:24

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	115058	69035	161081	123879	7.67
123 1,4-Difluorobenze	430856	258514	603198	461414	7.09
163 Chlorobenzene-d5	386725	232035	541415	435844	12.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 14-Jun-2016 06:36

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 03Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606028A-07A
Level: LOW Operator: ea
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 3.3"Hg -> 5.3psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.088	101.76	70-130
$ 146 Toluene-d8	5.000	4.783	95.66	70-130
$ 177 4-Bromofluorobenze	5.000	4.728	94.56	70-130

Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

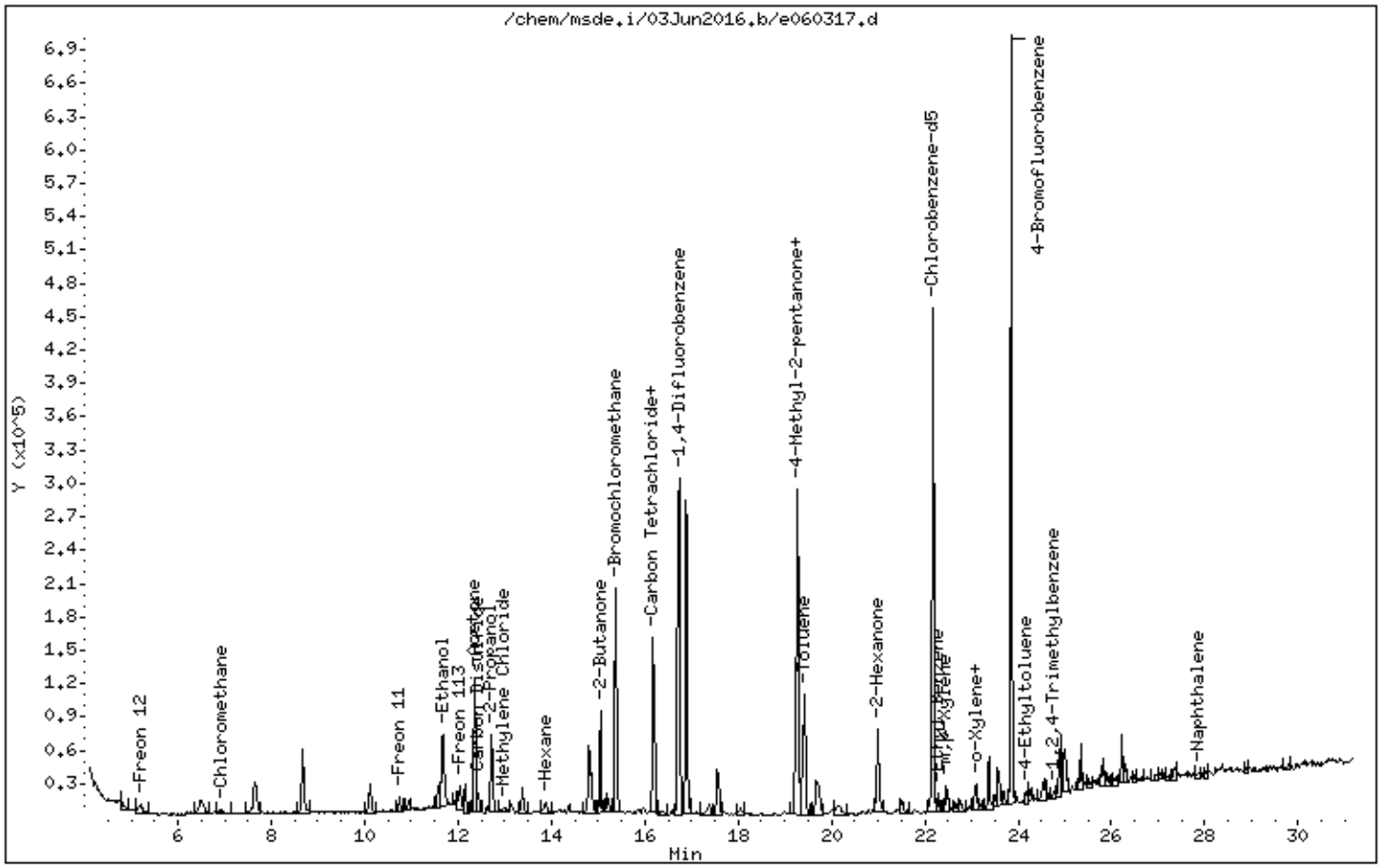
Instrument: msde.i

Sample Info: 250mL#6L1279

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

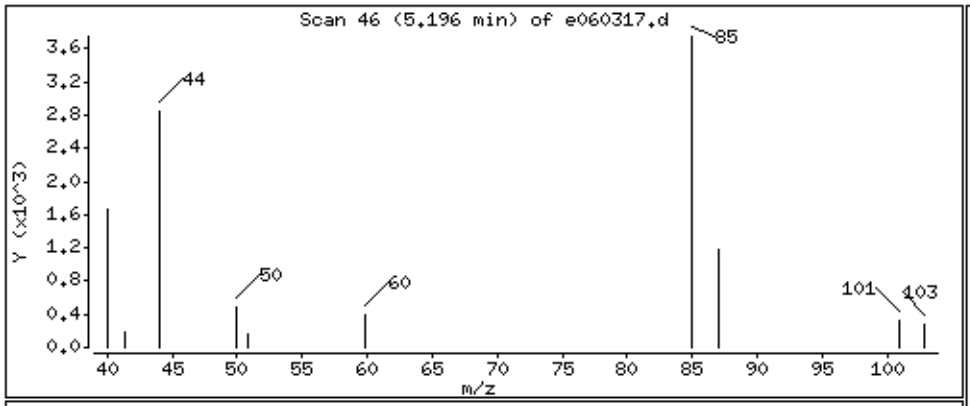
Operator: ea

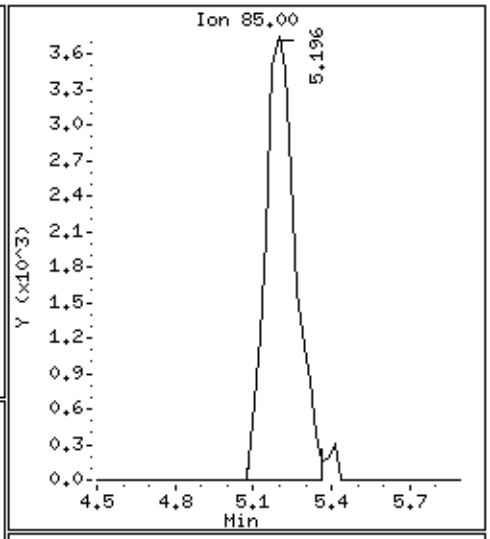
Column phase: RTX-624

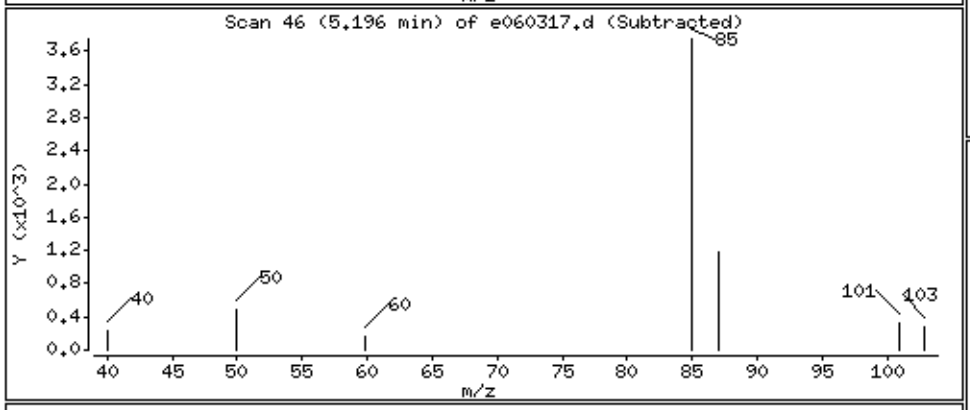
Column diameter: 0.32

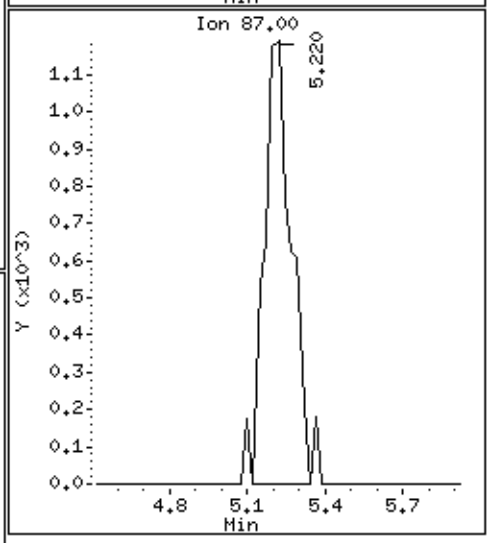
11 Freon 12

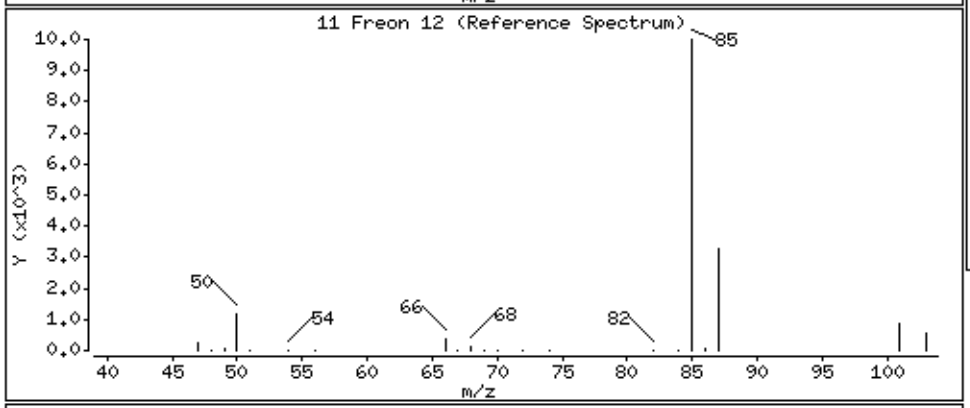
Concentration: 0.4497 PPBV

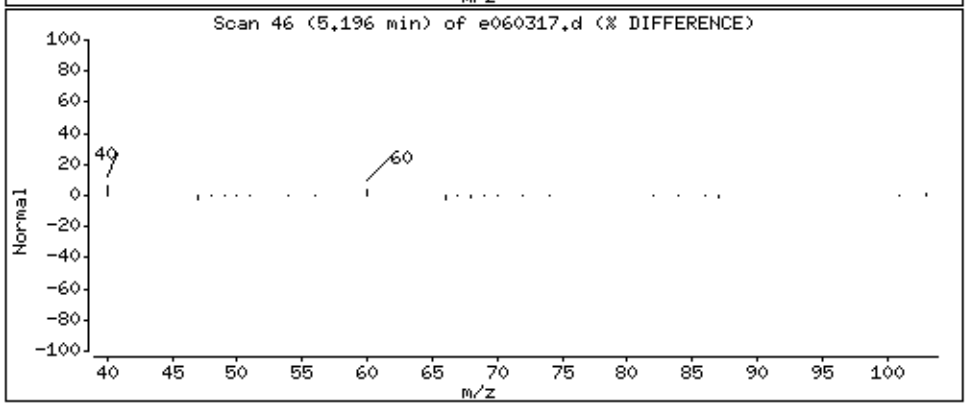












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

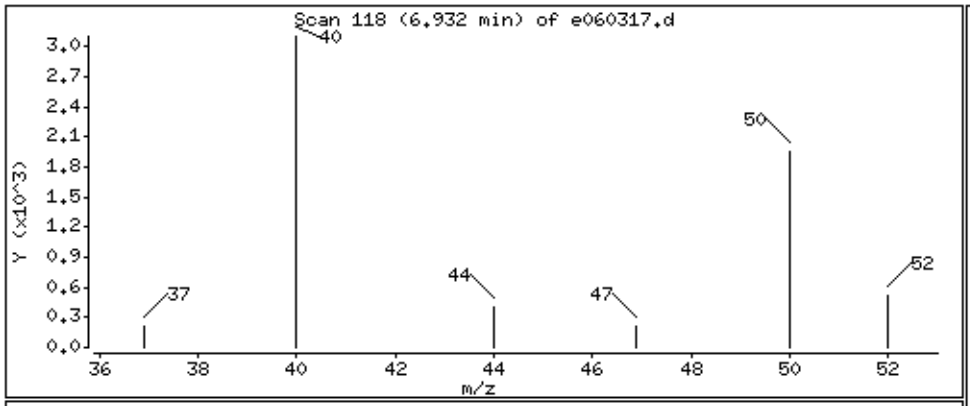
Operator: ea

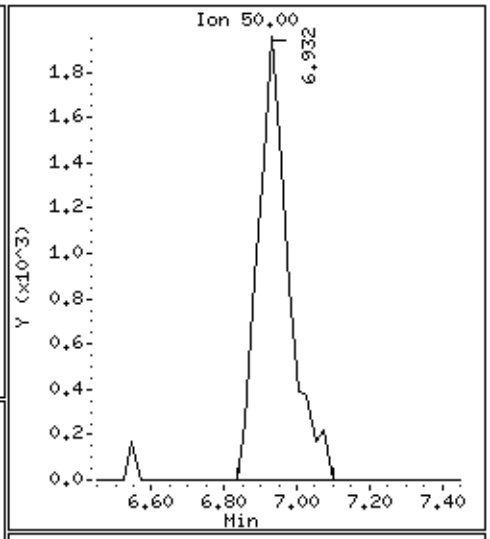
Column phase: RTX-624

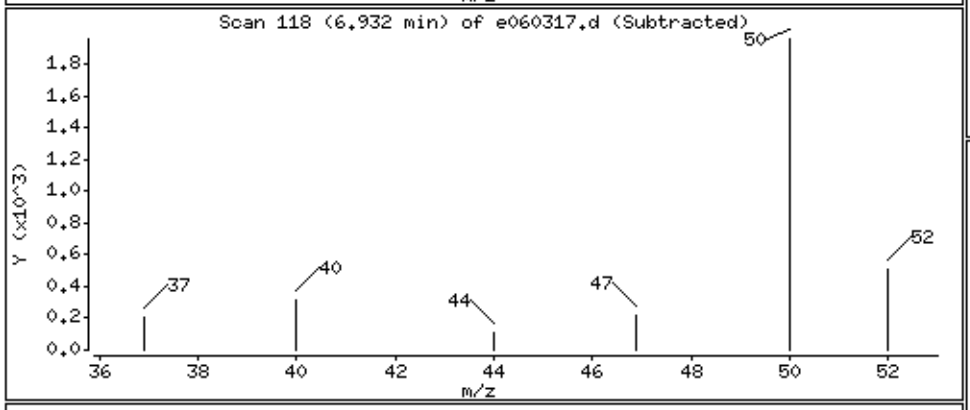
Column diameter: 0.32

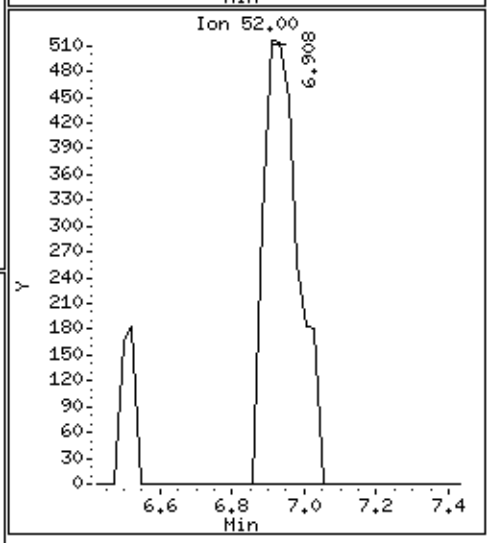
17 Chloromethane

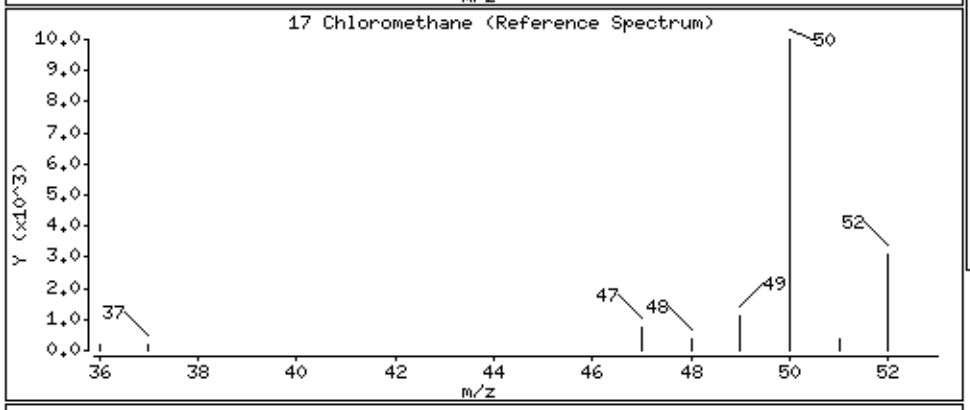
Concentration: 0.8882 PPBV

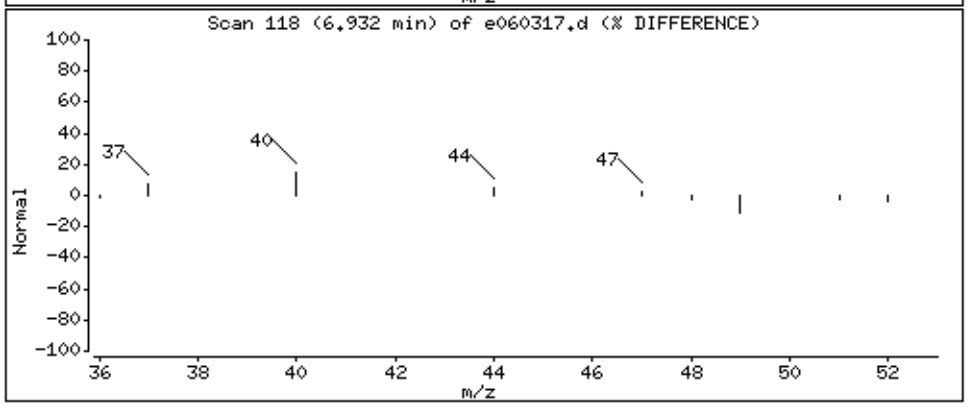












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

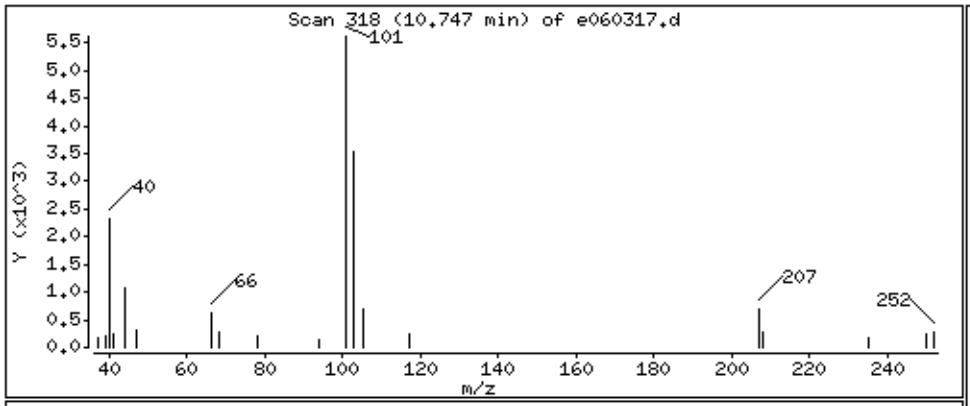
Operator: ea

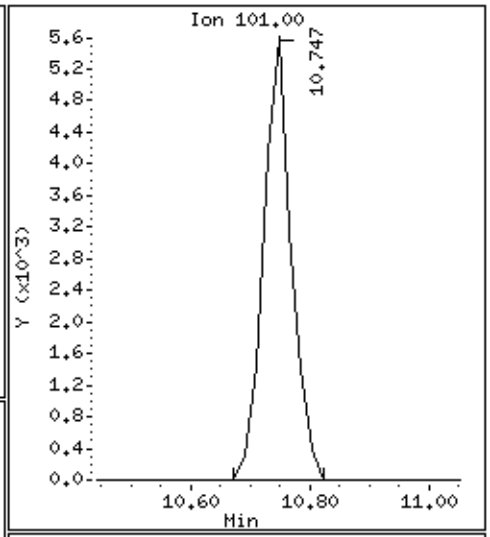
Column phase: RTX-624

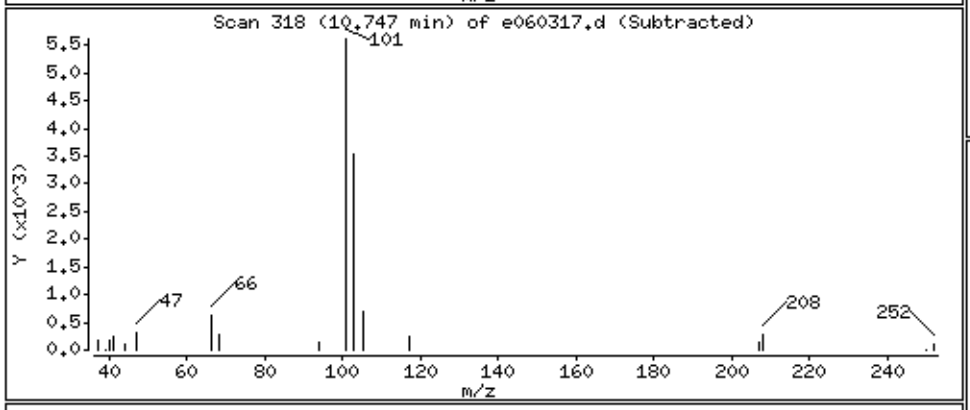
Column diameter: 0.32

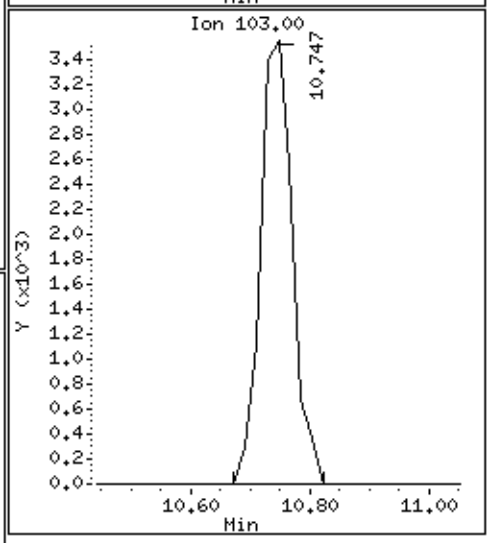
35 Freon 11

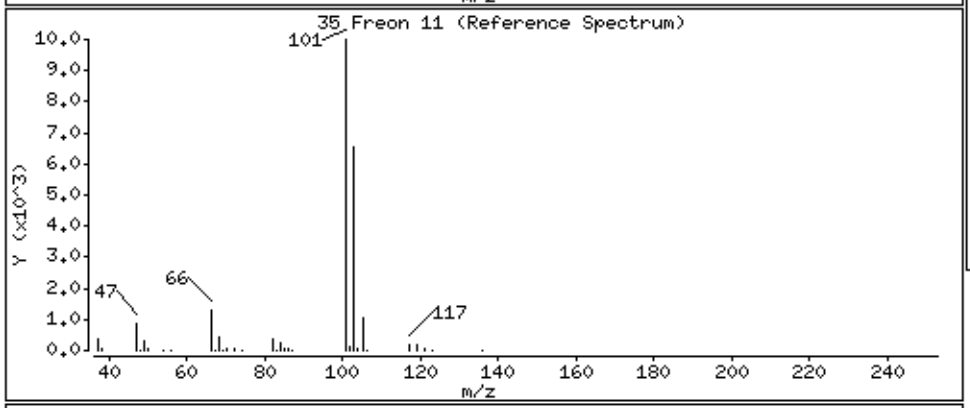
Concentration: 0.2561 PPBV

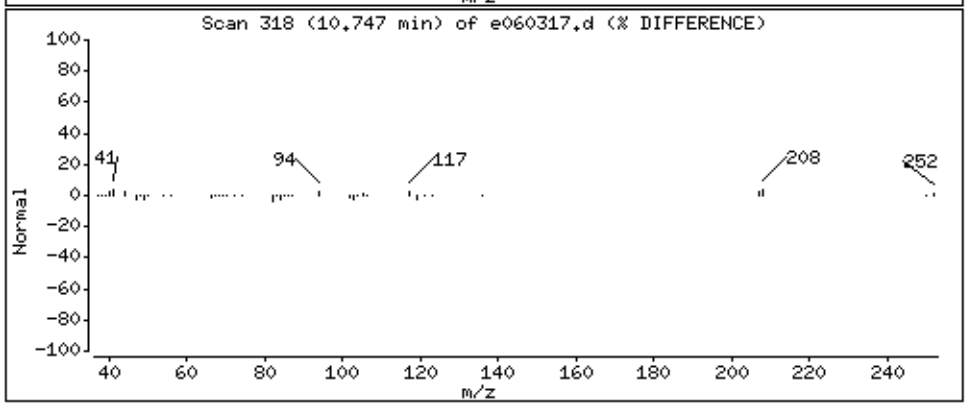












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

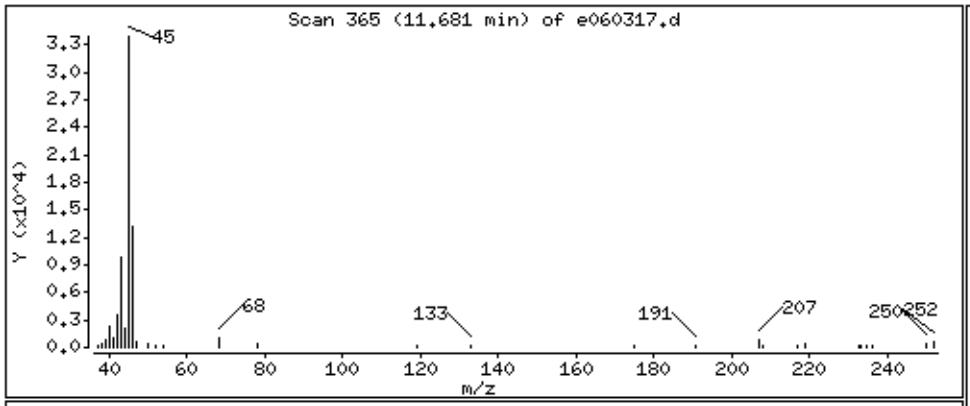
Operator: ea

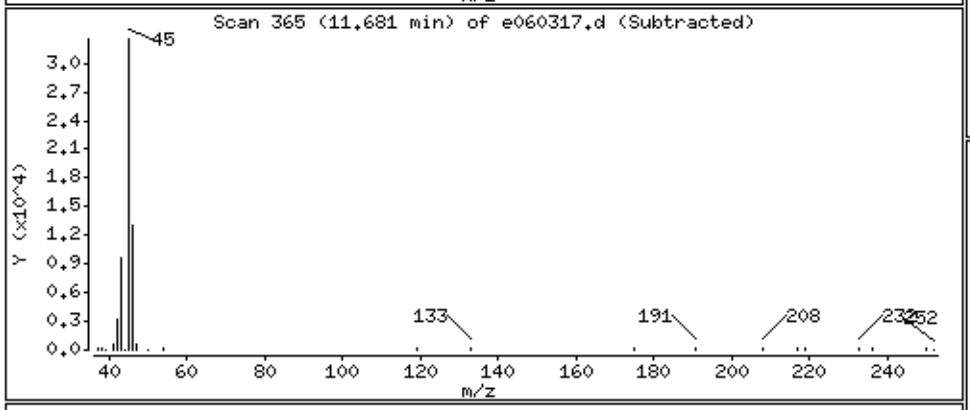
Column phase: RTX-624

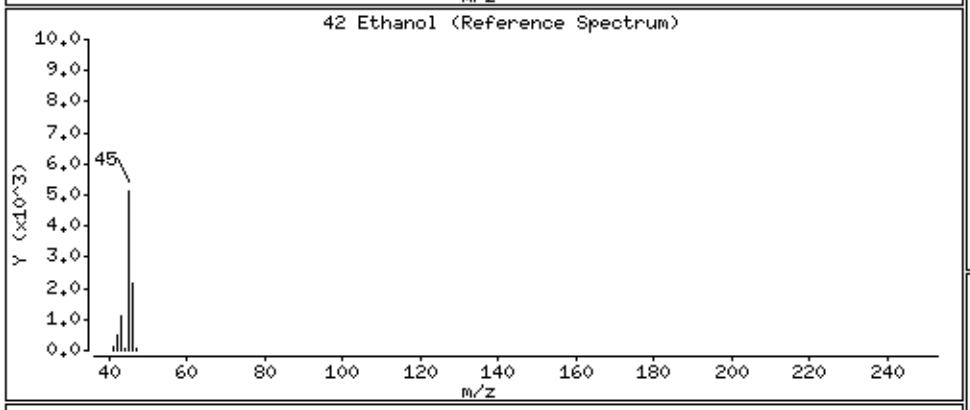
Column diameter: 0.32

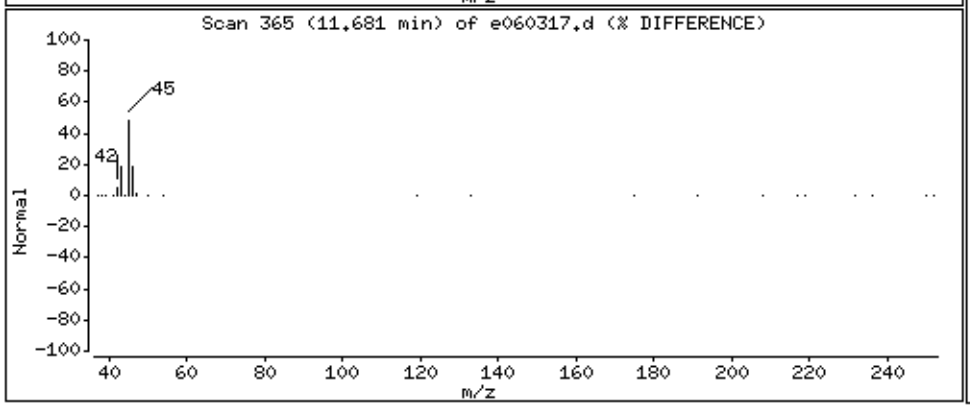
42 Ethanol

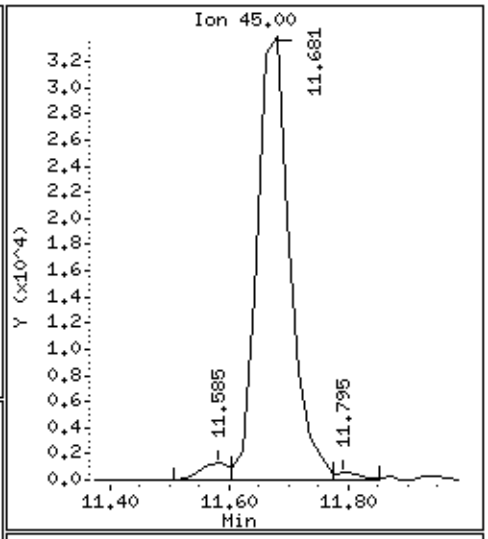
Concentration: 25.255 PPBV

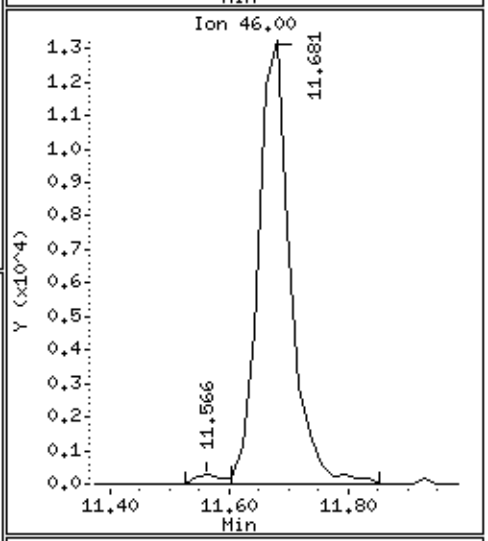


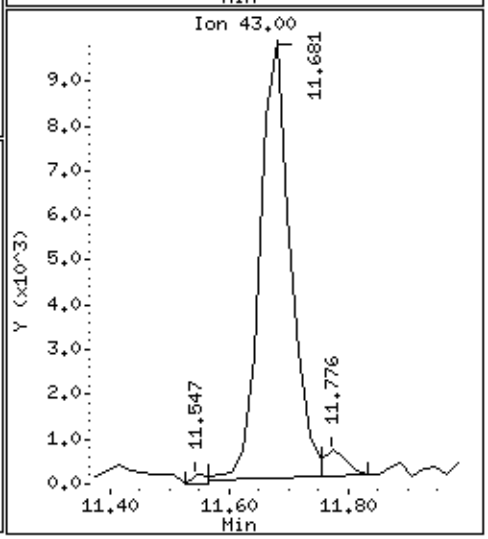












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

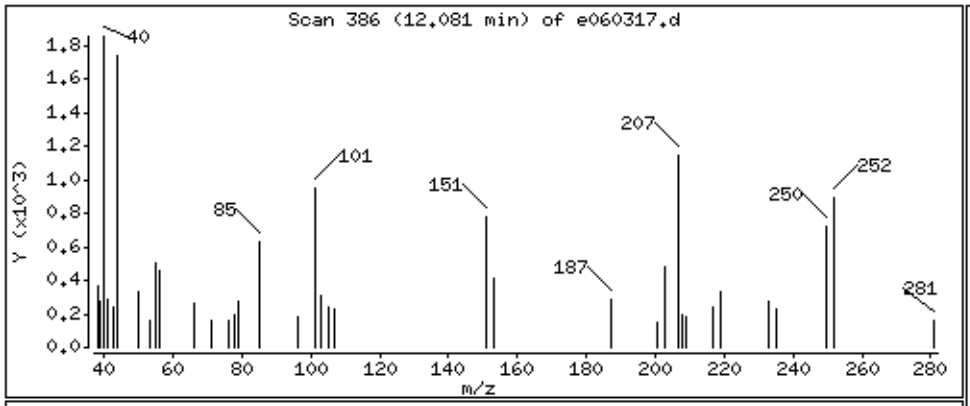
Operator: ea

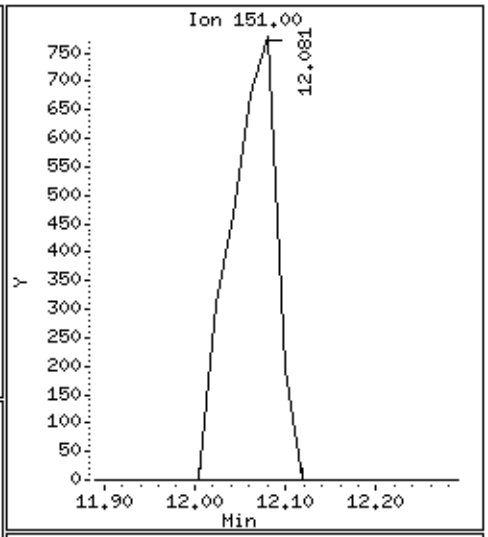
Column phase: RTX-624

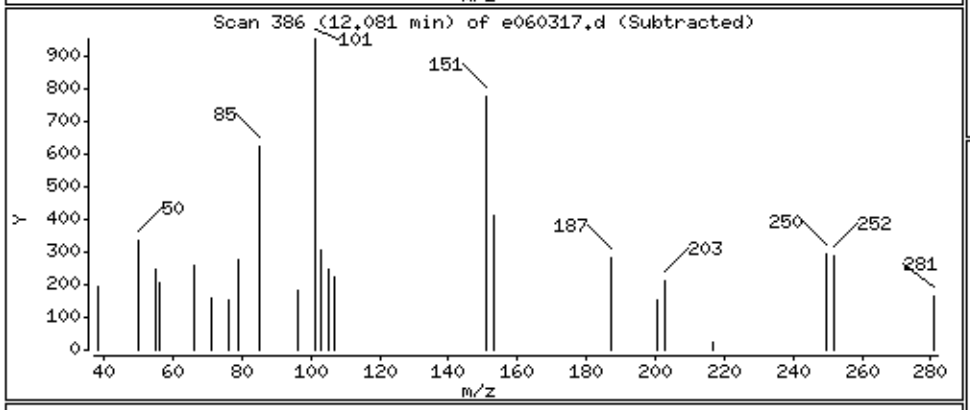
Column diameter: 0.32

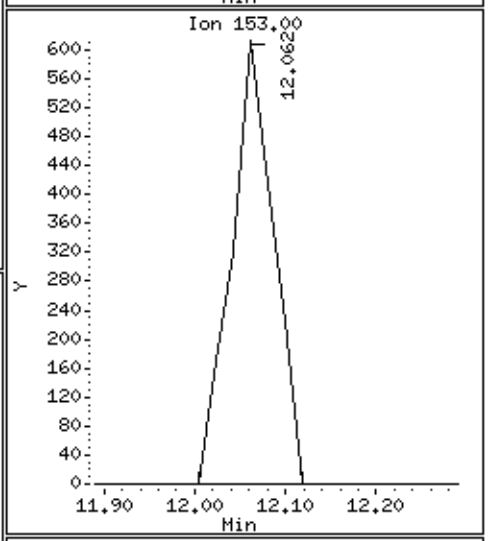
49 Freon 113

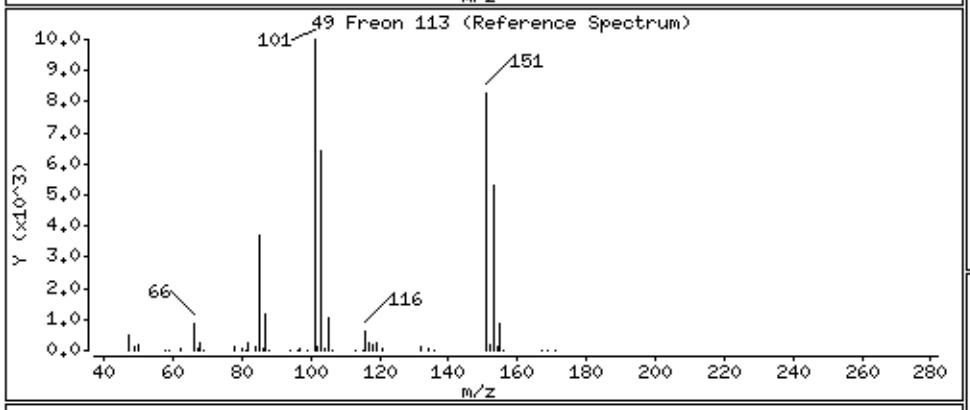
Concentration: 0.05048 PPBV

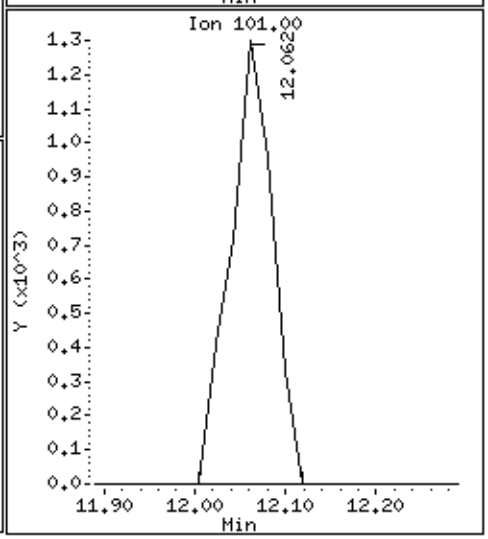


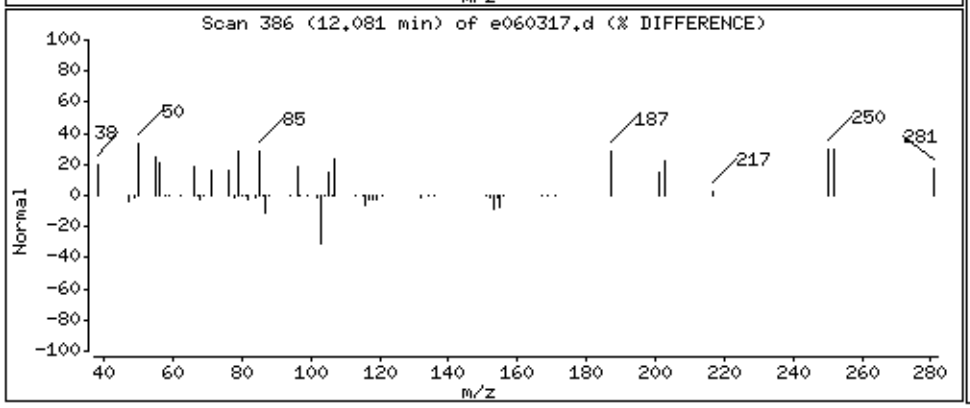












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

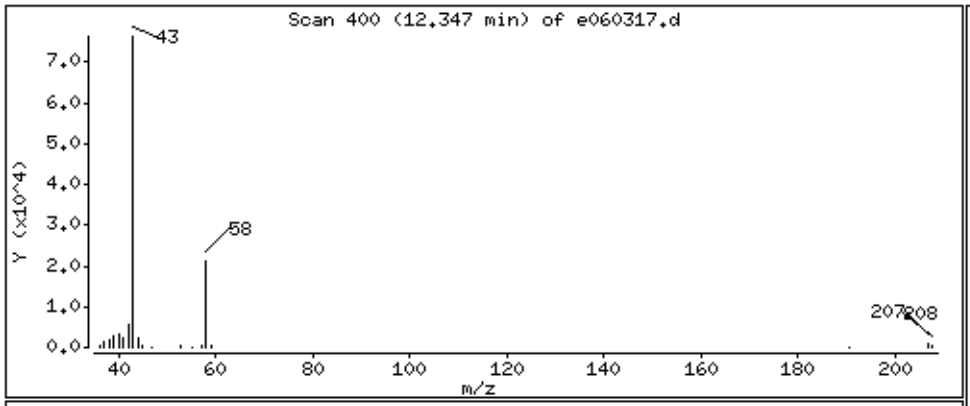
Operator: ea

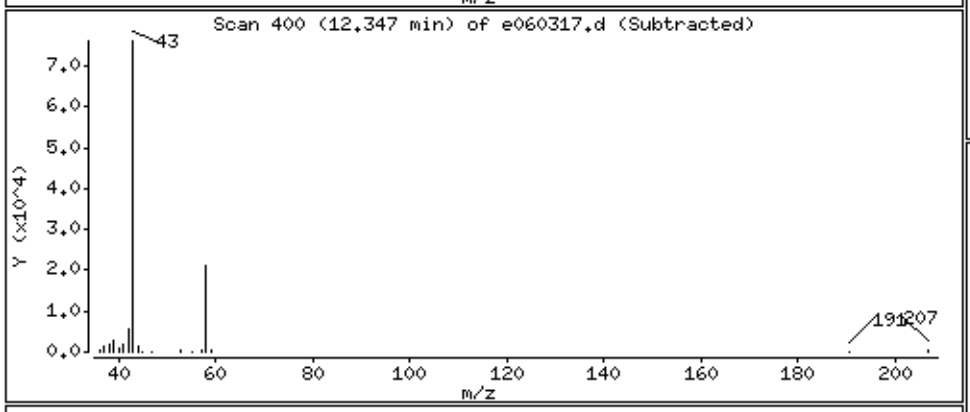
Column phase: RTX-624

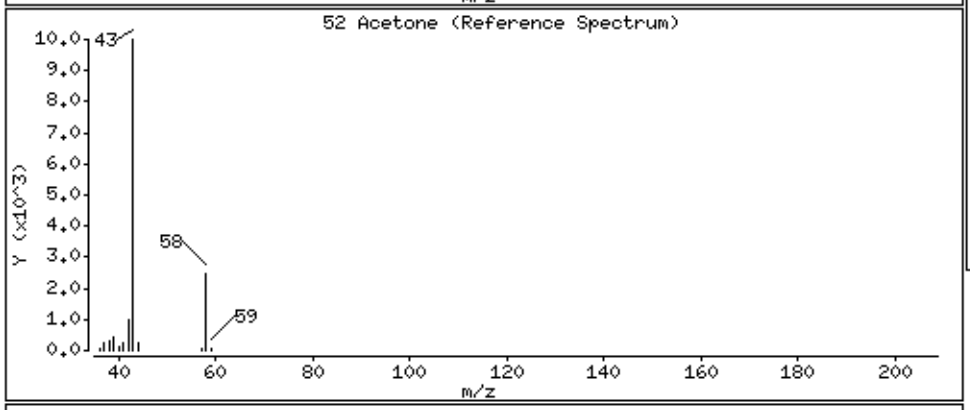
Column diameter: 0.32

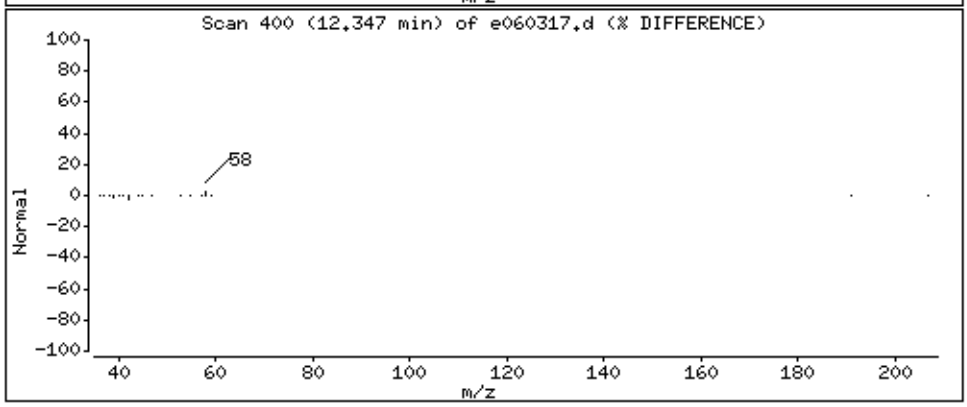
52 Acetone

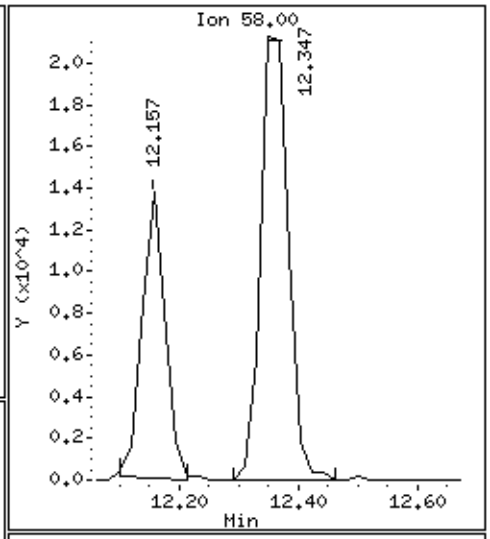
Concentration: 7.946 PPBV

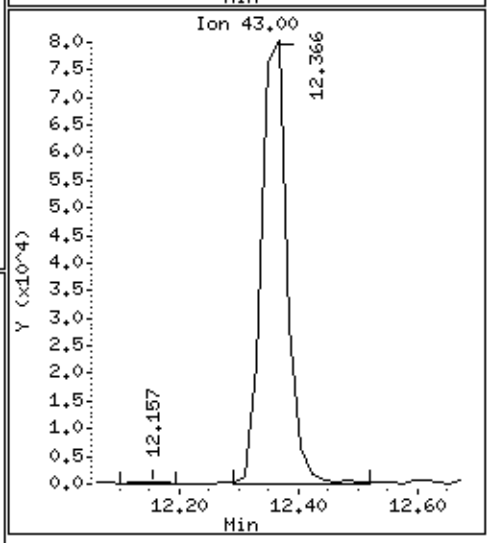












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

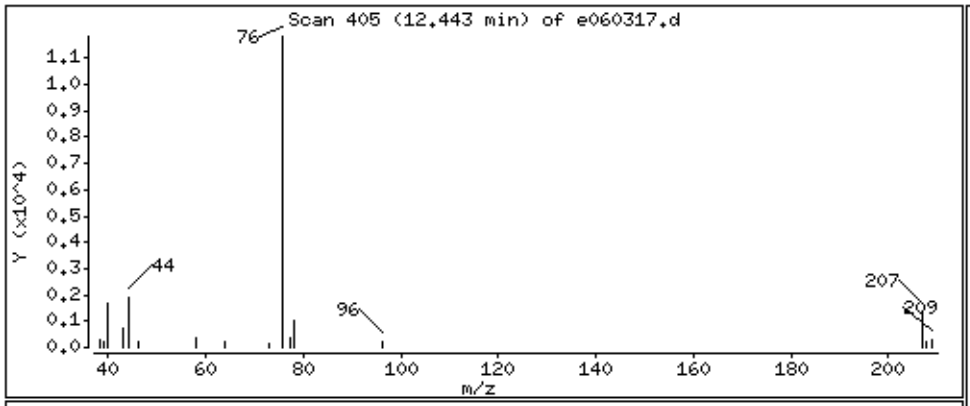
Operator: ea

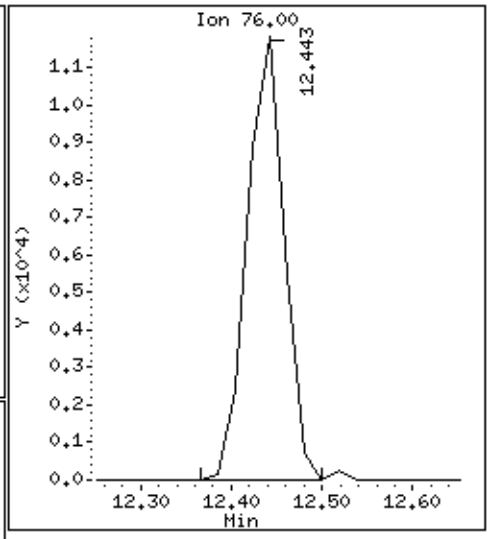
Column phase: RTX-624

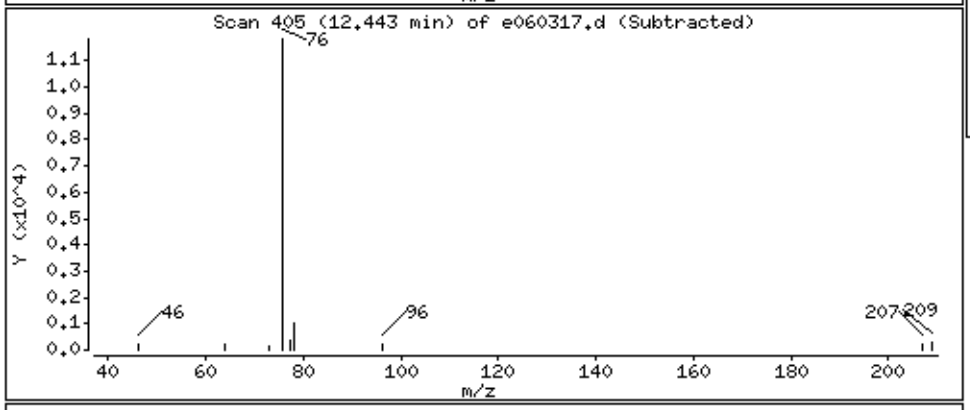
Column diameter: 0.32

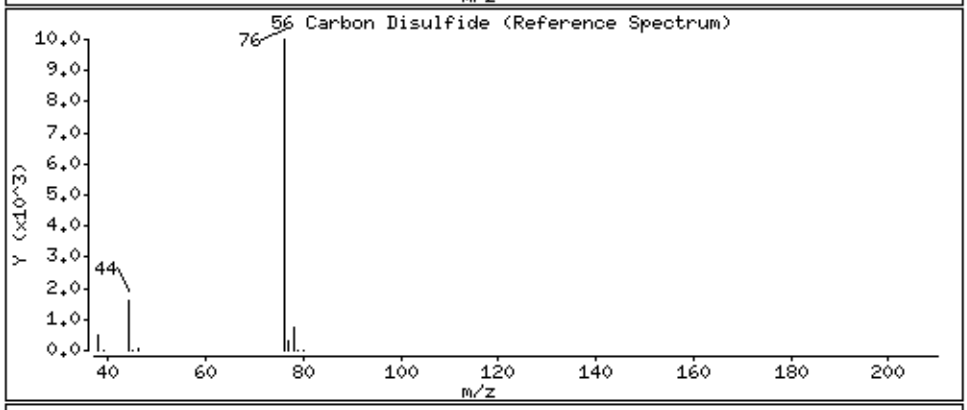
56 Carbon Disulfide

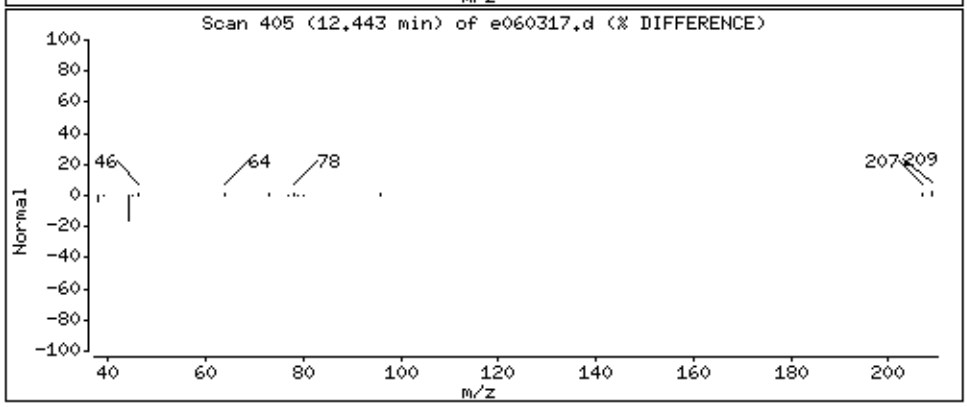
Concentration: 0.4932 PPBV











Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

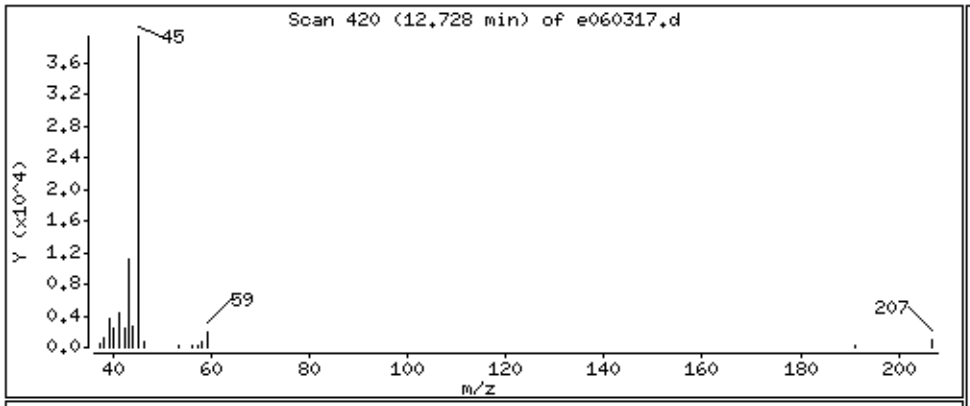
Operator: ea

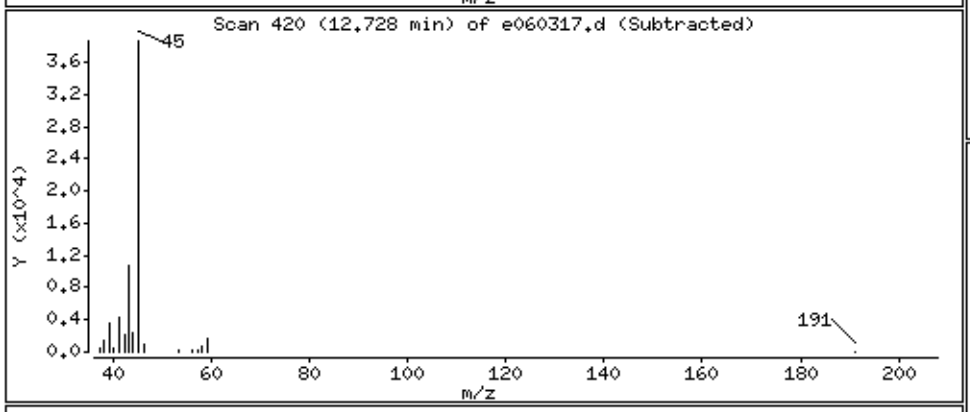
Column phase: RTX-624

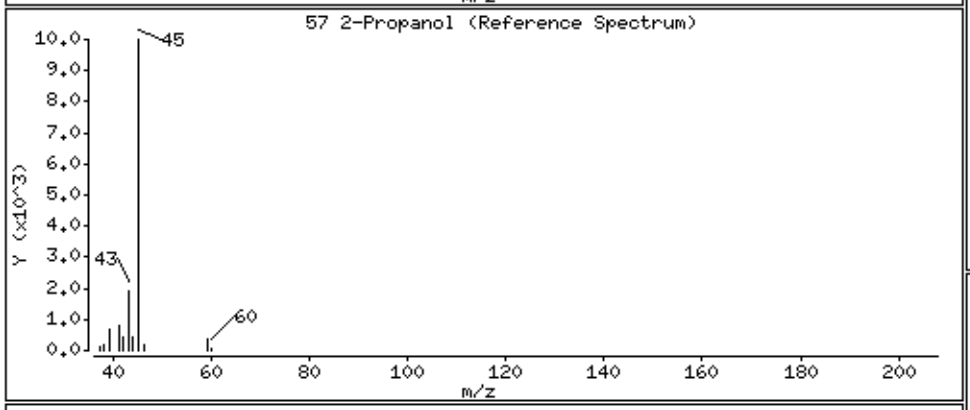
Column diameter: 0.32

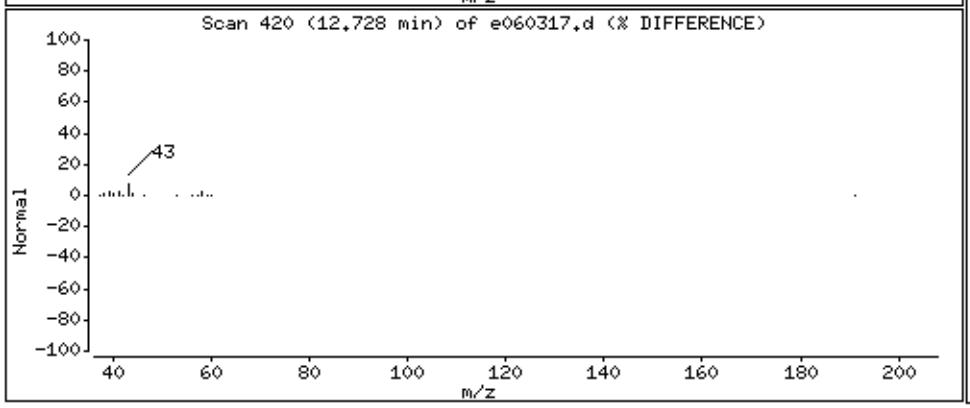
57 2-Propanol

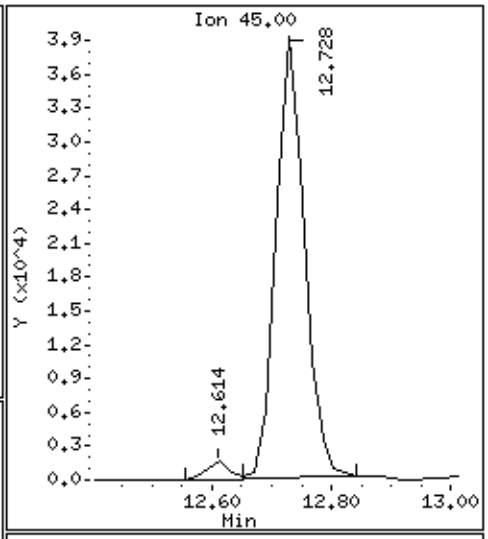
Concentration: 4.703 PPBV

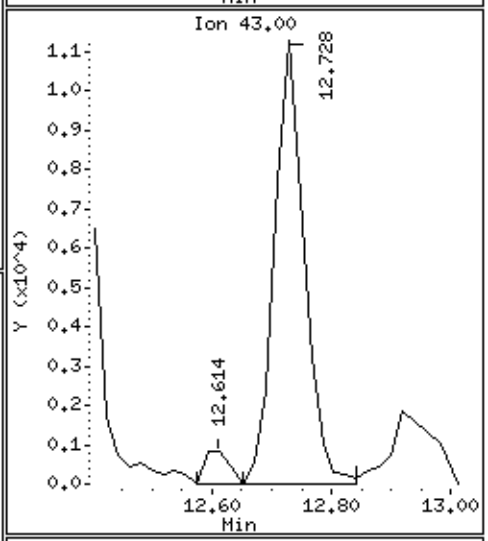


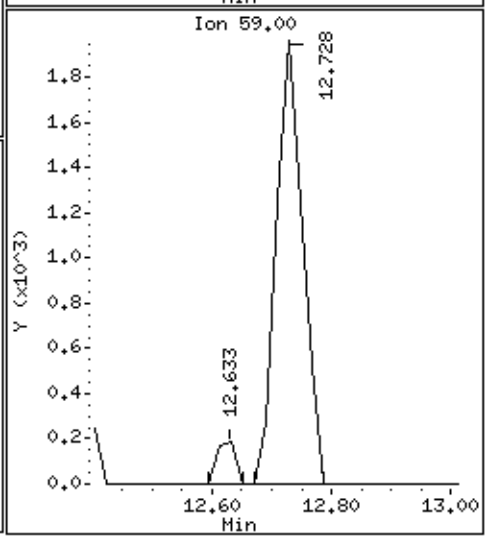












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

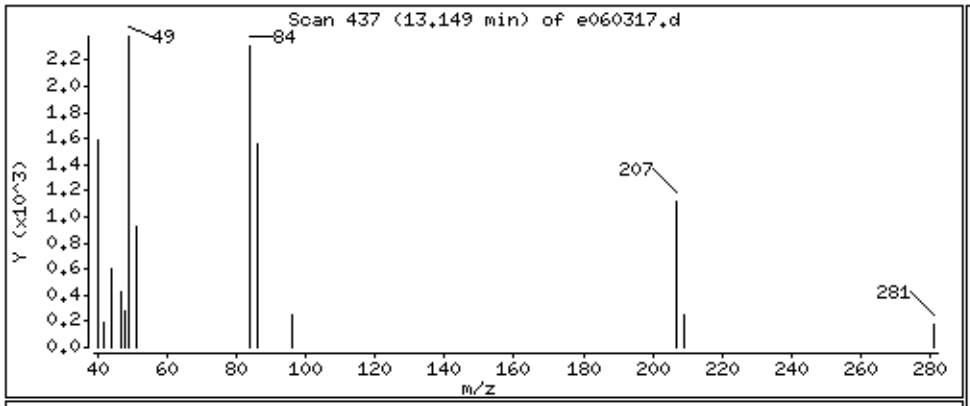
Operator: ea

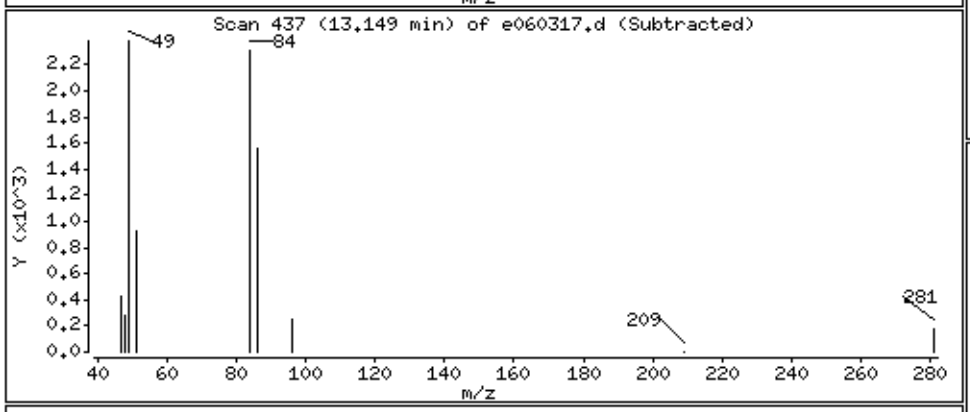
Column phase: RTX-624

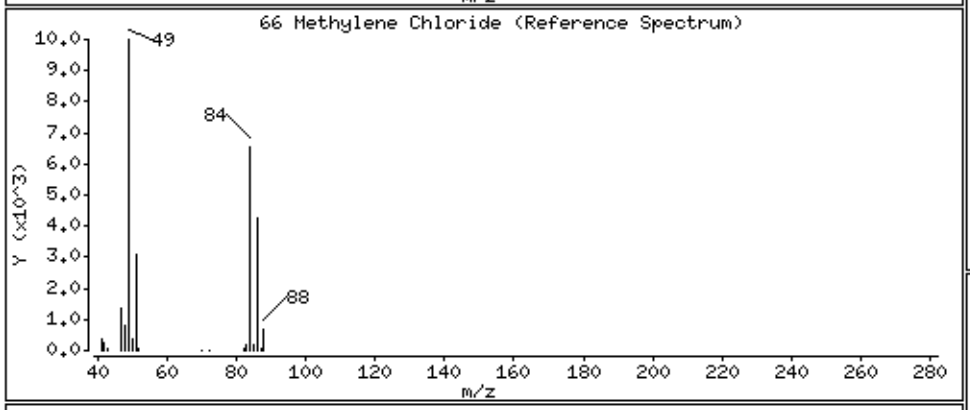
Column diameter: 0.32

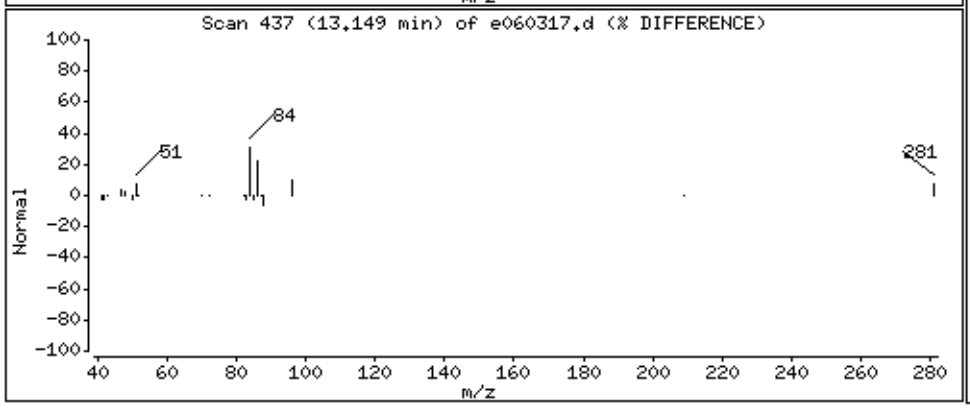
66 Methylene Chloride

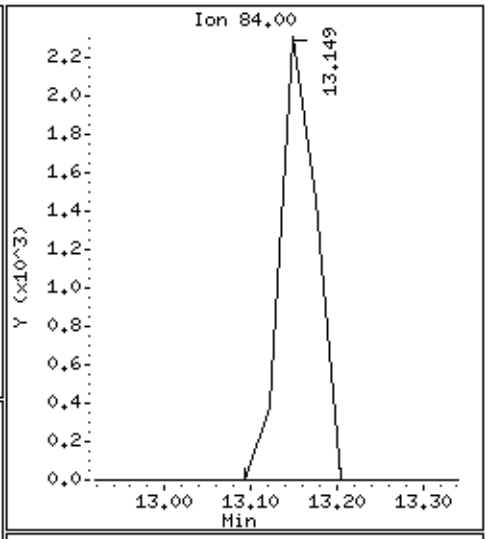
Concentration: 0.3180 PPBV

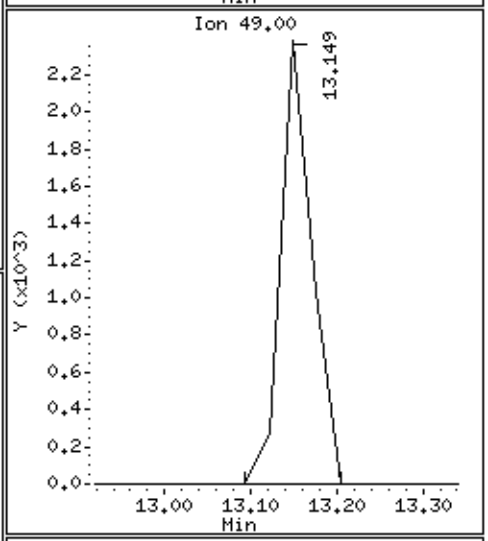


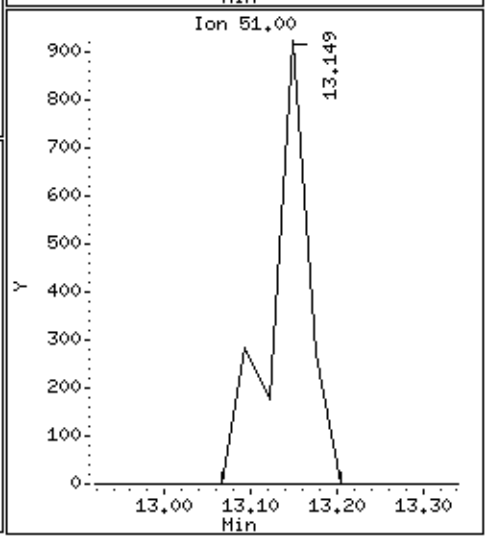












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

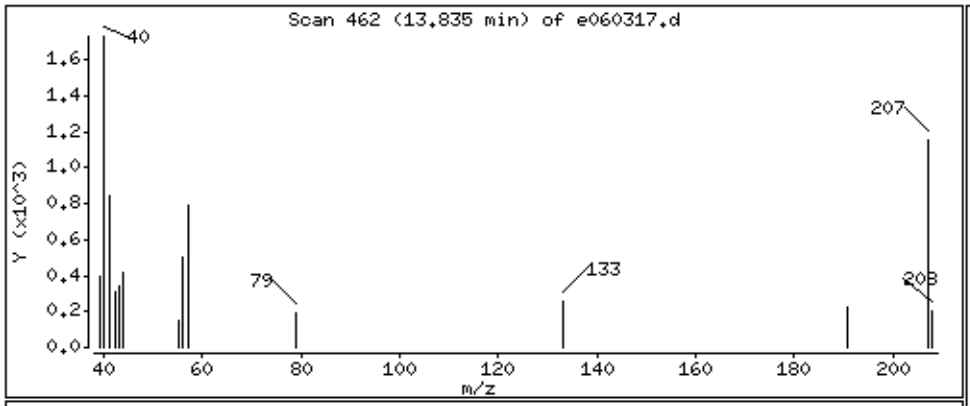
Operator: ea

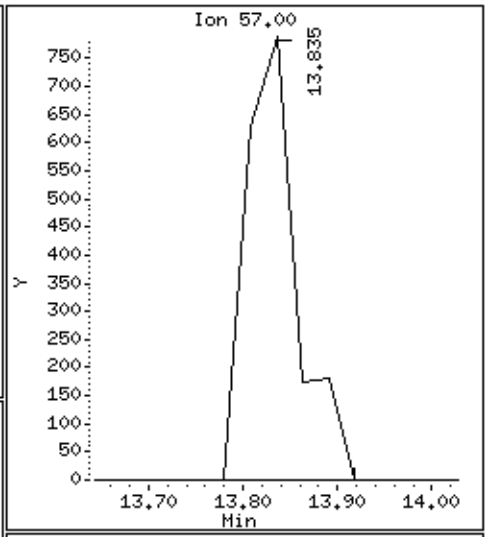
Column phase: RTX-624

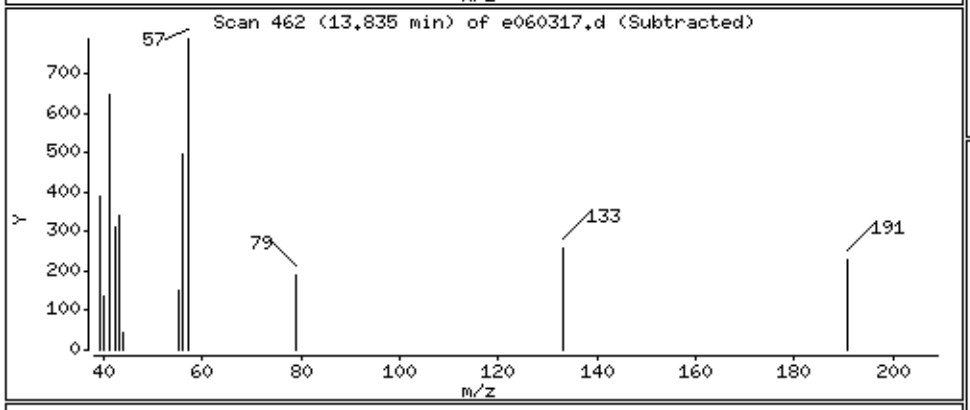
Column diameter: 0.32

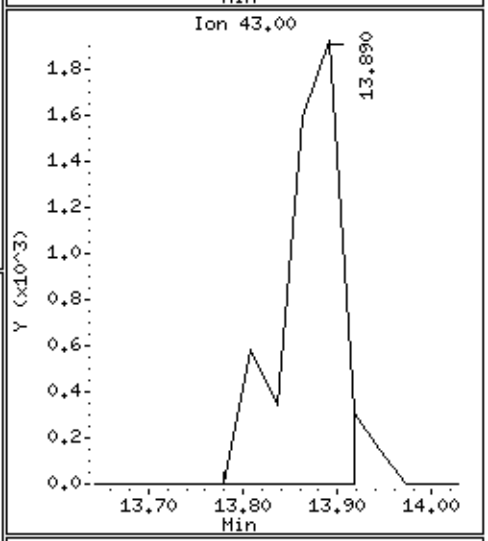
78 Hexane

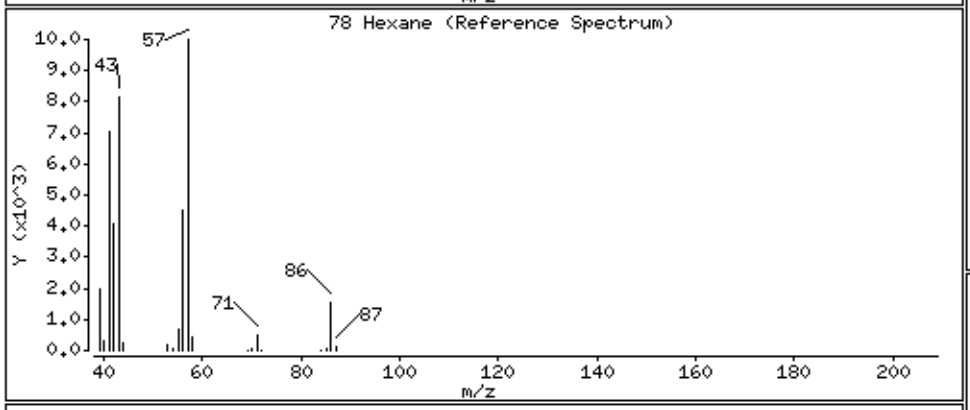
Concentration: 0.1090 PPBV

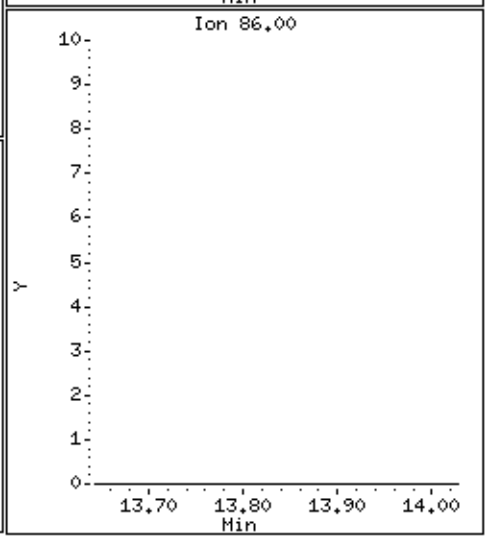


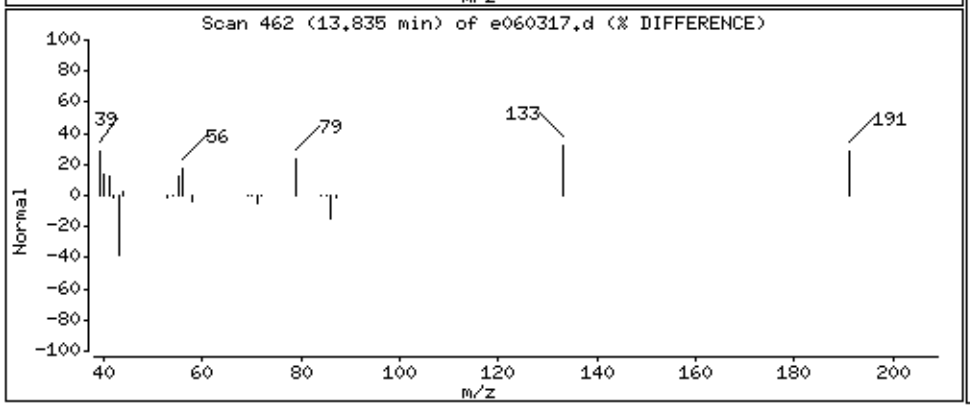












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

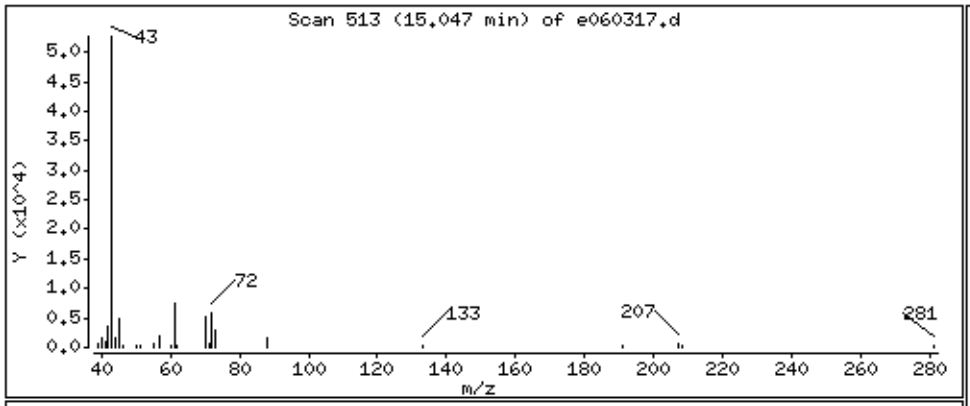
Operator: ea

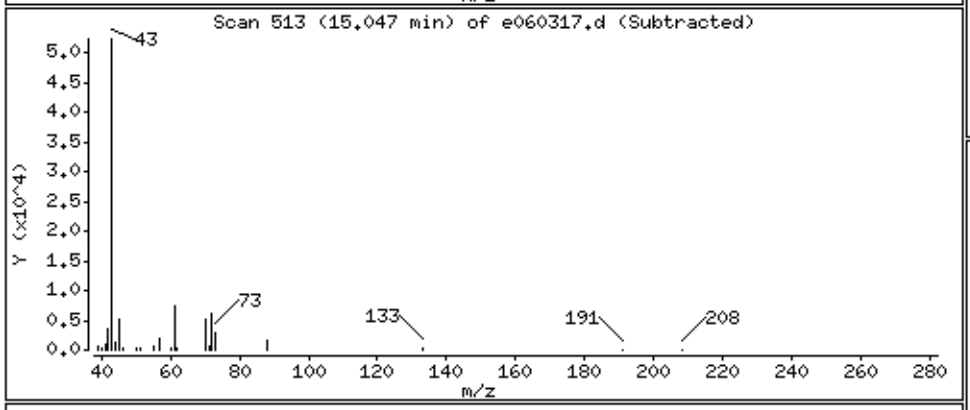
Column phase: RTX-624

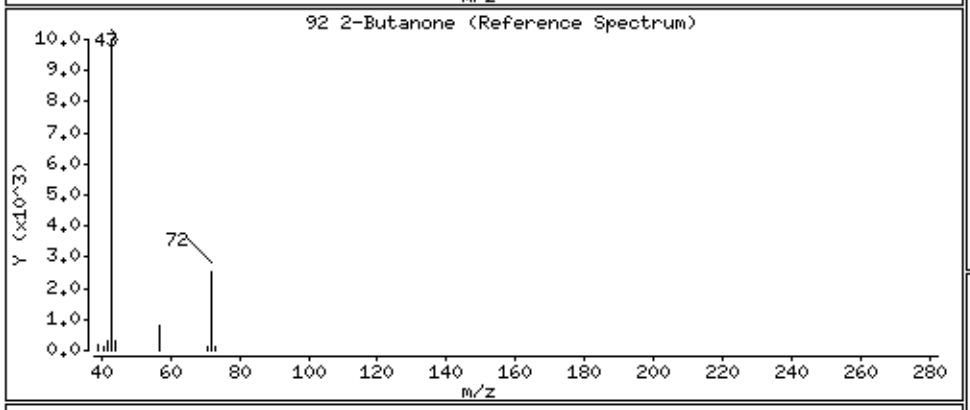
Column diameter: 0.32

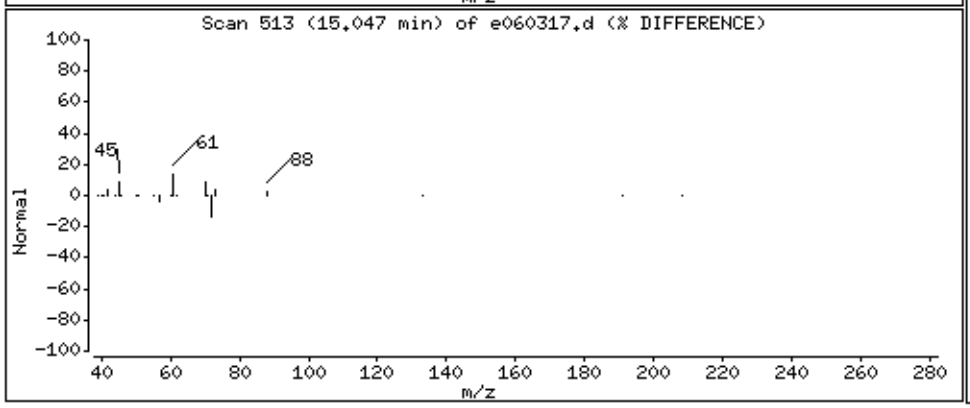
92 2-Butanone

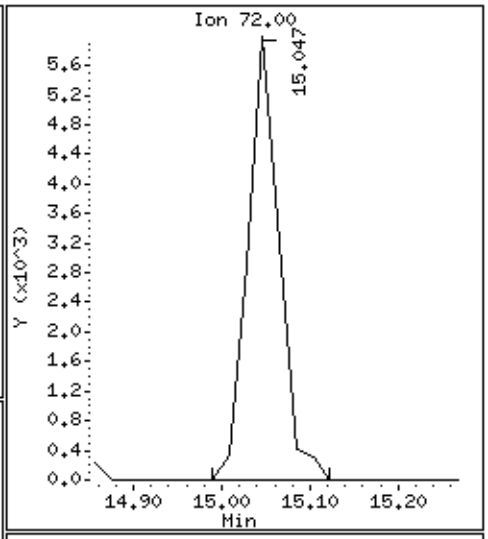
Concentration: 1.396 PPBV

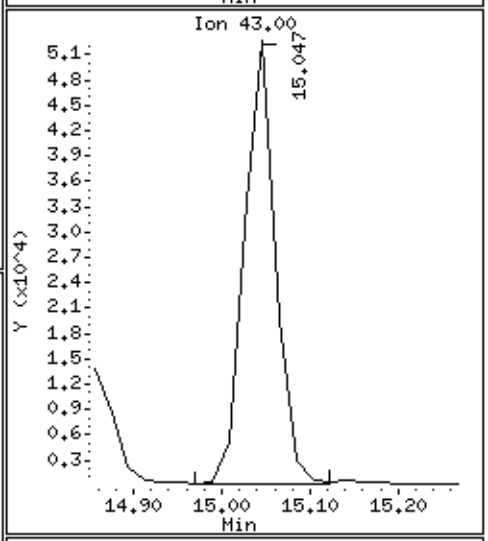


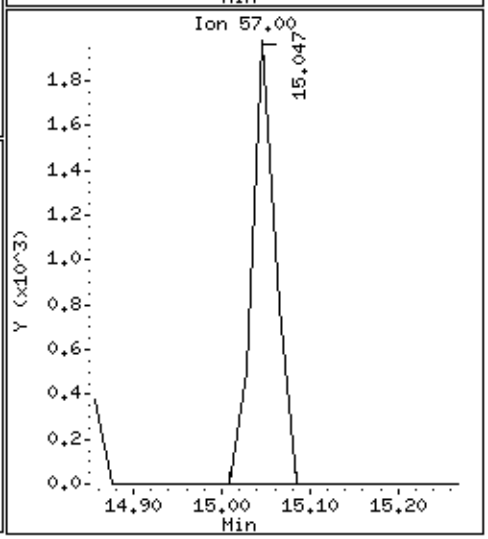












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

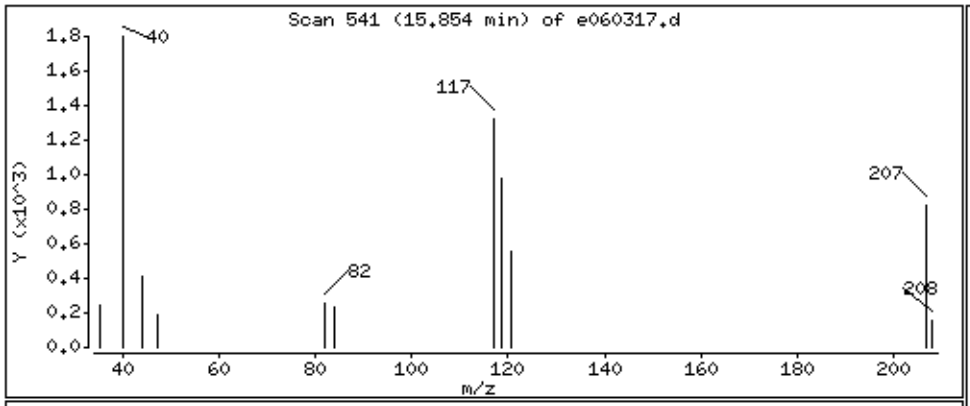
Operator: ea

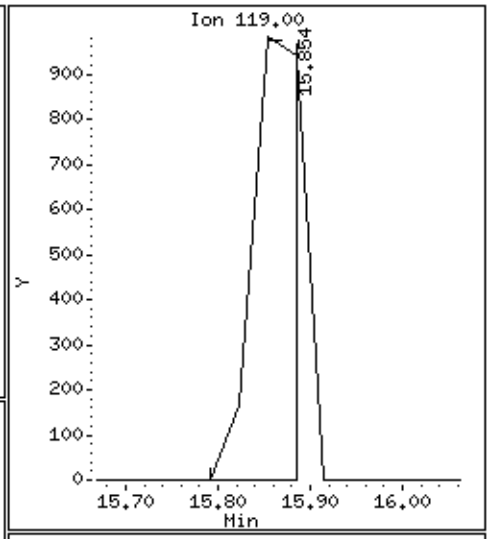
Column phase: RTX-624

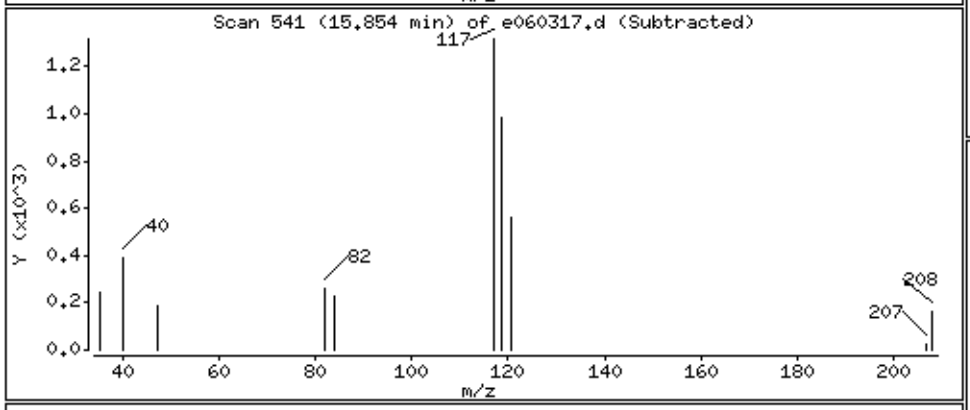
Column diameter: 0.32

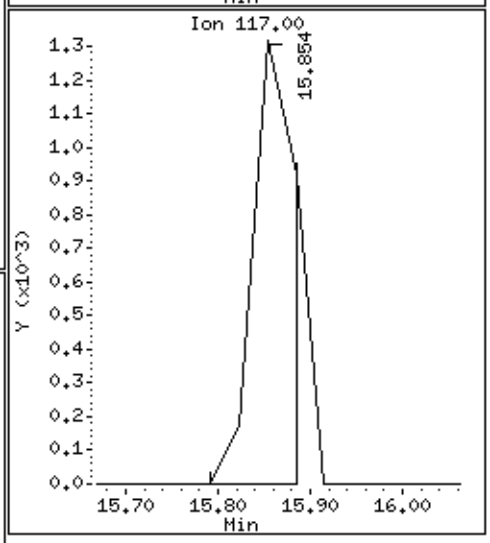
106 Carbon Tetrachloride

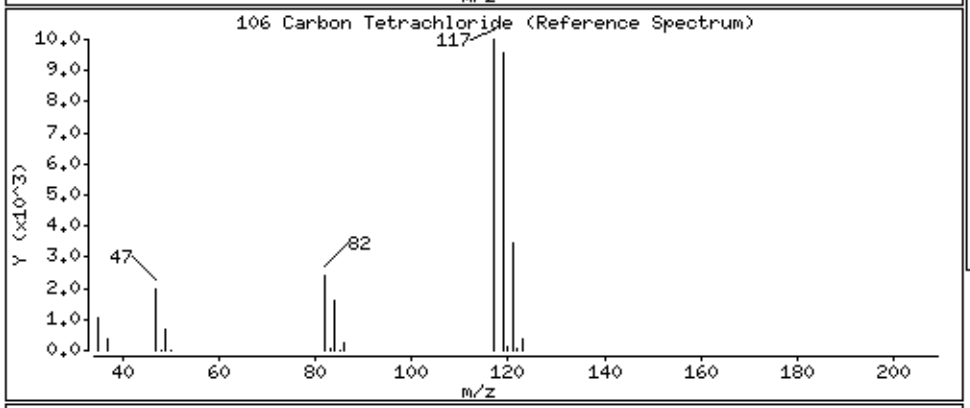
Concentration: 0.05801 PPBV

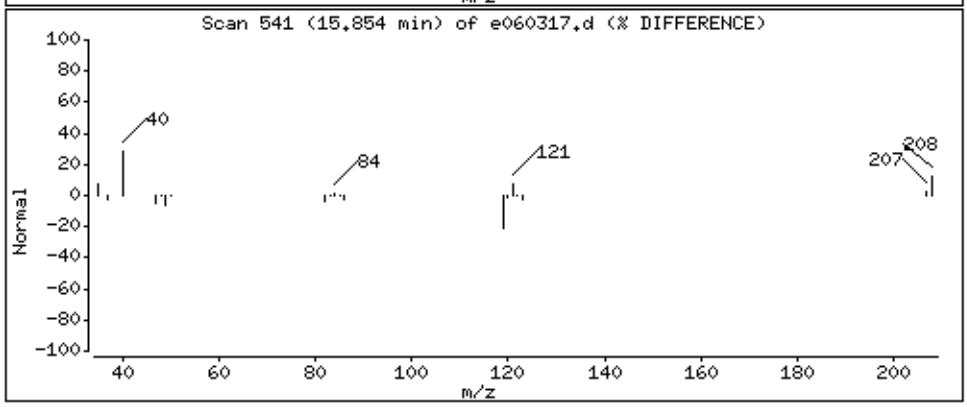












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

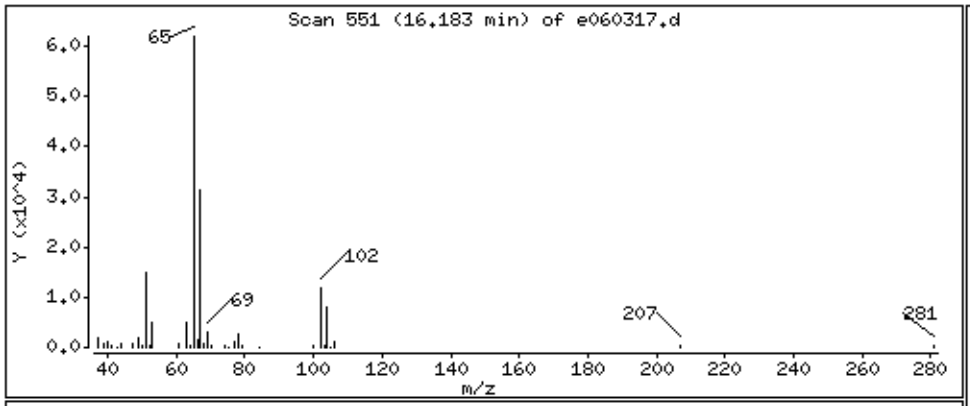
Operator: ea

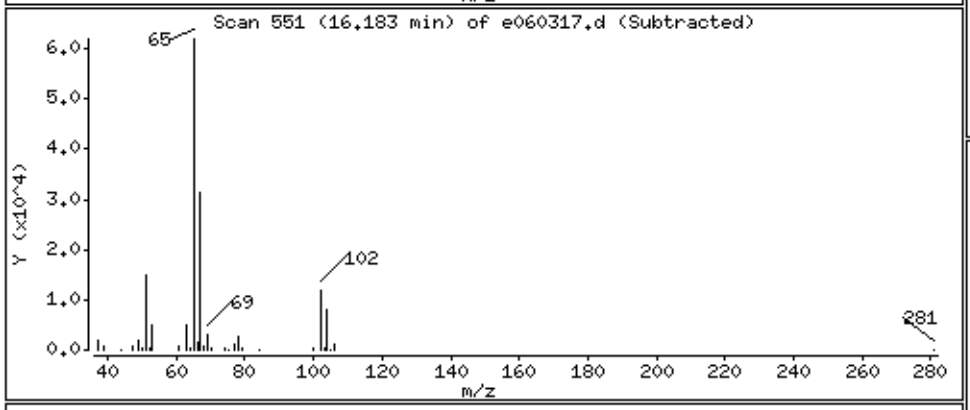
Column phase: RTX-624

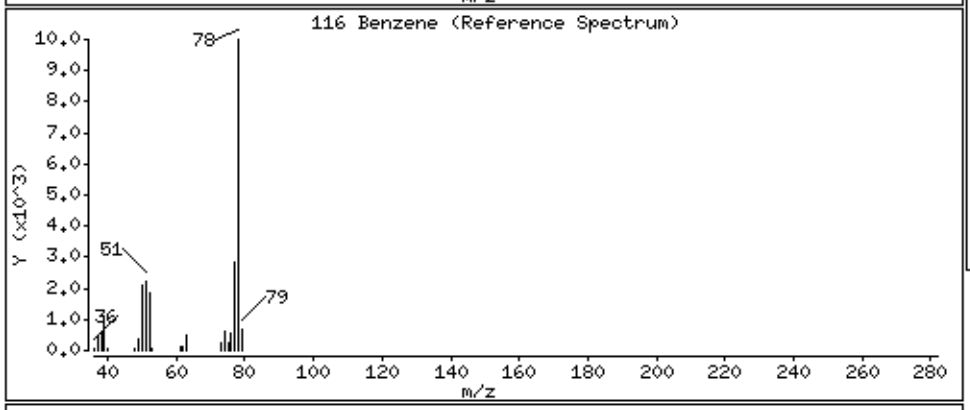
Column diameter: 0.32

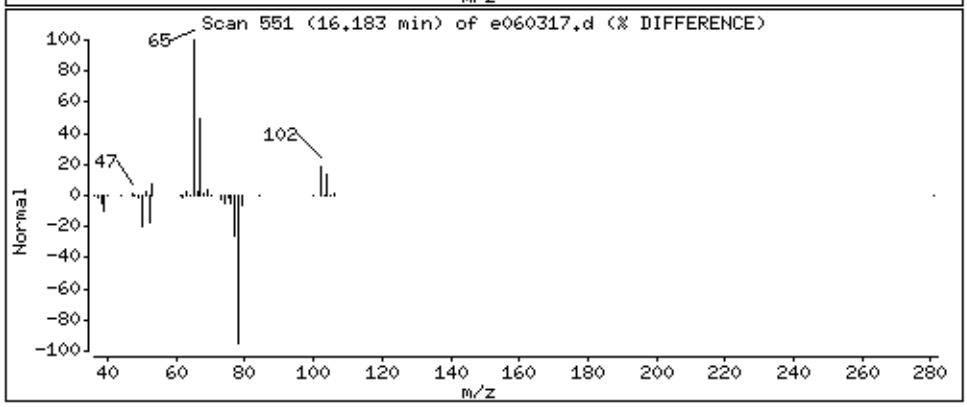
116 Benzene

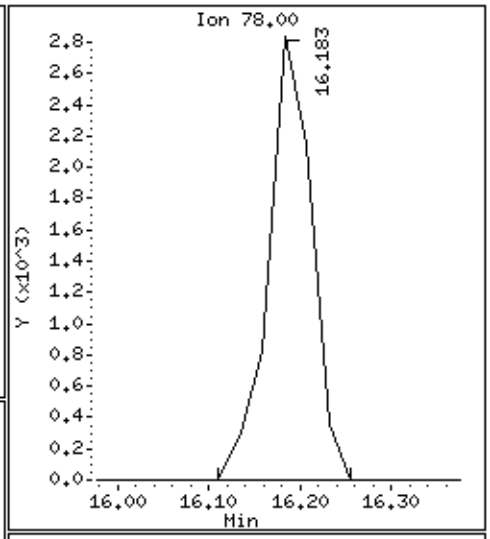
Concentration: 0.1297 PPBV

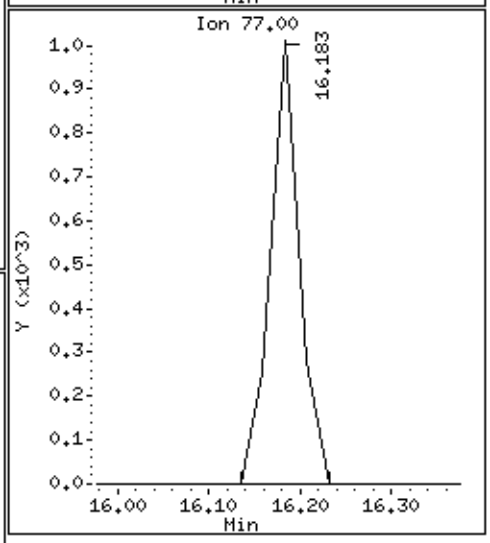












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

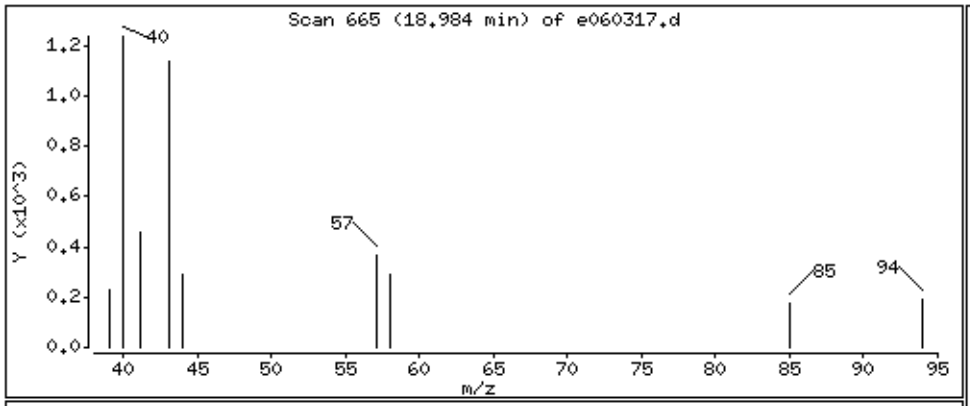
Operator: ea

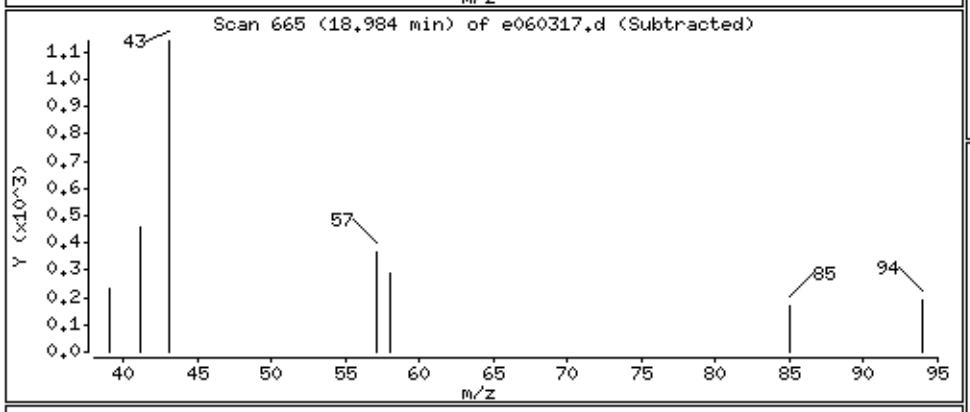
Column phase: RTX-624

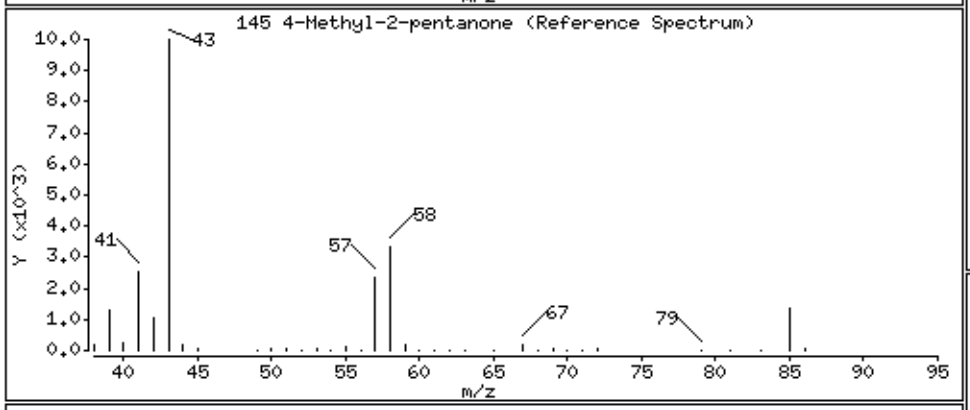
Column diameter: 0.32

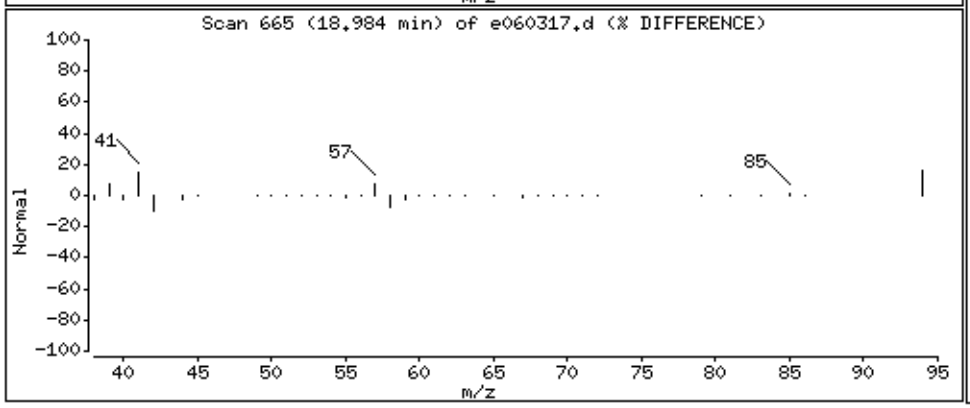
145 4-Methyl-2-pentanone

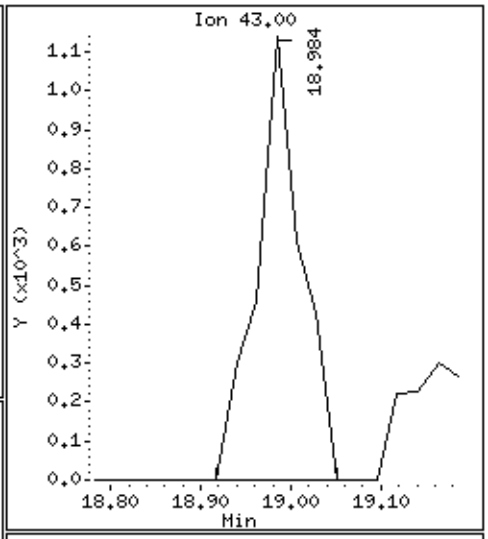
Concentration: 0.1058 PPBV

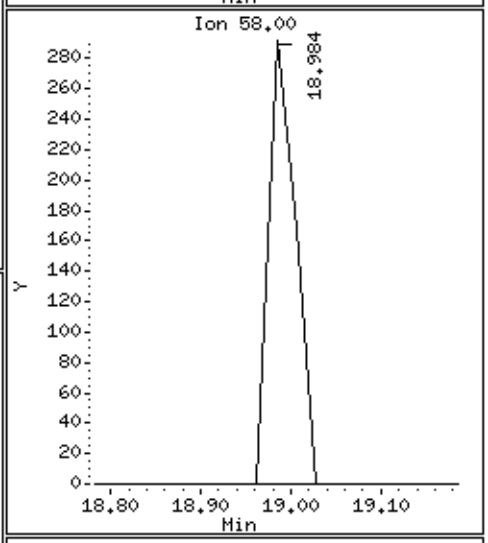


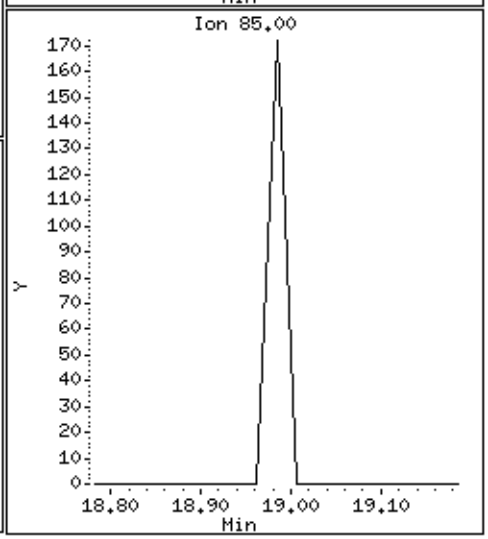












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

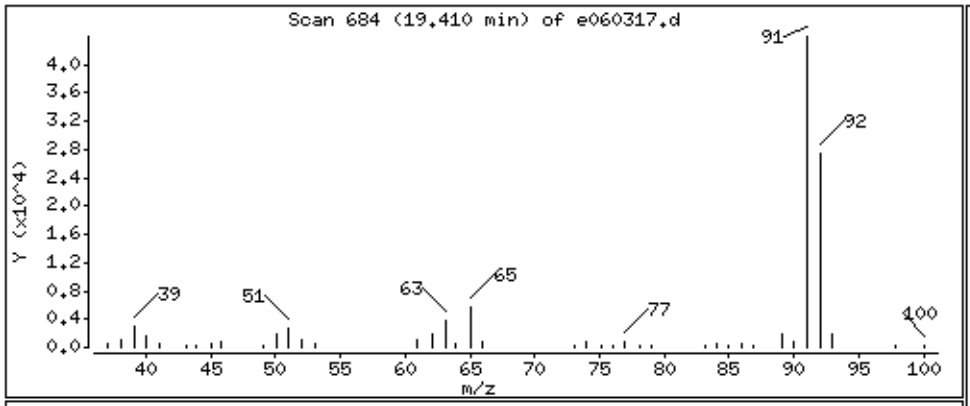
Operator: ea

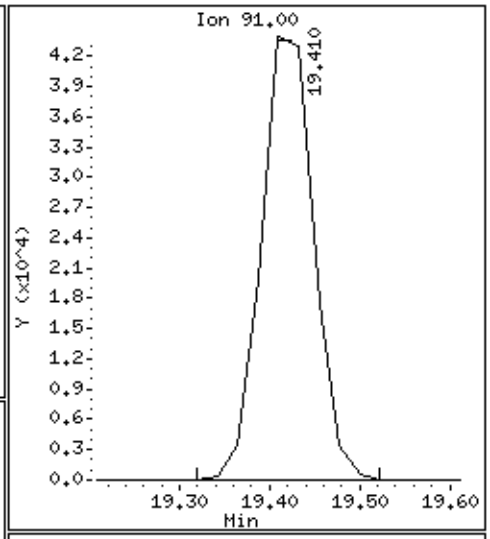
Column phase: RTX-624

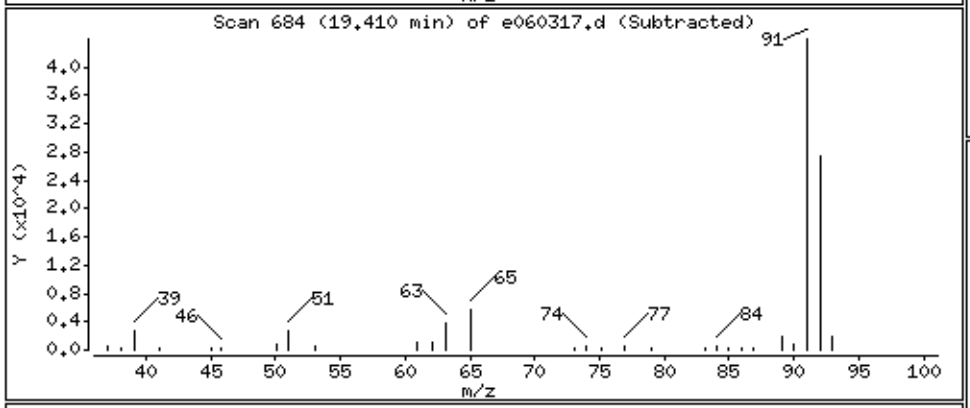
Column diameter: 0.32

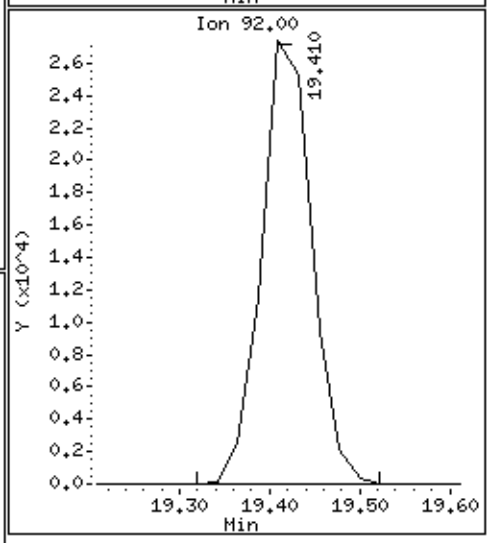
147 Toluene

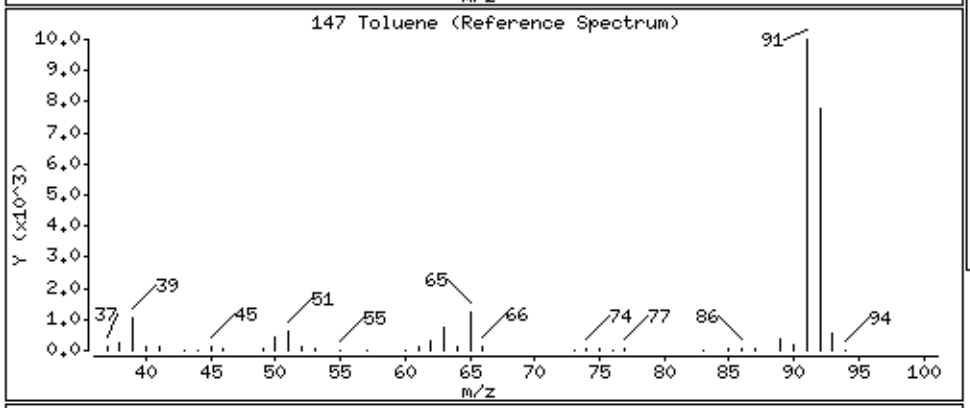
Concentration: 2.065 PPBV

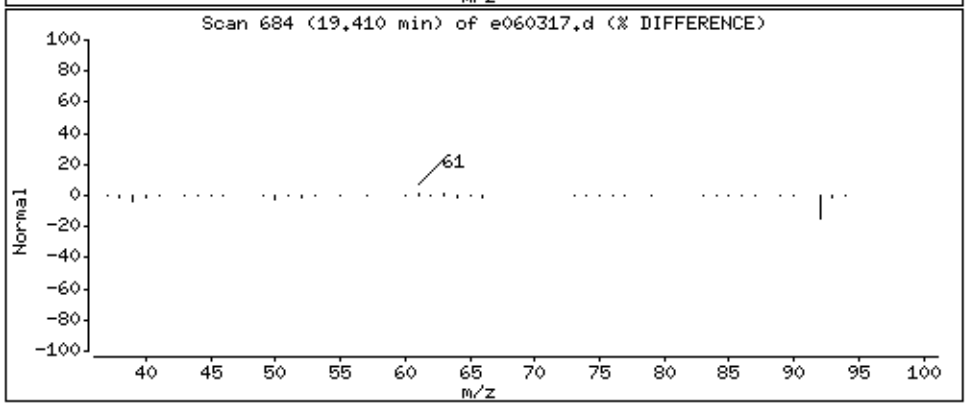












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

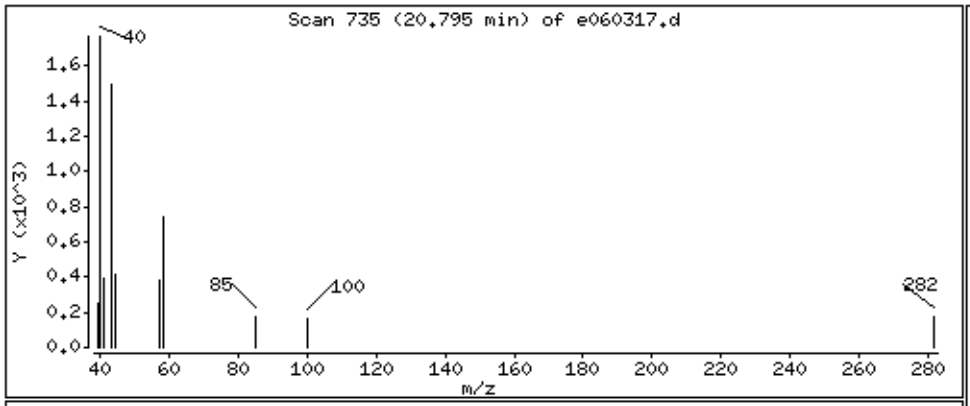
Operator: ea

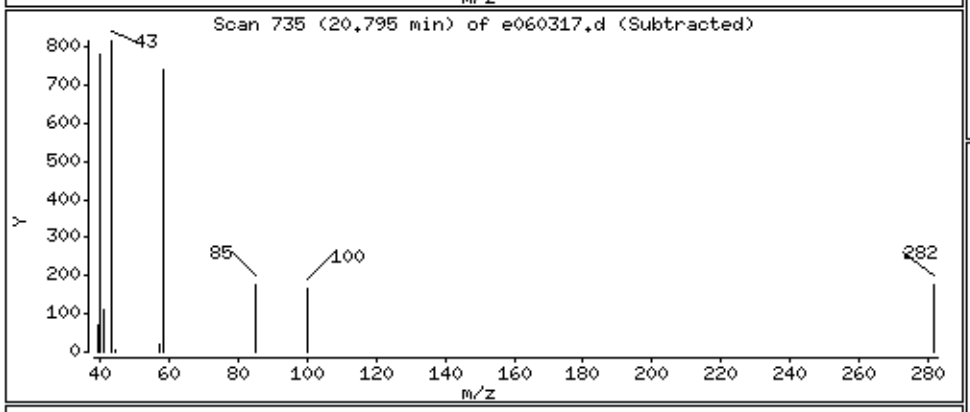
Column phase: RTX-624

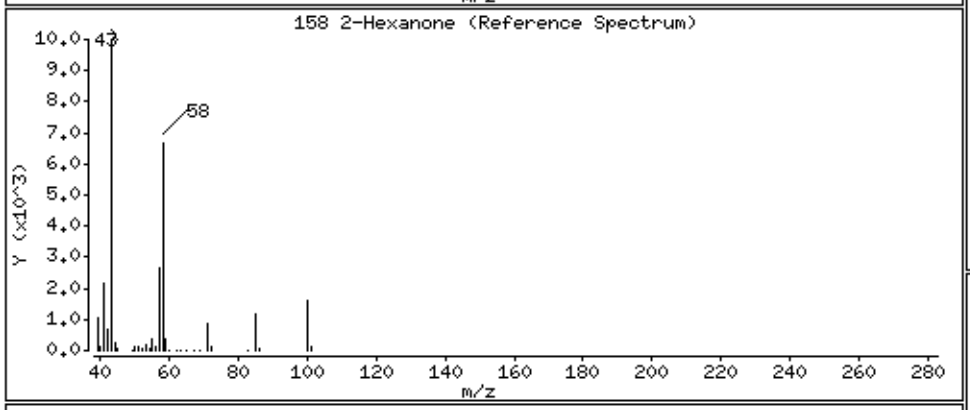
Column diameter: 0.32

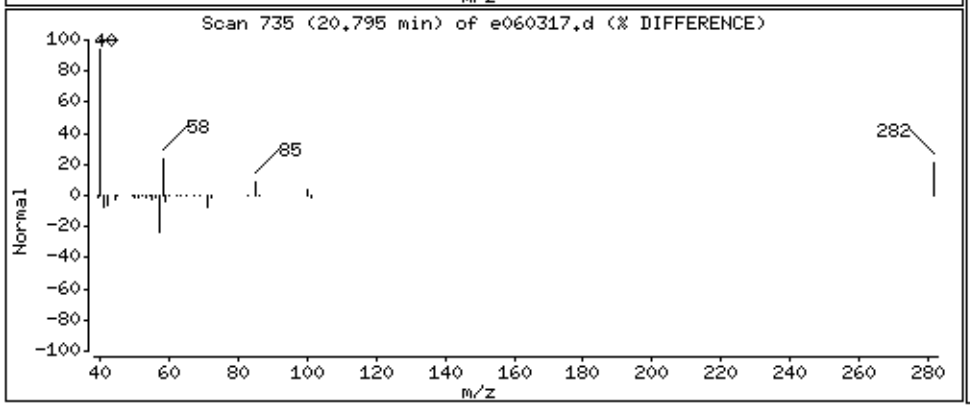
158 2-Hexanone

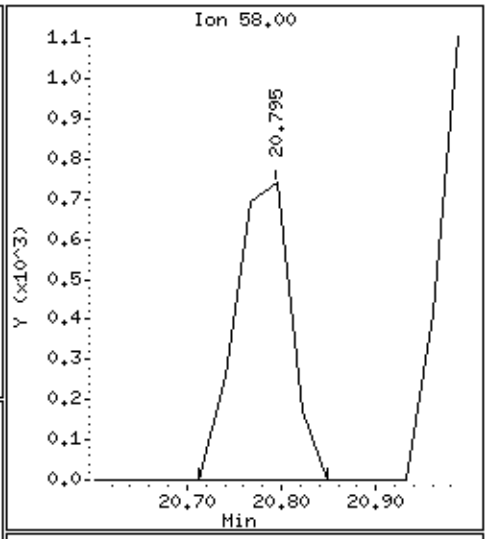
Concentration: 0.1391 PPBV

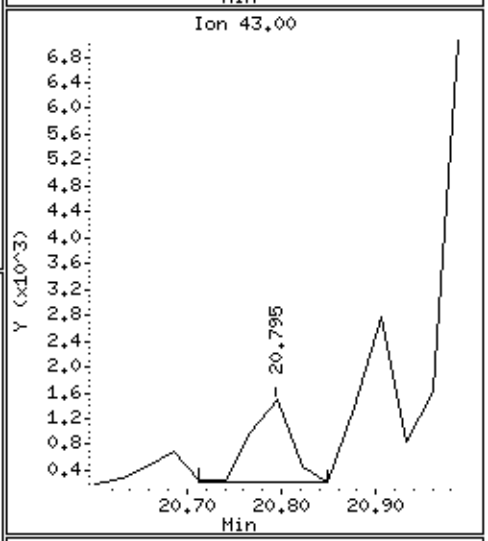


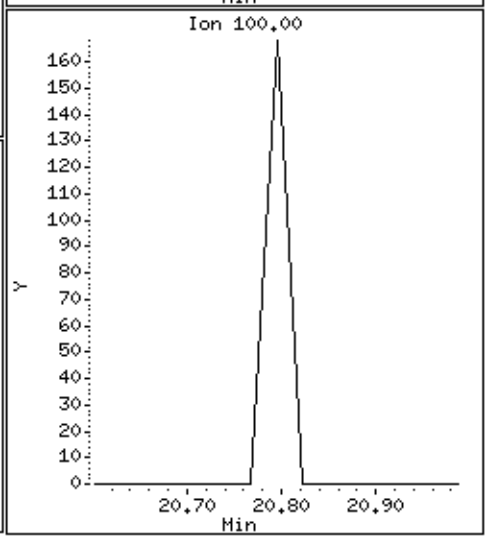












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

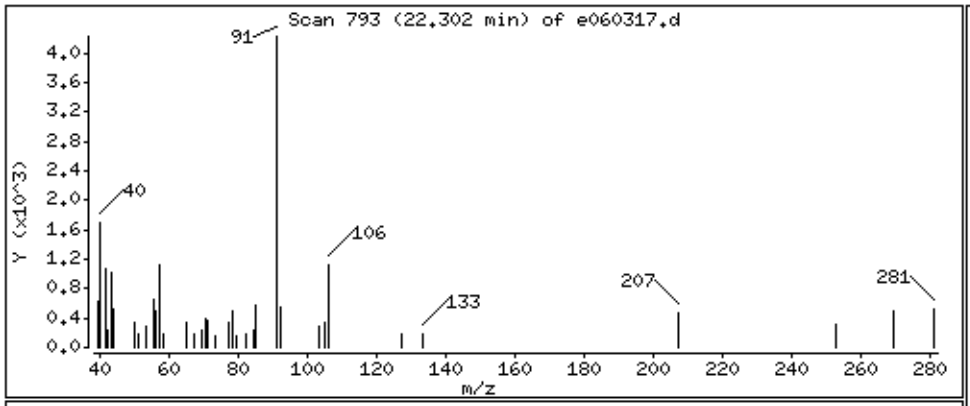
Operator: ea

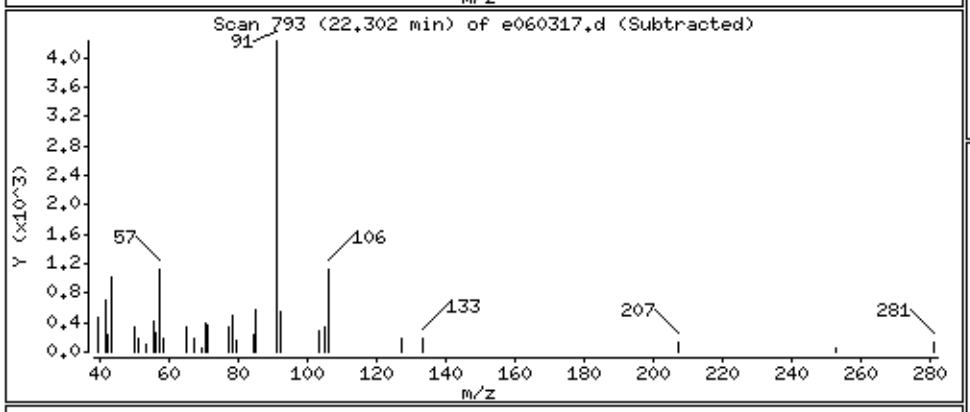
Column phase: RTX-624

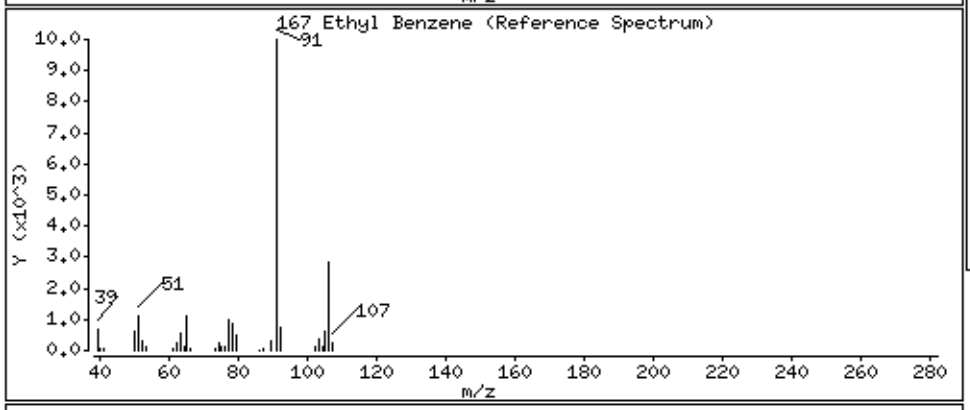
Column diameter: 0.32

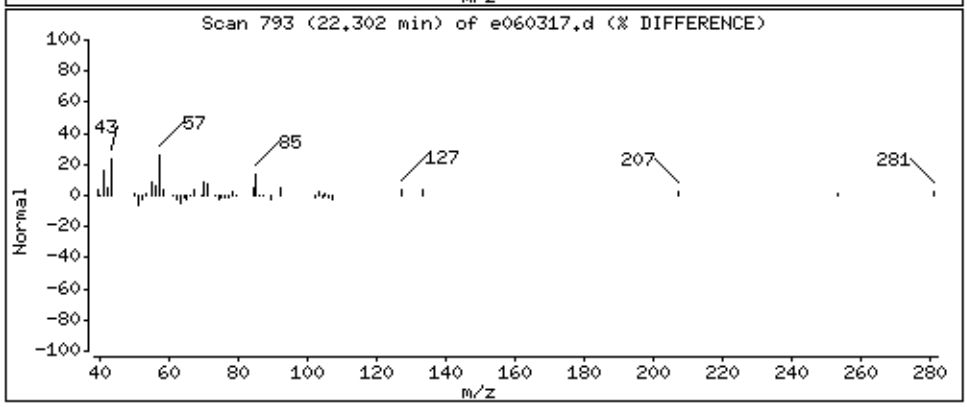
167 Ethyl Benzene

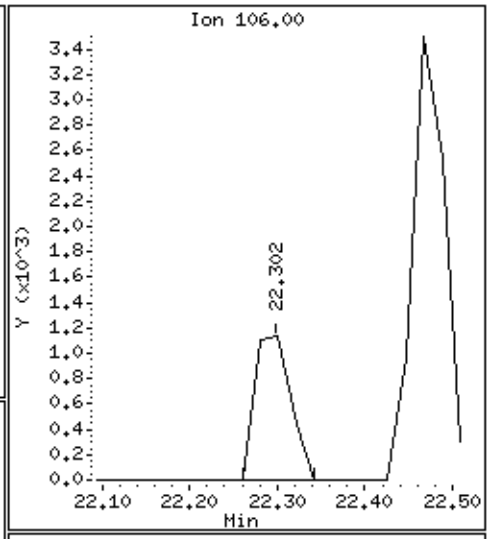
Concentration: 0.08863 PPBV

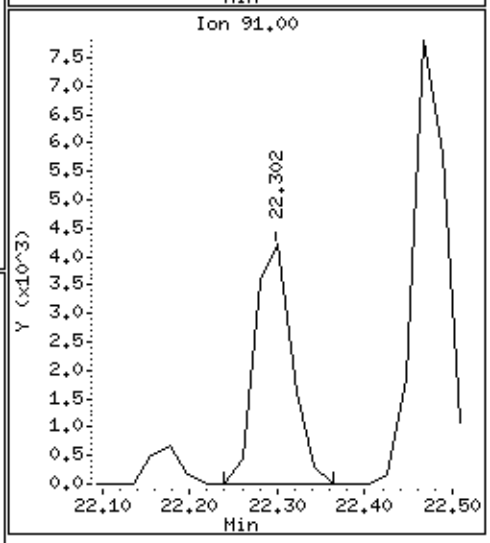












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

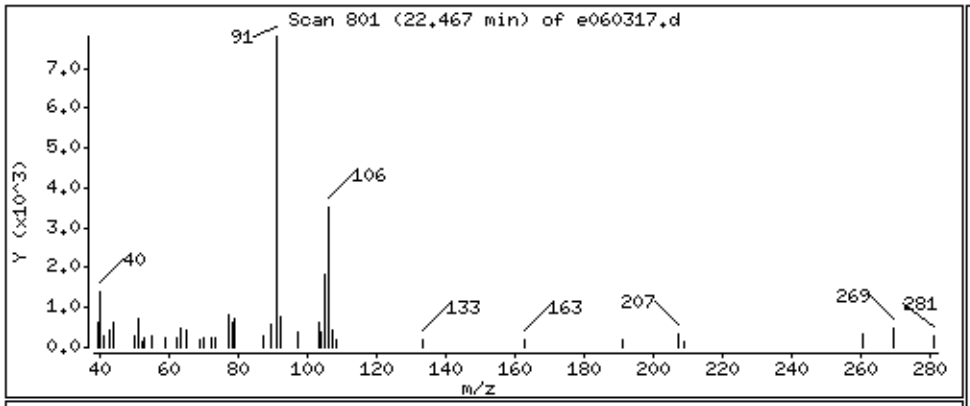
Operator: ea

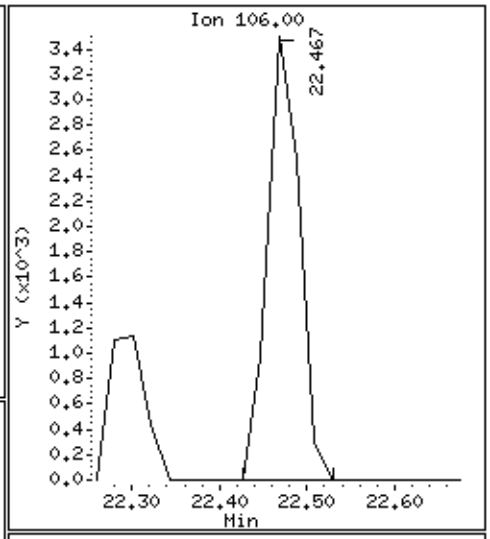
Column phase: RTX-624

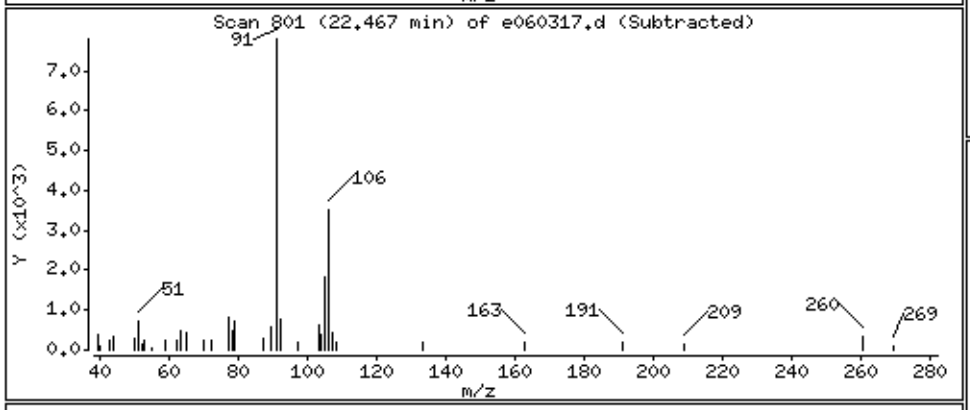
Column diameter: 0.32

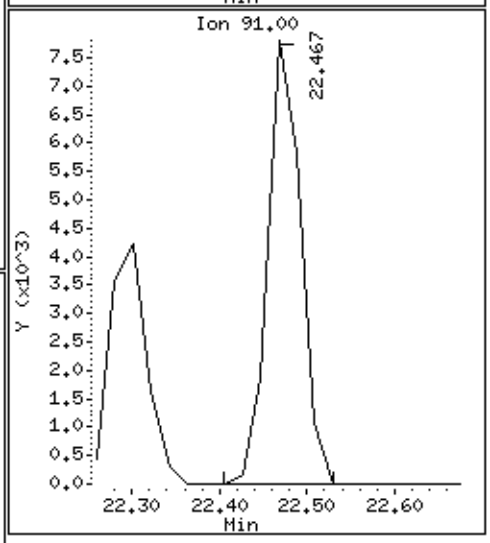
169 m,p-Xylene

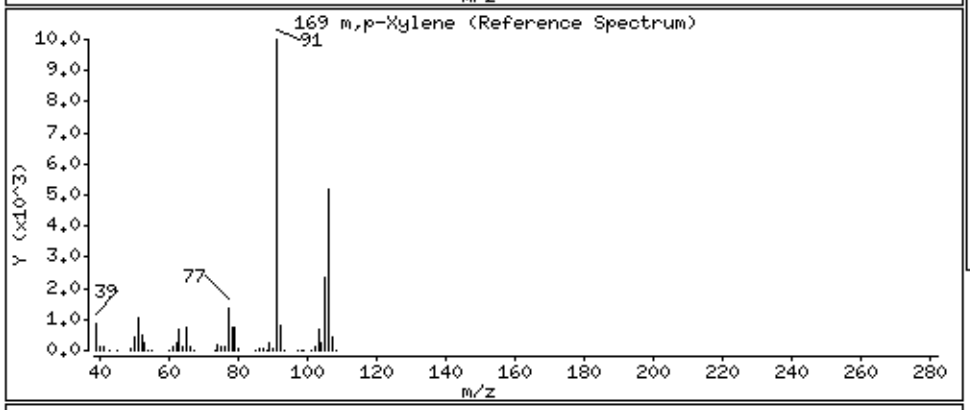
Concentration: 0.2084 PPBV

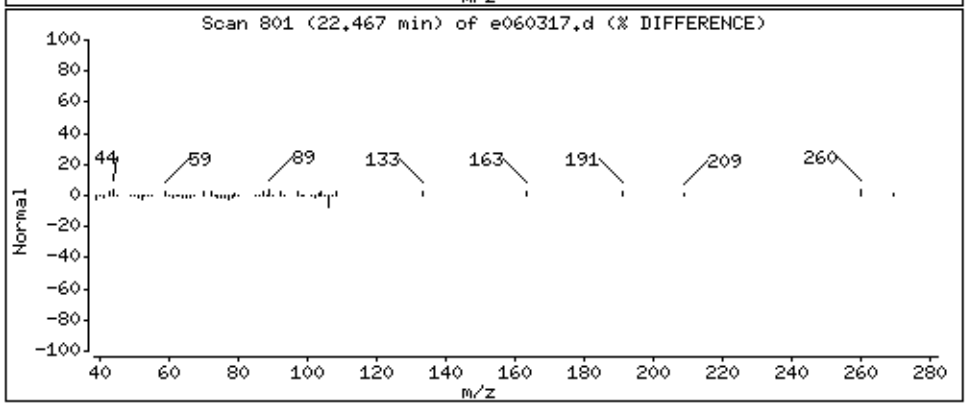












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

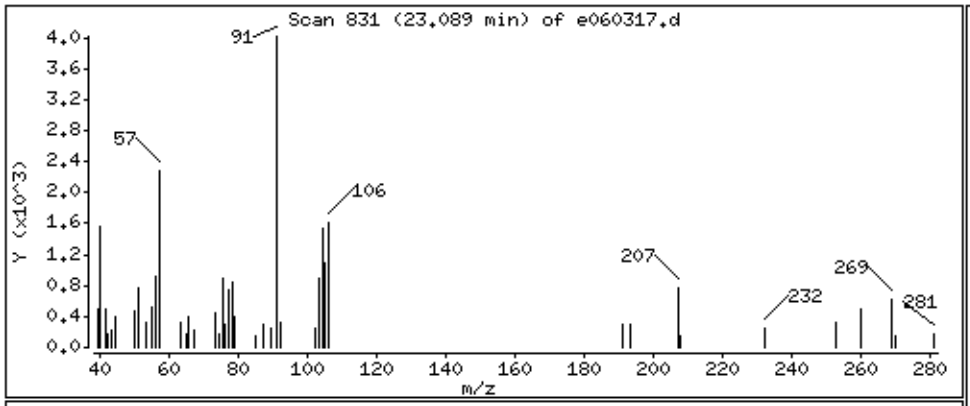
Operator: ea

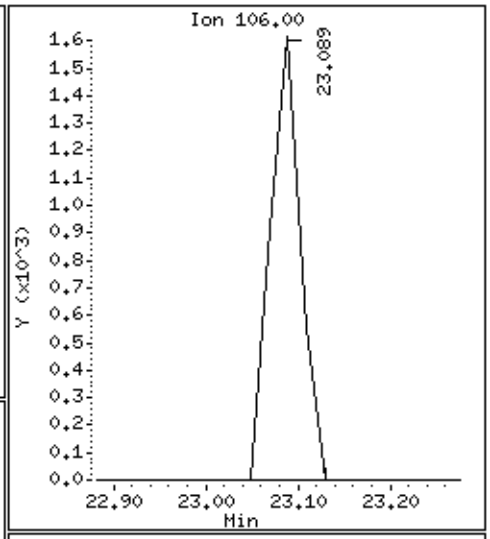
Column phase: RTX-624

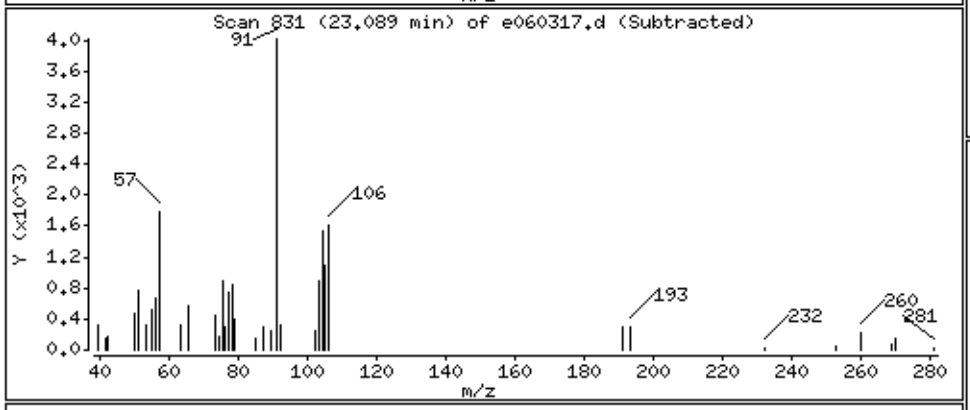
Column diameter: 0.32

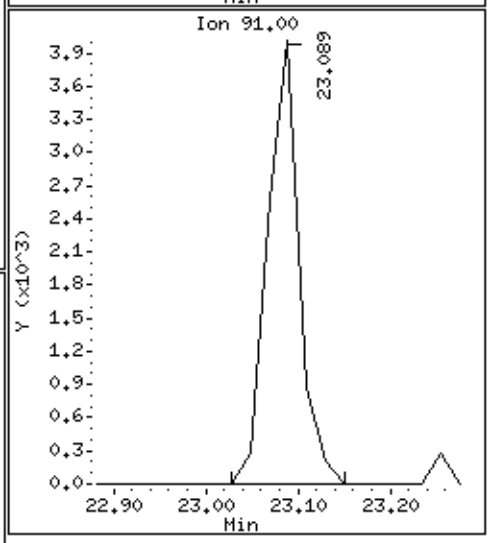
171 o-Xylene

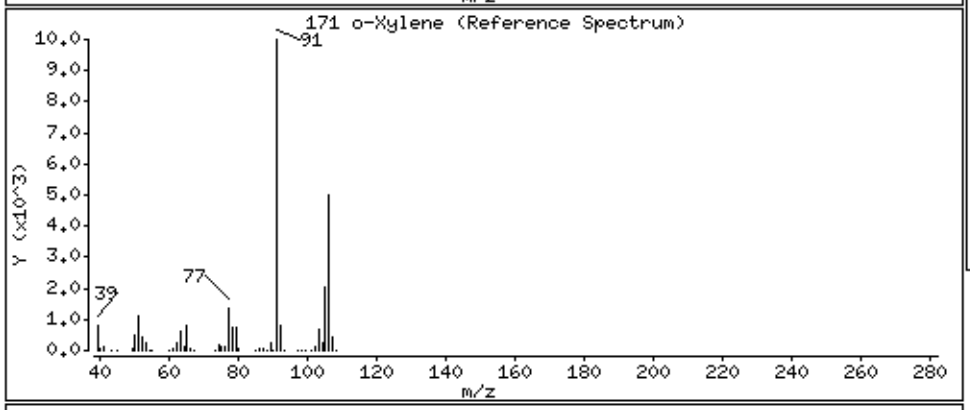
Concentration: 0.09588 PPBV

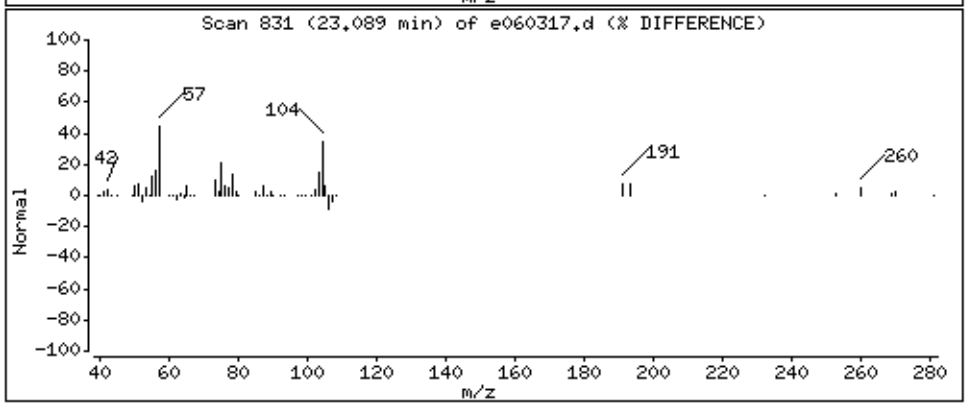












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

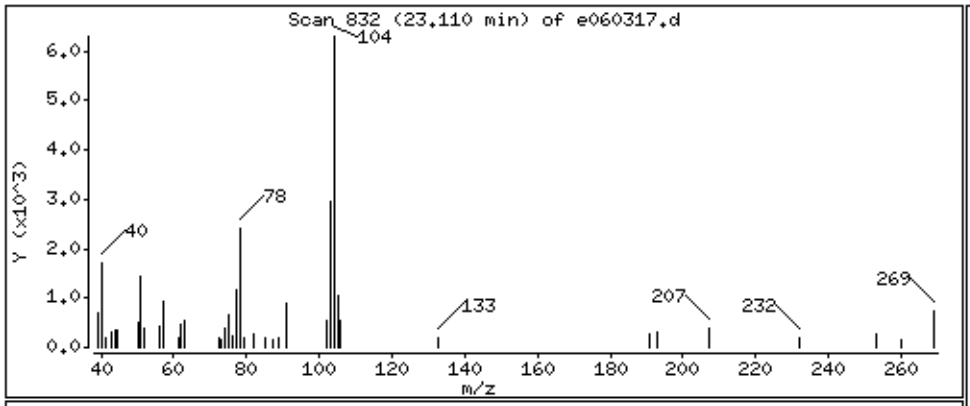
Operator: ea

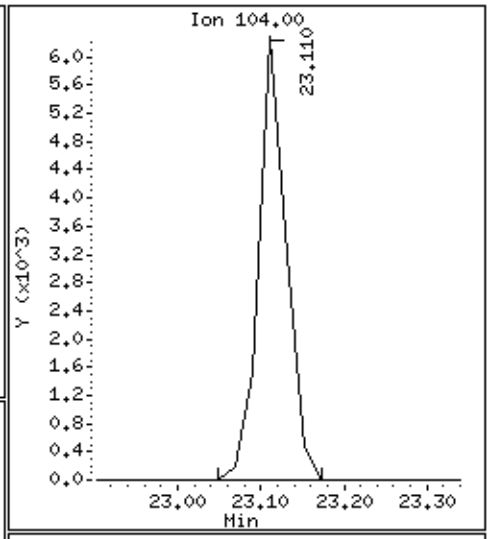
Column phase: RTX-624

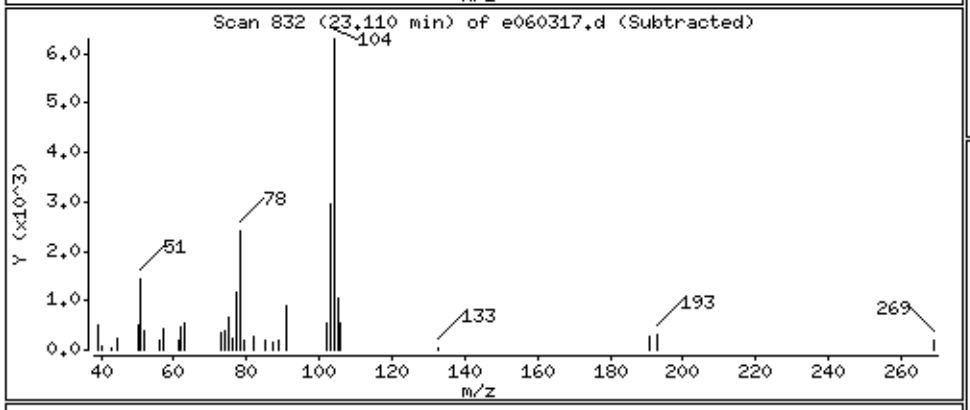
Column diameter: 0.32

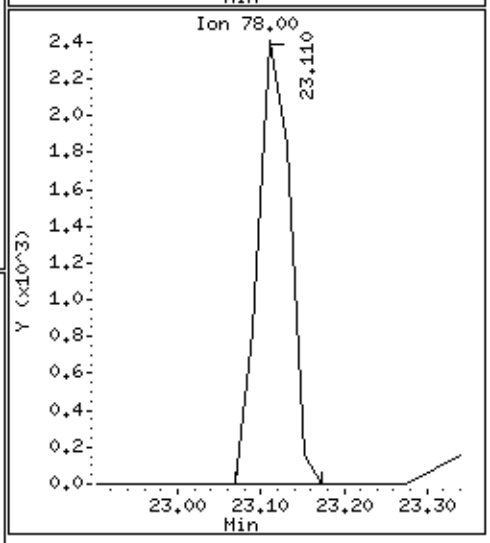
172 Styrene

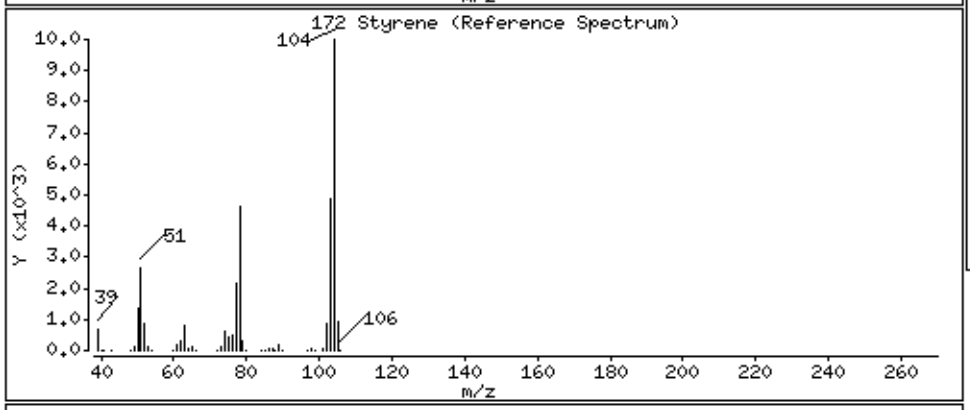
Concentration: 0.2143 PPBV

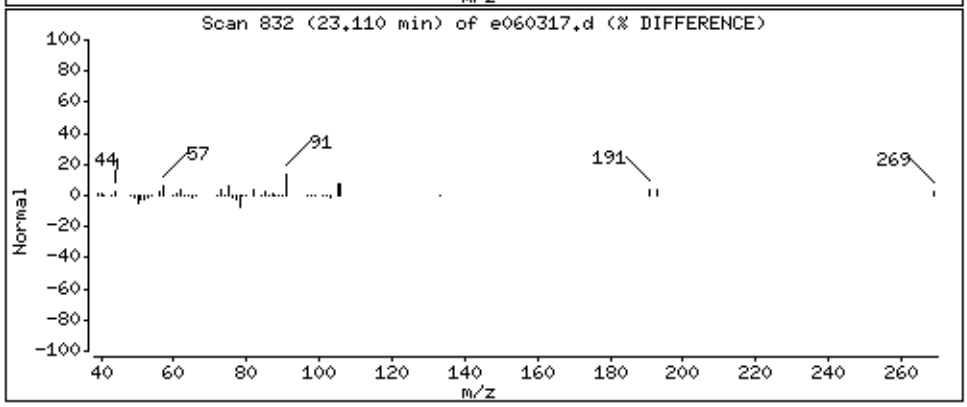












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

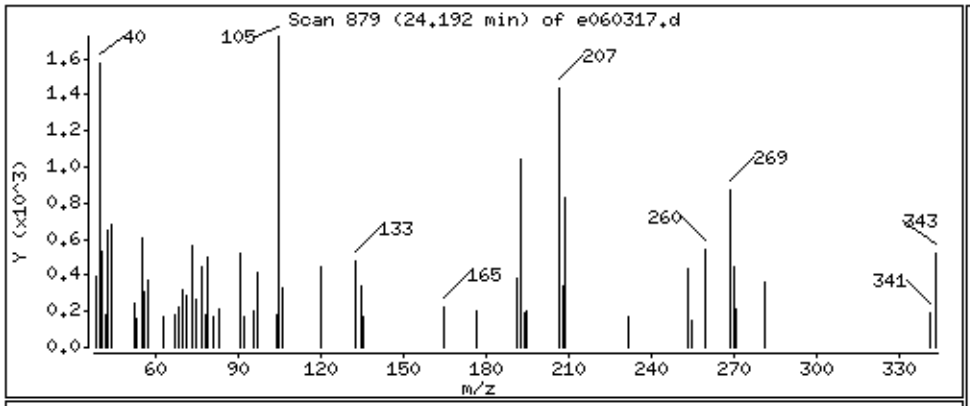
Operator: ea

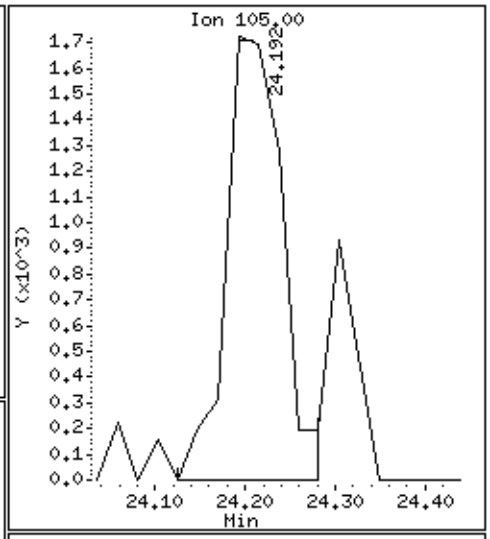
Column phase: RTX-624

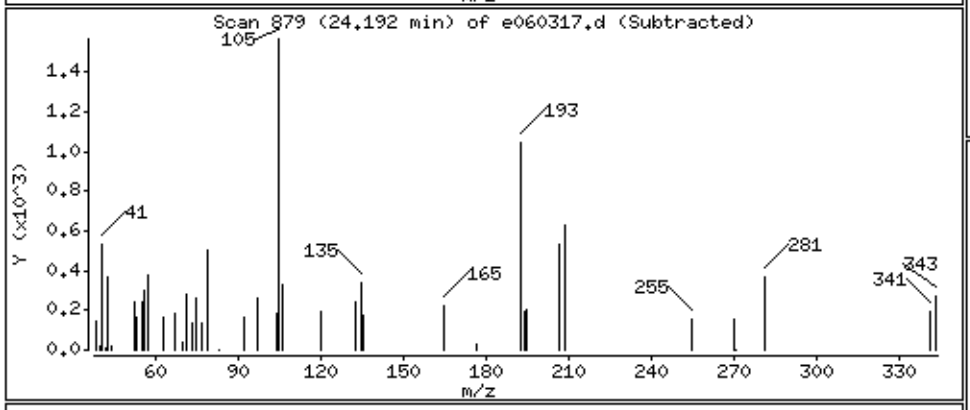
Column diameter: 0.32

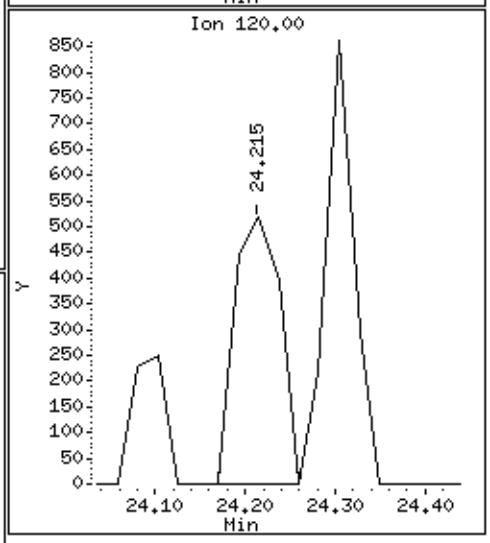
188 4-Ethyltoluene

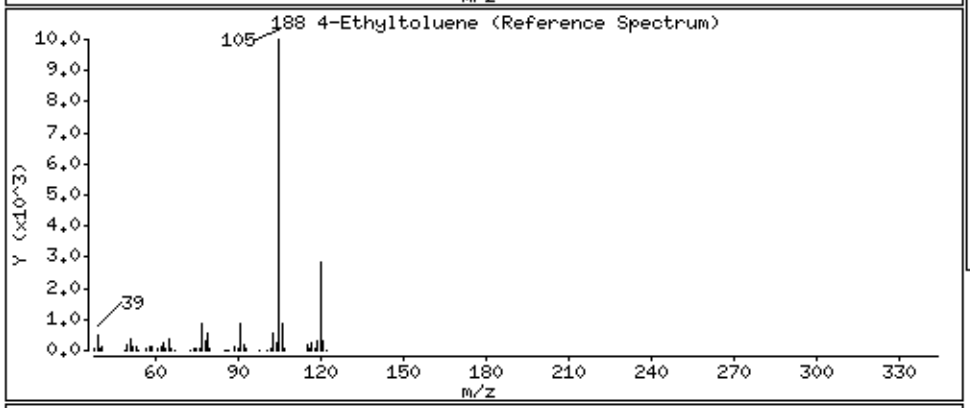
Concentration: 0.06194 PPBV

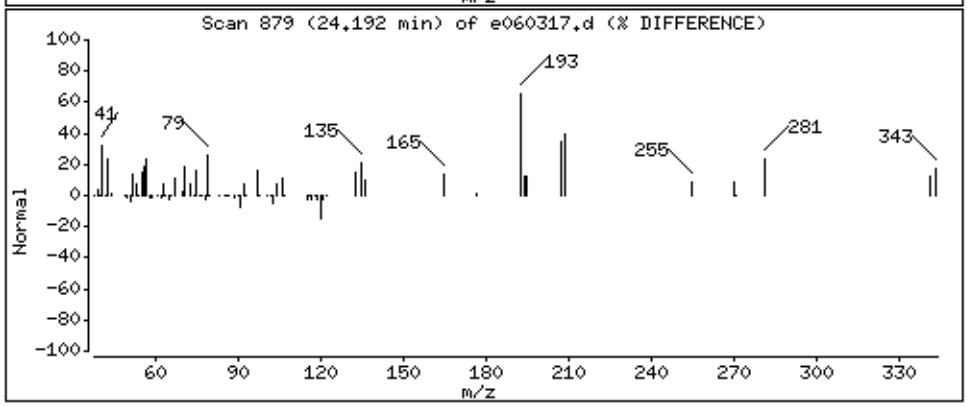












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

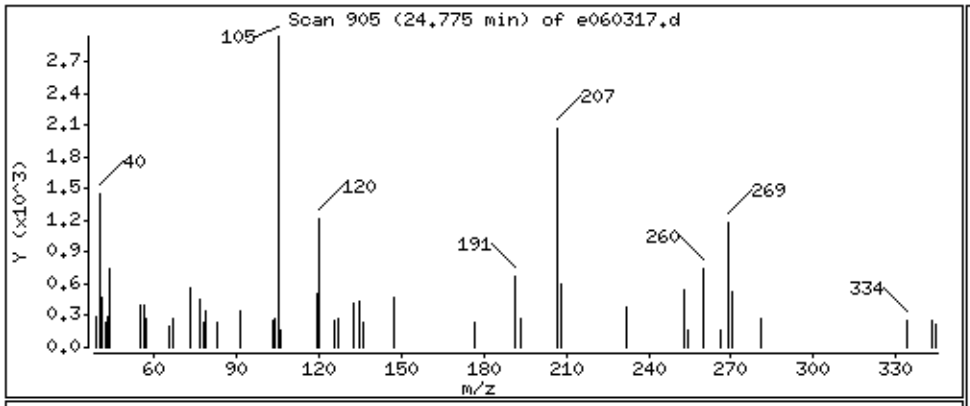
Operator: ea

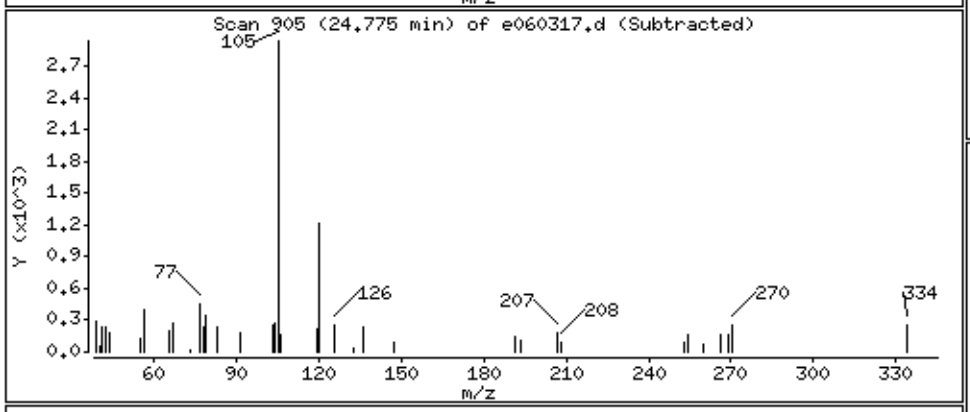
Column phase: RTX-624

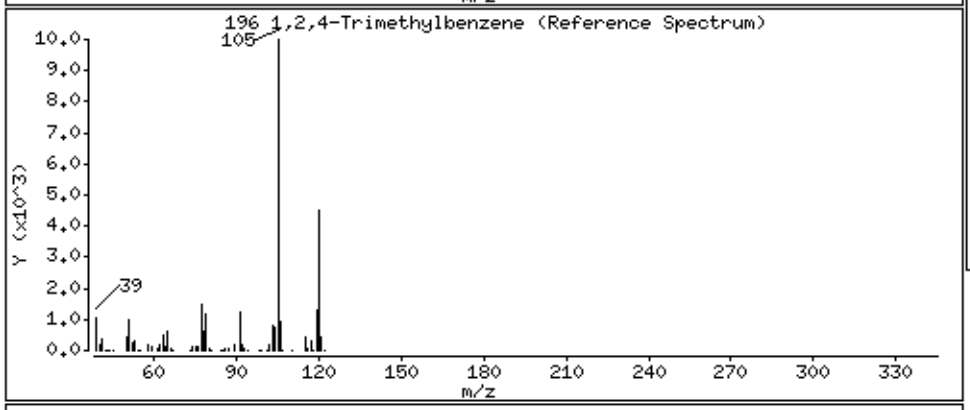
Column diameter: 0.32

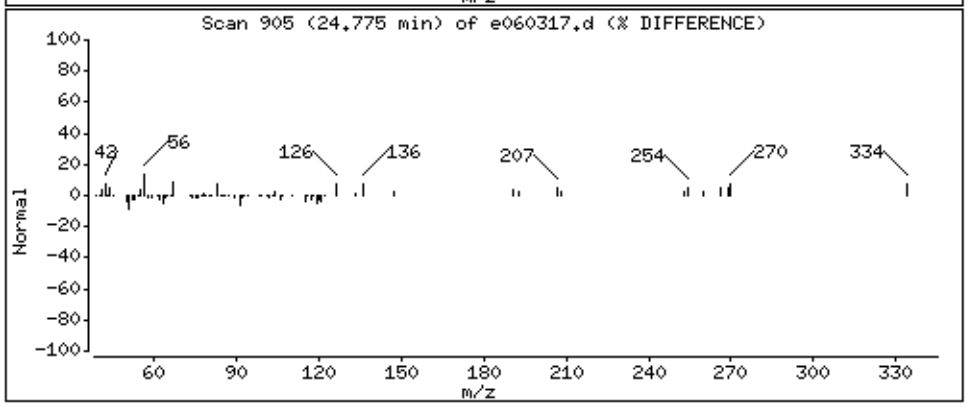
196 1,2,4-Trimethylbenzene

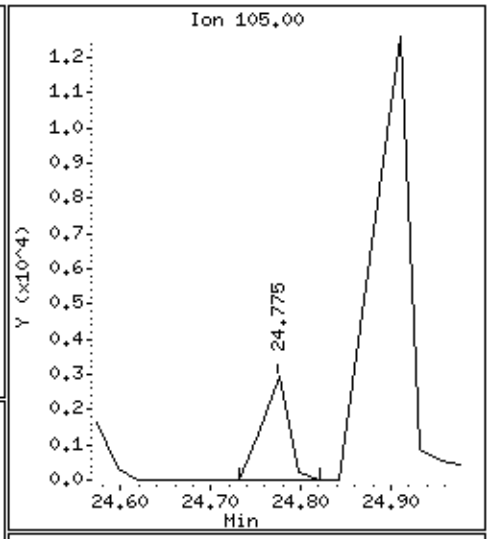
Concentration: 0.07312 PPBV

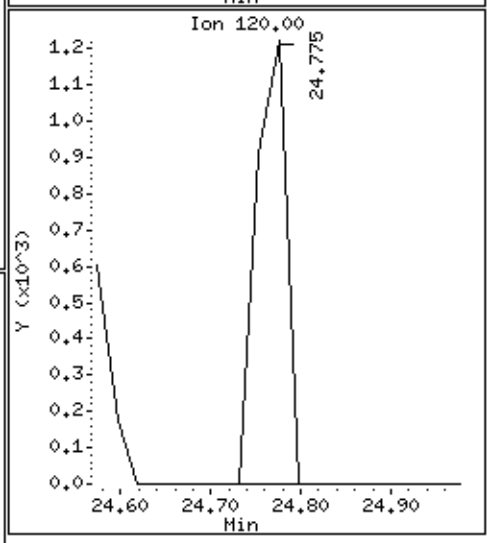












Data File: /chem/msde.i/03Jun2016.b/e060317.d

Date : 03-JUN-2016 20:16

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L1279

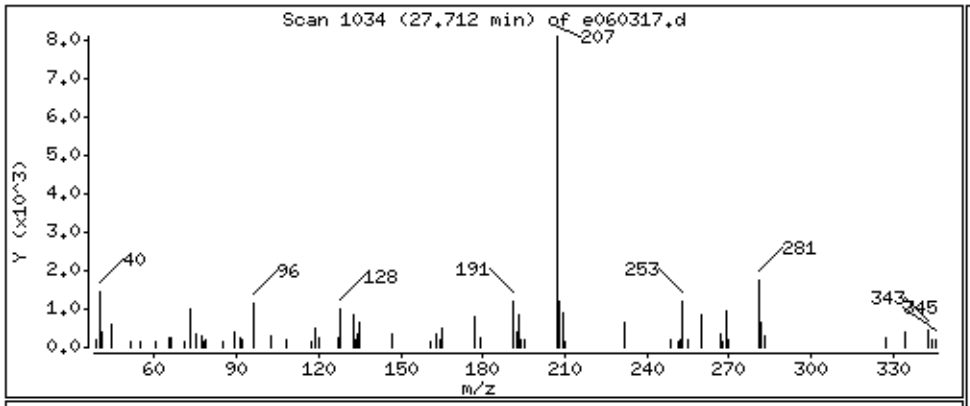
Operator: ea

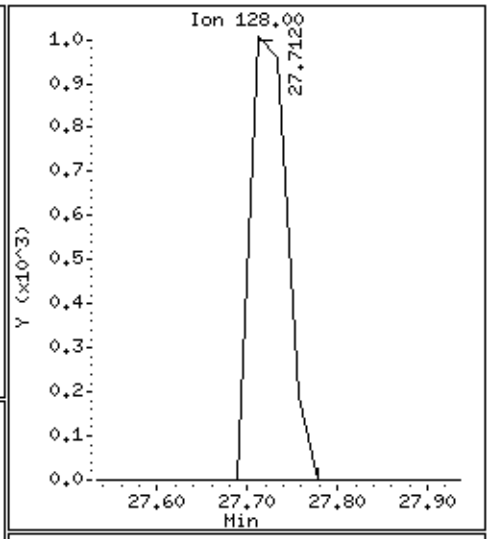
Column phase: RTX-624

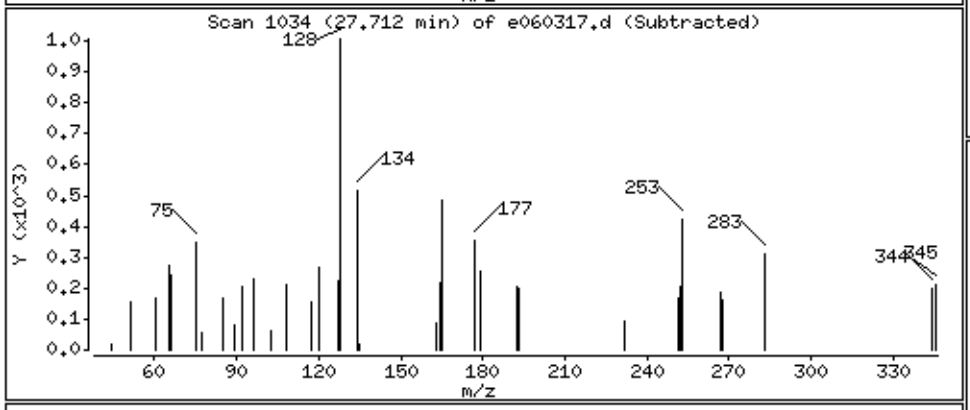
Column diameter: 0.32

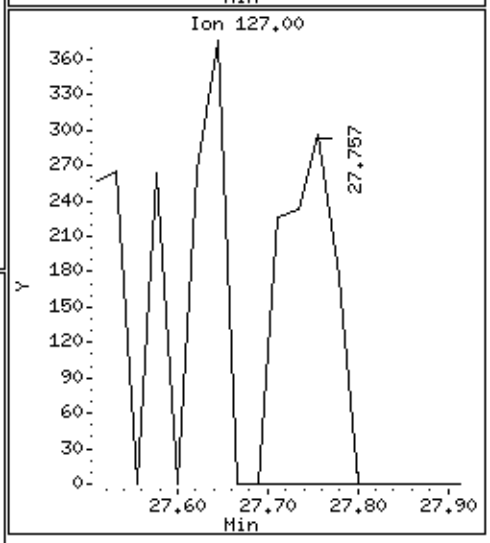
228 Naphthalene

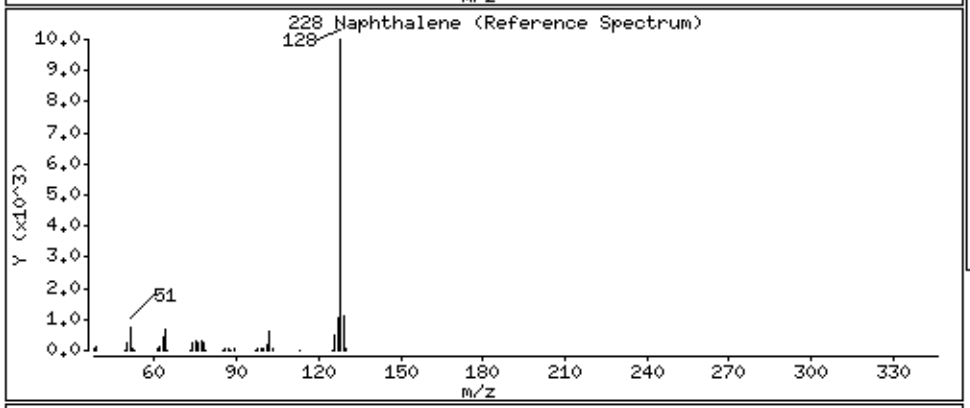
Concentration: 0.06624 PPBV

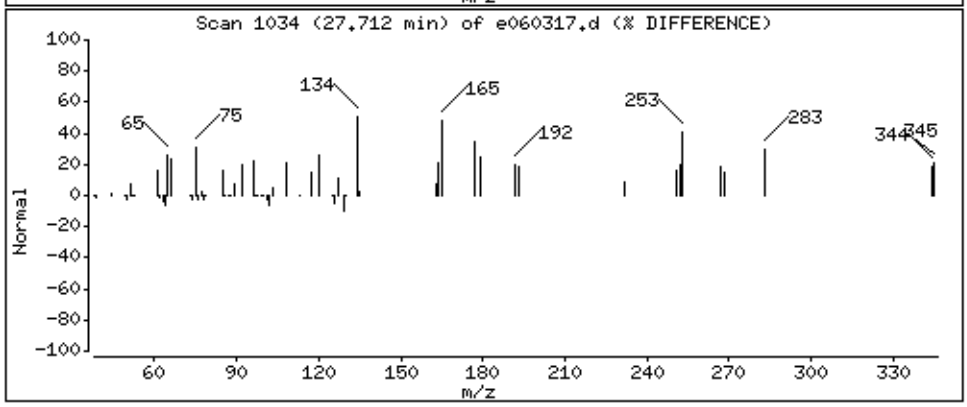












QC Results and Raw Data

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1606028A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060307c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/16 11:35 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	0.15 J	1.2	0.36 J
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	0.26 J	1.6	0.80 J
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	0.033 J	0.32	0.11 J
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1606028A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060307c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/16 11:35 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	0.020 J	0.60	0.12 J
alpha-Chlorotoluene	0.10	0.021 J	0.52	0.11 J
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	0.15 J	3.7	1.1 J
Hexachlorobutadiene	0.50	0.065 J	5.3	0.70 J
Naphthalene	0.50	Not Detected	2.6	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	93	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/03Jun2016.b/e060307c.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 03-JUN-2016 11:35
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 35248
Misc Info : Humid
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/03Jun2016.b/e16l0317f.m
Meth Date : 03-Jun-2016 10:38 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
52 Acetone						CAS #: 67-64-1	
12.366	12.366 (0.803)	58	1937	0.15027	0.1503	80.00- 120.00	100.00(a)
12.366	12.366 (0.803)	43	6807			321.47- 381.47	351.39
56 Carbon Disulfide						CAS #: 75-15-0	
12.442	12.443 (0.808)	76	25283	0.25735	0.2574	80.00- 120.00	100.00(a)
* 98 Bromochloromethane						CAS #: 74-97-5	
15.391	15.391 (1.000)	130	116472	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	87426			52.25- 112.25	75.06
15.391	15.391 (1.000)	49	79755			89.81- 149.81	68.48
116 Benzene						CAS #: 71-43-2	
16.183	16.183 (0.967)	78	3352	0.03345	0.03345	80.00- 120.00	100.00(a)
16.183	16.183 (0.967)	77	624			0.00- 53.97	18.62
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
16.183	16.183 (1.051)	65	168758	5.04710	5.047	80.00- 120.00	100.00
16.183	16.183 (1.051)	67	81219			21.16- 81.16	48.13

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
16.737	16.737 (1.000)	114	418117	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	61073			0.00- 45.20	14.61
$ 146 Toluene-d8						CAS #: 2037-26-5	
19.275	19.275 (1.152)	98	395327	4.81422	4.814	80.00- 120.00	100.00
19.275	19.275 (1.152)	70	41475			0.00- 40.11	10.49
19.275	19.275 (1.152)	100	262224			37.58- 97.58	66.33
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
22.177	22.177 (1.000)	117	397450	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	193469			20.64- 80.64	48.68
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4	
23.856	23.856 (1.076)	174	254489	4.66644	4.666	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	251691			77.42- 137.42	98.90
23.856	23.856 (1.076)	176	250917			65.38- 125.38	98.60
209 1,4-Dichlorobenzene						CAS #: 106-46-7	
25.268	25.269 (1.139)	146	2044	0.02025	0.02025	80.00- 120.00	100.00(a)
25.268	25.269 (1.139)	148	1370			32.61- 92.61	67.04
0.000	25.269 (0.000)	111	0			6.90- 66.90	0.00
212 alpha-Chlorotoluene						CAS #: 100-44-7	
25.403	25.403 (1.145)	91	2704	0.02129	0.02129	80.00- 120.00	100.00(a)
25.403	25.403 (1.145)	126	469			0.00- 51.82	17.35
226 1,2,4-Trichlorobenzene						CAS #: 120-82-1	
27.398	27.398 (1.235)	180	6252	0.14936	0.1494	80.00- 120.00	100.00(a)
27.421	27.398 (1.236)	182	5304			66.05- 126.05	84.84
227 Hexachlorobutadiene						CAS #: 87-68-3	
27.488	27.488 (1.239)	225	3713	0.06524	0.06524	80.00- 120.00	100.00(a)
27.510	27.488 (1.240)	223	2953			33.78- 93.78	79.54

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060307c.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: Humid

Calibration Date: 03-JUN-2016
Calibration Time: 07:24
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	115058	69035	161081	116472	1.23
123 1,4-Difluorobenze	430856	258514	603198	418117	-2.96
163 Chlorobenzene-d5	386725	232035	541415	397450	2.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 14-Jun-2016 06:26

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 03Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: BLANK
SpikeList File: AT09Bromo.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.047	100.94	70-130
$ 146 Toluene-d8	5.000	4.814	96.28	70-130
$ 177 4-Bromofluorobenze	5.000	4.666	93.33	70-130

Data File: /chem/msde.i/03Jun2016.b/e060307c.d

Date : 03-JUN-2016 11:35

Client ID: Lab Blank

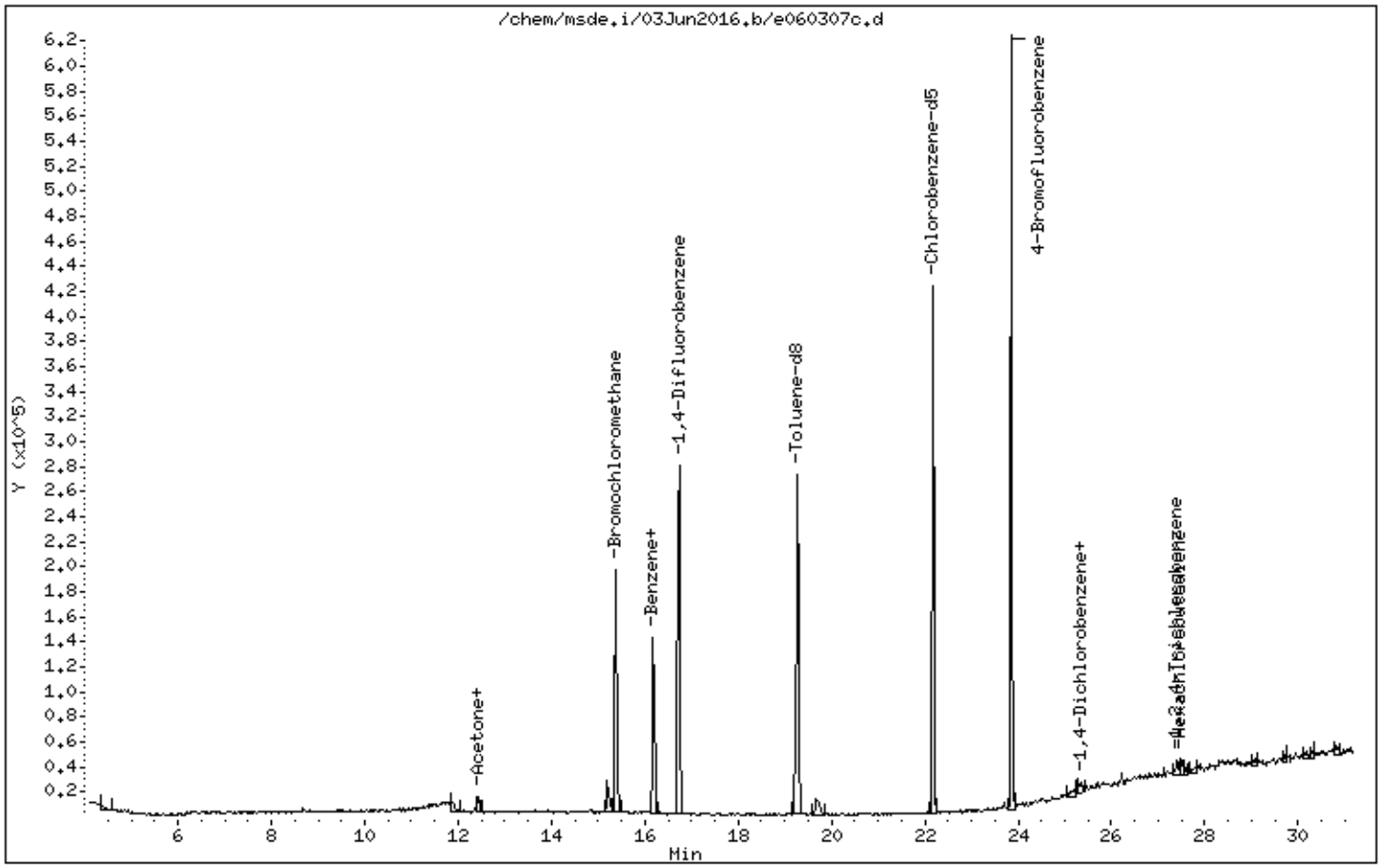
Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/03Jun2016.b/e060307c.d

Date : 03-JUN-2016 11:35

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

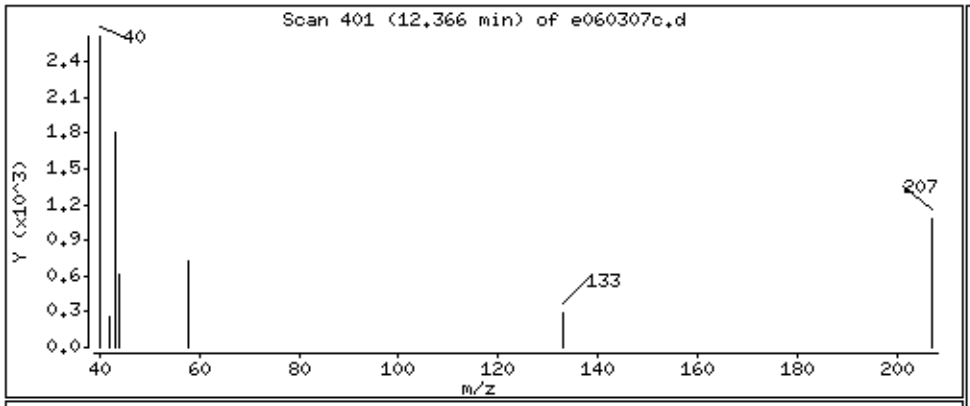
Operator: ef

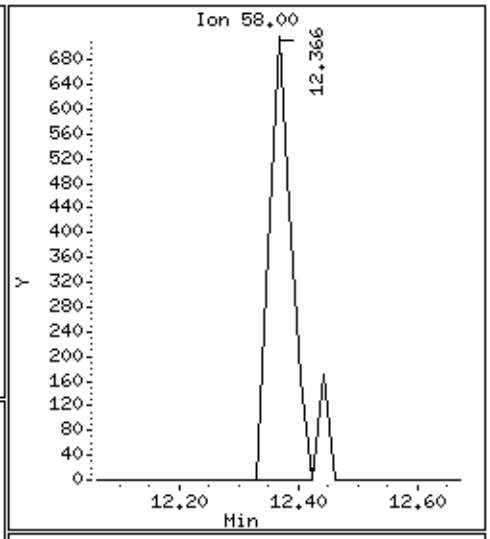
Column phase: RTX-624

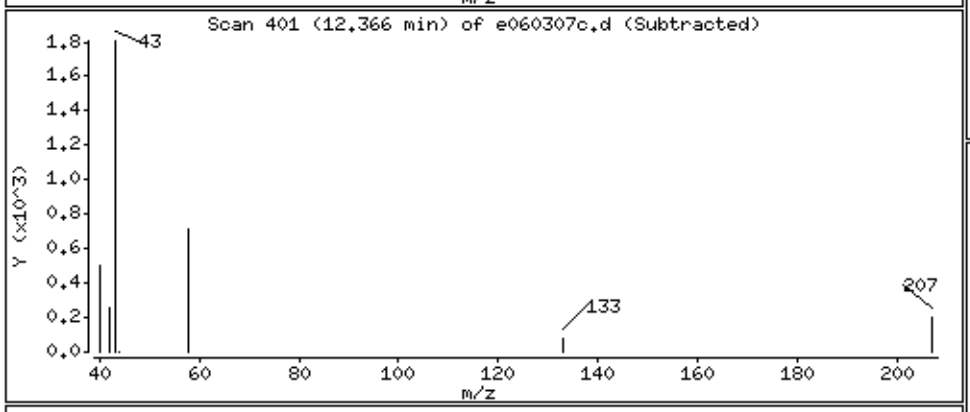
Column diameter: 0.32

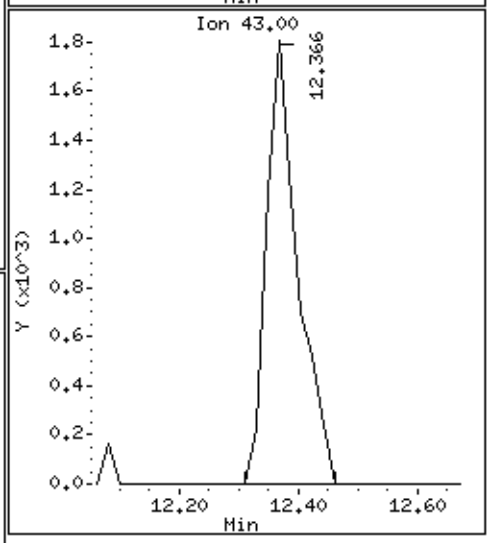
52 Acetone

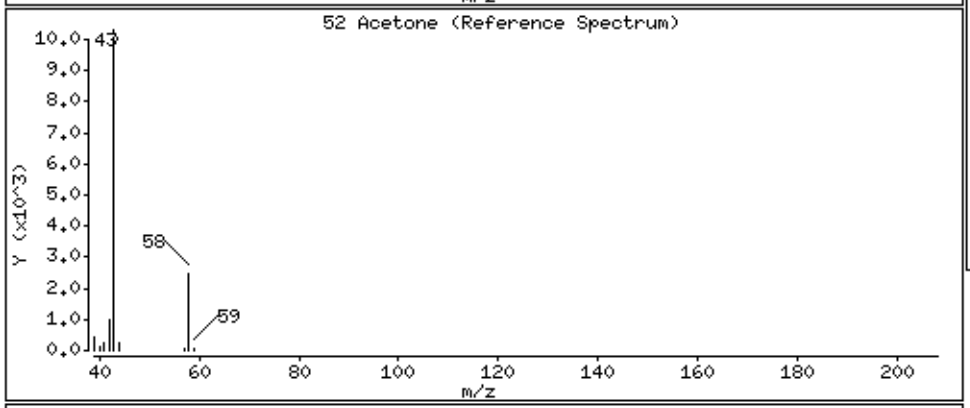
Concentration: 0.1503 PPBV

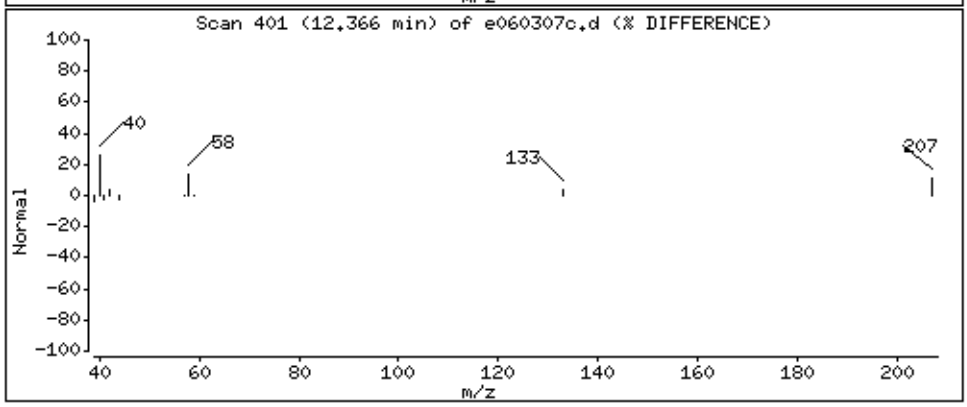












Data File: /chem/msde.i/03Jun2016.b/e060307c.d

Date : 03-JUN-2016 11:35

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

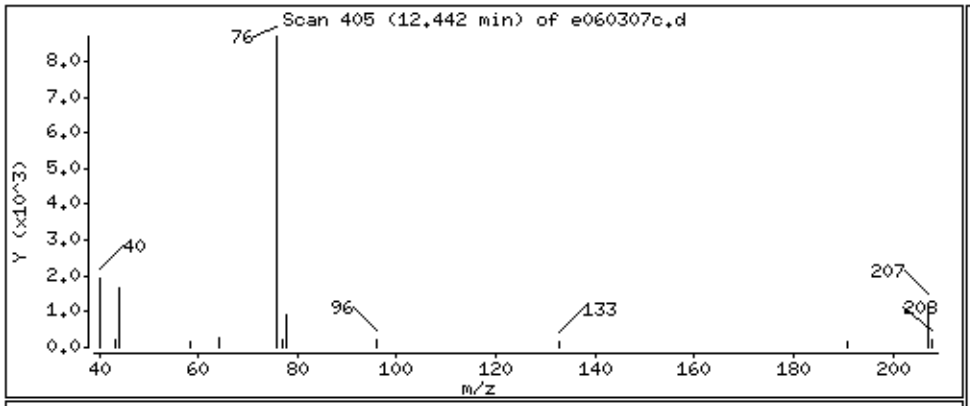
Operator: ef

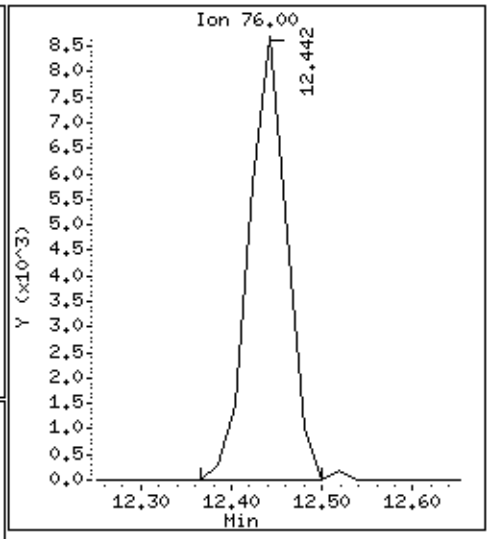
Column phase: RTX-624

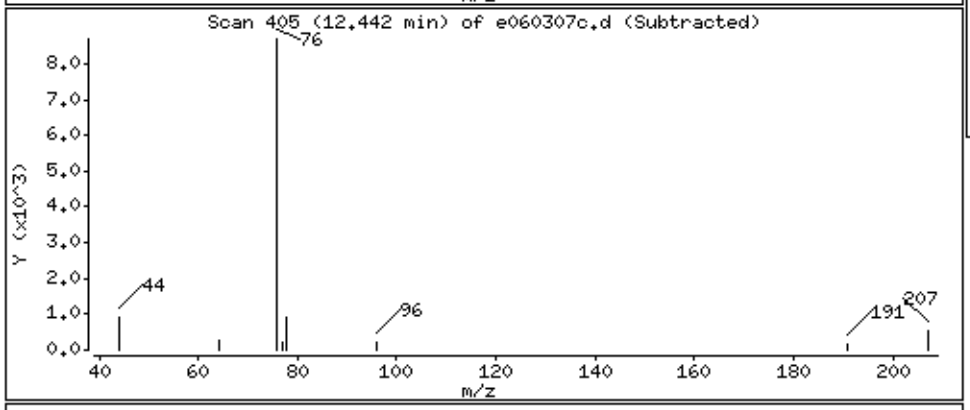
Column diameter: 0.32

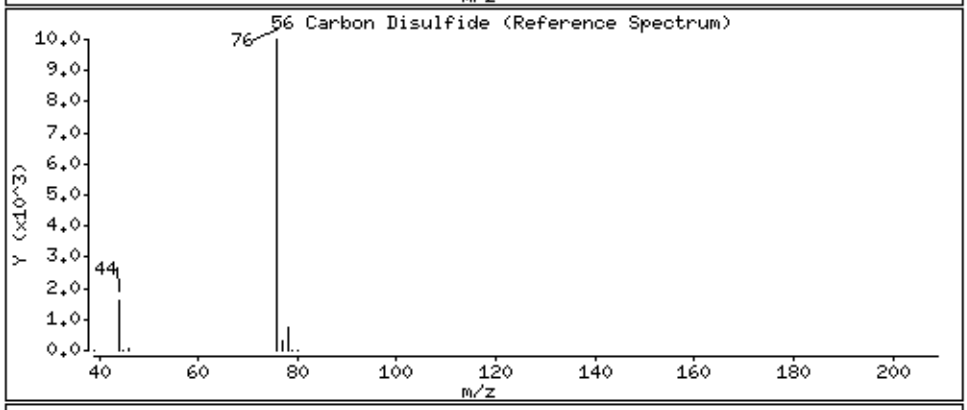
56 Carbon Disulfide

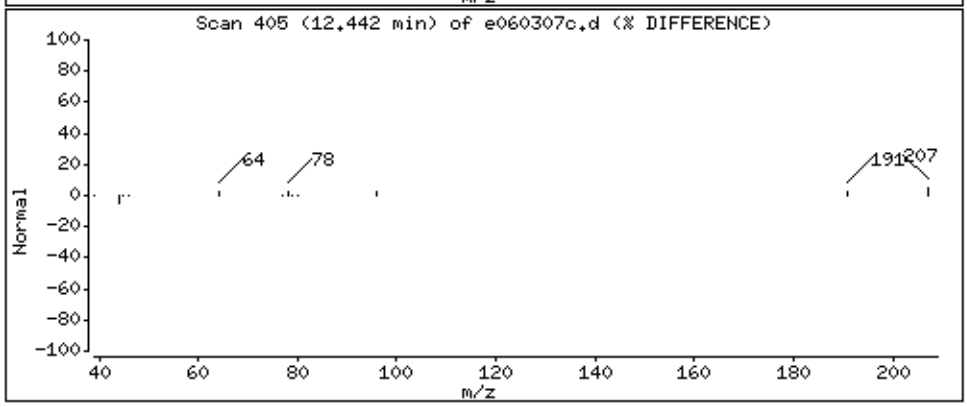
Concentration: 0.2574 PPBV











Data File: /chem/msde.i/03Jun2016.b/e060307c.d

Date : 03-JUN-2016 11:35

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

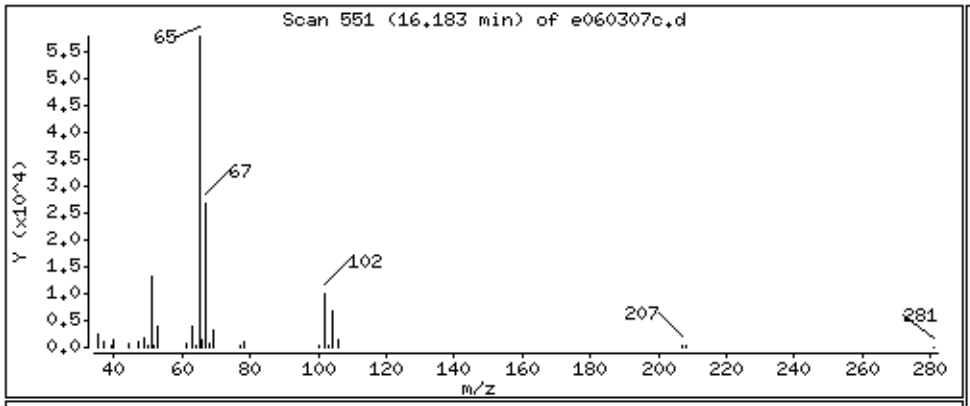
Operator: ef

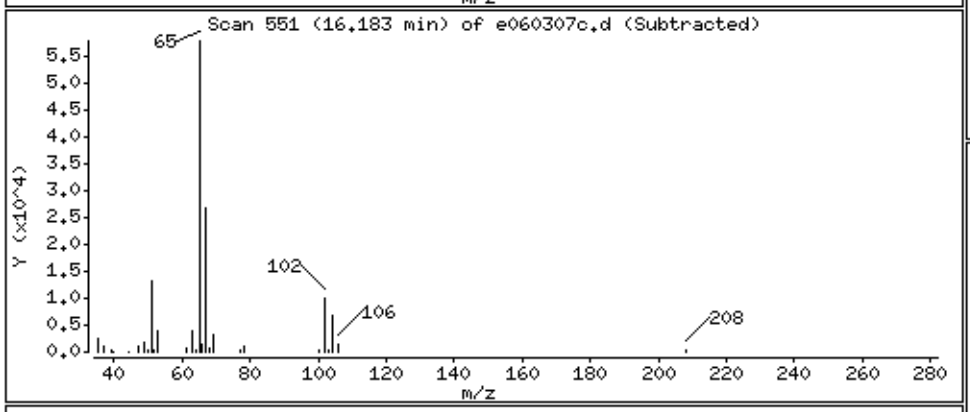
Column phase: RTX-624

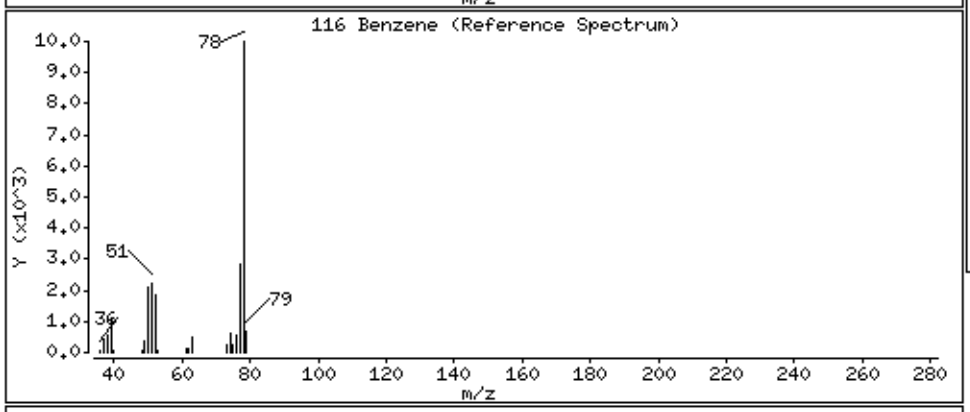
Column diameter: 0.32

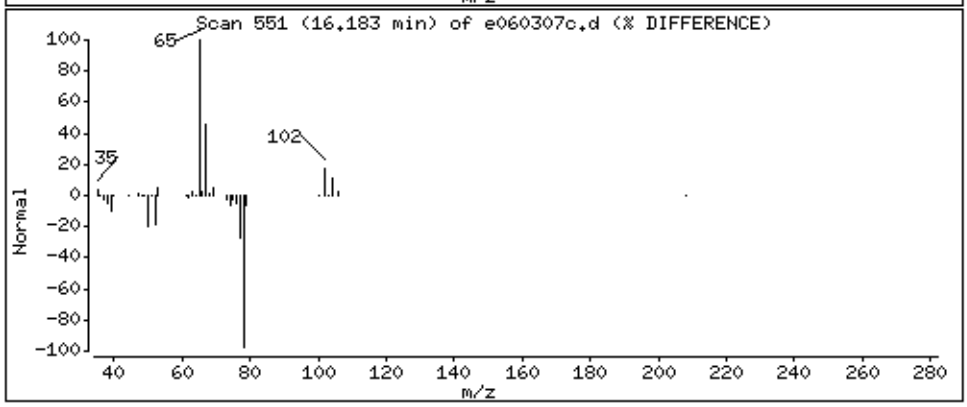
116 Benzene

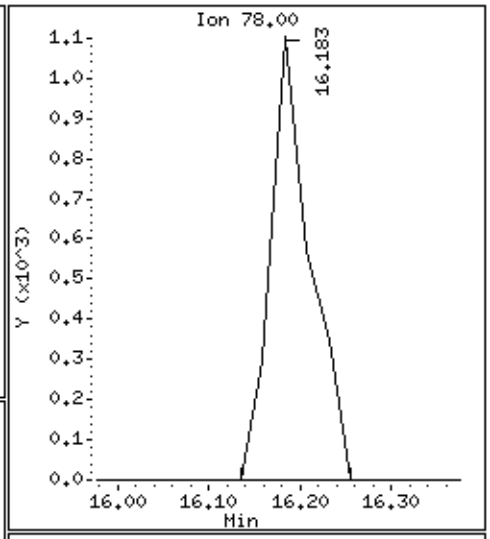
Concentration: 0.03345 PPBV

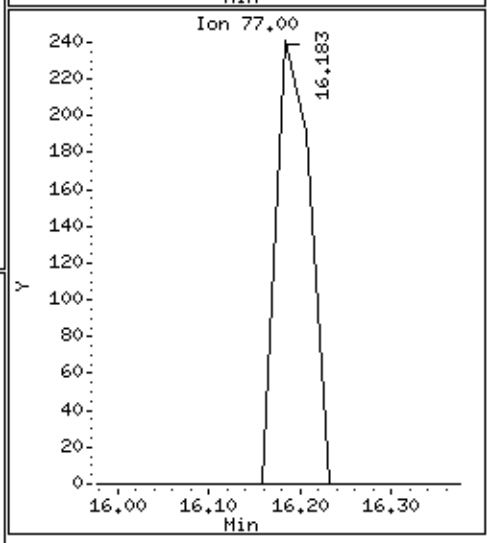












Data File: /chem/msde.i/03Jun2016.b/e060307c.d

Date : 03-JUN-2016 11:35

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

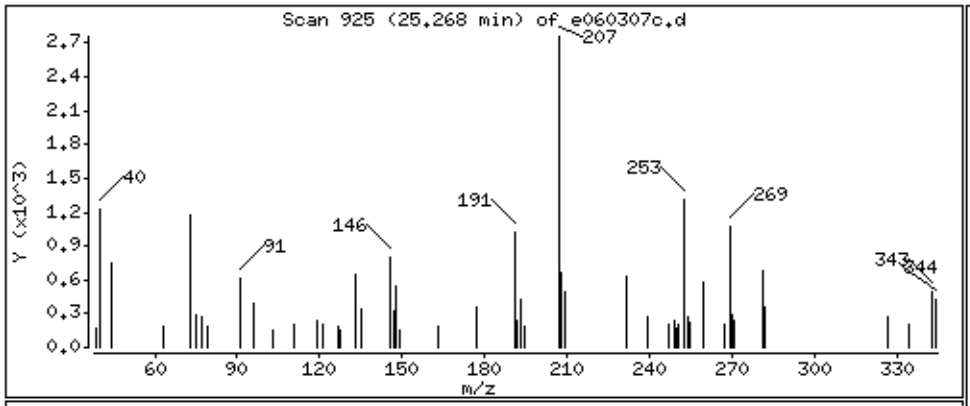
Operator: ef

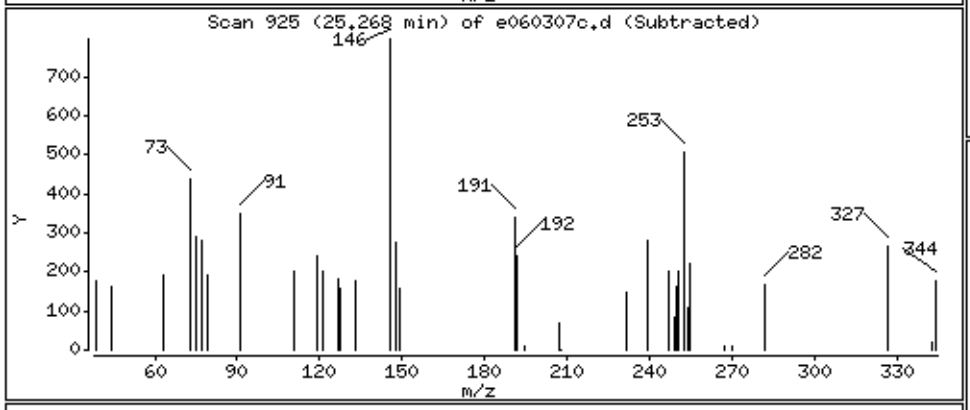
Column phase: RTX-624

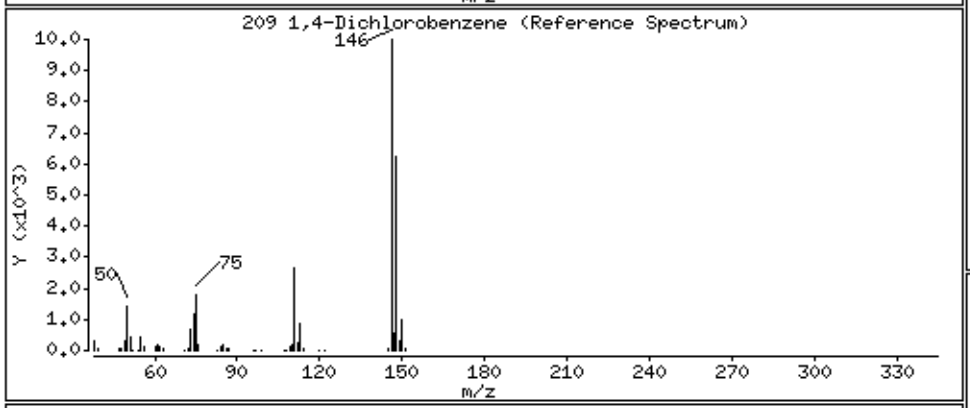
Column diameter: 0.32

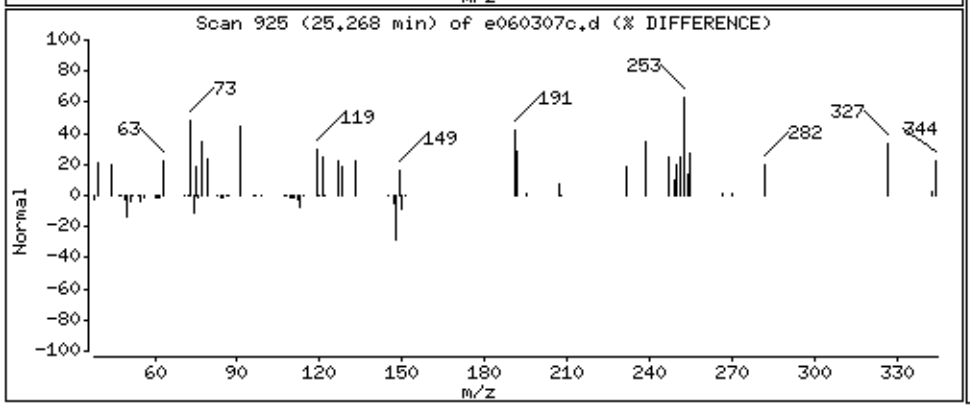
209 1,4-Dichlorobenzene

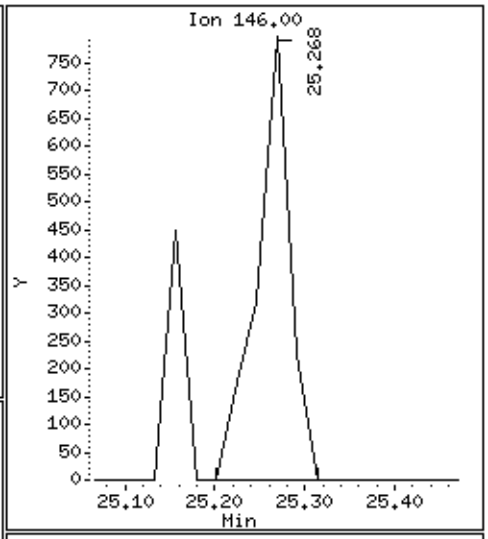
Concentration: 0.02025 PPBV

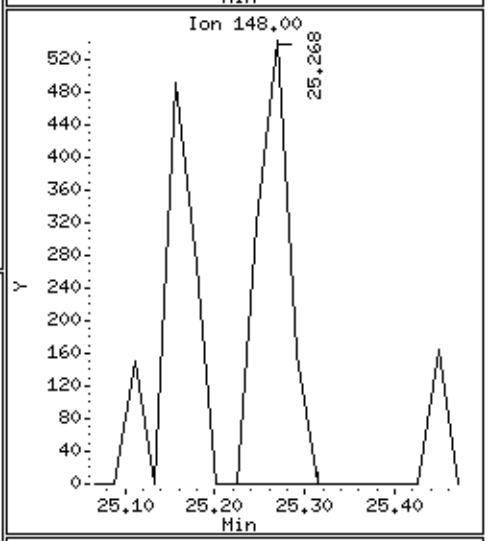


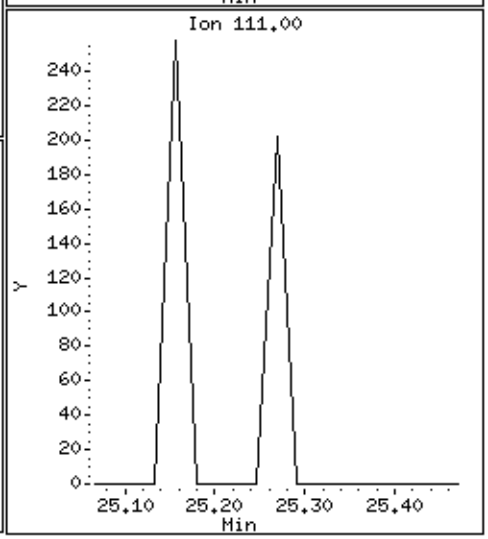












Data File: /chem/msde.i/03Jun2016.b/e060307c.d

Date : 03-JUN-2016 11:35

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

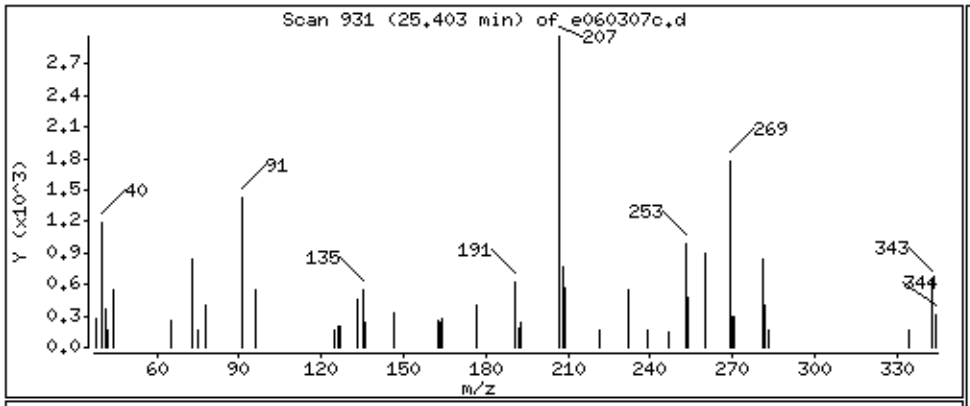
Operator: ef

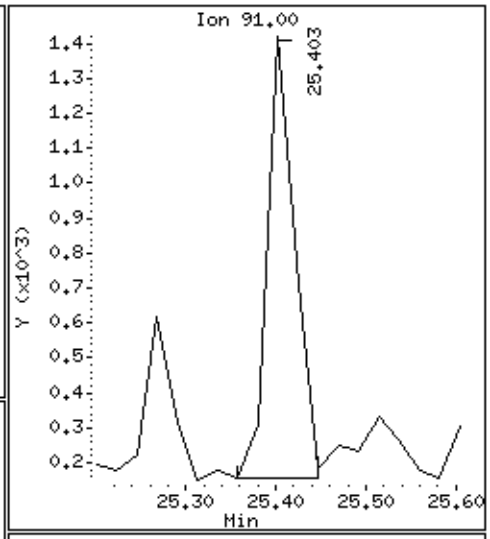
Column phase: RTX-624

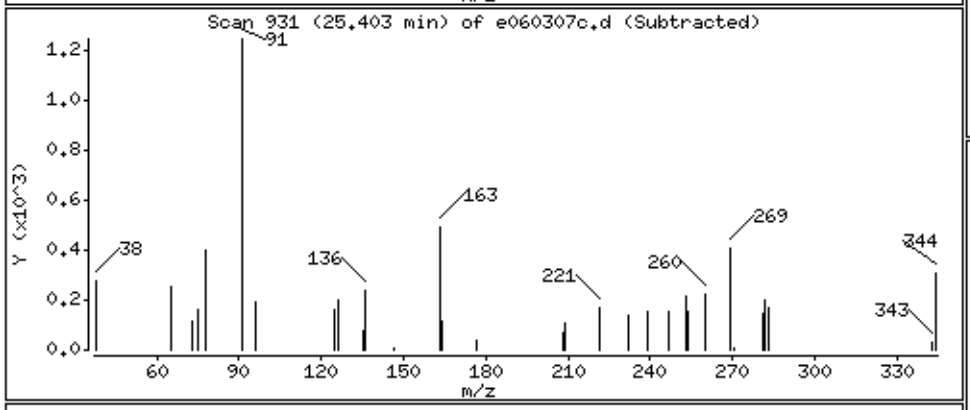
Column diameter: 0.32

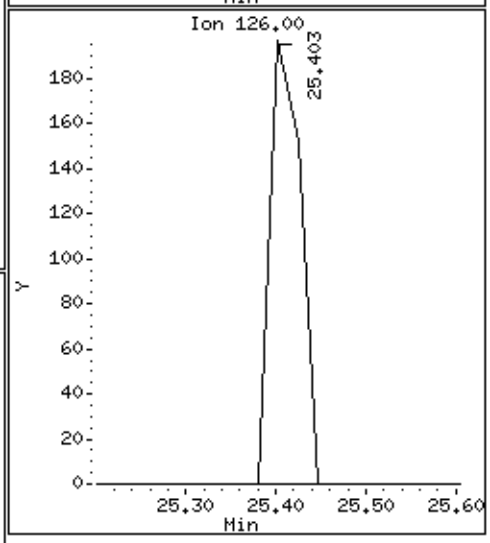
212 alpha-Chlorotoluene

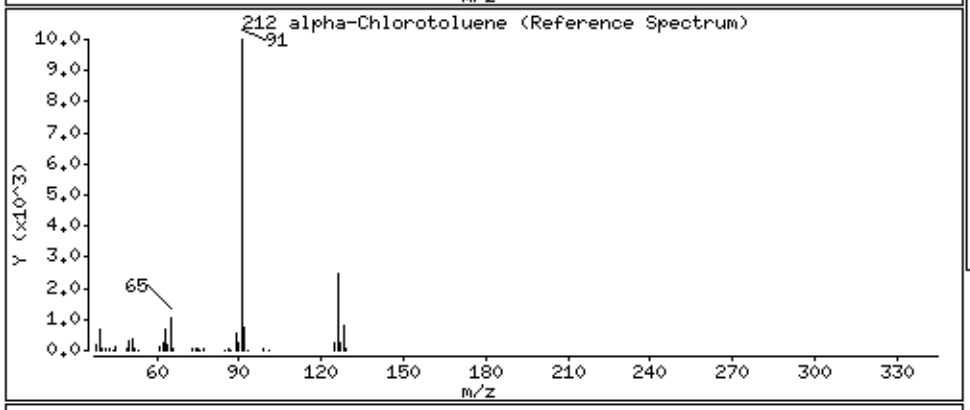
Concentration: 0.02129 PPBV

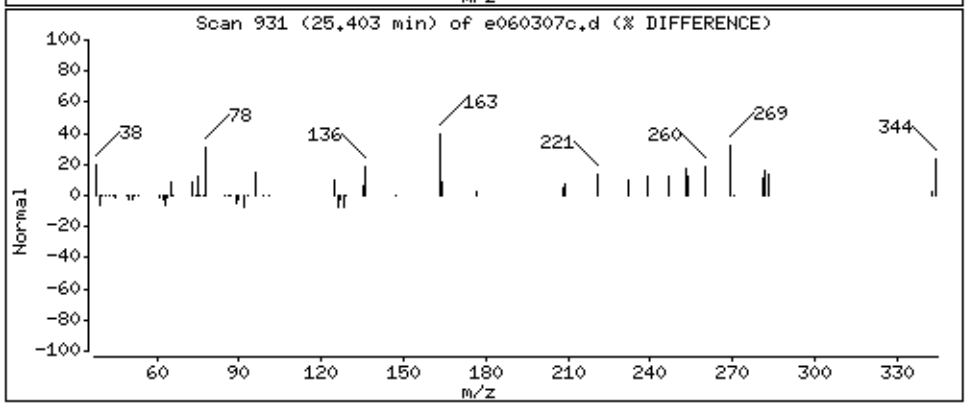












Data File: /chem/msde.i/03Jun2016.b/e060307c.d

Date : 03-JUN-2016 11:35

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

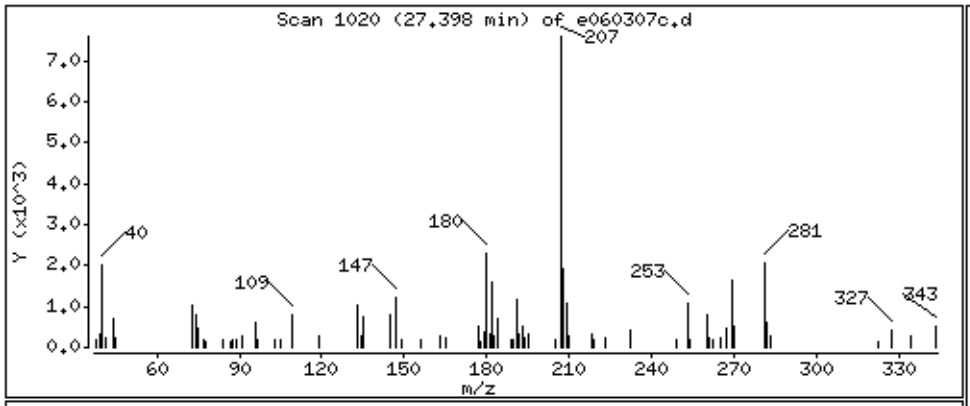
Operator: ef

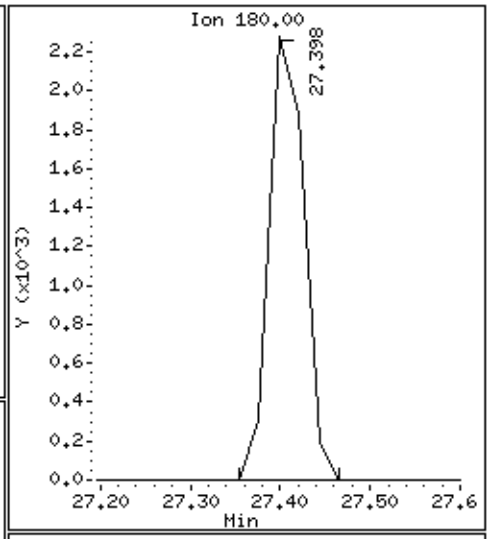
Column phase: RTX-624

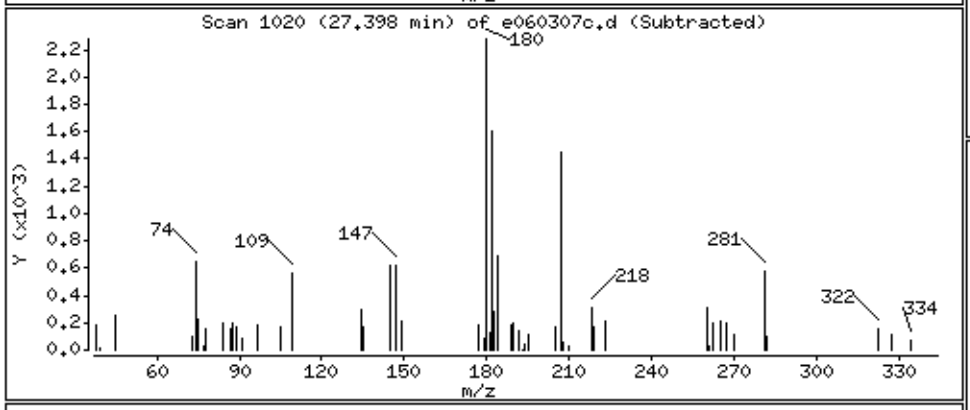
Column diameter: 0.32

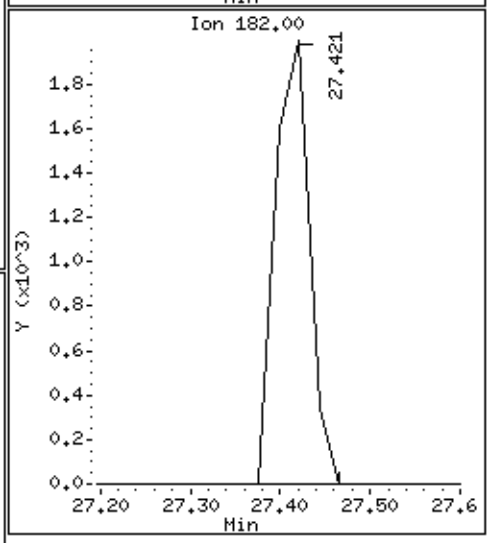
226 1,2,4-Trichlorobenzene

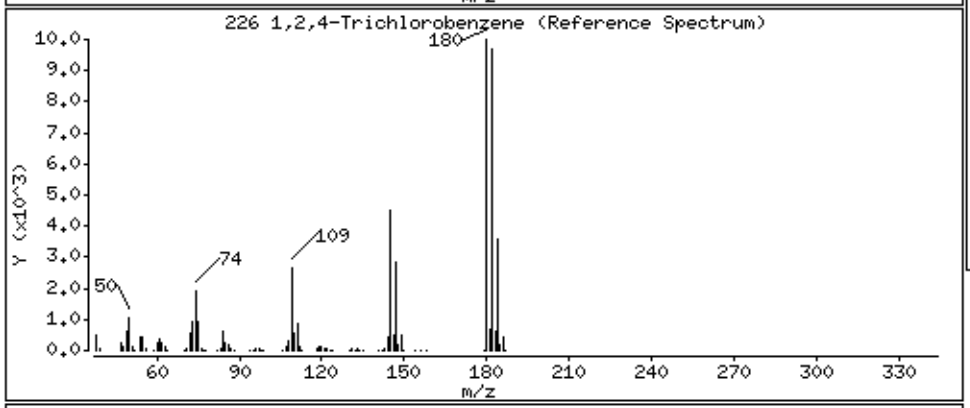
Concentration: 0.1494 PPBV

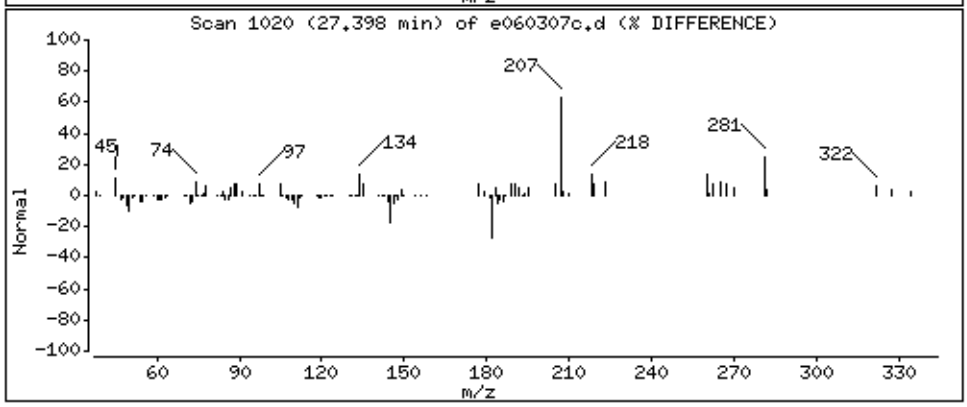












Data File: /chem/msde.i/03Jun2016.b/e060307c.d

Date : 03-JUN-2016 11:35

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

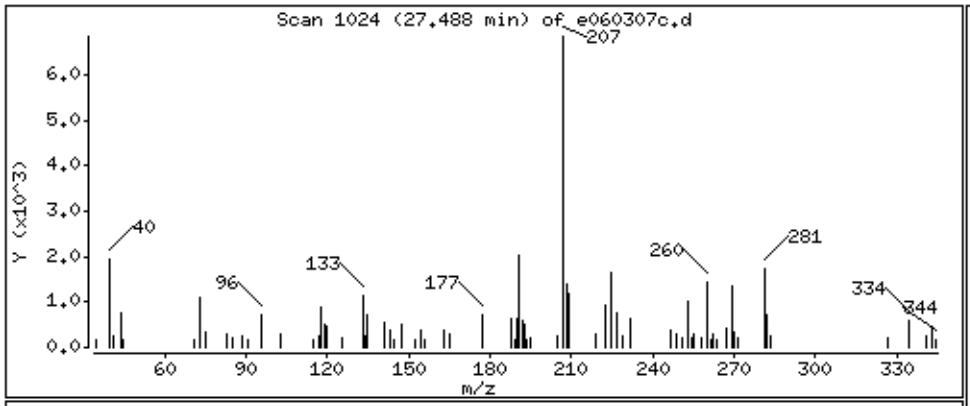
Operator: ef

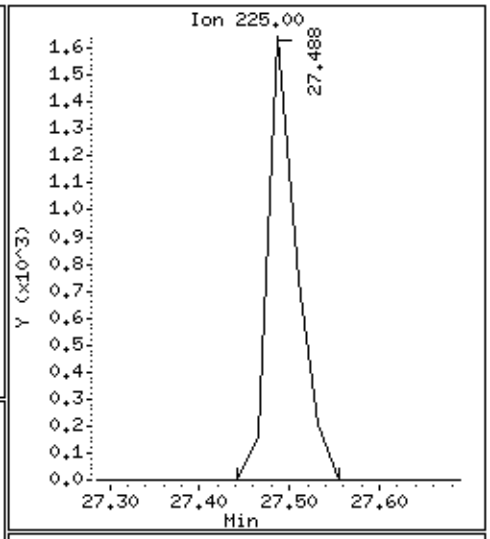
Column phase: RTX-624

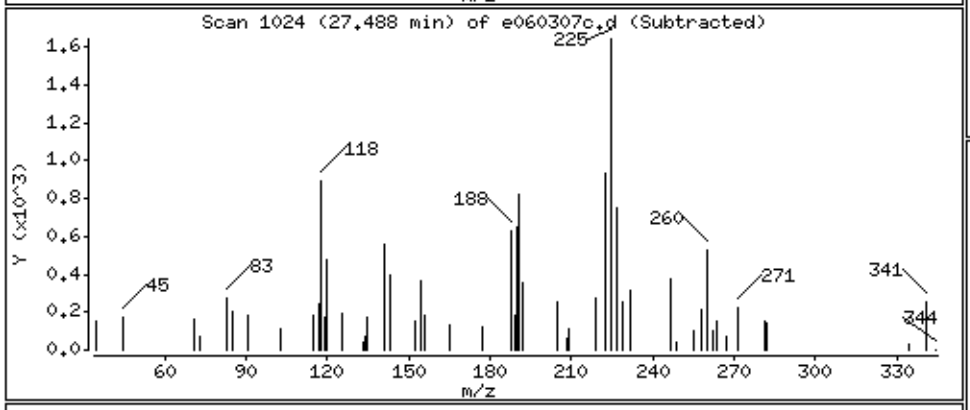
Column diameter: 0.32

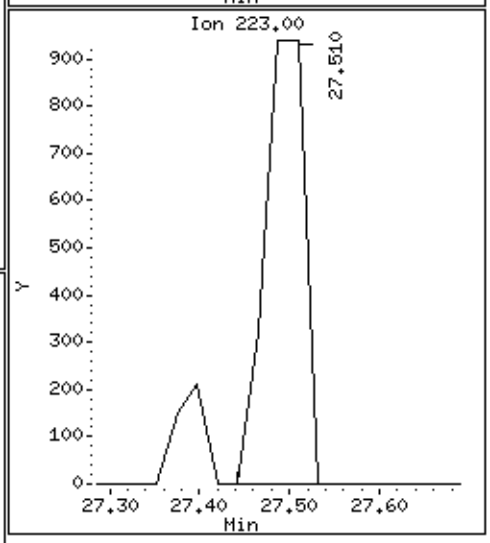
227 Hexachlorobutadiene

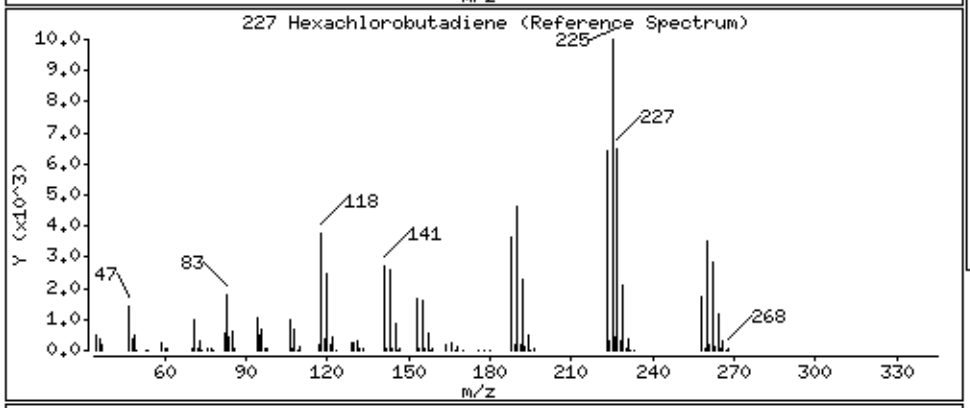
Concentration: 0.06524 PPBV

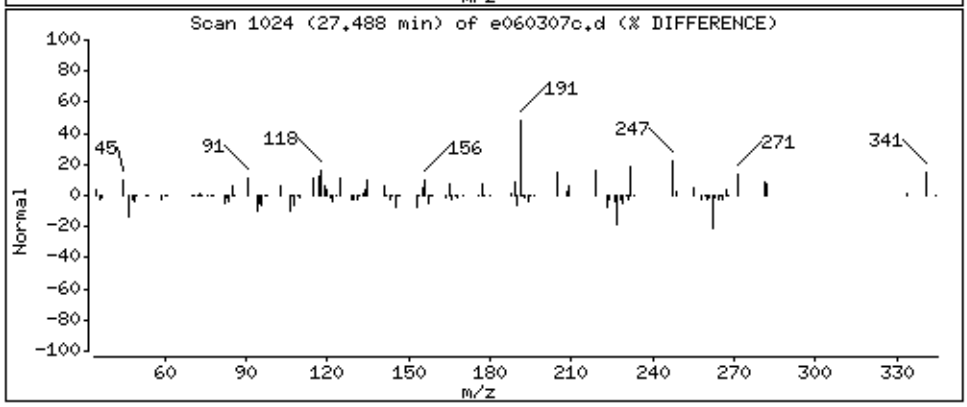












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Client Sample ID: Lab Blank

Lab ID#: 1606028A-08B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060807c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/16 12:17 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	0.21 J	1.2	0.51 J
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	0.31 J	1.6	0.98 J
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	0.017 J	0.32	0.053 J
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1606028A-08B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060807c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/16 12:17 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	0.11 J	3.7	0.80 J
Hexachlorobutadiene	0.50	0.034 J	5.3	0.36 J
Naphthalene	0.50	Not Detected	2.6	Not Detected

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	92	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/08Jun2016.b/e060807c.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 08-JUN-2016 12:17
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 96107
Misc Info : Humid
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/08Jun2016.b/e16l0317f.m
Meth Date : 08-Jun-2016 12:14 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	2789	0.21372	0.2137	80.00- 120.00	100.00(a)
12.366	12.366 (0.803)	43	9032			321.47- 381.47	323.79
56 Carbon Disulfide					CAS #: 75-15-0		
12.443	12.442 (0.808)	76	31178	0.31348	0.3135	80.00- 120.00	100.00(a)
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	117914	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	90510			52.25- 112.25	76.76
15.391	15.391 (1.000)	49	85490			89.81- 149.81	72.50
116 Benzene					CAS #: 71-43-2		
16.183	16.183 (0.967)	78	1731	0.01665	0.01664	80.00- 120.00	100.00(a)
16.207	16.183 (0.968)	77	814			0.00- 53.97	47.08
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.183	16.183 (1.051)	65	168861	4.98842	4.988	80.00- 120.00	100.00
16.183	16.183 (1.051)	67	85028			21.16- 81.16	50.35

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	433962	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	64315			0.00- 45.20	14.82
$ 146 Toluene-d8					CAS #: 2037-26-5		
19.276	19.275 (1.152)	98	427046	5.01061	5.011	80.00- 120.00	100.00
19.276	19.275 (1.152)	70	44385			0.00- 40.11	10.39
19.276	19.275 (1.152)	100	280684			37.58- 97.58	65.73
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	412723	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	203605			20.64- 80.64	49.33
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	261304	4.61410	4.614	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	262109			77.42- 137.42	100.31
23.856	23.856 (1.076)	176	254836			65.38- 125.38	97.52
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.421 (1.235)	180	4694	0.10799	0.1080	80.00- 120.00	100.00(a)
27.421	27.421 (1.236)	182	5179			66.05- 126.05	110.34
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	1981	0.03352	0.03352	80.00- 120.00	100.00(a)
27.510	27.488 (1.240)	223	2872			33.78- 93.78	144.98

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Report Date: 08-Jun-2016 13:00

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060807c.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/08Jun2016.b/e16l0317f.m
Misc Info: Humid

Calibration Date: 08-JUN-2016
Calibration Time: 08:32
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	121899	73139	170659	117914	-3.27
123 1,4-Difluorobenze	451721	271033	632409	433962	-3.93
163 Chlorobenzene-d5	400528	240317	560739	412723	3.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 08-Jun-2016 13:00

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 08Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: BLANK
SpikeList File: AT09Bromo.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msde.i/08Jun2016.b/e16l0317f.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.988	99.77	70-130
$ 146 Toluene-d8	5.000	5.011	100.21	70-130
$ 177 4-Bromofluorobenze	5.000	4.614	92.28	70-130

Data File: /chem/msde.i/08Jun2016.b/e060807c.d

Date : 08-JUN-2016 12:17

Client ID: Lab Blank

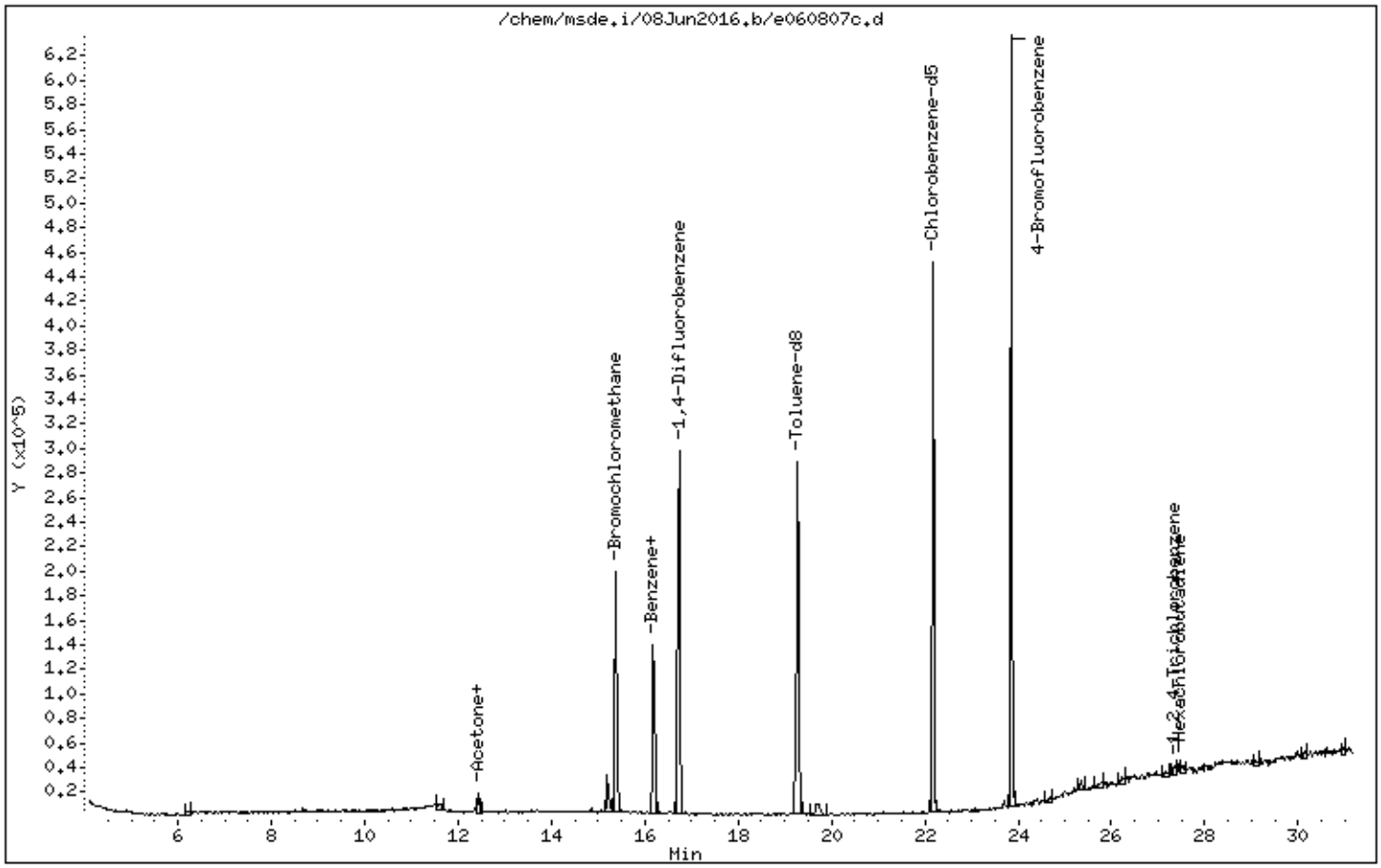
Instrument: msde.i

Sample Info: 250mL# 96107

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/08Jun2016.b/e060807c.d

Date : 08-JUN-2016 12:17

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 96107

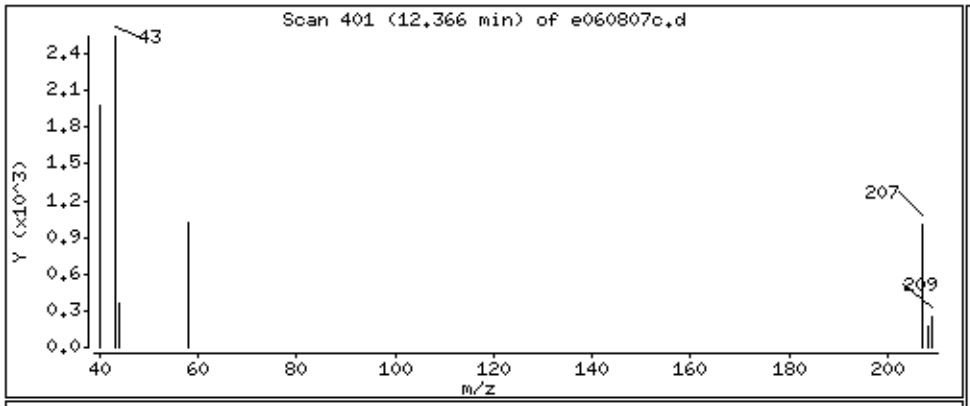
Operator: ef

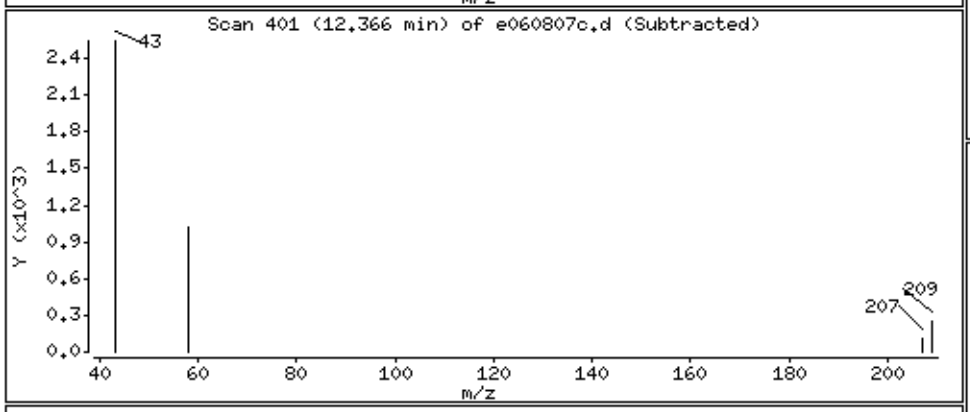
Column phase: RTX-624

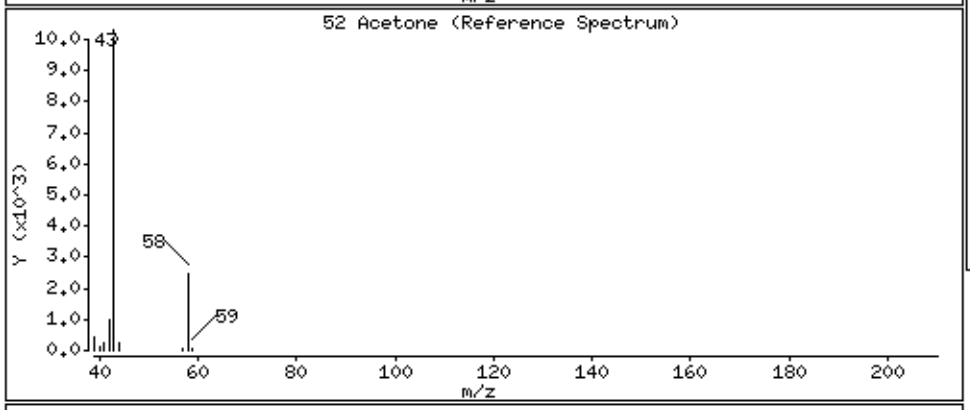
Column diameter: 0.32

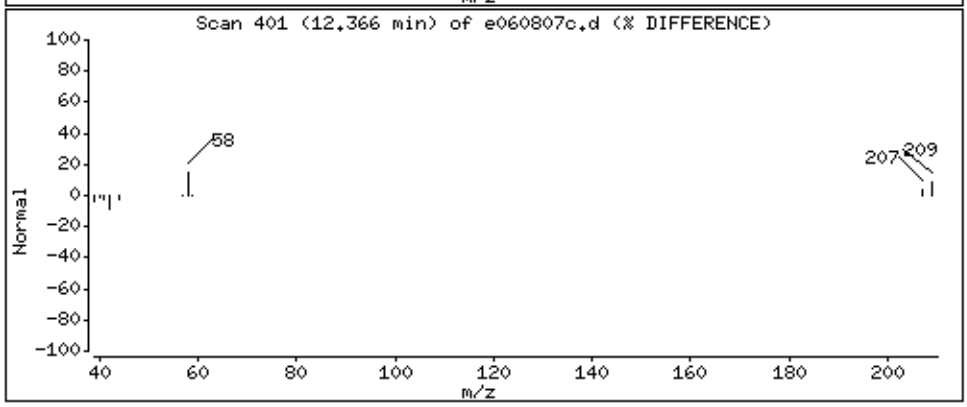
52 Acetone

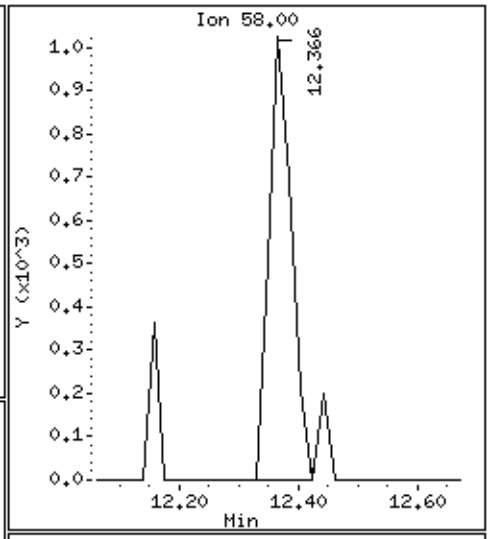
Concentration: 0.2137 PPBV

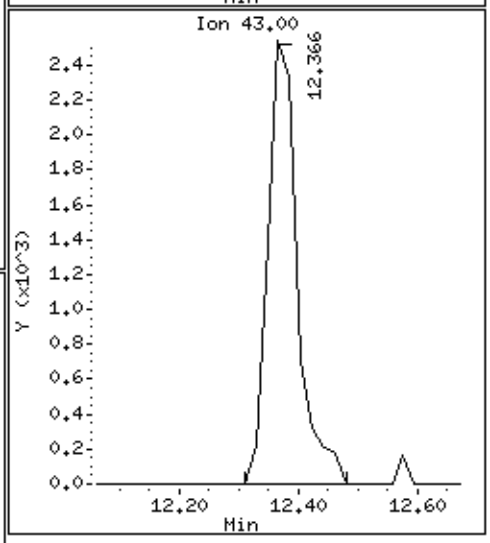












Data File: /chem/msde.i/08Jun2016.b/e060807c.d

Date : 08-JUN-2016 12:17

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 96107

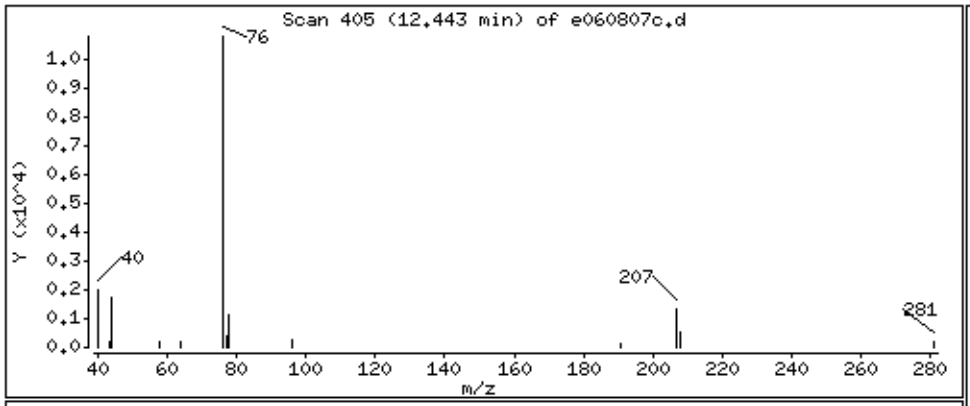
Operator: ef

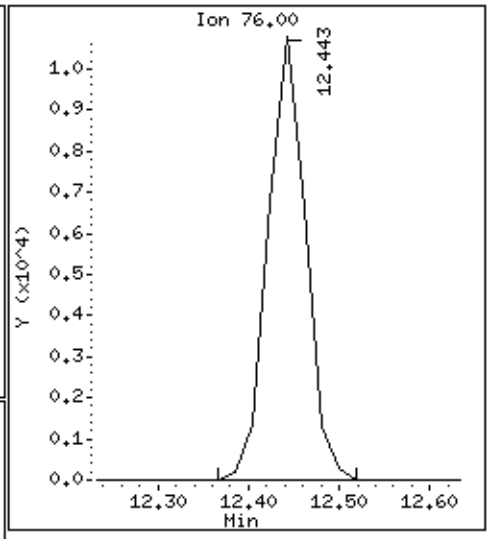
Column phase: RTX-624

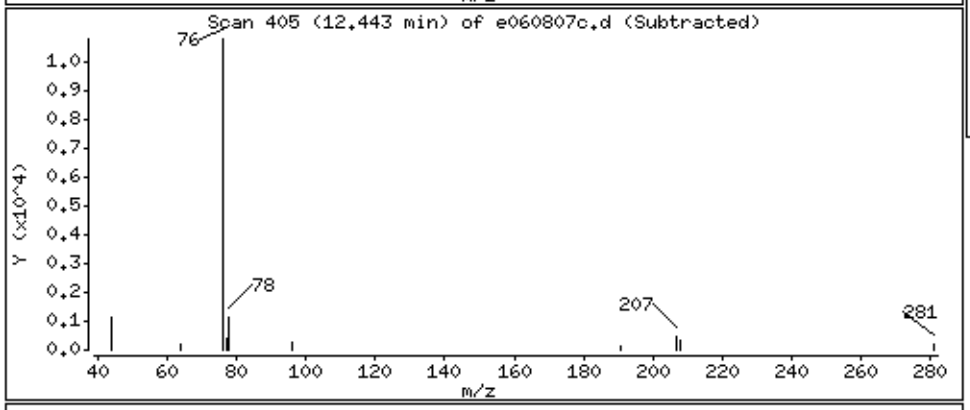
Column diameter: 0.32

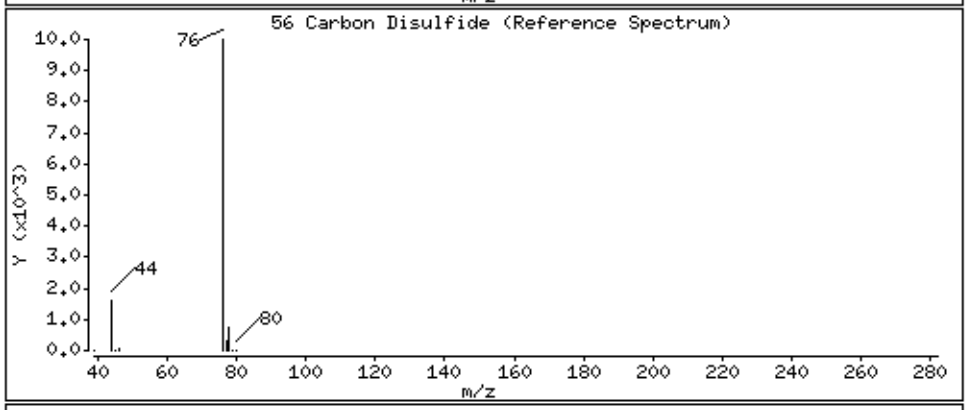
56 Carbon Disulfide

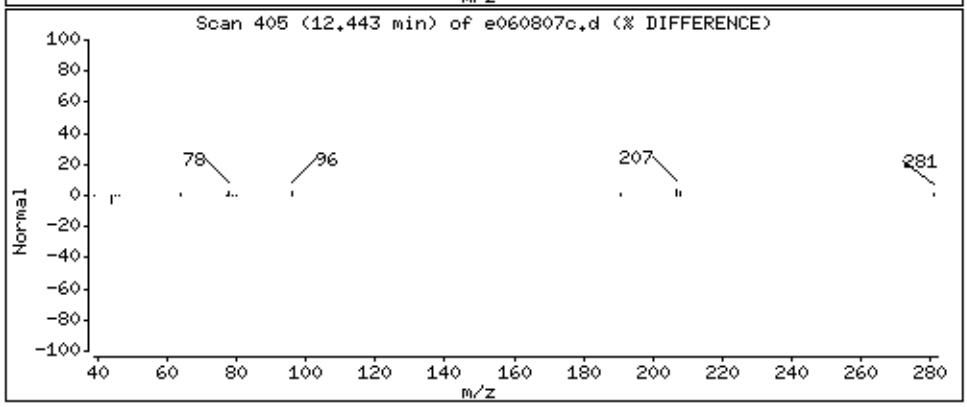
Concentration: 0.3135 PPBV











Data File: /chem/msde.i/08Jun2016.b/e060807c.d

Date : 08-JUN-2016 12:17

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 96107

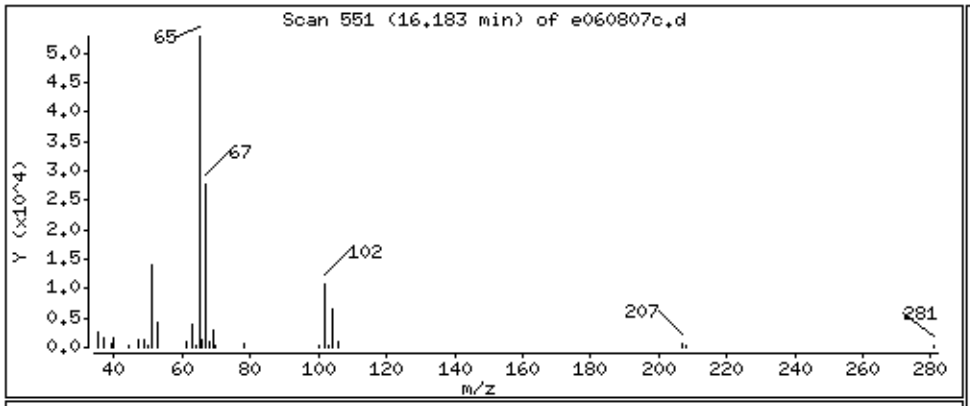
Operator: ef

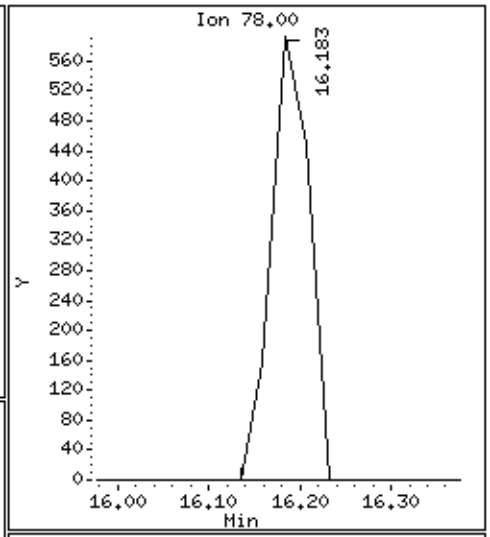
Column phase: RTX-624

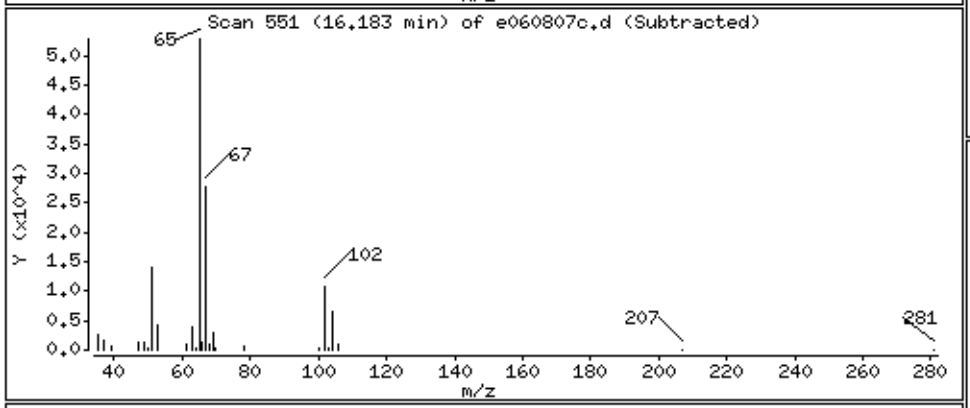
Column diameter: 0.32

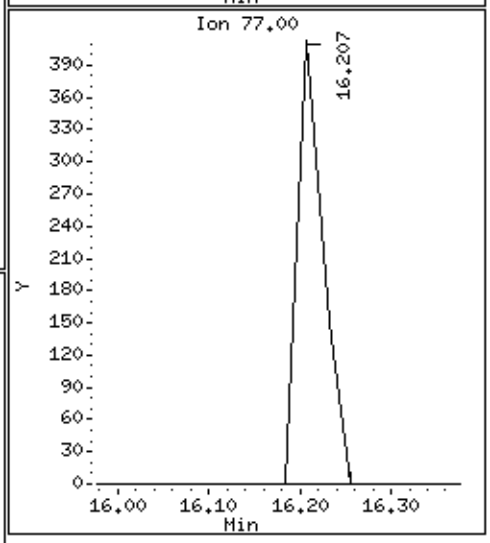
116 Benzene

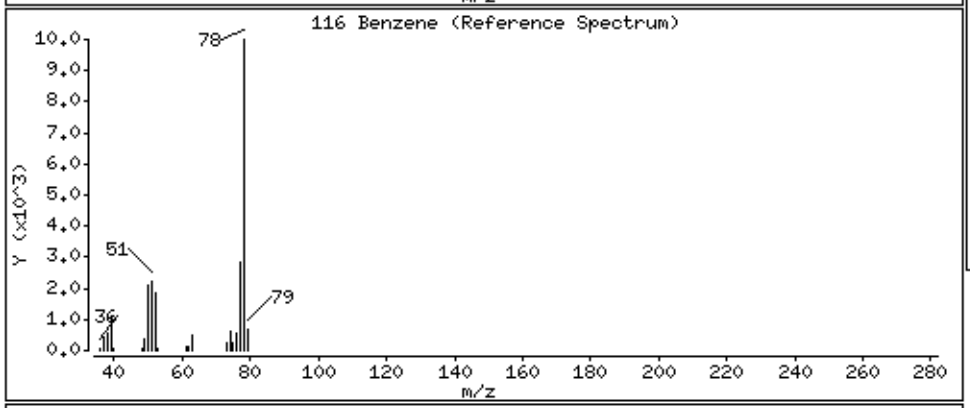
Concentration: 0.01664 PPBV

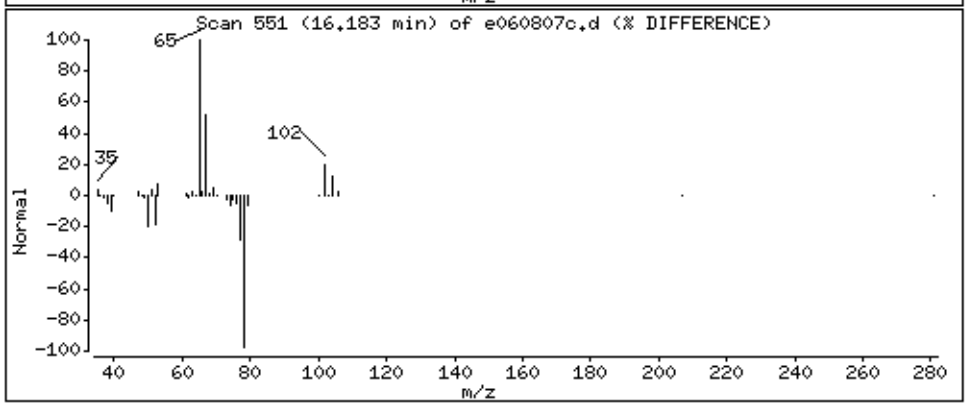












Data File: /chem/msde.i/08Jun2016.b/e060807c.d

Date : 08-JUN-2016 12:17

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 96107

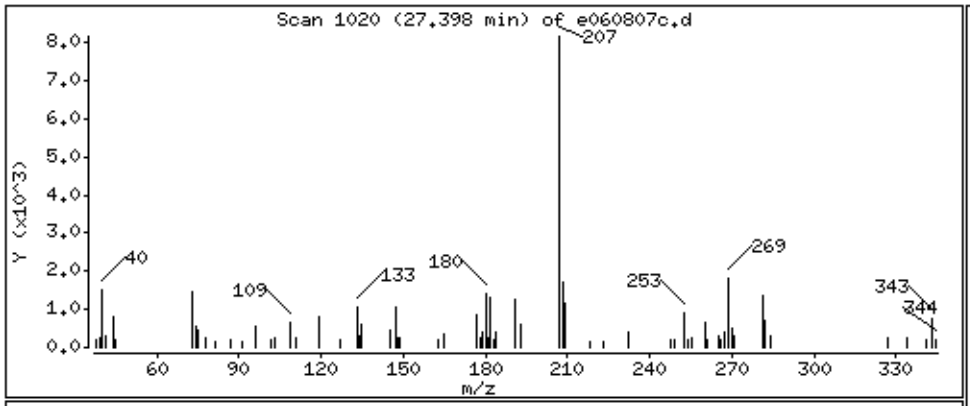
Operator: ef

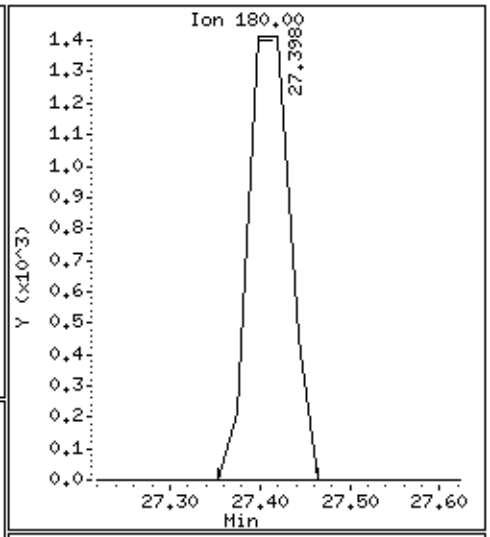
Column phase: RTX-624

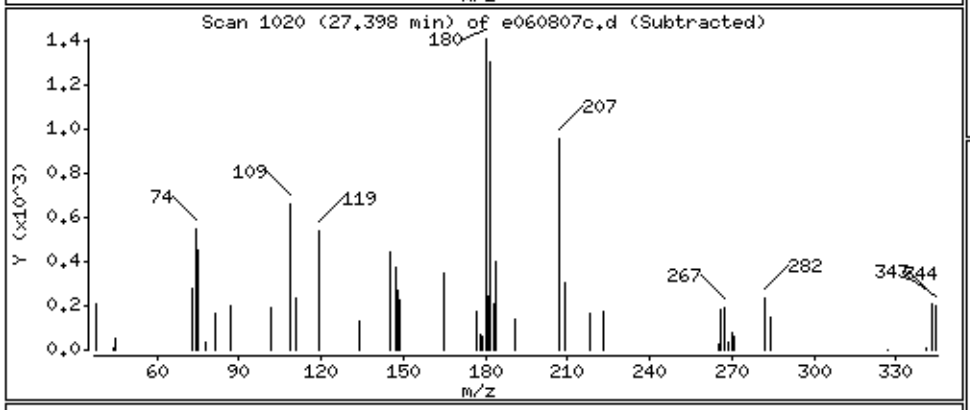
Column diameter: 0.32

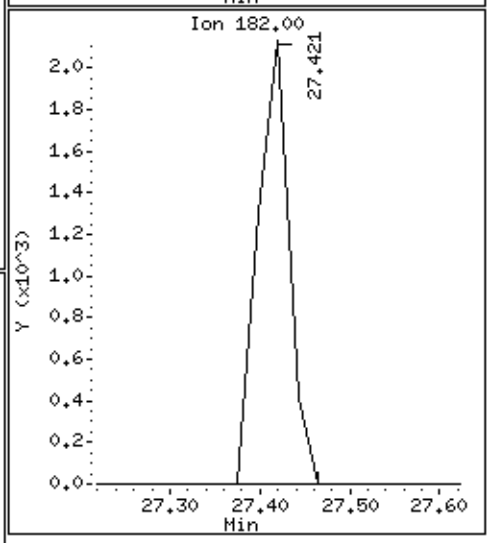
226 1,2,4-Trichlorobenzene

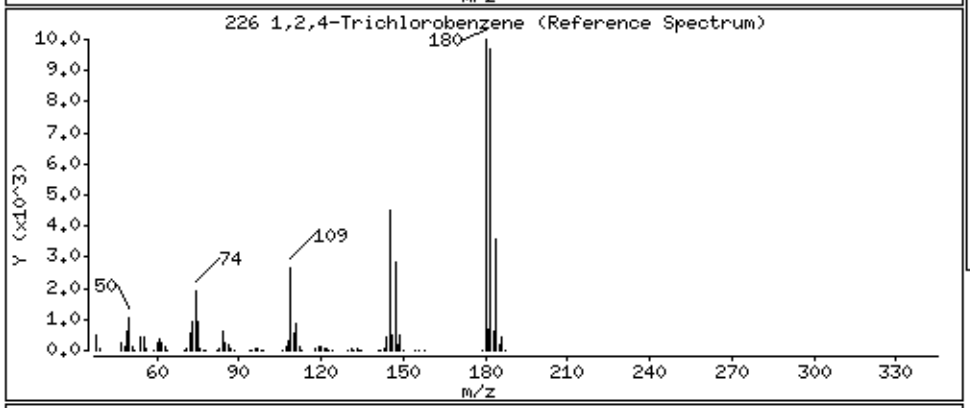
Concentration: 0.1080 PPBV

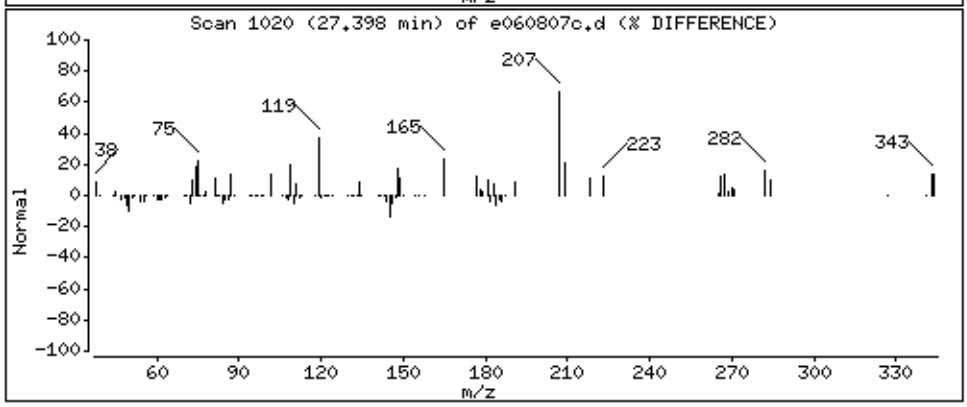












Data File: /chem/msde.i/08Jun2016.b/e060807c.d

Date : 08-JUN-2016 12:17

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 96107

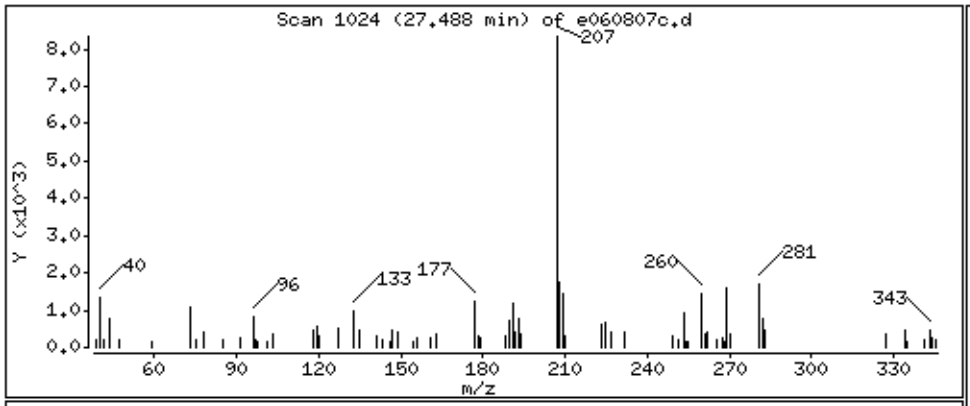
Operator: ef

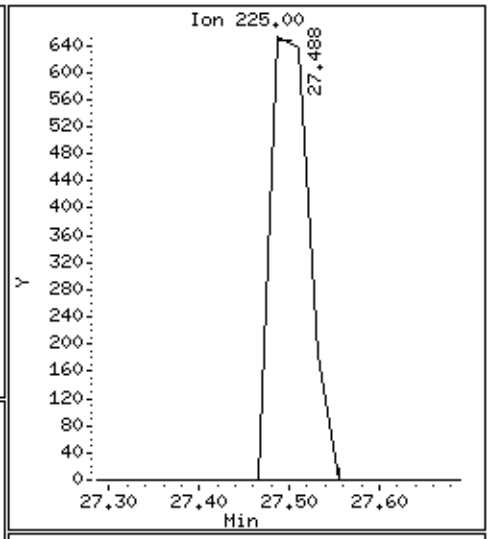
Column phase: RTX-624

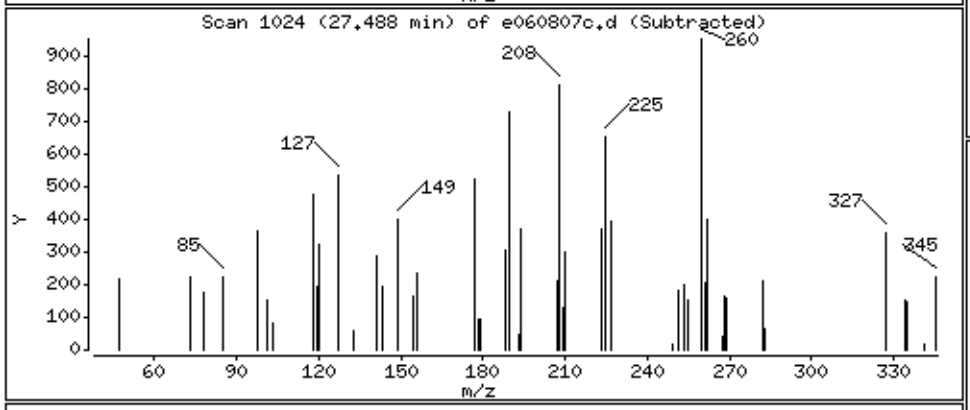
Column diameter: 0.32

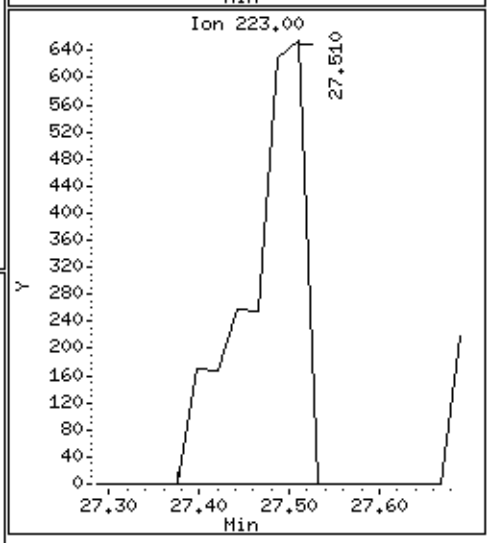
227 Hexachlorobutadiene

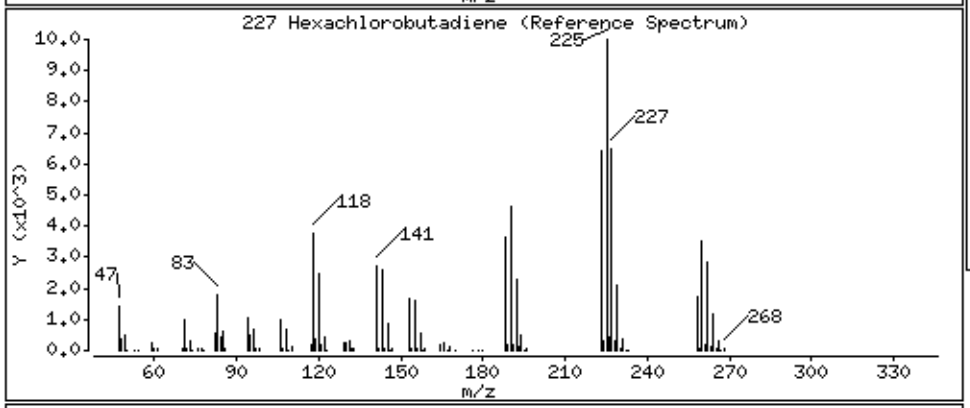
Concentration: 0.03352 PPBV

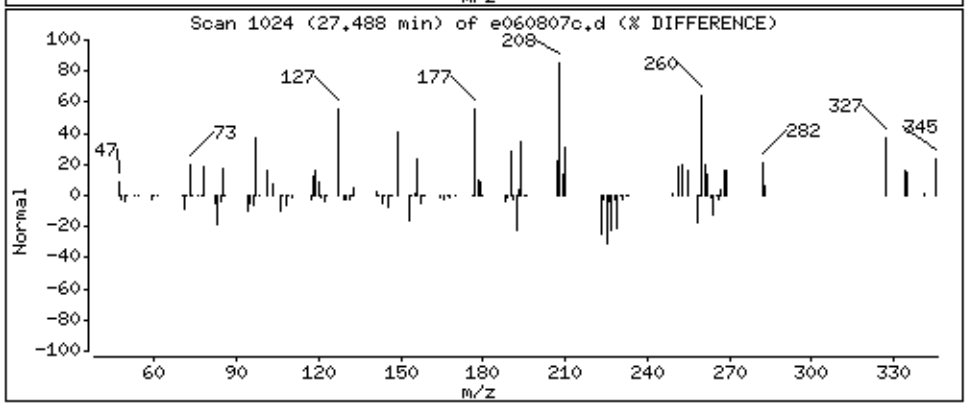












LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1606028A

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	B30AA (052816)	106		96		100				0
02	B30IA-1 (052816)	98		100		96				0
03	B30IA-1D (052816)	97		97		98				0
04	B30IA-2 (052816)	108		96		94				0
05	B30IA-3 (052816)	101		94		95				0
06	B30IA-4 (052816)	100		98		102				0
07	B30IA-5 (052816)	102		96		94				0
08	Lab Blank	101		96		93				0
09	Lab Blank	100		100		92				0
10	CCV	93		97		100				0
11	CCV	89		98		96				0
12	LCS	90		97		98				0
13	LCSD	89		99		96				0
14	LCS	90		98		99				0
15	LCSD	91		97		102				0
16										0
17										0
18										0
19										0
20										0
21										0
22										0
23										0
24										0

Surrogate Recovery Limits

1,2-Dichloroethane-d4 70 - 130
Toluene-d8 70 - 130
4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:	AIR TOXICS, LTD	SDG No:	1606028A
Lab File ID:	e060302.d	Date Analyzed:	06/03/2016
Instrument ID:	msde.i	Time Analyzed:	07:24 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	386725		22.18		430856		16.74		115058		15.39	
	UPPER LIMIT	541415		22.51		603198		17.07		161081		15.72	
	LOWER LIMIT	232035		21.85		258514		16.41		69035		15.06	
	CLIENT SAMPLE NO												
01	B30AA (052816)	416339		22.18		455859		16.74		118168		15.39	
02	B30IA-1 (052816)	415868		22.18		448478		16.74		123872		15.39	
03	B30IA-1D (052816)	421638		22.18		450204		16.74		124599		15.39	
04	B30IA-3 (052816)	426641		22.18		461724		16.74		122268		15.39	
05	B30IA-4 (052816)	420339		22.18		444362		16.74		121531		15.39	
06	B30IA-5 (052816)	435844		22.18		461414		16.74		123879		15.39	
07	Lab Blank	397450		22.18		418117		16.74		116472		15.39	
08	CCV	386725		22.18		430856		16.74		115058		15.39	
09	LCS	455863		22.18		514499		16.74		140352		15.39	
10	LCSD	460458		22.18		506274		16.74		136084		15.39	
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:	AIR TOXICS, LTD	SDG No:	1606028A
Lab File ID:	e060802.d	Date Analyzed:	06/08/2016
Instrument ID:	msde.i	Time Analyzed:	08:32 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	400528		22.18		451721		16.74		121899		15.39	
	UPPER LIMIT	560739		22.51		632409		17.07		170659		15.72	
	LOWER LIMIT	240317		21.85		271033		16.41		73139		15.06	
	CLIENT SAMPLE NO												
01	B30IA-2 (052816)	445454		22.18		466674		16.74		119176		15.39	
02	Lab Blank	412723		22.18		433962		16.74		117914		15.39	
03	CCV	400528		22.18		451721		16.74		121899		15.39	
04	LCS	447641		22.18		500217		16.74		140545		15.39	
05	LCSD	455517		22.18		514807		16.74		136393		15.39	
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

'Area Upper Limit=+40% of internal standard area'
'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT
RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: e060304.d & e060303.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/3/16 & 6/3/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	81		80		1.2	
79-34-5	1,1,2,2-Tetrachloroethane	78		76		2.6	
79-00-5	1,1,2-Trichloroethane	86		86		0	
75-34-3	1,1-Dichloroethane	83		87		4.7	
75-35-4	1,1-Dichloroethene	84		88		4.6	
120-82-1	1,2,4-Trichlorobenzene	105		122		15	
95-63-6	1,2,4-Trimethylbenzene	69		72		4.2	
106-93-4	1,2-Dibromoethane (EDB)	94		92		2.2	
95-50-1	1,2-Dichlorobenzene	84		84		0	
107-06-2	1,2-Dichloroethane	87		83		4.7	
78-87-5	1,2-Dichloropropane	84		87		3.5	
108-67-8	1,3,5-Trimethylbenzene	73		74		1.4	
106-99-0	1,3-Butadiene	82		87		5.9	
541-73-1	1,3-Dichlorobenzene	78		77		1.3	
106-46-7	1,4-Dichlorobenzene	80		81		1.2	
123-91-1	1,4-Dioxane	83		83		0	
540-84-1	2,2,4-Trimethylpentane	87		89		2.3	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	84		86		2.4	
591-78-6	2-Hexanone	79		76		3.9	
67-63-0	2-Propanol	76		76		0	
107-05-1	3-Chloropropene	101		107		5.8	
622-96-8	4-Ethyltoluene	82		82		0	
108-10-1	4-Methyl-2-pentanone	83		83		0	
67-64-1	Acetone	86		86		0	
100-44-7	alpha-Chlorotoluene	81		82		1.2	
71-43-2	Benzene	85		85		0	
75-27-4	Bromodichloromethane	91		92		1.1	
75-25-2	Bromoform	100		97		3.0	
74-83-9	Bromomethane	96		95		1.0	
75-15-0	Carbon Disulfide	79		77		2.6	
56-23-5	Carbon Tetrachloride	83		83		0	
108-90-7	Chlorobenzene	91		90		1.1	
75-00-3	Chloroethane	100		109		8.6	
67-66-3	Chloroform	81		85		4.8	
74-87-3	Chloromethane	84		84		0	
156-59-2	cis-1,2-Dichloroethene	83		82		1.2	
10061-01-5	cis-1,3-Dichloropropene	80		82		2.5	
98-82-8	Cumene	87		86		1.2	
110-82-7	Cyclohexane	83		89		7.0	
124-48-1	Dibromochloromethane	94		94		0	
64-17-5	Ethanol	92		95		3.2	
100-41-4	Ethyl Benzene	90		90		0	
75-69-4	Freon 11	92		93		1.1	
76-13-1	Freon 113	81		82		1.2	
76-14-2	Freon 114	96		95		1.0	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: e060304.d & e060303.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/3/16 & 6/3/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-71-8	Freon 12	90		89		1.1	
142-82-5	Heptane	83		86		3.6	
87-68-3	Hexachlorobutadiene	117		125		6.6	
110-54-3	Hexane	84		87		3.5	
108-38-3	m,p-Xylene	94		93		1.1	
1634-04-4	Methyl tert-butyl ether	80		84		4.9	
75-09-2	Methylene Chloride	79		82		3.7	
91-20-3	Naphthalene	74		79		6.5	
95-47-6	o-Xylene	94		94		0	
103-65-1	Propylbenzene	81		81		0	
100-42-5	Styrene	93		94		1.1	
127-18-4	Tetrachloroethene	98		96		2.1	
109-99-9	Tetrahydrofuran	63		67		6.2	
108-88-3	Toluene	87		90		3.4	
156-60-5	trans-1,2-Dichloroethene	89		93		4.4	
10061-02-6	trans-1,3-Dichloropropene	84		86		2.4	
79-01-6	Trichloroethene	93		93		0	
75-01-4	Vinyl Chloride	86		86		0	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: e060804.d & e060803.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/8/16 & 6/8/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	83		86		3.6	
79-34-5	1,1,2,2-Tetrachloroethane	76		76		0	
79-00-5	1,1,2-Trichloroethane	88		90		2.2	
75-34-3	1,1-Dichloroethane	88		86		2.3	
75-35-4	1,1-Dichloroethene	85		88		3.5	
120-82-1	1,2,4-Trichlorobenzene	93		115		21	
95-63-6	1,2,4-Trimethylbenzene	75		75		0	
106-93-4	1,2-Dibromoethane (EDB)	97		99		2.0	
95-50-1	1,2-Dichlorobenzene	84		86		2.4	
107-06-2	1,2-Dichloroethane	89		85		4.6	
78-87-5	1,2-Dichloropropane	90		91		1.1	
108-67-8	1,3,5-Trimethylbenzene	76		76		0	
106-99-0	1,3-Butadiene	84		88		4.6	
541-73-1	1,3-Dichlorobenzene	79		79		0	
106-46-7	1,4-Dichlorobenzene	81		80		1.2	
123-91-1	1,4-Dioxane	91		86		5.6	
540-84-1	2,2,4-Trimethylpentane	92		94		2.2	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	84		88		4.6	
591-78-6	2-Hexanone	93		90		3.3	
67-63-0	2-Propanol	84		87		3.5	
107-05-1	3-Chloropropene	112		120		6.9	
622-96-8	4-Ethyltoluene	86		85		1.2	
108-10-1	4-Methyl-2-pentanone	91		88		3.4	
67-64-1	Acetone	78		83		6.2	
100-44-7	alpha-Chlorotoluene	84		85		1.2	
71-43-2	Benzene	89		88		1.1	
75-27-4	Bromodichloromethane	95		93		2.1	
75-25-2	Bromoform	98		101		3.0	
74-83-9	Bromomethane	98		103		5.0	
75-15-0	Carbon Disulfide	82		82		0	
56-23-5	Carbon Tetrachloride	67		70		4.4	
108-90-7	Chlorobenzene	95		94		1.0	
75-00-3	Chloroethane	105		110		4.6	
67-66-3	Chloroform	85		87		2.3	
74-87-3	Chloromethane	84		90		6.9	
156-59-2	cis-1,2-Dichloroethene	85		86		1.2	
10061-01-5	cis-1,3-Dichloropropene	86		84		2.4	
98-82-8	Cumene	90		90		0	
110-82-7	Cyclohexane	91		95		4.3	
124-48-1	Dibromochloromethane	98		97		1.0	
64-17-5	Ethanol	100		96		4.1	
100-41-4	Ethyl Benzene	92		94		2.2	
75-69-4	Freon 11	94		96		2.1	
76-13-1	Freon 113	82		83		1.2	
76-14-2	Freon 114	96		99		3.1	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: e060804.d & e060803.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/8/16 & 6/8/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-71-8	Freon 12	90		94		4.3	
142-82-5	Heptane	90		93		3.3	
87-68-3	Hexachlorobutadiene	101		118		16	
110-54-3	Hexane	89		91		2.2	
108-38-3	m,p-Xylene	99		96		3.1	
1634-04-4	Methyl tert-butyl ether	84		86		2.4	
75-09-2	Methylene Chloride	82		88		7.0	
91-20-3	Naphthalene	80		93		15	
95-47-6	o-Xylene	99		101		2.0	
103-65-1	Propylbenzene	84		84		0	
100-42-5	Styrene	98		97		1.0	
127-18-4	Tetrachloroethene	98		99		1.0	
109-99-9	Tetrahydrofuran	68		71		4.3	
108-88-3	Toluene	93		90		3.3	
156-60-5	trans-1,2-Dichloroethene	96		93		3.2	
10061-02-6	trans-1,3-Dichloropropene	93		91		2.2	
79-01-6	Trichloroethene	95		95		0	
75-01-4	Vinyl Chloride	89		92		3.3	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 24-MAY-2016 13:20
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/24May2016.b/e16l0317f.m
Cal Date : 24-May-2016 14:41 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/17Mar2016.b/e031706.d
Level 6: /chem/msde.i/17Mar2016.b/e031707.d
Level 7: /chem/msde.i/24May2016.b/e052405.d
Level 8: /chem/msde.i/24May2016.b/e052406.d
Level 9: /chem/msde.i/24May2016.b/e052407.d
Level 11: /chem/msde.i/24May2016.b/e052408.d
Level 12: /chem/msde.i/24May2016.b/e052409.d
Level 13: /chem/msde.i/17Mar2016.b/e031711.d
Level 15: /chem/msde.i/17Mar2016.b/e031712.d
Level 16: /chem/msde.i/17Mar2016.b/e031713.d

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 24-MAY-2016 13:20
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/24May2016.b/e16l0317f.m
Cal Date : 24-May-2016 14:41 efinn
Curve Type : Average

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
7 Freon 134a	+++++	+++++	+++++	+++++	0.99590	0.93100		
	1.02884	+++++	+++++	+++++			0.98525	5.053
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
9 Propylene	+++++	+++++	+++++	0.65636	+++++	+++++		
	0.69625	0.67394	0.59210	0.62813			0.64936	6.247
10 1,1-Difluoroethane	+++++	+++++	+++++	0.39191	0.41480	0.40529		
	0.40692	+++++	+++++	+++++			0.40473	2.347
11 Freon 12	+++++	5.12006	4.10953	4.00056	+++++	+++++		
	4.53383	4.16601	3.72304	3.78487			4.20541	11.514
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
13 Chlorodifluoromethane	+++++	+++++	1.23371	1.10297	1.02599	1.06718		
	1.09518	+++++	+++++	+++++			1.10501	7.059
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
15 Freon 114	3.04054	3.74214	2.99528	2.91420	+++++	+++++		
	3.22969	3.03570	2.81081	2.85426			3.07783	9.688
16 Freon 142b	+++++	+++++	2.33378	2.34868	2.04749	2.10517		
	2.23093	+++++	+++++	+++++			2.21321	6.076

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 24-MAY-2016 13:20
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/24May2016.b/e16l0317f.m
Cal Date : 24-May-2016 14:41 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
17 Chloromethane	+++++	0.89598	0.80271	0.83008	+++++	+++++		
	0.82977	0.78391	0.71156	0.73148			0.79793	7.886
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
23 Butane	+++++	+++++	0.20216	0.19760	+++++	+++++		
	0.22324	0.21314	0.19217	0.21179			0.20668	5.539
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
25 Vinyl Chloride	1.17455	1.32551	1.07263	1.03349	+++++	+++++		
	1.16793	1.13320	1.01360	1.05974			1.12258	9.054
26 1,3-Butadiene	+++++	0.88279	0.65846	0.76541	+++++	+++++		
	0.79294	0.74711	0.70180	0.73672			0.75503	9.432

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 24-MAY-2016 13:20
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/24May2016.b/e16l0317f.m
Cal Date : 24-May-2016 14:41 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
29 Bromomethane	+++++	1.61625	1.12080	1.19140	+++++	+++++		
	1.28406	1.21154	1.05906	1.09156			1.22495	15.420
30 Chloroethane	+++++	+++++	0.49367	0.51242	+++++	+++++		
	0.58805	0.56670	0.51111	0.51020			0.53036	7.102
31 Isopentane	+++++	+++++	0.85650	0.74527	+++++	+++++		
	0.80950	0.76033	0.71285	0.72858			0.76884	7.057
32 Vinyl Bromide	+++++	+++++	0.96076	0.94455	+++++	+++++		
	0.95528	+++++	+++++	+++++			0.95353	0.865
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
34 Pentane	+++++	+++++	1.69548	1.45652	1.39617	1.32596		
	1.26008	+++++	+++++	+++++			1.42684	11.726
35 Freon 11	5.32386	5.21038	4.47573	4.30647	+++++	+++++		
	4.64783	4.30713	3.96331	3.99171			4.52830	11.262
36 1-Pentene	+++++	+++++	0.92877	0.76770	0.81866	0.81261		
	0.74214	+++++	+++++	+++++			0.81398	8.796

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 24-MAY-2016 13:20
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/24May2016.b/e16l0317f.m
Cal Date : 24-May-2016 14:41 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
37 Dichlorofluoromethane	+++++	+++++	2.61477	2.40804	2.40455	2.28575		
	2.48699	+++++	+++++	+++++			2.44002	4.970
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
42 Ethanol	+++++	+++++	0.38554	0.36555	+++++	+++++		
	0.36172	0.29161	0.28270	0.28164			0.32813	14.541
43 1,2-Dichloro-1-fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
44 Ethyl Ether	+++++	+++++	0.70230	0.72733	0.65391	0.63915		
	0.58469	+++++	+++++	+++++			0.66148	8.436
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
46 Acrolein	+++++	+++++	0.31567	0.29942	+++++	+++++		
	0.25047	+++++	+++++	+++++			0.28852	11.762

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem/msde.i/24May2016.b/e16l0317f.m
Cal Date : 24-May-2016 14:41 efinn
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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
48 Freon 123	+++++	+++++	3.12381	2.82674	2.69207	2.67719		
	2.81861	+++++	+++++	+++++			2.82768	6.346
49 Freon 113	3.77652	3.98245	3.17023	3.06291	+++++	+++++		
	3.22635	3.45679	3.19789	3.27477			3.39349	9.562
50 1,1-Dichloroethene	+++++	1.16629	0.95408	0.93919	+++++	+++++		
	0.96344	0.91006	0.82919	0.86193			0.94631	11.491
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
52 Acetone	+++++	+++++	0.68940	0.62153	+++++	+++++		
	0.52666	0.52391	0.47398	0.48462			0.55335	15.284
53 Iodomethane	+++++	+++++	4.60765	4.17771	4.02710	4.02394		
	3.68501	+++++	+++++	+++++			4.10428	8.145
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
56 Carbon Disulfide	+++++	+++++	5.08838	4.49862	+++++	+++++		
	4.40737	3.99789	3.66589	3.64653			4.21745	13.210

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
57 2-Propanol	+++++	+++++	1.66071	1.65813	+++++	+++++		
	1.81940	1.70040	1.61933	1.69853			1.69275	4.071
58 3-Chloropropene	+++++	0.59765	0.69152	0.65355	+++++	+++++		
	0.65844	0.63373	0.57676	0.60144			0.63044	6.430
59 Cyclopentene	+++++	+++++	3.15715	2.77885	2.77976	2.71571		
	2.48967	+++++	+++++	+++++			2.78423	8.623
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
63 Acetonitrile	+++++	+++++	0.87437	0.70413	+++++	+++++		
	0.61519	+++++	+++++	+++++			0.73123	18.010
64 Cyclopentane	+++++	+++++	0.85651	0.67777	0.68509	0.69459		
	0.67804	+++++	+++++	+++++			0.71840	10.789
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
66 Methylene Chloride	+++++	1.87437	1.31192	1.27128	+++++	+++++		
	1.32693	1.25948	1.09940	1.13833			1.32596	19.348

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
71 tert-Butyl alcohol	+++++	+++++	3.17828	3.43808	+++++	+++++		
	2.95256	3.30101	2.74633	2.96407			3.09672	8.246
72 Methyl tert-butyl ether	+++++	4.95062	4.13935	3.98352	+++++	+++++		
	4.54432	4.24444	3.85262	3.96530			4.24002	9.130
73 trans-1,2-Dichloroethene	+++++	1.10234	0.89999	0.93074	+++++	+++++		
	1.04937	0.94937	0.88689	0.90946			0.96116	8.570
74 Acrylonitrile	+++++	+++++	0.94328	0.90324	0.83969	0.78338		
	0.71968	+++++	+++++	+++++			0.83785	10.730
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
76 1-Hexene	+++++	+++++	0.86347	0.70113	0.66133	0.72858		
	0.69321	+++++	+++++	+++++			0.72954	10.775

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77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
78 Hexane	+++++	1.93733	1.55177	1.53817	+++++	+++++		
	1.78717	1.66845	1.52334	1.57178			1.65400	9.429
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
82 1,1-Dichloroethane	+++++	2.69024	2.45244	2.73570	+++++	+++++		
	2.71402	2.49231	2.22594	2.29764			2.51547	8.184
83 Isopropyl ether	+++++	+++++	2.99372	2.83284	+++++	+++++		
	3.33969	3.14518	2.86014	2.92951			3.01685	6.415
84 1-Propanol	+++++	+++++	0.18242	0.21285	0.24978	0.25588		
	0.23464	+++++	+++++	+++++			0.22711	13.207
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
86 Vinyl Acetate	+++++	+++++	0.39671	0.39911	+++++	+++++		
	0.41572	0.40228	0.35889	0.37530			0.39134	5.254

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87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
88 Ethyl-tert-butyl ether	+++++	+++++	3.51883	3.56297	+++++	+++++		
	4.30713	4.13284	3.74977	3.83274			3.85071	8.141
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
90 2,2-Dichloropropane	+++++	+++++	3.55176	3.36224	3.21760	3.19536		
	2.91851	+++++	+++++	+++++			3.24909	7.178
91 cis-1,2-Dichloroethene	+++++	1.25991	1.02141	1.03678	+++++	+++++		
	1.08460	1.03814	0.93871	0.98020			1.05139	9.795
92 2-Butanone	+++++	+++++	0.64410	0.65010	+++++	+++++		
	0.73733	0.68219	0.62684	0.65867			0.66654	5.875
93 Methyl Acrylate	+++++	+++++	2.28761	2.13389	2.13720	2.17337		
	2.06537	+++++	+++++	+++++			2.15949	3.778
94 Ethyl Acetate	+++++	+++++	0.29688	0.28671	0.25618	0.28402		
	0.27809	+++++	+++++	+++++			0.28038	5.399
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
99 Tetrahydrofuran	+++++	+++++	1.08081	1.21670	+++++	+++++		
	1.33716	1.25892	1.18591	1.25953			1.22317	7.060
100 Chloroform	+++++	4.78448	3.48851	3.44218	+++++	+++++		
	3.72316	3.43887	3.16350	3.22895			3.60995	15.210
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
102 Cyclohexane	+++++	1.97754	1.81719	1.72787	+++++	+++++		
	2.02036	1.94115	1.78685	1.84262			1.87337	5.758
103 1,1,1-Trichloroethane	5.07168	4.75349	3.88746	4.15085	+++++	+++++		
	4.40274	4.00231	3.62668	3.69808			4.19916	12.166
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
106 Carbon Tetrachloride	4.82772	4.07508	3.62459	3.65485	+++++	+++++		
	4.56136	4.33329	3.88074	3.94190			4.11244	10.453
107 1,1-Dichloropropene	+++++	+++++	1.08054	0.88134	0.89724	0.93160		
	0.88002	+++++	+++++	+++++			0.93415	9.039

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
113 2,2,4-Trimethylpentane	+++++	2.82473	2.02878	2.11284	+++++	+++++		
	2.14077	1.98599	1.75904	1.80898			2.09445	16.834
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
115 Isobutanol	+++++	+++++	1.31664	0.98605	0.90345	0.97080		
	0.83123	+++++	+++++	+++++			1.00163	18.618
116 Benzene	+++++	1.77869	1.16573	1.12317	+++++	+++++		
	1.19266	1.07964	1.04163	1.00570			1.19817	22.063
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
119 tert-Amyl methyl ether	+++++	+++++	0.34291	0.26393	+++++	+++++		
	0.33619	0.30905	0.30103	0.29276			0.30765	9.461

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
120 1,2-Dichloroethane	0.55304	0.83119	0.63749	0.58943	+++++	+++++		
	0.66829	0.60152	0.56742	0.54767			0.62451	14.927
121 Heptane	+++++	0.36350	0.26569	0.25009	+++++	+++++		
	0.29317	0.28088	0.26946	0.26529			0.28401	13.222
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
124 n-Butanol	+++++	+++++	0.46765	0.44398	0.44786	0.44685		
	0.44055	+++++	+++++	+++++			0.44938	2.359
125 Trichloroethene	0.55811	0.72579	0.63220	0.61998	+++++	+++++		
	0.64913	0.62225	0.59001	0.57439			0.62148	8.380
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
127 Methylcyclohexane	+++++	+++++	0.66667	0.61556	+++++	+++++		
	0.73059	0.68212	0.66054	0.64704			0.66709	5.751
128 Ethyl acrylate	+++++	+++++	0.08476	0.07847	0.07133	0.06864		
	0.07049	+++++	+++++	+++++			0.07474	9.003
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
131 2-Pentanone	+++++	+++++	0.83872	0.76141	0.76358	0.76608		
	0.74445	+++++	+++++	+++++			0.77485	4.737
132 1,2-Dichloropropane	+++++	0.49479	0.34374	0.37715	+++++	+++++		
	0.40057	0.38071	0.35535	0.34818			0.38578	13.514
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
134 Methyl Methacrylate	+++++	+++++	0.40583	0.41307	0.39358	0.40409		
	0.40540	+++++	+++++	+++++			0.40439	1.728
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
136 1,4-Dioxane	+++++	0.33485	0.29020	0.28555	+++++	+++++		
	0.29637	0.27812	0.27211	0.26523			0.28892	7.916
137 Dibromomethane	+++++	+++++	0.81469	0.74134	0.74481	0.73171		
	0.70527	+++++	+++++	+++++			0.74756	5.431
138 Bromodichloromethane	0.85036	1.12173	1.02065	1.03009	+++++	+++++		
	1.04984	0.99645	0.95419	0.93127			0.99432	8.293
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
140 bis(chloromethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
143 2-Chloroethyl Vinyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
144 cis-1,3-Dichloropropene	+++++	0.77501	0.74057	0.70277	+++++	+++++		
	0.79805	0.74135	0.71848	0.71044			0.74095	4.712
145 4-Methyl-2-pentanone	+++++	0.68605	0.58879	0.55944	+++++	+++++		
	0.65873	0.62434	0.61146	0.59933			0.61831	6.926
147 Toluene	+++++	1.72268	1.42747	1.33669	+++++	+++++		
	1.49343	1.38186	1.33106	1.29709			1.42718	10.239
148 Octane	+++++	+++++	0.28296	0.25280	0.24534	0.24877		
	0.22852	+++++	+++++	+++++			0.25168	7.859
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
150 trans-1,3-Dichloropropene	+++++	0.86752	0.71739	0.73834	+++++	+++++		
	0.82746	0.77859	0.75828	0.73170			0.77418	7.102
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

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Method file : /chem/msde.i/24May2016.b/e16l0317f.m
Cal Date : 24-May-2016 14:41 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
152 1-Chloro-2-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
155 1,1,2-Trichloroethane	0.82922	0.71158	0.54764	0.54579	+++++	+++++		
	0.60068	0.55351	0.53276	0.50016			0.60267	18.527
156 Tetrachloroethene	0.84062	1.15457	0.93725	0.89585	+++++	+++++		
	0.99469	0.89262	0.87963	0.83384			0.92863	11.293
157 1,3-Dichloropropane	+++++	+++++	0.97514	0.86766	0.84348	0.80586		
	0.81813	+++++	+++++	+++++			0.86206	7.836
158 2-Hexanone	+++++	+++++	0.34209	0.38128	+++++	+++++		
	0.41450	0.40140	0.39732	0.39046			0.38784	6.449
159 Butyl Acetate	+++++	+++++	0.09579	0.07085	0.08453	0.08534		
	0.08421	+++++	+++++	+++++			0.08414	10.529
160 Dibromochloromethane	1.13509	1.35827	1.21370	1.20779	+++++	+++++		
	1.32964	1.23232	1.18971	1.12096			1.22343	6.861
161 1,2-Dibromoethane (EDB)	0.91461	1.05600	0.90524	0.88768	+++++	+++++		
	0.99492	0.91216	0.88283	0.84531			0.92484	7.338

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162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
165 Chlorobenzene	+++++	1.62401	1.33249	1.27529	+++++	+++++		
	1.42898	1.31371	1.27351	1.22152			1.35279	10.047
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
167 Ethyl Benzene	+++++	0.83822	0.63666	0.56139	+++++	+++++		
	0.69087	0.64524	0.63425	0.60527			0.65884	13.412
168 1,1,1,2-Tetrachloroethane	+++++	+++++	1.22059	0.95918	0.97804	0.91730		
	0.91993	+++++	+++++	+++++			0.99901	12.667
169 m,p-Xylene	+++++	0.79226	0.73966	0.71273	+++++	+++++		
	0.84181	0.78428	0.75932	0.72746			0.76536	5.802
170 Nonane	+++++	+++++	0.55249	0.47591	0.49451	0.49445		
	0.48558	+++++	+++++	+++++			0.50059	5.995
171 o-Xylene	+++++	0.64964	0.67013	0.69703	+++++	+++++		
	0.77627	0.72124	0.71636	0.68342			0.70201	5.879
172 Styrene	+++++	1.23221	1.07737	1.10226	+++++	+++++		
	1.30763	1.22708	1.20928	1.15964			1.18792	6.755

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
173 2-Heptanone	+++++	+++++	0.58237	0.49728	0.47279	0.51104		
	0.52408	+++++	+++++	+++++			0.51751	7.909
174 Bromoform	1.12313	1.29015	1.14569	1.13013	+++++	+++++		
	1.33478	1.27750	1.23022	1.16550			1.21214	6.758
175 Cumene	+++++	2.65632	2.23518	2.26236	+++++	+++++		
	2.58051	2.40146	2.36134	2.21060			2.38682	7.268
176 Cyclohexanone	+++++	+++++	0.45860	0.41451	0.44764	0.41318		
	0.42090	+++++	+++++	+++++			0.43097	4.826
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
179 alpha-Pinene	+++++	+++++	2.08725	1.93313	1.97717	1.98009		
	1.99170	+++++	+++++	+++++			1.99387	2.846
180 Bromobenzene	+++++	+++++	1.17580	1.00188	0.98688	0.92611		
	0.93379	+++++	+++++	+++++			1.00489	10.051
181 1,1,2,2-Tetrachloroethane	1.24738	1.29072	1.02927	1.01815	+++++	+++++		
	1.15356	1.08719	1.06739	0.99888			1.11157	9.799
182 Propylbenzene	+++++	2.61332	2.52811	2.39376	+++++	+++++		
	2.67489	2.54068	2.50112	2.34573			2.51395	4.582
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
184 trans-1,4-Dichloro-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
185 1,2,3-Trichloropropane	+++++	+++++	0.46967	0.40895	0.39751	0.36468		
	0.37683	+++++	+++++	+++++			0.40353	10.114
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
187 Decane	+++++	+++++	0.44353	0.39676	0.39410	0.39894		
	0.40695	+++++	+++++	+++++			0.40805	5.000
188 4-Ethyltoluene	2.40545	2.33407	1.95031	1.95348	+++++	+++++		
	2.22952	2.12360	2.09179	1.95776			2.13075	8.358
189 2-Chlorotoluene	+++++	+++++	0.74253	0.65590	0.62484	0.58706		
	0.61373	+++++	+++++	+++++			0.64481	9.296
190 1,3,5-Trimethylbenzene	1.59193	1.84798	1.54624	1.64332	+++++	+++++		
	1.75893	1.68858	1.61769	1.54285			1.65469	6.424
191 4-Chlorotoluene	+++++	+++++	0.62175	0.60979	0.59592	0.56872		
	0.59226	+++++	+++++	+++++			0.59769	3.344
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
195 tert-Butylbenzene	+++++	+++++	1.87933	1.66426	1.65208	1.62171		
	1.60705	+++++	+++++	+++++			1.68489	6.593
196 1,2,4-Trimethylbenzene	1.84267	1.58681	1.24330	1.26583	+++++	+++++		
	1.45476	1.39453	1.39981	1.28118			1.43361	13.989
197 Pentachloroethane	+++++	+++++	0.77936	0.70091	0.65926	0.63262		
	0.64222	+++++	+++++	+++++			0.68287	8.777
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
199 D-Limonene	+++++	+++++	0.69441	0.60117	0.63321	0.62578		
	0.62062	+++++	+++++	+++++			0.63504	5.550
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
203 sec-Butylbenzene	+++++	+++++	3.57695	3.16374	3.08626	3.01567		
	3.05051	+++++	+++++	+++++			3.17863	7.215

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204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
206 bis(2-Chloroethyl) Ether	+++++	+++++	1.67390	1.53175	1.58397	1.54797		
	1.55759	+++++	+++++	+++++			1.57904	3.566
207 p-Cymene	+++++	+++++	2.03789	1.92953	1.94282	1.89865		
	1.89757	+++++	+++++	+++++			1.94129	2.959
208 1,3-Dichlorobenzene	1.68497	1.62078	1.28850	1.18919	+++++	+++++		
	1.33476	1.27804	1.26242	1.17154			1.35377	14.236
209 1,4-Dichlorobenzene	1.69357	1.25285	1.17392	1.17321	+++++	+++++		
	1.28955	1.22177	1.21895	1.13243			1.26953	14.045
210 1,2,3-Trimethylbenzene	+++++	+++++	0.71000	0.61964	0.59593	0.59307		
	0.58939	+++++	+++++	+++++			0.62161	8.175
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
212 alpha-Chlorotoluene	+++++	1.55199	1.46953	1.50801	+++++	+++++		
	1.71700	1.67461	1.67783	1.58295			1.59742	5.903
213 Butylbenzene	+++++	+++++	0.55969	0.46819	0.47703	0.46576		
	0.46411	+++++	+++++	+++++			0.48696	8.412

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
214 1,2-Dichlorobenzene	1.31633	1.25970	1.14520	1.09352	+++++	+++++		
	1.18443	1.14137	1.11159	1.03823			1.16130	7.779
215 Undecane	+++++	+++++	0.31578	0.25944	0.30991	0.29345		
	0.29996	+++++	+++++	+++++			0.29571	7.454
216 4-Ethyl-1,2-dimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
220 1,2,4,5-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
221 1,2-Dibromo-3-chloropropane	+++++	+++++	0.82195	0.76027	0.77847	0.78435		
	0.80287	+++++	+++++	+++++			0.78958	2.993
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
225 Dodecane	+++++	+++++	0.11206	0.08728	0.08810	0.07135		
	0.08169	+++++	+++++	+++++			0.08810	16.993
226 1,2,4-Trichlorobenzene	0.71300	0.33652	0.51866	0.51748	+++++	+++++		
	0.51142	0.54926	0.54917	0.51713			0.52658	19.308
227 Hexachlorobutadiene	+++++	0.60454	0.70456	0.75395	+++++	+++++		
	0.74371	0.74884	0.74554	0.71076			0.71599	7.377
228 Naphthalene	+++++	+++++	0.71295	0.80868	+++++	+++++		
	0.77651	0.78779	0.79025	0.73737			0.76893	4.717
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
M 237 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
M 239 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
241 Total Volatile Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
242 TPH reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
243 TPH reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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244 TPH reference to Gasoline	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
245 TPH reference MineralSpirits	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
246 TPH reference to Stoddard	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
247 TVOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
248 TVOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
249 TVOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
250 TVOC reference to Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
251 NMOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
252 NMOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
253 NMOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/24May2016.b/e16l0317f.m
Cal Date : 24-May-2016 14:41 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
262 C5 - C6 Aliphatic ref C5 + C6	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
263 C6-C8 Aliphatic ref Heptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 24-MAY-2016 13:20
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/24May2016.b/e16l0317f.m
Cal Date : 24-May-2016 14:41 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
264 C8-C10 Aliphatic ref Decane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
265 C10-C12 Aliphatic ref Dodecan	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
267 C8-C10 Aromatic ref 1,2,3-TMB	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
269 C10-C12 Aromatic 1,2,4,5-TMB	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
270 C10-C12 Aromatic Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
$ 117 1,2-Dichloroethane-d4	1.53017	1.48774	1.42716	1.41807	+++++	+++++		
	1.42005	1.38536	1.41883	1.39578			1.43539	3.400
$ 146 Toluene-d8	0.97414	0.96053	0.97380	0.97096	+++++	+++++		
	0.99484	0.99287	0.99302	0.99567			0.98198	1.390

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 24-MAY-2016 13:20
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/24May2016.b/e16l0317f.m
Cal Date : 24-May-2016 14:41 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
$ 177 4-Bromofluorobenzene	0.67332	0.68733	0.68241	0.67820	+++++	+++++		
	0.69032	0.69273	0.70440	0.67988			0.68607	1.432

Calibration History

Method : /chem/msde.i/24May2016.b/e16l0317f.m
Start Cal Date: 17-MAR-2016 14:00
End Cal Date : 24-MAY-2016 13:20

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 5 , Cal Amount: 0.05000		
17-MAR-2016 14:00	Level5	/chem/msde.i/17Mar2016.b/e031706.d

Injection Date	Sublist	Calibration File
Cal Level: 6 , Cal Amount: 0.10000		
17-MAR-2016 15:07	Level6	/chem/msde.i/17Mar2016.b/e031707.d

Injection Date	Sublist	Calibration File
Cal Level: 7 , Cal Amount: 0.50000		
24-MAY-2016 09:29	FreonICAL	/chem/msde.i/24May2016.b/e052405.d
19-MAY-2016 14:02	AcetonitrileCrv	/chem/msde.i/19May2016.b/e051907.d
09-MAY-2016 11:01	ComboICAL-VB	/chem/msde.i/09May2016.b/e050907.d
30-MAR-2016 14:41	AcroleinICAL	/chem/msde.i/30Mar2016.b/e033007.d
25-MAR-2016 12:18	Combo-AT1ICAL	/chem/msde.i/25Mar2016.b/e032505.d
22-MAR-2016 12:05	AT1	/chem/msde.i/22Mar2016.b/e032205.d
17-MAR-2016 15:49	HILOcrvFULL	/chem/msde.i/17Mar2016.b/e031708.d

Injection Date	Sublist	Calibration File
Cal Level: 8 , Cal Amount: 1.00000		
24-MAY-2016 10:14	FreonICAL	/chem/msde.i/24May2016.b/e052406.d
19-MAY-2016 14:44	AcetonitrileCrv	/chem/msde.i/19May2016.b/e051908.d
09-MAY-2016 12:03	ComboICAL-VB	/chem/msde.i/09May2016.b/e050908.d
30-MAR-2016 15:43	AcroleinICAL	/chem/msde.i/30Mar2016.b/e033008.d
25-MAR-2016 13:02	Combo-AT1ICAL	/chem/msde.i/25Mar2016.b/e032506.d
22-MAR-2016 13:20	AT1	/chem/msde.i/22Mar2016.b/e032206.d
17-MAR-2016 16:31	HILOcrvFULL	/chem/msde.i/17Mar2016.b/e031709.d

Injection Date	Sublist	Calibration File
Cal Level: 9 , Cal Amount: 2.00000		
24-MAY-2016 11:00	FreonICAL	/chem/msde.i/24May2016.b/e052407.d
09-MAY-2016 12:56	ComboICAL-VB	/chem/msde.i/09May2016.b/e050909.d
22-MAR-2016 14:04	AT1	/chem/msde.i/22Mar2016.b/e032207.d

| Cal Level: 11, Cal Amount: 4.00000 |

24-MAY-2016 11:47	FreonICAL	/chem/msde.i/24May2016.b/e052408.d
09-MAY-2016 14:40	ComboICAL-VB	/chem/msde.i/09May2016.b/e050912.d
22-MAR-2016 14:50	AT1	/chem/msde.i/22Mar2016.b/e032208.d

| Cal Level: 12, Cal Amount: 5.00000 |

24-MAY-2016 13:20	FreonICAL	/chem/msde.i/24May2016.b/e052409.d
19-MAY-2016 15:27	AcetonitrileCrv	/chem/msde.i/19May2016.b/e051909.d
09-MAY-2016 15:22	ComboICAL-VB	/chem/msde.i/09May2016.b/e050913.d
30-MAR-2016 16:25	AcroleinICAL	/chem/msde.i/30Mar2016.b/e033009.d
25-MAR-2016 13:44	Combo-AT1ICAL	/chem/msde.i/25Mar2016.b/e032507.d
22-MAR-2016 15:32	AT1	/chem/msde.i/22Mar2016.b/e032209.d
17-MAR-2016 17:24	HILOcrvFULL	/chem/msde.i/17Mar2016.b/e031710.d

| Cal Level: 13, Cal Amount: 10.00000 |

17-MAR-2016 18:10	HILOcrvFULL	/chem/msde.i/17Mar2016.b/e031711.d

| Cal Level: 15, Cal Amount: 20.00000 |

17-MAR-2016 19:01	HILOcrvFULL	/chem/msde.i/17Mar2016.b/e031712.d

| Cal Level: 16, Cal Amount: 40.00000 |

17-MAR-2016 19:49	HILOcrvFULL	/chem/msde.i/17Mar2016.b/e031713.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 12

| Ccal Level: 12, Ccal Amount: 5.000 |

24-MAY-2016 07:15	AT09	/chem/msde.i/24May2016.b/e052402.d

| Ccal Level: 8 , Ccal Amount: 1.000 |

24-MAY-2016 10:14	AT1CCV	/chem/msde.i/24May2016.b/e052406a.d

Curve Name: E16$_L$0317F

Initial Calibration Narrative

An initial calibration curve was analyzed on 03/17/16 on MSD-E.
The instrument was set up to do Full Scan and Selective Ion Monitoring (SIM) simultaneously.
Tune File: E031701, E032201, E032501, E033001, E050901, E051901, E052401.
ICAL: Zero (0) out.
ICV: Zero (0) out. File E031716.
In-house control limits: Zero (0) out.
DOD Control limits: Zero (0) out.
BTEX RL Spike: Zero (0) out 50-150. File E031707x.
Naphthalene was calibrated from 0.05ppbv-4.0ppbv. See note below regarding Naphthalene.
The following compounds are good for special RL of 0.05ppbv:

Freon 114	Bromodichloromethane	1,3,5-Trimethylbenzene
Vinyl Chloride	1,1,2-Trichloroethane	1,2,4-Trimethylbenzene
Freon 11	Tetrachloroethene	1,3-Dichlorobenzene
Freon 113	Dibromochloromethane	1,4-Dichlorobenzene
1,1,1-Trichloroethane	1,2-Dibromomethane (EDB)	1,2-Dichlorobenzene
Carbon Tetrachloride	Bromoform	1,2,4-Trichlorobenzene
1,2-Dichloroethane	1,1,2,2-Tetrachloroethane	
Trichloroethene	4-Ethyltoluene	

*The quantitation ion peak (128 amu) is sufficiently resolved for accurate quantification of Naphthalene at the special reporting limit of 0.05ppbv. However, the secondary mass ion peak (127 amu) for Naphthalene is not completely baseline-resolved. Identification of Naphthalene based on the presence and abundance ratio of confirmation ion is reliable at the lowest concentrations even when insufficient baseline resolution of the secondary mass ion peak (127 amu). The spectrum of Naphthalene in this ICAL point will be used as the reference to determine the ion ratio target in the samples for this ICAL.

~~**A five (5) point initial calibration for the AT-1 special was analyzed on 3/22/16 at levels 0.5ppbv, 1.0ppbv, 2.0ppbv, 4.0ppbv, and 5.0ppbv and included in the "A" curve.** Freon 134 was calibrated from 2.0ppbv to 5.0ppbv due to poor peak quality at the lower levels. Freon 152a was calibrated from 1.0ppbv to 5.0ppbv due to poor peak quality at the 0.5ppbv level.~~ (Freons re-curved on 5/24/16, see below).

~~**A three (3) point initial calibration for the Combination special (minus the AT-1 specials) was analyzed on 3/25/16 at levels 0.5ppbv, 1.0ppbv, and 5.0ppbv.** Zero (0) out, all points included.~~ (Combination specials recurved on 5/9/16, see below).

A three (3) point initial calibration for Acrolein was analyzed on 3/30/16 at levels 0.5ppbv, 1.0ppbv, and 5.0ppbv.

The Combination special was recalibrated on 5/9/16 at levels 0.5ppbv, 1.0ppbv, 2.0ppbv, 4.0ppbv, and 5.0ppbv. Includes alpha-Pinene and D-Limonene. The Vinyl Bromide ICAL from 3/25/16 and the Freon ICAL from 3/22/16 were retained. Acetonitrile and trans-1,4-Dichloro-2-Butene were removed from the ICAL due to interference from coeluting compounds. **AT-1 ICV:** Zero (0) out. File E050916.

A three (3) point initial calibration for Acetonitrile was analyzed on 5/19/16 at levels 0.5ppbv, 1.0ppbv, and 5.0ppbv.

A five (5) point initial calibration for the special Freons was analyzed on 5/24/16 at levels 0.5ppbv, 1.0ppbv, 2.0ppbv, 4.0ppbv, and 5.0ppbv. Freon 134 was calibrated from 2.0ppbv to 5.0ppbv due to poor peak quality at the lower levels. Freon 152a was calibrated from 1.0ppbv to 5.0ppbv due to poor peak quality at the 0.5ppbv level.

MDL was run 10/19/15 – 10/23/15.

Important Note: The MDL for Hexane and Cyclohexane is greater than ½ the RL.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 24-MAY-2016 13:20
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/24May2016.b/e1610317f.m
Cal Date : 24-May-2016 14:26 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/17Mar2016.b/e031706.d
Level 6: /chem/msde.i/17Mar2016.b/e031707.d
Level 7: /chem/msde.i/24May2016.b/e052405.d
Level 8: /chem/msde.i/24May2016.b/e052406.d
Level 9: /chem/msde.i/24May2016.b/e052407.d
Level 11: /chem/msde.i/24May2016.b/e052408.d
Level 12: /chem/msde.i/24May2016.b/e052409.d
Level 13: /chem/msde.i/17Mar2016.b/e031711.d
Level 15: /chem/msde.i/17Mar2016.b/e031712.d
Level 16: /chem/msde.i/17Mar2016.b/e031713.d

EF 6/24/16

Please see Calibration History page(s) all the calibration files.

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	RRF	% RSD
7 Freon 134a	+++++	+++++	+++++	+++++	0.99590	0.93100		
	1.02884	+++++	+++++	+++++			0.98525	5.053
10 1,1-Difluoroethane	+++++	+++++	+++++	0.39191	0.41480	0.40529		
	0.40692	+++++	+++++	+++++			0.40473	2.347
13 Chlorodifluoromethane	+++++	+++++	1.23371	1.10297	1.02599	1.06718		
	1.09518	+++++	+++++	+++++			1.10501	7.059
16 Freon 142b	+++++	+++++	2.33378	2.34868	2.04749	2.10517		
	2.23093	+++++	+++++	+++++			2.21321	6.076
37 Dichlorofluoromethane	+++++	+++++	2.61477	2.40804	2.40455	2.28575		
	2.48699	+++++	+++++	+++++			2.44002	4.970
48 Freon 123	+++++	+++++	3.12381	2.82674	2.69207	2.67719		
	2.81861	+++++	+++++	+++++			2.82768	6.346

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 19-MAY-2016 15:27
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/19May2016.b/e1610317e.m
Cal Date : 19-May-2016 16:14 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/17Mar2016.b/e031706.d
Level 6: /chem/msde.i/17Mar2016.b/e031707.d
Level 7: /chem/msde.i/19May2016.b/e051907.d
Level 8: /chem/msde.i/19May2016.b/e051908.d
Level 9: /chem/msde.i/09May2016.b/e050909.d
Level 11: /chem/msde.i/09May2016.b/e050912.d
Level 12: /chem/msde.i/19May2016.b/e051909.d
Level 13: /chem/msde.i/17Mar2016.b/e031711.d
Level 15: /chem/msde.i/17Mar2016.b/e031712.d
Level 16: /chem/msde.i/17Mar2016.b/e031713.d

Please see Calibration History page(s) for all the calibration files.

5/19/16
5/20/16

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
63 Acetonitrile	+++++	+++++	0.87437	0.70413	+++++	+++++		
	0.61519	+++++	+++++	+++++			0.73123	18.010

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 09-MAY-2016 15:22
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/09May2016.b/e1610317d.m
Cal Date : 10-May-2016 10:48 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/17Mar2016.b/e031706.d
Level 6: /chem/msde.i/17Mar2016.b/e031707.d
Level 7: /chem/msde.i/09May2016.b/e050907.d
Level 8: /chem/msde.i/09May2016.b/e050908.d
Level 9: /chem/msde.i/09May2016.b/e050909.d
Level 11: /chem/msde.i/09May2016.b/e050912.d
Level 12: /chem/msde.i/09May2016.b/e050913.d
Level 13: /chem/msde.i/17Mar2016.b/e031711.d
Level 15: /chem/msde.i/17Mar2016.b/e031712.d
Level 16: /chem/msde.i/17Mar2016.b/e031713.d

5/10/16

5/10/16

Please see Calibration History page(s) for all the calibration files.

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	___ RRF	% RSD
36 1-Pentene	+++++	+++++	0.92877	0.76770	0.81866	0.81261		
	0.74214	+++++	+++++	+++++			0.81398	8.796
34 Pentane	+++++	+++++	1.69548	1.45652	1.39617	1.32596		
	1.26008	+++++	+++++	+++++			1.42684	11.726
44 Ethyl Ether	+++++	+++++	0.70230	0.72733	0.65391	0.63915		
	0.58469	+++++	+++++	+++++			0.66148	8.436
53 Iodomethane	+++++	+++++	4.60765	4.17771	4.02710	4.02394		
	3.68501	+++++	+++++	+++++			4.10428	8.145
59 Cyclopentene	+++++	+++++	3.15715	2.77885	2.77976	2.71571		
	2.48967	+++++	+++++	+++++			2.78423	8.623
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 30-MAR-2016 16:25
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/30Mar2016.b/e16l0317c.m
Cal Date : 30-Mar-2016 17:13 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/17Mar2016.b/e031706.d
Level 6: /chem/msde.i/17Mar2016.b/e031707.d
Level 7: /chem/msde.i/30Mar2016.b/e033007.d
Level 8: /chem/msde.i/30Mar2016.b/e033008.d
Level 9: /chem/msde.i/22Mar2016.b/e032207.d
Level 11: /chem/msde.i/22Mar2016.b/e032208.d
Level 12: /chem/msde.i/30Mar2016.b/e033009.d
Level 13: /chem/msde.i/17Mar2016.b/e031711.d
Level 15: /chem/msde.i/17Mar2016.b/e031712.d
Level 16: /chem/msde.i/17Mar2016.b/e031713.d

3/30/16
3/30/16

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
46 Acrolein	+++++	+++++	0.31567	0.29942	+++++	+++++		
	0.25047	+++++	+++++	+++++			0.28852	11.762

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 25-MAR-2016 13:44
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/25Mar2016.b/e1610317b.m
Cal Date : 25-Mar-2016 15:49 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/17Mar2016.b/e031706.d
Level 6: /chem/msde.i/17Mar2016.b/e031707.d
Level 7: /chem/msde.i/25Mar2016.b/e032505.d
Level 8: /chem/msde.i/25Mar2016.b/e032506.d
Level 9: /chem/msde.i/22Mar2016.b/e032207.d
Level 11: /chem/msde.i/22Mar2016.b/e032208.d
Level 12: /chem/msde.i/25Mar2016.b/e032507.d
Level 13: /chem/msde.i/17Mar2016.b/e031711.d
Level 15: /chem/msde.i/17Mar2016.b/e031712.d
Level 16: /chem/msde.i/17Mar2016.b/e031713.d

SS 3/25/16
SS 3/26/16

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	2.000 Level 9	4.000 Level 11	RRF	% RSD
	5.000 Level 12	10.000 Level 13	20.000 Level 15	40.000 Level 16				
32 Vinyl Bromide	+++++	+++++	0.96076	0.94455	+++++	+++++		
	0.95528	+++++	+++++	+++++			0.95353	0.865
36 1-Pentene	+++++	+++++	0.73685	0.75065	+++++	+++++		
	0.69800	+++++	+++++	+++++			0.72850	3.748
34 Pentane	+++++	+++++	1.20757	1.37543	+++++	+++++		
	1.31490	+++++	+++++	+++++			1.29930	6.543
44 Ethyl Ether	+++++	+++++	0.55213	0.48697	+++++	+++++		
	0.43861	+++++	+++++	+++++			0.49257	11.565
53 Iodomethane	+++++	+++++	2.85200	3.33388	+++++	+++++		
	3.02822	+++++	+++++	+++++			3.07136	7.938
63 Acetonitrile	+++++	+++++	0.52787	0.64569	+++++	+++++		
	0.64914	+++++	+++++	+++++			0.60757	11.363

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 22-MAR-2016 15:32
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/22Mar2016.b/e1610317a.m
Cal Date : 24-Mar-2016 11:05 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/17Mar2016.b/e031706.d
Level 6: /chem/msde.i/17Mar2016.b/e031707.d
Level 7: /chem/msde.i/22Mar2016.b/e032205.d
Level 8: /chem/msde.i/22Mar2016.b/e032206.d
Level 9: /chem/msde.i/22Mar2016.b/e032207.d
Level 11: /chem/msde.i/22Mar2016.b/e032208.d
Level 12: /chem/msde.i/22Mar2016.b/e032209.d
Level 13: /chem/msde.i/17Mar2016.b/e031711.d
Level 15: /chem/msde.i/17Mar2016.b/e031712.d
Level 16: /chem/msde.i/17Mar2016.b/e031713.d

EF 3/24/16

Compound	0.05000 Level 5 / 5.000 Level 12	0.10000 Level 6 / 10.000 Level 13	0.50000 Level 7 / 20.000 Level 15	1.000 Level 8 / 40.000 Level 16	2.000 Level 9	4.000 Level 11	RRF	% RSD
7 Freon 134a	+++++	+++++	+++++	+++++	0.41473	0.42129		
	0.38615	+++++	+++++	+++++			0.40739	4.586
10 1,1-Difluoroethane	+++++	+++++	+++++	0.20524	0.15752	0.16041		
	0.16479	+++++	+++++	+++++			0.17199	13.005
13 Chlorodifluoromethane	+++++	+++++	0.48150	0.44538	0.47328	0.40228		
	0.41265	+++++	+++++	+++++			0.44302	7.968
16 Freon 142b	+++++	+++++	0.95463	0.90227	0.91463	0.87295		
	0.84882	+++++	+++++	+++++			0.89866	4.501
37 Dichlorofluoromethane	+++++	+++++	1.07501	0.88651	0.90482	0.93031		
	0.89584	+++++	+++++	+++++			0.93850	8.315
48 Freon 123	+++++	+++++	1.53572	1.50104	1.39390	1.43541		
	1.38044	+++++	+++++	+++++			1.44930	4.648

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 14:00
End Cal Date : 17-MAR-2016 19:49
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/17Mar2016.b/e1610317a.m
Cal Date : 23-Mar-2016 15:56 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msde.i/17Mar2016.b/e031706.d
Level 6: /chem/msde.i/17Mar2016.b/e031707.d
Level 7: /chem/msde.i/17Mar2016.b/e031708.d
Level 8: /chem/msde.i/17Mar2016.b/e031709.d
Level 12: /chem/msde.i/17Mar2016.b/e031710.d
Level 13: /chem/msde.i/17Mar2016.b/e031711.d
Level 15: /chem/msde.i/17Mar2016.b/e031712.d
Level 16: /chem/msde.i/17Mar2016.b/e031713.d

3/24/16

3/24/16

Please see Calibration History page(s) for all the calibration files.

Compound	0.05000 Level 5 / 20.000 Level 15	0.10000 Level 6 / 40.000 Level 16	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
9 Propylene	+++++	+++++	+++++	0.65636	0.69625	0.67394		
	0.59210	0.62813					0.64936	6.247
11 Freon 12	+++++	5.12006	4.10953	4.00056	4.53383	4.16601		
	3.72304	3.78487					4.20541	11.514
15 Freon 114	3.04054	3.74214	2.99528	2.91420	3.22969	3.03570		
	2.81081	2.85426					3.07783	9.688
17 Chloromethane	+++++	0.89598	0.80271	0.83008	0.82977	0.78391		
	0.71156	0.73148					0.79793	7.886
23 Butane	+++++	+++++	0.20216	0.19760	0.22324	0.21314		
	0.19217	0.21179					0.20668	5.539
25 Vinyl Chloride	1.17455	1.32551	1.07263	1.03349	1.16793	1.13320		
	1.01360	1.05974					1.12258	9.054
26 1,3-Butadiene	+++++	0.88279	0.65846	0.76541	0.79294	0.74711		
	0.70180	0.73672					0.75503	9.432

Eurofins Air Toxics, Inc. **MSD-E** **Logbook #2755**

BFB Verification of 176/174 m/z Ratio: (627456/649766)x100= 96.65	
Tekmar Purge Flow:	
Vacuum:	3/17/16

IS/S Std. #:	2787-17		Exp. Date: 6/17/16
BCM	Lot: 1641946	Sol:	170470
1,4-DFB	626935		700553
CB-d5	567678		1028352

Verified CCV IS vs ICAL mid-point (-40%D):

File ID:	623710
Compound:	Toluene-d8
Initials:	

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (623703) x (5.000) = 5.066
(~~626935~~ 626935) (0.978198)

SOP# (Circle one): 6 / 83 / 88 / 91 / 109

Method (Circle one): TO-14A/TO-15/TO-17

Reported Result: 5.066

Method Name: EIOL0517A / EIOS0517A

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol loaded	DF	Loaded By/Initials	Date Analyzed	Time Analyzed	Reviewed By/Initials	Comments/Standard Expiration Date
1	✓	623701	BFB Tune criteria	2789-1484	50psig	2.0mL		1.00		3/17/16	1047		
2	✓	02	ICAL Lev. 1	2789-13	0.005ppbv	15mL		1.00			1111		Exp 4/16/16
3	✓	03	2		0.025ppbv	35mL		1.00			1155		
4	✓	04	3		0.01ppbv	50mL		1.00			1236		
5	✓	05	4		0.02ppbv	100mL		1.00			1318		
6	✓	06	5		0.05ppbv	250mL		1.00			1400		
7	✓	07	6	2789-14	0.1ppbv	25mL		1.00			1507		Exp. 4/16/16
8	✓	08	7		0.5ppbv	125mL		1.00			1519	EA	
9	✓	09	8		1.0ppbv	250mL		1.00			1631	EA	
10	✓	10	12	2759-223	5.0ppbv	25mL	EA	1.00	EA		1724	EA	Exp 4/6/16
11	✓	11	13		10ppbv	50mL	EA	1.00	EA		1810	EA	
12	✓	12	15		20ppbv	100mL	EA	1.00	EA		1901	EA	
13	✓	13	16		40ppbv	200mL	EA	1.00	EA		1949	EA	
14	X	14	System Blank	35248	Humid	250mL		1.00	EA		2034	EA	

Reviewed: [signature] Date: 3/23/16

Eurofins Air Toxics, Inc.

MSD-E

Logbook #2755

0300 of 0803

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By/Initials	Date Analyzed	Time Analyzed	Reviewed By/Initials	Comments/Standard Expiration Date
		E03171165	system blank	3524B	Humid	250ml	EA	1.00	EA	3/17/16	2118	EA	
15	X	1 1716	ICV (50ppbv)	2789-16	5.0ppbv	25ml		1.00	EA	3/17/16	2208	EA	6/11/16
16	✓	17	System Blank	Flow Cell	Dry	250ml	EA	1.00	EA	3/22/16	0843	EA	
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
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31													
32													
33													
34													
35													
36													

EA 3/22/16

Reviewed

3/22/16

Date

Eurofins Air Toxics, Inc.

MSD-E

Logbook #2755

0301 of 0803

BFB Verification of 176/174 m/z Ratio: (1087824)/(1092096) x 100 = 96.78	
Tekmar Purge Flow:	
Vacuum:	EF 3/22/16

IS/S Std. #:	2789-17	Exp. Date:	6/17/16
BCM	Lot: 1904121		Lot: 1956613
1,4-DFB	736283		826772
CB-d5	6586623		7306611

Verified CCV IS vs ICAL mid-point (-40%D): EF

File ID:	E032201
Compound:	Toluene-d8
Initials:	EF

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (778723) x (5.000) = 5.039
(736283) (0.58198)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109

Method (Circle one): TO-14A/TO-15/TO-17

Method Name: E16L-0317A / E16S0317A

Reported Result: 5.039

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	/	E032201	BFB TUNE CHECK	2789-1964	50 ppb	2.0 µL	EF 1.00 EF 3/22/16	1.00	EF	3/22/16	0924	EF	
2	/	02	CCV (50 ppbv)	2769-226	5.0 ppbv	25 mL	EF 1.00 EF 3/22/16	1.00	EF		0947	EF	Exp. 4/6/16
3	/	03	LCS (50 ppbv)	2789-8	5.0 ppbv	25 mL	EF	1.00	EF		1032	EF	Exp. 6/11/16
4	/	04	LAB BLANK	3476	N/A	250 mL	EF	1.00	EF		1121	EF	
5	/	05	ICAL LEVEL 7	2769-228	0.5 ppbv	25 mL	EF	1.00	EF		1205	EF	Exp. 5/5/15
6	/	06	8		1.0 ppbv	50 mL	EF	1.00	EF		1370	EF	
7	/	07	9		2.0 ppbv	100 mL	EF	1.00	EF		1404	EF	
8	/	08	11		4.0 ppbv	200 mL	EF	1.00	EF		1480	EF	
9	/	09	12		5.0 ppbv	250 mL	EF	1.00	EF		1632	EF	
10	Tbt	10	~~CCV sp (50 ppbv)~~	2789-4	0.5 ppbv	25 mL	EF	1.00	EF				
11													
12													
13													
14													

Reviewed: [signature]

Date: 3/24/16

Eurofins Air Toxics, Inc. **MSD-E** **Logbook #2755**

BFB Verification of 176/174 m/z Ratio:	(705088/728064) x 100 = 96.8%
Tekmar Purge Flow:	
Vacuum:	EF 3/25/16

IS/S Std. #:	2789-17	Exp. Date: 6/17/16
BCM	4: 1966631	6.0ml 2001621
1,4-DFB	760212	838688
CB-d5	680800	748894

Verified CCV IS vs ICAL mid-point (-40%D): EF

File ID:	E032502
Compound:	Toluene-d8
Initials:	EF

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (733691) x (5.000) = 4.914
(760212) (0.98198)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one) TO-14A/TO-15/TO-17 Reported Result: 4.914

Method Name: E16L0317A/E16S0317A

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	E032601	BFB Tune check	2789-1484	50psi	2.0ml	EF	1.00	EF	3/25/16	0902	EF	
2	✓	02	CCV (50ppbv)	2789-225	5.0ppbv	25ml	EF	1.00	EF	3/25/16	0925	EF	Exp. 4/6/16 ✓ out
3	✓	03	LCS (50ppbv)	2789-8	5.0ppbv	25ml	EF	1.00	EF		1029	EF	Exp. 6/11/16 u: 1 out Sma: 6 out
4	✓	04	LCSD (50ppbv)	2789-8	5.0ppbv	25ml	EF	1.00	EF		1114	EF	Exp. 6/11/16
5	✓	05	ICAL Level 7	2789-4	0.5ppbv	25ml	EF	1.00	EF		1218	EF	Exp 5/16/16 COMBO
6	✓	06	8		1.0ppbv	50ml	EF	1.00	EF		1305	EF	CCV
7	✓	07	12		5.0ppbv	250ml	EF	1.00	EF		1344	EF	
8	✓	08	LAB BLANK	34764	Humidi	250ml	EF	1.00	EF		1448	EF	
9		09	1603238-01A	36570	1.Ce"Hg 14.7psi	250ml	EF	2.12	EF				
10													
11													
12													
13													
14													EF 3/25/16

Reviewed 3/25/16 Date

Eurofins Air Toxics, Inc. **MSD-E** **Logbook #2755**

BFB Verification of 176/174 m/z Ratio:	(890112/916928) x 100 = 97.08
Tekmar Purge Flow:	
Vacuum:	3/30/16

IS/S Std. #:	2789-17	Exp. Date:	6/17/16
BCM	lot: 190719	Sum:	1928830
1,4-DFB	726285		8647730
CB-d5	688864		717749

Verified CCV IS vs ICAL mid-point (-40%D):

File ID:	E033002
Compound:	Toluene-d8
Initials:	

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (712176) x (5.000) = 5.000
(726285) (0.98198)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 5.000

Method Name: E16L03178/ E16S03174

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	/	E033001	BFB Tune check	2789-1484	50mg	2.0mL		1.00		3/30/16	1046		
2	/	02	CCV (50ppbv)	2745-215	5.0ppbv	25mL		1.00			1107		Exp. 4/6/16 ∅ out
3	/	03	LCS (50ppbv)	2789-8	5.0ppbv	25mL		1.00			1150		Exp. 6/11/16 ∅ out
4	/	04	LCSD (50ppbv)	2789-8	5.0ppbv	25mL		1.00			1233		Exp. 6/11/16
5	N/A	05	CCV zp (5.0ppbv)	2739-236	1.0ppbv	50mL		1.00			1315		Exp. 5/5/16 CAN CLOSED.
6	/	06	CCV zp (5.0ppbv)	2739-238	1.0ppbv	50mL		1.00			1359		Exp. 5/5/16
7	/	07	ICAL level 7	2789-46	0.5ppbv	25mL		1.00			1441		Exp. 4/28/16 Accepted
8	/	08	8		1.0ppbv	50mL		1.00			1543		
9	/	09	12		5.0ppbv	250mL		1.00			1628		
10		10	LAB Blank	34764	Humid	250mL		1.00					3/30/16
11													
12													
13													
14													

Reviewed 3/30/16 Date

Eurofins Air Toxics, Inc. **MSD-E** **Logbook #2755**

BFB Verification of 176/174 m/z Ratio: (677184/693056) x100 = 97.71%	
Tekmar Purge Flow:	
Vacuum:	

IS/S Std. #:	2789-17	Exp. Date:	6/17/16
BCM LL:	159373	Sim:	160010
1,4-DFB	624905		678475
CB-d5	549719		668473

Verified CCV IS vs ICAL mid-point (-40%D): AT

File ID:	
Compound:	
Initials:	

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (_____) x (_____) = _____ 5/9/16 AT

( ) ( ) 5/19 AT 5/9/16

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one) TO-14A/TO-15/TO-17 Reported Result: _____

Method Name: E16L03178/E16S03174

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	E050901	BFB Tune Check	2789-1484	50ng	2.0µl	AT	1.00	AT	5/9/16	0645	AT	
2	✓	02	System Blank	HouseLine	D.I	250mL	AT		AT		0708	AT	
3	/	03	CCV (50 ppbv)	2789-51	5.0ppbv	25mL	AT		AT		0751	AT	Exp 7/1/16 ϕ ϕ
4	/	04	LCS (25 ppbv)	2789-8A	5.0ppbv	50mL	AT	1.00	AT		0838	AT	Exp. 6/11/16 ϕ ϕ
5	/	05	LCSD (25 ppbv)	2789-8A	5.0ppbv	50mL	AT	1.00	AT		0922	AT	Exp. 6/11/16
6		06	CCV sp (5.0 ppbv)	2789-126	1.0 ppbv	50mL	AT	1.00	AT		1006	AT	Exp. 6/3/16 Acrolein
7	/	07	ICAL level 7	2789-105	0.5ppbv	25mL	AT	1.00	AT		1101	AT	Exp. 6/3/16 combo
8	/	08	8		1.0ppbv	50mL	AT	1.00	AT		1203	AT	
9	/	09	9		2.0ppbv	100mL	AT	1.00	AT		1256	AT	
10		10	11		4.0ppbv	200mL	AT	1.00	AT		N/A	N/A	5/19/16 NOT RAN: TEKMAR ERROR
11	/	11	System Blank	35248	Humid	250mL	AT	1.00	AT		1357	AT	
12	/	12	ICAL level 11	2789-105	4.0ppbv	200mL	AT	1.00	AT		1446	AT	Exp. 8/3/16 Combo
13	/	13	12		5.0ppbv	250mL	AT	1.00	AT		1522	AT	
14	/	14	System Blank	35248	Humid	250mL	AT	1.00	AT		1605	AT	

Reviewed 5/9/16 Date

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
15	X	E050915	ICV sp (5.0ppbv)	2759-241	1.0 ppbv	50mL	[illegible]	1.00	[illegible]	5/9/16	1719	[illegible]	exp 5/9/16 AT-1
16	✓	↓ -16	ICV sp (5.0ppbv)	2789-128	1.0 ppbv	50mL	TAR	1.00	TAR	5-9-16	2123	TAR/[illegible]	exp 5-9-16 AT1
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													TAR 5-9-16

TA [illegible]
Reviewed

5-9-16
Date

0308 of 0060

Eurofins Air Toxics, Inc. **MSD-E** **Logbook #2755**

BFB Verification of 176/174 m/z Ratio: (633856/658824)x100= 96.95	
Tekmar Purge Flow:	
Vacuum:	5/19/16

2789 5/18/16

IS/S Std. #:	2736-150	Exp. Date:	8/19/16
BCM	u: 151740		sm: 153558
1,4-DFB	581412		636149
CB-d5	528099		561480

Verified CCV IS vs ICAL mid-point (-40%D): ✓

File ID:	E051902
Compound:	Toluene-d8
Initials:	✓

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (548609) x (5.000) = 4.804
(581412) (0.78198)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 4.804

Method Name: E16V0317E / E16S0317E

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	/	E051901	BFB tune check	2789-1484	50ng	2.0mL	✓	1.00	✓	5/19/16	0732	✓	
2	/	02	ccv (50ppbv)	2789-51	5.0ppbv	25mL	✓	1.00	✓		0753	✓	Exp. 7/1/16 ISTD out BFB out
3	/	03	LCS (25ppbv)	2789-8A	5.0ppbv	50mL	✓	1.00	✓		1036	✓	Exp. 6/11/16 ISTD out
4	/	04	LCSD (25ppbv)	2789-8A	5.0ppbv	50mL	✓	1.00	✓		1118	✓	Exp. 6/11/16
5	/	05	ccv5ppb (5.0ppbv)	2789-126	1.0ppbv	50mL	✓	1.00	✓		1201	✓	Exp. 6/8/16 Acetone
6	/	06	ccv50ppb (5.0ppbv)	2789-105	1.0ppbv	50mL	✓	1.00	✓		1247	✓	Exp. 8/8/16 combo
7	/	07	ICAL LEVEL 7	2789-151	0.5ppbv	25mL	✓	1.00	✓		1402	✓	Exp. 8/19/16 Acetaldehyde
8	/	08	8		1.0ppbv	50mL	✓	1.00	✓		1444	✓	ccv
9	/	09	12		5.0ppbv	250mL	✓	1.00	✓		1527	✓	
10	/	10	LAB BLANK	35240	Humid	250mL	✓	1.00	✓		1613	✓	
11	✓	11	1605193-01A	34741	4.1"Hg-4.9psi	50mL	EA	7.70	EA		1724	EA	E" TCE
12	✓	12	-02A	33671	5.7"Hg-5psi	50mL	EA	8.30	EA		1813	EA	E" TCE
13	✓	13	1605372A-01A	04588	6.3"Hg-4.6psi	250mL	EA	1.66	EA		1906	EA	
14	✓	14	-02A	D0157	4.5"Hg-5psi	250mL	EA	1.58	EA		1953	EA	

Reviewed 5/19/16 Date

Eurofins Air Toxics, Inc. **MSD-E** **Logbook #2755**

BFB Verification of 176/174 m/z Ratio: (667584/688960) X100= 96.91%	
Tekmar Purge Flow:	
Vacuum:	

IS/S Std. #: 2789-150		Exp. Date: 8/19/16
BCM LL: 1553666		SIM: 153139
1,4-DFB	569598	629212
CB-d5	606381	558757

Verified CCV IS vs ICAL mid-point (-40%D): ~~ES~~

File ID:	
Compound:	
Initials:	

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (_____) x (_____) = _____

( ) ( ) 5/24/16 ACT

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: _____

Method Name: E16L0317E / E16S0317A

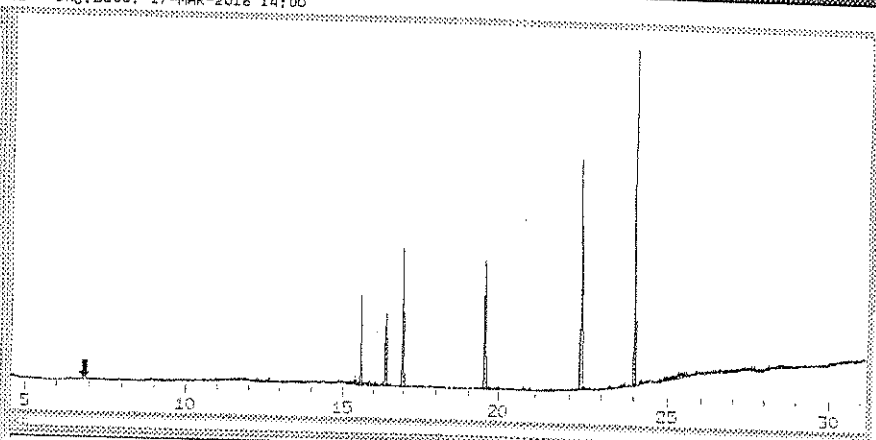
	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	E052401	BFB Tune Check	2299-1484	50ng	2.0ml	ACT	1.00	ACT	5/24/16	0655	ACT	
2	✓	02	CCV (50ppbv)	2789-51	5.0ppbv	25mL	ACT	1	ACT		0715	~~ES~~	Exp 7/1/16 u: 2 out 5min 40 out
3	✓	03	LCS (~~50ppbv~~ 25ppbv)	2789-80	5.0ppbv	50mL	~~ES~~	1.00	~~ES~~		0802	~~ES~~	Exp. 6/11/16 u: 2 out 5min
4	✓	04	LCSD (25ppbv)	2789-78A	5.0ppbv	50mL	~~ES~~	1.00	~~ES~~		0848	~~ES~~	Exp. 6/11/16
5	✓	05	ICAL LEVEL 7	2789-129	0.5ppbv	25mL	~~ES~~	1.00	~~ES~~		0929	~~ES~~	Exp. 8/4/16 AT.1
6	✓	06	8		1.0ppbv	50mL	~~ES~~	1.00	~~ES~~		1014	~~ES~~	CCV
7	✓	07	9		2.0ppbv	100mL	~~ES~~	1.00	~~ES~~		1100	~~ES~~	
8	✓	08	11		4.0ppbv	200mL	~~ES~~	1.00	~~ES~~		1147	~~ES~~	
9	✓	09	12		5.0ppbv	250mL	~~ES~~	1.00	~~ES~~		1320	~~ES~~	
10		~~10~~	~~LAB BLANK~~	~~352148~~	~~Humid~~	~~250mL~~	~~ES~~	~~1.00~~	~~ES~~				
11													
12													
13													
14												~~ES~~ 5/24/16	

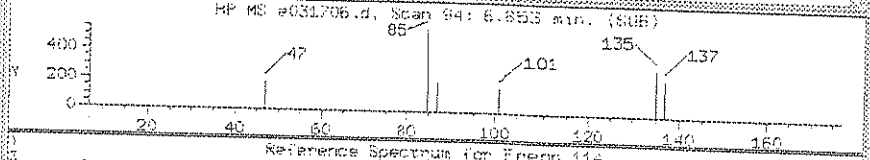
Reviewed Date 5/24/16

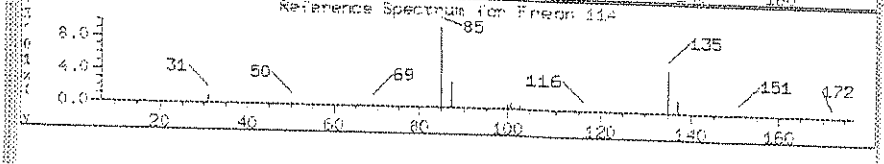
Sample: ICAL Type: SAMPLE Inj.Date: 17-MAR-2016 14:00

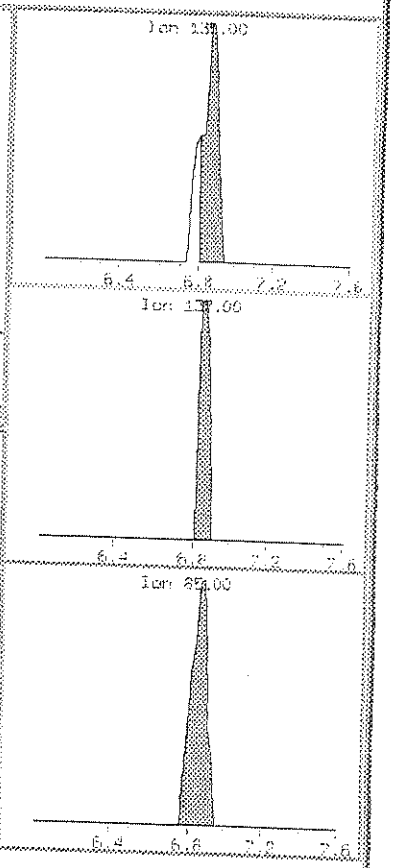
	11	Freon 12
*	14	Freon 114
+	25	Vinyl Chloride
+	35	Freon 11
+	49	Freon 113
*+	98	Bromochloromet
+	103	1,1,1-Trichlor
-	106	Carbon Tetrach
$+	117	1,2-Dichloroet
+	120	1,2-Dichloroet
*+	123	1,4-Difluorobe
+	125	Trichloroethen
+	138	Bromodichlorom
$+	146	Toluene-d8
-	155	1,1,2-Trichlor
+	156	Tetrachloroeth
+	160	Dibromochlorom
+	161	1,2-Dibromoeth
*+	163	Chlorobenzene-
-	174	Bromoform
$+	177	4-Bromofluorob
+	181	1,1,2,2-Tetrac
+	190	1,3,5-Trimethy
+	196	1,2,4-Trimethy
+	208	1,3-Dichlorobe

a031706.d



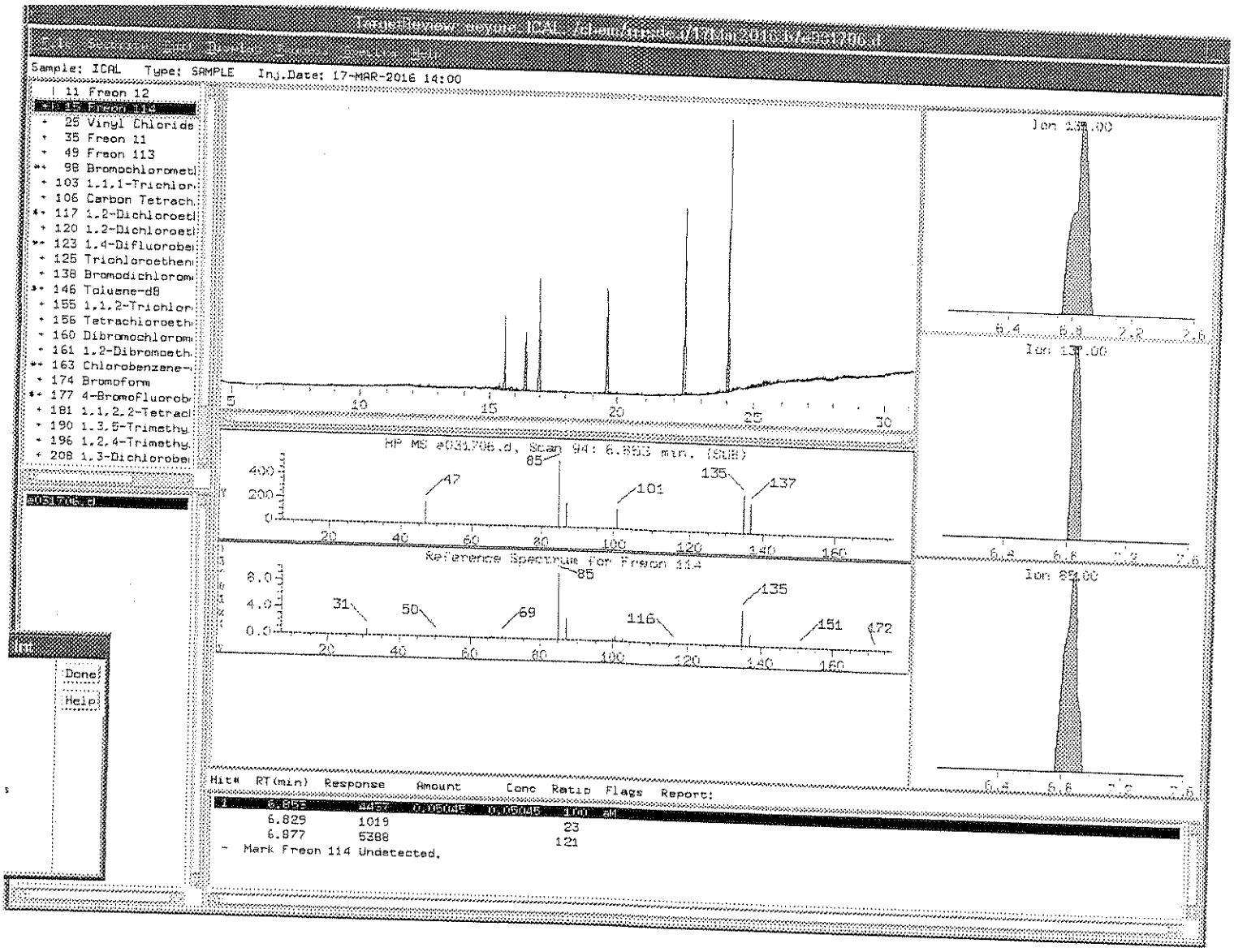






Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	6.853	2686	0.04191	0.04191	100	a	
	6.829	1019			28		
	6.877	5388			146		

- Mark Freon 114 Undetected.



03/23/16

After

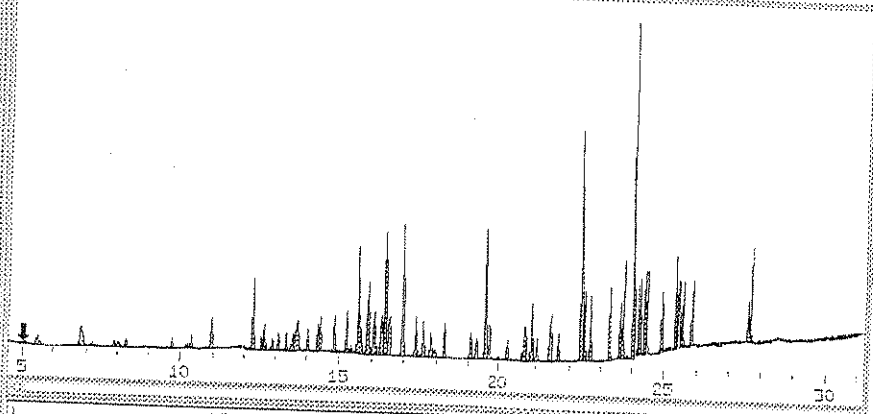
Correct Baseline	3/23/16
Split Peak	X
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

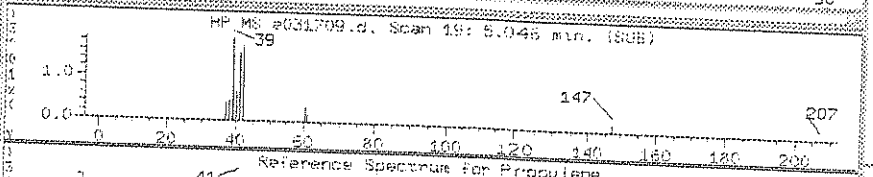
Chromeleon Chromatography Studio - [Chromeleon server ICAL /Users/Public/17Mar2016/031709.1]

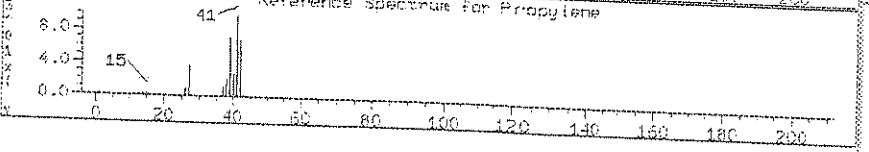
Sample: ICAL Type: SAMPLE Inj.Date: 17-MAR-2016 16:31

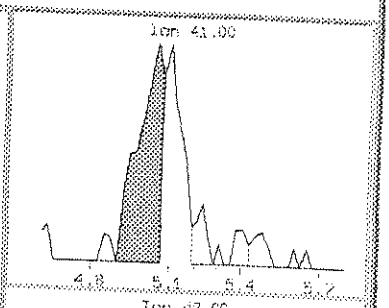
- 9 Propylene
- 11 Freon 12
- 15 Freon 114
- 17 Chloromethane
- 23 Butane
- 25 Vinyl Chloride
- 26 1,3-Butadiene
- 29 Bromomethane
- 30 Chloroethane
- 31 Isopentane
- 35 Freon 11
- 42 Ethanol
- 49 Freon 113
- 50 1,1-Dichloroeth
- 52 Acetone
- 56 Carbon Disulfi
- 57 2-Propanol
- 58 3-Chloropropen
- 66 Methylene Chlo
- 71 tert-Butyl alc
- 72 Methyl tert-bu
- 73 trans-1,2-Dich
- 78 Hexane
- 83 Isopropyl ethe
- 82 1,1-Dichloroeth

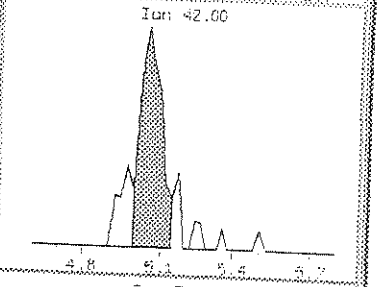
031709.d

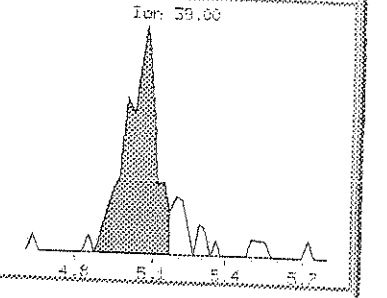






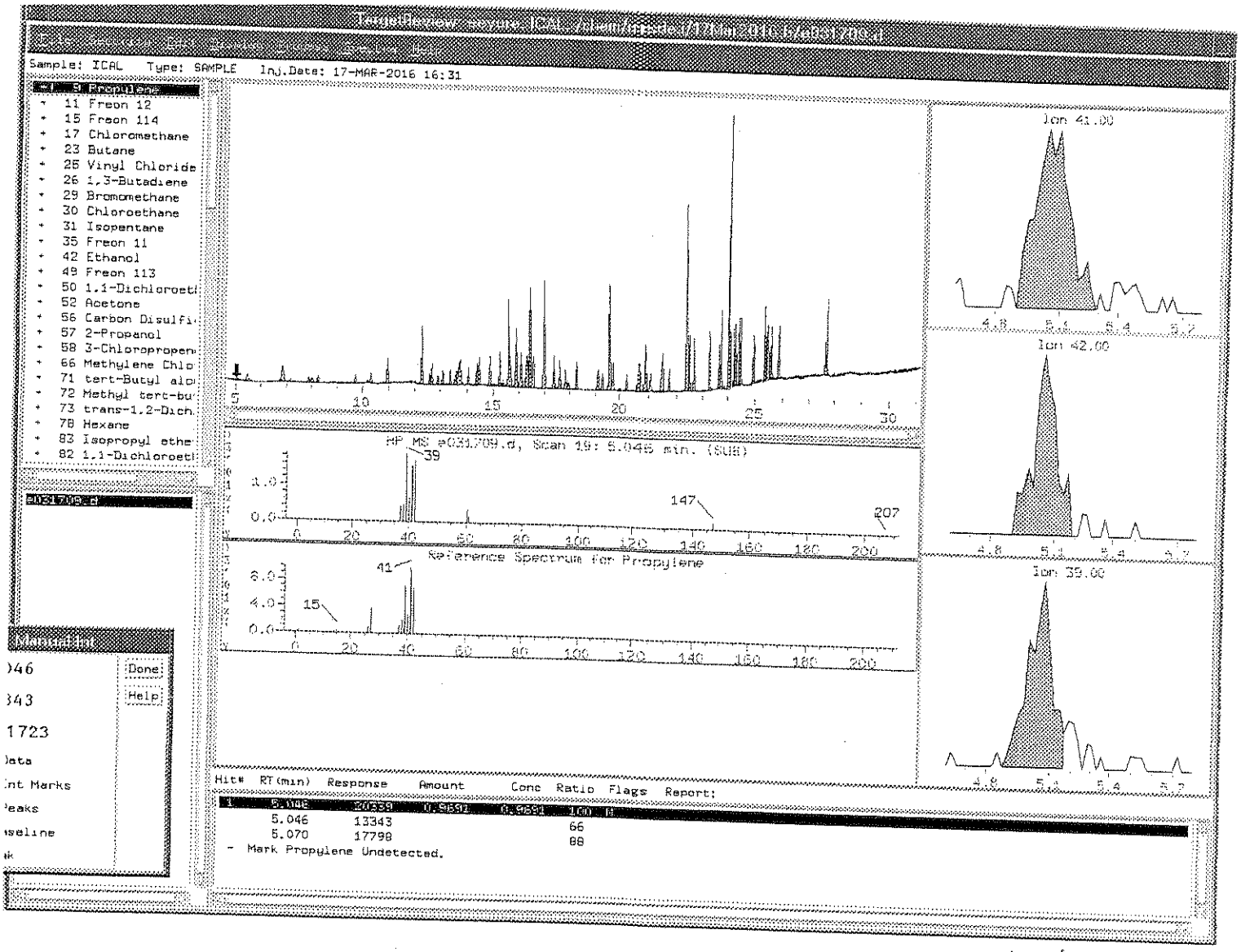






Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	4.853	582	0.02777	0.02777	100	a	
	4.973	2717			466		
	4.863	250			43		
2	5.046	11848	0.5550	0.5550	100		
	5.046	10434			90		
	5.070	17798			153		

BSSont



EB 3/23/16

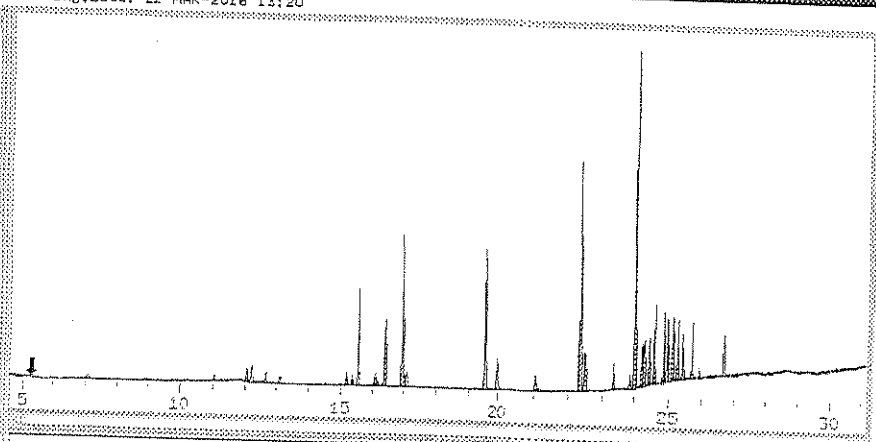
After

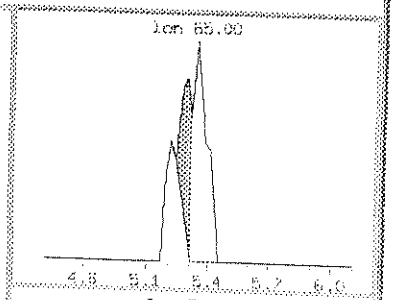
EB 3/23/16

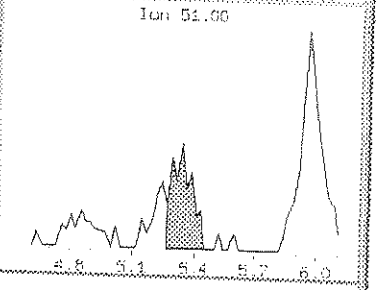
Correct Baseline	
Split Peak	
Merge Peak	✓
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

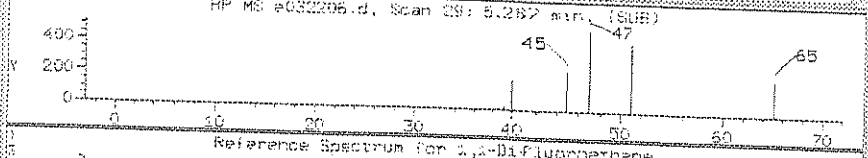
Sample: ICAL Type: SAMPLE Inj.Date: 22-MAR-2016 13:20

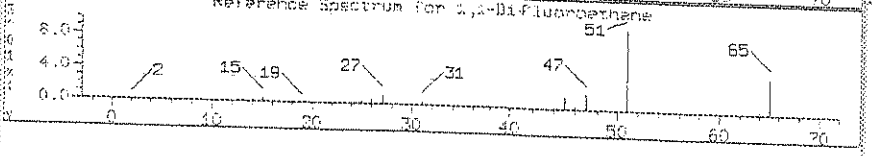
+| 7 Freon 134a
* 10 1,1-Difluoroet
+ 13 Chlorodifluoro
+ 16 Freon 142b
+ 37 Dichlorofluoro
+ 48 Freon 123
+ 59 Cyclopentene
+ 84 1-Propanol
+ 90 2,2-Dichloropr
** 98 Bromochlorometh
+ 107 1,1-Dichloropr
+ 115 Isobutanol
** 123 1,4-Difluorobe
+ 124 n-Butanol
+ 157 1,3-Dichloropr
+ 159 Butyl Acetate
** 163 Chlorobenzene-
+ 168 1,1,1,2-Tetrach
+ 173 2-Heptanone
+ 176 Cyclohexanone
+ 180 Bromobenzene
+ 185 1,2,3-Trichlor
+ 189 2-Chlorotoluen
+ 191 4-Chlorotoluen
+ 195 tert-Butylbenz











Manual Int

.877 Done

1601 Help

1114

Data

Int Marks

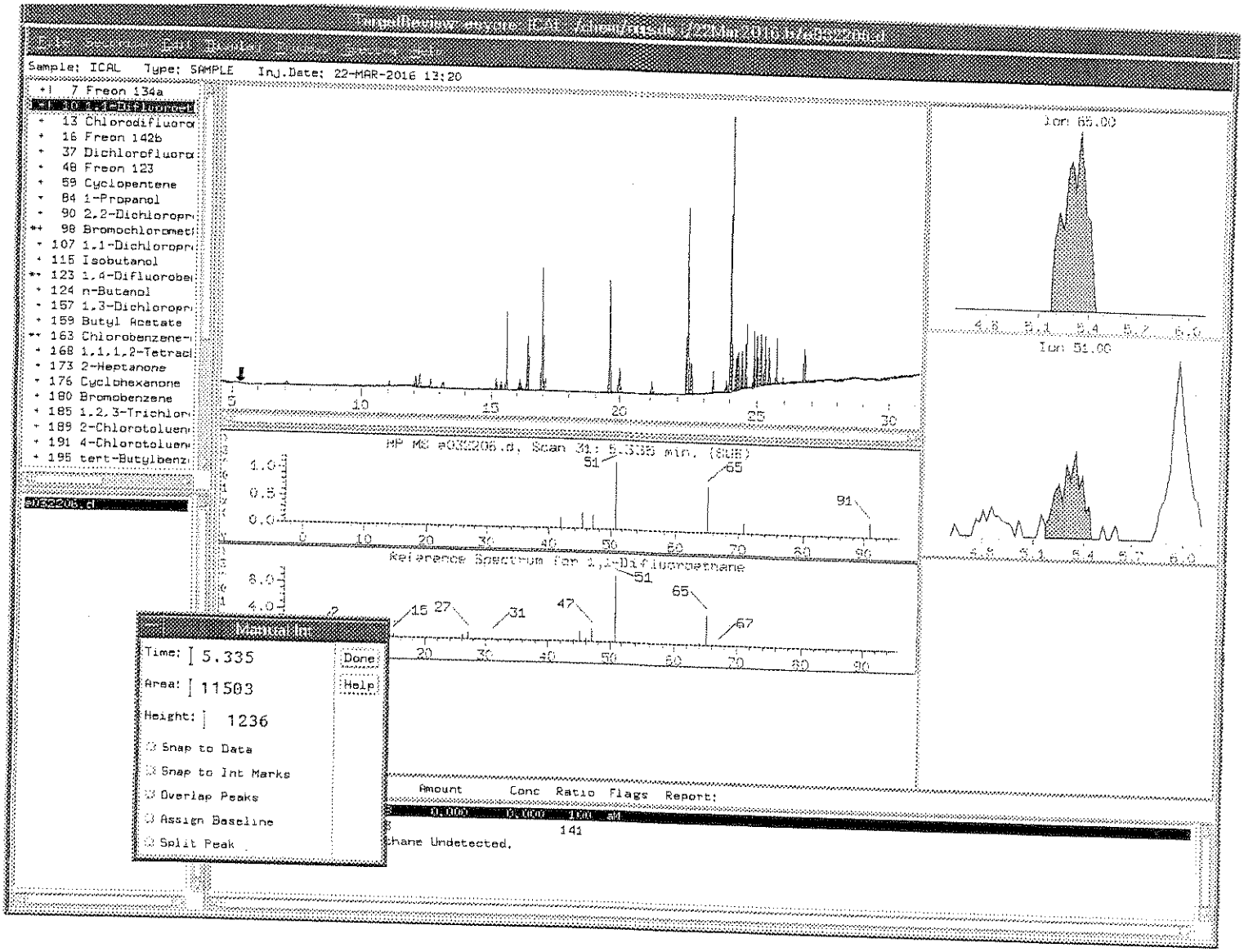
Peaks

Baseline

Peak

Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	5.267	2195	0.000	0.000	100	a	
	5.335	8736			398		
2	5.335	4499	0.000	0.000	100	a	
	5.335	8736			194		

- Mark 1,1-Difluoroethane Undetected.



3/23/16

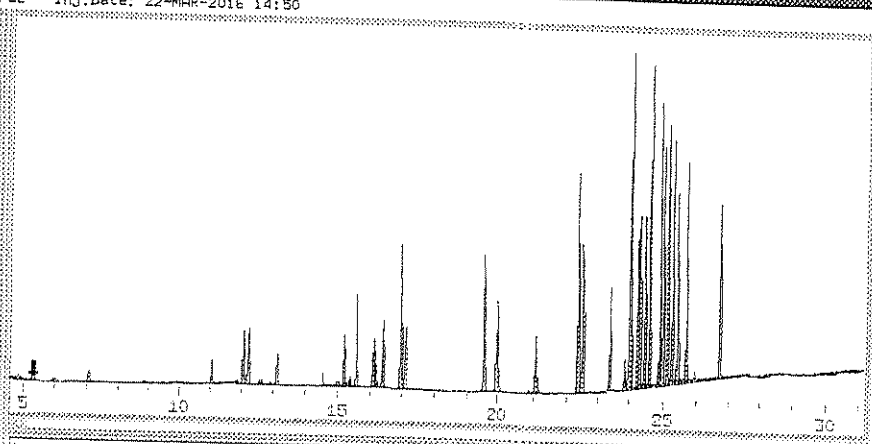
After

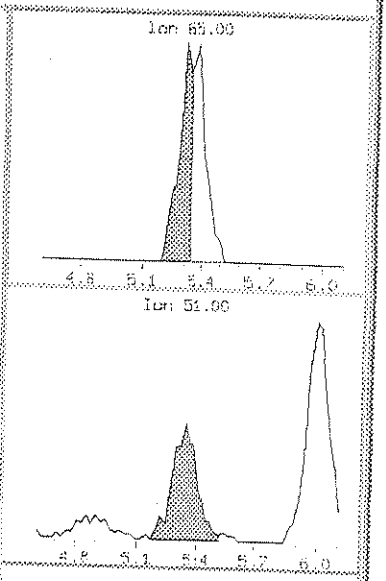
3/23/16

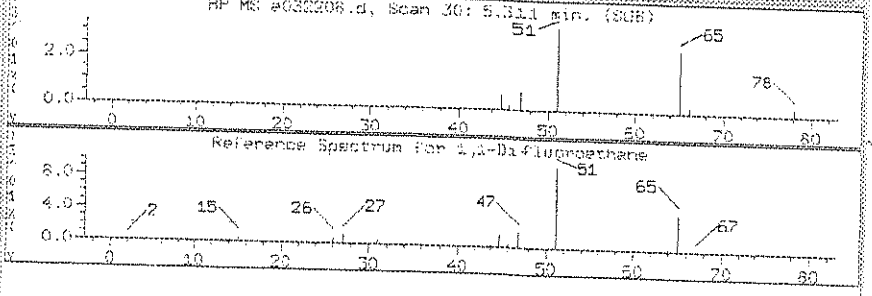
Correct Baseline	
Split Peak	X
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

Sample: ICAL Type: SAMPLE Inj.Date: 22-MAR-2016 14:50

- 7 Freon 134a
- 10 1,1-Difluoroet
- 13 Chlorodifluoro
- 16 Freon 142b
- 37 Dichlorofluoro
- 48 Freon 123
- 59 Cyclopentene
- 84 1-Propanol
- 90 2,2-Dichloropr
- 98 Bromochlorometh
- 107 1,1-Dichloropr
- 115 Isobutanol
- 123 1,4-Difluorobe
- 124 n-Butanol
- 157 1,3-Dichloropr
- 159 Butyl Acetate
- 163 Chlorobenzene-
- 168 1,1,1,2-Tetrac
- 173 2-Heptanone
- 176 Cyclohexanone
- 180 Bromobenzene
- 185 1,2,3-Trichlor
- 189 2-Chlorotoluen
- 191 4-Chlorotoluen
- 195 tert-Butylbenz



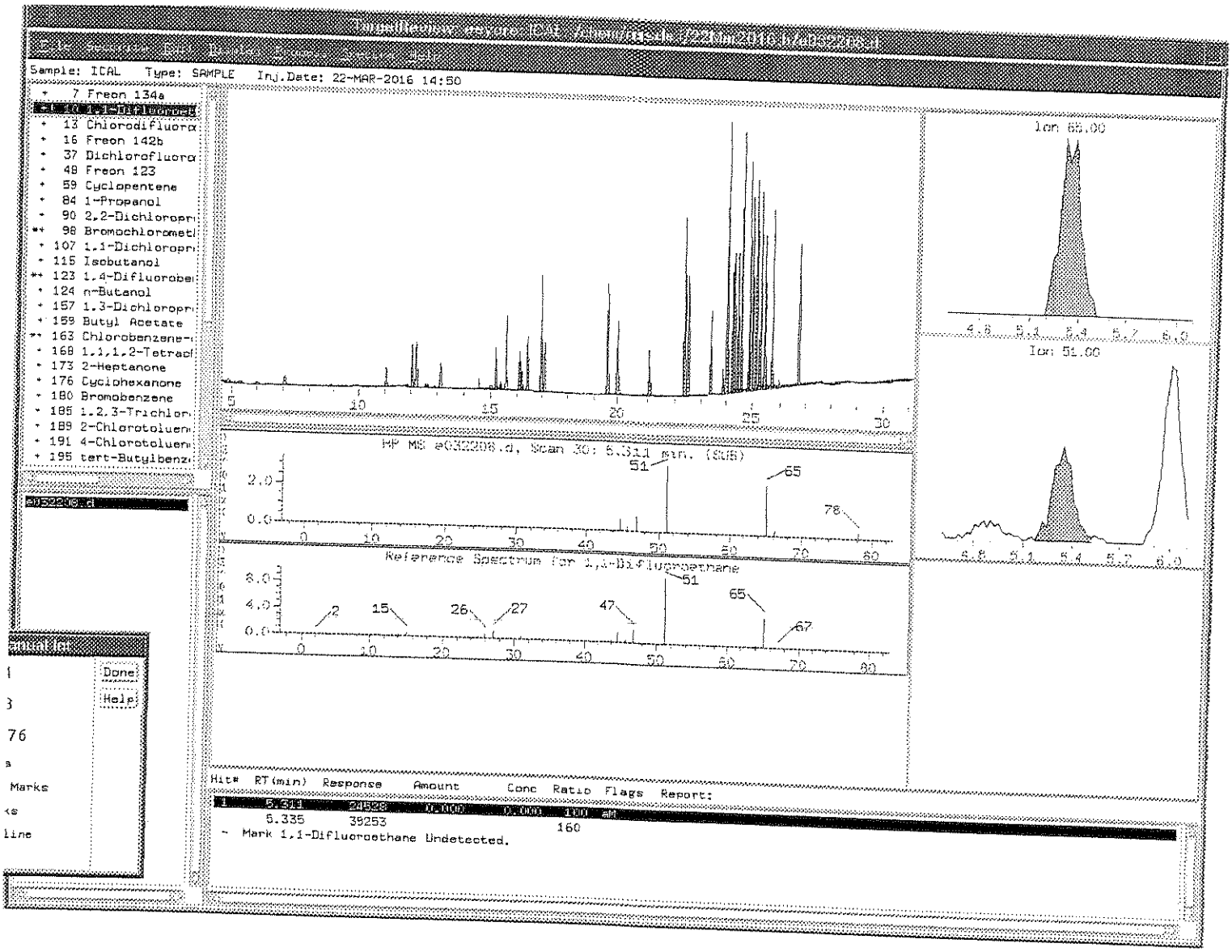




Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	5.311	12185	0.000	0.000	100	a	
	5.335	39253			322		
2	5.383	15550	0.000	0.000	100	a	
	5.335	39253			252		

- Mark 1,1-Difluoroethane Undetected.

Bsow



BJ 3/23/16

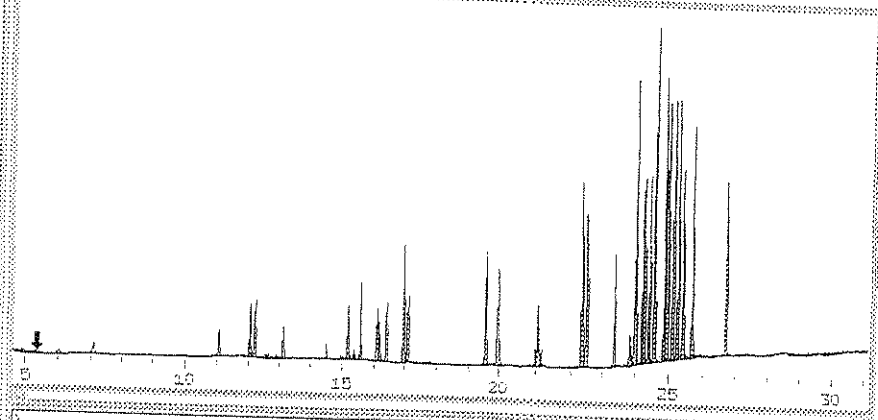
After

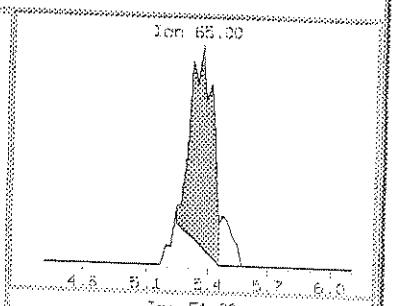
BJ 3/23/16

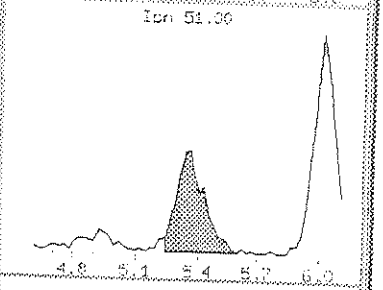
Correct Baseline	
Split Peak	X
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

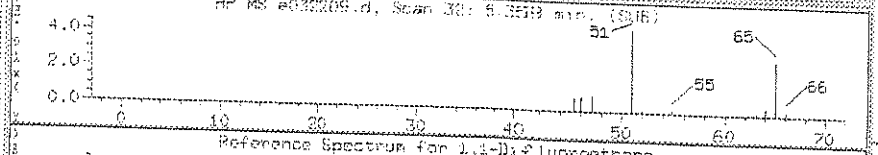
Sample: ICAL Type: SAMPLE Inj.Date: 22-MAR-2016 15:32

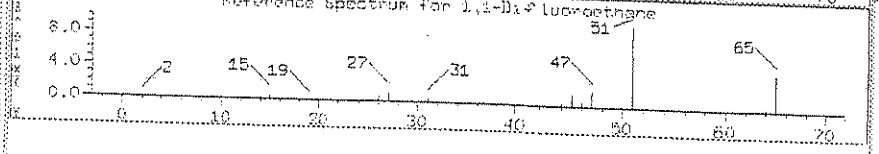
- 7 Freon 134a
- 10 1,2-Dichloroethane
- 13 Chlorodifluoro
- 16 Freon 142b
- 37 Dichlorofluoro
- 48 Freon 123
- 59 Cyclopentene
- 84 1-Propanol
- 90 2,2-Dichloropr
- 98 Bromochlorometh
- 107 1,1-Dichloropr
- 115 Isobutanol
- 123 1,4-Difluorobe
- 124 n-Butanol
- 157 1,3-Dichloropr
- 159 Butyl Acetate
- 163 Chlorobenzene-
- 168 1,1,1,2-Tetrac
- 173 2-Heptanone
- 176 Cyclohexanone
- 180 Bromobenzene
- 185 1,2,3-Trichlor
- 189 2-Chlorotoluen
- 191 4-Chlorotoluen
- 195 tert-Butylbenz





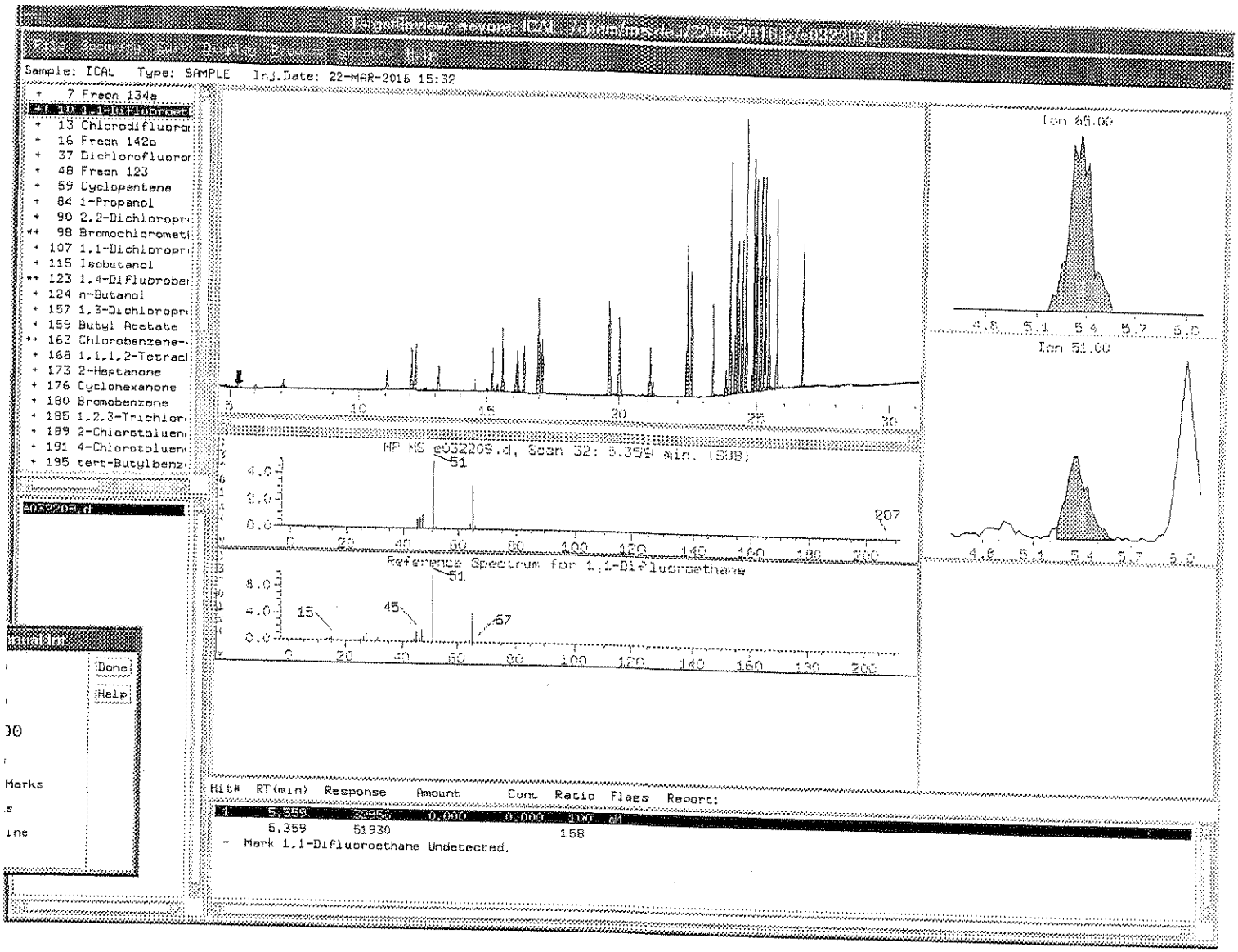






Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	5.359	24026	0.000	0.000	100	a	
	5.359	51930			213		
2	5.479	4003	0.000	0.000	100	a	
	5.359	51930			1297		

- Mark 1,1-Difluoroethane Undetected.



03/23/16

After

25 3/23/16

Correct Baseline	
Split Peak	X
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

Modified EPA Methods TO-14A/TO-15 Low Level
Internal Standard and Associated Target Compounds and Surrogates

Bromochloromethane
Target Compounds:
Freon 12
Freon 114
Chloromethane
Vinyl Chloride
1,3-Butadiene
Bromomethane
Chloroethane
Freon 11
Ethanol
Freon 113
1,1-Dichloroethene
Acetone
2-Propanol
Carbon Disulfide
3-Chloropropene
Methylene Chloride
Methyl tert-butyl ether
trans-1,2-Dichloroethene
Hexane
1,1-Dichloroethane
2-Butanone (Methyl Ethyl Ketone)
cis-1,2-Dichloroethene
Tetrahydrofuran
Chloroform
1,1,1-Trichloroethane
Cyclohexane
Carbon Tetrachloride
2,2,4-Trimethylpentane
Surrogates:
1,2-Dichloroethane-d4

1,4-Difluorobenzene
Target Compounds:
Benzene
1,2-Dichloroethane
Heptane
Trichloroethene
1,2-Dichloropropane
1,4-Dioxane
Bromodichloromethane
cis-1,3-Dichloropropene
4-Methyl-2-pentanone
Toluene
Surrogates:
Toluene-d8

Chlorobenzene-d5
Target Compounds:
trans-1,3-Dichloropropene
1,1,2-Trichloroethane
Tetrachloroethene
2-Hexanone
Dibromochloromethane
1,2-Dibromoethane (EDB)
Chlorobenzene
Ethyl Benzene
m,p-Xylene
o-Xylene
Styrene
Bromoform
Cumene
1,1,2,2-Tetrachloroethane
Propylbenzene
4-Ethyltoluene
1,3,5-Trimethylbenzene
1,2,4-Trimethylbenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
alpha-Chlorotoluene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobutadiene
Surrogates:
Bromofluorobenzene

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031716.d
Lab Smp Id: ICV
Inj Date : 17-MAR-2016 22:08
Operator : ea Inst ID: msde.i
Smp Info : 25mL#2789-6
Misc Info : 5.0ppbv(50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m
Meth Date : 23-Mar-2016 08:53 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:49 Cal File: e031713.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
9 Propylene						CAS #: 115-07-1		
4.997	5.070	(0.321)	41	116224	5.29046	5.290	80.00- 120.00	100.00
5.045	5.046	(0.324)	42	79005			38.73- 98.73	67.98
4.997	5.070	(0.321)	39	94807			55.81- 115.81	81.57
11 Freon 12						CAS #: 75-71-8		
5.455	5.479	(0.350)	85	759207	5.33619	5.336	80.00- 120.00	100.00
5.479	5.479	(0.352)	87	248784			2.00- 62.00	32.77
15 Freon 114						CAS #: 76-14-2		
6.829	6.829	(0.438)	135	585293	5.62094	5.621	80.00- 120.00	100.00
6.829	6.829	(0.438)	137	197788			1.31- 61.31	33.79
6.829	6.829	(0.438)	85	662219			93.88- 153.88	113.14
17 Chloromethane						CAS #: 74-87-3		
7.167	7.167	(0.460)	50	145495	5.38972	5.390	80.00- 120.00	100.00
7.167	7.167	(0.460)	52	47121			5.50- 65.50	32.39

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.871	7.872 (0.505)	58	38895	5.56256	5.562	80.00- 120.00	100.00
7.871	7.872 (0.505)	43	240748			588.57- 648.57	618.96
25 Vinyl Chloride					CAS #: 75-01-4		
8.010	8.010 (0.514)	62	208743	5.49634	5.496	80.00- 120.00	100.00
8.010	8.010 (0.514)	64	72818			3.14- 63.14	34.88
26 1,3-Butadiene					CAS #: 106-99-0		
8.236	8.236 (0.529)	54	131461	5.14651	5.146	80.00- 120.00	100.00
8.236	8.236 (0.529)	39	127875			65.21- 125.21	97.27
29 Bromomethane					CAS #: 74-83-9		
9.711	9.711 (0.623)	94	224650	5.42085	5.421	80.00- 120.00	100.00
9.711	9.711 (0.623)	96	203966			64.16- 124.16	90.79
30 Chloroethane					CAS #: 75-00-3		
10.195	10.176 (0.654)	64	106146	5.91586	5.916	80.00- 120.00	100.00
10.195	10.176 (0.654)	49	25731			0.00- 54.91	24.24
10.195	10.176 (0.654)	66	35451			3.62- 63.62	33.40
31 Isopentane					CAS #: 78-78-4		
10.328	10.309 (0.663)	57	142773	5.48900	5.489	80.00- 120.00	100.00
10.328	10.309 (0.663)	43	162082			82.69- 142.69	113.52
10.328	10.309 (0.663)	42	140375			68.65- 128.65	98.32
35 Freon 11					CAS #: 75-69-4		
10.938	10.938 (0.702)	101	797145	5.20333	5.203	80.00- 120.00	100.00
10.938	10.938 (0.702)	103	529394			37.17- 97.17	66.41
42 Ethanol					CAS #: 64-17-5		
11.852	11.852 (0.761)	45	68124	6.13677	6.137	80.00- 120.00	100.00
11.852	11.852 (0.761)	46	26949			6.61- 66.61	39.56
11.852	11.852 (0.761)	43	17088			0.00- 54.66	25.08
49 Freon 113					CAS #: 76-13-1		
12.271	12.252 (0.788)	151	635878	5.53869	5.539	80.00- 120.00	100.00
12.271	12.252 (0.788)	153	398933			33.64- 93.64	62.74
12.271	12.252 (0.788)	101	695761			80.40- 140.40	109.42
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.290	12.271 (0.789)	98	169271	5.28724	5.287	80.00- 120.00	100.00
12.290	12.271 (0.789)	61	392434			204.89- 264.89	231.84
12.290	12.271 (0.789)	96	263375			127.69- 187.69	155.59
52 Acetone					CAS #: 67-64-1		
12.556	12.537 (0.806)	58	96533	5.15650	5.156	80.00- 120.00	100.00

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 12.556  12.537 (0.806)    43    314097                   321.47- 381.47   325.38
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.652  12.633 (0.812)    76    645621 4.52489    4.525  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.899  12.899 (0.828)    45    327167 5.71291    5.713  80.00- 120.00   100.00
 12.899  12.899 (0.828)    43     75716                    0.00-  54.09    23.14
 12.899  12.899 (0.828)    59     15496                    0.00-  34.43     4.74
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.071  13.071 (0.839)    76    112259 5.26331    5.263  80.00- 120.00   100.00
 13.071  13.071 (0.839)    41    205097                   163.76- 223.76   182.70
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.356  13.337 (0.857)    84    227846 5.07917    5.079  80.00- 120.00   100.00
 13.337  13.337 (0.856)    49    213781                   63.99- 123.99    93.83
 13.356  13.337 (0.857)    51     69089                    0.29-  60.29    30.32
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.674  13.674 (0.878)    73    748001 5.21451    5.214  80.00- 120.00   100.00
 13.674  13.674 (0.878)    57    136765                    0.00-  48.26    18.28
 13.674  13.674 (0.878)    41    120274                    0.00-  45.58    16.08
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.729  13.729 (0.881)    98    149744 4.60503    4.605  80.00- 120.00   100.00
 13.729  13.729 (0.881)    61    295050                   155.28- 215.28   197.04
 13.729  13.729 (0.881)    96    236733                   126.18- 186.18   158.09
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.003  14.003 (0.899)    57    309068 5.52330    5.523  80.00- 120.00   100.00
 14.003  14.003 (0.899)    43    160636                   21.48-  81.48    51.97
 14.003  14.003 (0.899)    86     62388                    0.00-  51.51    20.19
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.415  14.415 (0.925)    63    450825 5.29748    5.297  80.00- 120.00   100.00
 14.415  14.415 (0.925)    65    146640                    1.78-  61.78    32.53
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                   CAS #: 108-05-4
 14.442  14.442 (0.927)    86     69016 5.21291    5.213  80.00- 120.00   100.00
 14.442  14.442 (0.927)    42     49925                   44.70- 104.70    72.34
 14.442  14.442 (0.927)    43    506928                   757.33- 817.33   734.51
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                          CAS #: 156-59-2
 15.240  15.240 (0.978)    98    209962 5.90277    5.903  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   91 cis-1,2-Dichloroethene (continued)
 15.240  15.240 (0.978)    61    362417                  145.90- 205.90   172.61
 15.240  15.240 (0.978)    96    321228                  125.53- 185.53   152.99
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.240  15.221 (0.978)    72    125390 5.56058    5.560  80.00- 120.00   100.00
 15.221  15.221 (0.977)    43    356701                  262.26- 322.26   284.47
 15.221  15.221 (0.977)    57     34057                    0.00-  55.71    27.16
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.580  15.580 (1.000)    42    230798 5.57731    5.577  80.00- 120.00   100.00
 15.580  15.580 (1.000)    71    135962                   26.85-  86.85    58.91
 15.580  15.580 (1.000)    72    152869                   32.22-  92.22    66.24
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.580  15.580 (1.000)   130    169157 5.00000           80.00- 120.00   100.00
 15.580  15.580 (1.000)   128    137393                   52.25- 112.25    81.22
 15.580  15.641 (1.000)    49    211163                   89.81- 149.81   124.83
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.641  15.641 (1.004)    83    633461 5.18679    5.187  80.00- 120.00   100.00
 15.641  15.641 (1.004)    85    412634                   33.97-  93.97    65.14
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.888  15.888 (1.020)    84    350235 5.52607    5.526  80.00- 120.00   100.00
 15.888  15.888 (1.020)    56    315557                   58.69- 118.69    90.10
 15.888  15.888 (1.020)    41    168916                   18.98-  78.98    48.23
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.888  15.888 (1.020)    97    727659 5.12206    5.122  80.00- 120.00   100.00
 15.888  15.888 (1.020)    99    461247                   34.21-  94.21    63.39
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 16.073  16.073 (1.032)   119    764828 5.49723    5.497  80.00- 120.00   100.00
 16.073  16.073 (1.032)   117    800337                   74.09- 134.09   104.64
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 16.313  16.313 (1.047)    56    359076 5.06753    5.068  80.00- 120.00   100.00
 16.313  16.313 (1.047)    57   1210470                  306.64- 366.64   337.11
 16.313  16.313 (1.047)    41    328703                   64.14- 124.14    91.54
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.409  16.409 (0.969)    78    782572 5.00241    5.002  80.00- 120.00   100.00
 16.409  16.409 (0.969)    77    181577                    0.00-  53.97    23.20
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.409  16.409 (1.053)    65    230674 4.75015    4.750  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 117 1,2-Dichloroethane-d4 (continued)
 16.409  16.409 (1.053)    67    125519                    21.16-  81.16    54.41
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 16.505  16.505 (0.974)    62    415127 5.09119    5.091  80.00- 120.00   100.00
 16.505  16.505 (0.974)    64    144877                     1.03-  61.03    34.90
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 16.554  16.554 (0.977)    57    196896 5.30980    5.310  80.00- 120.00   100.00
 16.554  16.554 (0.977)   100    114578                    28.67-  88.67    58.19
 16.554  16.554 (0.977)    43    306694                   128.92- 188.92   155.76
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.939  16.939 (1.000)   114    652823 5.00000           80.00- 120.00   100.00
 16.939  16.939 (1.000)    88     94311                    0.00-  45.20    14.45
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 17.373  17.349 (1.026)   130    432411 5.32897    5.329  80.00- 120.00   100.00
 17.373  17.349 (1.026)    95    391577                    63.99- 123.99    90.56
 17.373  17.349 (1.026)    97    251255                    29.21-  89.21    58.11
-------------------------------------------------------------------------------
  127 Methylcyclohexane                            CAS #: 108-87-2
 17.590  17.590 (1.038)    83    482807 5.54328    5.543  80.00- 120.00   100.00
 17.590  17.590 (1.038)    55    302321                    31.29-  91.29    62.62
 17.590  17.590 (1.038)    56     95335                    0.00-  48.78    19.75
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 17.806  17.806 (1.051)    63    259404 5.15001    5.150  80.00- 120.00   100.00
 17.806  17.806 (1.051)    62    168436                    34.19-  94.19    64.93
 17.806  17.806 (1.051)    41    148736                    27.38-  87.38    57.34
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.927  17.927 (1.058)    88    192076 5.09179    5.092  80.00- 120.00   100.00
 17.927  17.927 (1.058)    58    106548                    25.03-  85.03    55.47
 17.927  17.927 (1.058)    57     35925                    0.00-  50.67    18.70
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.240  18.240 (1.077)    83    697441 5.37224    5.372  80.00- 120.00   100.00
 18.240  18.240 (1.077)    85    450344                    35.15-  95.15    64.57
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 19.086  19.063 (1.127)    75    476570 4.92618    4.926  80.00- 120.00   100.00
 19.086  19.086 (1.127)    77    154496                    0.45-  60.45    32.42
 19.086  19.063 (1.127)    39    198807                    13.69-  73.69    41.72
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.265  19.265 (1.137)    43    427897 5.30043    5.300  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
145 4-Methyl-2-pentanone (continued)							
19.265	19.265 (1.137)	58	195202			15.64- 75.64	45.62
19.265	19.265 (1.137)	85	112616			0.00- 56.71	26.32
$ 146 Toluene-d8					CAS #: 2037-26-5		
19.556	19.556 (1.155)	98	635224	4.95449	4.954	80.00- 120.00	100.00
19.579	19.556 (1.156)	70	67109			0.00- 40.11	10.56
19.556	19.556 (1.155)	100	421637			37.58- 97.58	66.38
147 Toluene					CAS #: 108-88-3		
19.713	19.713 (1.164)	91	963209	5.16911	5.169	80.00- 120.00	100.00
19.713	19.713 (1.164)	92	569302			28.92- 88.92	59.10
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
20.276	20.276 (0.907)	75	496809	5.46662	5.467	80.00- 120.00	100.00
20.276	20.276 (0.907)	77	152415			0.55- 60.55	30.68
20.276	20.276 (0.907)	39	177791			8.25- 68.25	35.79
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.688	20.688 (0.925)	97	350340	4.95206	4.952	80.00- 120.00	100.00
20.688	20.688 (0.925)	99	222924			32.91- 92.91	63.63
20.688	20.688 (0.925)	83	282375			47.93- 107.93	80.60
156 Tetrachloroethene					CAS #: 127-18-4		
20.853	20.853 (0.932)	166	573157	5.25778	5.258	80.00- 120.00	100.00
20.853	20.853 (0.932)	129	414882			42.31- 102.31	72.39
20.853	20.853 (0.932)	131	418933			40.11- 100.11	73.09
158 2-Hexanone					CAS #: 591-78-6		
21.018	21.018 (0.940)	58	254565	5.59135	5.591	80.00- 120.00	100.00
21.018	21.018 (0.940)	43	419572			140.44- 200.44	164.82
21.018	21.018 (0.940)	100	68514			0.00- 59.62	26.91
160 Dibromochloromethane					CAS #: 124-48-1		
21.430	21.430 (0.958)	129	775632	5.40067	5.401	80.00- 120.00	100.00
21.430	21.430 (0.958)	127	598968			46.82- 106.82	77.22
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.677	21.677 (0.969)	107	590995	5.44364	5.444	80.00- 120.00	100.00
21.677	21.677 (0.969)	109	544972			65.45- 125.45	92.21
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.365	22.366 (1.000)	117	586945	5.00000		80.00- 120.00	100.00
22.365	22.366 (1.000)	82	294565			20.64- 80.64	50.19
165 Chlorobenzene					CAS #: 108-90-7		
22.407	22.407 (1.002)	112	823817	5.18769	5.188	80.00- 120.00	100.00

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  165 Chlorobenzene (continued)
 22.407  22.407 (1.002)   114    269357                     2.42-  62.42    32.70
 22.407  22.407 (1.002)    77    435716                    23.54-  83.54    52.89
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 22.490  22.490 (1.006)   106    392171 5.07068    5.071  80.00- 120.00   100.00
 22.490  22.490 (1.006)    91   1260593                  282.51- 342.51   321.44
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 22.656  22.656 (1.013)   106    497840 5.54111    5.541  80.00- 120.00   100.00
 22.656  22.656 (1.013)    91    974635                  166.46- 226.46   195.77
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 23.257  23.257 (1.040)   106    459807 5.57960    5.580  80.00- 120.00   100.00
 23.257  23.257 (1.040)    91    994546                  184.01- 244.01   216.30
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 23.298  23.298 (1.042)   104    774064 5.55087    5.551  80.00- 120.00   100.00
 23.278  23.278 (1.041)    78    384577                   20.27-  80.27    49.68
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 23.639  23.639 (1.057)   173   1024346 7.19892    7.199  80.00- 120.00   100.00
 23.639  23.639 (1.057)   171    518922                   20.88-  80.88    50.66
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 23.728  23.728 (1.061)   105   1517599 5.41638    5.416  80.00- 120.00   100.00
 23.728  23.728 (1.061)   120    419494                    0.00-  57.47    27.64
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 24.020  24.020 (1.074)   174    396891 4.92804    4.928  80.00- 120.00   100.00
 24.020  24.020 (1.074)    95    420081                   77.42- 137.42   105.84
 24.020  24.020 (1.074)   176    386544                   65.38- 125.38    97.39
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 24.199  24.199 (1.082)    83    698007 5.34930    5.349  80.00- 120.00   100.00
 24.199  24.199 (1.082)    85    454731                   35.73-  95.73    65.15
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 24.267  24.267 (1.085)    91   1597044 5.41170    5.412  80.00- 120.00   100.00
 24.267  24.267 (1.085)   120    394439                    0.00-  55.24    24.70
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 24.401  24.401 (1.091)   105   1305575 5.21966    5.220  80.00- 120.00   100.00
 24.401  24.401 (1.091)   120    397334                    1.08-  61.08    30.43
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 24.468  24.469 (1.094)   105   1028663 5.29577    5.296  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene (continued)							
24.468	24.469 (1.094)	120	512304			18.44- 78.44	49.80
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.917	24.917 (1.114)	105	838509	4.98251	4.982	80.00- 120.00	100.00
24.917	24.917 (1.114)	120	380400			16.20- 76.20	45.37
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.321	25.321 (1.132)	146	802773	5.05149	5.051	80.00- 120.00	100.00
25.321	25.321 (1.132)	148	506635			35.51- 95.51	63.11
25.321	25.321 (1.132)	111	303740			9.35- 69.35	37.84
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.433	25.433 (1.137)	146	747382	5.01502	5.015	80.00- 120.00	100.00
25.433	25.433 (1.137)	148	468727			32.61- 92.61	62.72
25.433	25.433 (1.137)	111	268700			6.90- 66.90	35.95
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.567	25.567 (1.143)	91	1038709	5.53922	5.539	80.00- 120.00	100.00
25.567	25.567 (1.143)	126	240904			0.00- 51.82	23.19
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.859	25.859 (1.156)	146	674763	4.94972	4.950	80.00- 120.00	100.00
25.859	25.859 (1.156)	148	425275			33.69- 93.69	63.03
25.859	25.859 (1.156)	111	269555			8.96- 68.96	39.95
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.607	27.607 (1.234)	180	291657	4.71826	4.718	80.00- 120.00	100.00
27.607	27.607 (1.234)	182	281766			66.05- 126.05	96.61
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.697	27.697 (1.238)	225	415709	4.94605	4.946	80.00- 120.00	100.00
27.697	27.697 (1.238)	223	252383			33.78- 93.78	60.71
228 Naphthalene					CAS #: 91-20-3		
27.921	27.921 (1.248)	128	29963	0.33196	0.3320	80.00- 120.00	100.00(a)
27.921	27.921 (1.248)	127	6168			0.00- 46.39	20.59

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 23-Mar-2016 08:55

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031716.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m
Misc Info: 5.0ppbv(50ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	164946	98968	230924	169157	2.55
123 1,4-Difluorobenze	626935	376161	877709	652823	4.13
163 Chlorobenzene-d5	567678	340607	794749	586945	3.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 23-Mar-2016 08:55

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 17Mar2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: ICV
Level: LOW
Operator: ea
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT09Bromo.spk
Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m
Misc Info: 5.0ppbv(50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.290	105.81	60-140
11 Freon 12	5.000	5.336	106.72	70-130
15 Freon 114	5.000	5.621	112.42	70-130
17 Chloromethane	5.000	5.390	107.79	70-130
23 Butane	5.000	5.562	111.25	60-140
25 Vinyl Chloride	5.000	5.496	109.93	70-130
26 1,3-Butadiene	5.000	5.146	102.93	70-130
29 Bromomethane	5.000	5.421	108.42	70-130
30 Chloroethane	5.000	5.916	118.32	70-130
31 Isopentane	5.000	5.489	109.78	60-140
35 Freon 11	5.000	5.203	104.07	70-130
42 Ethanol	5.000	6.137	122.74	70-130
49 Freon 113	5.000	5.539	110.77	70-130
50 1,1-Dichloroethene	5.000	5.287	105.74	70-130
52 Acetone	5.000	5.156	103.13	70-130
56 Carbon Disulfide	5.000	4.525	90.50	70-130
57 2-Propanol	5.000	5.713	114.26	70-130
58 3-Chloropropene	5.000	5.263	105.27	70-130
66 Methylene Chloride	5.000	5.079	101.58	70-130
72 Methyl tert-butyl	5.000	5.214	104.29	70-130
73 trans-1,2-Dichloro	4.250	4.605	108.35	70-130
78 Hexane	5.000	5.523	110.47	70-130
82 1,1-Dichloroethane	5.000	5.297	105.95	70-130
86 Vinyl Acetate	5.000	5.213	104.26	60-140
91 cis-1,2-Dichloroet	5.650	5.903	104.47	70-130
92 2-Butanone	5.000	5.560	111.21	70-130
99 Tetrahydrofuran	5.000	5.577	111.55	70-130
100 Chloroform	5.000	5.187	103.74	70-130
103 1,1,1-Trichloroeth	5.000	5.122	102.44	70-130
106 Carbon Tetrachlori	5.000	5.497	109.94	70-130
102 Cyclohexane	5.000	5.526	110.52	70-130
113 2,2,4-Trimethylpen	5.000	5.068	101.35	70-130
116 Benzene	5.000	5.002	100.05	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	5.091	101.82	70-130
121 Heptane	5.000	5.310	106.20	70-130
125 Trichloroethene	5.000	5.329	106.58	70-130
127 Methylcyclohexane	5.000	5.543	110.87	60-140
132 1,2-Dichloropropan	5.000	5.150	103.00	70-130
136 1,4-Dioxane	5.000	5.092	101.84	70-130
138 Bromodichlorometha	5.000	5.372	107.44	70-130
144 cis-1,3-Dichloropr	5.000	4.926	98.52	70-130
145 4-Methyl-2-pentano	5.000	5.300	106.01	70-130
147 Toluene	5.000	5.169	103.38	70-130
150 trans-1,3-Dichloro	5.000	5.467	109.33	70-130
155 1,1,2-Trichloroeth	5.000	4.952	99.04	70-130
156 Tetrachloroethene	5.000	5.258	105.16	70-130
158 2-Hexanone	5.000	5.591	111.83	70-130
160 Dibromochlorometha	5.000	5.401	108.01	70-130
161 1,2-Dibromoethane	5.000	5.444	108.87	70-130
165 Chlorobenzene	5.000	5.188	103.75	70-130
167 Ethyl Benzene	5.000	5.071	101.41	70-130
169 m,p-Xylene	5.000	5.541	110.82	70-130
171 o-Xylene	5.000	5.580	111.59	70-130
172 Styrene	5.000	5.551	111.02	70-130
174 Bromoform	6.500	7.199	110.75	70-130
175 Cumene	5.000	5.416	108.33	70-130
181 1,1,2,2-Tetrachlor	5.000	5.349	106.99	70-130
182 Propylbenzene	5.000	5.412	108.23	70-130
188 4-Ethyltoluene	5.000	5.220	104.39	70-130
190 1,3,5-Trimethylben	5.000	5.296	105.92	70-130
196 1,2,4-Trimethylben	5.000	4.982	99.65	70-130
208 1,3-Dichlorobenzen	5.000	5.051	101.03	70-130
209 1,4-Dichlorobenzen	5.000	5.015	100.30	70-130
212 alpha-Chlorotoluen	5.000	5.539	110.78	70-130
214 1,2-Dichlorobenzen	5.000	4.950	98.99	70-130
226 1,2,4-Trichloroben	5.000	4.718	94.37	70-130
227 Hexachlorobutadien	5.000	4.946	98.92	70-130
228 Naphthalene	0.5000	0.3320	66.39	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.750	95.00	70-130
$ 146 Toluene-d8	5.000	4.954	99.09	70-130
$ 177 4-Bromofluorobenze	5.000	4.928	98.56	70-130

Data File: /chem/msde.i/17Mar2016.b/e031716.d

Date : 17-MAR-2016 22:08

Client ID:

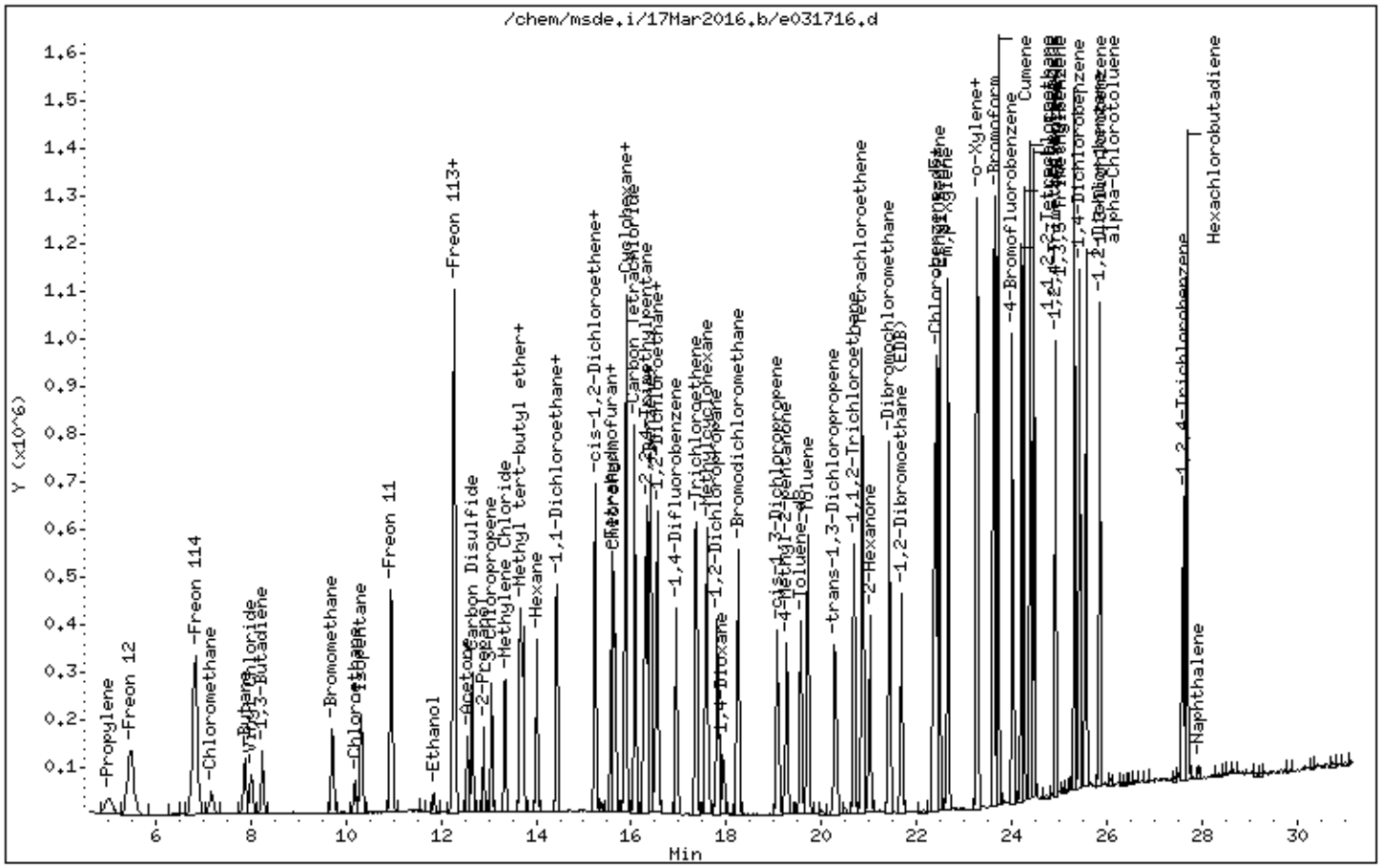
Instrument: msde.i

Sample Info: 25mL#2789-6

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/09May2016.b/e050916.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 09-MAY-2016 21:23
Operator : tar Inst ID: msde.i
Smp Info : 50mL #2789-128
Misc Info : 1.0ppbv (5.0ppbv) AT-1
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/09May2016.b/e16l0317d.m
Meth Date : 10-May-2016 10:48 efinn Quant Type: ISTD
Cal Date : 09-MAY-2016 12:03 Cal File: e050908.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1CCV.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE		RATIO
13 Chlorodifluoromethane					CAS #: 75-45-6			
6.353	5.962 (0.413)	51	705	0.05878	0.05878	0.00-	0.00	100.00(a)
0.000	5.962 (0.000)	67	0			0.00-	0.00	0.00
0.000	5.962 (0.000)	85	0			0.00-	0.00	0.00
59 Cyclopentene					CAS #: 142-29-0			
12.899	12.900 (0.838)	67	72416	0.96078	0.9608	0.00-	0.00	100.00(a)
12.899	12.900 (0.838)	68	31038			0.00-	0.00	42.86
12.919	12.900 (0.839)	53	12612			0.00-	0.00	17.42
84 1-Propanol					CAS #: 71-23-8			
14.384	14.357 (0.935)	59	5945	0.96695	0.9669	0.00-	0.00	100.00(a)
14.384	14.357 (0.935)	42	3792			0.00-	0.00	63.78
14.384	14.385 (0.935)	41	3117			0.00-	0.00	52.43
90 2,2-Dichloropropane					CAS #: 594-20-7			
15.008	15.009 (0.975)	77	77495	0.88106	0.8811	0.00-	0.00	100.00(a)
15.008	15.009 (0.975)	79	24128			0.00-	0.00	31.13
15.008	15.009 (0.975)	97	14605			0.00-	0.00	18.85

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
15.391	15.391 (1.000)	130	135355	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	102471			52.25- 112.25	75.71
15.391	15.391 (1.000)	49	94823			89.81- 149.81	70.06
107 1,1-Dichloropropene						CAS #: 563-58-6	
15.884	15.885 (1.032)	110	22653	0.89579	0.8958	0.00- 0.00	100.00(a)
15.884	15.885 (1.032)	75	54120			0.00- 0.00	238.91
115 Isobutanol						CAS #: 78-83-1	
15.977	15.977 (1.038)	43	20433	0.75356	0.7536	0.00- 0.00	100.00(a)
15.977	15.977 (1.038)	41	15071			0.00- 0.00	73.76
15.977	15.977 (1.038)	55	2198			0.00- 0.00	10.76
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
16.183	16.183 (1.051)	65	176118	4.53240	4.532	80.00- 120.00	100.00
16.207	16.183 (1.053)	67	83304			21.16- 81.16	47.30
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
16.737	16.737 (1.000)	114	491123	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	68885			0.00- 45.20	14.03
124 n-Butanol						CAS #: 71-36-3	
16.906	16.882 (1.010)	56	30544	0.69198	0.6920	0.00- 0.00	100.00(a)
16.906	16.906 (1.010)	41	22915			0.00- 0.00	75.02
16.906	16.882 (1.010)	43	17173			0.00- 0.00	56.22
$ 146 Toluene-d8						CAS #: 2037-26-5	
19.275	19.276 (1.152)	98	461753	4.78726	4.787	80.00- 120.00	100.00
19.275	19.276 (1.152)	70	48959			0.00- 40.11	10.60
19.275	19.276 (1.152)	100	302057			37.58- 97.58	65.42
157 1,3-Dichloropropane						CAS #: 142-28-9	
20.822	20.795 (0.939)	76	62106	0.81703	0.8170	0.00- 0.00	100.00(a)
20.822	20.795 (0.939)	41	31641			0.00- 0.00	50.95
20.795	20.795 (0.938)	78	21112			0.00- 0.00	33.99
159 Butyl Acetate						CAS #: 123-86-4	
20.905	20.905 (0.943)	56	10195	1.37408	1.374	0.00- 0.00	100.00(a)
20.905	20.905 (0.943)	73	5959			0.00- 0.00	58.45
20.905	20.905 (0.943)	43	20173			0.00- 0.00	197.87
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
22.177	22.177 (1.000)	117	440891	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	214966			20.64- 80.64	48.76

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 22.343  22.343 (1.007)   131     71901 0.81622   0.8162   0.00-   0.00   100.00(a)
 22.343  22.343 (1.007)   117     43579                    0.00-   0.00    60.61
 22.343  22.343 (1.007)    95     26486                    0.00-   0.00    36.84
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 23.214  23.214 (1.047)    58     34861 0.76394   0.7639   0.00-   0.00   100.00(a)
 23.214  23.214 (1.047)    43     49421                    0.00-   0.00   141.77
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 23.811  23.811 (1.074)    55     25263 0.66478   0.6648   0.00-   0.00   100.00(a)
 23.811  23.811 (1.074)    98     21856                    0.00-   0.00    86.51
 23.811  23.811 (1.074)    42     18092                    0.00-   0.00    71.61
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 23.856  23.856 (1.076)   174    308018 5.09149    5.091  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    306680                   77.42- 137.42    99.57
 23.856  23.856 (1.076)   176    297131                   65.38- 125.38    96.47
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 24.080  24.080 (1.086)   156     72331 0.81629   0.8163   0.00-   0.00   100.00(a)
 24.080  24.080 (1.086)   158     72296                    0.00-   0.00    99.95
 24.080  24.080 (1.086)    77     84008                    0.00-   0.00   116.14
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 24.125  24.125 (1.088)   110     30299 0.85152   0.8515   0.00-   0.00   100.00(a)
 24.125  24.125 (1.088)    75     70264                    0.00-   0.00   231.90
 24.125  24.125 (1.088)    61     14975                    0.00-   0.00    49.42
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 24.282  24.282 (1.095)   126     48045 0.84500   0.8450   0.00-   0.00   100.00(a)
 24.282  24.282 (1.095)    91    120041                    0.00-   0.00   249.85
 24.282  24.282 (1.095)    65     11051                    0.00-   0.00    23.00
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 24.416  24.417 (1.101)   126     43606 0.82739   0.8274   0.00-   0.00   100.00(a)
 24.416  24.417 (1.101)    91    116181                    0.00-   0.00   266.43
 24.416  24.417 (1.101)    63     14358                    0.00-   0.00    32.93
-------------------------------------------------------------------------------
  195 tert-Butylbenzene                            CAS #: 98-06-6
 24.708  24.708 (1.114)   119    121525 0.81796   0.8180   0.00-   0.00   100.00(a)
 24.708  24.708 (1.114)   134     30795                    0.00-   0.00    25.34
 24.708  24.686 (1.114)    91     74251                    0.00-   0.00    61.10
-------------------------------------------------------------------------------
  197 Pentachloroethane                            CAS #: 76-01-7
 24.798  24.798 (1.118)   167     49293 0.81862   0.8186   0.00-   0.00   100.00(a)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
197 Pentachloroethane (continued)							
24.798	24.798 (1.118)	117	42145			0.00- 0.00	85.50
24.798	24.798 (1.118)	169	24625			0.00- 0.00	49.96
203 sec-Butylbenzene					CAS #: 135-98-8		
24.955	24.955 (1.125)	105	232187	0.82839	0.8284	0.00- 0.00	100.00(a)
24.955	24.955 (1.125)	134	39342			0.00- 0.00	16.94
24.955	24.955 (1.125)	91	37877			0.00- 0.00	16.31
207 p-Cymene					CAS #: 99-87-6		
25.089	25.089 (1.131)	119	133780	0.78152	0.7815	0.00- 0.00	100.00(a)
25.089	25.089 (1.131)	134	37689			0.00- 0.00	28.17
25.089	25.089 (1.131)	91	31764			0.00- 0.00	23.74
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
25.268	25.269 (1.139)	120	41361	0.75460	0.7546	0.00- 0.00	100.00(a)
25.268	25.269 (1.139)	105	97325			0.00- 0.00	235.31
25.268	25.246 (1.139)	77	11671			0.00- 0.00	28.22
213 Butylbenzene					CAS #: 104-51-8		
25.537	25.538 (1.152)	134	33258	0.77454	0.7745	0.00- 0.00	100.00(a)
25.537	25.538 (1.152)	91	112055			0.00- 0.00	336.93
25.537	25.538 (1.152)	92	59165			0.00- 0.00	177.90
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	58102	0.83451	0.8345	0.00- 0.00	100.00(a)
26.546	26.546 (1.197)	75	39555			0.00- 0.00	68.08
26.546	26.546 (1.197)	155	45092			0.00- 0.00	77.61

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e050916.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: tar
Method File: /chem/msde.i/09May2016.b/e16l0317d.m
Misc Info: 1.0ppbv (5.0ppbv) AT-1

Calibration Date: 09-MAY-2016
Calibration Time: 07:51
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	159373	95624	223122	135355	-15.07
123 1,4-Difluorobenze	624905	374943	874867	491123	-21.41
163 Chlorobenzene-d5	549919	329951	769887	440891	-19.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 10-May-2016 10:48

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 09May2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: ICV
Client Smp ID: ICV
Level: LOW
Operator: tar
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT1.spk
Quant Type: ISTD
Sublist File: AT1CCV.sub
Method File: /chem/msde.i/09May2016.b/e16l0317d.m
Misc Info: 1.0ppbv (5.0ppbv) AT-1

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
59 Cyclopentene	1.000	0.9608	96.08	60-140
84 1-Propanol	1.000	0.9669	96.69	60-140
90 2,2-Dichloropropan	1.000	0.8811	88.11	60-140
107 1,1-Dichloropropen	1.000	0.8958	89.58	60-140
115 Isobutanol	1.000	0.7536	75.36	60-140
124 n-Butanol	1.000	0.6920	69.20	60-140
157 1,3-Dichloropropan	1.000	0.8170	81.70	60-140
159 Butyl Acetate	1.000	1.374	137.41	60-140
168 1,1,1,2-Tetrachlor	1.000	0.8162	81.62	60-140
173 2-Heptanone	1.000	0.7639	76.39	60-140
176 Cyclohexanone	1.000	0.6648	66.48	60-140
180 Bromobenzene	1.000	0.8163	81.63	60-140
185 1,2,3-Trichloropro	1.000	0.8515	85.15	60-140
189 2-Chlorotoluene	1.000	0.8450	84.50	60-140
191 4-Chlorotoluene	1.000	0.8274	82.74	60-140
195 tert-Butylbenzene	1.000	0.8180	81.80	60-140
197 Pentachloroethane	1.000	0.8186	81.86	60-140
203 sec-Butylbenzene	1.000	0.8284	82.84	60-140
207 p-Cymene	1.000	0.7815	78.15	60-140
210 1,2,3-Trimethylben	1.000	0.7546	75.46	60-140
213 Butylbenzene	1.000	0.7745	77.45	60-140
221 1,2-Dibromo-3-chlo	1.000	0.8345	83.45	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.532	90.65	70-130
$ 146 Toluene-d8	5.000	4.787	95.75	70-130
$ 177 4-Bromofluorobenze	5.000	5.091	101.83	70-130

Data File: /chem/msde.i/09May2016.b/e050916.d

Date : 09-MAY-2016 21:23

Client ID: ICV

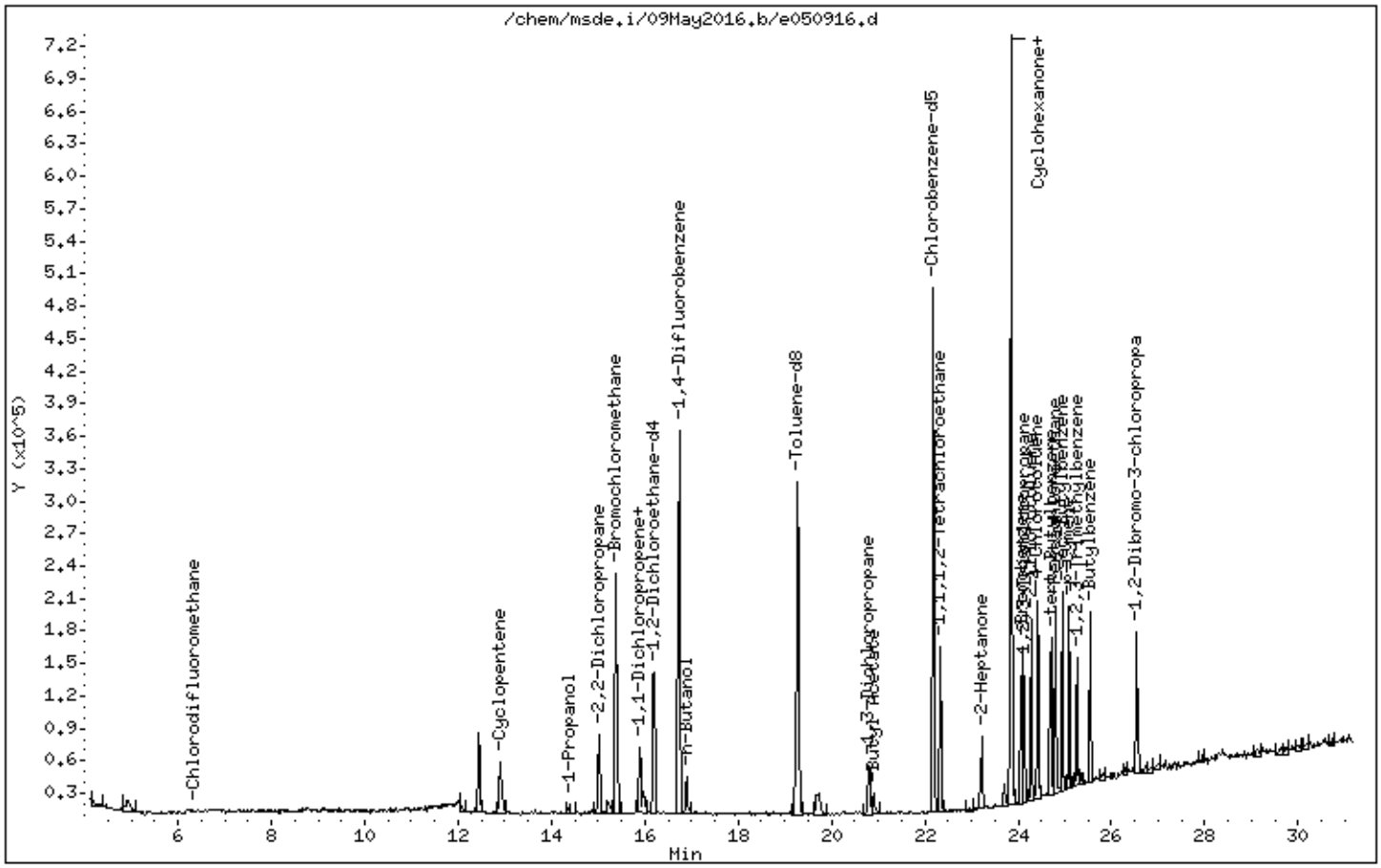
Instrument: msde.i

Sample Info: 50mL #2789-128

Operator: tar

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031706.d
Lab Smp Id: ICAL Client Smp ID: Level 5
Inj Date : 17-MAR-2016 14:00
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 2789-13
Misc Info : 0.05ppbv (0.05ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m
Meth Date : 23-Mar-2016 08:52 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 14:00 Cal File: e031706.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level5.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
15 Freon 114						CAS #: 76-14-2		
6.853	6.853	(0.440)	135	4437	0.05000	0.04939	80.00- 120.00	100.00(aM)
6.829	6.829	(0.438)	137	1019			1.31- 61.31	22.97
6.877	6.877	(0.441)	85	5388			93.88- 153.88	121.43
25 Vinyl Chloride						CAS #: 75-01-4		
8.010	8.010	(0.514)	62	1714	0.05000	0.05231	80.00- 120.00	100.00(Ta)
0.000	1.000	(0.000)	64	0			3.14- 63.14	0.00
35 Freon 11						CAS #: 75-69-4		
10.976	10.976	(0.704)	101	7769	0.05000	0.05878	80.00- 120.00	100.00(a)
10.957	10.957	(0.703)	103	5523			37.17- 97.17	71.09
49 Freon 113						CAS #: 76-13-1		
12.271	12.271	(0.788)	151	5511	0.05000	0.05564	80.00- 120.00	100.00(a)
12.271	12.271	(0.788)	153	3064			33.64- 93.64	55.60
12.271	12.271	(0.788)	101	4978			80.40- 140.40	90.33

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

*  98 Bromochloromethane                          CAS #: 74-97-5
 15.580  15.580 (1.000)   130    145928 5.00000           80.00- 120.00   100.00
 15.580  15.580 (1.000)   128    120155                   52.25- 112.25    82.34
 15.580  15.580 (1.000)    49    112169                   89.81- 149.81    76.87
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                         CAS #: 71-55-6
 15.888  15.888 (1.020)    97      7401 0.05000  0.06039  80.00- 120.00   100.00(a)
 15.888  15.888 (1.020)    99      3732                   34.21-  94.21    50.43
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
 16.073  16.073 (1.032)   119      7045 0.05000  0.05870  80.00- 120.00   100.00(a)
 16.073  16.073 (1.032)   117      6622                   74.09- 134.09    94.00
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.409  16.409 (1.053)    65    223295 5.00000    5.330  80.00- 120.00   100.00
 16.409  16.409 (1.053)    67    113990                   21.16-  81.16    51.05
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.529  16.529 (0.976)    62      3164 0.05000  0.04428  80.00- 120.00   100.00(a)
 16.505  16.505 (0.974)    64      1177                    1.03-  61.03    37.20
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.939  16.939 (1.000)   114    572111 5.00000           80.00- 120.00   100.00
 16.939  16.939 (1.000)    88     84310                    0.00-  45.20    14.74
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.373  17.373 (1.026)   130      3193 0.05000  0.04490  80.00- 120.00   100.00(a)
 17.373  17.373 (1.026)    95      3283                   63.99- 123.99   102.82
 17.349  17.349 (1.024)    97      2417                   29.21-  89.21    75.70
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 18.240  18.240 (1.077)    83      4865 0.05000  0.04276  80.00- 120.00   100.00(a)
 18.264  18.264 (1.078)    85      3652                   35.15-  95.15    75.07
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 19.556  19.556 (1.155)    98    557316 5.00000    4.960  80.00- 120.00   100.00
 19.556  19.556 (1.155)    70     60940                    0.00-  40.11    10.93
 19.556  19.556 (1.155)   100    367356                   37.58-  97.58    65.92
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                         CAS #: 79-00-5
 20.688  20.688 (0.925)    97      4438 0.05000  0.06880  80.00- 120.00   100.00(a)
 20.688  20.688 (0.925)    99      2109                   32.91-  92.91    47.52
 20.688  20.688 (0.925)    83      2785                   47.93- 107.93    62.75
-------------------------------------------------------------------------------
  156 Tetrachloroethene                             CAS #: 127-18-4
 20.881  20.881 (0.934)   166      4499 0.05000  0.04526  80.00- 120.00   100.00(a)
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  156 Tetrachloroethene (continued)
 20.853  20.853 (0.932)   129      3982                    42.31- 102.31    88.51
 20.853  20.853 (0.932)   131      3669                    40.11- 100.11    81.55
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 21.430  21.430 (0.958)   129      6075 0.05000  0.04639  80.00- 120.00   100.00(a)
 21.430  21.430 (0.958)   127      4659                    46.82- 106.82    76.69
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                       CAS #: 106-93-4
 21.677  21.677 (0.969)   107      4895 0.05000  0.04945  80.00- 120.00   100.00(a)
 21.677  21.677 (0.969)   109      4954                    65.45- 125.45   101.21
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.365  22.365 (1.000)   117    535201 5.00000           80.00- 120.00   100.00
 22.365  22.365 (1.000)    82    272131                    20.64-  80.64    50.85
-------------------------------------------------------------------------------
  174 Bromoform                                     CAS #: 75-25-2
 23.639  23.639 (1.057)   173      6011 0.05000  0.04633  80.00- 120.00   100.00(a)
 23.639  23.639 (1.057)   171      3802                    20.88-  80.88    63.25
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 24.020  24.020 (1.074)   174    360362 5.00000    4.907  80.00- 120.00   100.00
 24.020  24.020 (1.074)    95    388817                    77.42- 137.42   107.90
 24.020  24.020 (1.074)   176    350335                    65.38- 125.38    97.22
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 24.199  24.199 (1.082)    83      6676 0.05000  0.05611  80.00- 120.00   100.00(a)
 24.199  24.199 (1.082)    85      4717                    35.73-  95.73    70.66
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 24.401  24.401 (1.091)   105     12874 0.05000  0.05645  80.00- 120.00   100.00(a)
 24.401  24.401 (1.091)   120      2729                     1.08-  61.08    21.20
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 24.469  24.469 (1.094)   105      8520 0.05000  0.04810  80.00- 120.00   100.00(a)
 24.469  24.469 (1.094)   120      3524                    18.44-  78.44    41.36
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.917  24.917 (1.114)   105      9862 0.05000  0.06427  80.00- 120.00   100.00(a)
 24.939  24.939 (1.115)   120      3472                    16.20-  76.20    35.21
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 25.321  25.321 (1.132)   146      9018 0.05000  0.06223  80.00- 120.00   100.00(a)
 25.321  25.321 (1.132)   148      6515                    35.51-  95.51    72.24
 25.321  25.321 (1.132)   111      2878                     9.35-  69.35    31.91
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.433	25.433 (1.137)	146	9064	0.05000	0.06670	80.00- 120.00	100.00(a)
25.433	25.433 (1.137)	148	5129			32.61- 92.61	56.59
25.433	25.433 (1.137)	111	3592			6.90- 66.90	39.63
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.859	25.859 (1.156)	146	7045	0.05000	0.05667	80.00- 120.00	100.00(a)
25.859	25.859 (1.156)	148	5549			33.69- 93.69	78.77
25.859	25.859 (1.156)	111	2782			8.96- 68.96	39.49
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.607	27.607 (1.234)	180	3816	0.05000	0.06770	80.00- 120.00	100.00(a)
27.607	27.607 (1.234)	182	3642			66.05- 126.05	95.44

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031706.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m
Misc Info: 0.05ppbv (0.05ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 5
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	164946	98968	230924	145928	-11.53
123 1,4-Difluorobenze	626935	376161	877709	572111	-8.74
163 Chlorobenzene-d5	567678	340607	794749	535201	-5.72

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031706.d

Date : 17-MAR-2016 14:00

Client ID: Level 5

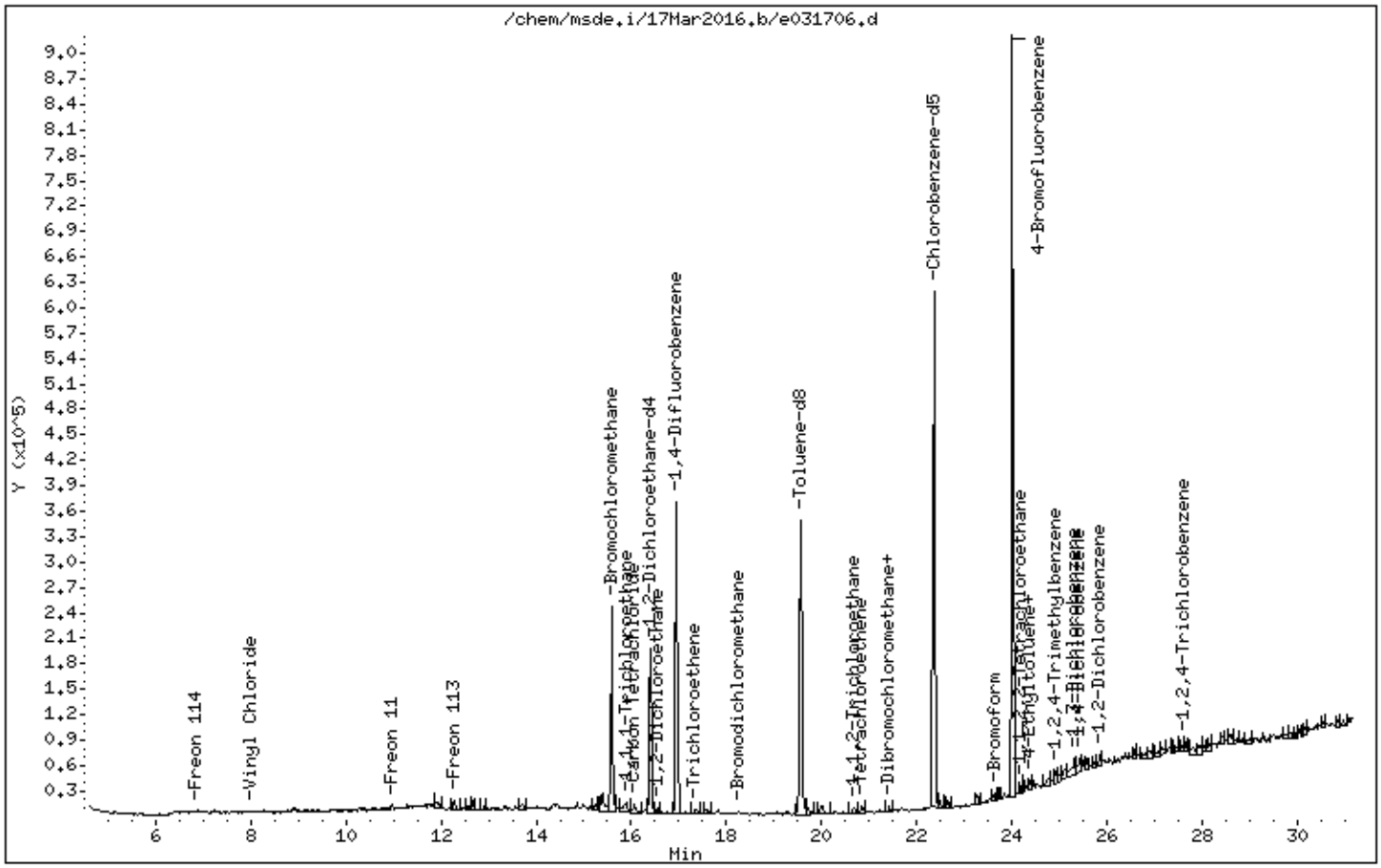
Instrument: msde.i

Sample Info: 250mL# 2789-13

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031707.d
Lab Smp Id: ICAL Client Smp ID: Level 6
Inj Date : 17-MAR-2016 15:07
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-14
Misc Info : 0.1ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m
Meth Date : 23-Mar-2016 08:52 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 15:07 Cal File: e031707.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level6.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
5.503	5.503 (0.353)	85	15532	0.10000	0.1217	80.00- 120.00	100.00(a)
5.479	5.479 (0.352)	87	2362			2.00- 62.00	15.21
15 Freon 114					CAS #: 76-14-2		
6.829	6.829 (0.438)	135	11352	0.10000	0.1216	80.00- 120.00	100.00(a)
6.805	6.805 (0.437)	137	2959			1.31- 61.31	26.07
6.805	6.805 (0.437)	85	12892			93.88- 153.88	113.57
17 Chloromethane					CAS #: 74-87-3		
7.167	7.167 (0.460)	50	2718	0.10000	0.1123	80.00- 120.00	100.00(a)
7.215	7.215 (0.463)	52	1236			5.50- 65.50	45.47
25 Vinyl Chloride					CAS #: 75-01-4		
8.010	8.010 (0.514)	62	4021	0.10000	0.1181	80.00- 120.00	100.00(a)
7.993	7.993 (0.513)	64	1986			3.14- 63.14	49.39

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
26 1,3-Butadiene					CAS #: 106-99-0		
8.271	8.271 (0.531)	54	2678	0.10000	0.1169	80.00- 120.00	100.00(a)
8.253	8.253 (0.530)	39	2419			65.21- 125.21	90.33
29 Bromomethane					CAS #: 74-83-9		
9.729	9.729 (0.624)	94	4903	0.10000	0.1319	80.00- 120.00	100.00(a)
9.729	9.729 (0.624)	96	5609			64.16- 124.16	114.40
35 Freon 11					CAS #: 75-69-4		
10.938	10.938 (0.702)	101	15806	0.10000	0.1151	80.00- 120.00	100.00(a)
10.957	10.957 (0.703)	103	10474			37.17- 97.17	66.27
49 Freon 113					CAS #: 76-13-1		
12.271	12.271 (0.788)	151	12081	0.10000	0.1174	80.00- 120.00	100.00(a)
12.271	12.271 (0.788)	153	7680			33.64- 93.64	63.57
12.271	12.271 (0.788)	101	12864			80.40- 140.40	106.48
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.290	12.290 (0.789)	98	3538	0.10000	0.1232	80.00- 120.00	100.00(a)
12.290	12.290 (0.789)	61	8394			204.89- 264.89	237.25
12.290	12.290 (0.789)	96	7675			127.69- 187.69	216.93
58 3-Chloropropene					CAS #: 107-05-1		
13.071	13.071 (0.839)	76	1813	0.10000	0.09480	80.00- 120.00	100.00(a)
13.071	13.071 (0.839)	41	3663			163.76- 223.76	202.04
66 Methylene Chloride					CAS #: 75-09-2		
13.337	13.337 (0.856)	84	5686	0.10000	0.1414	80.00- 120.00	100.00(a)
13.337	13.337 (0.856)	49	4600			63.99- 123.99	80.90
13.337	13.337 (0.856)	51	1797			0.29- 60.29	31.60
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.674	13.674 (0.878)	73	15018	0.10000	0.1168	80.00- 120.00	100.00(a)
13.674	13.674 (0.878)	57	2111			0.00- 48.26	14.06
13.674	13.674 (0.878)	41	2851			0.00- 45.58	18.98
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.729	13.729 (0.881)	98	3344	0.10000	0.1147	80.00- 120.00	100.00(a)
13.729	13.729 (0.881)	61	6065			155.28- 215.28	181.37
13.729	13.729 (0.881)	96	5831			126.18- 186.18	174.37
78 Hexane					CAS #: 110-54-3		
14.031	14.031 (0.901)	57	5877	0.10000	0.1171	80.00- 120.00	100.00(a)
14.003	14.003 (0.899)	43	3467			21.48- 81.48	58.99
14.031	14.031 (0.901)	86	1377			0.00- 51.51	23.43

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane                            CAS #: 75-34-3
 14.415  14.415 (0.925)    63      8161 0.10000   0.1069  80.00- 120.00   100.00(a)
 14.415  14.415 (0.925)    65      3398                    1.78-  61.78    41.64
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 15.240  15.240 (0.978)    98      3822 0.10000   0.1198  80.00- 120.00   100.00(a)
 15.240  15.240 (0.978)    61      7885                  145.90- 205.90   206.31
 15.240  15.240 (0.978)    96      6419                  125.53- 185.53   167.95
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.580  15.580 (1.000)   130    151678 5.00000           80.00- 120.00   100.00
 15.580  15.580 (1.000)   128    124531                   52.25- 112.25    82.10
 15.580  15.580 (1.000)    49    118326                   89.81- 149.81    78.01
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.641  15.641 (1.004)    83     14514 0.10000   0.1325  80.00- 120.00   100.00(a)
 15.641  15.641 (1.004)    85      8573                   33.97-  93.97    59.07
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.888  15.888 (1.020)    84      5999 0.10000   0.1056  80.00- 120.00   100.00
 15.888  15.888 (1.020)    56      5736                   58.69- 118.69    95.62
 15.888  15.888 (1.020)    41      4124                   18.98-  78.98    68.74
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.888  15.888 (1.020)    97     14420 0.10000   0.1132  80.00- 120.00   100.00(a)
 15.888  15.888 (1.020)    99      9245                   34.21-  94.21    64.11
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 16.073  16.073 (1.032)   119     12362 0.10000  0.09909  80.00- 120.00   100.00(a)
 16.073  16.073 (1.032)   117     14459                   74.09- 134.09   116.96
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 16.313  16.313 (1.047)    56      8569 0.10000   0.1349  80.00- 120.00   100.00(a)
 16.313  16.313 (1.047)    57     22019                  306.64- 366.64   256.96
 16.313  16.313 (1.047)    41      7926                   64.14- 124.14    92.50
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.409  16.409 (0.969)    78     20674 0.10000   0.1484  80.00- 120.00   100.00(a)
 16.409  16.409 (0.969)    77      5049                    0.00-  53.97    24.42
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.409  16.409 (1.053)    65    225657 5.00000    5.182  80.00- 120.00   100.00
 16.409  16.409 (1.053)    67    111012                   21.16-  81.16    49.20
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                          CAS #: 107-06-2
 16.505  16.505 (0.974)    62      9661 0.10000   0.1331  80.00- 120.00   100.00
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  120 1,2-Dichloroethane (continued)
 16.505  16.505 (0.974)    64      2336                     1.03-  61.03    24.18
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 16.554  16.554 (0.977)    57      4225 0.10000   0.1280  80.00- 120.00   100.00(a)
 16.554  16.554 (0.977)   100      1996                   28.67-  88.67    47.24
 16.554  16.554 (0.977)    43      6368                  128.92- 188.92   150.72
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.939  16.939 (1.000)   114    581157 5.00000           80.00- 120.00   100.00
 16.939  16.939 (1.000)    88     87386                    0.00-  45.20    15.04
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 17.373  17.373 (1.026)   130      8436 0.10000   0.1168  80.00- 120.00   100.00(a)
 17.373  17.373 (1.026)    95      7276                   63.99- 123.99    86.25
 17.349  17.349 (1.024)    97      5800                   29.21-  89.21    68.75
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 17.806  17.806 (1.051)    63      5751 0.10000   0.1282  80.00- 120.00   100.00(a)
 17.806  17.806 (1.051)    62      3381                   34.19-  94.19    58.79
 17.806  17.806 (1.051)    41      5102                   27.38-  87.38    88.72
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.951  17.951 (1.060)    88      3892 0.10000   0.1159  80.00- 120.00   100.00(a)
 17.927  17.927 (1.058)    58      2661                   25.03-  85.03    68.37
 17.951  17.951 (1.060)    57       617                    0.00-  50.67    15.85
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.240  18.240 (1.077)    83     13038 0.10000   0.1128  80.00- 120.00   100.00(a)
 18.240  18.240 (1.077)    85      8550                   35.15-  95.15    65.58
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 19.086  19.086 (1.127)    75      9008 0.10000   0.1046  80.00- 120.00   100.00(a)
 19.108  19.108 (1.128)    77      3755                    0.45-  60.45    41.69
 19.086  19.086 (1.127)    39      4222                   13.69-  73.69    46.87
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.265  19.265 (1.137)    43      7974 0.10000   0.1110  80.00- 120.00   100.00(a)
 19.265  19.265 (1.137)    58      3008                   15.64-  75.64    37.72
 19.265  19.265 (1.137)    85      2195                    0.00-  56.71    27.53
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.556  19.556 (1.155)    98    558217 5.00000    4.891  80.00- 120.00   100.00
 19.556  19.556 (1.155)    70     59804                    0.00-  40.11    10.71
 19.556  19.556 (1.155)   100    372369                   37.58-  97.58    66.71
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
147 Toluene					CAS #: 108-88-3		
19.713	19.713 (1.164)	91	20023	0.10000	0.1207	80.00- 120.00	100.00(a)
19.713	19.713 (1.164)	92	12037			28.92- 88.92	60.12
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
20.304	20.304 (0.908)	75	9118	0.10000	0.1120	80.00- 120.00	100.00(a)
20.276	20.276 (0.907)	77	5077			0.55- 60.55	55.68
20.276	20.276 (0.907)	39	5238			8.25- 68.25	57.45
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.688	20.688 (0.925)	97	7479	0.10000	0.1181	80.00- 120.00	100.00(a)
20.688	20.688 (0.925)	99	4557			32.91- 92.91	60.93
20.688	20.688 (0.925)	83	5862			47.93- 107.93	78.38
156 Tetrachloroethene					CAS #: 127-18-4		
20.853	20.853 (0.932)	166	12135	0.10000	0.1243	80.00- 120.00	100.00(a)
20.853	20.853 (0.932)	129	8765			42.31- 102.31	72.23
20.853	20.853 (0.932)	131	8190			40.11- 100.11	67.49
160 Dibromochloromethane					CAS #: 124-48-1		
21.430	21.430 (0.958)	129	14276	0.10000	0.1110	80.00- 120.00	100.00(a)
21.430	21.430 (0.958)	127	12542			46.82- 106.82	87.85
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.677	21.677 (0.969)	107	11099	0.10000	0.1142	80.00- 120.00	100.00(a)
21.677	21.677 (0.969)	109	10655			65.45- 125.45	96.00
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.366	22.366 (1.000)	117	525520	5.00000		80.00- 120.00	100.00
22.366	22.366 (1.000)	82	266443			20.64- 80.64	50.70
165 Chlorobenzene					CAS #: 108-90-7		
22.407	22.407 (1.002)	112	17069	0.10000	0.1200	80.00- 120.00	100.00(a)
22.407	22.407 (1.002)	114	5403			2.42- 62.42	31.65
22.407	22.407 (1.002)	77	13966			23.54- 83.54	81.82
167 Ethyl Benzene					CAS #: 100-41-4		
22.490	22.490 (1.006)	106	8810	0.10000	0.1272	80.00- 120.00	100.00(a)
22.490	22.490 (1.006)	91	24513			282.51- 342.51	278.24
169 m,p-Xylene					CAS #: 108-38-3		
22.656	22.656 (1.013)	106	8327	0.10000	0.1035	80.00- 120.00	100.00(a)
22.656	22.656 (1.013)	91	19172			166.46- 226.46	230.24
171 o-Xylene					CAS #: 95-47-6		
23.257	23.257 (1.040)	106	6828	0.10000	0.09254	80.00- 120.00	100.00(a)

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  171 o-Xylene (continued)
 23.257  23.257 (1.040)    91     19359                   184.01- 244.01   283.52
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 23.298  23.298 (1.042)   104     12951 0.10000   0.1037  80.00- 120.00   100.00(a)
 23.298  23.298 (1.042)    78      6242                    20.27-  80.27    48.20
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 23.639  23.639 (1.057)   173     13560 0.10000   0.1064  80.00- 120.00   100.00(a)
 23.639  23.639 (1.057)   171      7383                    20.88-  80.88    54.45
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 23.728  23.728 (1.061)   105     27919 0.10000   0.1113  80.00- 120.00   100.00(a)
 23.728  23.728 (1.061)   120      7113                     0.00-  57.47    25.48
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 24.020  24.020 (1.074)   174    361205 5.00000    5.009  80.00- 120.00   100.00
 24.020  24.020 (1.074)    95    379821                    77.42- 137.42   105.15
 24.020  24.020 (1.074)   176    343883                    65.38- 125.38    95.20
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 24.199  24.199 (1.082)    83     13566 0.10000   0.1161  80.00- 120.00   100.00(a)
 24.199  24.199 (1.082)    85     10331                    35.73-  95.73    76.15
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 24.267  24.267 (1.085)    91     27467 0.10000   0.1040  80.00- 120.00   100.00(a)
 24.267  24.267 (1.085)   120      6686                     0.00-  55.24    24.34
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 24.401  24.401 (1.091)   105     24532 0.10000   0.1095  80.00- 120.00   100.00(a)
 24.401  24.401 (1.091)   120      6993                     1.08-  61.08    28.51
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 24.469  24.469 (1.094)   105     19423 0.10000   0.1117  80.00- 120.00   100.00(a)
 24.469  24.469 (1.094)   120      8148                    18.44-  78.44    41.95
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 24.917  24.917 (1.114)   105     16678 0.10000   0.1107  80.00- 120.00   100.00(a)
 24.939  24.939 (1.115)   120      6394                    16.20-  76.20    38.34
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                          CAS #: 541-73-1
 25.321  25.321 (1.132)   146     17035 0.10000   0.1197  80.00- 120.00   100.00(a)
 25.321  25.321 (1.132)   148     11334                    35.51-  95.51    66.53
 25.321  25.321 (1.132)   111      5841                     9.35-  69.35    34.29
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                          CAS #: 106-46-7
 25.433  25.433 (1.137)   146     13168 0.10000  0.09869  80.00- 120.00   100.00(a)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
209 1,4-Dichlorobenzene (continued)							
25.433	25.433 (1.137)	148	9584			32.61- 92.61	72.78
25.410	25.410 (1.136)	111	5420			6.90- 66.90	41.16
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.567	25.567 (1.143)	91	16312	0.10000	0.09716	80.00- 120.00	100.00(a)
25.567	25.567 (1.143)	126	4975			0.00- 51.82	30.50
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.859	25.859 (1.156)	146	13240	0.10000	0.1085	80.00- 120.00	100.00(a)
25.859	25.859 (1.156)	148	9306			33.69- 93.69	70.29
25.859	25.859 (1.156)	111	6349			8.96- 68.96	47.95
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.607	27.607 (1.234)	180	3537	0.10000	0.06391	80.00- 120.00	100.00(a)
27.607	27.607 (1.234)	182	4603			66.05- 126.05	130.14
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.697	27.697 (1.238)	225	6354	0.10000	0.08444	80.00- 120.00	100.00(a)
27.697	27.697 (1.238)	223	5078			33.78- 93.78	79.92

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031707.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m
Misc Info: 0.1ppbv (1.0ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 6
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	164946	98968	230924	151678	-8.04
123 1,4-Difluorobenze	626935	376161	877709	581157	-7.30
163 Chlorobenzene-d5	567678	340607	794749	525520	-7.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031707.d

Date : 17-MAR-2016 15:07

Client ID: Level 6

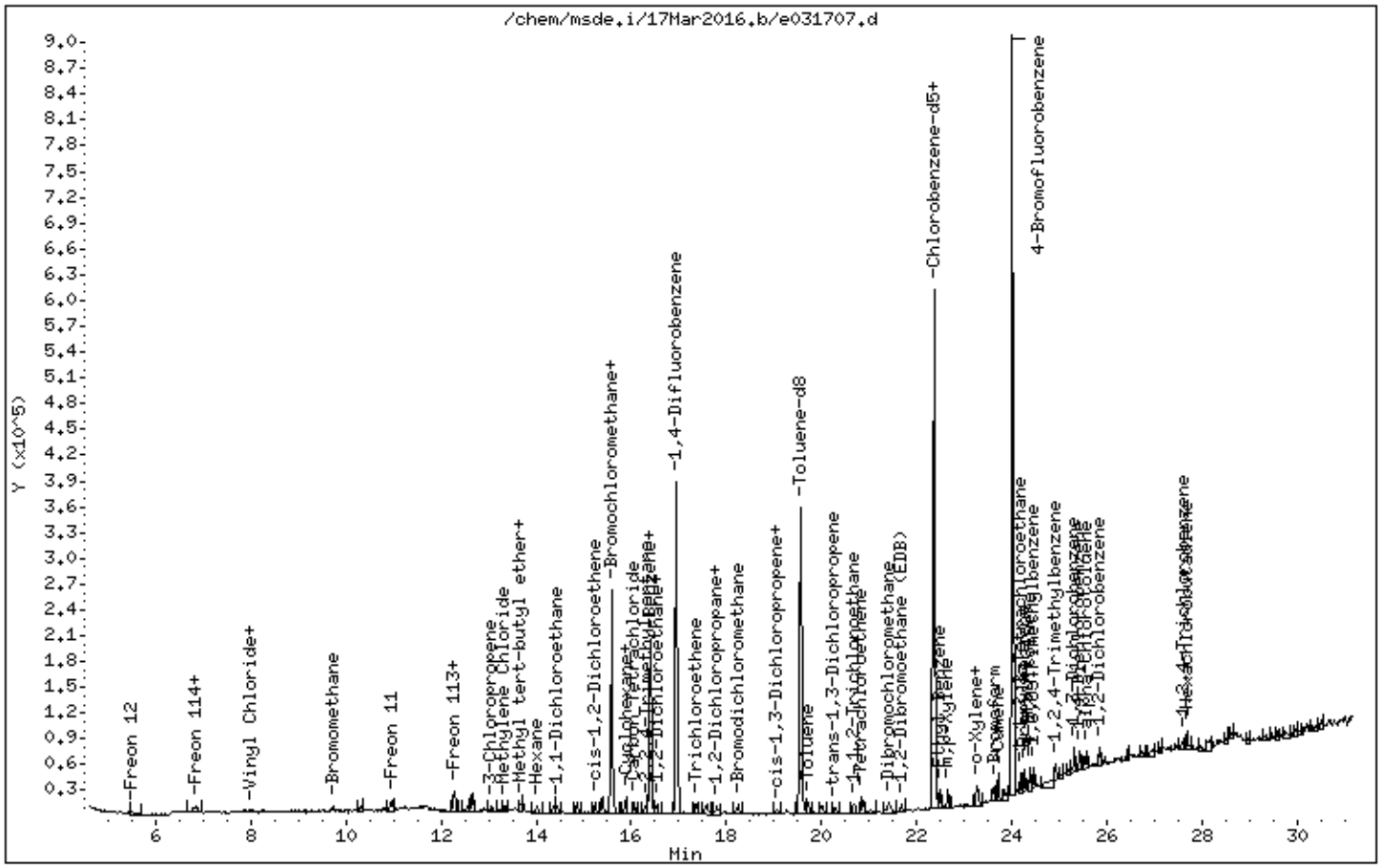
Instrument: msde.i

Sample Info: 25mL# 2789-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/24May2016.b/e052405.d
Lab Smp Id: ICAL Level 7
Inj Date : 24-MAY-2016 09:29
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-129
Misc Info : 0.5ppbv (5.0ppbv) AT-1
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/24May2016.b/e16l0317f.m
Meth Date : 24-May-2016 14:10 atoyama Quant Type: ISTD
Cal Date : 24-MAY-2016 09:29 Cal File: e052405.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FreonICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.703	5.703 (0.370)	51	16100	0.50000	0.5582	0.00- 0.00	100.00(Ta)
5.751	5.751 (0.374)	67	4108			0.00- 0.00	25.52
0.000	1.000 (0.000)	85	0			0.00- 0.00	0.00
16 Freon 142b					CAS #: 75-68-3		
6.835	6.835 (0.444)	65	30456	0.50000	0.5272	0.00- 0.00	100.00(a)
6.835	6.835 (0.444)	45	6833			0.00- 0.00	22.44
6.835	6.835 (0.444)	81	1185			0.00- 0.00	3.89
37 Dichlorofluoromethane					CAS #: 75-43-4		
10.881	10.881 (0.707)	67	34123	0.50000	0.5358	0.00- 0.00	100.00(a)
10.881	10.881 (0.707)	69	13010			0.00- 0.00	38.13
10.862	10.862 (0.706)	47	2809			0.00- 0.00	8.23
48 Freon 123					CAS #: 306-83-2		
12.043	12.043 (0.782)	83	40766	0.50000	0.5524	0.00- 0.00	100.00(a)
12.043	12.043 (0.782)	133	11472			0.00- 0.00	28.14
12.043	12.043 (0.782)	85	26199			0.00- 0.00	64.27

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
15.391	15.391 (1.000)	130	130501	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	99691			52.25- 112.25	76.39
15.391	15.391 (1.000)	49	95016			89.81- 149.81	72.81
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
16.737	16.737 (1.000)	114	466296	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	69410			0.00- 45.20	14.89
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
22.177	22.177 (1.000)	117	427824	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	204097			20.64- 80.64	47.71

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e052405.d
Lab Smp Id: ICAL Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/24May2016.b/e16l0317f.m
Misc Info: 0.5ppbv (5.0ppbv) AT-1

Calibration Date: 24-MAY-2016
Calibration Time: 07:15

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	155366	93220	217512	130501	-16.00
123 1,4-Difluorobenze	569598	341759	797437	466296	-18.14
163 Chlorobenzene-d5	506881	304129	709633	427824	-15.60

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/24May2016.b/e052405.d

Date : 24-MAY-2016 09:29

Client ID:

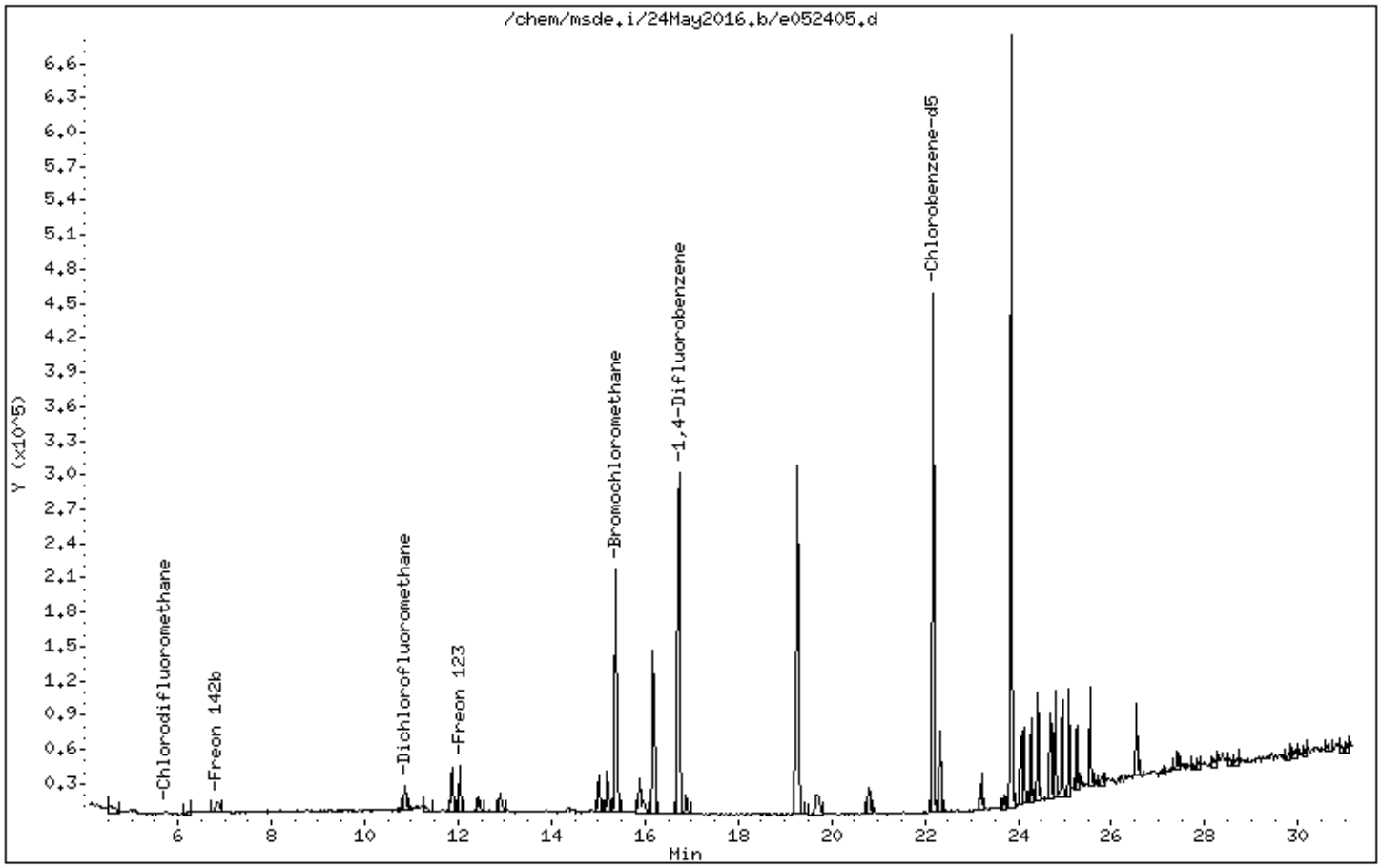
Instrument: msde.i

Sample Info: 25mL# 2789-129

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/19May2016.b/e051907.d
Lab Smp Id: ICAL Level 7
Inj Date : 19-MAY-2016 14:02
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-151
Misc Info : 0.5ppbv (5.0ppbv) Acetonitrile
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/19May2016.b/e16l0317e.m
Meth Date : 19-May-2016 17:13 efinn Quant Type: ISTD
Cal Date : 19-MAY-2016 14:02 Cal File: e051907.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AcetonitrileCrv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
63 Acetonitrile					CAS #: 75-05-8		
13.012	13.012 (0.845)	41	10564	0.50000	0.5979	0.00- 0.00	100.00
13.012	13.012 (0.845)	40	10114			0.00- 0.00	95.74
13.012	13.012 (0.845)	39	2382			0.00- 0.00	22.55
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	120819	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	90698			52.25- 112.25	75.07
15.391	15.391 (1.000)	49	87529			89.81- 149.81	72.45
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	411009	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	56958			0.00- 45.20	13.86
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	384468	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	189438			20.64- 80.64	49.27

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e051907.d
Lab Smp Id: ICAL Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/19May2016.b/e16l0317e.m
Misc Info: 0.5ppbv (5.0ppbv) Acetonitrile

Calibration Date: 19-MAY-2016
Calibration Time: 09:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	151740	91044	212436	120819	-20.38
123 1,4-Difluorobenze	581412	348847	813977	411009	-29.31
163 Chlorobenzene-d5	508099	304859	711339	384468	-24.33

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/19May2016.b/e051907.d

Date : 19-MAY-2016 14:02

Client ID:

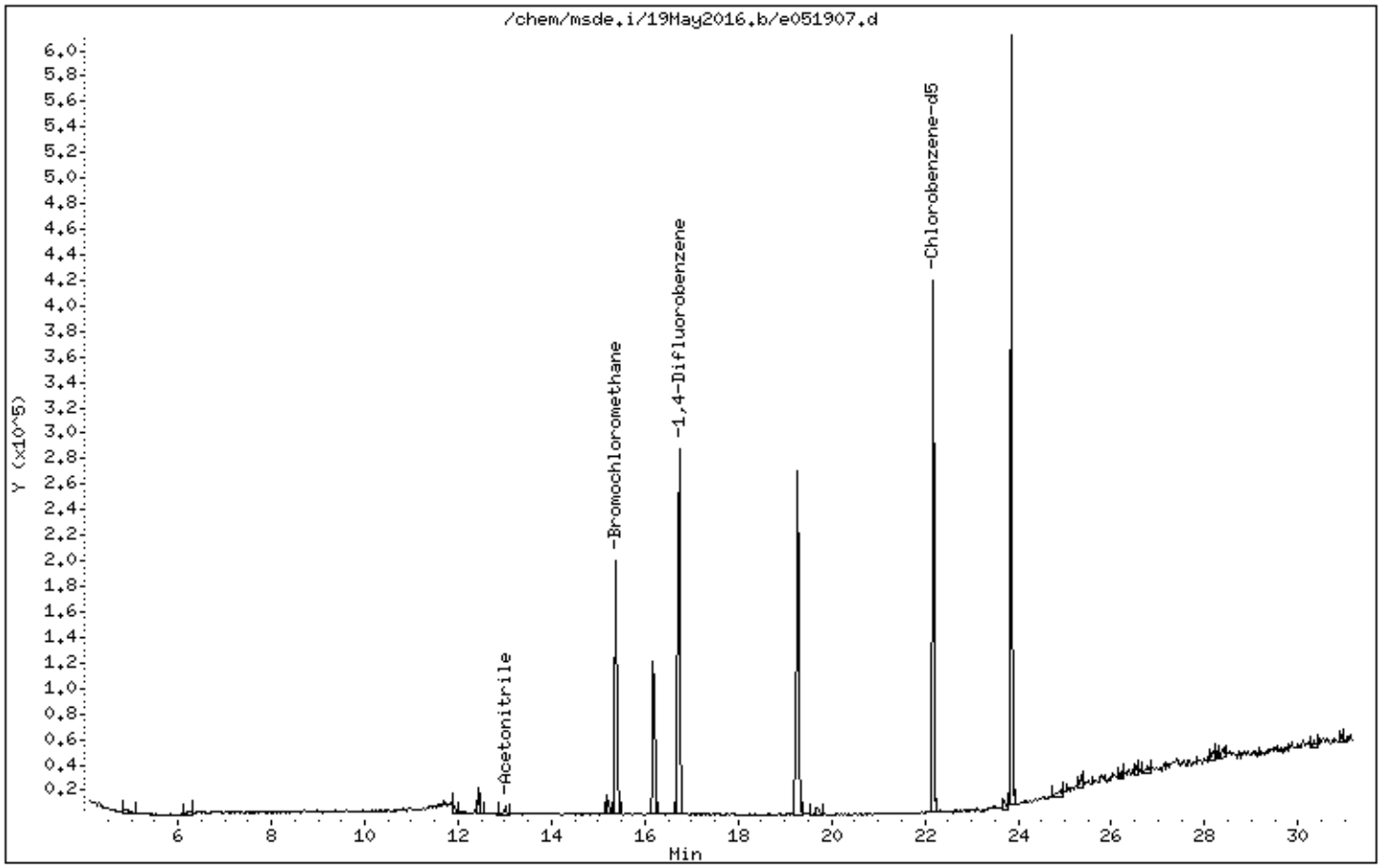
Instrument: msde.i

Sample Info: 25mL# 2789-151

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/09May2016.b/e050907.d
Lab Smp Id: ICAL Level 7
Inj Date : 09-MAY-2016 11:01
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-105
Misc Info : 0.5ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/09May2016.b/e16l0317d.m
Meth Date : 09-May-2016 17:07 efinn Quant Type: ISTD
Cal Date : 09-MAY-2016 11:01 Cal File: e050907.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL-VB.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
36 1-Pentene					CAS #: 109-67-1		
10.823	10.823 (0.703)	55	12545	0.50000	0.5705	0.00- 0.00	100.00
10.823	10.823 (0.703)	42	15066			0.00- 0.00	120.10
34 Pentane					CAS #: 109-66-0		
10.957	10.957 (0.712)	43	22901	0.50000	0.5941	0.00- 0.00	100.00
10.976	10.976 (0.713)	57	3717			0.00- 0.00	16.23
10.957	10.957 (0.712)	72	3554			0.00- 0.00	15.52
44 Ethyl Ether					CAS #: 60-29-7		
11.642	11.642 (0.756)	74	9486	0.50000	0.5308	0.00- 0.00	100.00(T)
11.642	11.642 (0.756)	59	10912			0.00- 0.00	115.03
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00
53 Iodomethane					CAS #: 74-88-4		
12.404	12.404 (0.806)	142	62236	0.50000	0.5613	0.00- 0.00	100.00
12.404	12.404 (0.806)	127	28198			0.00- 0.00	45.31
59 Cyclopentene					CAS #: 142-29-0		
12.900	12.900 (0.838)	67	42644	0.50000	0.5670	0.00- 0.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   59 Cyclopentene (continued)
 12.900  12.900 (0.838)    68     17506                     0.00-   0.00    41.05
 12.900  12.900 (0.838)    53      6743                     0.00-   0.00    15.81
-------------------------------------------------------------------------------
   64 Cyclopentane                                  CAS #: 287-92-3
 13.094  13.094 (0.851)    70     11569 0.50000   0.5961   0.00-   0.00   100.00
 13.066  13.066 (0.849)    55     13067                     0.00-   0.00   112.95
-------------------------------------------------------------------------------
   74 Acrylonitrile                                 CAS #: 107-13-1
 13.671  13.671 (0.888)    53     12741 0.50000   0.5629   0.00-   0.00   100.00
 13.643  13.643 (0.886)    52     11439                     0.00-   0.00    89.78
-------------------------------------------------------------------------------
   76 1-Hexene                                      CAS #: 592-41-6
 13.725  13.725 (0.892)    55     11663 0.50000   0.5918   0.00-   0.00   100.00
 13.725  13.725 (0.892)    41     13853                     0.00-   0.00   118.78
 13.725  13.725 (0.892)    84      6139                     0.00-   0.00    52.64
-------------------------------------------------------------------------------
   84 1-Propanol                                    CAS #: 71-23-8
 14.357  14.357 (0.933)    59      2464 0.50000   0.4016   0.00-   0.00   100.00(a)
 14.357  14.357 (0.933)    42      2083                     0.00-   0.00    84.54
 14.384  14.384 (0.935)    41      1756                     0.00-   0.00    71.27
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                           CAS #: 594-20-7
 15.008  15.008 (0.975)    77     47974 0.50000   0.5466   0.00-   0.00   100.00
 15.008  15.008 (0.975)    79     16500                     0.00-   0.00    34.39
 15.008  15.008 (0.975)    97     10802                     0.00-   0.00    22.52
-------------------------------------------------------------------------------
   94 Ethyl Acetate                                 CAS #: 141-78-6
 15.047  15.047 (0.978)    70      4010 0.50000   0.5294   0.00-   0.00   100.00
 15.047  15.047 (0.978)    43     30872                     0.00-   0.00   769.88
 15.008  15.008 (0.975)    61     10394                     0.00-   0.00   259.20
-------------------------------------------------------------------------------
   93 Methyl Acrylate                               CAS #: 96-33-3
 15.123  15.123 (0.983)    55     30899 0.50000   0.5297   0.00-   0.00   100.00
 15.123  15.123 (0.983)    85      7485                     0.00-   0.00    24.22
 15.123  15.123 (0.983)    58      3337                     0.00-   0.00    10.80
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    135071 5.00000            80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    105261                    52.25- 112.25    77.93
 15.391  15.391 (1.000)    49     96231                    89.81- 149.81    71.24
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                          CAS #: 563-58-6
 15.884  15.884 (1.032)   110     14595 0.50000   0.5784   0.00-   0.00   100.00
 15.884  15.884 (1.032)    75     36527                     0.00-   0.00   250.27
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
115 Isobutanol					CAS #: 78-83-1		
15.977	15.977 (1.038)	43	17784	0.50000	0.6572	0.00- 0.00	100.00
15.977	15.977 (1.038)	41	15234			0.00- 0.00	85.66
15.977	15.977 (1.038)	55	2101			0.00- 0.00	11.81
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	500953	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	71239			0.00- 45.20	14.22
124 n-Butanol					CAS #: 71-36-3		
16.882	16.882 (1.009)	56	23427	0.50000	0.5203	0.00- 0.00	100.00
16.882	16.882 (1.009)	41	14387			0.00- 0.00	61.41
16.882	16.882 (1.009)	43	11620			0.00- 0.00	49.60
128 Ethyl acrylate					CAS #: 140-88-5		
17.171	17.171 (1.026)	99	4246	0.50000	0.5670	0.00- 0.00	100.00
17.171	17.171 (1.026)	45	2879			0.00- 0.00	67.80
17.171	17.171 (1.026)	55	33102			0.00- 0.00	779.60
131 2-Pentanone					CAS #: 107-87-9		
17.388	17.388 (1.039)	43	42016	0.50000	0.5412	0.00- 0.00	100.00
17.388	17.388 (1.039)	58	4020			0.00- 0.00	9.57
17.388	17.388 (1.039)	86	12328			0.00- 0.00	29.34
134 Methyl Methacrylate					CAS #: 80-62-6		
17.556	17.556 (1.049)	41	20330	0.50000	0.5018	0.00- 0.00	100.00
17.556	17.556 (1.049)	69	23151			0.00- 0.00	113.88
17.556	17.556 (1.049)	100	10495			0.00- 0.00	51.62
137 Dibromomethane					CAS #: 74-95-3		
17.797	17.797 (1.063)	174	40812	0.50000	0.5449	0.00- 0.00	100.00
17.797	17.797 (1.063)	93	32308			0.00- 0.00	79.16
17.797	17.797 (1.063)	95	27948			0.00- 0.00	68.48
148 Octane					CAS #: 111-65-9		
19.320	19.320 (1.154)	57	14175	0.50000	0.5621	0.00- 0.00	100.00
19.320	19.320 (1.154)	85	19479			0.00- 0.00	137.42
19.320	19.320 (1.154)	43	26777			0.00- 0.00	188.90
157 1,3-Dichloropropane					CAS #: 142-28-9		
20.795	20.795 (0.938)	76	43082	0.50000	0.5656	0.00- 0.00	100.00
20.795	20.795 (0.938)	41	19546			0.00- 0.00	45.37
20.795	20.795 (0.938)	78	13754			0.00- 0.00	31.93
159 Butyl Acetate					CAS #: 123-86-4		
20.905	20.905 (0.943)	56	4232	0.50000	0.5692	0.00- 0.00	100.00

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  159 Butyl Acetate (continued)
 20.905  20.905 (0.943)    73      2267                     0.00-   0.00    53.57
 20.905  20.905 (0.943)    43      9465                     0.00-   0.00   223.65
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    441801 5.00000            80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    224872                    20.64-  80.64    50.90
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                     CAS #: 630-20-6
 22.343  22.343 (1.007)   131     53926 0.50000   0.6109   0.00-   0.00   100.00
 22.343  22.343 (1.007)   117     32406                    0.00-   0.00    60.09
 22.343  22.343 (1.007)    95     17304                    0.00-   0.00    32.09
-------------------------------------------------------------------------------
  170 Nonane                                        CAS #: 111-84-2
 22.301  22.301 (1.006)    43     24409 0.50000   0.5518   0.00-   0.00   100.00
 22.301  22.301 (1.006)    57     22963                    0.00-   0.00    94.08
 22.301  22.301 (1.006)    85     11765                    0.00-   0.00    48.20
-------------------------------------------------------------------------------
  173 2-Heptanone                                   CAS #: 110-43-0
 23.214  23.214 (1.047)    58     25729 0.50000   0.5626   0.00-   0.00   100.00
 23.214  23.214 (1.047)    43     33964                    0.00-   0.00   132.01
-------------------------------------------------------------------------------
  176 Cyclohexanone                                 CAS #: 108-94-1
 23.811  23.811 (1.074)    55     20261 0.50000   0.5321   0.00-   0.00   100.00
 23.811  23.811 (1.074)    98     12845                    0.00-   0.00    63.40
 23.811  23.811 (1.074)    42     13203                    0.00-   0.00    65.16
-------------------------------------------------------------------------------
  179 alpha-Pinene                                  CAS #: 80-56-8
 23.497  23.497 (1.060)    93     92215 0.50000   0.5234   0.00-   0.00   100.00
 23.497  23.497 (1.060)   121     14183                    0.00-   0.00    15.38
 23.497  23.497 (1.060)    92     39789                    0.00-   0.00    43.15
-------------------------------------------------------------------------------
  180 Bromobenzene                                  CAS #: 108-86-1
 24.080  24.080 (1.086)   156     51947 0.50000   0.5850   0.00-   0.00   100.00
 24.080  24.080 (1.086)   158     49824                    0.00-   0.00    95.91
 24.080  24.080 (1.086)    77     58476                    0.00-   0.00   112.57
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                        CAS #: 96-18-4
 24.125  24.125 (1.088)   110     20750 0.50000   0.5820   0.00-   0.00   100.00
 24.125  24.125 (1.088)    75     65384                    0.00-   0.00   315.10
 24.125  24.125 (1.088)    61     10318                    0.00-   0.00    49.73
-------------------------------------------------------------------------------
  187 Decane                                        CAS #: 124-18-5
 24.170  24.170 (1.090)    57     19595 0.50000   0.5435   0.00-   0.00   100.00
 24.170  24.170 (1.090)    71     10319                    0.00-   0.00    52.66
 24.170  24.170 (1.090)   142      1417                    0.00-   0.00     7.23
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  189 2-Chlorotoluene                                CAS #: 95-49-8
 24.282  24.282 (1.095)   126     32805 0.50000   0.5758   0.00-   0.00   100.00
 24.282  24.282 (1.095)    91     83847                    0.00-   0.00   255.59
 24.282  24.282 (1.095)    65      7267                    0.00-   0.00    22.15
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                                CAS #: 106-43-4
 24.416  24.416 (1.101)   126     27469 0.50000   0.5201   0.00-   0.00   100.00
 24.416  24.416 (1.101)    91     75110                    0.00-   0.00   273.44
 24.416  24.416 (1.101)    63      8459                    0.00-   0.00    30.79
-------------------------------------------------------------------------------
  195 tert-Butylbenzene                              CAS #: 98-06-6
 24.708  24.708 (1.114)   119     83029 0.50000   0.5577   0.00-   0.00   100.00
 24.708  24.708 (1.114)   134     20948                    0.00-   0.00    25.23
 24.685  24.685 (1.113)    91     51429                    0.00-   0.00    61.94
-------------------------------------------------------------------------------
  197 Pentachloroethane                              CAS #: 76-01-7
 24.798  24.798 (1.118)   167     34432 0.50000   0.5706   0.00-   0.00   100.00
 24.798  24.798 (1.118)   117     29645                    0.00-   0.00    86.10
 24.798  24.798 (1.118)   169     16398                    0.00-   0.00    47.62
-------------------------------------------------------------------------------
  199 D-Limonene                                     CAS #: 5989-27-5
 25.022  25.022 (1.128)    68     30679 0.50000   0.5467   0.00-   0.00   100.00
 25.044  25.044 (1.129)    93     74885                    0.00-   0.00   244.09
-------------------------------------------------------------------------------
  203 sec-Butylbenzene                               CAS #: 135-98-8
 24.955  24.955 (1.125)   105    158030 0.50000   0.5626   0.00-   0.00   100.00
 24.955  24.955 (1.125)   134     23571                    0.00-   0.00    14.92
 24.955  24.955 (1.125)    91     22007                    0.00-   0.00    13.93
-------------------------------------------------------------------------------
  206 bis(2-Chloroethyl) Ether                       CAS #: 111-44-4
 25.044  25.044 (1.129)    93     73953 0.50000   0.5300   0.00-   0.00   100.00
 25.044  25.044 (1.129)    95     18558                    0.00-   0.00    25.09
 25.044  25.044 (1.129)    63     31253                    0.00-   0.00    42.26
-------------------------------------------------------------------------------
  207 p-Cymene                                       CAS #: 99-87-6
 25.089  25.089 (1.131)   119     90034 0.50000   0.5249   0.00-   0.00   100.00
 25.089  25.089 (1.131)   134     24777                    0.00-   0.00    27.52
 25.089  25.089 (1.131)    91     21248                    0.00-   0.00    23.60
-------------------------------------------------------------------------------
  210 1,2,3-Trimethylbenzene                         CAS #: 526-73-8
 25.268  25.268 (1.139)   120     31368 0.50000   0.5711   0.00-   0.00   100.00
 25.268  25.268 (1.139)   105     67192                    0.00-   0.00   214.21
 25.268  25.268 (1.139)    77      9384                    0.00-   0.00    29.92
-------------------------------------------------------------------------------
  213 Butylbenzene                                   CAS #: 104-51-8
 25.537  25.537 (1.152)   134     24727 0.50000   0.5747   0.00-   0.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
213 Butylbenzene (continued)							
25.537	25.537 (1.152)	91	76081			0.00- 0.00	307.68
25.537	25.537 (1.152)	92	40609			0.00- 0.00	164.23
215 Undecane					CAS #: 1120-21-4		
25.515	25.515 (1.151)	57	13951	0.50000	0.5339	0.00- 0.00	100.00
25.515	25.515 (1.151)	43	9725			0.00- 0.00	69.71
25.515	25.515 (1.151)	85	6115			0.00- 0.00	43.83
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	36314	0.50000	0.5205	0.00- 0.00	100.00
26.546	26.546 (1.197)	75	26559			0.00- 0.00	73.14
26.546	26.546 (1.197)	155	28351			0.00- 0.00	78.07
225 Dodecane					CAS #: 112-40-3		
26.613	26.613 (1.200)	85	4951	0.50000	0.6360	0.00- 0.00	100.00
26.613	26.613 (1.200)	57	10256			0.00- 0.00	207.15
26.613	26.613 (1.200)	43	7461			0.00- 0.00	150.70

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 09-May-2016 17:07

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e050907.d
Lab Smp Id: ICAL Level 7
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/09May2016.b/e16l0317d.m
Misc Info: 0.5ppbv (5.0ppbv) Combo

Calibration Date: 09-MAY-2016
Calibration Time: 07:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	159373	95624	223122	135071	-15.25
123 1,4-Difluorobenze	624905	374943	874867	500953	-19.84
163 Chlorobenzene-d5	549919	329951	769887	441801	-19.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/09May2016.b/e050907.d

Date : 09-MAY-2016 11:01

Client ID:

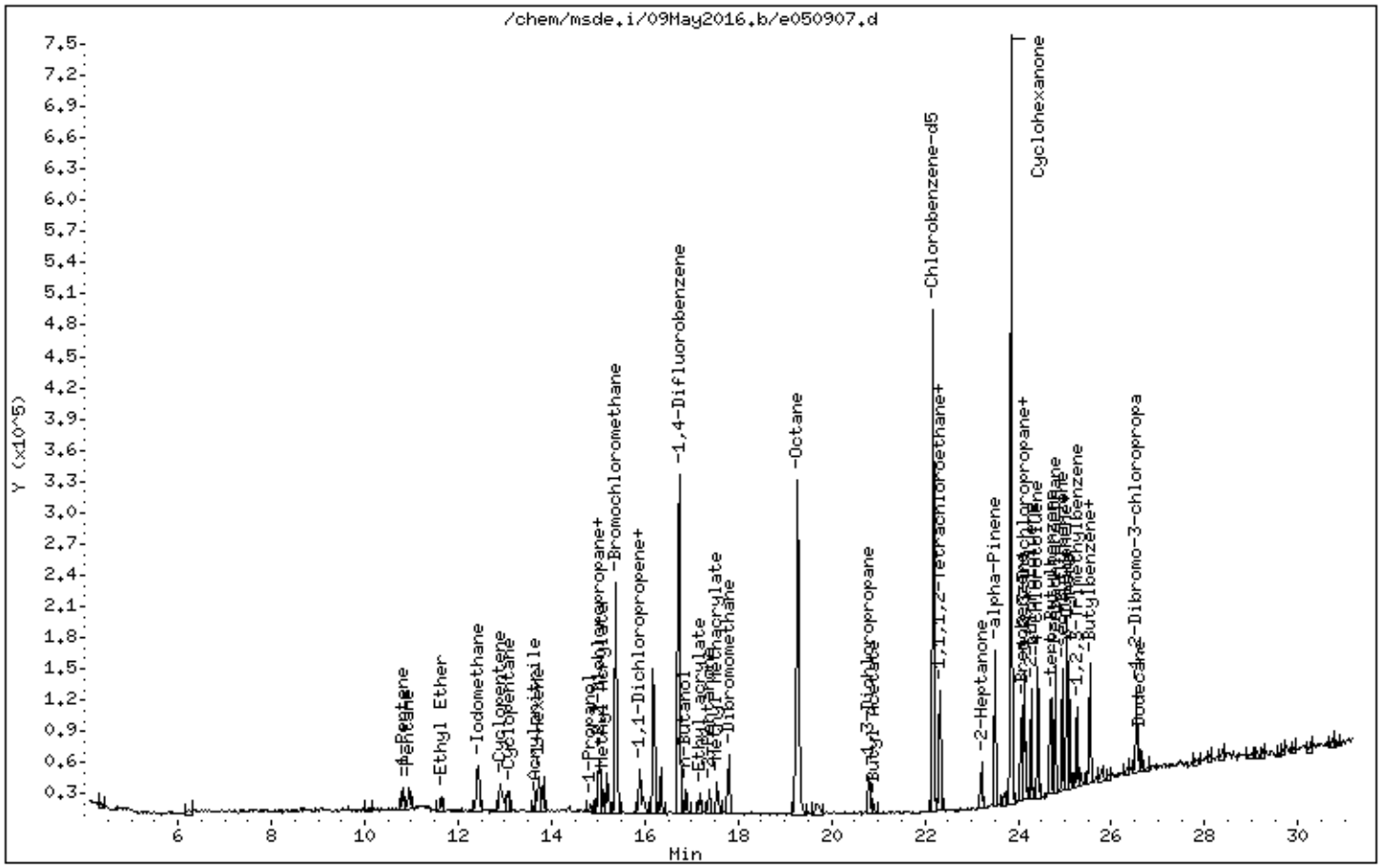
Instrument: msde.i

Sample Info: 25mL# 2789-105

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/30Mar2016.b/e033007.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 30-MAR-2016 14:41
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-45
Misc Info : 0.5ppbv (5.0ppbv) Acrolein
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/30Mar2016.b/e16l0317c.m
Meth Date : 30-Mar-2016 17:06 ealcan Quant Type: ISTD
Cal Date : 30-MAR-2016 14:41 Cal File: e033007.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AcroleinICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
46 Acrolein					CAS #: 107-02-8		
12.233	12.233 (0.785)	56	5072	0.50000	0.5470	0.00- 0.00	100.00
12.233	12.233 (0.785)	55	3491			0.00- 0.00	68.83
* 98 Bromochloromethane					CAS #: 74-97-5		
15.580	15.580 (1.000)	130	160675	5.00000		80.00- 120.00	100.00
15.580	15.580 (1.000)	128	122937			52.25- 112.25	76.51
15.580	15.580 (1.000)	49	122426			89.81- 149.81	76.19
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.939	16.939 (1.000)	114	583618	5.00000		80.00- 120.00	100.00
16.939	16.939 (1.000)	88	86106			0.00- 45.20	14.75
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.366	22.366 (1.000)	117	538362	5.00000		80.00- 120.00	100.00
22.366	22.366 (1.000)	82	280990			20.64- 80.64	52.19

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e033007.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/30Mar2016.b/e16l0317c.m
Misc Info: 0.5ppbv (5.0ppbv) Acrolein

Calibration Date: 30-MAR-2016
Calibration Time: 11:07
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	190719	114431	267007	160675	-15.75
123 1,4-Difluorobenze	725285	435171	1015399	583618	-19.53
163 Chlorobenzene-d5	658854	395312	922396	538362	-18.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/30Mar2016.b/e033007.d

Date : 30-MAR-2016 14:41

Client ID: Level 7

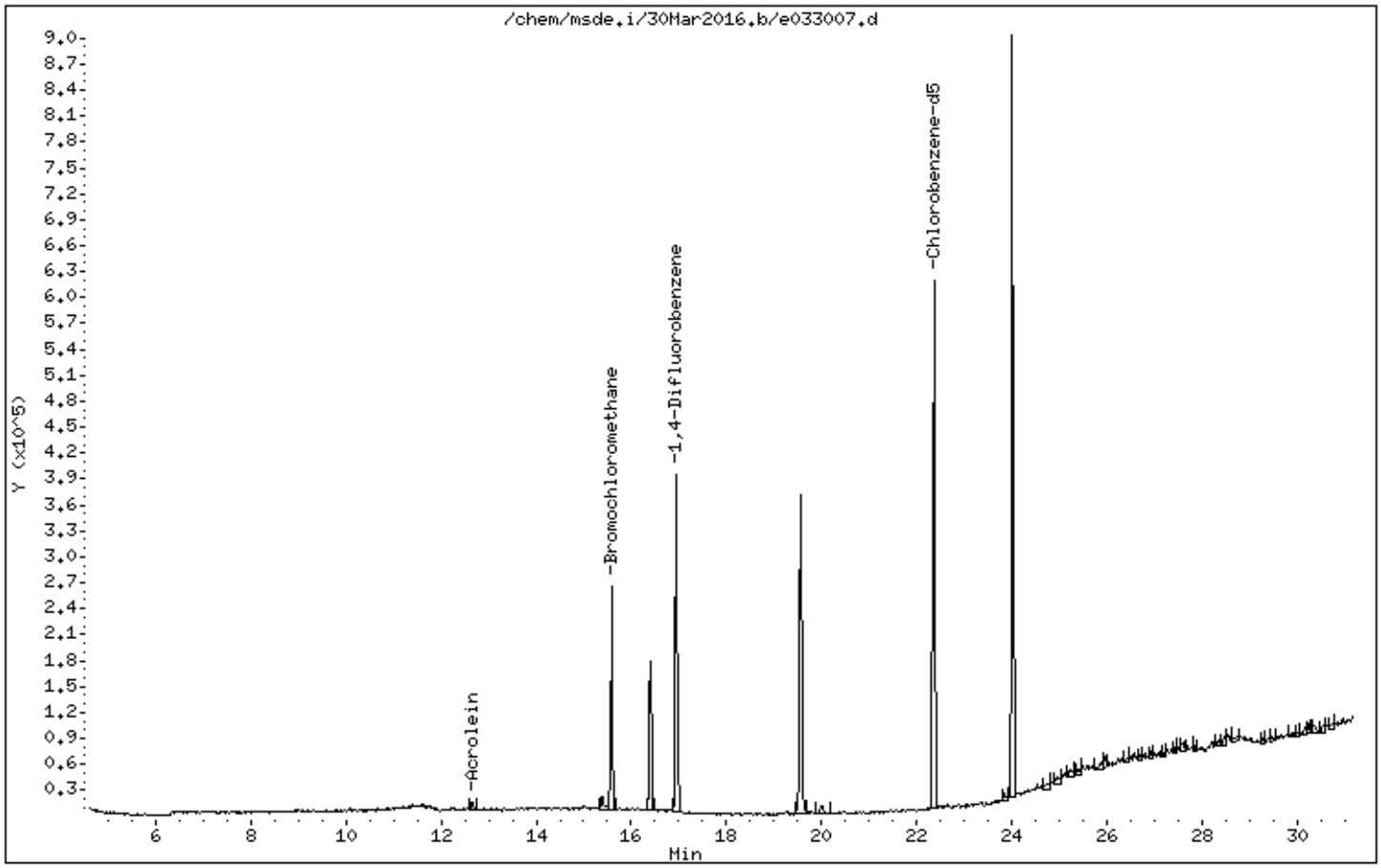
Instrument: msde.i

Sample Info: 25mL# 2789-45

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032505.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 25-MAR-2016 12:18
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-4
Misc Info : 0.5ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m
Meth Date : 25-Mar-2016 15:05 efinn Quant Type: ISTD
Cal Date : 25-MAR-2016 12:18 Cal File: e032505.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Combo-AT1ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
32 Vinyl Bromide					CAS #: 593-60-2		
10.786	10.786 (0.692)	106	21029	0.50000	0.5038	0.00- 0.00	100.00
10.786	10.786 (0.692)	108	18049			0.00- 0.00	85.83
36 1-Pentene					CAS #: 109-67-1		
11.014	11.014 (0.707)	55	16128	0.50000	0.5057	0.00- 0.00	100.00
11.014	11.014 (0.707)	42	17081			0.00- 0.00	105.91
34 Pentane					CAS #: 109-66-0		
11.147	11.147 (0.715)	43	26431	0.50000	0.4647	0.00- 0.00	100.00(a)
11.166	11.166 (0.717)	57	4681			0.00- 0.00	17.71
11.147	11.147 (0.715)	72	4082			0.00- 0.00	15.44
44 Ethyl Ether					CAS #: 60-29-7		
11.833	11.833 (0.759)	74	12085	0.50000	0.5604	0.00- 0.00	100.00(T)
11.833	11.833 (0.759)	59	12751			0.00- 0.00	105.51
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
53 Iodomethane					CAS #: 74-88-4		
12.614	12.614 (0.810)	142	62424	0.50000	0.4643	0.00- 0.00	100.00(a)
12.614	12.614 (0.810)	127	29979			0.00- 0.00	48.02
63 Acetonitrile					CAS #: 75-05-8		
13.185	13.185 (0.846)	41	11554	0.50000	0.4344	0.00- 0.00	100.00(a)
13.185	13.185 (0.846)	40	7909			0.00- 0.00	68.45
13.185	13.185 (0.846)	39	2478			0.00- 0.00	21.45
64 Cyclopentane					CAS #: 287-92-3		
13.280	13.280 (0.852)	70	12859	0.50000	0.4684	0.00- 0.00	100.00(a)
13.280	13.280 (0.852)	55	12297			0.00- 0.00	95.63
74 Acrylonitrile					CAS #: 107-13-1		
13.838	13.838 (0.888)	53	13449	0.50000	0.4605	0.00- 0.00	100.00(a)
13.838	13.838 (0.888)	52	11693			0.00- 0.00	86.94
76 1-Hexene					CAS #: 592-41-6		
13.921	13.921 (0.894)	55	14001	0.50000	0.5167	0.00- 0.00	100.00
13.921	13.921 (0.894)	41	18178			0.00- 0.00	129.83
13.921	13.921 (0.894)	84	6440			0.00- 0.00	46.00
94 Ethyl Acetate					CAS #: 141-78-6		
15.221	15.221 (0.977)	70	3856	0.50000	0.4392	0.00- 0.00	100.00(a)
15.221	15.221 (0.977)	43	30291			0.00- 0.00	785.55
15.202	15.202 (0.976)	61	11197			0.00- 0.00	290.38
93 Methyl Acrylate					CAS #: 96-33-3		
15.316	15.316 (0.983)	55	28307	0.50000	0.4627	0.00- 0.00	100.00(a)
15.316	15.316 (0.983)	85	5739			0.00- 0.00	20.27
15.316	15.316 (0.983)	58	2663			0.00- 0.00	9.41
* 98 Bromochloromethane					CAS #: 74-97-5		
15.580	15.580 (1.000)	130	218878	5.00000		80.00- 120.00	100.00
15.580	15.580 (1.000)	128	136361			52.25- 112.25	62.30
15.580	15.580 (1.000)	49	166797			89.81- 149.81	76.21
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.939	16.939 (1.000)	114	679944	5.00000		80.00- 120.00	100.00
16.939	16.939 (1.000)	88	104204			0.00- 45.20	15.33
128 Ethyl acrylate					CAS #: 140-88-5		
17.397	17.397 (1.027)	99	2819	0.50000	0.5553	0.00- 0.00	100.00
17.397	17.397 (1.027)	45	2551			0.00- 0.00	90.49
17.397	17.397 (1.027)	55	25777			0.00- 0.00	914.40

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE		RATIO
131 2-Pentanone					CAS #: 107-87-9			
17.614	17.614 (1.040)	43	33285	0.50000	0.5214	0.00-	0.00	100.00
17.614	17.614 (1.040)	58	3270			0.00-	0.00	9.82
17.614	17.614 (1.040)	86	8440			0.00-	0.00	25.36
134 Methyl Methacrylate					CAS #: 80-62-6			
17.782	17.782 (1.050)	41	17123	0.50000	0.5376	0.00-	0.00	100.00
17.782	17.782 (1.050)	69	15233			0.00-	0.00	88.96
17.782	17.782 (1.050)	100	7284			0.00-	0.00	42.54
137 Dibromomethane					CAS #: 74-95-3			
18.047	18.047 (1.065)	174	25362	0.50000	0.5264	0.00-	0.00	100.00
18.047	18.047 (1.065)	93	22219			0.00-	0.00	87.61
18.047	18.047 (1.065)	95	18107			0.00-	0.00	71.39
148 Octane					CAS #: 111-65-9			
19.601	19.601 (1.157)	57	19810	0.50000	0.5422	0.00-	0.00	100.00
19.624	19.624 (1.158)	85	27203			0.00-	0.00	137.32
19.624	19.624 (1.158)	43	41315			0.00-	0.00	208.56
* 163 Chlorobenzene-d5					CAS #: 3114-55-4			
22.365	22.365 (1.000)	117	614814	5.00000		80.00-	120.00	100.00
22.365	22.365 (1.000)	82	320182			20.64-	80.64	52.08
170 Nonane					CAS #: 111-84-2			
22.490	22.490 (1.006)	43	37181	0.50000	0.5410	0.00-	0.00	100.00
22.490	22.490 (1.006)	57	38130			0.00-	0.00	102.55
22.490	22.490 (1.006)	85	17244			0.00-	0.00	46.38
184 trans-1,4-Dichloro-2-butene					CAS #: 110-57-6			
24.289	24.289 (1.086)	75	49675	0.50000	0.5321	0.00-	0.00	100.00
24.289	24.289 (1.086)	89	4890			0.00-	0.00	9.84
24.267	24.267 (1.085)	53	7822			0.00-	0.00	15.75
187 Decane					CAS #: 124-18-5			
24.581	24.581 (1.099)	57	33845	0.50000	0.5216	0.00-	0.00	100.00
24.581	24.581 (1.099)	71	631			0.00-	0.00	1.86
24.603	24.603 (1.100)	142	6779			0.00-	0.00	20.03
206 bis(2-Chloroethyl) Ether					CAS #: 111-44-4			
25.186	25.186 (1.126)	93	41182	0.50000	0.5312	0.00-	0.00	100.00
25.186	25.186 (1.126)	95	9523			0.00-	0.00	23.12
25.186	25.186 (1.126)	63	23115			0.00-	0.00	56.13
215 Undecane					CAS #: 1120-21-4			
25.657	25.657 (1.147)	57	13932	0.50000	0.5166	0.00-	0.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
215 Undecane (continued)								
25.657	25.657	(1.147)	43	9219			0.00- 0.00	66.17
25.657	25.657	(1.147)	85	4842			0.00- 0.00	34.75
225 Dodecane						CAS #: 112-40-3		
26.800	26.800	(1.198)	85	1238	0.50000	0.3231	0.00- 0.00	100.00(a)
26.800	26.800	(1.198)	57	2628			0.00- 0.00	212.28
26.800	26.800	(1.198)	43	4515			0.00- 0.00	364.70

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032505.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m
Misc Info: 0.5ppbv (5.0ppbv) Combo

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	196631	117979	275283	218878	11.31
123 1,4-Difluorobenze	760212	456127	1064297	679944	-10.56
163 Chlorobenzene-d5	680500	408300	952700	614814	-9.65

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/25Mar2016.b/e032505.d

Date : 25-MAR-2016 12:18

Client ID: Level 7

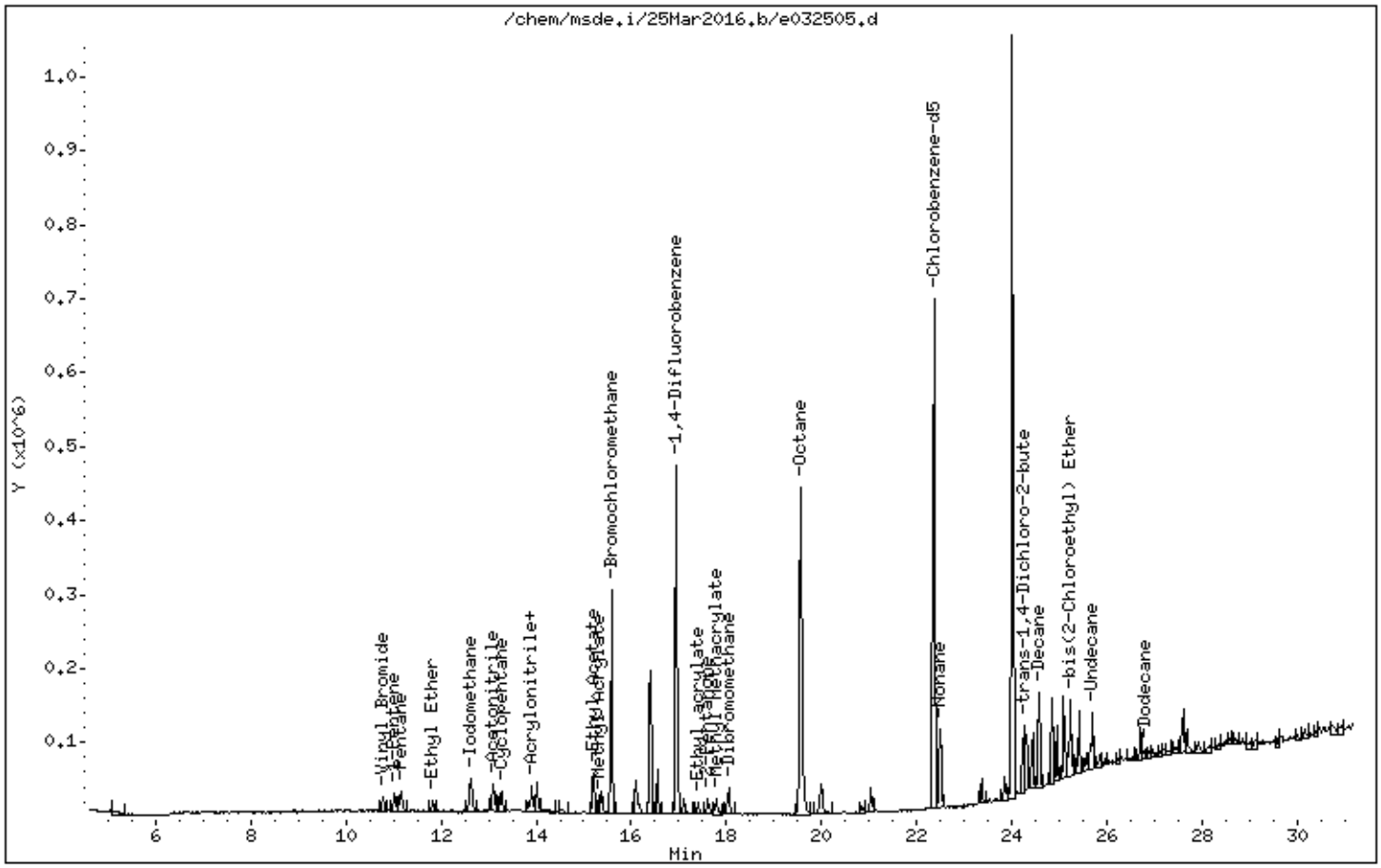
Instrument: msde.i

Sample Info: 25mL# 2789-4

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/22Mar2016.b/e032205.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 22-MAR-2016 12:05
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2759-238
Misc Info : 0.5ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/22Mar2016.b/e16l0317a.m
Meth Date : 24-Mar-2016 08:33 efinn Quant Type: ISTD
Cal Date : 22-MAR-2016 12:05 Cal File: e032205.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.962	5.962 (0.383)	51	9267	0.50000	0.5434	0.00- 0.00	100.00(Ta)
5.937	5.937 (0.381)	67	2452			0.00- 0.00	26.46
0.000	1.000 (0.000)	85	0			0.00- 0.00	0.00
16 Freon 142b					CAS #: 75-68-3		
7.070	7.070 (0.454)	65	18373	0.50000	0.5311	0.00- 0.00	100.00(a)
7.070	7.070 (0.454)	45	5069			0.00- 0.00	27.59
7.094	7.094 (0.455)	81	1319			0.00- 0.00	7.18
37 Dichlorofluoromethane					CAS #: 75-43-4		
11.071	11.071 (0.711)	67	20690	0.50000	0.5727	0.00- 0.00	100.00(a)
11.052	11.052 (0.709)	69	8098			0.00- 0.00	39.14
11.071	11.071 (0.711)	47	1883			0.00- 0.00	9.10
48 Freon 123					CAS #: 306-83-2		
12.214	12.214 (0.784)	83	29557	0.50000	0.5298	0.00- 0.00	100.00(a)

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   48 Freon 123 (continued)
 12.214  12.214 (0.784)   133     10902                     0.00-   0.00    36.88
 12.214  12.214 (0.784)    85     20051                     0.00-   0.00    67.84
-------------------------------------------------------------------------------
   59 Cyclopentene                                  CAS #: 142-29-0
 13.090  13.090 (0.840)    67     14133 0.50000   0.5514   0.00-   0.00   100.00(a)
 13.109  13.109 (0.841)    68      5945                     0.00-   0.00    42.06
 13.090  13.090 (0.840)    53      2628                     0.00-   0.00    18.59
-------------------------------------------------------------------------------
   84 1-Propanol                                    CAS #: 71-23-8
 14.552  14.552 (0.934)    59      2979 0.50000   0.4143   0.00-   0.00   100.00(a)
 14.552  14.552 (0.934)    42      2826                     0.00-   0.00    94.86
 14.552  14.552 (0.934)    41      3572                     0.00-   0.00   119.91
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                           CAS #: 594-20-7
 15.202  15.202 (0.976)    77     23752 0.50000   0.5242   0.00-   0.00   100.00(a)
 15.202  15.202 (0.976)    79      8681                     0.00-   0.00    36.55
 15.202  15.202 (0.976)    97      3915                     0.00-   0.00    16.48
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.580  15.580 (1.000)   130    192463 5.00000            80.00- 120.00   100.00
 15.580  15.580 (1.000)   128    151465                    52.25- 112.25    78.70
 15.580  15.580 (1.000)    49    149562                    89.81- 149.81    77.71
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                           CAS #: 563-58-6
 16.104  16.104 (1.034)   110      6292 0.50000   0.5326   0.00-   0.00   100.00(a)
 16.104  16.104 (1.034)    75     18702                     0.00-   0.00   297.23
-------------------------------------------------------------------------------
  115 Isobutanol                                    CAS #: 78-83-1
 16.166  16.166 (1.038)    43     18773 0.50000   0.5402   0.00-   0.00   100.00(a)
 16.166  16.166 (1.038)    41     13114                     0.00-   0.00    69.86
 16.166  16.166 (1.038)    55      1703                     0.00-   0.00     9.07
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.939  16.939 (1.000)   114    745012 5.00000            80.00- 120.00   100.00
 16.939  16.939 (1.000)    88    117815                     0.00-  45.20    15.81
-------------------------------------------------------------------------------
  124 n-Butanol                                     CAS #: 71-36-3
 17.108  17.108 (1.010)    56     21650 0.50000   0.4598   0.00-   0.00   100.00(a)
 17.108  17.108 (1.010)    41     14122                     0.00-   0.00    65.23
 17.108  17.108 (1.010)    43     11513                     0.00-   0.00    53.18
-------------------------------------------------------------------------------
  157 1,3-Dichloropropane                           CAS #: 142-28-9
 21.046  21.046 (0.941)    76     28348 0.50000   0.4992   0.00-   0.00   100.00(a)
 21.046  21.046 (0.941)    41     17177                     0.00-   0.00    60.59
 21.046  21.046 (0.941)    78      9427                     0.00-   0.00    33.25
-------------------------------------------------------------------------------
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  159 Butyl Acetate                                CAS #: 123-86-4
 21.128  21.128 (0.945)    56      3101 0.50000   0.4646   0.00-   0.00   100.00(a)
 21.128  21.128 (0.945)    73      2689                    0.00-   0.00    86.71
 21.128  21.128 (0.945)    43      9258                    0.00-   0.00   298.55
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.366  22.366 (1.000)   117    668249 5.00000           80.00- 120.00   100.00
 22.366  22.366 (1.000)    82    345142                   20.64-  80.64    51.65
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 22.511  22.511 (1.006)   131     33708 0.50000   0.4972   0.00-   0.00   100.00(a)
 22.511  22.511 (1.006)   117     26328                    0.00-   0.00    78.11
 22.511  22.511 (1.006)    95     13212                    0.00-   0.00    39.20
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 23.381  23.381 (1.045)    58     23124 0.50000   0.4706   0.00-   0.00   100.00(a)
 23.381  23.381 (1.045)    43     32464                    0.00-   0.00   140.39
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 23.975  23.975 (1.072)    55     21636 0.50000   0.5212   0.00-   0.00   100.00(a)
 23.975  23.975 (1.072)    98     13327                    0.00-   0.00    61.60
 23.975  23.975 (1.072)    42     11932                    0.00-   0.00    55.15
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 24.244  24.244 (1.084)   156     39767 0.50000   0.5430   0.00-   0.00   100.00(a)
 24.244  24.244 (1.084)   158     38643                    0.00-   0.00    97.17
 24.222  24.222 (1.083)    77     53589                    0.00-   0.00   134.76
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 24.289  24.289 (1.086)   110     18955 0.50000   0.5216   0.00-   0.00   100.00(a)
 24.289  24.289 (1.086)    75     47259                    0.00-   0.00   249.32
 24.289  24.289 (1.086)    61      9344                    0.00-   0.00    49.30
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 24.446  24.446 (1.093)   126     25270 0.50000   0.5082   0.00-   0.00   100.00(a)
 24.446  24.446 (1.093)    91     70935                    0.00-   0.00   280.71
 24.446  24.446 (1.093)    65      6930                    0.00-   0.00    27.42
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 24.581  24.581 (1.099)   126     27876 0.50000   0.5615   0.00-   0.00   100.00(a)
 24.581  24.581 (1.099)    91     67532                    0.00-   0.00   242.26
 24.581  24.581 (1.099)    63      8195                    0.00-   0.00    29.40
-------------------------------------------------------------------------------
  195 tert-Butylbenzene                            CAS #: 98-06-6
 24.850  24.850 (1.111)   119     81174 0.50000   0.5238   0.00-   0.00   100.00(a)
 24.850  24.850 (1.111)   134     21539                    0.00-   0.00    26.53
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
195 tert-Butylbenzene (continued)							
24.850	24.850 (1.111)	91	53405			0.00- 0.00	65.79
197 Pentachloroethane					CAS #: 76-01-7		
24.962	24.962 (1.116)	167	28618	0.50000	0.5152	0.00- 0.00	100.00(a)
24.962	24.962 (1.116)	117	25778			0.00- 0.00	90.08
24.962	24.962 (1.116)	169	12242			0.00- 0.00	42.78
203 sec-Butylbenzene					CAS #: 135-98-8		
25.097	25.097 (1.122)	105	106628	0.50000	0.5122	0.00- 0.00	100.00(a)
25.097	25.097 (1.122)	134	25413			0.00- 0.00	23.83
25.097	25.097 (1.122)	91	18784			0.00- 0.00	17.62
207 p-Cymene					CAS #: 99-87-6		
25.253	25.253 (1.129)	119	80868	0.50000	0.4928	0.00- 0.00	100.00(a)
25.253	25.253 (1.129)	134	25683			0.00- 0.00	31.76
25.253	25.253 (1.129)	91	19488			0.00- 0.00	24.10
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
25.410	25.410 (1.136)	120	24614	0.50000	0.4848	0.00- 0.00	100.00(a)
25.410	25.410 (1.136)	105	60754			0.00- 0.00	246.83
25.410	25.410 (1.136)	77	7429			0.00- 0.00	30.18
213 Butylbenzene					CAS #: 104-51-8		
25.702	25.702 (1.149)	134	20130	0.50000	0.5473	0.00- 0.00	100.00(a)
25.702	25.702 (1.149)	91	65379			0.00- 0.00	324.78
25.702	25.702 (1.149)	92	33177			0.00- 0.00	164.81
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.711	26.711 (1.194)	157	34549	0.50000	0.5229	0.00- 0.00	100.00(a)
26.711	26.711 (1.194)	75	27187			0.00- 0.00	78.69
26.711	26.711 (1.194)	155	25099			0.00- 0.00	72.65

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Report Date: 24-Mar-2016 08:33

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032205.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/22Mar2016.b/e16l0317a.m
Misc Info: 0.5ppbv (5.0ppbv)

Calibration Date: 22-MAR-2016
Calibration Time: 09:49
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	190421	114253	266589	192463	1.07
123 1,4-Difluorobenze	736283	441770	1030796	745012	1.19
163 Chlorobenzene-d5	650623	390374	910872	668249	2.71

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/22Mar2016.b/e032205.d

Date : 22-MAR-2016 12:05

Client ID: Level 7

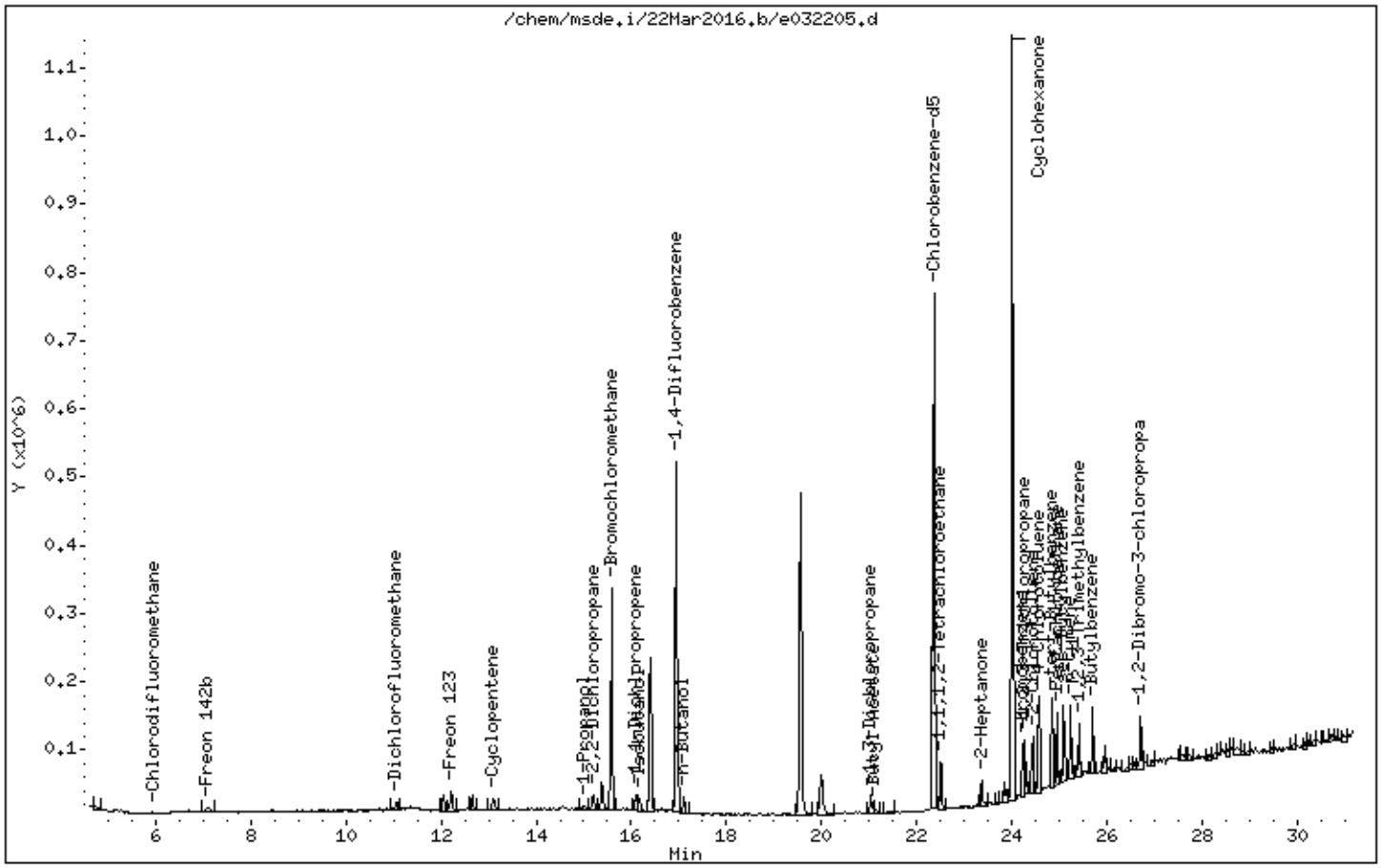
Instrument: msde.i

Sample Info: 25mL# 2759-238

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031708.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 17-MAR-2016 15:49
Operator : ef Inst ID: msde.i
Smp Info : 125mL# 2789-14
Misc Info : 0.5ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m
Meth Date : 23-Mar-2016 08:52 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 15:49 Cal File: e031708.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
5.479	5.479 (0.352)	85	65863	0.50000	0.4886	80.00- 120.00	100.00
5.455	5.455 (0.350)	87	11796			2.00- 62.00	17.91
15 Freon 114					CAS #: 76-14-2		
6.829	6.829 (0.438)	135	48005	0.50000	0.4866	80.00- 120.00	100.00
6.853	6.853 (0.440)	137	16207			1.31- 61.31	33.76
6.829	6.829 (0.438)	85	61866			93.88- 153.88	128.87
17 Chloromethane					CAS #: 74-87-3		
7.191	7.191 (0.462)	50	12865	0.50000	0.5030	80.00- 120.00	100.00
7.191	7.191 (0.462)	52	4013			5.50- 65.50	31.19
23 Butane					CAS #: 106-97-8		
7.871	7.871 (0.505)	58	3240	0.50000	0.4890	80.00- 120.00	100.00
7.889	7.889 (0.506)	43	22050			588.57- 648.57	680.56

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
25 Vinyl Chloride					CAS #: 75-01-4		
8.010	8.010 (0.514)	62	17191	0.50000	0.4778	80.00- 120.00	100.00
8.028	8.028 (0.515)	64	6804			3.14- 63.14	39.58
26 1,3-Butadiene					CAS #: 106-99-0		
8.236	8.236 (0.529)	54	10553	0.50000	0.4360	80.00- 120.00	100.00
8.253	8.253 (0.530)	39	11479			65.21- 125.21	108.77
29 Bromomethane					CAS #: 74-83-9		
9.711	9.711 (0.623)	94	17963	0.50000	0.4575	80.00- 120.00	100.00
9.729	9.729 (0.624)	96	16493			64.16- 124.16	91.82
30 Chloroethane					CAS #: 75-00-3		
10.195	10.195 (0.654)	64	7912	0.50000	0.4654	80.00- 120.00	100.00
10.195	10.195 (0.654)	49	2714			0.00- 54.91	34.30
10.214	10.214 (0.656)	66	3526			3.62- 63.62	44.57
31 Isopentane					CAS #: 78-78-4		
10.328	10.328 (0.663)	57	13727	0.50000	0.5570	80.00- 120.00	100.00
10.328	10.328 (0.663)	43	16333			82.69- 142.69	118.98
10.328	10.328 (0.663)	42	14683			68.65- 128.65	106.96
35 Freon 11					CAS #: 75-69-4		
10.957	10.957 (0.703)	101	71732	0.50000	0.4942	80.00- 120.00	100.00
10.957	10.957 (0.703)	103	45080			37.17- 97.17	62.85
42 Ethanol					CAS #: 64-17-5		
11.852	11.852 (0.761)	45	6179	0.50000	0.5875	80.00- 120.00	100.00
11.852	11.852 (0.761)	46	2212			6.61- 66.61	35.80
11.871	11.871 (0.762)	43	1269			0.00- 54.66	20.54
49 Freon 113					CAS #: 76-13-1		
12.271	12.271 (0.788)	151	50809	0.50000	0.4671	80.00- 120.00	100.00
12.271	12.271 (0.788)	153	32638			33.64- 93.64	64.24
12.252	12.252 (0.786)	101	52073			80.40- 140.40	102.49
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.290	12.290 (0.789)	98	15291	0.50000	0.5041	80.00- 120.00	100.00
12.290	12.290 (0.789)	61	32072			204.89- 264.89	209.74
12.290	12.290 (0.789)	96	27183			127.69- 187.69	177.77
52 Acetone					CAS #: 67-64-1		
12.556	12.556 (0.806)	58	11049	0.50000	0.6229	80.00- 120.00	100.00
12.556	12.556 (0.806)	43	37354			321.47- 381.47	338.08
56 Carbon Disulfide					CAS #: 75-15-0		
12.652	12.652 (0.812)	76	81551	0.50000	0.6032	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
57 2-Propanol					CAS #: 67-63-0		
12.899	12.899 (0.828)	45	26616	0.50000	0.4905	80.00- 120.00	100.00
12.918	12.918 (0.829)	43	7294			0.00- 54.09	27.40
12.899	12.899 (0.828)	59	1062			0.00- 34.43	3.99
58 3-Chloropropene					CAS #: 107-05-1		
13.071	13.071 (0.839)	76	11083	0.50000	0.5484	80.00- 120.00	100.00
13.071	13.071 (0.839)	41	18332			163.76- 223.76	165.41
66 Methylene Chloride					CAS #: 75-09-2		
13.356	13.356 (0.857)	84	21026	0.50000	0.4947	80.00- 120.00	100.00
13.356	13.356 (0.857)	49	19793			63.99- 123.99	94.14
13.356	13.356 (0.857)	51	5085			0.29- 60.29	24.18
71 tert-Butyl alcohol					CAS #: 75-65-0		
13.564	13.564 (0.871)	59	50938	0.50000	0.5132	80.00- 120.00	100.00
13.564	13.564 (0.871)	41	10281			0.00- 51.66	20.18
13.564	13.564 (0.871)	57	5356			0.00- 43.50	10.51
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.674	13.674 (0.878)	73	66341	0.50000	0.4881	80.00- 120.00	100.00
13.674	13.674 (0.878)	57	11347			0.00- 48.26	17.10
13.674	13.674 (0.878)	41	11703			0.00- 45.58	17.64
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.728	13.728 (0.881)	98	14424	0.50000	0.4682	80.00- 120.00	100.00
13.728	13.728 (0.881)	61	30977			155.28- 215.28	214.76
13.728	13.728 (0.881)	96	28787			126.18- 186.18	199.58
78 Hexane					CAS #: 110-54-3		
14.003	14.003 (0.899)	57	24870	0.50000	0.4691	80.00- 120.00	100.00
14.003	14.003 (0.899)	43	16635			21.48- 81.48	66.89
14.003	14.003 (0.899)	86	6568			0.00- 51.51	26.41
83 Isopropyl ether					CAS #: 108-20-3		
14.360	14.360 (0.922)	45	47980	0.50000	0.4962	80.00- 120.00	100.00
14.360	14.360 (0.922)	87	21297			9.88- 69.88	44.39
14.360	14.360 (0.922)	59	6200			0.00- 42.70	12.92
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.415	14.415 (0.925)	63	39305	0.50000	0.4875	80.00- 120.00	100.00
14.415	14.415 (0.925)	65	14597			1.78- 61.78	37.14
86 Vinyl Acetate					CAS #: 108-05-4		
14.442	14.442 (0.927)	86	6358	0.50000	0.5069	80.00- 120.00	100.00
14.442	14.442 (0.927)	42	5047			44.70- 104.70	79.38

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   86 Vinyl Acetate (continued)
 14.442  14.442 (0.927)    43     42791                  757.33- 817.33   673.03
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 14.859  14.859 (0.954)    59     56396 0.50000   0.4569  80.00- 120.00   100.00
 14.859  14.859 (0.954)    87     32355                   19.74-  79.74    57.37
 14.859  14.859 (0.954)    41     10148                    0.00-  46.34    17.99
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 15.240  15.240 (0.978)    98     16370 0.50000   0.4857  80.00- 120.00   100.00
 15.240  15.240 (0.978)    61     30060                  145.90- 205.90   183.63
 15.240  15.240 (0.978)    96     27852                  125.53- 185.53   170.14
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.240  15.240 (0.978)    72     10323 0.50000   0.4832  80.00- 120.00   100.00
 15.240  15.240 (0.978)    43     33949                  262.26- 322.26   328.87
 15.240  15.240 (0.978)    57      3372                    0.00-  55.71    32.66
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.580  15.580 (1.000)    42     17322 0.50000   0.4418  80.00- 120.00   100.00
 15.580  15.580 (1.000)    71      9116                   26.85-  86.85    52.63
 15.580  15.580 (1.000)    72      9066                   32.22-  92.22    52.34
-------------------------------------------------------------------------------
*  98 Bromochloromethane                          CAS #: 74-97-5
 15.580  15.580 (1.000)   130    160269 5.00000           80.00- 120.00   100.00
 15.580  15.580 (1.000)   128    123651                   52.25- 112.25    77.15
 15.580  15.580 (1.000)    49    130750                   89.81- 149.81    81.58
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.641  15.641 (1.004)    83     55910 0.50000   0.4832  80.00- 120.00   100.00
 15.641  15.641 (1.004)    85     40228                   33.97-  93.97    71.95
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.888  15.888 (1.020)    84     29124 0.50000   0.4850  80.00- 120.00   100.00
 15.888  15.888 (1.020)    56     25780                   58.69- 118.69    88.52
 15.888  15.888 (1.020)    41     16174                   18.98-  78.98    55.53
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.888  15.888 (1.020)    97     62304 0.50000   0.4629  80.00- 120.00   100.00
 15.888  15.888 (1.020)    99     41465                   34.21-  94.21    66.55
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 16.073  16.073 (1.032)   119     58091 0.50000   0.4407  80.00- 120.00   100.00
 16.073  16.073 (1.032)   117     61776                   74.09- 134.09   106.34
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 16.313  16.313 (1.047)    56     32515 0.50000   0.4843  80.00- 120.00   100.00
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  113 2,2,4-Trimethylpentane (continued)
 16.313  16.313 (1.047)    57    100557                   306.64- 366.64   309.26
 16.313  16.313 (1.047)    41     30898                    64.14- 124.14    95.03
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 16.409  16.409 (0.969)    78     67573 0.50000   0.4865  80.00- 120.00   100.00
 16.409  16.409 (0.969)    77     16104                     0.00-  53.97    23.83
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 16.409  16.409 (1.053)    65    228730 5.00000    4.971  80.00- 120.00   100.00
 16.409  16.409 (1.053)    67    116209                    21.16-  81.16    50.81
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                       CAS #: 994-05-8
 16.433  16.433 (0.970)    87     19877 0.50000   0.5573  80.00- 120.00   100.00
 16.433  16.433 (0.970)    73     66562                   338.86- 398.86   334.87
 16.433  16.433 (0.970)    55     13779                    44.52- 104.52    69.32
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 16.505  16.505 (0.974)    62     36953 0.50000   0.5104  80.00- 120.00   100.00
 16.505  16.505 (0.974)    64     14071                     1.03-  61.03    38.08
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 16.553  16.553 (0.977)    57     15401 0.50000   0.4677  80.00- 120.00   100.00
 16.553  16.553 (0.977)   100      9707                    28.67-  88.67    63.03
 16.553  16.553 (0.977)    43     25968                   128.92- 188.92   168.61
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.939  16.939 (1.000)   114    579661 5.00000           80.00- 120.00   100.00
 16.939  16.939 (1.000)    88     87795                     0.00-  45.20    15.15
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 17.373  17.373 (1.026)   130     36646 0.50000   0.5086  80.00- 120.00   100.00
 17.373  17.373 (1.026)    95     35493                    63.99- 123.99    96.85
 17.373  17.373 (1.026)    97     20508                    29.21-  89.21    55.96
-------------------------------------------------------------------------------
  127 Methylcyclohexane                            CAS #: 108-87-2
 17.590  17.590 (1.038)    83     38644 0.50000   0.4997  80.00- 120.00   100.00
 17.590  17.590 (1.038)    55     24891                    31.29-  91.29    64.41
 17.590  17.590 (1.038)    56      8129                     0.00-  48.78    21.04
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 17.806  17.806 (1.051)    63     19925 0.50000   0.4455  80.00- 120.00   100.00
 17.806  17.806 (1.051)    62     14997                    34.19-  94.19    75.27
 17.806  17.806 (1.051)    41     13836                    27.38-  87.38    69.44
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.951  17.951 (1.060)    88     16822 0.50000   0.5022  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
136 1,4-Dioxane (continued)							
17.927	17.927 (1.058)	58	8683			25.03- 85.03	51.62
17.927	17.927 (1.058)	57	3866			0.00- 50.67	22.98
138 Bromodichloromethane					CAS #: 75-27-4		
18.240	18.240 (1.077)	83	59163	0.50000	0.5132	80.00- 120.00	100.00
18.240	18.240 (1.077)	85	36683			35.15- 95.15	62.00
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
19.086	19.086 (1.127)	75	42928	0.50000	0.4997	80.00- 120.00	100.00
19.086	19.086 (1.127)	77	12905			0.45- 60.45	30.06
19.063	19.063 (1.125)	39	18050			13.69- 73.69	42.05
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
19.265	19.265 (1.137)	43	34130	0.50000	0.4761	80.00- 120.00	100.00
19.265	19.265 (1.137)	58	14887			15.64- 75.64	43.62
19.265	19.265 (1.137)	85	8101			0.00- 56.71	23.74
$ 146 Toluene-d8					CAS #: 2037-26-5		
19.556	19.556 (1.155)	98	564476	5.00000	4.958	80.00- 120.00	100.00
19.556	19.556 (1.155)	70	62501			0.00- 40.11	11.07
19.556	19.556 (1.155)	100	373467			37.58- 97.58	66.16
147 Toluene					CAS #: 108-88-3		
19.713	19.713 (1.164)	91	82745	0.50000	0.5001	80.00- 120.00	100.00
19.713	19.713 (1.164)	92	47639			28.92- 88.92	57.57
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
20.304	20.304 (0.908)	75	38297	0.50000	0.4633	80.00- 120.00	100.00
20.304	20.304 (0.908)	77	12107			0.55- 60.55	31.61
20.276	20.276 (0.907)	39	15380			8.25- 68.25	40.16
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.688	20.688 (0.925)	97	29235	0.50000	0.4543	80.00- 120.00	100.00
20.688	20.688 (0.925)	99	18922			32.91- 92.91	64.72
20.688	20.688 (0.925)	83	25757			47.93- 107.93	88.10
156 Tetrachloroethene					CAS #: 127-18-4		
20.853	20.853 (0.932)	166	50034	0.50000	0.5046	80.00- 120.00	100.00
20.853	20.853 (0.932)	129	32964			42.31- 102.31	65.88
20.853	20.853 (0.932)	131	36148			40.11- 100.11	72.25
158 2-Hexanone					CAS #: 591-78-6		
21.018	21.018 (0.940)	58	18262	0.50000	0.4410	80.00- 120.00	100.00
21.018	21.018 (0.940)	43	32894			140.44- 200.44	180.12
21.018	21.018 (0.940)	100	5378			0.00- 59.62	29.45

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
160 Dibromochloromethane						CAS #: 124-48-1	
21.430	21.430 (0.958)	129	64792	0.50000	0.4960	80.00- 120.00	100.00
21.430	21.430 (0.958)	127	52098			46.82- 106.82	80.41
161 1,2-Dibromoethane (EDB)						CAS #: 106-93-4	
21.677	21.677 (0.969)	107	48325	0.50000	0.4894	80.00- 120.00	100.00
21.677	21.677 (0.969)	109	46737			65.45- 125.45	96.71
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
22.365	22.365 (1.000)	117	533837	5.00000		80.00- 120.00	100.00
22.365	22.365 (1.000)	82	273041			20.64- 80.64	51.15
165 Chlorobenzene						CAS #: 108-90-7	
22.407	22.407 (1.002)	112	71133	0.50000	0.4925	80.00- 120.00	100.00
22.407	22.407 (1.002)	114	22289			2.42- 62.42	31.33
22.407	22.407 (1.002)	77	45094			23.54- 83.54	63.39
167 Ethyl Benzene						CAS #: 100-41-4	
22.490	22.490 (1.006)	106	33987	0.50000	0.4832	80.00- 120.00	100.00
22.490	22.490 (1.006)	91	104532			282.51- 342.51	307.56
169 m,p-Xylene						CAS #: 108-38-3	
22.656	22.656 (1.013)	106	39486	0.50000	0.4832	80.00- 120.00	100.00
22.656	22.656 (1.013)	91	82293			166.46- 226.46	208.41
171 o-Xylene						CAS #: 95-47-6	
23.257	23.257 (1.040)	106	35774	0.50000	0.4773	80.00- 120.00	100.00
23.257	23.257 (1.040)	91	79785			184.01- 244.01	223.03
172 Styrene						CAS #: 100-42-5	
23.298	23.298 (1.042)	104	57514	0.50000	0.4535	80.00- 120.00	100.00
23.298	23.298 (1.042)	78	31788			20.27- 80.27	55.27
174 Bromoform						CAS #: 75-25-2	
23.639	23.639 (1.057)	173	61161	0.50000	0.4726	80.00- 120.00	100.00
23.639	23.639 (1.057)	171	30338			20.88- 80.88	49.60
175 Cumene						CAS #: 98-82-8	
23.728	23.728 (1.061)	105	119322	0.50000	0.4682	80.00- 120.00	100.00
23.728	23.728 (1.061)	120	32756			0.00- 57.47	27.45
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4	
24.020	24.020 (1.074)	174	364296	5.00000	4.973	80.00- 120.00	100.00
24.020	24.020 (1.074)	95	393023			77.42- 137.42	107.89
24.020	24.020 (1.074)	176	348893			65.38- 125.38	95.77

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.199	24.199 (1.082)	83	54946	0.50000	0.4630	80.00- 120.00	100.00
24.199	24.199 (1.082)	85	38975			35.73- 95.73	70.93
182 Propylbenzene					CAS #: 103-65-1		
24.267	24.267 (1.085)	91	134960	0.50000	0.5028	80.00- 120.00	100.00
24.267	24.267 (1.085)	120	30260			0.00- 55.24	22.42
188 4-Ethyltoluene					CAS #: 622-96-8		
24.401	24.401 (1.091)	105	104115	0.50000	0.4576	80.00- 120.00	100.00
24.401	24.401 (1.091)	120	34032			1.08- 61.08	32.69
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.468	24.468 (1.094)	105	82544	0.50000	0.4672	80.00- 120.00	100.00
24.468	24.468 (1.094)	120	44179			18.44- 78.44	53.52
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.917	24.917 (1.114)	105	66372	0.50000	0.4336	80.00- 120.00	100.00
24.917	24.917 (1.114)	120	32147			16.20- 76.20	48.43
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.320	25.320 (1.132)	146	68785	0.50000	0.4759	80.00- 120.00	100.00
25.320	25.320 (1.132)	148	45513			35.51- 95.51	66.17
25.320	25.320 (1.132)	111	26877			9.35- 69.35	39.07
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.433	25.433 (1.137)	146	62668	0.50000	0.4623	80.00- 120.00	100.00
25.433	25.433 (1.137)	148	38731			32.61- 92.61	61.80
25.433	25.433 (1.137)	111	24998			6.90- 66.90	39.89
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.567	25.567 (1.143)	91	78449	0.50000	0.4600	80.00- 120.00	100.00
25.567	25.567 (1.143)	126	17914			0.00- 51.82	22.84
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.858	25.858 (1.156)	146	61135	0.50000	0.4931	80.00- 120.00	100.00
25.858	25.858 (1.156)	148	39452			33.69- 93.69	64.53
25.858	25.858 (1.156)	111	25261			8.96- 68.96	41.32
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.607	27.607 (1.234)	180	27688	0.50000	0.4925	80.00- 120.00	100.00
27.607	27.607 (1.234)	182	29902			66.05- 126.05	108.00
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.697	27.697 (1.238)	225	37612	0.50000	0.4920	80.00- 120.00	100.00
27.697	27.697 (1.238)	223	25813			33.78- 93.78	68.63

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
228 Naphthalene						CAS #: 91-20-3		
27.921	27.921	(1.248)	128	3806	0.05000	0.04636	80.00- 120.00	100.00(a)
27.898	27.898	(1.247)	127	2356			0.00- 46.39	61.90

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 23-Mar-2016 08:52

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031708.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m
Misc Info: 0.5ppbv (1.0ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	164946	98968	230924	160269	-2.84
123 1,4-Difluorobenze	626935	376161	877709	579661	-7.54
163 Chlorobenzene-d5	567678	340607	794749	533837	-5.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031708.d

Date : 17-MAR-2016 15:49

Client ID: Level 7

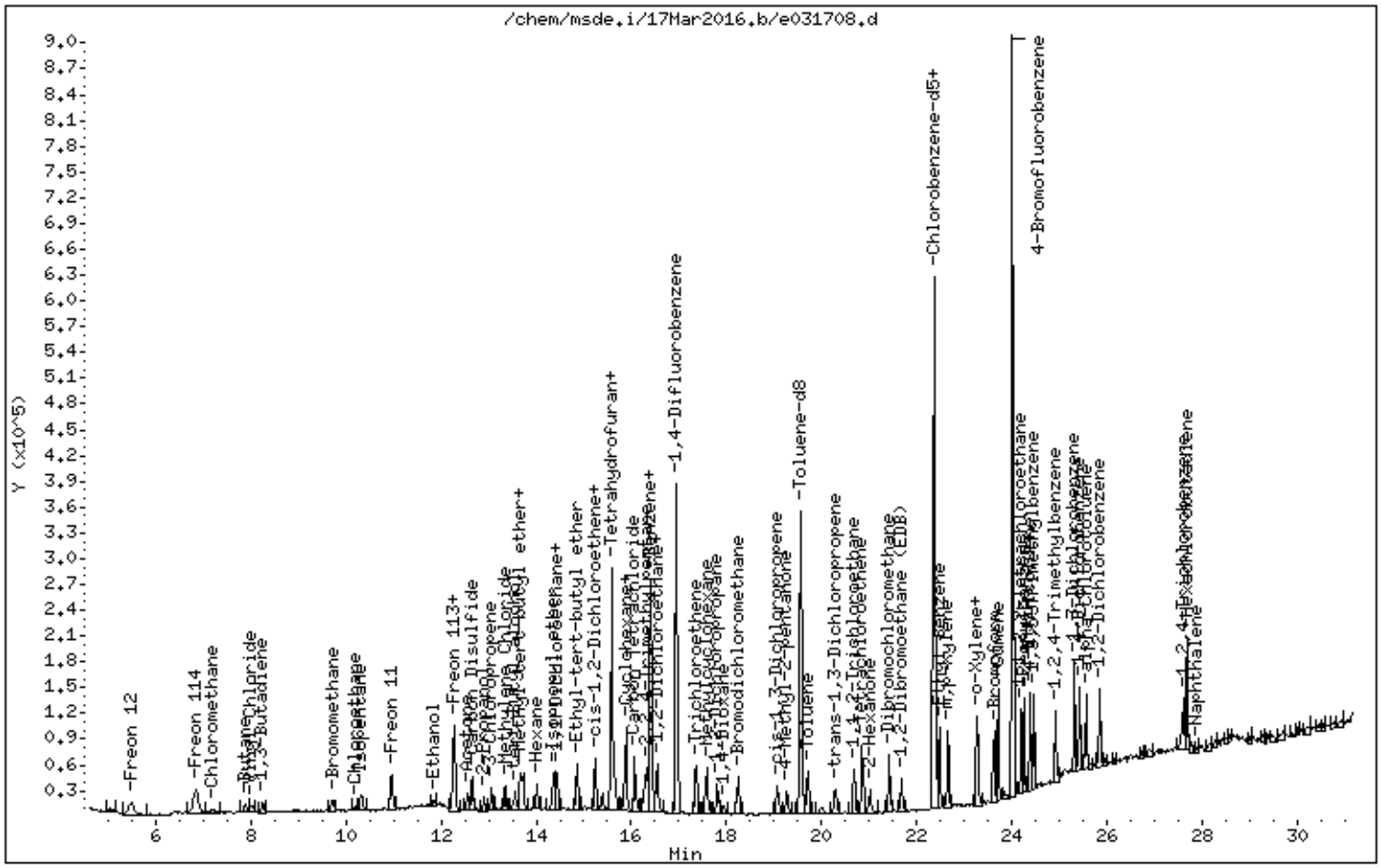
Instrument: msde.i

Sample Info: 125mL# 2789-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/24May2016.b/e052406.d
Lab Smp Id: ICAL Level 8
Inj Date : 24-MAY-2016 10:14
Operator : ef Inst ID: msde.i
Smp Info : 50mL# 2789-129
Misc Info : 1.0ppbv (5.0ppbv) AT-1
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/24May2016.b/e16l0317f.m
Meth Date : 24-May-2016 14:26 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FreonICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
10 1,1-Difluoroethane					CAS #: 75-37-6		
5.027	5.027 (0.327)	65	10049	1.00000	0.9683	0.00- 0.00	100.00(a)
5.052	5.052 (0.328)	51	18734			0.00- 0.00	186.43
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.751	5.751 (0.374)	51	28281	1.00000	0.9982	0.00- 0.00	100.00(a)
5.751	5.751 (0.374)	67	6717			0.00- 0.00	23.75
5.726	5.726 (0.372)	85	232			0.00- 0.00	0.82
16 Freon 142b					CAS #: 75-68-3		
6.835	6.835 (0.444)	65	60222	1.00000	1.061	0.00- 0.00	100.00(a)
6.835	6.835 (0.444)	45	11892			0.00- 0.00	19.75
6.859	6.859 (0.446)	81	4324			0.00- 0.00	7.18
37 Dichlorofluoromethane					CAS #: 75-43-4		
10.880	10.880 (0.707)	67	61744	1.00000	0.9869	0.00- 0.00	100.00(a)
10.880	10.880 (0.707)	69	22225			0.00- 0.00	36.00
10.880	10.880 (0.707)	47	5624			0.00- 0.00	9.11
48 Freon 123					CAS #: 306-83-2		
12.023	12.023 (0.781)	83	72480	1.00000	0.9997	0.00- 0.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
48 Freon 123 (continued)							
12.042	12.042 (0.782)	133	20577			0.00- 0.00	28.39
12.042	12.042 (0.782)	85	46989			0.00- 0.00	64.83
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	128204	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	100906			52.25- 112.25	78.71
15.391	15.391 (1.000)	49	92458			89.81- 149.81	72.12
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	481573	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	72859			0.00- 45.20	15.13
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	421843	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	208291			20.64- 80.64	49.38

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Report Date: 24-May-2016 14:26

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e052406.d
Lab Smp Id: ICAL Level 8
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/24May2016.b/e16l0317f.m
Misc Info: 1.0ppbv (5.0ppbv) AT-1

Calibration Date: 24-MAY-2016
Calibration Time: 07:15

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	155366	93220	217512	128204	-17.48
123 1,4-Difluorobenze	569598	341759	797437	481573	-15.45
163 Chlorobenzene-d5	506881	304129	709633	421843	-16.78

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/24May2016.b/e052406.d

Date : 24-MAY-2016 10:14

Client ID:

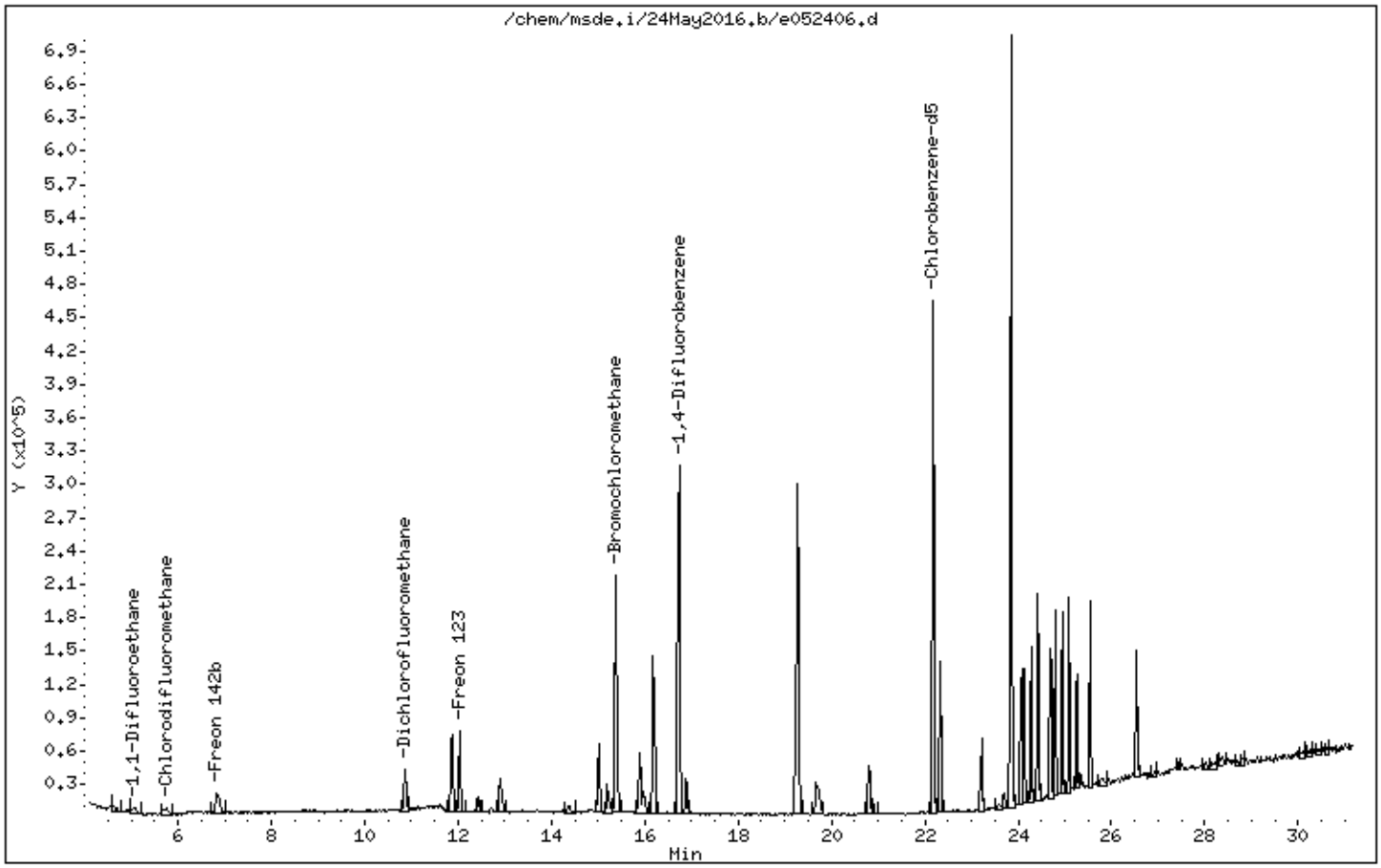
Instrument: msde.i

Sample Info: 50mL# 2789-129

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/19May2016.b/e051908.d
Lab Smp Id: ICAL Level 8
Inj Date : 19-MAY-2016 14:44
Operator : ef Inst ID: msde.i
Smp Info : 50mL# 2789-151
Misc Info : 1.0ppbv (5.0ppbv) Acetonitrile
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/19May2016.b/e16l0317e.m
Meth Date : 19-May-2016 17:13 efinn Quant Type: ISTD
Cal Date : 19-MAY-2016 14:44 Cal File: e051908.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AcetonitrileCrv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
63 Acetonitrile					CAS #: 75-05-8		
13.012	13.012 (0.845)	41	16922	1.00000	0.9629	0.00- 0.00	100.00
13.012	13.012 (0.845)	40	11227			0.00- 0.00	66.35
13.012	13.012 (0.845)	39	5216			0.00- 0.00	30.82
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	120162	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	91376			52.25- 112.25	76.04
15.391	15.391 (1.000)	49	86529			89.81- 149.81	72.01
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	426643	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	61906			0.00- 45.20	14.51
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	394341	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	185669			20.64- 80.64	47.08

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e051908.d
Lab Smp Id: ICAL Level 8
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/19May2016.b/e16l0317e.m
Misc Info: 1.0ppbv (5.0ppbv) Acetonitrile

Calibration Date: 19-MAY-2016
Calibration Time: 09:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	151740	91044	212436	120162	-20.81
123 1,4-Difluorobenze	581412	348847	813977	426643	-26.62
163 Chlorobenzene-d5	508099	304859	711339	394341	-22.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/19May2016.b/e051908.d

Date : 19-MAY-2016 14:44

Client ID:

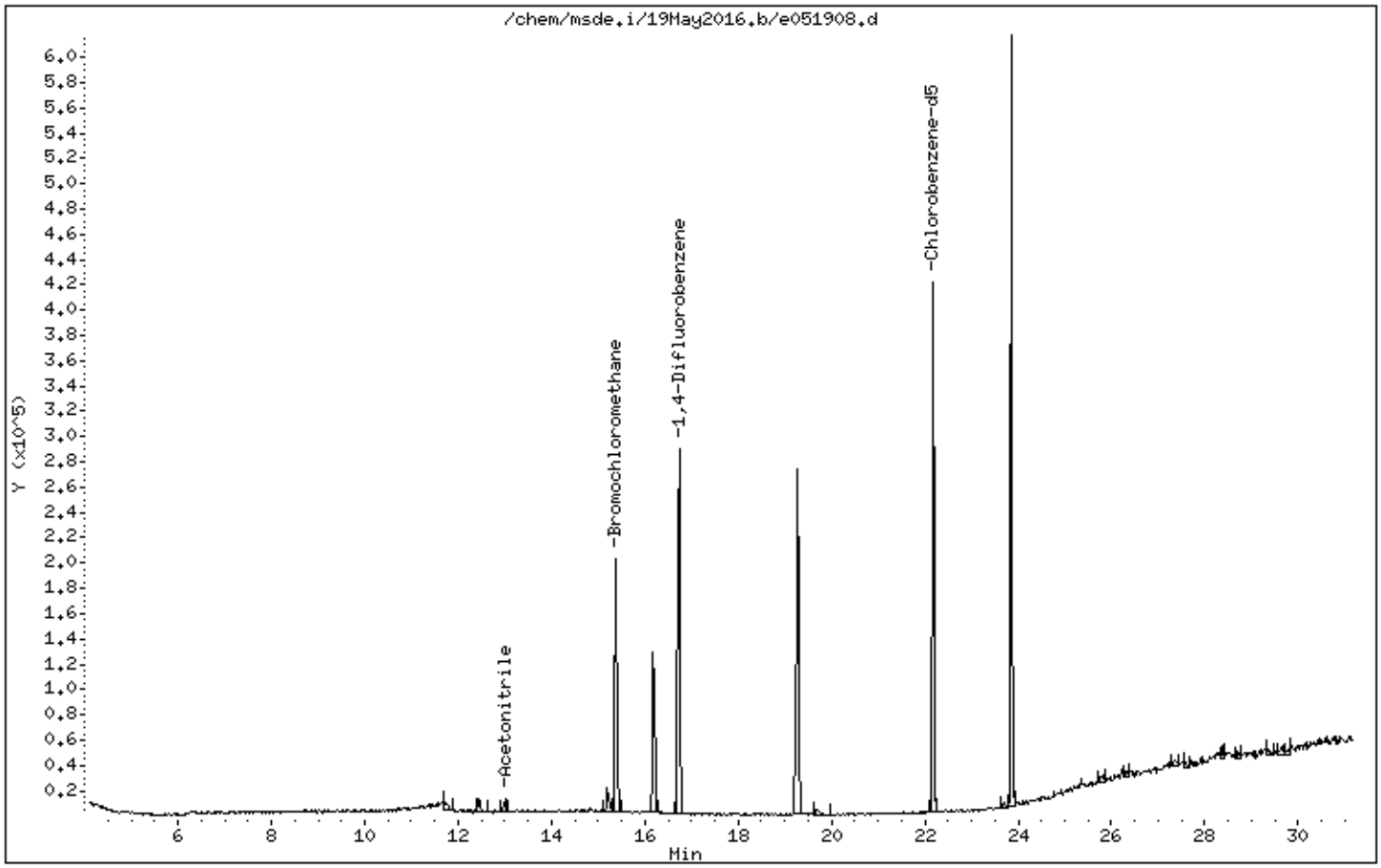
Instrument: msde.i

Sample Info: 50mL# 2789-151

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/09May2016.b/e050908.d
Lab Smp Id: ICAL Level 8
Inj Date : 09-MAY-2016 12:03
Operator : ef Inst ID: msde.i
Smp Info : 50mL# 2789-105
Misc Info : 1.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/09May2016.b/e16l0317d.m
Meth Date : 10-May-2016 10:48 efinn Quant Type: ISTD
Cal Date : 09-MAY-2016 12:03 Cal File: e050908.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL-VB.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
36 1-Pentene					CAS #: 109-67-1		
10.824	10.824 (0.703)	55	21035	1.00000	0.9431	0.00- 0.00	100.00
10.824	10.824 (0.703)	42	23586			0.00- 0.00	112.13
34 Pentane					CAS #: 109-66-0		
10.957	10.957 (0.712)	43	39909	1.00000	1.021	0.00- 0.00	100.00
10.957	10.957 (0.712)	57	7911			0.00- 0.00	19.82
10.957	10.957 (0.712)	72	6275			0.00- 0.00	15.72
44 Ethyl Ether					CAS #: 60-29-7		
11.643	11.643 (0.756)	74	19929	1.00000	1.100	0.00- 0.00	100.00(T)
11.623	11.623 (0.755)	59	22225			0.00- 0.00	111.52
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00
53 Iodomethane					CAS #: 74-88-4		
12.404	12.404 (0.806)	142	114470	1.00000	1.018	0.00- 0.00	100.00
12.404	12.404 (0.806)	127	49338			0.00- 0.00	43.10
59 Cyclopentene					CAS #: 142-29-0		
12.900	12.900 (0.838)	67	76141	1.00000	0.9981	0.00- 0.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   59 Cyclopentene (continued)
 12.900  12.900 (0.838)    68     29667                     0.00-   0.00    38.96
 12.900  12.900 (0.838)    53     13565                     0.00-   0.00    17.82
-------------------------------------------------------------------------------
   64 Cyclopentane                                  CAS #: 287-92-3
 13.094  13.094 (0.851)    70     18571 1.00000   0.9434   0.00-   0.00   100.00
 13.067  13.067 (0.849)    55     19025                     0.00-   0.00   102.44
-------------------------------------------------------------------------------
   74 Acrylonitrile                                 CAS #: 107-13-1
 13.643  13.643 (0.886)    53     24749 1.00000    1.078   0.00-   0.00   100.00
 13.643  13.643 (0.886)    52     17855                     0.00-   0.00    72.14
-------------------------------------------------------------------------------
   76 1-Hexene                                      CAS #: 592-41-6
 13.726  13.726 (0.892)    55     19211 1.00000   0.9610   0.00-   0.00   100.00
 13.726  13.726 (0.892)    41     27074                     0.00-   0.00   140.93
 13.726  13.726 (0.892)    84     10876                     0.00-   0.00    56.61
-------------------------------------------------------------------------------
   84 1-Propanol                                    CAS #: 71-23-8
 14.357  14.357 (0.933)    59      5832 1.00000   0.9372   0.00-   0.00   100.00
 14.357  14.357 (0.933)    42      4556                     0.00-   0.00    78.12
 14.385  14.385 (0.935)    41      3518                     0.00-   0.00    60.32
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                           CAS #: 594-20-7
 15.009  15.009 (0.975)    77     92126 1.00000    1.035   0.00-   0.00   100.00
 15.009  15.009 (0.975)    79     29466                     0.00-   0.00    31.98
 15.009  15.009 (0.975)    97     17258                     0.00-   0.00    18.73
-------------------------------------------------------------------------------
   94 Ethyl Acetate                                 CAS #: 141-78-6
 15.047  15.047 (0.978)    70      7856 1.00000    1.022   0.00-   0.00   100.00
 15.047  15.047 (0.978)    43     54665                     0.00-   0.00   695.84
 15.047  15.047 (0.978)    61     20434                     0.00-   0.00   260.11
-------------------------------------------------------------------------------
   93 Methyl Acrylate                               CAS #: 96-33-3
 15.123  15.123 (0.983)    55     58469 1.00000   0.9881   0.00-   0.00   100.00
 15.123  15.123 (0.983)    85     15014                     0.00-   0.00    25.68
 15.123  15.123 (0.983)    58      5333                     0.00-   0.00     9.12
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    137001 5.00000            80.00- 120.00   100.00
 15.391  15.391 (1.000)   128     99124                    52.25- 112.25    72.35
 15.391  15.391 (1.000)    49     97605                    89.81- 149.81    71.24
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                          CAS #: 563-58-6
 15.885  15.885 (1.032)   110     24149 1.00000   0.9435   0.00-   0.00   100.00
 15.885  15.885 (1.032)    75     63125                     0.00-   0.00   261.40
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
115 Isobutanol					CAS #: 78-83-1		
15.977	15.977 (1.038)	43	27018	1.00000	0.9844	0.00- 0.00	100.00
15.977	15.977 (1.038)	41	22608			0.00- 0.00	83.68
15.977	15.977 (1.038)	55	2523			0.00- 0.00	9.34
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	505929	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	76981			0.00- 45.20	15.22
124 n-Butanol					CAS #: 71-36-3		
16.882	16.882 (1.009)	56	44924	1.00000	0.9880	0.00- 0.00	100.00
16.906	16.906 (1.010)	41	31736			0.00- 0.00	70.64
16.882	16.882 (1.009)	43	22941			0.00- 0.00	51.07
128 Ethyl acrylate					CAS #: 140-88-5		
17.171	17.171 (1.026)	99	7940	1.00000	1.050	0.00- 0.00	100.00
17.171	17.171 (1.026)	45	6247			0.00- 0.00	78.68
17.171	17.171 (1.026)	55	63631			0.00- 0.00	801.40
131 2-Pentanone					CAS #: 107-87-9		
17.388	17.388 (1.039)	43	77044	1.00000	0.9826	0.00- 0.00	100.00
17.388	17.388 (1.039)	58	7126			0.00- 0.00	9.25
17.388	17.388 (1.039)	86	20265			0.00- 0.00	26.30
134 Methyl Methacrylate					CAS #: 80-62-6		
17.556	17.556 (1.049)	41	41797	1.00000	1.021	0.00- 0.00	100.00
17.556	17.556 (1.049)	69	43916			0.00- 0.00	105.07
17.556	17.556 (1.049)	100	18544			0.00- 0.00	44.37
137 Dibromomethane					CAS #: 74-95-3		
17.797	17.797 (1.063)	174	75013	1.00000	0.9917	0.00- 0.00	100.00
17.797	17.797 (1.063)	93	55210			0.00- 0.00	73.60
17.797	17.797 (1.063)	95	51958			0.00- 0.00	69.27
148 Octane					CAS #: 111-65-9		
19.343	19.343 (1.156)	57	25580	1.00000	1.004	0.00- 0.00	100.00
19.320	19.320 (1.154)	85	35666			0.00- 0.00	139.43
19.320	19.320 (1.154)	43	49233			0.00- 0.00	192.47
157 1,3-Dichloropropane					CAS #: 142-28-9		
20.795	20.795 (0.938)	76	78463	1.00000	1.006	0.00- 0.00	100.00
20.795	20.795 (0.938)	41	38871			0.00- 0.00	49.54
20.795	20.795 (0.938)	78	23073			0.00- 0.00	29.41
159 Butyl Acetate					CAS #: 123-86-4		
20.905	20.905 (0.943)	56	6407	1.00000	0.8420	0.00- 0.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  159 Butyl Acetate (continued)
 20.905  20.905 (0.943)    73      5262                     0.00-   0.00    82.13
 20.905  20.905 (0.943)    43     16832                     0.00-   0.00   262.71
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    452153 5.00000            80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    225263                    20.64-  80.64    49.82
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                     CAS #: 630-20-6
 22.343  22.343 (1.007)   131     86739 1.00000   0.9601   0.00-   0.00   100.00
 22.343  22.343 (1.007)   117     58679                     0.00-   0.00    67.65
 22.343  22.343 (1.007)    95     31643                     0.00-   0.00    36.48
-------------------------------------------------------------------------------
  170 Nonane                                        CAS #: 111-84-2
 22.302  22.302 (1.006)    43     43037 1.00000   0.9507   0.00-   0.00   100.00
 22.302  22.302 (1.006)    57     45683                     0.00-   0.00   106.15
 22.302  22.302 (1.006)    85     21786                     0.00-   0.00    50.62
-------------------------------------------------------------------------------
  173 2-Heptanone                                   CAS #: 110-43-0
 23.214  23.214 (1.047)    58     44969 1.00000   0.9609   0.00-   0.00   100.00
 23.214  23.214 (1.047)    43     66507                     0.00-   0.00   147.90
-------------------------------------------------------------------------------
  176 Cyclohexanone                                 CAS #: 108-94-1
 23.811  23.811 (1.074)    55     37484 1.00000   0.9618   0.00-   0.00   100.00
 23.811  23.811 (1.074)    98     22614                     0.00-   0.00    60.33
 23.811  23.811 (1.074)    42     26172                     0.00-   0.00    69.82
-------------------------------------------------------------------------------
  179 alpha-Pinene                                  CAS #: 80-56-8
 23.497  23.497 (1.060)    93    174814 1.00000   0.9695   0.00-   0.00   100.00
 23.497  23.497 (1.060)   121     25068                     0.00-   0.00    14.34
 23.497  23.497 (1.060)    92     65661                     0.00-   0.00    37.56
-------------------------------------------------------------------------------
  180 Bromobenzene                                  CAS #: 108-86-1
 24.080  24.080 (1.086)   156     90601 1.00000   0.9970   0.00-   0.00   100.00
 24.080  24.080 (1.086)   158     87027                     0.00-   0.00    96.06
 24.080  24.080 (1.086)    77    109509                     0.00-   0.00   120.87
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                        CAS #: 96-18-4
 24.125  24.125 (1.088)   110     36982 1.00000    1.013   0.00-   0.00   100.00
 24.125  24.125 (1.088)    75    123331                     0.00-   0.00   333.49
 24.125  24.125 (1.088)    61     20688                     0.00-   0.00    55.94
-------------------------------------------------------------------------------
  187 Decane                                        CAS #: 124-18-5
 24.170  24.170 (1.090)    57     35879 1.00000   0.9723   0.00-   0.00   100.00
 24.170  24.170 (1.090)    71     17931                     0.00-   0.00    49.98
 24.170  24.170 (1.090)   142      2314                     0.00-   0.00     6.45
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  189 2-Chlorotoluene                                CAS #: 95-49-8
 24.282  24.282 (1.095)   126     59313 1.00000    1.017   0.00-   0.00   100.00
 24.282  24.282 (1.095)    91    148786                     0.00-   0.00   250.85
 24.282  24.282 (1.095)    65     13277                     0.00-   0.00    22.38
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                                CAS #: 106-43-4
 24.417  24.417 (1.101)   126     55144 1.00000    1.020   0.00-   0.00   100.00
 24.417  24.417 (1.101)    91    142855                     0.00-   0.00   259.06
 24.417  24.417 (1.101)    63     15434                     0.00-   0.00    27.99
-------------------------------------------------------------------------------
  195 tert-Butylbenzene                              CAS #: 98-06-6
 24.708  24.708 (1.114)   119    150500 1.00000   0.9878   0.00-   0.00   100.00
 24.708  24.708 (1.114)   134     37759                     0.00-   0.00    25.09
 24.686  24.686 (1.113)    91     97079                     0.00-   0.00    64.50
-------------------------------------------------------------------------------
  197 Pentachloroethane                              CAS #: 76-01-7
 24.798  24.798 (1.118)   167     63384 1.00000    1.026   0.00-   0.00   100.00
 24.798  24.798 (1.118)   117     52998                     0.00-   0.00    83.61
 24.798  24.798 (1.118)   169     31606                     0.00-   0.00    49.86
-------------------------------------------------------------------------------
  199 D-Limonene                                     CAS #: 5989-27-5
 25.022  25.022 (1.128)    68     54364 1.00000   0.9467   0.00-   0.00   100.00
 25.044  25.044 (1.129)    93    138517                     0.00-   0.00   254.80
-------------------------------------------------------------------------------
  203 sec-Butylbenzene                               CAS #: 135-98-8
 24.955  24.955 (1.125)   105    286099 1.00000   0.9953   0.00-   0.00   100.00
 24.955  24.955 (1.125)   134     63787                     0.00-   0.00    22.30
 24.955  24.955 (1.125)    91     45861                     0.00-   0.00    16.03
-------------------------------------------------------------------------------
  206 bis(2-Chloroethyl) Ether                       CAS #: 111-44-4
 25.044  25.044 (1.129)    93    138517 1.00000   0.9700   0.00-   0.00   100.00
 25.044  25.044 (1.129)    95     34864                     0.00-   0.00    25.17
 25.044  25.044 (1.129)    63     61293                     0.00-   0.00    44.25
-------------------------------------------------------------------------------
  207 p-Cymene                                       CAS #: 99-87-6
 25.089  25.089 (1.131)   119    174489 1.00000   0.9939   0.00-   0.00   100.00
 25.089  25.089 (1.131)   134     50563                     0.00-   0.00    28.98
 25.089  25.089 (1.131)    91     38095                     0.00-   0.00    21.83
-------------------------------------------------------------------------------
  210 1,2,3-Trimethylbenzene                         CAS #: 526-73-8
 25.269  25.269 (1.139)   120     56034 1.00000   0.9968   0.00-   0.00   100.00
 25.269  25.269 (1.139)   105    122416                     0.00-   0.00   218.47
 25.246  25.246 (1.138)    77     13523                     0.00-   0.00    24.13
-------------------------------------------------------------------------------
  213 Butylbenzene                                   CAS #: 104-51-8
 25.538  25.538 (1.152)   134     42339 1.00000   0.9615   0.00-   0.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
213 Butylbenzene (continued)							
25.538	25.538 (1.152)	91	142467			0.00- 0.00	336.49
25.538	25.538 (1.152)	92	74257			0.00- 0.00	175.39
215 Undecane					CAS #: 1120-21-4		
25.515	25.515 (1.151)	57	23461	1.00000	0.8773	0.00- 0.00	100.00
25.515	25.515 (1.151)	43	19467			0.00- 0.00	82.98
25.515	25.515 (1.151)	85	11162			0.00- 0.00	47.58
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	68752	1.00000	0.9629	0.00- 0.00	100.00
26.546	26.546 (1.197)	75	54169			0.00- 0.00	78.79
26.546	26.546 (1.197)	155	53210			0.00- 0.00	77.39
225 Dodecane					CAS #: 112-40-3		
26.614	26.614 (1.200)	85	7893	1.00000	0.9908	0.00- 0.00	100.00
26.614	26.614 (1.200)	57	17201			0.00- 0.00	217.93
26.614	26.614 (1.200)	43	14647			0.00- 0.00	185.57

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 10-May-2016 12:11

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e050908.d
Lab Smp Id: ICAL Level 8
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/09May2016.b/e16l0317d.m
Misc Info: 1.0ppbv (5.0ppbv) Combo

Calibration Date: 09-MAY-2016
Calibration Time: 07:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	159373	95624	223122	137001	-14.04
123 1,4-Difluorobenze	624905	374943	874867	505929	-19.04
163 Chlorobenzene-d5	549919	329951	769887	452153	-17.78

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/09May2016.b/e050908.d

Date : 09-MAY-2016 12:03

Client ID:

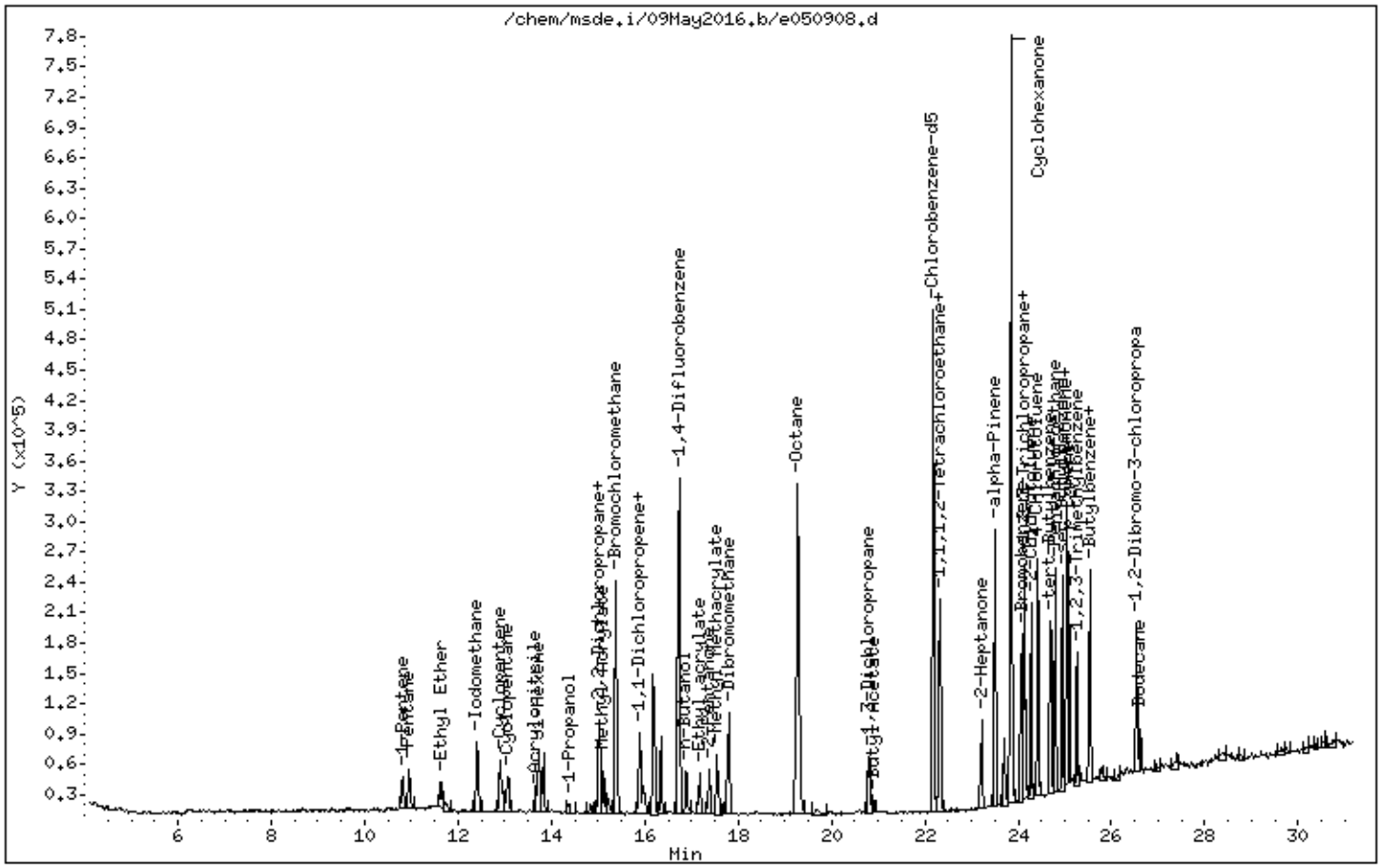
Instrument: msde.i

Sample Info: 50mL# 2789-105

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/30Mar2016.b/e033008.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 30-MAR-2016 15:43
Operator : ef Inst ID: msde.i
Smp Info : 50mL# 2789-45
Misc Info : 1.0ppbv (5.0ppbv) Acrolein
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/30Mar2016.b/e16l0317c.m
Meth Date : 30-Mar-2016 17:13 efinn Quant Type: ISTD
Cal Date : 30-MAR-2016 15:43 Cal File: e033008.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AcroleinICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
46 Acrolein						CAS #: 107-02-8		
12.233	12.233	(0.785)	56	8998	1.00000	1.038	0.00- 0.00	100.00
12.233	12.233	(0.785)	55	5581			0.00- 0.00	62.02
* 98 Bromochloromethane						CAS #: 74-97-5		
15.580	15.580	(1.000)	130	150258	5.00000		80.00- 120.00	100.00
15.580	15.580	(1.000)	128	116987			52.25- 112.25	77.86
15.580	15.580	(1.000)	49	122713			89.81- 149.81	81.67
* 123 1,4-Difluorobenzene						CAS #: 540-36-3		
16.939	16.939	(1.000)	114	587496	5.00000		80.00- 120.00	100.00
16.939	16.939	(1.000)	88	87269			0.00- 45.20	14.85
* 163 Chlorobenzene-d5						CAS #: 3114-55-4		
22.365	22.365	(1.000)	117	532033	5.00000		80.00- 120.00	100.00
22.365	22.365	(1.000)	82	273401			20.64- 80.64	51.39

Report Date: 30-Mar-2016 17:13

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e033008.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/30Mar2016.b/e16l0317c.m
Misc Info: 1.0ppbv (5.0ppbv) Acrolein

Calibration Date: 30-MAR-2016
Calibration Time: 11:07
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	190719	114431	267007	150258	-21.21
123 1,4-Difluorobenze	725285	435171	1015399	587496	-19.00
163 Chlorobenzene-d5	658854	395312	922396	532033	-19.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/30Mar2016.b/e033008.d

Date : 30-MAR-2016 15:43

Client ID: Level 8

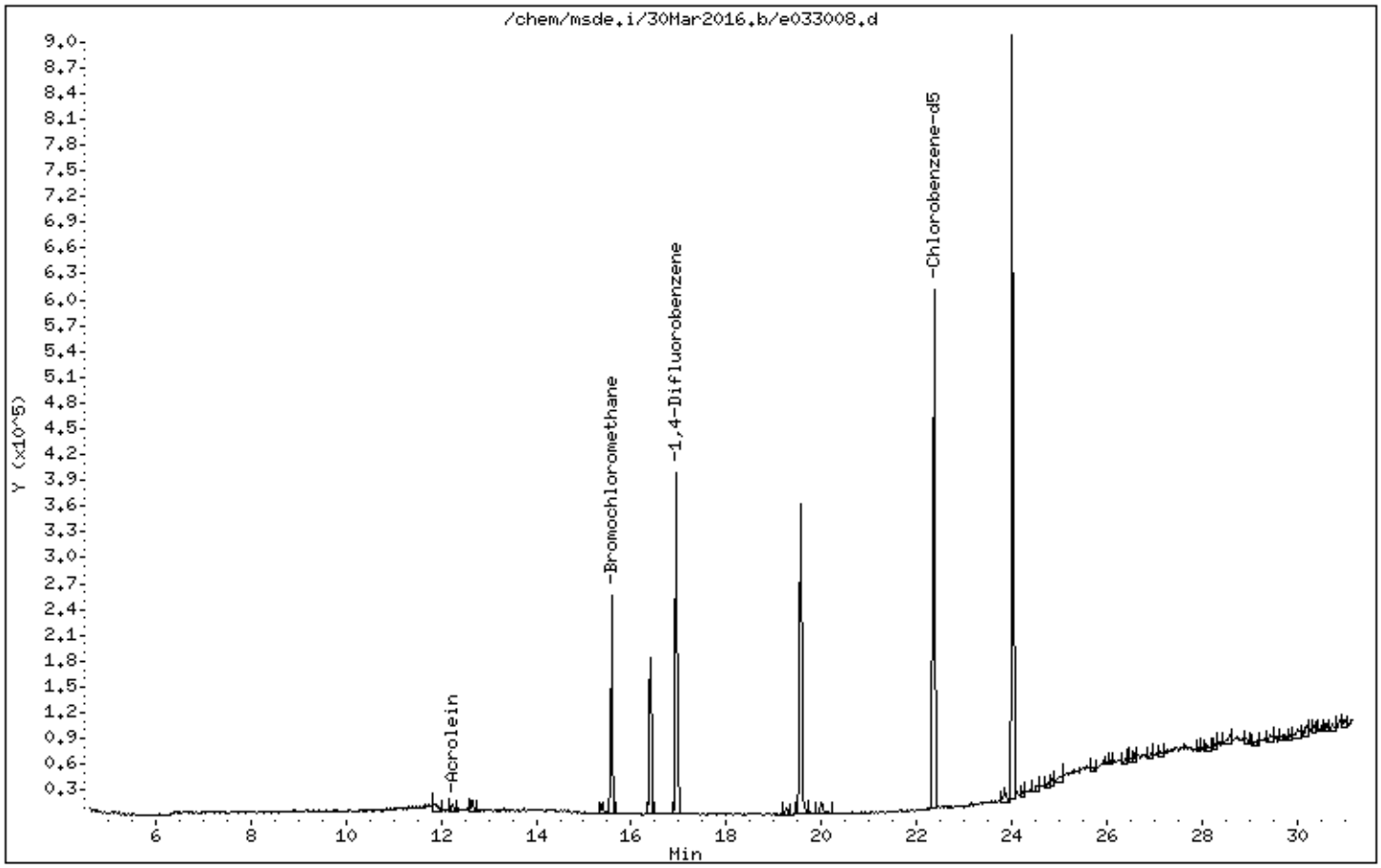
Instrument: msde.i

Sample Info: 50mL# 2789-45

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032506.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 25-MAR-2016 13:02
Operator : ef Inst ID: msde.i
Smp Info : 50mL# 2789-4
Misc Info : 1.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m
Meth Date : 25-Mar-2016 16:29 efinn Quant Type: ISTD
Cal Date : 25-MAR-2016 13:02 Cal File: e032506.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Combo-AT1ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
32 Vinyl Bromide					CAS #: 593-60-2		
10.786	10.786 (0.692)	106	34231	1.00000	0.9906	0.00- 0.00	100.00
10.767	10.767 (0.691)	108	35076			0.00- 0.00	102.47
36 1-Pentene					CAS #: 109-67-1		
11.014	11.014 (0.707)	55	27204	1.00000	1.030	0.00- 0.00	100.00
11.014	11.014 (0.707)	42	29664			0.00- 0.00	109.04
34 Pentane					CAS #: 109-66-0		
11.147	11.147 (0.716)	43	49846	1.00000	1.058	0.00- 0.00	100.00
11.166	11.166 (0.717)	57	10473			0.00- 0.00	21.01
11.147	11.147 (0.716)	72	7098			0.00- 0.00	14.24
44 Ethyl Ether					CAS #: 60-29-7		
11.814	11.814 (0.758)	74	17648	1.00000	0.9886	0.00- 0.00	100.00(T)
11.814	11.814 (0.758)	59	19318			0.00- 0.00	109.46
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
53 Iodomethane					CAS #: 74-88-4		
12.595	12.595 (0.808)	142	120821	1.00000	1.085	0.00- 0.00	100.00
12.595	12.595 (0.808)	127	53818			0.00- 0.00	44.54
63 Acetonitrile					CAS #: 75-05-8		
13.185	13.185 (0.846)	41	23400	1.00000	1.063	0.00- 0.00	100.00
13.185	13.185 (0.846)	40	12685			0.00- 0.00	54.21
13.185	13.185 (0.846)	39	4156			0.00- 0.00	17.76
64 Cyclopentane					CAS #: 287-92-3		
13.261	13.261 (0.851)	70	24289	1.00000	1.069	0.00- 0.00	100.00
13.280	13.280 (0.852)	55	22661			0.00- 0.00	93.30
74 Acrylonitrile					CAS #: 107-13-1		
13.838	13.838 (0.888)	53	27250	1.00000	1.127	0.00- 0.00	100.00
13.838	13.838 (0.888)	52	21534			0.00- 0.00	79.02
76 1-Hexene					CAS #: 592-41-6		
13.921	13.921 (0.894)	55	22119	1.00000	0.9861	0.00- 0.00	100.00
13.921	13.921 (0.894)	41	29286			0.00- 0.00	132.40
13.921	13.921 (0.894)	84	11785			0.00- 0.00	53.28
94 Ethyl Acetate					CAS #: 141-78-6		
15.221	15.221 (0.977)	70	7467	1.00000	1.027	0.00- 0.00	100.00
15.221	15.221 (0.977)	43	59786			0.00- 0.00	800.67
15.221	15.221 (0.977)	61	21177			0.00- 0.00	283.61
93 Methyl Acrylate					CAS #: 96-33-3		
15.316	15.316 (0.983)	55	50751	1.00000	1.002	0.00- 0.00	100.00
15.316	15.316 (0.983)	85	11409			0.00- 0.00	22.48
15.316	15.316 (0.983)	58	5295			0.00- 0.00	10.43
* 98 Bromochloromethane					CAS #: 74-97-5		
15.580	15.580 (1.000)	130	181202	5.00000		80.00- 120.00	100.00
15.580	15.580 (1.000)	128	139124			52.25- 112.25	76.78
15.580	15.580 (1.000)	49	177164			89.81- 149.81	97.77
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.939	16.939 (1.000)	114	685019	5.00000		80.00- 120.00	100.00
16.939	16.939 (1.000)	88	97903			0.00- 45.20	14.29
128 Ethyl acrylate					CAS #: 140-88-5		
17.397	17.397 (1.027)	99	4970	1.00000	0.9718	0.00- 0.00	100.00
17.397	17.397 (1.027)	45	4607			0.00- 0.00	92.70
17.397	17.397 (1.027)	55	51744			0.00- 0.00	1041.13

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  131 2-Pentanone                                  CAS #: 107-87-9
 17.614  17.614 (1.040)    43     62777 1.00000   0.9761   0.00-   0.00   100.00
 17.614  17.614 (1.040)    58      5399                    0.00-   0.00     8.60
 17.614  17.614 (1.040)    86     15517                    0.00-   0.00    24.72
-------------------------------------------------------------------------------
  134 Methyl Methacrylate                          CAS #: 80-62-6
 17.782  17.782 (1.050)    41     31114 1.00000   0.9697   0.00-   0.00   100.00
 17.782  17.782 (1.050)    69     32570                    0.00-   0.00   104.68
 17.807  17.807 (1.051)   100     11940                    0.00-   0.00    38.38
-------------------------------------------------------------------------------
  137 Dibromomethane                               CAS #: 74-95-3
 18.048  18.048 (1.065)   174     48282 1.00000   0.9946   0.00-   0.00   100.00
 18.048  18.048 (1.065)    93     38632                    0.00-   0.00    80.01
 18.048  18.048 (1.065)    95     36609                    0.00-   0.00    75.82
-------------------------------------------------------------------------------
  148 Octane                                       CAS #: 111-65-9
 19.624  19.624 (1.158)    57     35357 1.00000   0.9606   0.00-   0.00   100.00
 19.624  19.624 (1.158)    85     50815                    0.00-   0.00   143.72
 19.624  19.624 (1.158)    43     73240                    0.00-   0.00   207.14
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.366  22.366 (1.000)   117    615294 5.00000           80.00- 120.00   100.00
 22.366  22.366 (1.000)    82    307594                   20.64-  80.64    49.99
-------------------------------------------------------------------------------
  170 Nonane                                       CAS #: 111-84-2
 22.490  22.490 (1.006)    43     66058 1.00000   0.9605   0.00-   0.00   100.00
 22.490  22.490 (1.006)    57     70386                    0.00-   0.00   106.55
 22.490  22.490 (1.006)    85     34061                    0.00-   0.00    51.56
-------------------------------------------------------------------------------
  184 trans-1,4-Dichloro-2-butene                  CAS #: 110-57-6
 24.289  24.289 (1.086)    75     90419 1.00000   0.9677   0.00-   0.00   100.00
 24.289  24.289 (1.086)    89     11440                    0.00-   0.00    12.65
 24.267  24.267 (1.085)    53     13653                    0.00-   0.00    15.10
-------------------------------------------------------------------------------
  187 Decane                                       CAS #: 124-18-5
 24.581  24.581 (1.099)    57     62083 1.00000   0.9561   0.00-   0.00   100.00
 24.581  24.581 (1.099)    71       510                    0.00-   0.00     0.82
 24.581  24.581 (1.099)   142     13283                    0.00-   0.00    21.40
-------------------------------------------------------------------------------
  206 bis(2-Chloroethyl) Ether                     CAS #: 111-44-4
 25.186  25.186 (1.126)    93     75283 1.00000   0.9704   0.00-   0.00   100.00
 25.209  25.209 (1.127)    95     24854                    0.00-   0.00    33.01
 25.186  25.186 (1.126)    63     51431                    0.00-   0.00    68.32
-------------------------------------------------------------------------------
  215 Undecane                                     CAS #: 1120-21-4
 25.657  25.657 (1.147)    57     27918 1.00000    1.034   0.00-   0.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
215 Undecane (continued)								
25.657	25.657	(1.147)	43	23083			0.00- 0.00	82.68
25.657	25.657	(1.147)	85	10121			0.00- 0.00	36.25
225 Dodecane						CAS #: 112-40-3		
26.800	26.800	(1.198)	85	5154	1.00000	1.344	0.00- 0.00	100.00
26.800	26.800	(1.198)	57	12349			0.00- 0.00	239.60
26.800	26.800	(1.198)	43	9472			0.00- 0.00	183.78

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 25-Mar-2016 16:29

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032506.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m
Misc Info: 1.0ppbv (5.0ppbv) Combo

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	196631	117979	275283	181202	-7.85
123 1,4-Difluorobenze	760212	456127	1064297	685019	-9.89
163 Chlorobenzene-d5	680500	408300	952700	615294	-9.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/25Mar2016.b/e032506.d

Date : 25-MAR-2016 13:02

Client ID: Level 8

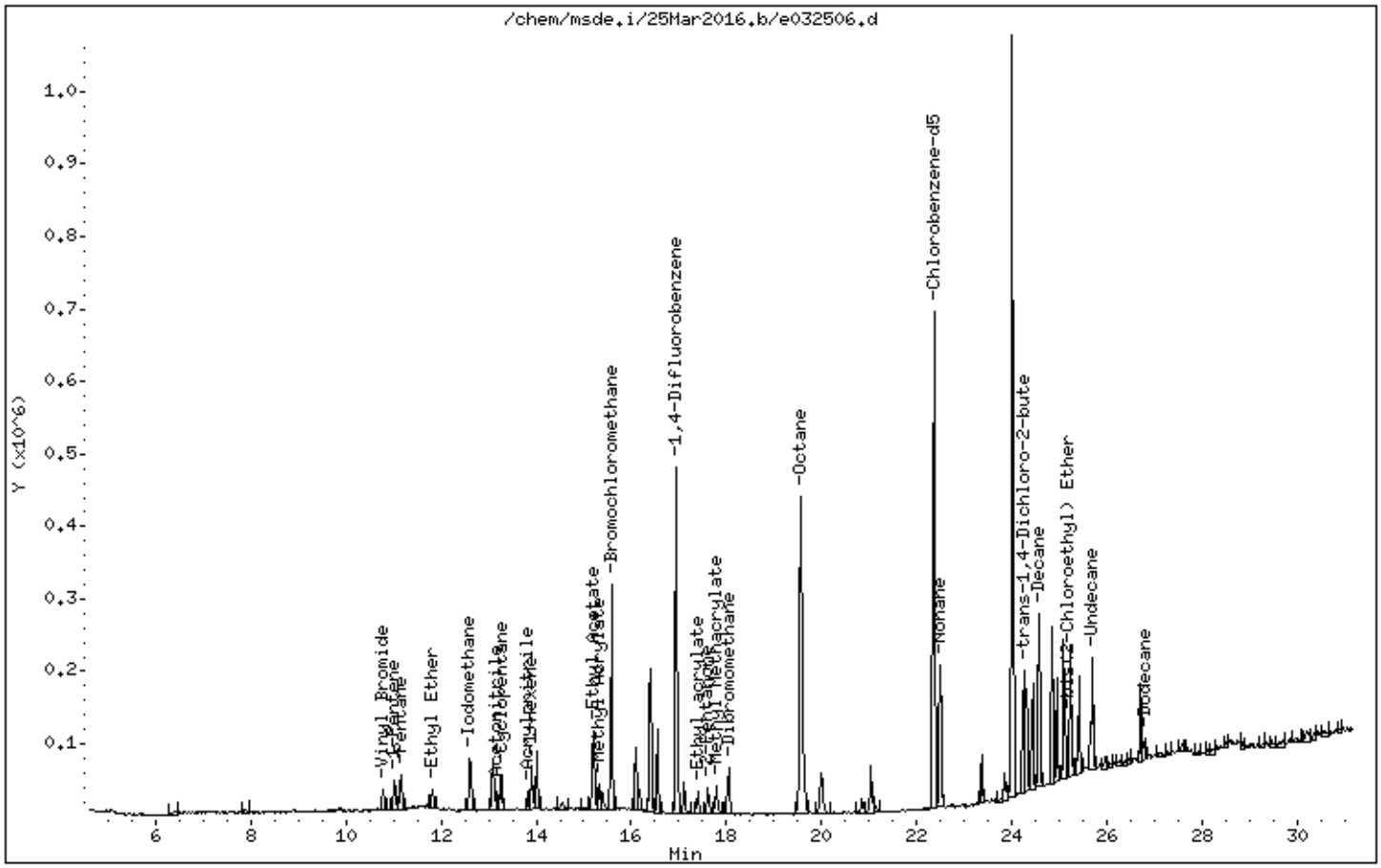
Instrument: msde.i

Sample Info: 50mL# 2789-4

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/22Mar2016.b/e032206.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 22-MAR-2016 13:20
Operator : ef Inst ID: msde.i
Smp Info : 50mL# 2759-238
Misc Info : 1.0ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/22Mar2016.b/e16l0317a.m
Meth Date : 19-May-2016 16:49 efinn Quant Type: ISTD
Cal Date : 22-MAR-2016 13:20 Cal File: e032206.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
10 1,1-Difluoroethane					CAS #: 75-37-6		
5.335	5.335 (0.342)	65	8137	1.00000	1.193	0.00- 0.00	100.00(aM)
5.335	5.335 (0.342)	51	11503			0.00- 0.00	141.37
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.962	5.962 (0.383)	51	17658	1.00000	1.005	0.00- 0.00	100.00(Ta)
6.010	6.010 (0.386)	67	3141			0.00- 0.00	17.79
0.000	1.000 (0.000)	85	0			0.00- 0.00	0.00
16 Freon 142b					CAS #: 75-68-3		
7.094	7.094 (0.455)	65	35772	1.00000	1.004	0.00- 0.00	100.00(a)
7.070	7.070 (0.454)	45	7464			0.00- 0.00	20.87
7.094	7.094 (0.455)	81	3022			0.00- 0.00	8.45
37 Dichlorofluoromethane					CAS #: 75-43-4		
11.052	11.052 (0.709)	67	35147	1.00000	0.9446	0.00- 0.00	100.00(a)
11.052	11.052 (0.709)	69	12769			0.00- 0.00	36.33

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   37 Dichlorofluoromethane (continued)
 11.052  11.052 (0.709)    47      2763                     0.00-   0.00     7.86
-------------------------------------------------------------------------------
   48 Freon 123                                    CAS #: 306-83-2
 12.214  12.214 (0.784)    83     59511 1.00000    1.036   0.00-   0.00   100.00(a)
 12.214  12.214 (0.784)   133     17309                     0.00-   0.00    29.09
 12.214  12.214 (0.784)    85     40384                     0.00-   0.00    67.86
-------------------------------------------------------------------------------
   59 Cyclopentene                                 CAS #: 142-29-0
 13.090  13.090 (0.840)    67     26711 1.00000    1.012   0.00-   0.00   100.00(a)
 13.090  13.090 (0.840)    68      9441                     0.00-   0.00    35.34
 13.090  13.090 (0.840)    53      5602                     0.00-   0.00    20.97
-------------------------------------------------------------------------------
   84 1-Propanol                                   CAS #: 71-23-8
 14.552  14.552 (0.934)    59      8623 1.00000    1.164   0.00-   0.00   100.00(a)
 14.552  14.552 (0.934)    42      4834                     0.00-   0.00    56.06
 14.552  14.552 (0.934)    41      4165                     0.00-   0.00    48.30
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                          CAS #: 594-20-7
 15.202  15.202 (0.976)    77     47438 1.00000    1.016   0.00-   0.00   100.00(a)
 15.202  15.202 (0.976)    79     16913                     0.00-   0.00    35.65
 15.202  15.202 (0.976)    97      9463                     0.00-   0.00    19.95
-------------------------------------------------------------------------------
*  98 Bromochloromethane                          CAS #: 74-97-5
 15.580  15.580 (1.000)   130    198233 5.00000            80.00- 120.00   100.00
 15.580  15.580 (1.000)   128    152854                    52.25- 112.25    77.11
 15.580  15.580 (1.000)    49    178955                    89.81- 149.81    90.28
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                         CAS #: 563-58-6
 16.104  16.104 (1.034)   110     12411 1.00000    1.020   0.00-   0.00   100.00(a)
 16.104  16.104 (1.034)    75     32788                     0.00-   0.00   264.18
-------------------------------------------------------------------------------
  115 Isobutanol                                  CAS #: 78-83-1
 16.165  16.165 (1.038)    43     38207 1.00000    1.067   0.00-   0.00   100.00(a)
 16.165  16.165 (1.038)    41     28410                     0.00-   0.00    74.36
 16.196  16.196 (1.040)    55      2497                     0.00-   0.00     6.54
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                         CAS #: 540-36-3
 16.939  16.939 (1.000)   114    740474 5.00000            80.00- 120.00   100.00
 16.939  16.939 (1.000)    88    112049                     0.00-  45.20    15.13
-------------------------------------------------------------------------------
  124 n-Butanol                                   CAS #: 71-36-3
 17.108  17.108 (1.010)    56     47051 1.00000    1.005   0.00-   0.00   100.00(a)
 17.108  17.108 (1.010)    41     30955                     0.00-   0.00    65.79
 17.108  17.108 (1.010)    43     24026                     0.00-   0.00    51.06
-------------------------------------------------------------------------------
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```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  157 1,3-Dichloropropane                          CAS #: 142-28-9
 21.046  21.046 (0.941)    76     60171 1.00000    1.071   0.00-   0.00   100.00(a)
 21.046  21.046 (0.941)    41     30484                    0.00-   0.00    50.66
 21.046  21.046 (0.941)    78     19304                    0.00-   0.00    32.08
-------------------------------------------------------------------------------
  159 Butyl Acetate                                CAS #: 123-86-4
 21.128  21.128 (0.945)    56      6540 1.00000   0.9908   0.00-   0.00   100.00(a)
 21.128  21.128 (0.945)    73      5207                    0.00-   0.00    79.62
 21.128  21.128 (0.945)    43     16414                    0.00-   0.00   250.98
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.366  22.366 (1.000)   117    660850 5.00000           80.00- 120.00   100.00
 22.366  22.366 (1.000)    82    344952                   20.64-  80.64    52.20
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                    CAS #: 630-20-6
 22.531  22.531 (1.007)   131     71990 1.00000    1.074   0.00-   0.00   100.00(a)
 22.511  22.511 (1.006)   117     42980                    0.00-   0.00    59.70
 22.511  22.511 (1.006)    95     24658                    0.00-   0.00    34.25
-------------------------------------------------------------------------------
  173 2-Heptanone                                  CAS #: 110-43-0
 23.381  23.381 (1.045)    58     46208 1.00000   0.9509   0.00-   0.00   100.00(a)
 23.381  23.381 (1.045)    43     69338                    0.00-   0.00   150.06
-------------------------------------------------------------------------------
  176 Cyclohexanone                                CAS #: 108-94-1
 23.975  23.975 (1.072)    55     42582 1.00000    1.037   0.00-   0.00   100.00(a)
 23.975  23.975 (1.072)    98     27417                    0.00-   0.00    64.39
 23.975  23.975 (1.072)    42     28034                    0.00-   0.00    65.84
-------------------------------------------------------------------------------
  180 Bromobenzene                                 CAS #: 108-86-1
 24.244  24.244 (1.084)   156     70174 1.00000   0.9690   0.00-   0.00   100.00(a)
 24.244  24.244 (1.084)   158     74273                    0.00-   0.00   105.84
 24.244  24.244 (1.084)    77    101024                    0.00-   0.00   143.96
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                       CAS #: 96-18-4
 24.289  24.289 (1.086)   110     36633 1.00000    1.019   0.00-   0.00   100.00(a)
 24.289  24.289 (1.086)    75     86674                    0.00-   0.00   236.60
 24.289  24.289 (1.086)    61     18471                    0.00-   0.00    50.42
-------------------------------------------------------------------------------
  189 2-Chlorotoluene                              CAS #: 95-49-8
 24.446  24.446 (1.093)   126     50050 1.00000    1.018   0.00-   0.00   100.00(a)
 24.446  24.446 (1.093)    91    138328                    0.00-   0.00   276.38
 24.446  24.446 (1.093)    65     12760                    0.00-   0.00    25.49
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                              CAS #: 106-43-4
 24.581  24.581 (1.099)   126     46360 1.00000   0.9443   0.00-   0.00   100.00(a)
 24.581  24.581 (1.099)    91    132157                    0.00-   0.00   285.07
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
191 4-Chlorotoluene (continued)							
24.581	24.581 (1.099)	63	15550			0.00- 0.00	33.54
195 tert-Butylbenzene					CAS #: 98-06-6		
24.850	24.850 (1.111)	119	151021	1.00000	0.9855	0.00- 0.00	100.00(a)
24.850	24.850 (1.111)	134	38999			0.00- 0.00	25.82
24.850	24.850 (1.111)	91	100897			0.00- 0.00	66.81
197 Pentachloroethane					CAS #: 76-01-7		
24.962	24.962 (1.116)	167	56490	1.00000	1.028	0.00- 0.00	100.00(a)
24.962	24.962 (1.116)	117	47810			0.00- 0.00	84.63
24.962	24.962 (1.116)	169	24500			0.00- 0.00	43.37
203 sec-Butylbenzene					CAS #: 135-98-8		
25.096	25.096 (1.122)	105	205025	1.00000	0.9959	0.00- 0.00	100.00(a)
25.096	25.096 (1.122)	134	47645			0.00- 0.00	23.24
25.096	25.096 (1.122)	91	34791			0.00- 0.00	16.97
207 p-Cymene					CAS #: 99-87-6		
25.253	25.253 (1.129)	119	161408	1.00000	0.9946	0.00- 0.00	100.00(a)
25.253	25.253 (1.129)	134	40830			0.00- 0.00	25.30
25.253	25.253 (1.129)	91	37187			0.00- 0.00	23.04
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8		
25.410	25.410 (1.136)	120	49828	1.00000	0.9923	0.00- 0.00	100.00(a)
25.410	25.410 (1.136)	105	114292			0.00- 0.00	229.37
25.410	25.410 (1.136)	77	14590			0.00- 0.00	29.28
213 Butylbenzene					CAS #: 104-51-8		
25.702	25.702 (1.149)	134	36405	1.00000	1.001	0.00- 0.00	100.00(a)
25.702	25.702 (1.149)	91	124473			0.00- 0.00	341.91
25.702	25.702 (1.149)	92	66394			0.00- 0.00	182.38
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.711	26.711 (1.194)	157	65071	1.00000	0.9958	0.00- 0.00	100.00(a)
26.711	26.711 (1.194)	75	56103			0.00- 0.00	86.22
26.711	26.711 (1.194)	155	48816			0.00- 0.00	75.02

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Report Date: 19-May-2016 16:49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032206.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/22Mar2016.b/e16l0317a.m
Misc Info: 1.0ppbv (5.0ppbv)

Calibration Date: 22-MAR-2016
Calibration Time: 09:49
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	190421	114253	266589	198233	4.10
123 1,4-Difluorobenze	736283	441770	1030796	740474	0.57
163 Chlorobenzene-d5	650623	390374	910872	660850	1.57

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/22Mar2016.b/e032206.d

Date : 22-MAR-2016 13:20

Client ID: Level 8

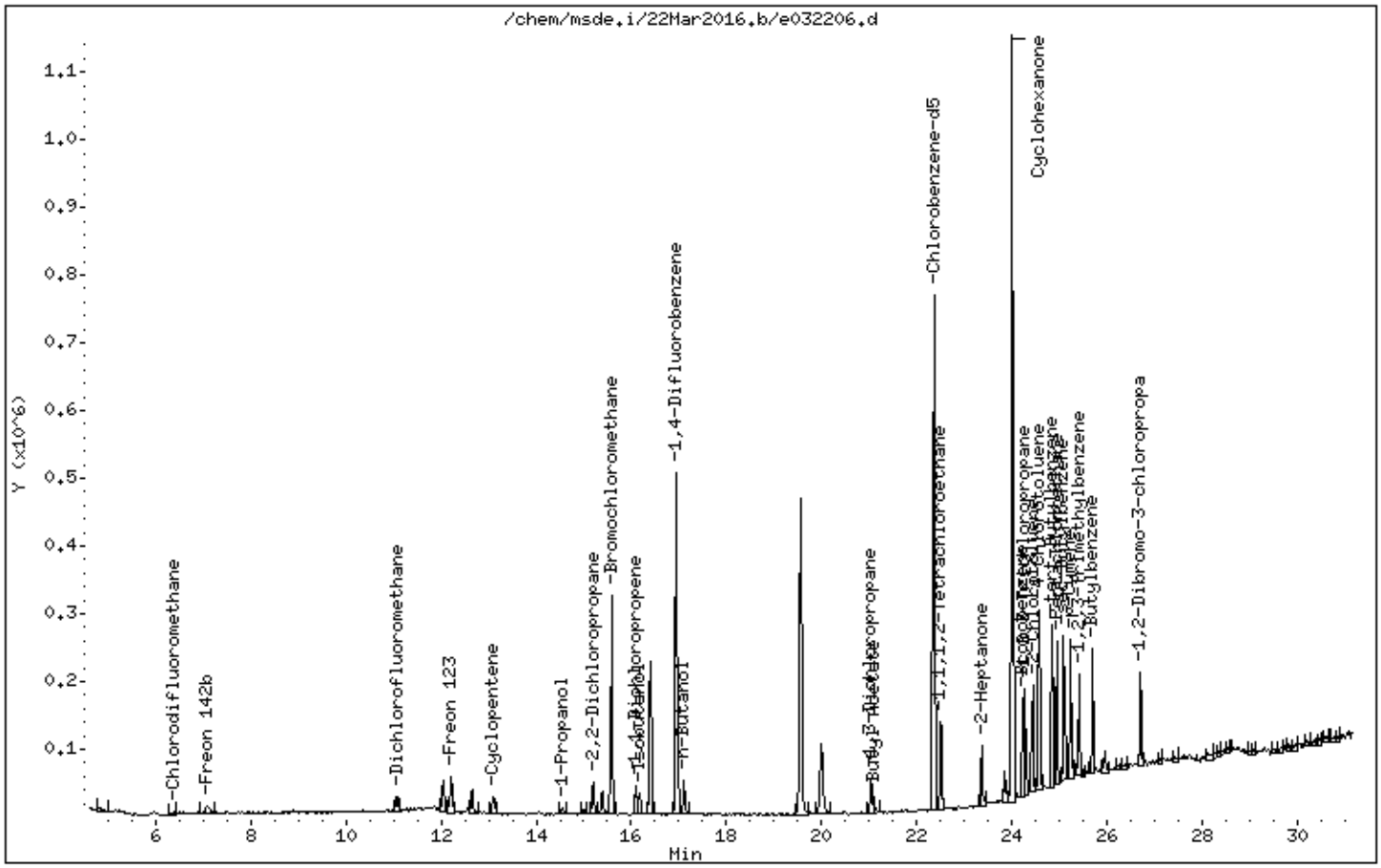
Instrument: msde.i

Sample Info: 50mL# 2759-238

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031709.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 17-MAR-2016 16:31
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 2789-14
Misc Info : 1.0ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m
Meth Date : 23-Mar-2016 08:52 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 16:31 Cal File: e031709.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
5.046	5.046 (0.324)	41	20338	1.00000	1.011	80.00- 120.00	100.00(M)
5.046	5.046 (0.324)	42	13342			38.73- 98.73	65.60
5.070	5.070 (0.325)	39	17798			55.81- 115.81	87.51
11 Freon 12					CAS #: 75-71-8		
5.479	5.479 (0.352)	85	123962	1.00000	0.9513	80.00- 120.00	100.00
5.503	5.503 (0.353)	87	42722			2.00- 62.00	34.46
15 Freon 114					CAS #: 76-14-2		
6.853	6.853 (0.440)	135	90300	1.00000	0.9468	80.00- 120.00	100.00
6.877	6.877 (0.441)	137	30025			1.31- 61.31	33.25
6.853	6.853 (0.440)	85	111106			93.88- 153.88	123.04
17 Chloromethane					CAS #: 74-87-3		
7.191	7.191 (0.462)	50	25721	1.00000	1.040	80.00- 120.00	100.00
7.191	7.191 (0.462)	52	8292			5.50- 65.50	32.24

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.889	7.889 (0.506)	58	6123	1.00000	0.9561	80.00- 120.00	100.00
7.889	7.889 (0.506)	43	40649			588.57- 648.57	663.87
25 Vinyl Chloride					CAS #: 75-01-4		
8.028	8.028 (0.515)	62	32024	1.00000	0.9206	80.00- 120.00	100.00
8.010	8.010 (0.514)	64	11699			3.14- 63.14	36.53
26 1,3-Butadiene					CAS #: 106-99-0		
8.271	8.271 (0.531)	54	23717	1.00000	1.014	80.00- 120.00	100.00
8.271	8.271 (0.531)	39	23782			65.21- 125.21	100.27
29 Bromomethane					CAS #: 74-83-9		
9.729	9.729 (0.624)	94	36917	1.00000	0.9726	80.00- 120.00	100.00
9.729	9.729 (0.624)	96	35018			64.16- 124.16	94.86
30 Chloroethane					CAS #: 75-00-3		
10.195	10.195 (0.654)	64	15878	1.00000	0.9662	80.00- 120.00	100.00
10.195	10.195 (0.654)	49	4550			0.00- 54.91	28.66
10.195	10.195 (0.654)	66	5756			3.62- 63.62	36.25
31 Isopentane					CAS #: 78-78-4		
10.329	10.329 (0.663)	57	23093	1.00000	0.9693	80.00- 120.00	100.00
10.329	10.329 (0.663)	43	28853			82.69- 142.69	124.94
10.329	10.329 (0.663)	42	23212			68.65- 128.65	100.52
35 Freon 11					CAS #: 75-69-4		
10.957	10.957 (0.703)	101	133441	1.00000	0.9510	80.00- 120.00	100.00
10.957	10.957 (0.703)	103	92213			37.17- 97.17	69.10
42 Ethanol					CAS #: 64-17-5		
11.852	11.852 (0.761)	45	11327	1.00000	1.114	80.00- 120.00	100.00
11.871	11.871 (0.762)	46	3839			6.61- 66.61	33.89
11.852	11.852 (0.761)	43	3307			0.00- 54.66	29.20
49 Freon 113					CAS #: 76-13-1		
12.271	12.271 (0.788)	151	94908	1.00000	0.9026	80.00- 120.00	100.00
12.271	12.271 (0.788)	153	60142			33.64- 93.64	63.37
12.271	12.271 (0.788)	101	107297			80.40- 140.40	113.05
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.290	12.290 (0.789)	98	29102	1.00000	0.9925	80.00- 120.00	100.00
12.290	12.290 (0.789)	61	66684			204.89- 264.89	229.14
12.290	12.290 (0.789)	96	47589			127.69- 187.69	163.52
52 Acetone					CAS #: 67-64-1		
12.556	12.556 (0.806)	58	19259	1.00000	1.123	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
12.556	12.556 (0.806)	43	63835			321.47- 381.47	331.46
56 Carbon Disulfide					CAS #: 75-15-0		
12.652	12.652 (0.812)	76	139395	1.00000	1.067	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
12.899	12.899 (0.828)	45	51379	1.00000	0.9795	80.00- 120.00	100.00
12.899	12.899 (0.828)	43	14423			0.00- 54.09	28.07
12.899	12.899 (0.828)	59	2573			0.00- 34.43	5.01
58 3-Chloropropene					CAS #: 107-05-1		
13.071	13.071 (0.839)	76	20251	1.00000	1.037	80.00- 120.00	100.00
13.071	13.071 (0.839)	41	36374			163.76- 223.76	179.62
66 Methylene Chloride					CAS #: 75-09-2		
13.357	13.357 (0.857)	84	39392	1.00000	0.9588	80.00- 120.00	100.00
13.357	13.357 (0.857)	49	34842			63.99- 123.99	88.45
13.357	13.357 (0.857)	51	10391			0.29- 60.29	26.38
71 tert-Butyl alcohol					CAS #: 75-65-0		
13.564	13.564 (0.871)	59	106533	1.00000	1.110	80.00- 120.00	100.00
13.564	13.564 (0.871)	41	21306			0.00- 51.66	20.00
13.564	13.564 (0.871)	57	11985			0.00- 43.50	11.25
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.674	13.674 (0.878)	73	123434	1.00000	0.9395	80.00- 120.00	100.00
13.674	13.674 (0.878)	57	24030			0.00- 48.26	19.47
13.674	13.674 (0.878)	41	21014			0.00- 45.58	17.02
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.729	13.729 (0.881)	98	28840	1.00000	0.9683	80.00- 120.00	100.00
13.729	13.729 (0.881)	61	59190			155.28- 215.28	205.24
13.729	13.729 (0.881)	96	46262			126.18- 186.18	160.41
78 Hexane					CAS #: 110-54-3		
14.031	14.031 (0.901)	57	47662	1.00000	0.9300	80.00- 120.00	100.00
14.031	14.031 (0.901)	43	28083			21.48- 81.48	58.92
14.031	14.031 (0.901)	86	10481			0.00- 51.51	21.99
83 Isopropyl ether					CAS #: 108-20-3		
14.360	14.360 (0.922)	45	87779	1.00000	0.9390	80.00- 120.00	100.00
14.360	14.360 (0.922)	87	35408			9.88- 69.88	40.34
14.360	14.360 (0.922)	59	13950			0.00- 42.70	15.89
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.442	14.442 (0.927)	63	84769	1.00000	1.088	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
82 1,1-Dichloroethane (continued)							
14.415	14.415 (0.925)	65	24054			1.78- 61.78	28.38
86 Vinyl Acetate					CAS #: 108-05-4		
14.442	14.442 (0.927)	86	12367	1.00000	1.020	80.00- 120.00	100.00
14.442	14.442 (0.927)	42	7391			44.70- 104.70	59.76
14.442	14.442 (0.927)	43	79809			757.33- 817.33	645.34
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
14.859	14.859 (0.954)	59	110403	1.00000	0.9253	80.00- 120.00	100.00
14.859	14.859 (0.954)	87	61337			19.74- 79.74	55.56
14.859	14.859 (0.954)	41	19959			0.00- 46.34	18.08
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.240	15.240 (0.978)	98	32126	1.00000	0.9861	80.00- 120.00	100.00
15.240	15.240 (0.978)	61	56103			145.90- 205.90	174.63
15.240	15.240 (0.978)	96	51158			125.53- 185.53	159.24
92 2-Butanone					CAS #: 78-93-3		
15.240	15.240 (0.978)	72	20144	1.00000	0.9753	80.00- 120.00	100.00
15.240	15.240 (0.978)	43	62190			262.26- 322.26	308.73
15.240	15.240 (0.978)	57	5604			0.00- 55.71	27.82
99 Tetrahydrofuran					CAS #: 109-99-9		
15.580	15.580 (1.000)	42	37701	1.00000	0.9947	80.00- 120.00	100.00
15.580	15.580 (1.000)	71	18083			26.85- 86.85	47.96
15.580	15.580 (1.000)	72	19224			32.22- 92.22	50.99
* 98 Bromochloromethane					CAS #: 74-97-5		
15.580	15.580 (1.000)	130	154931	5.00000		80.00- 120.00	100.00
15.580	15.580 (1.000)	128	116562			52.25- 112.25	75.23
15.580	15.580 (1.000)	49	125478			89.81- 149.81	80.99
100 Chloroform					CAS #: 67-66-3		
15.641	15.641 (1.004)	83	106660	1.00000	0.9535	80.00- 120.00	100.00
15.641	15.641 (1.004)	85	67295			33.97- 93.97	63.09
102 Cyclohexane					CAS #: 110-82-7		
15.888	15.888 (1.020)	84	53540	1.00000	0.9223	80.00- 120.00	100.00
15.888	15.888 (1.020)	56	47579			58.69- 118.69	88.87
15.888	15.888 (1.020)	41	24908			18.98- 78.98	46.52
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.888	15.888 (1.020)	97	128619	1.00000	0.9885	80.00- 120.00	100.00
15.888	15.888 (1.020)	99	79551			34.21- 94.21	61.85

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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 16.073  16.073 (1.032)   119    113250 1.00000   0.8887  80.00- 120.00   100.00
 16.073  16.073 (1.032)   117    121916                   74.09- 134.09   107.65
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.313  16.313 (1.047)    56     65469 1.00000    1.009  80.00- 120.00   100.00
 16.313  16.313 (1.047)    57    207985                  306.64- 366.64   317.68
 16.313  16.313 (1.047)    41     62002                   64.14- 124.14    94.70
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.409  16.409 (0.967)    78    130252 1.00000   0.9374  80.00- 120.00   100.00
 16.409  16.409 (0.967)    77     30203                    0.00-  53.97    23.19
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.409  16.409 (1.053)    65    219703 5.00000    4.940  80.00- 120.00   100.00
 16.409  16.409 (1.053)    67    108510                   21.16-  81.16    49.39
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.433  16.433 (0.969)    87     30608 1.00000   0.8579  80.00- 120.00   100.00
 16.433  16.433 (0.969)    73    126721                  338.86- 398.86   414.01
 16.433  16.433 (0.969)    55     30725                   44.52- 104.52   100.38
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.530  16.530 (0.974)    62     68355 1.00000   0.9438  80.00- 120.00   100.00
 16.530  16.530 (0.974)    64     22075                    1.03-  61.03    32.29
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.554  16.554 (0.976)    57     29002 1.00000   0.8806  80.00- 120.00   100.00
 16.554  16.554 (0.976)   100     16643                   28.67-  88.67    57.39
 16.554  16.554 (0.976)    43     50340                  128.92- 188.92   173.57
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.963  16.963 (1.000)   114    579840 5.00000           80.00- 120.00   100.00
 16.963  16.963 (1.000)    88     88565                    0.00-  45.20    15.27
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.373  17.373 (1.024)   130     71898 1.00000   0.9976  80.00- 120.00   100.00
 17.373  17.373 (1.024)    95     64802                   63.99- 123.99    90.13
 17.373  17.373 (1.024)    97     43440                   29.21-  89.21    60.42
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.590  17.590 (1.037)    83     71385 1.00000   0.9228  80.00- 120.00   100.00
 17.590  17.590 (1.037)    55     44467                   31.29-  91.29    62.29
 17.590  17.590 (1.037)    56     15246                    0.00-  48.78    21.36
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.806  17.806 (1.050)    63     43737 1.00000   0.9776  80.00- 120.00   100.00
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
132 1,2-Dichloropropane (continued)							
17.806	17.806 (1.050)	62	27385			34.19- 94.19	62.61
17.806	17.806 (1.050)	41	25718			27.38- 87.38	58.80
136 1,4-Dioxane					CAS #: 123-91-1		
17.951	17.951 (1.058)	88	33115	1.00000	0.9883	80.00- 120.00	100.00
17.927	17.927 (1.057)	58	16515			25.03- 85.03	49.87
17.951	17.951 (1.058)	57	5891			0.00- 50.67	17.79
138 Bromodichloromethane					CAS #: 75-27-4		
18.240	18.240 (1.075)	83	119457	1.00000	1.036	80.00- 120.00	100.00
18.240	18.240 (1.075)	85	69436			35.15- 95.15	58.13
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
19.086	19.086 (1.125)	75	81499	1.00000	0.9485	80.00- 120.00	100.00
19.086	19.086 (1.125)	77	24780			0.45- 60.45	30.41
19.086	19.086 (1.125)	39	33956			13.69- 73.69	41.66
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
19.265	19.265 (1.136)	43	64877	1.00000	0.9048	80.00- 120.00	100.00
19.265	19.265 (1.136)	58	29815			15.64- 75.64	45.96
19.287	19.287 (1.137)	85	17724			0.00- 56.71	27.32
$ 146 Toluene-d8					CAS #: 2037-26-5		
19.556	19.556 (1.153)	98	563004	5.00000	4.944	80.00- 120.00	100.00
19.556	19.556 (1.153)	70	59643			0.00- 40.11	10.59
19.556	19.556 (1.153)	100	378027			37.58- 97.58	67.14
147 Toluene					CAS #: 108-88-3		
19.713	19.713 (1.162)	91	155013	1.00000	0.9366	80.00- 120.00	100.00
19.713	19.713 (1.162)	92	89615			28.92- 88.92	57.81
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
20.304	20.304 (0.908)	75	78830	1.00000	0.9537	80.00- 120.00	100.00
20.276	20.276 (0.907)	77	25642			0.55- 60.55	32.53
20.276	20.276 (0.907)	39	29716			8.25- 68.25	37.70
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.688	20.688 (0.925)	97	58272	1.00000	0.9056	80.00- 120.00	100.00
20.688	20.688 (0.925)	99	36859			32.91- 92.91	63.25
20.688	20.688 (0.925)	83	44783			47.93- 107.93	76.85
156 Tetrachloroethene					CAS #: 127-18-4		
20.853	20.853 (0.932)	166	95646	1.00000	0.9647	80.00- 120.00	100.00
20.853	20.853 (0.932)	129	63327			42.31- 102.31	66.21
20.853	20.853 (0.932)	131	65804			40.11- 100.11	68.80

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone					CAS #: 591-78-6		
21.018	21.018 (0.940)	58	40708	1.00000	0.9831	80.00- 120.00	100.00
21.018	21.018 (0.940)	43	60419			140.44- 200.44	148.42
21.018	21.018 (0.940)	100	10329			0.00- 59.62	25.37
160 Dibromochloromethane					CAS #: 124-48-1		
21.430	21.430 (0.958)	129	128951	1.00000	0.9872	80.00- 120.00	100.00
21.430	21.430 (0.958)	127	99259			46.82- 106.82	76.97
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.677	21.677 (0.969)	107	94774	1.00000	0.9598	80.00- 120.00	100.00
21.677	21.677 (0.969)	109	89626			65.45- 125.45	94.57
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.366	22.366 (1.000)	117	533830	5.00000		80.00- 120.00	100.00
22.366	22.366 (1.000)	82	269261			20.64- 80.64	50.44
165 Chlorobenzene					CAS #: 108-90-7		
22.407	22.407 (1.002)	112	136158	1.00000	0.9427	80.00- 120.00	100.00
22.407	22.407 (1.002)	114	42571			2.42- 62.42	31.27
22.407	22.407 (1.002)	77	84474			23.54- 83.54	62.04
167 Ethyl Benzene					CAS #: 100-41-4		
22.490	22.490 (1.006)	106	59937	1.00000	0.8521	80.00- 120.00	100.00
22.490	22.490 (1.006)	91	205187			282.51- 342.51	342.34
169 m,p-Xylene					CAS #: 108-38-3		
22.656	22.656 (1.013)	106	76095	1.00000	0.9312	80.00- 120.00	100.00
22.656	22.656 (1.013)	91	160203			166.46- 226.46	210.53
171 o-Xylene					CAS #: 95-47-6		
23.257	23.257 (1.040)	106	74419	1.00000	0.9929	80.00- 120.00	100.00
23.257	23.257 (1.040)	91	151716			184.01- 244.01	203.87
172 Styrene					CAS #: 100-42-5		
23.298	23.298 (1.042)	104	117684	1.00000	0.9279	80.00- 120.00	100.00
23.278	23.278 (1.041)	78	61581			20.27- 80.27	52.33
174 Bromoform					CAS #: 75-25-2		
23.639	23.639 (1.057)	173	120659	1.00000	0.9323	80.00- 120.00	100.00
23.639	23.639 (1.057)	171	59405			20.88- 80.88	49.23
175 Cumene					CAS #: 98-82-8		
23.728	23.728 (1.061)	105	241543	1.00000	0.9478	80.00- 120.00	100.00
23.728	23.728 (1.061)	120	65106			0.00- 57.47	26.95

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 24.020  24.020 (1.074)   174    362042 5.00000    4.943  80.00- 120.00   100.00
 24.020  24.020 (1.074)    95    393463                   77.42- 137.42   108.68
 24.020  24.020 (1.074)   176    364911                   65.38- 125.38   100.79
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 24.199  24.199 (1.082)    83    108704 1.00000   0.9160  80.00- 120.00   100.00
 24.199  24.199 (1.082)    85     72697                   35.73-  95.73    66.88
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 24.267  24.267 (1.085)    91    255572 1.00000   0.9522  80.00- 120.00   100.00
 24.267  24.267 (1.085)   120     63801                    0.00-  55.24    24.96
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 24.401  24.401 (1.091)   105    208565 1.00000   0.9168  80.00- 120.00   100.00
 24.401  24.401 (1.091)   120     66737                    1.08-  61.08    32.00
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 24.469  24.469 (1.094)   105    175451 1.00000   0.9931  80.00- 120.00   100.00
 24.469  24.469 (1.094)   120     84907                   18.44-  78.44    48.39
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.917  24.917 (1.114)   105    135148 1.00000   0.8830  80.00- 120.00   100.00
 24.917  24.917 (1.114)   120     61348                   16.20-  76.20    45.39
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 25.321  25.321 (1.132)   146    126965 1.00000   0.8784  80.00- 120.00   100.00
 25.321  25.321 (1.132)   148     83886                   35.51-  95.51    66.07
 25.321  25.321 (1.132)   111     51029                    9.35-  69.35    40.19
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 25.433  25.433 (1.137)   146    125259 1.00000   0.9241  80.00- 120.00   100.00
 25.433  25.433 (1.137)   148     87956                   32.61-  92.61    70.22
 25.433  25.433 (1.137)   111     46165                    6.90-  66.90    36.86
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 25.567  25.567 (1.143)    91    161004 1.00000   0.9440  80.00- 120.00   100.00
 25.567  25.567 (1.143)   126     35963                    0.00-  51.82    22.34
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 25.859  25.859 (1.156)   146    116751 1.00000   0.9416  80.00- 120.00   100.00
 25.859  25.859 (1.156)   148     77727                   33.69-  93.69    66.58
 25.859  25.859 (1.156)   111     46460                    8.96-  68.96    39.79
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 27.607  27.607 (1.234)   180     55249 1.00000   0.9827  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.607	27.607 (1.234)	182	52161			66.05- 126.05	94.41
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.697	27.697 (1.238)	225	80496	1.00000	1.053	80.00- 120.00	100.00
27.697	27.697 (1.238)	223	47848			33.78- 93.78	59.44
228 Naphthalene					CAS #: 91-20-3		
27.921	27.921 (1.248)	128	8634	0.10000	0.1052	80.00- 120.00	100.00
27.921	27.921 (1.248)	127	4254			0.00- 46.39	49.27

QC Flag Legend

M - Compound response manually integrated.

Report Date: 23-Mar-2016 08:52

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031709.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m
Misc Info: 1.0ppbv (1.0ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	164946	98968	230924	154931	-6.07
123 1,4-Difluorobenze	626935	376161	877709	579840	-7.51
163 Chlorobenzene-d5	567678	340607	794749	533830	-5.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.96	0.14
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031709.d

Date : 17-MAR-2016 16:31

Client ID: Level 8

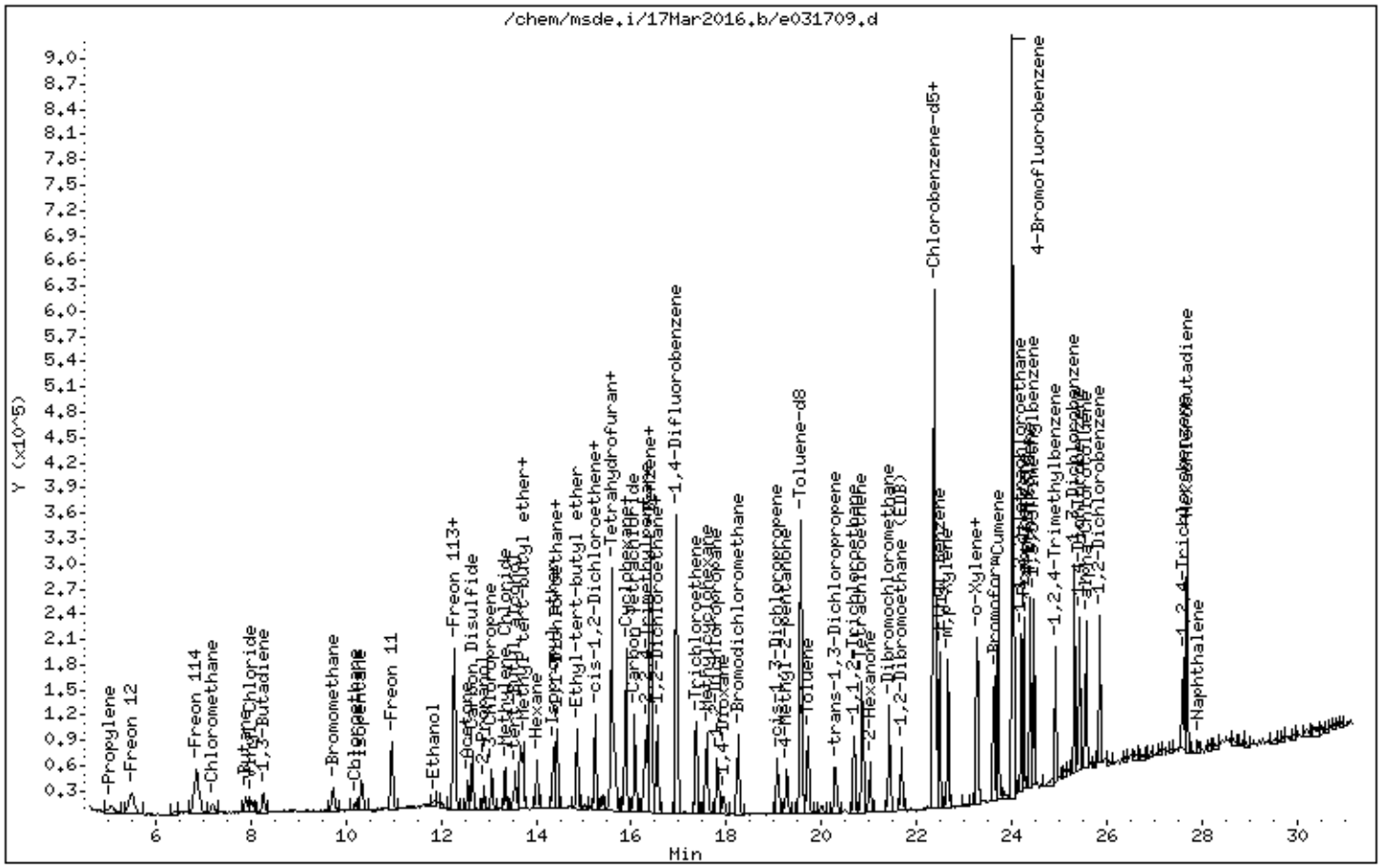
Instrument: msde.i

Sample Info: 250mL# 2789-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/24May2016.b/e052407.d
Lab Smp Id: ICAL Level 9
Inj Date : 24-MAY-2016 11:00
Operator : ef Inst ID: msde.i
Smp Info : 100mL# 2789-129
Misc Info : 2.0ppbv (5.0ppbv) AT-1
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/24May2016.b/e16l0317f.m
Meth Date : 24-May-2016 14:10 atoyama Quant Type: ISTD
Cal Date : 24-MAY-2016 11:00 Cal File: e052407.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FreonICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
7 Freon 134a					CAS #: 811-97-2		
4.642	4.642 (0.302)	83	51260	2.00000	2.022	0.00- 0.00	100.00(T)
4.666	4.666 (0.303)	69	15557			0.00- 0.00	30.35
0.000	1.000 (0.000)	0	0			0.00- 0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6		
5.076	5.076 (0.330)	65	21350	2.00000	2.050	0.00- 0.00	100.00
5.076	5.076 (0.330)	51	30096			0.00- 0.00	140.96
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.751	5.751 (0.374)	51	52809	2.00000	1.857	0.00- 0.00	100.00(a)
5.751	5.751 (0.374)	67	13373			0.00- 0.00	25.32
5.726	5.726 (0.372)	85	942			0.00- 0.00	1.78
16 Freon 142b					CAS #: 75-68-3		
6.859	6.859 (0.446)	65	105387	2.00000	1.850	0.00- 0.00	100.00(a)
6.835	6.835 (0.444)	45	21041			0.00- 0.00	19.97
6.835	6.835 (0.444)	81	6350			0.00- 0.00	6.03
37 Dichlorofluoromethane					CAS #: 75-43-4		
10.861	10.861 (0.706)	67	123765	2.00000	1.971	0.00- 0.00	100.00(a)

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   37 Dichlorofluoromethane (continued)
 10.861  10.861 (0.706)    69     39770                     0.00-   0.00    32.13
 10.881  10.881 (0.707)    47     10976                     0.00-   0.00     8.87
-------------------------------------------------------------------------------
   48 Freon 123                                     CAS #: 306-83-2
 12.023  12.023 (0.781)    83    138564 2.00000    1.904   0.00-   0.00   100.00(a)
 12.023  12.023 (0.781)   133     40313                     0.00-   0.00    29.09
 12.023  12.023 (0.781)    85     93571                     0.00-   0.00    67.53
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    128678 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128     99421                   52.25- 112.25    77.26
 15.391  15.391 (1.000)    49     92453                   89.81- 149.81    71.85
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.737  16.737 (1.000)   114    465780 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     67202                    0.00-  45.20    14.43
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    417615 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    207540                   20.64-  80.64    49.70
-------------------------------------------------------------------------------
```

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Report Date: 24-May-2016 14:10

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e052407.d
Lab Smp Id: ICAL Level 9
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/24May2016.b/e16l0317f.m
Misc Info: 2.0ppbv (5.0ppbv) AT-1

Calibration Date: 24-MAY-2016
Calibration Time: 07:15

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	155366	93220	217512	128678	-17.18
123 1,4-Difluorobenze	569598	341759	797437	465780	-18.23
163 Chlorobenzene-d5	506881	304129	709633	417615	-17.61

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/24May2016.b/e052407.d

Date : 24-MAY-2016 11:00

Client ID:

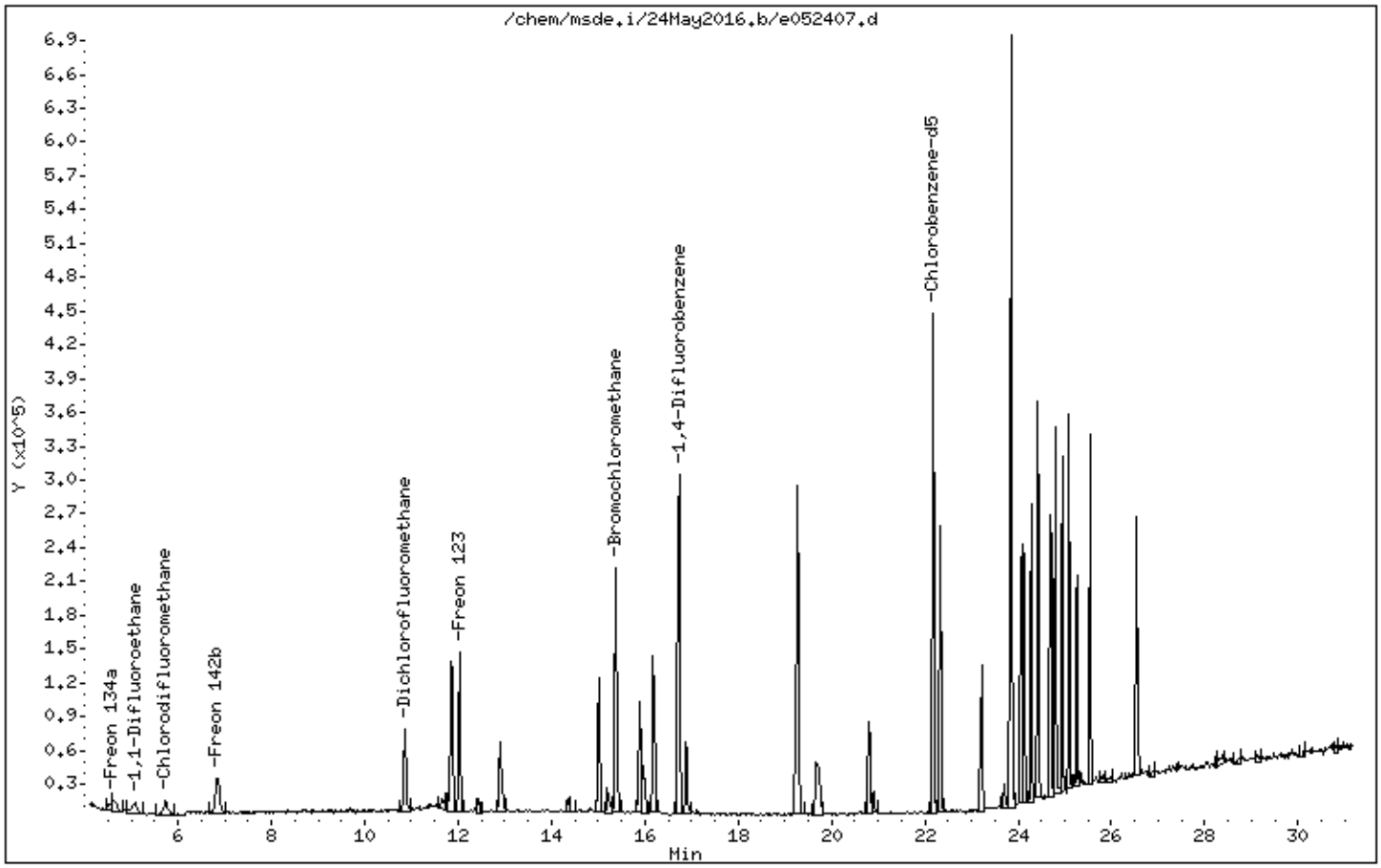
Instrument: msde.i

Sample Info: 100mL# 2789-129

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/09May2016.b/e050909.d
Lab Smp Id: ICAL Level 9
Inj Date : 09-MAY-2016 12:56
Operator : ef Inst ID: msde.i
Smp Info : 100mL# 2789-105
Misc Info : 2.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/09May2016.b/e16l0317d.m
Meth Date : 09-May-2016 17:07 efinn Quant Type: ISTD
Cal Date : 09-MAY-2016 12:56 Cal File: e050909.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL-VB.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
36 1-Pentene					CAS #: 109-67-1		
10.823	10.823 (0.703)	55	44155	2.00000	2.012	0.00- 0.00	100.00
10.823	10.823 (0.703)	42	49234			0.00- 0.00	111.50
34 Pentane					CAS #: 109-66-0		
10.957	10.957 (0.712)	43	75303	2.00000	1.957	0.00- 0.00	100.00
10.976	10.976 (0.713)	57	15946			0.00- 0.00	21.18
10.976	10.976 (0.713)	72	13856			0.00- 0.00	18.40
44 Ethyl Ether					CAS #: 60-29-7		
11.642	11.642 (0.756)	74	35269	2.00000	1.977	0.00- 0.00	100.00(T)
11.642	11.642 (0.756)	59	40099			0.00- 0.00	113.69
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00
53 Iodomethane					CAS #: 74-88-4		
12.404	12.404 (0.806)	142	217204	2.00000	1.962	0.00- 0.00	100.00
12.404	12.404 (0.806)	127	95158			0.00- 0.00	43.81
59 Cyclopentene					CAS #: 142-29-0		
12.900	12.900 (0.838)	67	149928	2.00000	1.997	0.00- 0.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   59 Cyclopentene (continued)
 12.900  12.900 (0.838)    68     60081                    0.00-   0.00    40.07
 12.900  12.900 (0.838)    53     25394                    0.00-   0.00    16.94
-------------------------------------------------------------------------------
   64 Cyclopentane                                 CAS #: 287-92-3
 13.094  13.094 (0.851)    70     36951 2.00000    1.907   0.00-   0.00   100.00
 13.094  13.094 (0.851)    55     37500                    0.00-   0.00   101.49
-------------------------------------------------------------------------------
   74 Acrylonitrile                                CAS #: 107-13-1
 13.671  13.671 (0.888)    53     45289 2.00000    2.004   0.00-   0.00   100.00
 13.671  13.671 (0.888)    52     39496                    0.00-   0.00    87.21
-------------------------------------------------------------------------------
   76 1-Hexene                                     CAS #: 592-41-6
 13.726  13.726 (0.892)    55     35669 2.00000    1.813   0.00-   0.00   100.00
 13.726  13.726 (0.892)    41     52283                    0.00-   0.00   146.58
 13.726  13.726 (0.892)    84     20782                    0.00-   0.00    58.26
-------------------------------------------------------------------------------
   84 1-Propanol                                   CAS #: 71-23-8
 14.384  14.384 (0.935)    59     13472 2.00000    2.200   0.00-   0.00   100.00
 14.384  14.384 (0.935)    42     10865                    0.00-   0.00    80.65
 14.384  14.384 (0.935)    41      7058                    0.00-   0.00    52.39
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                          CAS #: 594-20-7
 15.009  15.009 (0.975)    77    173543 2.00000    1.981   0.00-   0.00   100.00
 15.009  15.009 (0.975)    79     54934                    0.00-   0.00    31.65
 15.009  15.009 (0.975)    97     35682                    0.00-   0.00    20.56
-------------------------------------------------------------------------------
   94 Ethyl Acetate                                CAS #: 141-78-6
 15.047  15.047 (0.978)    70     13817 2.00000    1.827   0.00-   0.00   100.00
 15.047  15.047 (0.978)    43    111338                    0.00-   0.00   805.80
 15.009  15.009 (0.975)    61     40577                    0.00-   0.00   293.67
-------------------------------------------------------------------------------
   93 Methyl Acrylate                              CAS #: 96-33-3
 15.123  15.123 (0.983)    55    115271 2.00000    1.979   0.00-   0.00   100.00
 15.123  15.123 (0.983)    85     26580                    0.00-   0.00    23.06
 15.123  15.123 (0.983)    58     11953                    0.00-   0.00    10.37
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    134839 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    100760                   52.25- 112.25    74.73
 15.391  15.391 (1.000)    49    100603                   89.81- 149.81    74.61
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                          CAS #: 563-58-6
 15.884  15.884 (1.032)   110     48393 2.00000    1.921   0.00-   0.00   100.00
 15.884  15.884 (1.032)    75    127294                    0.00-   0.00   263.04
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  115 Isobutanol                                     CAS #: 78-83-1
 15.977  15.977 (1.038)    43     48728 2.00000    1.804   0.00-   0.00   100.00
 15.977  15.977 (1.038)    41     40102                    0.00-   0.00    82.30
 15.977  15.977 (1.038)    55      6440                    0.00-   0.00    13.22
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                            CAS #: 540-36-3
 16.737  16.737 (1.000)   114    505390 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     73831                    0.00-  45.20    14.61
-------------------------------------------------------------------------------
  124 n-Butanol                                      CAS #: 71-36-3
 16.906  16.906 (1.010)    56     90537 2.00000    1.993   0.00-   0.00   100.00
 16.906  16.906 (1.010)    41     60876                    0.00-   0.00    67.24
 16.906  16.906 (1.010)    43     43853                    0.00-   0.00    48.44
-------------------------------------------------------------------------------
  128 Ethyl acrylate                                 CAS #: 140-88-5
 17.171  17.171 (1.026)    99     14420 2.00000    1.909   0.00-   0.00   100.00
 17.171  17.171 (1.026)    45     11997                    0.00-   0.00    83.20
 17.171  17.171 (1.026)    55    125578                    0.00-   0.00   870.86
-------------------------------------------------------------------------------
  131 2-Pentanone                                    CAS #: 107-87-9
 17.388  17.388 (1.039)    43    154363 2.00000    1.971   0.00-   0.00   100.00
 17.388  17.388 (1.039)    58     13873                    0.00-   0.00     8.99
 17.388  17.388 (1.039)    86     42107                    0.00-   0.00    27.28
-------------------------------------------------------------------------------
  134 Methyl Methacrylate                            CAS #: 80-62-6
 17.556  17.556 (1.049)    41     79565 2.00000    1.946   0.00-   0.00   100.00
 17.556  17.556 (1.049)    69     84435                    0.00-   0.00   106.12
 17.556  17.556 (1.049)   100     35735                    0.00-   0.00    44.91
-------------------------------------------------------------------------------
  137 Dibromomethane                                 CAS #: 74-95-3
 17.797  17.797 (1.063)   174    150567 2.00000    1.993   0.00-   0.00   100.00
 17.797  17.797 (1.063)    93    116537                    0.00-   0.00    77.40
 17.797  17.797 (1.063)    95     94774                    0.00-   0.00    62.94
-------------------------------------------------------------------------------
  148 Octane                                         CAS #: 111-65-9
 19.320  19.320 (1.154)    57     49597 2.00000    1.950   0.00-   0.00   100.00
 19.320  19.320 (1.154)    85     71636                    0.00-   0.00   144.44
 19.320  19.320 (1.154)    43    100375                    0.00-   0.00   202.38
-------------------------------------------------------------------------------
  157 1,3-Dichloropropane                            CAS #: 142-28-9
 20.795  20.795 (0.938)    76    151538 2.00000    1.957   0.00-   0.00   100.00
 20.795  20.795 (0.938)    41     75482                    0.00-   0.00    49.81
 20.795  20.795 (0.938)    78     47871                    0.00-   0.00    31.59
-------------------------------------------------------------------------------
  159 Butyl Acetate                                  CAS #: 123-86-4
 20.905  20.905 (0.943)    56     15186 2.00000    2.009   0.00-   0.00   100.00
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  159 Butyl Acetate (continued)
 20.905  20.905 (0.943)    73      9086                     0.00-   0.00    59.83
 20.905  20.905 (0.943)    43     33215                     0.00-   0.00   218.72
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    449145 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    224111                   20.64-  80.64    49.90
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                     CAS #: 630-20-6
 22.343  22.343 (1.007)   131    175712 2.00000    1.958   0.00-   0.00   100.00
 22.343  22.343 (1.007)   117    115399                     0.00-   0.00    65.68
 22.343  22.343 (1.007)    95     63594                     0.00-   0.00    36.19
-------------------------------------------------------------------------------
  170 Nonane                                        CAS #: 111-84-2
 22.301  22.301 (1.006)    43     88843 2.00000    1.976   0.00-   0.00   100.00
 22.301  22.301 (1.006)    57     93518                     0.00-   0.00   105.26
 22.301  22.301 (1.006)    85     47485                     0.00-   0.00    53.45
-------------------------------------------------------------------------------
  173 2-Heptanone                                   CAS #: 110-43-0
 23.214  23.214 (1.047)    58     84941 2.00000    1.827   0.00-   0.00   100.00
 23.214  23.214 (1.047)    43    128319                     0.00-   0.00   151.07
-------------------------------------------------------------------------------
  176 Cyclohexanone                                 CAS #: 108-94-1
 23.811  23.811 (1.074)    55     80423 2.00000    2.077   0.00-   0.00   100.00
 23.811  23.811 (1.074)    98     46566                     0.00-   0.00    57.90
 23.811  23.811 (1.074)    42     52747                     0.00-   0.00    65.59
-------------------------------------------------------------------------------
  179 alpha-Pinene                                  CAS #: 80-56-8
 23.497  23.497 (1.060)    93    355215 2.00000    1.983   0.00-   0.00   100.00
 23.519  23.519 (1.061)   121     49518                     0.00-   0.00    13.94
 23.497  23.497 (1.060)    92    139303                     0.00-   0.00    39.22
-------------------------------------------------------------------------------
  180 Bromobenzene                                  CAS #: 108-86-1
 24.080  24.080 (1.086)   156    177301 2.00000    1.964   0.00-   0.00   100.00
 24.080  24.080 (1.086)   158    166842                     0.00-   0.00    94.10
 24.080  24.080 (1.086)    77    216115                     0.00-   0.00   121.89
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                        CAS #: 96-18-4
 24.125  24.125 (1.088)   110     71416 2.00000    1.970   0.00-   0.00   100.00
 24.125  24.125 (1.088)    75    235348                     0.00-   0.00   329.55
 24.125  24.125 (1.088)    61     38992                     0.00-   0.00    54.60
-------------------------------------------------------------------------------
  187 Decane                                        CAS #: 124-18-5
 24.170  24.170 (1.090)    57     70803 2.00000    1.932   0.00-   0.00   100.00
 24.170  24.170 (1.090)    71     36499                     0.00-   0.00    51.55
 24.170  24.170 (1.090)   142      6512                     0.00-   0.00     9.20
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE		RATIO
189 2-Chlorotoluene					CAS #: 95-49-8			
24.282	24.282 (1.095)	126	112257	2.00000	1.938	0.00-	0.00	100.00
24.282	24.282 (1.095)	91	285954			0.00-	0.00	254.73
24.282	24.282 (1.095)	65	25510			0.00-	0.00	22.72
191 4-Chlorotoluene					CAS #: 106-43-4			
24.416	24.416 (1.101)	126	107061	2.00000	1.994	0.00-	0.00	100.00
24.416	24.416 (1.101)	91	280278			0.00-	0.00	261.79
24.416	24.416 (1.101)	63	28872			0.00-	0.00	26.97
195 tert-Butylbenzene					CAS #: 98-06-6			
24.708	24.708 (1.114)	119	296810	2.00000	1.961	0.00-	0.00	100.00
24.708	24.708 (1.114)	134	75959			0.00-	0.00	25.59
24.686	24.686 (1.113)	91	180906			0.00-	0.00	60.95
197 Pentachloroethane					CAS #: 76-01-7			
24.798	24.798 (1.118)	167	118441	2.00000	1.931	0.00-	0.00	100.00
24.798	24.798 (1.118)	117	98264			0.00-	0.00	82.96
24.798	24.798 (1.118)	169	56842			0.00-	0.00	47.99
199 D-Limonene					CAS #: 5989-27-5			
25.044	25.044 (1.129)	68	113761	2.00000	1.994	0.00-	0.00	100.00
25.044	25.044 (1.129)	93	287239			0.00-	0.00	252.49
203 sec-Butylbenzene					CAS #: 135-98-8			
24.955	24.955 (1.125)	105	554471	2.00000	1.942	0.00-	0.00	100.00
24.955	24.955 (1.125)	134	128050			0.00-	0.00	23.09
24.955	24.955 (1.125)	91	83896			0.00-	0.00	15.13
206 bis(2-Chloroethyl) Ether					CAS #: 111-44-4			
25.044	25.044 (1.129)	93	284572	2.00000	2.006	0.00-	0.00	100.00
25.044	25.044 (1.129)	95	71974			0.00-	0.00	25.29
25.044	25.044 (1.129)	63	118520			0.00-	0.00	41.65
207 p-Cymene					CAS #: 99-87-6			
25.089	25.089 (1.131)	119	349043	2.00000	2.002	0.00-	0.00	100.00
25.089	25.089 (1.131)	134	94428			0.00-	0.00	27.05
25.089	25.089 (1.131)	91	77864			0.00-	0.00	22.31
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8			
25.269	25.269 (1.139)	120	107064	2.00000	1.917	0.00-	0.00	100.00
25.269	25.269 (1.139)	105	235393			0.00-	0.00	219.86
25.269	25.269 (1.139)	77	28963			0.00-	0.00	27.05
213 Butylbenzene					CAS #: 104-51-8			
25.538	25.538 (1.152)	134	85703	2.00000	1.959	0.00-	0.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
213 Butylbenzene (continued)							
25.538	25.538 (1.152)	91	281898			0.00- 0.00	328.92
25.538	25.538 (1.152)	92	155134			0.00- 0.00	181.01
215 Undecane					CAS #: 1120-21-4		
25.515	25.515 (1.151)	57	55678	2.00000	2.096	0.00- 0.00	100.00
25.515	25.515 (1.151)	43	40323			0.00- 0.00	72.42
25.515	25.515 (1.151)	85	21370			0.00- 0.00	38.38
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	139859	2.00000	1.972	0.00- 0.00	100.00
26.546	26.546 (1.197)	75	107812			0.00- 0.00	77.09
26.546	26.546 (1.197)	155	107493			0.00- 0.00	76.86
225 Dodecane					CAS #: 112-40-3		
26.614	26.614 (1.200)	85	15827	2.00000	2.000	0.00- 0.00	100.00
26.614	26.614 (1.200)	57	32555			0.00- 0.00	205.69
26.614	26.614 (1.200)	43	23331			0.00- 0.00	147.41

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e050909.d
Lab Smp Id: ICAL Level 9
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/09May2016.b/e16l0317d.m
Misc Info: 2.0ppbv (5.0ppbv) Combo

Calibration Date: 09-MAY-2016
Calibration Time: 07:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	159373	95624	223122	134839	-15.39
123 1,4-Difluorobenze	624905	374943	874867	505390	-19.13
163 Chlorobenzene-d5	549919	329951	769887	449145	-18.33

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/09May2016.b/e050909.d

Date : 09-MAY-2016 12:56

Client ID:

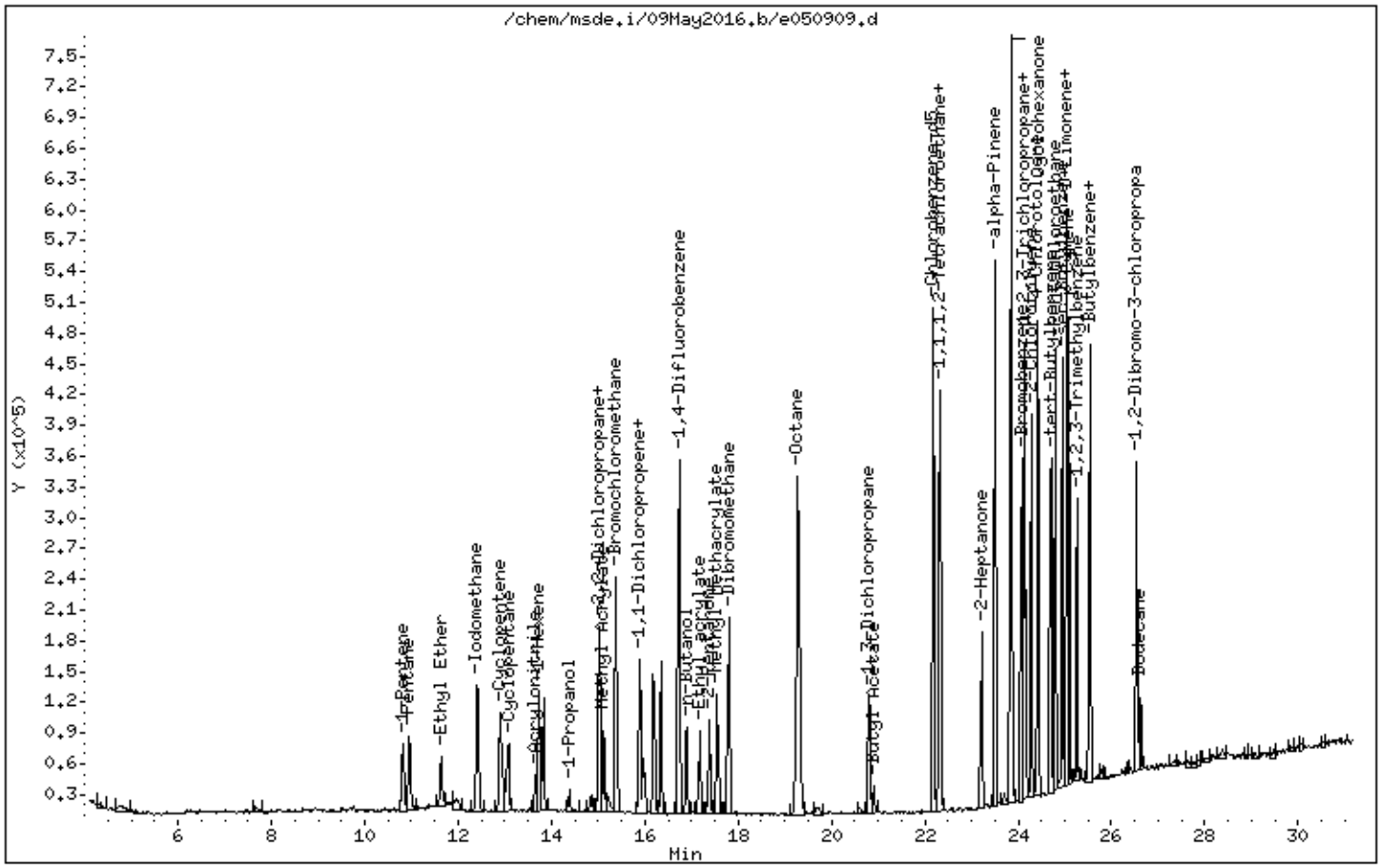
Instrument: msde.i

Sample Info: 100mL# 2789-105

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/22Mar2016.b/e032207.d
Lab Smp Id: ICAL Client Smp ID: Level 9
Inj Date : 22-MAR-2016 14:04
Operator : ef Inst ID: msde.i
Smp Info : 100mL# 2759-238
Misc Info : 2.0ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/22Mar2016.b/e16l0317a.m
Meth Date : 24-Mar-2016 08:33 efinn Quant Type: ISTD
Cal Date : 22-MAR-2016 14:04 Cal File: e032207.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
7 Freon 134a					CAS #: 811-97-2		
4.877	4.877 (0.313)	83	31585	2.00000	2.036	0.00- 0.00	100.00(T)
4.877	4.877 (0.313)	69	22043			0.00- 0.00	69.79
0.000	1.000 (0.000)	0	0			0.00- 0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6		
5.335	5.335 (0.342)	65	11996	2.00000	1.832	0.00- 0.00	100.00(a)
5.335	5.335 (0.342)	51	12959			0.00- 0.00	108.03
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.986	5.986 (0.384)	51	36044	2.00000	2.137	0.00- 0.00	100.00(T)
5.962	5.962 (0.383)	67	9647			0.00- 0.00	26.76
0.000	1.000 (0.000)	85	0			0.00- 0.00	0.00
16 Freon 142b					CAS #: 75-68-3		
7.094	7.094 (0.455)	65	69656	2.00000	2.036	0.00- 0.00	100.00
7.119	7.119 (0.457)	45	12279			0.00- 0.00	17.63

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   16 Freon 142b (continued)
  7.094   7.094 (0.455)    81      4659                     0.00-   0.00     6.69
-------------------------------------------------------------------------------
   37 Dichlorofluoromethane                        CAS #: 75-43-4
 11.071  11.071 (0.711)    67     68909 2.00000    1.928   0.00-   0.00   100.00(a)
 11.071  11.071 (0.711)    69     21878                     0.00-   0.00    31.75
 11.052  11.052 (0.709)    47      5558                     0.00-   0.00     8.07
-------------------------------------------------------------------------------
   48 Freon 123                                    CAS #: 306-83-2
 12.214  12.214 (0.784)    83    106156 2.00000    1.924   0.00-   0.00   100.00(a)
 12.214  12.214 (0.784)   133     33706                     0.00-   0.00    31.75
 12.214  12.214 (0.784)    85     77789                     0.00-   0.00    73.28
-------------------------------------------------------------------------------
   59 Cyclopentene                                 CAS #: 142-29-0
 13.090  13.090 (0.840)    67     49814 2.00000    1.964   0.00-   0.00   100.00(a)
 13.090  13.090 (0.840)    68     19653                     0.00-   0.00    39.45
 13.090  13.090 (0.840)    53      9293                     0.00-   0.00    18.66
-------------------------------------------------------------------------------
   84 1-Propanol                                   CAS #: 71-23-8
 14.552  14.552 (0.934)    59     14584 2.00000    2.050   0.00-   0.00   100.00
 14.552  14.552 (0.934)    42     10318                     0.00-   0.00    70.75
 14.552  14.552 (0.934)    41      7182                     0.00-   0.00    49.25
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                          CAS #: 594-20-7
 15.202  15.202 (0.976)    77     89068 2.00000    1.987   0.00-   0.00   100.00(a)
 15.202  15.202 (0.976)    79     27358                     0.00-   0.00    30.72
 15.202  15.202 (0.976)    97     17442                     0.00-   0.00    19.58
-------------------------------------------------------------------------------
*  98 Bromochloromethane                          CAS #: 74-97-5
 15.580  15.580 (1.000)   130    190394 5.00000           80.00- 120.00   100.00
 15.580  15.580 (1.000)   128    145857                   52.25- 112.25    76.61
 15.580  15.580 (1.000)    49    152277                   89.81- 149.81    79.98
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                         CAS #: 563-58-6
 16.104  16.104 (1.034)   110     22294 2.00000    1.908   0.00-   0.00   100.00(a)
 16.104  16.104 (1.034)    75     63010                     0.00-   0.00   282.63
-------------------------------------------------------------------------------
  115 Isobutanol                                  CAS #: 78-83-1
 16.165  16.165 (1.038)    43     68320 2.00000    1.987   0.00-   0.00   100.00(a)
 16.165  16.165 (1.038)    41     56724                     0.00-   0.00    83.03
 16.165  16.165 (1.038)    55      5804                     0.00-   0.00     8.50
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                         CAS #: 540-36-3
 16.939  16.939 (1.000)   114    738230 5.00000           80.00- 120.00   100.00
 16.939  16.939 (1.000)    88    109699                    0.00-  45.20    14.86
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
124 n-Butanol					CAS #: 71-36-3		
17.108	17.108 (1.010)	56	94613	2.00000	2.028	0.00- 0.00	100.00
17.108	17.108 (1.010)	41	65538			0.00- 0.00	69.27
17.108	17.108 (1.010)	43	48040			0.00- 0.00	50.78
157 1,3-Dichloropropane					CAS #: 142-28-9		
21.046	21.046 (0.941)	76	113453	2.00000	2.002	0.00- 0.00	100.00
21.046	21.046 (0.941)	41	56999			0.00- 0.00	50.24
21.046	21.046 (0.941)	78	35480			0.00- 0.00	31.27
159 Butyl Acetate					CAS #: 123-86-4		
21.128	21.128 (0.945)	56	13576	2.00000	2.039	0.00- 0.00	100.00
21.128	21.128 (0.945)	73	9146			0.00- 0.00	67.37
21.128	21.128 (0.945)	43	31587			0.00- 0.00	232.67
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.366	22.366 (1.000)	117	666705	5.00000		80.00- 120.00	100.00
22.366	22.366 (1.000)	82	342676			20.64- 80.64	51.40
168 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6		
22.511	22.511 (1.006)	131	134523	2.00000	1.989	0.00- 0.00	100.00(a)
22.511	22.511 (1.006)	117	84564			0.00- 0.00	62.86
22.511	22.511 (1.006)	95	49192			0.00- 0.00	36.57
173 2-Heptanone					CAS #: 110-43-0		
23.381	23.381 (1.045)	58	99803	2.00000	2.036	0.00- 0.00	100.00
23.381	23.381 (1.045)	43	140510			0.00- 0.00	140.79
176 Cyclohexanone					CAS #: 108-94-1		
23.975	23.975 (1.072)	55	81342	2.00000	1.964	0.00- 0.00	100.00(a)
23.975	23.975 (1.072)	98	50627			0.00- 0.00	62.24
23.975	23.975 (1.072)	42	56628			0.00- 0.00	69.62
180 Bromobenzene					CAS #: 108-86-1		
24.244	24.244 (1.084)	156	145985	2.00000	1.998	0.00- 0.00	100.00(a)
24.244	24.244 (1.084)	158	142440			0.00- 0.00	97.57
24.244	24.244 (1.084)	77	203644			0.00- 0.00	139.50
185 1,2,3-Trichloropropane					CAS #: 96-18-4		
24.289	24.289 (1.086)	110	71103	2.00000	1.961	0.00- 0.00	100.00(a)
24.289	24.289 (1.086)	75	177204			0.00- 0.00	249.22
24.289	24.289 (1.086)	61	38011			0.00- 0.00	53.46
189 2-Chlorotoluene					CAS #: 95-49-8		
24.446	24.446 (1.093)	126	100135	2.00000	2.018	0.00- 0.00	100.00
24.446	24.446 (1.093)	91	266854			0.00- 0.00	266.49

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  189 2-Chlorotoluene (continued)
 24.446  24.446 (1.093)    65     25474                     0.00-   0.00    25.44
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                                CAS #: 106-43-4
 24.581  24.581 (1.099)   126     92984 2.00000    1.877   0.00-   0.00   100.00(a)
 24.581  24.581 (1.099)    91    264780                     0.00-   0.00   284.76
 24.581  24.581 (1.099)    63     31473                     0.00-   0.00    33.85
-------------------------------------------------------------------------------
  195 tert-Butylbenzene                              CAS #: 98-06-6
 24.850  24.850 (1.111)   119    303773 2.00000    1.965   0.00-   0.00   100.00(a)
 24.850  24.850 (1.111)   134     84004                     0.00-   0.00    27.65
 24.850  24.850 (1.111)    91    199201                     0.00-   0.00    65.58
-------------------------------------------------------------------------------
  197 Pentachloroethane                              CAS #: 76-01-7
 24.962  24.962 (1.116)   167    109630 2.00000    1.978   0.00-   0.00   100.00(a)
 24.962  24.962 (1.116)   117     94396                     0.00-   0.00    86.10
 24.962  24.962 (1.116)   169     51170                     0.00-   0.00    46.68
-------------------------------------------------------------------------------
  203 sec-Butylbenzene                               CAS #: 135-98-8
 25.096  25.096 (1.122)   105    409512 2.00000    1.972   0.00-   0.00   100.00(a)
 25.096  25.096 (1.122)   134     85420                     0.00-   0.00    20.86
 25.096  25.096 (1.122)    91     67954                     0.00-   0.00    16.59
-------------------------------------------------------------------------------
  207 p-Cymene                                       CAS #: 99-87-6
 25.253  25.253 (1.129)   119    330548 2.00000    2.019   0.00-   0.00   100.00
 25.253  25.253 (1.129)   134     88426                     0.00-   0.00    26.75
 25.253  25.253 (1.129)    91     76723                     0.00-   0.00    23.21
-------------------------------------------------------------------------------
  210 1,2,3-Trimethylbenzene                         CAS #: 526-73-8
 25.410  25.410 (1.136)   120    105242 2.00000    2.077   0.00-   0.00   100.00
 25.410  25.410 (1.136)   105    243997                     0.00-   0.00   231.84
 25.410  25.410 (1.136)    77     26041                     0.00-   0.00    24.74
-------------------------------------------------------------------------------
  213 Butylbenzene                                   CAS #: 104-51-8
 25.702  25.702 (1.149)   134     67079 2.00000    1.828   0.00-   0.00   100.00(a)
 25.702  25.702 (1.149)    91    250061                     0.00-   0.00   372.79
 25.702  25.702 (1.149)    92    137576                     0.00-   0.00   205.10
-------------------------------------------------------------------------------
  221 1,2-Dibromo-3-chloropropane                    CAS #: 96-12-8
 26.711  26.711 (1.194)   157    129351 2.00000    1.962   0.00-   0.00   100.00(a)
 26.711  26.711 (1.194)    75    105234                     0.00-   0.00    81.36
 26.711  26.711 (1.194)   155     97450                     0.00-   0.00    75.34
-------------------------------------------------------------------------------
```

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Report Date: 24-Mar-2016 08:33

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032207.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/22Mar2016.b/e16l0317a.m
Misc Info: 2.0ppbv (5.0ppbv)

Calibration Date: 22-MAR-2016
Calibration Time: 09:49
Client Smp ID: Level 9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	190421	114253	266589	190394	-0.01
123 1,4-Difluorobenze	736283	441770	1030796	738230	0.26
163 Chlorobenzene-d5	650623	390374	910872	666705	2.47

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/22Mar2016.b/e032207.d

Date : 22-MAR-2016 14:04

Client ID: Level 9

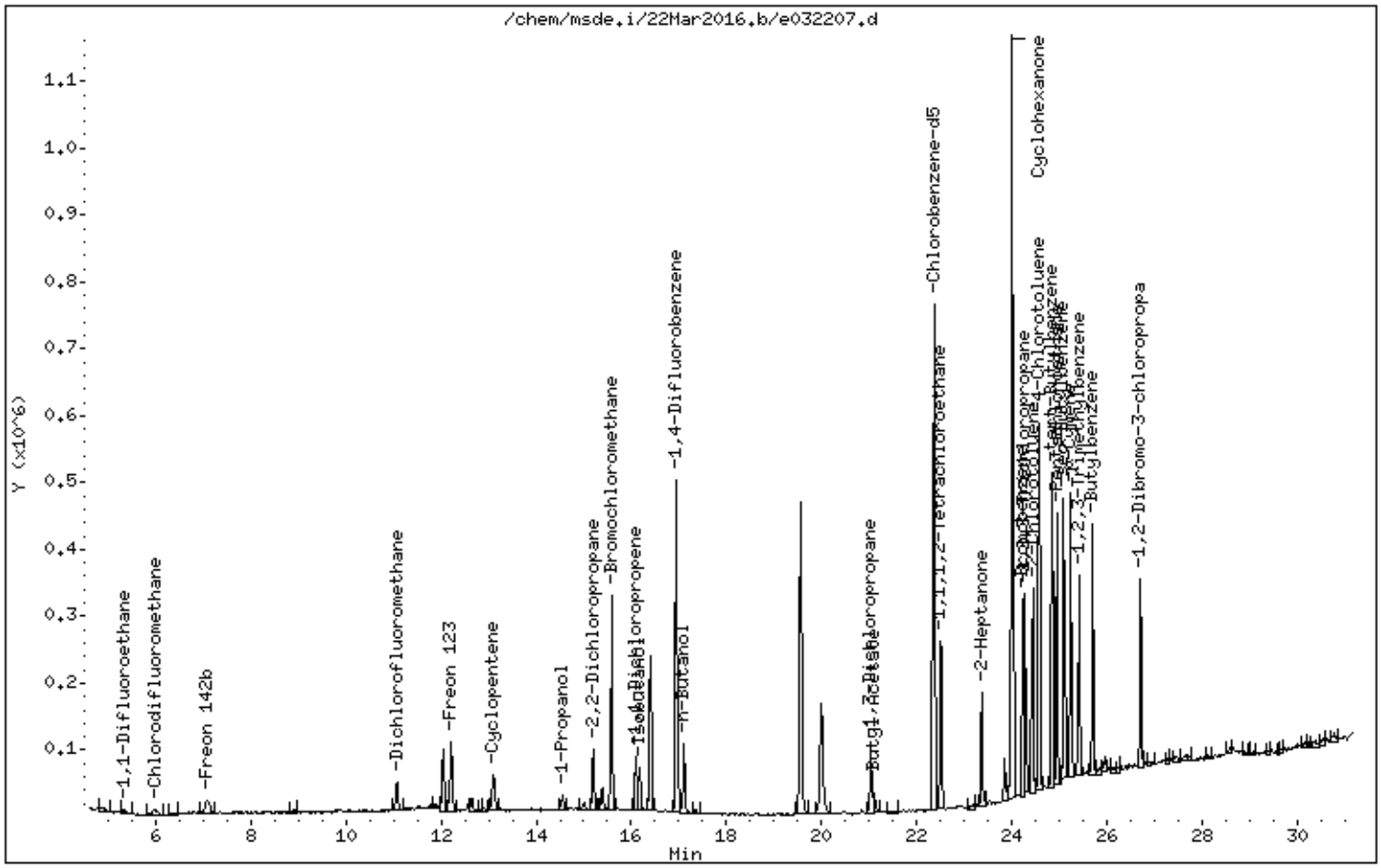
Instrument: msde.i

Sample Info: 100mL# 2759-238

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/24May2016.b/e052408.d
Lab Smp Id: ICAL Level 11
Inj Date : 24-MAY-2016 11:47
Operator : ef Inst ID: msde.i
Smp Info : 200mL# 2789-129
Misc Info : 4.0ppbv (5.0ppbv) AT-1
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/24May2016.b/e16l0317f.m
Meth Date : 24-May-2016 14:10 atoyama Quant Type: ISTD
Cal Date : 24-MAY-2016 11:47 Cal File: e052408.d
Als bottle: 1 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FreonICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
7 Freon 134a					CAS #: 811-97-2		
4.642	4.642 (0.302)	83	94694	4.00000	3.780	0.00- 0.00	100.00(T)
4.618	4.618 (0.300)	69	69003			0.00- 0.00	72.87
0.000	1.000 (0.000)	0	0			0.00- 0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6		
5.100	5.100 (0.331)	65	41223	4.00000	4.006	0.00- 0.00	100.00
5.076	5.076 (0.330)	51	62483			0.00- 0.00	151.57
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.751	5.751 (0.374)	51	108545	4.00000	3.863	0.00- 0.00	100.00
5.727	5.727 (0.372)	67	26068			0.00- 0.00	24.02
5.775	5.775 (0.375)	85	2984			0.00- 0.00	2.75
16 Freon 142b					CAS #: 75-68-3		
6.859	6.859 (0.446)	65	214121	4.00000	3.805	0.00- 0.00	100.00
6.859	6.859 (0.446)	45	39114			0.00- 0.00	18.27
6.835	6.835 (0.444)	81	12836			0.00- 0.00	5.99
37 Dichlorofluoromethane					CAS #: 75-43-4		
10.862	10.862 (0.706)	67	232488	4.00000	3.747	0.00- 0.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
37 Dichlorofluoromethane (continued)								
10.862	10.862	(0.706)	69	78534			0.00- 0.00	33.78
10.862	10.862	(0.706)	47	18980			0.00- 0.00	8.16
48 Freon 123						CAS #: 306-83-2		
12.023	12.023	(0.781)	83	272302	4.00000	3.787	0.00- 0.00	100.00
12.023	12.023	(0.781)	133	77295			0.00- 0.00	28.39
12.023	12.023	(0.781)	85	184435			0.00- 0.00	67.73
* 98 Bromochloromethane						CAS #: 74-97-5		
15.391	15.391	(1.000)	130	127140	5.00000		80.00- 120.00	100.00
15.391	15.391	(1.000)	128	95665			52.25- 112.25	75.24
15.391	15.391	(1.000)	49	89168			89.81- 149.81	70.13
* 123 1,4-Difluorobenzene						CAS #: 540-36-3		
16.737	16.737	(1.000)	114	461704	5.00000		80.00- 120.00	100.00
16.737	16.737	(1.000)	88	69936			0.00- 45.20	15.15
* 163 Chlorobenzene-d5						CAS #: 3114-55-4		
22.177	22.177	(1.000)	117	421699	5.00000		80.00- 120.00	100.00
22.177	22.177	(1.000)	82	205094			20.64- 80.64	48.64

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 24-May-2016 14:10

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e052408.d
Lab Smp Id: ICAL Level 11
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/24May2016.b/e16l0317f.m
Misc Info: 4.0ppbv (5.0ppbv) AT-1

Calibration Date: 24-MAY-2016
Calibration Time: 07:15

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	155366	93220	217512	127140	-18.17
123 1,4-Difluorobenze	569598	341759	797437	461704	-18.94
163 Chlorobenzene-d5	506881	304129	709633	421699	-16.81

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/24May2016.b/e052408.d

Date : 24-MAY-2016 11:47

Client ID:

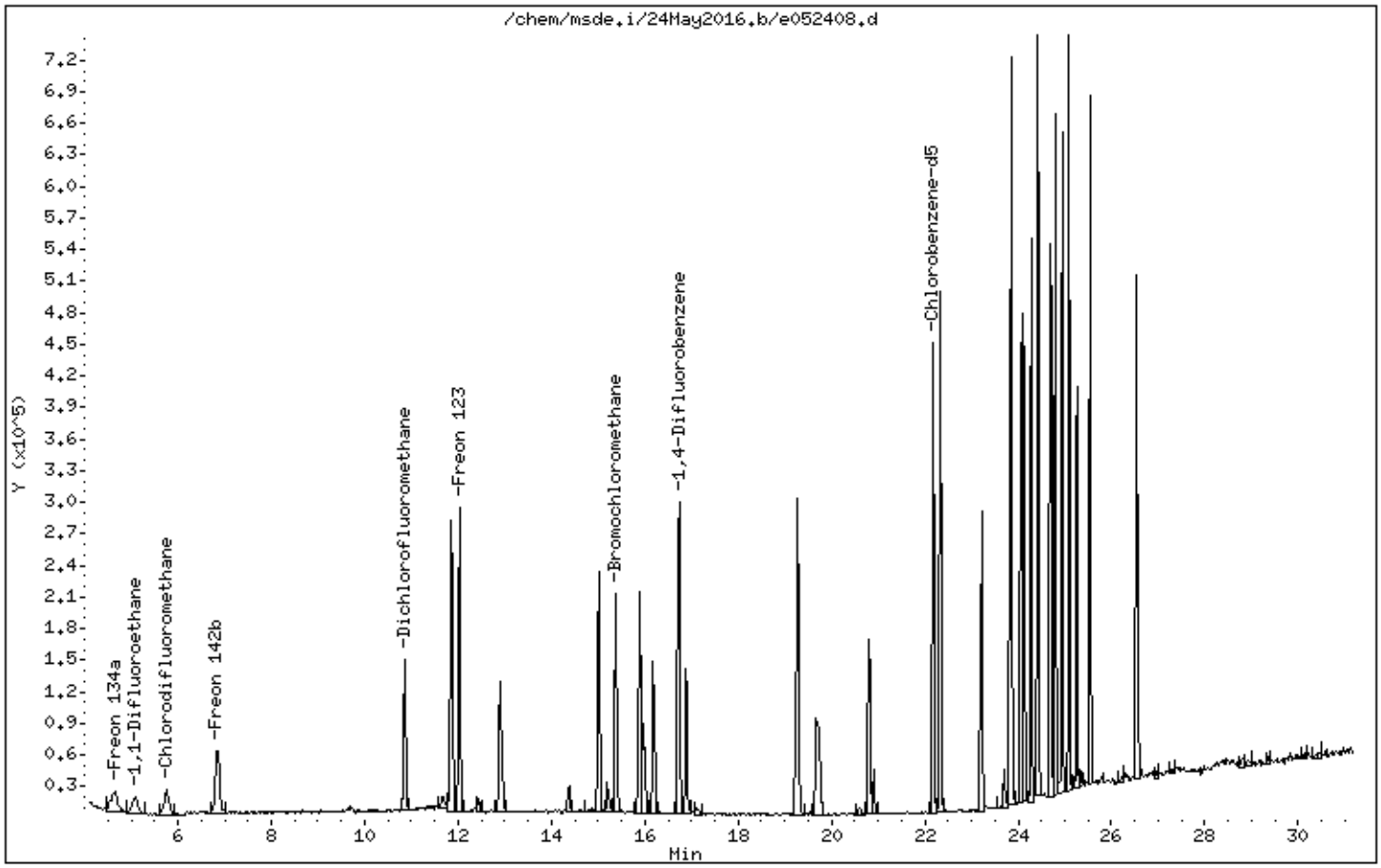
Instrument: msde.i

Sample Info: 200mL# 2789-129

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/09May2016.b/e050912.d
Lab Smp Id: ICAL Level 11
Inj Date : 09-MAY-2016 14:40
Operator : ef Inst ID: msde.i
Smp Info : 200mL# 2789-105
Misc Info : 4.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/09May2016.b/e16l0317d.m
Meth Date : 09-May-2016 17:07 efinn Quant Type: ISTD
Cal Date : 09-MAY-2016 14:40 Cal File: e050912.d
Als bottle: 1 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL-VB.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
36 1-Pentene					CAS #: 109-67-1		
10.823	10.823 (0.703)	55	85769	4.00000	3.993	0.00- 0.00	100.00
10.823	10.823 (0.703)	42	94821			0.00- 0.00	110.55
34 Pentane					CAS #: 109-66-0		
10.957	10.957 (0.712)	43	139952	4.00000	3.717	0.00- 0.00	100.00
10.957	10.957 (0.712)	57	28872			0.00- 0.00	20.63
10.957	10.957 (0.712)	72	23827			0.00- 0.00	17.03
44 Ethyl Ether					CAS #: 60-29-7		
11.642	11.642 (0.756)	74	67461	4.00000	3.865	0.00- 0.00	100.00(T)
11.642	11.642 (0.756)	59	78888			0.00- 0.00	116.94
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00
53 Iodomethane					CAS #: 74-88-4		
12.404	12.404 (0.806)	142	424719	4.00000	3.922	0.00- 0.00	100.00
12.404	12.404 (0.806)	127	183387			0.00- 0.00	43.18
59 Cyclopentene					CAS #: 142-29-0		
12.900	12.900 (0.838)	67	286638	4.00000	3.902	0.00- 0.00	100.00

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   59 Cyclopentene (continued)
 12.900  12.900 (0.838)    68    109408                     0.00-   0.00    38.17
 12.900  12.900 (0.838)    53     50685                     0.00-   0.00    17.68
-------------------------------------------------------------------------------
   64 Cyclopentane                                  CAS #: 287-92-3
 13.067  13.067 (0.849)    70     73313 4.00000    3.867   0.00-   0.00   100.00
 13.094  13.094 (0.851)    55     74068                     0.00-   0.00   101.03
-------------------------------------------------------------------------------
   74 Acrylonitrile                                 CAS #: 107-13-1
 13.671  13.671 (0.888)    53     82684 4.00000    3.740   0.00-   0.00   100.00
 13.671  13.671 (0.888)    52     71587                     0.00-   0.00    86.58
-------------------------------------------------------------------------------
   76 1-Hexene                                      CAS #: 592-41-6
 13.725  13.725 (0.892)    55     76900 4.00000    3.995   0.00-   0.00   100.00
 13.725  13.725 (0.892)    41    104509                     0.00-   0.00   135.90
 13.725  13.725 (0.892)    84     40285                     0.00-   0.00    52.39
-------------------------------------------------------------------------------
   84 1-Propanol                                    CAS #: 71-23-8
 14.384  14.384 (0.935)    59     27008 4.00000    4.507   0.00-   0.00   100.00
 14.384  14.384 (0.935)    42     16493                     0.00-   0.00    61.07
 14.384  14.384 (0.935)    41     12459                     0.00-   0.00    46.13
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                           CAS #: 594-20-7
 15.008  15.008 (0.975)    77    337264 4.00000    3.934   0.00-   0.00   100.00
 15.008  15.008 (0.975)    79    109782                     0.00-   0.00    32.55
 15.008  15.008 (0.975)    97     65363                     0.00-   0.00    19.38
-------------------------------------------------------------------------------
   94 Ethyl Acetate                                 CAS #: 141-78-6
 15.047  15.047 (0.978)    70     29978 4.00000    4.052   0.00-   0.00   100.00
 15.047  15.047 (0.978)    43    211701                     0.00-   0.00   706.19
 15.028  15.028 (0.976)    61     77533                     0.00-   0.00   258.63
-------------------------------------------------------------------------------
   93 Methyl Acrylate                               CAS #: 96-33-3
 15.123  15.123 (0.983)    55    229395 4.00000    4.026   0.00-   0.00   100.00
 15.123  15.123 (0.983)    85     52413                     0.00-   0.00    22.85
 15.123  15.123 (0.983)    58     23465                     0.00-   0.00    10.23
-------------------------------------------------------------------------------
*  98 Bromochloromethane                            CAS #: 74-97-5
 15.391  15.391 (1.000)   130    131935 5.00000            80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    109410                    52.25- 112.25    82.93
 15.391  15.391 (1.000)    49    101456                    89.81- 149.81    76.90
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                           CAS #: 563-58-6
 15.884  15.884 (1.032)   110     98328 4.00000    3.989   0.00-   0.00   100.00
 15.884  15.884 (1.032)    75    241474                     0.00-   0.00   245.58
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  115 Isobutanol                                     CAS #: 78-83-1
 15.977  15.977 (1.038)    43    102466 4.00000    3.877   0.00-   0.00   100.00
 15.977  15.977 (1.038)    41     72870                    0.00-   0.00    71.12
 15.977  15.977 (1.038)    55     10083                    0.00-   0.00     9.84
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                            CAS #: 540-36-3
 16.737  16.737 (1.000)   114    498931 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     74272                    0.00-  45.20    14.89
-------------------------------------------------------------------------------
  124 n-Butanol                                      CAS #: 71-36-3
 16.906  16.906 (1.010)    56    178359 4.00000    3.978   0.00-   0.00   100.00
 16.882  16.882 (1.009)    41    119247                    0.00-   0.00    66.86
 16.906  16.906 (1.010)    43     85789                    0.00-   0.00    48.10
-------------------------------------------------------------------------------
  128 Ethyl acrylate                                 CAS #: 140-88-5
 17.171  17.171 (1.026)    99     27399 4.00000    3.674   0.00-   0.00   100.00
 17.171  17.171 (1.026)    45     21159                    0.00-   0.00    77.23
 17.171  17.171 (1.026)    55    263623                    0.00-   0.00   962.16
-------------------------------------------------------------------------------
  131 2-Pentanone                                    CAS #: 107-87-9
 17.388  17.388 (1.039)    43    305778 4.00000    3.955   0.00-   0.00   100.00
 17.388  17.388 (1.039)    58     28662                    0.00-   0.00     9.37
 17.388  17.388 (1.039)    86     86392                    0.00-   0.00    28.25
-------------------------------------------------------------------------------
  134 Methyl Methacrylate                            CAS #: 80-62-6
 17.556  17.556 (1.049)    41    161290 4.00000    3.997   0.00-   0.00   100.00
 17.556  17.556 (1.049)    69    168968                    0.00-   0.00   104.76
 17.556  17.556 (1.049)   100     77403                    0.00-   0.00    47.99
-------------------------------------------------------------------------------
  137 Dibromomethane                                 CAS #: 74-95-3
 17.797  17.797 (1.063)   174    292057 4.00000    3.915   0.00-   0.00   100.00
 17.797  17.797 (1.063)    93    230119                    0.00-   0.00    78.79
 17.797  17.797 (1.063)    95    190186                    0.00-   0.00    65.12
-------------------------------------------------------------------------------
  148 Octane                                         CAS #: 111-65-9
 19.320  19.320 (1.154)    57     99295 4.00000    3.954   0.00-   0.00   100.00
 19.343  19.343 (1.156)    85    151015                    0.00-   0.00   152.09
 19.320  19.320 (1.154)    43    195995                    0.00-   0.00   197.39
-------------------------------------------------------------------------------
  157 1,3-Dichloropropane                            CAS #: 142-28-9
 20.795  20.795 (0.938)    76    297999 4.00000    3.739   0.00-   0.00   100.00
 20.795  20.795 (0.938)    41    144752                    0.00-   0.00    48.57
 20.795  20.795 (0.938)    78     95333                    0.00-   0.00    31.99
-------------------------------------------------------------------------------
  159 Butyl Acetate                                  CAS #: 123-86-4
 20.905  20.905 (0.943)    56     31556 4.00000    4.057   0.00-   0.00   100.00
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  159 Butyl Acetate (continued)
 20.905  20.905 (0.943)    73     16178                     0.00-   0.00    51.27
 20.905  20.905 (0.943)    43     66521                     0.00-   0.00   210.80
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                                CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    462236 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    226153                   20.64-  80.64    48.93
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                       CAS #: 630-20-6
 22.343  22.343 (1.007)   131    339206 4.00000    3.673   0.00-   0.00   100.00
 22.343  22.343 (1.007)   117    209648                     0.00-   0.00    61.81
 22.343  22.343 (1.007)    95    119676                     0.00-   0.00    35.28
-------------------------------------------------------------------------------
  170 Nonane                                          CAS #: 111-84-2
 22.301  22.301 (1.006)    43    182841 4.00000    3.951   0.00-   0.00   100.00
 22.301  22.301 (1.006)    57    193399                     0.00-   0.00   105.77
 22.301  22.301 (1.006)    85    100515                     0.00-   0.00    54.97
-------------------------------------------------------------------------------
  173 2-Heptanone                                     CAS #: 110-43-0
 23.214  23.214 (1.047)    58    188977 4.00000    3.950   0.00-   0.00   100.00
 23.214  23.214 (1.047)    43    261149                     0.00-   0.00   138.19
-------------------------------------------------------------------------------
  176 Cyclohexanone                                   CAS #: 108-94-1
 23.811  23.811 (1.074)    55    152788 4.00000    3.835   0.00-   0.00   100.00
 23.811  23.811 (1.074)    98     93542                     0.00-   0.00    61.22
 23.811  23.811 (1.074)    42    104028                     0.00-   0.00    68.09
-------------------------------------------------------------------------------
  179 alpha-Pinene                                    CAS #: 80-56-8
 23.497  23.497 (1.060)    93    732214 4.00000    3.972   0.00-   0.00   100.00
 23.497  23.497 (1.060)   121    101404                     0.00-   0.00    13.85
 23.497  23.497 (1.060)    92    271778                     0.00-   0.00    37.12
-------------------------------------------------------------------------------
  180 Bromobenzene                                    CAS #: 108-86-1
 24.080  24.080 (1.086)   156    342465 4.00000    3.686   0.00-   0.00   100.00
 24.080  24.080 (1.086)   158    324468                     0.00-   0.00    94.74
 24.080  24.080 (1.086)    77    425499                     0.00-   0.00   124.25
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                          CAS #: 96-18-4
 24.125  24.125 (1.088)   110    134853 4.00000    3.615   0.00-   0.00   100.00
 24.125  24.125 (1.088)    75    481314                     0.00-   0.00   356.92
 24.125  24.125 (1.088)    61     79517                     0.00-   0.00    58.97
-------------------------------------------------------------------------------
  187 Decane                                          CAS #: 124-18-5
 24.170  24.170 (1.090)    57    147525 4.00000    3.911   0.00-   0.00   100.00
 24.170  24.170 (1.090)    71     73493                     0.00-   0.00    49.82
 24.170  24.170 (1.090)   142     12347                     0.00-   0.00     8.37
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE		RATIO
189 2-Chlorotoluene					CAS #: 95-49-8			
24.282	24.282 (1.095)	126	217090	4.00000	3.642	0.00-	0.00	100.00
24.282	24.282 (1.095)	91	579657			0.00-	0.00	267.01
24.282	24.282 (1.095)	65	50969			0.00-	0.00	23.48
191 4-Chlorotoluene					CAS #: 106-43-4			
24.416	24.416 (1.101)	126	210305	4.00000	3.806	0.00-	0.00	100.00
24.416	24.416 (1.101)	91	554757			0.00-	0.00	263.79
24.416	24.416 (1.101)	63	61752			0.00-	0.00	29.36
195 tert-Butylbenzene					CAS #: 98-06-6			
24.708	24.708 (1.114)	119	599692	4.00000	3.850	0.00-	0.00	100.00
24.708	24.708 (1.114)	134	149254			0.00-	0.00	24.89
24.686	24.686 (1.113)	91	374514			0.00-	0.00	62.45
197 Pentachloroethane					CAS #: 76-01-7			
24.798	24.798 (1.118)	167	233936	4.00000	3.706	0.00-	0.00	100.00
24.798	24.798 (1.118)	117	200591			0.00-	0.00	85.75
24.798	24.798 (1.118)	169	117023			0.00-	0.00	50.02
199 D-Limonene					CAS #: 5989-27-5			
25.044	25.044 (1.129)	68	231405	4.00000	3.942	0.00-	0.00	100.00
25.044	25.044 (1.129)	93	572422			0.00-	0.00	247.37
203 sec-Butylbenzene					CAS #: 135-98-8			
24.955	24.955 (1.125)	105	1115161	4.00000	3.795	0.00-	0.00	100.00
24.955	24.955 (1.125)	134	237948			0.00-	0.00	21.34
24.955	24.955 (1.125)	91	181166			0.00-	0.00	16.25
206 bis(2-Chloroethyl) Ether					CAS #: 111-44-4			
25.044	25.044 (1.129)	93	572422	4.00000	3.921	0.00-	0.00	100.00
25.044	25.044 (1.129)	95	144011			0.00-	0.00	25.16
25.044	25.044 (1.129)	63	241021			0.00-	0.00	42.11
207 p-Cymene					CAS #: 99-87-6			
25.089	25.089 (1.131)	119	702100	4.00000	3.912	0.00-	0.00	100.00
25.089	25.089 (1.131)	134	196095			0.00-	0.00	27.93
25.089	25.089 (1.131)	91	151295			0.00-	0.00	21.55
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8			
25.268	25.268 (1.139)	120	219310	4.00000	3.816	0.00-	0.00	100.00
25.268	25.268 (1.139)	105	498808			0.00-	0.00	227.44
25.268	25.268 (1.139)	77	54582			0.00-	0.00	24.89
213 Butylbenzene					CAS #: 104-51-8			
25.537	25.537 (1.152)	134	172231	4.00000	3.826	0.00-	0.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
213 Butylbenzene (continued)							
25.537	25.537 (1.152)	91	555920			0.00- 0.00	322.78
25.537	25.537 (1.152)	92	304567			0.00- 0.00	176.84
215 Undecane					CAS #: 1120-21-4		
25.515	25.515 (1.151)	57	108515	4.00000	3.969	0.00- 0.00	100.00
25.515	25.515 (1.151)	43	79728			0.00- 0.00	73.47
25.515	25.515 (1.151)	85	41724			0.00- 0.00	38.45
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	290043	4.00000	3.973	0.00- 0.00	100.00
26.546	26.546 (1.197)	75	213389			0.00- 0.00	73.57
26.546	26.546 (1.197)	155	228972			0.00- 0.00	78.94
225 Dodecane					CAS #: 112-40-3		
26.614	26.614 (1.200)	85	26386	4.00000	3.240	0.00- 0.00	100.00
26.614	26.614 (1.200)	57	61867			0.00- 0.00	234.47
26.614	26.614 (1.200)	43	46595			0.00- 0.00	176.59

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e050912.d
Lab Smp Id: ICAL Level 11
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/09May2016.b/e16l0317d.m
Misc Info: 4.0ppbv (5.0ppbv) Combo

Calibration Date: 09-MAY-2016
Calibration Time: 07:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	159373	95624	223122	131935	-17.22
123 1,4-Difluorobenze	624905	374943	874867	498931	-20.16
163 Chlorobenzene-d5	549919	329951	769887	462236	-15.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/09May2016.b/e050912.d

Date : 09-MAY-2016 14:40

Client ID:

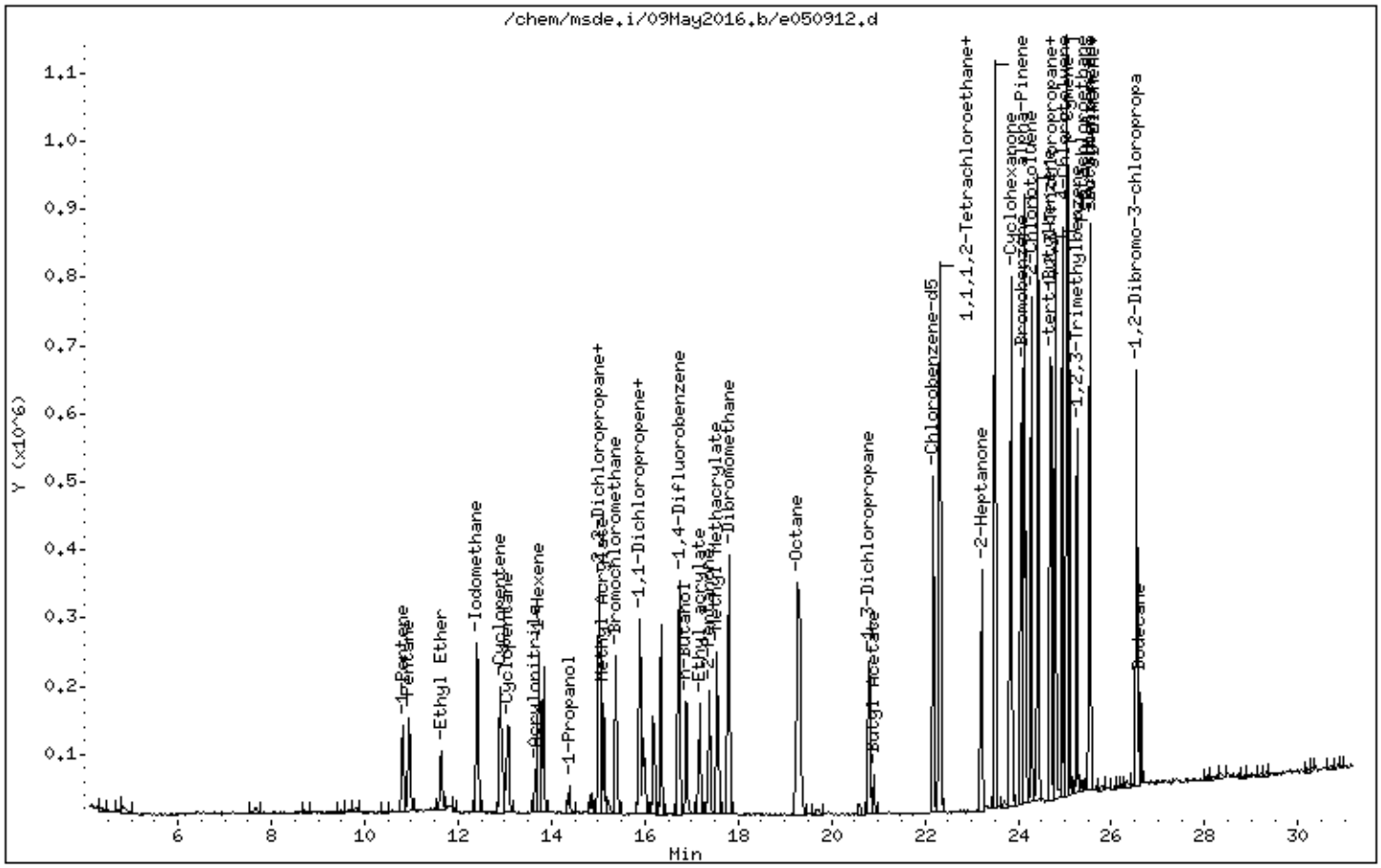
Instrument: msde.i

Sample Info: 200mL# 2789-105

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/22Mar2016.b/e032208.d
Lab Smp Id: ICAL Client Smp ID: Level 11
Inj Date : 22-MAR-2016 14:50
Operator : ef Inst ID: msde.i
Smp Info : 200mL# 2759-238
Misc Info : 4.0ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/22Mar2016.b/e16l0317a.m
Meth Date : 24-Mar-2016 08:33 efinn Quant Type: ISTD
Cal Date : 22-MAR-2016 14:50 Cal File: e032208.d
Als bottle: 1 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
7 Freon 134a					CAS #: 811-97-2		
4.901	4.901 (0.315)	83	64415	4.00000	4.136	0.00- 0.00	100.00(T)
4.877	4.877 (0.313)	69	42738			0.00- 0.00	66.35
0.000	1.000 (0.000)	0	0			0.00- 0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6		
5.311	5.311 (0.341)	65	24527	4.00000	3.731	0.00- 0.00	100.00(M)
5.335	5.335 (0.342)	51	39253			0.00- 0.00	160.04
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.985	5.985 (0.384)	51	61508	4.00000	3.632	0.00- 0.00	100.00
5.985	5.985 (0.384)	67	15428			0.00- 0.00	25.08
6.010	6.010 (0.386)	85	400			0.00- 0.00	0.65
16 Freon 142b					CAS #: 75-68-3		
7.094	7.094 (0.455)	65	133474	4.00000	3.886	0.00- 0.00	100.00
7.094	7.094 (0.455)	45	24980			0.00- 0.00	18.72

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   16 Freon 142b (continued)
  7.094   7.094 (0.455)    81      4108                     0.00-   0.00     3.08
-------------------------------------------------------------------------------
   37 Dichlorofluoromethane                        CAS #: 75-43-4
 11.052  11.052 (0.709)    67    142244 4.00000    3.965   0.00-   0.00   100.00
 11.052  11.052 (0.709)    69     46014                     0.00-   0.00    32.35
 11.071  11.071 (0.711)    47     12311                     0.00-   0.00     8.65
-------------------------------------------------------------------------------
   48 Freon 123                                    CAS #: 306-83-2
 12.213  12.213 (0.784)    83    219473 4.00000    3.962   0.00-   0.00   100.00
 12.213  12.213 (0.784)   133     61438                     0.00-   0.00    27.99
 12.213  12.213 (0.784)    85    143239                     0.00-   0.00    65.26
-------------------------------------------------------------------------------
   59 Cyclopentene                                 CAS #: 142-29-0
 13.090  13.090 (0.840)    67     99475 4.00000    3.908   0.00-   0.00   100.00
 13.090  13.090 (0.840)    68     39449                     0.00-   0.00    39.66
 13.090  13.090 (0.840)    53     16129                     0.00-   0.00    16.21
-------------------------------------------------------------------------------
   84 1-Propanol                                   CAS #: 71-23-8
 14.552  14.552 (0.934)    59     28623 4.00000    4.008   0.00-   0.00   100.00
 14.552  14.552 (0.934)    42     19608                     0.00-   0.00    68.50
 14.552  14.552 (0.934)    41     14656                     0.00-   0.00    51.20
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                          CAS #: 594-20-7
 15.201  15.201 (0.976)    77    181456 4.00000    4.033   0.00-   0.00   100.00
 15.201  15.201 (0.976)    79     60230                     0.00-   0.00    33.19
 15.201  15.201 (0.976)    97     34322                     0.00-   0.00    18.91
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.580  15.580 (1.000)   130    191124 5.00000           80.00- 120.00   100.00
 15.580  15.580 (1.000)   128    144663                   52.25- 112.25    75.69
 15.580  15.580 (1.000)    49    146074                   89.81- 149.81    76.43
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                          CAS #: 563-58-6
 16.104  16.104 (1.034)   110     47520 4.00000    4.050   0.00-   0.00   100.00
 16.104  16.104 (1.034)    75    127721                     0.00-   0.00   268.77
-------------------------------------------------------------------------------
  115 Isobutanol                                  CAS #: 78-83-1
 16.165  16.165 (1.038)    43    127154 4.00000    3.684   0.00-   0.00   100.00
 16.165  16.165 (1.038)    41    107486                     0.00-   0.00    84.53
 16.165  16.165 (1.038)    55     11637                     0.00-   0.00     9.15
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                         CAS #: 540-36-3
 16.939  16.939 (1.000)   114    725281 5.00000           80.00- 120.00   100.00
 16.939  16.939 (1.000)    88    111156                     0.00-  45.20    15.33
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
124 n-Butanol					CAS #: 71-36-3		
17.108	17.108 (1.010)	56	186975	4.00000	4.079	0.00- 0.00	100.00
17.108	17.108 (1.010)	41	130038			0.00- 0.00	69.55
17.108	17.108 (1.010)	43	96387			0.00- 0.00	51.55
157 1,3-Dichloropropane					CAS #: 142-28-9		
21.045	21.045 (0.941)	76	216199	4.00000	3.815	0.00- 0.00	100.00
21.045	21.045 (0.941)	41	116829			0.00- 0.00	54.04
21.045	21.045 (0.941)	78	70038			0.00- 0.00	32.40
159 Butyl Acetate					CAS #: 123-86-4		
21.128	21.128 (0.945)	56	27235	4.00000	4.090	0.00- 0.00	100.00
21.128	21.128 (0.945)	73	15848			0.00- 0.00	58.19
21.128	21.128 (0.945)	43	69733			0.00- 0.00	256.04
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.365	22.365 (1.000)	117	666778	5.00000		80.00- 120.00	100.00
22.365	22.365 (1.000)	82	341279			20.64- 80.64	51.18
168 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6		
22.511	22.511 (1.006)	131	261803	4.00000	3.870	0.00- 0.00	100.00
22.511	22.511 (1.006)	117	159310			0.00- 0.00	60.85
22.511	22.511 (1.006)	95	94154			0.00- 0.00	35.96
173 2-Heptanone					CAS #: 110-43-0		
23.381	23.381 (1.045)	58	203635	4.00000	4.153	0.00- 0.00	100.00
23.381	23.381 (1.045)	43	295232			0.00- 0.00	144.98
176 Cyclohexanone					CAS #: 108-94-1		
23.975	23.975 (1.072)	55	160626	4.00000	3.878	0.00- 0.00	100.00
23.975	23.975 (1.072)	98	100472			0.00- 0.00	62.55
23.975	23.975 (1.072)	42	110884			0.00- 0.00	69.03
180 Bromobenzene					CAS #: 108-86-1		
24.244	24.244 (1.084)	156	288523	4.00000	3.949	0.00- 0.00	100.00
24.244	24.244 (1.084)	158	285551			0.00- 0.00	98.97
24.244	24.244 (1.084)	77	389429			0.00- 0.00	134.97
185 1,2,3-Trichloropropane					CAS #: 96-18-4		
24.289	24.289 (1.086)	110	141453	4.00000	3.901	0.00- 0.00	100.00
24.289	24.289 (1.086)	75	346764			0.00- 0.00	245.14
24.289	24.289 (1.086)	61	77861			0.00- 0.00	55.04
189 2-Chlorotoluene					CAS #: 95-49-8		
24.446	24.446 (1.093)	126	194264	4.00000	3.915	0.00- 0.00	100.00
24.446	24.446 (1.093)	91	535104			0.00- 0.00	275.45

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  189 2-Chlorotoluene (continued)
 24.446  24.446 (1.093)    65     50024                     0.00-   0.00    25.75
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                                CAS #: 106-43-4
 24.581  24.581 (1.099)   126    203069 4.00000    4.099   0.00-   0.00   100.00
 24.581  24.581 (1.099)    91    528670                    0.00-   0.00   260.34
 24.581  24.581 (1.099)    63     64545                    0.00-   0.00    31.78
-------------------------------------------------------------------------------
  195 tert-Butylbenzene                              CAS #: 98-06-6
 24.850  24.850 (1.111)   119    628236 4.00000    4.063   0.00-   0.00   100.00
 24.850  24.850 (1.111)   134    153839                    0.00-   0.00    24.49
 24.850  24.850 (1.111)    91    399509                    0.00-   0.00    63.59
-------------------------------------------------------------------------------
  197 Pentachloroethane                              CAS #: 76-01-7
 24.962  24.962 (1.116)   167    216639 4.00000    3.908   0.00-   0.00   100.00
 24.962  24.962 (1.116)   117    189644                    0.00-   0.00    87.54
 24.962  24.962 (1.116)   169    101031                    0.00-   0.00    46.64
-------------------------------------------------------------------------------
  203 sec-Butylbenzene                               CAS #: 135-98-8
 25.096  25.096 (1.122)   105    839863 4.00000    4.043   0.00-   0.00   100.00
 25.096  25.096 (1.122)   134    181803                    0.00-   0.00    21.65
 25.096  25.096 (1.122)    91    132621                    0.00-   0.00    15.79
-------------------------------------------------------------------------------
  207 p-Cymene                                       CAS #: 99-87-6
 25.253  25.253 (1.129)   119    670380 4.00000    4.094   0.00-   0.00   100.00
 25.253  25.253 (1.129)   134    179334                    0.00-   0.00    26.75
 25.253  25.253 (1.129)    91    157500                    0.00-   0.00    23.49
-------------------------------------------------------------------------------
  210 1,2,3-Trimethylbenzene                         CAS #: 526-73-8
 25.410  25.410 (1.136)   120    203351 4.00000    4.014   0.00-   0.00   100.00
 25.410  25.410 (1.136)   105    491198                    0.00-   0.00   241.55
 25.410  25.410 (1.136)    77     59935                    0.00-   0.00    29.47
-------------------------------------------------------------------------------
  213 Butylbenzene                                   CAS #: 104-51-8
 25.702  25.702 (1.149)   134    149220 4.00000    4.066   0.00-   0.00   100.00
 25.702  25.702 (1.149)    91    520481                    0.00-   0.00   348.80
 25.702  25.702 (1.149)    92    276215                    0.00-   0.00   185.11
-------------------------------------------------------------------------------
  221 1,2-Dibromo-3-chloropropane                    CAS #: 96-12-8
 26.710  26.710 (1.194)   157    265624 4.00000    4.029   0.00-   0.00   100.00
 26.710  26.710 (1.194)    75    219272                    0.00-   0.00    82.55
 26.710  26.710 (1.194)   155    207135                    0.00-   0.00    77.98
-------------------------------------------------------------------------------
```

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Report Date: 24-Mar-2016 08:33

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032208.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/22Mar2016.b/e16l0317a.m
Misc Info: 4.0ppbv (5.0ppbv)

Calibration Date: 22-MAR-2016
Calibration Time: 09:49
Client Smp ID: Level 11
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	190421	114253	266589	191124	0.37
123 1,4-Difluorobenze	736283	441770	1030796	725281	-1.49
163 Chlorobenzene-d5	650623	390374	910872	666778	2.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/22Mar2016.b/e032208.d

Date : 22-MAR-2016 14:50

Client ID: Level 11

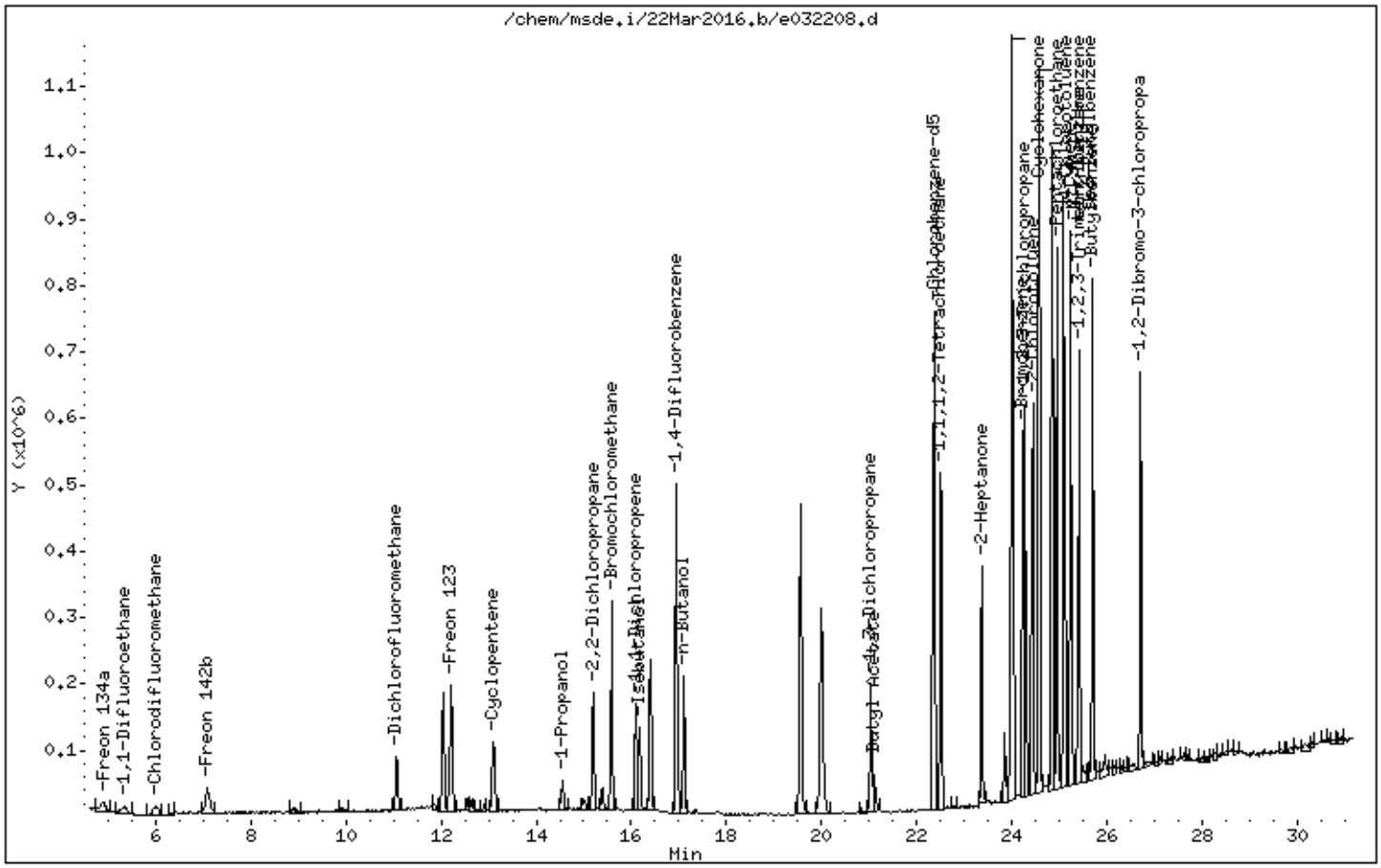
Instrument: msde.i

Sample Info: 200mL# 2759-238

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/24May2016.b/e052409.d
Lab Smp Id: ICAL Level 12
Inj Date : 24-MAY-2016 13:20
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 2789-129
Misc Info : 5.0ppbv (5.0ppbv) AT-1
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/24May2016.b/e16l0317f.m
Meth Date : 24-May-2016 14:10 atoyama Quant Type: ISTD
Cal Date : 24-MAY-2016 13:20 Cal File: e052409.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: FreonICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
7 Freon 134a					CAS #: 811-97-2		
4.642	4.642 (0.302)	83	123461	5.00000	5.221	0.00- 0.00	100.00(T)
4.666	4.666 (0.303)	69	82637			0.00- 0.00	66.93
0.000	1.000 (0.000)	0	0			0.00- 0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6		
5.076	5.076 (0.330)	65	48830	5.00000	5.027	0.00- 0.00	100.00
5.076	5.076 (0.330)	51	78761			0.00- 0.00	161.30
13 Chlorodifluoromethane					CAS #: 75-45-6		
5.751	5.751 (0.374)	51	131422	5.00000	4.956	0.00- 0.00	100.00
5.751	5.751 (0.374)	67	31247			0.00- 0.00	23.78
5.751	5.751 (0.374)	85	2713			0.00- 0.00	2.06
16 Freon 142b					CAS #: 75-68-3		
6.835	6.835 (0.444)	65	267711	5.00000	5.040	0.00- 0.00	100.00
6.835	6.835 (0.444)	45	47207			0.00- 0.00	17.63
6.835	6.835 (0.444)	81	14446			0.00- 0.00	5.40
37 Dichlorofluoromethane					CAS #: 75-43-4		
10.862	10.862 (0.706)	67	298439	5.00000	5.096	0.00- 0.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
37 Dichlorofluoromethane (continued)							
10.862	10.862 (0.706)	69	98280			0.00- 0.00	32.93
10.862	10.862 (0.706)	47	25641			0.00- 0.00	8.59
48 Freon 123					CAS #: 306-83-2		
12.024	12.024 (0.781)	83	338233	5.00000	4.984	0.00- 0.00	100.00
12.024	12.024 (0.781)	133	96660			0.00- 0.00	28.58
12.024	12.024 (0.781)	85	222640			0.00- 0.00	65.82
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	120000	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	97398			52.25- 112.25	81.16
15.391	15.391 (1.000)	49	87352			89.81- 149.81	72.79
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	464441	5.00000		80.00- 120.00	100.00
16.713	16.713 (1.000)	88	71257			0.00- 45.20	15.34
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	413516	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	208347			20.64- 80.64	50.38

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e052409.d
Lab Smp Id: ICAL Level 12
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/24May2016.b/e16l0317f.m
Misc Info: 5.0ppbv (5.0ppbv) AT-1

Calibration Date: 24-MAY-2016
Calibration Time: 07:15

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	155366	93220	217512	120000	-22.76
123 1,4-Difluorobenze	569598	341759	797437	464441	-18.46
163 Chlorobenzene-d5	506881	304129	709633	413516	-18.42

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/24May2016.b/e052409.d

Date : 24-MAY-2016 13:20

Client ID:

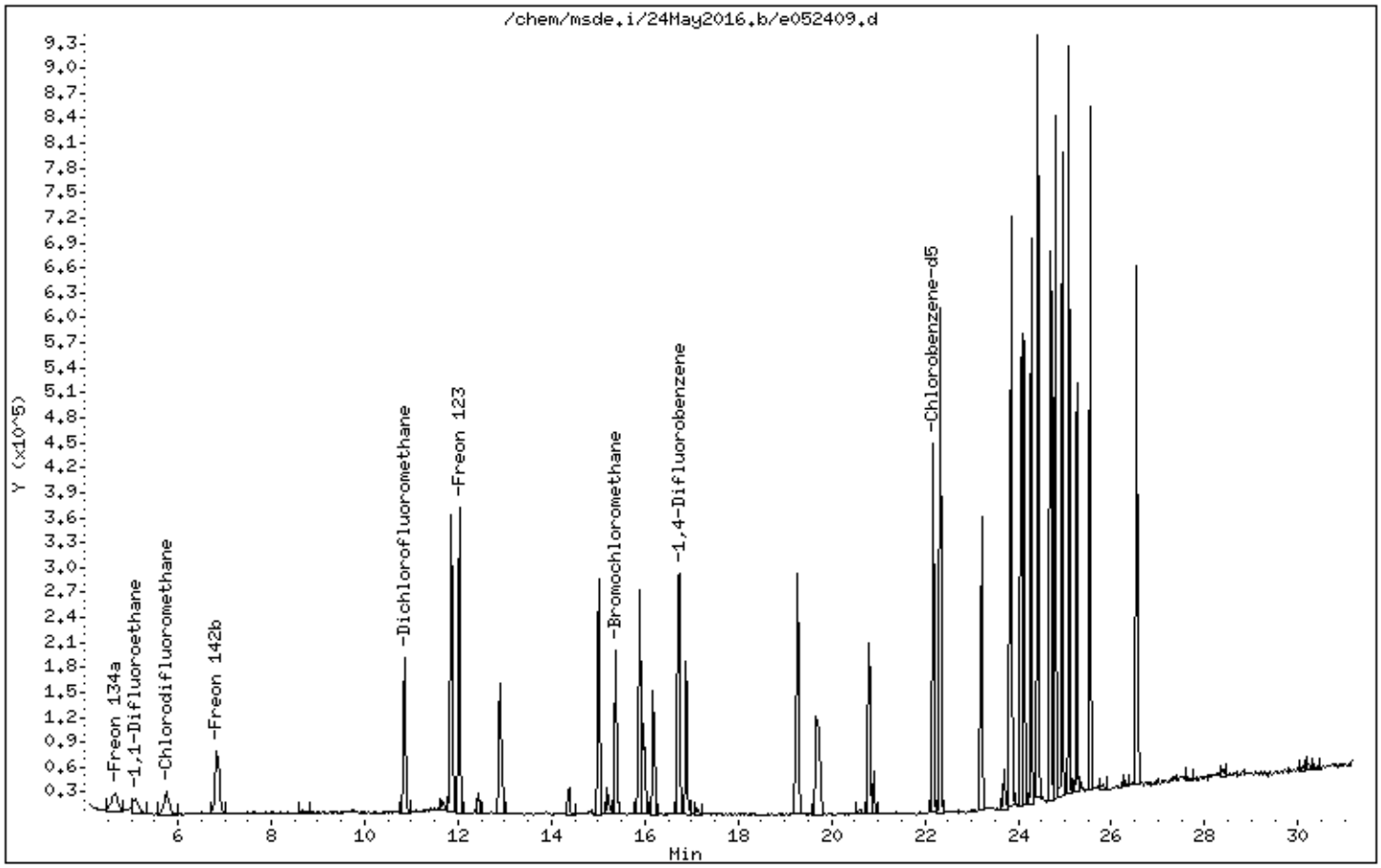
Instrument: msde.i

Sample Info: 250mL# 2789-129

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/19May2016.b/e051909.d
Lab Smp Id: ICAL Level 12
Inj Date : 19-MAY-2016 15:27
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 2789-151
Misc Info : 5.0ppbv (5.0ppbv) Acetonitrile
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/19May2016.b/e16l0317e.m
Meth Date : 19-May-2016 17:13 efinn Quant Type: ISTD
Cal Date : 19-MAY-2016 15:27 Cal File: e051909.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AcetonitrileCrv.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
63 Acetonitrile					CAS #: 75-05-8		
13.012	13.012 (0.845)	41	72556	5.00000	4.206	0.00- 0.00	100.00
13.012	13.012 (0.845)	40	47349			0.00- 0.00	65.26
13.012	13.012 (0.845)	39	18788			0.00- 0.00	25.89
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	117940	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	91245			52.25- 112.25	77.37
15.391	15.391 (1.000)	49	84055			89.81- 149.81	71.27
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	410158	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	61505			0.00- 45.20	15.00
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	391385	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	188881			20.64- 80.64	48.26

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e051909.d
Lab Smp Id: ICAL Level 12
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/19May2016.b/e16l0317e.m
Misc Info: 5.0ppbv (5.0ppbv) Acetonitrile

Calibration Date: 19-MAY-2016
Calibration Time: 09:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	151740	91044	212436	117940	-22.27
123 1,4-Difluorobenze	581412	348847	813977	410158	-29.45
163 Chlorobenzene-d5	508099	304859	711339	391385	-22.97

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/19May2016.b/e051909.d

Date : 19-MAY-2016 15:27

Client ID:

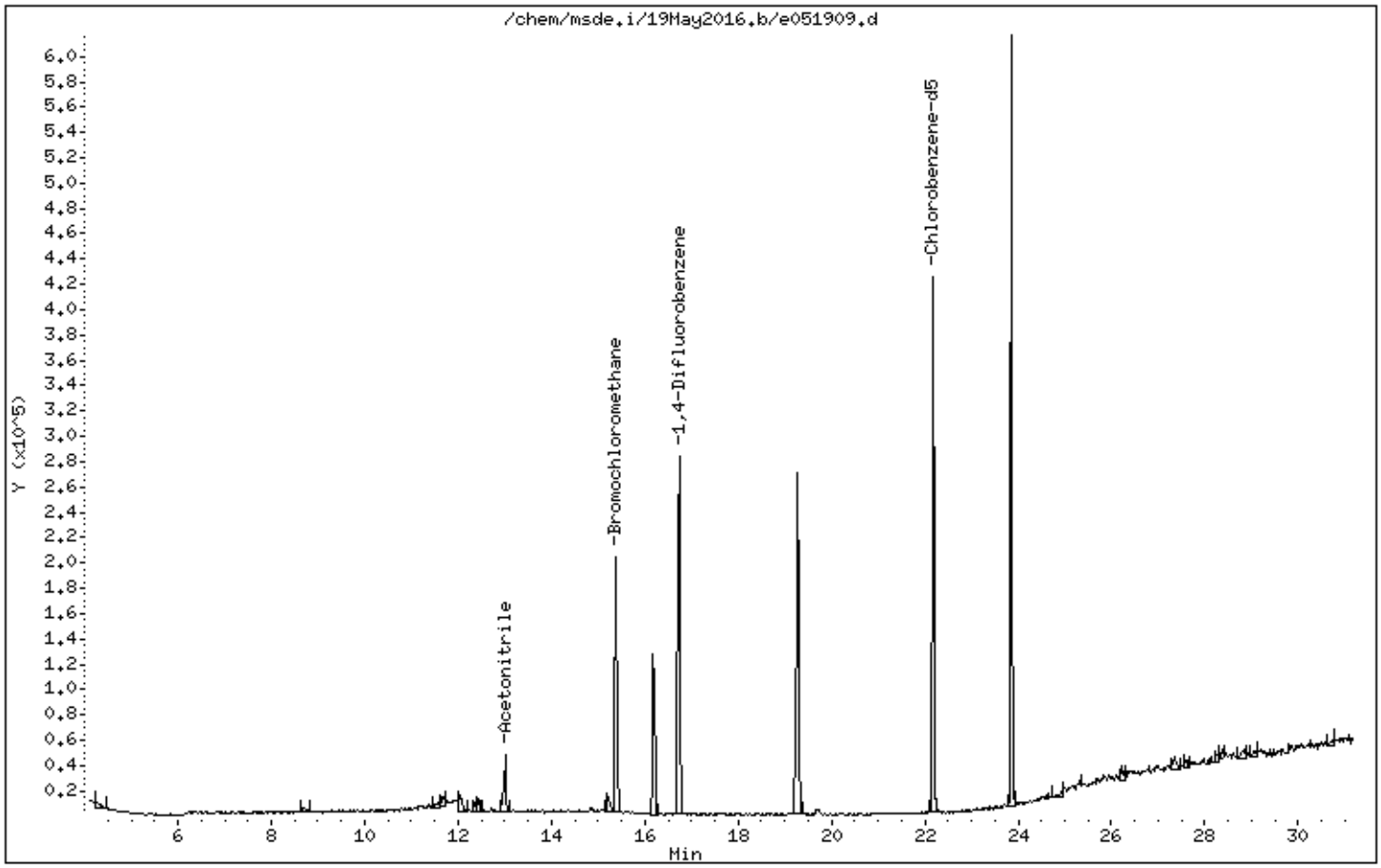
Instrument: msde.i

Sample Info: 250mL# 2789-151

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/09May2016.b/e050913.d
Lab Smp Id: ICAL Level 12
Inj Date : 09-MAY-2016 15:22
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 2789-105
Misc Info : 5.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/09May2016.b/e16l0317d.m
Meth Date : 09-May-2016 17:07 efinn Quant Type: ISTD
Cal Date : 09-MAY-2016 15:22 Cal File: e050913.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL-VB.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
36 1-Pentene					CAS #: 109-67-1		
10.823	10.823 (0.703)	55	104815	5.00000	4.559	0.00- 0.00	100.00
10.823	10.823 (0.703)	42	117179			0.00- 0.00	111.80
34 Pentane					CAS #: 109-66-0		
10.957	10.957 (0.712)	43	177965	5.00000	4.416	0.00- 0.00	100.00
10.957	10.957 (0.712)	57	35433			0.00- 0.00	19.91
10.957	10.957 (0.712)	72	31409			0.00- 0.00	17.65
44 Ethyl Ether					CAS #: 60-29-7		
11.642	11.642 (0.756)	74	82578	5.00000	4.420	0.00- 0.00	100.00(T)
11.642	11.642 (0.756)	59	101312			0.00- 0.00	122.69
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00
53 Iodomethane					CAS #: 74-88-4		
12.404	12.404 (0.806)	142	520445	5.00000	4.489	0.00- 0.00	100.00
12.404	12.404 (0.806)	127	229967			0.00- 0.00	44.19
59 Cyclopentene					CAS #: 142-29-0		
12.900	12.900 (0.838)	67	351624	5.00000	4.471	0.00- 0.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   59 Cyclopentene (continued)
 12.900  12.900 (0.838)    68    142894                     0.00-   0.00    40.64
 12.900  12.900 (0.838)    53     60079                     0.00-   0.00    17.09
-------------------------------------------------------------------------------
   64 Cyclopentane                                 CAS #: 287-92-3
 13.094  13.094 (0.851)    70     95762 5.00000    4.719   0.00-   0.00   100.00
 13.094  13.094 (0.851)    55     94819                     0.00-   0.00    99.02
-------------------------------------------------------------------------------
   74 Acrylonitrile                                CAS #: 107-13-1
 13.671  13.671 (0.888)    53    101642 5.00000    4.295   0.00-   0.00   100.00
 13.671  13.671 (0.888)    52     90282                     0.00-   0.00    88.82
-------------------------------------------------------------------------------
   76 1-Hexene                                     CAS #: 592-41-6
 13.725  13.725 (0.892)    55     97904 5.00000    4.751   0.00-   0.00   100.00
 13.725  13.725 (0.892)    41    131563                     0.00-   0.00   134.38
 13.725  13.725 (0.892)    84     51287                     0.00-   0.00    52.38
-------------------------------------------------------------------------------
   84 1-Propanol                                   CAS #: 71-23-8
 14.384  14.384 (0.935)    59     33139 5.00000    5.166   0.00-   0.00   100.00
 14.384  14.384 (0.935)    42     21160                     0.00-   0.00    63.85
 14.384  14.384 (0.935)    41     16264                     0.00-   0.00    49.08
-------------------------------------------------------------------------------
   90 2,2-Dichloropropane                          CAS #: 594-20-7
 15.008  15.008 (0.975)    77    412190 5.00000    4.491   0.00-   0.00   100.00
 15.008  15.008 (0.975)    79    132403                     0.00-   0.00    32.12
 15.008  15.008 (0.975)    97     82991                     0.00-   0.00    20.13
-------------------------------------------------------------------------------
   94 Ethyl Acetate                                CAS #: 141-78-6
 15.047  15.047 (0.978)    70     39276 5.00000    4.959   0.00-   0.00   100.00
 15.047  15.047 (0.978)    43    258689                     0.00-   0.00   658.64
 15.027  15.027 (0.976)    61     95818                     0.00-   0.00   243.96
-------------------------------------------------------------------------------
   93 Methyl Acrylate                              CAS #: 96-33-3
 15.123  15.123 (0.983)    55    291698 5.00000    4.782   0.00-   0.00   100.00
 15.123  15.123 (0.983)    85     67528                     0.00-   0.00    23.15
 15.123  15.123 (0.983)    58     31537                     0.00-   0.00    10.81
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    141233 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    107297                   52.25- 112.25    75.97
 15.391  15.391 (1.000)    49     96602                   89.81- 149.81    68.40
-------------------------------------------------------------------------------
  107 1,1-Dichloropropene                          CAS #: 563-58-6
 15.884  15.884 (1.032)   110    124288 5.00000    4.710   0.00-   0.00   100.00
 15.884  15.884 (1.032)    75    303680                     0.00-   0.00   244.34
-------------------------------------------------------------------------------
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```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  115 Isobutanol                                     CAS #: 78-83-1
 15.977  15.977 (1.038)    43    117397 5.00000    4.149   0.00-   0.00   100.00
 15.977  15.977 (1.038)    41     89075                    0.00-   0.00    75.88
 15.977  15.977 (1.038)    55     12299                    0.00-   0.00    10.48
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                            CAS #: 540-36-3
 16.737  16.737 (1.000)   114    516954 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     74578                    0.00-  45.20    14.43
-------------------------------------------------------------------------------
  124 n-Butanol                                      CAS #: 71-36-3
 16.906  16.906 (1.010)    56    227746 5.00000    4.902   0.00-   0.00   100.00
 16.906  16.906 (1.010)    41    142283                    0.00-   0.00    62.47
 16.906  16.906 (1.010)    43    113242                    0.00-   0.00    49.72
-------------------------------------------------------------------------------
  128 Ethyl acrylate                                 CAS #: 140-88-5
 17.171  17.171 (1.026)    99     36442 5.00000    4.716   0.00-   0.00   100.00
 17.171  17.171 (1.026)    45     27079                    0.00-   0.00    74.31
 17.171  17.171 (1.026)    55    333900                    0.00-   0.00   916.25
-------------------------------------------------------------------------------
  131 2-Pentanone                                    CAS #: 107-87-9
 17.388  17.388 (1.039)    43    384846 5.00000    4.804   0.00-   0.00   100.00
 17.388  17.388 (1.039)    58     34497                    0.00-   0.00     8.96
 17.388  17.388 (1.039)    86    112337                    0.00-   0.00    29.19
-------------------------------------------------------------------------------
  134 Methyl Methacrylate                            CAS #: 80-62-6
 17.556  17.556 (1.049)    41    209575 5.00000    5.012   0.00-   0.00   100.00
 17.556  17.556 (1.049)    69    222689                    0.00-   0.00   106.26
 17.556  17.556 (1.049)   100     92187                    0.00-   0.00    43.99
-------------------------------------------------------------------------------
  137 Dibromomethane                                 CAS #: 74-95-3
 17.797  17.797 (1.063)   174    364590 5.00000    4.717   0.00-   0.00   100.00
 17.797  17.797 (1.063)    93    293369                    0.00-   0.00    80.47
 17.797  17.797 (1.063)    95    237140                    0.00-   0.00    65.04
-------------------------------------------------------------------------------
  148 Octane                                         CAS #: 111-65-9
 19.320  19.320 (1.154)    57    118134 5.00000    4.540   0.00-   0.00   100.00
 19.343  19.343 (1.156)    85    184953                    0.00-   0.00   156.56
 19.320  19.320 (1.154)    43    251518                    0.00-   0.00   212.91
-------------------------------------------------------------------------------
  157 1,3-Dichloropropane                            CAS #: 142-28-9
 20.795  20.795 (0.938)    76    375846 5.00000    4.745   0.00-   0.00   100.00
 20.795  20.795 (0.938)    41    173887                    0.00-   0.00    46.27
 20.795  20.795 (0.938)    78    123066                    0.00-   0.00    32.74
-------------------------------------------------------------------------------
  159 Butyl Acetate                                  CAS #: 123-86-4
 20.905  20.905 (0.943)    56     38685 5.00000    5.004   0.00-   0.00   100.00
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  159 Butyl Acetate (continued)
 20.905  20.905 (0.943)    73     22544                     0.00-   0.00    58.28
 20.905  20.905 (0.943)    43     86345                     0.00-   0.00   223.20
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    459398 5.00000           80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    229098                   20.64-  80.64    49.87
-------------------------------------------------------------------------------
  168 1,1,1,2-Tetrachloroethane                     CAS #: 630-20-6
 22.343  22.343 (1.007)   131    422612 5.00000    4.604   0.00-   0.00   100.00
 22.343  22.343 (1.007)   117    262589                    0.00-   0.00    62.13
 22.343  22.343 (1.007)    95    146906                    0.00-   0.00    34.76
-------------------------------------------------------------------------------
  170 Nonane                                        CAS #: 111-84-2
 22.301  22.301 (1.006)    43    223074 5.00000    4.850   0.00-   0.00   100.00
 22.301  22.301 (1.006)    57    244925                    0.00-   0.00   109.80
 22.301  22.301 (1.006)    85    131111                    0.00-   0.00    58.77
-------------------------------------------------------------------------------
  173 2-Heptanone                                   CAS #: 110-43-0
 23.214  23.214 (1.047)    58    240763 5.00000    5.063   0.00-   0.00   100.00
 23.214  23.214 (1.047)    43    332802                    0.00-   0.00   138.23
-------------------------------------------------------------------------------
  176 Cyclohexanone                                 CAS #: 108-94-1
 23.811  23.811 (1.074)    55    193362 5.00000    4.883   0.00-   0.00   100.00
 23.811  23.811 (1.074)    98    127898                    0.00-   0.00    66.14
 23.811  23.811 (1.074)    42    130941                    0.00-   0.00    67.72
-------------------------------------------------------------------------------
  179 alpha-Pinene                                  CAS #: 80-56-8
 23.497  23.497 (1.060)    93    914983 5.00000    4.994   0.00-   0.00   100.00
 23.497  23.497 (1.060)   121    127713                    0.00-   0.00    13.96
 23.497  23.497 (1.060)    92    346938                    0.00-   0.00    37.92
-------------------------------------------------------------------------------
  180 Bromobenzene                                  CAS #: 108-86-1
 24.080  24.080 (1.086)   156    428983 5.00000    4.646   0.00-   0.00   100.00
 24.080  24.080 (1.086)   158    415965                    0.00-   0.00    96.97
 24.080  24.080 (1.086)    77    539987                    0.00-   0.00   125.88
-------------------------------------------------------------------------------
  185 1,2,3-Trichloropropane                        CAS #: 96-18-4
 24.125  24.125 (1.088)   110    173114 5.00000    4.669   0.00-   0.00   100.00
 24.125  24.125 (1.088)    75    600820                    0.00-   0.00   347.07
 24.125  24.125 (1.088)    61     98695                    0.00-   0.00    57.01
-------------------------------------------------------------------------------
  187 Decane                                        CAS #: 124-18-5
 24.170  24.170 (1.090)    57    186950 5.00000    4.986   0.00-   0.00   100.00
 24.170  24.170 (1.090)    71     88283                    0.00-   0.00    47.22
 24.170  24.170 (1.090)   142     15722                    0.00-   0.00     8.41
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE		RATIO
189 2-Chlorotoluene					CAS #: 95-49-8			
24.282	24.282 (1.095)	126	281945	5.00000	4.759	0.00-	0.00	100.00
24.282	24.282 (1.095)	91	719140			0.00-	0.00	255.06
24.282	24.282 (1.095)	65	65619			0.00-	0.00	23.27
191 4-Chlorotoluene					CAS #: 106-43-4			
24.416	24.416 (1.101)	126	272081	5.00000	4.954	0.00-	0.00	100.00
24.416	24.416 (1.101)	91	689927			0.00-	0.00	253.57
24.416	24.416 (1.101)	63	76087			0.00-	0.00	27.96
195 tert-Butylbenzene					CAS #: 98-06-6			
24.708	24.708 (1.114)	119	738274	5.00000	4.769	0.00-	0.00	100.00
24.708	24.708 (1.114)	134	183985			0.00-	0.00	24.92
24.685	24.685 (1.113)	91	450568			0.00-	0.00	61.03
197 Pentachloroethane					CAS #: 76-01-7			
24.798	24.798 (1.118)	167	295036	5.00000	4.702	0.00-	0.00	100.00
24.798	24.798 (1.118)	117	248392			0.00-	0.00	84.19
24.798	24.798 (1.118)	169	141621			0.00-	0.00	48.00
199 D-Limonene					CAS #: 5989-27-5			
25.022	25.022 (1.128)	68	285111	5.00000	4.886	0.00-	0.00	100.00
25.044	25.044 (1.129)	93	715556			0.00-	0.00	250.97
203 sec-Butylbenzene					CAS #: 135-98-8			
24.955	24.955 (1.125)	105	1401398	5.00000	4.798	0.00-	0.00	100.00
24.955	24.955 (1.125)	134	298944			0.00-	0.00	21.33
24.955	24.955 (1.125)	91	222975			0.00-	0.00	15.91
206 bis(2-Chloroethyl) Ether					CAS #: 111-44-4			
25.044	25.044 (1.129)	93	715556	5.00000	4.932	0.00-	0.00	100.00
25.044	25.044 (1.129)	95	178714			0.00-	0.00	24.98
25.044	25.044 (1.129)	63	300880			0.00-	0.00	42.05
207 p-Cymene					CAS #: 99-87-6			
25.089	25.089 (1.131)	119	871738	5.00000	4.887	0.00-	0.00	100.00
25.089	25.089 (1.131)	134	237134			0.00-	0.00	27.20
25.089	25.089 (1.131)	91	187210			0.00-	0.00	21.48
210 1,2,3-Trimethylbenzene					CAS #: 526-73-8			
25.268	25.268 (1.139)	120	270764	5.00000	4.741	0.00-	0.00	100.00
25.268	25.268 (1.139)	105	606155			0.00-	0.00	223.87
25.268	25.268 (1.139)	77	70976			0.00-	0.00	26.21
213 Butylbenzene					CAS #: 104-51-8			
25.537	25.537 (1.152)	134	213210	5.00000	4.765	0.00-	0.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
213 Butylbenzene (continued)							
25.537	25.537 (1.152)	91	695292			0.00- 0.00	326.11
25.537	25.537 (1.152)	92	375302			0.00- 0.00	176.02
215 Undecane					CAS #: 1120-21-4		
25.515	25.515 (1.151)	57	137800	5.00000	5.072	0.00- 0.00	100.00
25.515	25.515 (1.151)	43	101333			0.00- 0.00	73.54
25.515	25.515 (1.151)	85	48053			0.00- 0.00	34.87
221 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8		
26.546	26.546 (1.197)	157	368839	5.00000	5.084	0.00- 0.00	100.00
26.546	26.546 (1.197)	75	264815			0.00- 0.00	71.80
26.546	26.546 (1.197)	155	280375			0.00- 0.00	76.02
225 Dodecane					CAS #: 112-40-3		
26.613	26.613 (1.200)	85	37527	5.00000	4.636	0.00- 0.00	100.00
26.613	26.613 (1.200)	57	81283			0.00- 0.00	216.60
26.613	26.613 (1.200)	43	59217			0.00- 0.00	157.80

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 09-May-2016 17:07

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e050913.d
Lab Smp Id: ICAL Level 12
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/09May2016.b/e16l0317d.m
Misc Info: 5.0ppbv (5.0ppbv) Combo

Calibration Date: 09-MAY-2016
Calibration Time: 07:51

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	159373	95624	223122	141233	-11.38
123 1,4-Difluorobenze	624905	374943	874867	516954	-17.27
163 Chlorobenzene-d5	549919	329951	769887	459398	-16.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/09May2016.b/e050913.d

Date : 09-MAY-2016 15:22

Client ID:

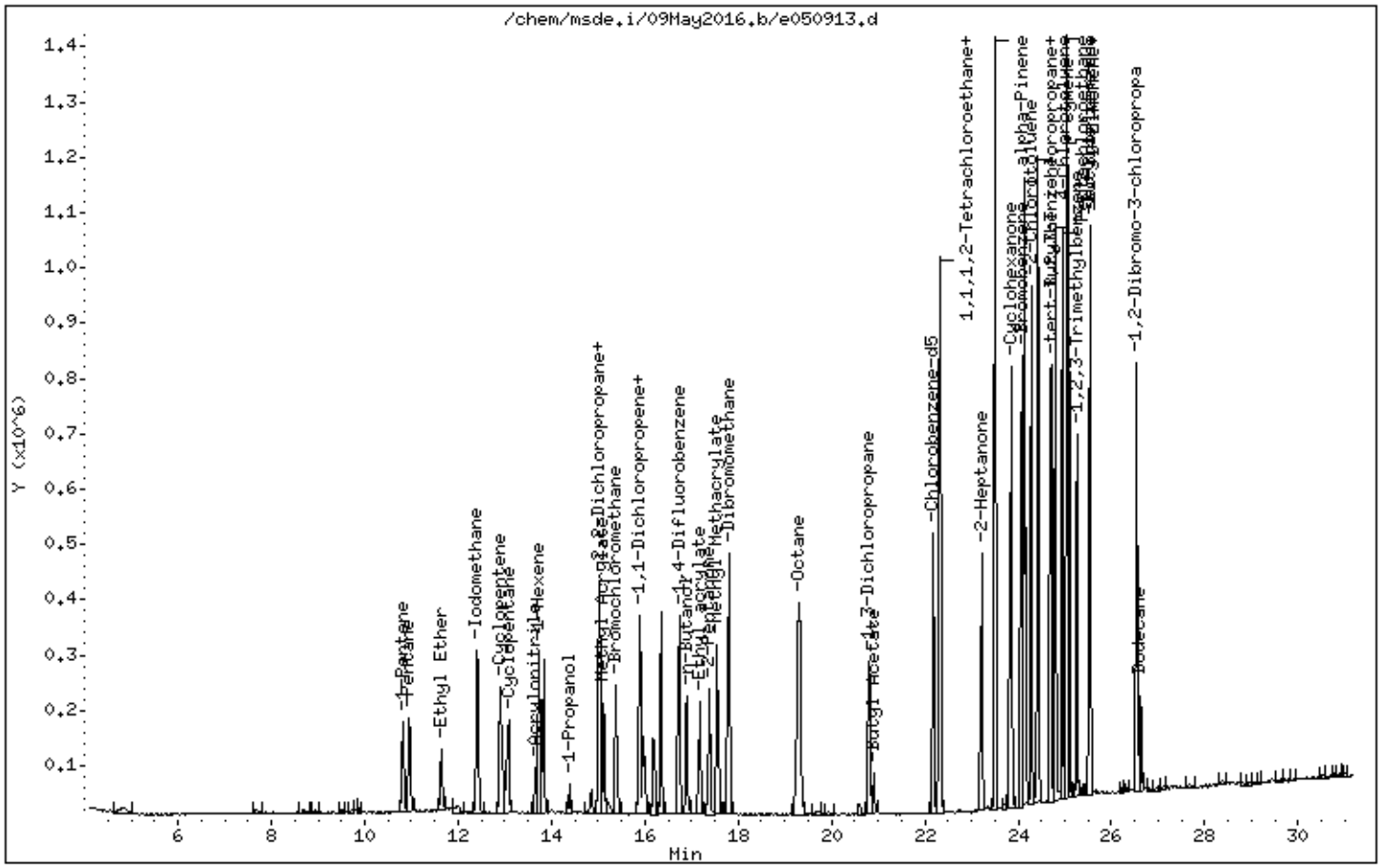
Instrument: msde.i

Sample Info: 250mL# 2789-105

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/30Mar2016.b/e033009.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 30-MAR-2016 16:25
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 2789-45
Misc Info : 5.0ppbv (5.0ppbv) Acrolein
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/30Mar2016.b/e16l0317c.m
Meth Date : 30-Mar-2016 17:06 ealcan Quant Type: ISTD
Cal Date : 30-MAR-2016 16:25 Cal File: e033009.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AcroleinICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
46 Acrolein					CAS #: 107-02-8		
12.233	12.233 (0.785)	56	38032	5.00000	4.341	0.00- 0.00	100.00
12.233	12.233 (0.785)	55	27826			0.00- 0.00	73.16
* 98 Bromochloromethane					CAS #: 74-97-5		
15.580	15.580 (1.000)	130	151841	5.00000		80.00- 120.00	100.00
15.580	15.580 (1.000)	128	118683			52.25- 112.25	78.16
15.580	15.580 (1.000)	49	111139			89.81- 149.81	73.19
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.939	16.939 (1.000)	114	573763	5.00000		80.00- 120.00	100.00
16.939	16.939 (1.000)	88	83947			0.00- 45.20	14.63
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.365	22.365 (1.000)	117	524326	5.00000		80.00- 120.00	100.00
22.365	22.365 (1.000)	82	269974			20.64- 80.64	51.49

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e033009.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/30Mar2016.b/e16l0317c.m
Misc Info: 5.0ppbv (5.0ppbv) Acrolein

Calibration Date: 30-MAR-2016
Calibration Time: 11:07
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	190719	114431	267007	151841	-20.38
123 1,4-Difluorobenze	725285	435171	1015399	573763	-20.89
163 Chlorobenzene-d5	658854	395312	922396	524326	-20.42

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/30Mar2016.b/e033009.d

Date : 30-MAR-2016 16:25

Client ID: Level 12

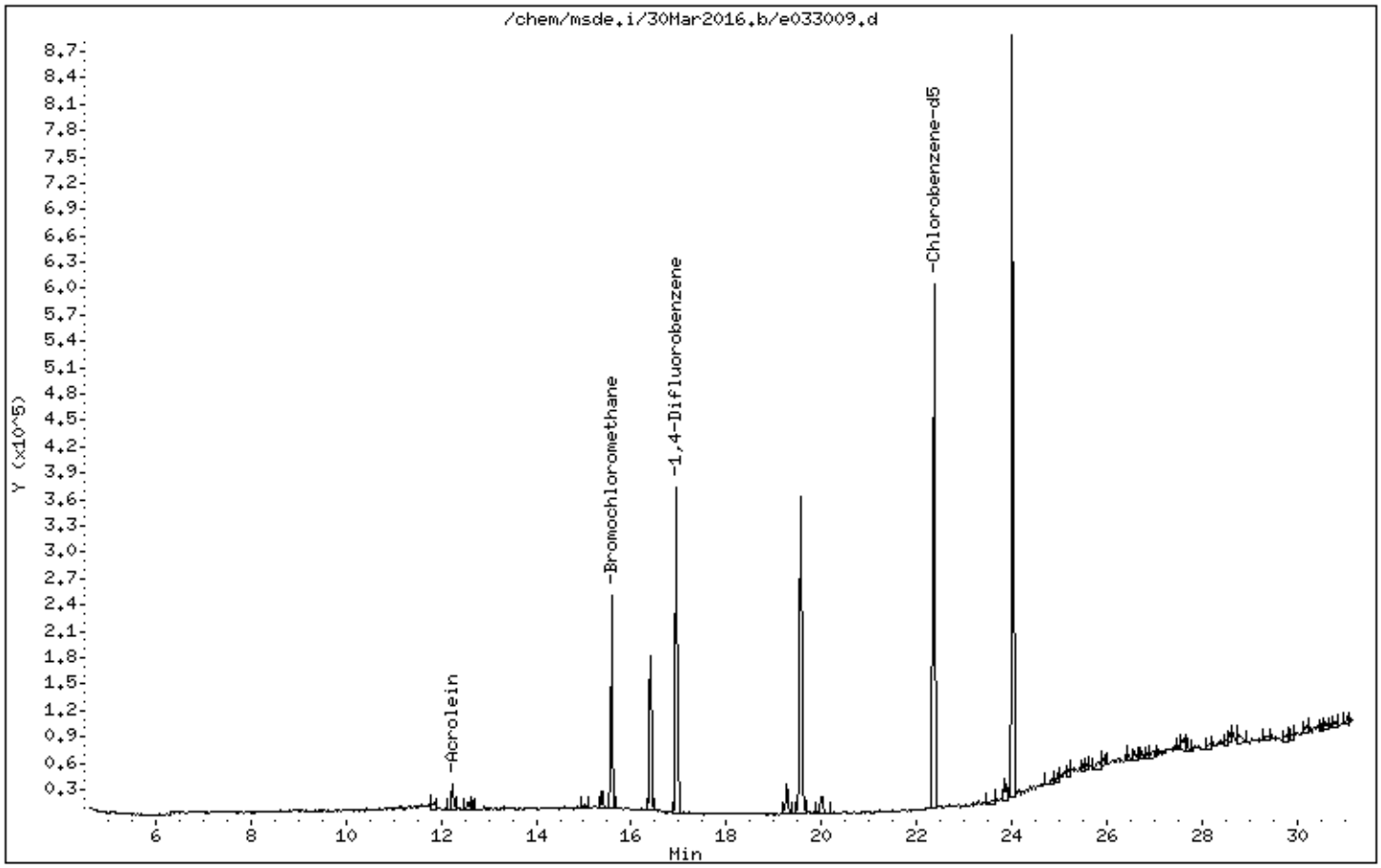
Instrument: msde.i

Sample Info: 250mL# 2789-45

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032507.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 25-MAR-2016 13:44
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 2789-4
Misc Info : 5.0ppbv (5.0ppbv) Combo
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m
Meth Date : 25-Mar-2016 15:05 efinn Quant Type: ISTD
Cal Date : 25-MAR-2016 13:44 Cal File: e032507.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Combo-AT1ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
32 Vinyl Bromide					CAS #: 593-60-2		
10.786	10.786 (0.692)	106	165451	5.00000	5.009	0.00- 0.00	100.00
10.786	10.786 (0.692)	108	154873			0.00- 0.00	93.61
36 1-Pentene					CAS #: 109-67-1		
11.033	11.033 (0.708)	55	120891	5.00000	4.791	0.00- 0.00	100.00
11.014	11.014 (0.707)	42	131204			0.00- 0.00	108.53
34 Pentane					CAS #: 109-66-0		
11.147	11.147 (0.716)	43	227736	5.00000	5.060	0.00- 0.00	100.00
11.147	11.147 (0.716)	57	43821			0.00- 0.00	19.24
11.166	11.166 (0.717)	72	38684			0.00- 0.00	16.99
44 Ethyl Ether					CAS #: 60-29-7		
11.833	11.833 (0.759)	74	75966	5.00000	4.452	0.00- 0.00	100.00(T)
11.833	11.833 (0.759)	59	90713			0.00- 0.00	119.41
0.000	1.000 (0.000)	31	0			0.00- 0.00	0.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
53 Iodomethane					CAS #: 74-88-4		
12.614	12.614 (0.810)	142	524475	5.00000	4.930	0.00- 0.00	100.00
12.614	12.614 (0.810)	127	246212			0.00- 0.00	46.94
63 Acetonitrile					CAS #: 75-05-8		
13.204	13.204 (0.848)	41	112429	5.00000	5.342	0.00- 0.00	100.00
13.204	13.204 (0.848)	40	60311			0.00- 0.00	53.64
13.204	13.204 (0.848)	39	21709			0.00- 0.00	19.31
64 Cyclopentane					CAS #: 287-92-3		
13.280	13.280 (0.852)	70	108011	5.00000	4.972	0.00- 0.00	100.00
13.280	13.280 (0.852)	55	110570			0.00- 0.00	102.37
74 Acrylonitrile					CAS #: 107-13-1		
13.838	13.838 (0.888)	53	110018	5.00000	4.760	0.00- 0.00	100.00
13.838	13.838 (0.888)	52	101087			0.00- 0.00	91.88
76 1-Hexene					CAS #: 592-41-6		
13.921	13.921 (0.894)	55	105101	5.00000	4.902	0.00- 0.00	100.00
13.921	13.921 (0.894)	41	154482			0.00- 0.00	146.98
13.921	13.921 (0.894)	84	56003			0.00- 0.00	53.28
94 Ethyl Acetate					CAS #: 141-78-6		
15.221	15.221 (0.977)	70	38018	5.00000	5.472	0.00- 0.00	100.00
15.221	15.221 (0.977)	43	270011			0.00- 0.00	710.22
15.221	15.221 (0.977)	61	103146			0.00- 0.00	271.31
93 Methyl Acrylate					CAS #: 96-33-3		
15.316	15.316 (0.983)	55	259654	5.00000	5.363	0.00- 0.00	100.00
15.316	15.316 (0.983)	85	59593			0.00- 0.00	22.95
15.316	15.316 (0.983)	58	25835			0.00- 0.00	9.95
* 98 Bromochloromethane					CAS #: 74-97-5		
15.580	15.580 (1.000)	130	173196	5.00000		80.00- 120.00	100.00
15.580	15.580 (1.000)	128	132775			52.25- 112.25	76.66
15.580	15.580 (1.000)	49	137798			89.81- 149.81	79.56
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.939	16.939 (1.000)	114	677694	5.00000		80.00- 120.00	100.00
16.939	16.939 (1.000)	88	104850			0.00- 45.20	15.47
128 Ethyl acrylate					CAS #: 140-88-5		
17.397	17.397 (1.027)	99	23213	5.00000	4.588	0.00- 0.00	100.00
17.397	17.397 (1.027)	45	24943			0.00- 0.00	107.45
17.397	17.397 (1.027)	55	247459			0.00- 0.00	1066.04

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  131 2-Pentanone                                  CAS #: 107-87-9
 17.614  17.614 (1.040)    43    312126 5.00000    4.906   0.00-   0.00   100.00
 17.614  17.614 (1.040)    58     31705                    0.00-   0.00    10.16
 17.614  17.614 (1.040)    86     80957                    0.00-   0.00    25.94
-------------------------------------------------------------------------------
  134 Methyl Methacrylate                          CAS #: 80-62-6
 17.782  17.782 (1.050)    41    151568 5.00000    4.775   0.00-   0.00   100.00
 17.782  17.782 (1.050)    69    161442                    0.00-   0.00   106.51
 17.807  17.807 (1.051)   100     68347                    0.00-   0.00    45.09
-------------------------------------------------------------------------------
  137 Dibromomethane                               CAS #: 74-95-3
 18.048  18.048 (1.065)   174    228753 5.00000    4.763   0.00-   0.00   100.00
 18.048  18.048 (1.065)    93    183455                    0.00-   0.00    80.20
 18.048  18.048 (1.065)    95    162937                    0.00-   0.00    71.23
-------------------------------------------------------------------------------
  148 Octane                                       CAS #: 111-65-9
 19.624  19.624 (1.158)    57    173838 5.00000    4.774   0.00-   0.00   100.00
 19.624  19.624 (1.158)    85    250803                    0.00-   0.00   144.27
 19.624  19.624 (1.158)    43    359907                    0.00-   0.00   207.04
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.366  22.366 (1.000)   117    633398 5.00000           80.00- 120.00   100.00
 22.366  22.366 (1.000)    82    315456                   20.64-  80.64    49.80
-------------------------------------------------------------------------------
  170 Nonane                                       CAS #: 111-84-2
 22.490  22.490 (1.006)    43    338947 5.00000    4.787   0.00-   0.00   100.00
 22.490  22.490 (1.006)    57    354266                    0.00-   0.00   104.52
 22.490  22.490 (1.006)    85    181297                    0.00-   0.00    53.49
-------------------------------------------------------------------------------
  184 trans-1,4-Dichloro-2-butene                  CAS #: 110-57-6
 24.289  24.289 (1.086)    75    465599 5.00000    4.841   0.00-   0.00   100.00
 24.289  24.289 (1.086)    89     56823                    0.00-   0.00    12.20
 24.267  24.267 (1.085)    53     79053                    0.00-   0.00    16.98
-------------------------------------------------------------------------------
  187 Decane                                       CAS #: 124-18-5
 24.581  24.581 (1.099)    57    334448 5.00000    5.003   0.00-   0.00   100.00
 24.581  24.581 (1.099)    71      3657                    0.00-   0.00     1.09
 24.603  24.603 (1.100)   142     61910                    0.00-   0.00    18.51
-------------------------------------------------------------------------------
  206 bis(2-Chloroethyl) Ether                     CAS #: 111-44-4
 25.186  25.186 (1.126)    93    386161 5.00000    4.835   0.00-   0.00   100.00
 25.186  25.186 (1.126)    95    120236                    0.00-   0.00    31.14
 25.186  25.186 (1.126)    63    242116                    0.00-   0.00    62.70
-------------------------------------------------------------------------------
  215 Undecane                                     CAS #: 1120-21-4
 25.657  25.657 (1.147)    57    129551 5.00000    4.662   0.00-   0.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
215 Undecane (continued)							
25.657	25.657 (1.147)	43	96989			0.00- 0.00	74.87
25.657	25.657 (1.147)	85	49341			0.00- 0.00	38.09
225 Dodecane					CAS #: 112-40-3		
26.800	26.800 (1.198)	85	19932	5.00000	5.049	0.00- 0.00	100.00
26.800	26.800 (1.198)	57	42384			0.00- 0.00	212.64
26.800	26.800 (1.198)	43	33919			0.00- 0.00	170.17

QC Flag Legend

T - Target compound detected outside RT window.

Report Date: 25-Mar-2016 15:05

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032507.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m
Misc Info: 5.0ppbv (5.0ppbv) Combo

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	196631	117979	275283	173196	-11.92
123 1,4-Difluorobenze	760212	456127	1064297	677694	-10.85
163 Chlorobenzene-d5	680500	408300	952700	633398	-6.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/25Mar2016.b/e032507.d

Date : 25-MAR-2016 13:44

Client ID: Level 12

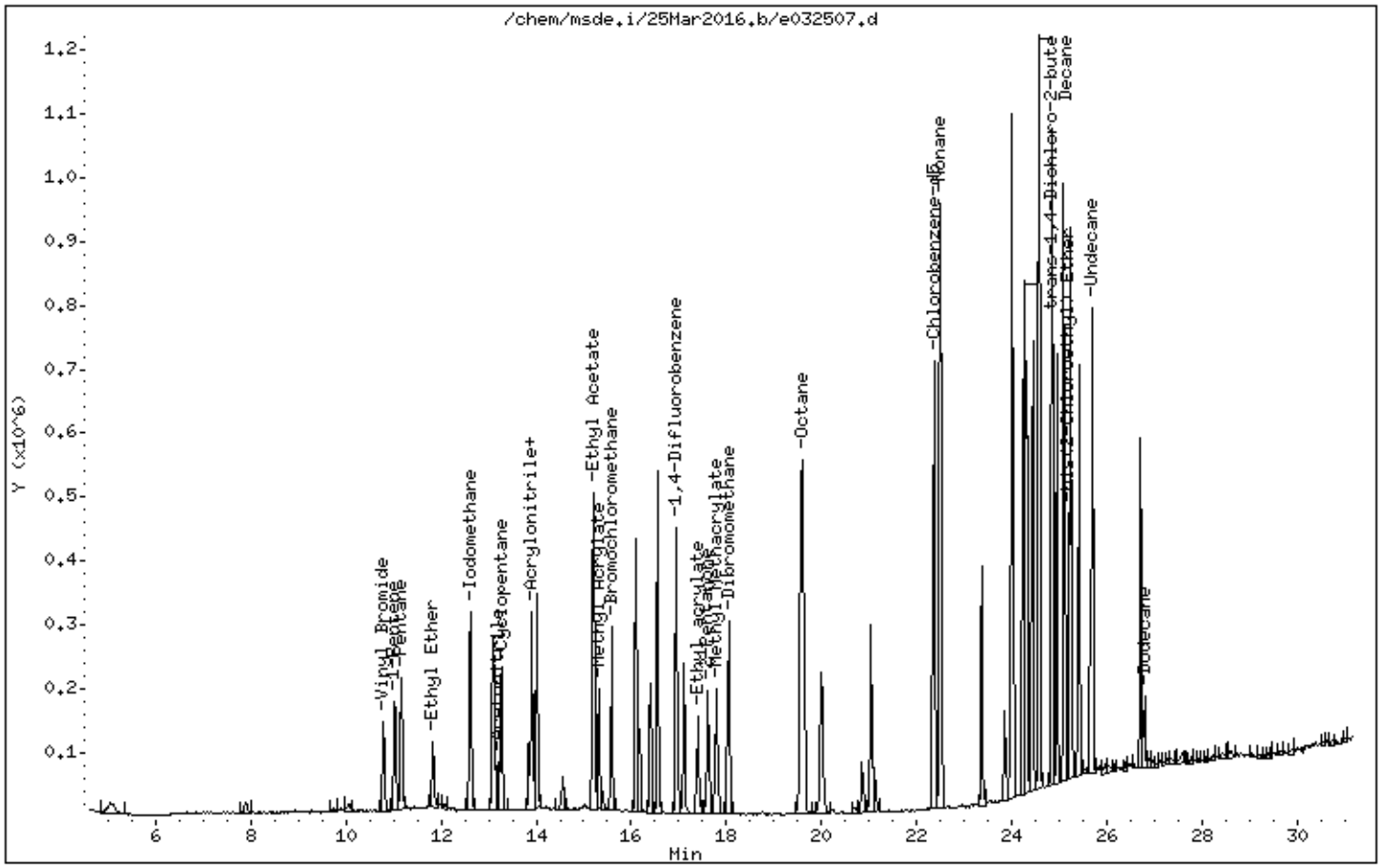
Instrument: msde.i

Sample Info: 250mL# 2789-4

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/22Mar2016.b/e032209.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 22-MAR-2016 15:32
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 2759-238
Misc Info : 5.0ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/22Mar2016.b/e16l0317a.m
Meth Date : 24-Mar-2016 08:33 efinn Quant Type: ISTD
Cal Date : 22-MAR-2016 15:32 Cal File: e032209.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
7 Freon 134a					CAS #: 811-97-2		
4.901	4.901 (0.315)	83	77227	5.00000	4.739	0.00- 0.00	100.00(T)
4.925	4.925 (0.316)	69	54552			0.00- 0.00	70.64
0.000	1.000 (0.000)	0	0			0.00- 0.00	0.00
10 1,1-Difluoroethane					CAS #: 75-37-6		
5.359	5.359 (0.344)	65	32956	5.00000	4.791	0.00- 0.00	100.00(M)
5.359	5.359 (0.344)	51	51930			0.00- 0.00	157.57
13 Chlorodifluoromethane					CAS #: 75-45-6		
6.010	6.010 (0.386)	51	82526	5.00000	4.657	0.00- 0.00	100.00
6.010	6.010 (0.386)	67	20911			0.00- 0.00	25.34
5.985	5.985 (0.384)	85	1042			0.00- 0.00	1.26
16 Freon 142b					CAS #: 75-68-3		
7.094	7.094 (0.455)	65	169757	5.00000	4.723	0.00- 0.00	100.00
7.118	7.118 (0.457)	45	31498			0.00- 0.00	18.55

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
16 Freon 142b (continued)							
7.070	7.070 (0.454)	81	4962			0.00- 0.00	2.92
37 Dichlorofluoromethane					CAS #: 75-43-4		
11.071	11.071 (0.711)	67	179160	5.00000	4.773	0.00- 0.00	100.00
11.071	11.071 (0.711)	69	59500			0.00- 0.00	33.21
11.071	11.071 (0.711)	47	14409			0.00- 0.00	8.04
48 Freon 123					CAS #: 306-83-2		
12.213	12.213 (0.784)	83	276077	5.00000	4.762	0.00- 0.00	100.00
12.213	12.213 (0.784)	133	80928			0.00- 0.00	29.31
12.213	12.213 (0.784)	85	193182			0.00- 0.00	69.97
59 Cyclopentene					CAS #: 142-29-0		
13.090	13.090 (0.840)	67	123373	5.00000	4.632	0.00- 0.00	100.00
13.090	13.090 (0.840)	68	47526			0.00- 0.00	38.52
13.090	13.090 (0.840)	53	20897			0.00- 0.00	16.94
84 1-Propanol					CAS #: 71-23-8		
14.552	14.552 (0.934)	59	36617	5.00000	4.900	0.00- 0.00	100.00
14.552	14.552 (0.934)	42	24690			0.00- 0.00	67.43
14.552	14.552 (0.934)	41	20825			0.00- 0.00	56.87
90 2,2-Dichloropropane					CAS #: 594-20-7		
15.201	15.201 (0.976)	77	219774	5.00000	4.668	0.00- 0.00	100.00
15.201	15.201 (0.976)	79	74592			0.00- 0.00	33.94
15.201	15.201 (0.976)	97	44793			0.00- 0.00	20.38
* 98 Bromochloromethane					CAS #: 74-97-5		
15.580	15.580 (1.000)	130	199992	5.00000		80.00- 120.00	100.00
15.580	15.580 (1.000)	128	152390			52.25- 112.25	76.20
15.580	15.580 (1.000)	49	154162			89.81- 149.81	77.08
107 1,1-Dichloropropene					CAS #: 563-58-6		
16.104	16.104 (1.034)	110	58226	5.00000	4.743	0.00- 0.00	100.00
16.104	16.104 (1.034)	75	156172			0.00- 0.00	268.22
115 Isobutanol					CAS #: 78-83-1		
16.165	16.165 (1.038)	43	169269	5.00000	4.687	0.00- 0.00	100.00
16.165	16.165 (1.038)	41	138945			0.00- 0.00	82.09
16.165	16.165 (1.038)	55	14350			0.00- 0.00	8.48
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.939	16.939 (1.000)	114	753466	5.00000		80.00- 120.00	100.00
16.939	16.939 (1.000)	88	114257			0.00- 45.20	15.16

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
124 n-Butanol					CAS #: 71-36-3		
17.108	17.108 (1.010)	56	248013	5.00000	5.208	0.00- 0.00	100.00
17.108	17.108 (1.010)	41	164379			0.00- 0.00	66.28
17.108	17.108 (1.010)	43	126222			0.00- 0.00	50.89
157 1,3-Dichloropropane					CAS #: 142-28-9		
21.045	21.045 (0.941)	76	284505	5.00000	4.876	0.00- 0.00	100.00
21.045	21.045 (0.941)	41	141469			0.00- 0.00	49.72
21.045	21.045 (0.941)	78	96798			0.00- 0.00	34.02
159 Butyl Acetate					CAS #: 123-86-4		
21.128	21.128 (0.945)	56	35598	5.00000	5.191	0.00- 0.00	100.00
21.128	21.128 (0.945)	73	19759			0.00- 0.00	55.51
21.128	21.128 (0.945)	43	83093			0.00- 0.00	233.42
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.365	22.365 (1.000)	117	686632	5.00000		80.00- 120.00	100.00
22.365	22.365 (1.000)	82	350822			20.64- 80.64	51.09
168 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6		
22.531	22.531 (1.007)	131	337911	5.00000	4.850	0.00- 0.00	100.00
22.511	22.511 (1.006)	117	213501			0.00- 0.00	63.18
22.511	22.511 (1.006)	95	123190			0.00- 0.00	36.46
173 2-Heptanone					CAS #: 110-43-0		
23.381	23.381 (1.045)	58	265455	5.00000	5.258	0.00- 0.00	100.00
23.381	23.381 (1.045)	43	375302			0.00- 0.00	141.38
176 Cyclohexanone					CAS #: 108-94-1		
23.975	23.975 (1.072)	55	206624	5.00000	4.844	0.00- 0.00	100.00
23.975	23.975 (1.072)	98	122635			0.00- 0.00	59.35
23.975	23.975 (1.072)	42	142418			0.00- 0.00	68.93
180 Bromobenzene					CAS #: 108-86-1		
24.244	24.244 (1.084)	156	360655	5.00000	4.793	0.00- 0.00	100.00
24.244	24.244 (1.084)	158	358601			0.00- 0.00	99.43
24.244	24.244 (1.084)	77	492929			0.00- 0.00	136.68
185 1,2,3-Trichloropropane					CAS #: 96-18-4		
24.289	24.289 (1.086)	110	183219	5.00000	4.907	0.00- 0.00	100.00
24.289	24.289 (1.086)	75	436860			0.00- 0.00	238.44
24.289	24.289 (1.086)	61	97886			0.00- 0.00	53.43
189 2-Chlorotoluene					CAS #: 95-49-8		
24.446	24.446 (1.093)	126	249779	5.00000	4.889	0.00- 0.00	100.00
24.446	24.446 (1.093)	91	670456			0.00- 0.00	268.42

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  189 2-Chlorotoluene (continued)
 24.446  24.446 (1.093)    65     61678                     0.00-   0.00    24.69
-------------------------------------------------------------------------------
  191 4-Chlorotoluene                                CAS #: 106-43-4
 24.581  24.581 (1.099)   126    247223 5.00000    4.846   0.00-   0.00   100.00
 24.581  24.581 (1.099)    91    668582                     0.00-   0.00   270.44
 24.581  24.581 (1.099)    63     77347                     0.00-   0.00    31.29
-------------------------------------------------------------------------------
  195 tert-Butylbenzene                              CAS #: 98-06-6
 24.850  24.850 (1.111)   119    771196 5.00000    4.843   0.00-   0.00   100.00
 24.850  24.850 (1.111)   134    189054                     0.00-   0.00    24.51
 24.850  24.850 (1.111)    91    484438                     0.00-   0.00    62.82
-------------------------------------------------------------------------------
  197 Pentachloroethane                              CAS #: 76-01-7
 24.962  24.962 (1.116)   167    278331 5.00000    4.876   0.00-   0.00   100.00
 24.962  24.962 (1.116)   117    241655                     0.00-   0.00    86.82
 24.962  24.962 (1.116)   169    130805                     0.00-   0.00    47.00
-------------------------------------------------------------------------------
  203 sec-Butylbenzene                               CAS #: 135-98-8
 25.096  25.096 (1.122)   105   1051147 5.00000    4.914   0.00-   0.00   100.00
 25.096  25.096 (1.122)   134    220900                     0.00-   0.00    21.02
 25.096  25.096 (1.122)    91    161571                     0.00-   0.00    15.37
-------------------------------------------------------------------------------
  207 p-Cymene                                       CAS #: 99-87-6
 25.253  25.253 (1.129)   119    832038 5.00000    4.934   0.00-   0.00   100.00
 25.253  25.253 (1.129)   134    224341                     0.00-   0.00    26.96
 25.253  25.253 (1.129)    91    193312                     0.00-   0.00    23.23
-------------------------------------------------------------------------------
  210 1,2,3-Trimethylbenzene                         CAS #: 526-73-8
 25.410  25.410 (1.136)   120    259831 5.00000    4.980   0.00-   0.00   100.00
 25.410  25.410 (1.136)   105    597337                     0.00-   0.00   229.89
 25.410  25.410 (1.136)    77     72861                     0.00-   0.00    28.04
-------------------------------------------------------------------------------
  213 Butylbenzene                                   CAS #: 104-51-8
 25.702  25.702 (1.149)   134    184121 5.00000    4.872   0.00-   0.00   100.00
 25.702  25.702 (1.149)    91    636755                     0.00-   0.00   345.84
 25.702  25.702 (1.149)    92    336044                     0.00-   0.00   182.51
-------------------------------------------------------------------------------
  221 1,2-Dibromo-3-chloropropane                    CAS #: 96-12-8
 26.710  26.710 (1.194)   157    329354 5.00000    4.851   0.00-   0.00   100.00
 26.710  26.710 (1.194)    75    276928                     0.00-   0.00    84.08
 26.710  26.710 (1.194)   155    254440                     0.00-   0.00    77.25
-------------------------------------------------------------------------------
```

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Report Date: 24-Mar-2016 08:33

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032209.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/22Mar2016.b/e16l0317a.m
Misc Info: 5.0ppbv (5.0ppbv)

Calibration Date: 22-MAR-2016
Calibration Time: 09:49
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	190421	114253	266589	199992	5.03
123 1,4-Difluorobenze	736283	441770	1030796	753466	2.33
163 Chlorobenzene-d5	650623	390374	910872	686632	5.53

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/22Mar2016.b/e032209.d

Date : 22-MAR-2016 15:32

Client ID: Level 12

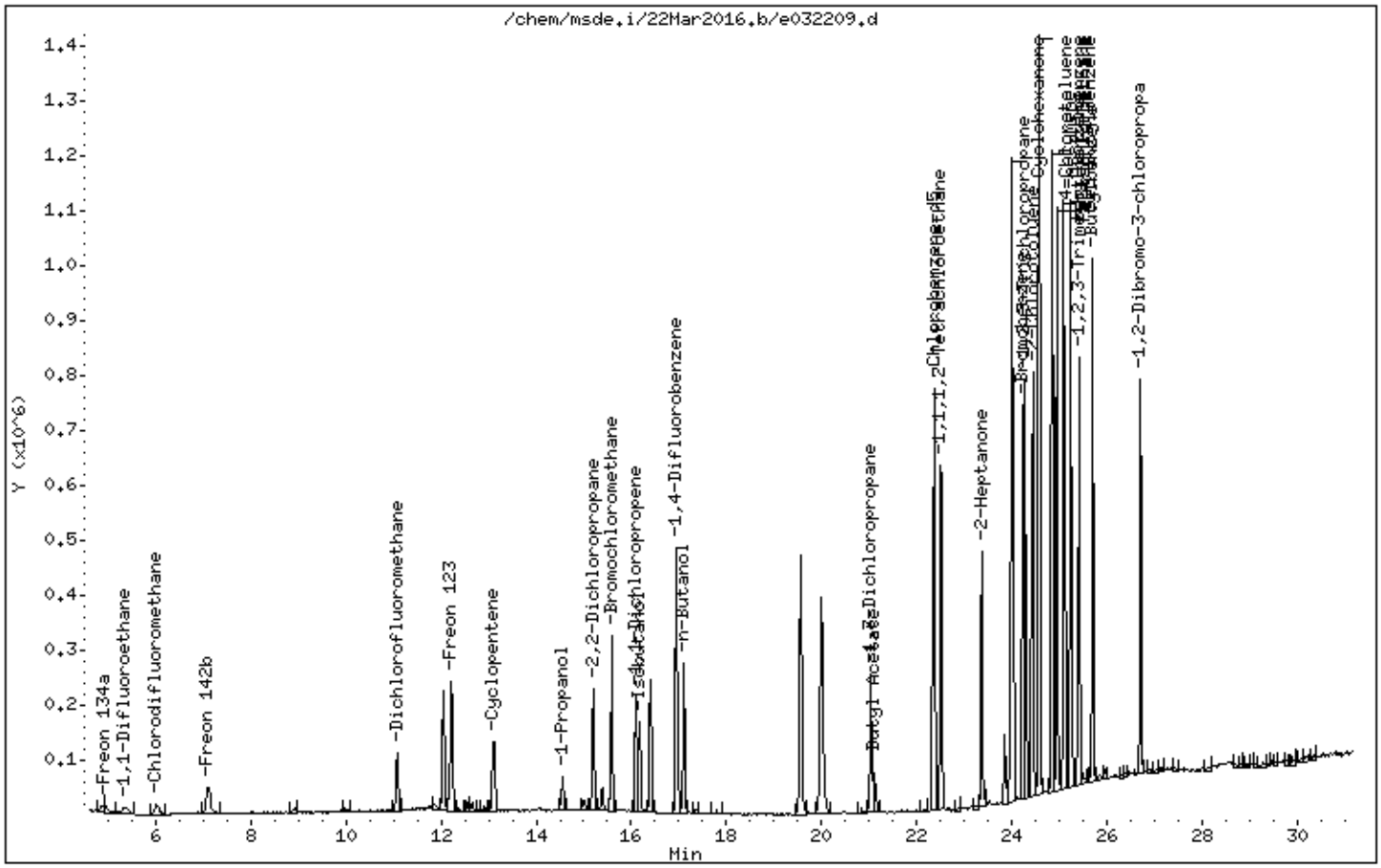
Instrument: msde.i

Sample Info: 250mL# 2759-238

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031710.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 17-MAR-2016 17:24
Operator : ea Inst ID: msde.i
Smp Info : 25mL# 2759-223
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m
Meth Date : 25-Apr-2016 15:58 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 17:24 Cal File: e031710.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.997	4.997 (0.321)	41	114844	5.00000	5.361	80.00- 120.00	100.00
4.997	4.997 (0.321)	42	78937			38.73- 98.73	68.73
5.021	5.021 (0.322)	39	98546			55.81- 115.81	85.81
11 Freon 12					CAS #: 75-71-8		
5.455	5.455 (0.350)	85	747837	5.00000	5.390	80.00- 120.00	100.00
5.455	5.455 (0.350)	87	239285			2.00- 62.00	32.00
15 Freon 114					CAS #: 76-14-2		
6.805	6.805 (0.437)	135	532724	5.00000	5.247	80.00- 120.00	100.00
6.829	6.829 (0.438)	137	166796			1.31- 61.31	31.31
6.805	6.805 (0.437)	85	659947			93.88- 153.88	123.88
17 Chloromethane					CAS #: 74-87-3		
7.167	7.167 (0.460)	50	136868	5.00000	5.200	80.00- 120.00	100.00
7.167	7.167 (0.460)	52	48589			5.50- 65.50	35.50

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.872	7.872 (0.505)	58	36822	5.00000	5.400	80.00- 120.00	100.00
7.872	7.872 (0.505)	43	227769			588.57- 648.57	618.57
25 Vinyl Chloride					CAS #: 75-01-4		
7.993	7.993 (0.513)	62	192646	5.00000	5.202	80.00- 120.00	100.00
7.993	7.993 (0.513)	64	63844			3.14- 63.14	33.14
26 1,3-Butadiene					CAS #: 106-99-0		
8.236	8.236 (0.529)	54	130793	5.00000	5.251	80.00- 120.00	100.00
8.236	8.236 (0.529)	39	124529			65.21- 125.21	95.21
29 Bromomethane					CAS #: 74-83-9		
9.711	9.711 (0.623)	94	211801	5.00000	5.241	80.00- 120.00	100.00
9.711	9.711 (0.623)	96	199434			64.16- 124.16	94.16
30 Chloroethane					CAS #: 75-00-3		
10.176	10.176 (0.653)	64	96996	5.00000	5.544	80.00- 120.00	100.00
10.176	10.176 (0.653)	49	24159			0.00- 54.91	24.91
10.176	10.176 (0.653)	66	32609			3.62- 63.62	33.62
31 Isopentane					CAS #: 78-78-4		
10.310	10.310 (0.662)	57	133523	5.00000	5.264	80.00- 120.00	100.00
10.310	10.310 (0.662)	43	150463			82.69- 142.69	112.69
10.329	10.329 (0.663)	42	131721			68.65- 128.65	98.65
35 Freon 11					CAS #: 75-69-4		
10.938	10.938 (0.702)	101	766641	5.00000	5.132	80.00- 120.00	100.00
10.938	10.938 (0.702)	103	514957			37.17- 97.17	67.17
42 Ethanol					CAS #: 64-17-5		
11.833	11.833 (0.759)	45	59664	5.00000	5.512	80.00- 120.00	100.00
11.852	11.852 (0.761)	46	21843			6.61- 66.61	36.61
11.852	11.852 (0.761)	43	14712			0.00- 54.66	24.66
49 Freon 113					CAS #: 76-13-1		
12.271	12.271 (0.788)	151	532173	5.00000	4.754	80.00- 120.00	100.00
12.271	12.271 (0.788)	153	338662			33.64- 93.64	63.64
12.271	12.271 (0.788)	101	587513			80.40- 140.40	110.40
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.271	12.271 (0.788)	98	158915	5.00000	5.090	80.00- 120.00	100.00
12.290	12.290 (0.789)	61	373282			204.89- 264.89	234.89
12.290	12.290 (0.789)	96	250590			127.69- 187.69	157.69
52 Acetone					CAS #: 67-64-1		
12.537	12.537 (0.805)	58	86870	5.00000	4.759	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
12.537	12.537 (0.805)	43	305324			321.47- 381.47	351.47
56 Carbon Disulfide					CAS #: 75-15-0		
12.652	12.652 (0.812)	76	726978	5.00000	5.225	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
12.880	12.880 (0.827)	45	300103	5.00000	5.374	80.00- 120.00	100.00
12.880	12.880 (0.827)	43	72303			0.00- 54.09	24.09
12.880	12.880 (0.827)	59	13298			0.00- 34.43	4.43
58 3-Chloropropene					CAS #: 107-05-1		
13.071	13.071 (0.839)	76	108607	5.00000	5.222	80.00- 120.00	100.00
13.071	13.071 (0.839)	41	210441			163.76- 223.76	193.76
66 Methylene Chloride					CAS #: 75-09-2		
13.338	13.338 (0.856)	84	218872	5.00000	5.004	80.00- 120.00	100.00
13.338	13.338 (0.856)	49	205722			63.99- 123.99	93.99
13.338	13.338 (0.856)	51	66300			0.29- 60.29	30.29
71 tert-Butyl alcohol					CAS #: 75-65-0		
13.536	13.536 (0.869)	59	487013	5.00000	4.767	80.00- 120.00	100.00
13.536	13.536 (0.869)	41	105492			0.00- 51.66	21.66
13.536	13.536 (0.869)	57	65736			0.00- 43.50	13.50
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.674	13.674 (0.878)	73	749567	5.00000	5.359	80.00- 120.00	100.00
13.674	13.674 (0.878)	57	136840			0.00- 48.26	18.26
13.674	13.674 (0.878)	41	116764			0.00- 45.58	15.58
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.729	13.729 (0.881)	98	173089	5.00000	5.459	80.00- 120.00	100.00
13.729	13.729 (0.881)	61	320692			155.28- 215.28	185.28
13.729	13.729 (0.881)	96	270330			126.18- 186.18	156.18
78 Hexane					CAS #: 110-54-3		
14.003	14.003 (0.899)	57	294787	5.00000	5.402	80.00- 120.00	100.00
14.003	14.003 (0.899)	43	151753			21.48- 81.48	51.48
14.003	14.003 (0.899)	86	63423			0.00- 51.51	21.51
83 Isopropyl ether					CAS #: 108-20-3		
14.360	14.360 (0.922)	45	550869	5.00000	5.535	80.00- 120.00	100.00
14.360	14.360 (0.922)	87	219703			9.88- 69.88	39.88
14.360	14.360 (0.922)	59	69937			0.00- 42.70	12.70
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.415	14.415 (0.925)	63	447667	5.00000	5.395	80.00- 120.00	100.00

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 14.415  14.415 (0.925)    65    142277                     1.78-  61.78    31.78
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 14.442  14.442 (0.927)    86     68571 5.00000    5.312  80.00- 120.00   100.00
 14.442  14.442 (0.927)    42     51224                    44.70- 104.70    74.70
 14.442  14.442 (0.927)    43    539878                   757.33- 817.33   787.33
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 14.859  14.859 (0.954)    59    710444 5.00000    5.593  80.00- 120.00   100.00
 14.859  14.859 (0.954)    87    353372                    19.74-  79.74    49.74
 14.859  14.859 (0.954)    41    116086                     0.00-  46.34    16.34
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 15.240  15.240 (0.978)    98    178900 5.00000    5.158  80.00- 120.00   100.00
 15.240  15.240 (0.978)    61    314689                   145.90- 205.90   175.90
 15.240  15.240 (0.978)    96    278249                   125.53- 185.53   155.53
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.221  15.221 (0.977)    72    121619 5.00000    5.531  80.00- 120.00   100.00
 15.221  15.221 (0.977)    43    355442                   262.26- 322.26   292.26
 15.221  15.221 (0.977)    57     31266                     0.00-  55.71    25.71
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.580  15.580 (1.000)    42    220559 5.00000    5.466  80.00- 120.00   100.00
 15.580  15.580 (1.000)    71    125391                    26.85-  86.85    56.85
 15.580  15.580 (1.000)    72    137221                    32.22-  92.22    62.22
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.580  15.580 (1.000)   130    164946 5.00000           80.00- 120.00   100.00
 15.580  15.580 (1.000)   128    135666                    52.25- 112.25    82.25
 15.580  15.580 (1.000)    49    197619                    89.81- 149.81   119.81
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 15.641  15.641 (1.004)    83    614120 5.00000    5.157  80.00- 120.00   100.00
 15.641  15.641 (1.004)    85    392863                    33.97-  93.97    63.97
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 15.888  15.888 (1.020)    84    333250 5.00000    5.392  80.00- 120.00   100.00
 15.888  15.888 (1.020)    56    295554                    58.69- 118.69    88.69
 15.888  15.888 (1.020)    41    163216                    18.98-  78.98    48.98
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 15.888  15.888 (1.020)    97    726214 5.00000    5.242  80.00- 120.00   100.00
 15.888  15.888 (1.020)    99    466296                    34.21-  94.21    64.21
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 16.073  16.073 (1.032)   119    752378 5.00000    5.546  80.00- 120.00   100.00
 16.073  16.073 (1.032)   117    783150                   74.09- 134.09   104.09
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.313  16.313 (1.047)    56    353111 5.00000    5.110  80.00- 120.00   100.00
 16.313  16.313 (1.047)    57   1188711                  306.64- 366.64   336.64
 16.313  16.313 (1.047)    41    332416                   64.14- 124.14    94.14
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.409  16.409 (0.969)    78    747719 5.00000    4.977  80.00- 120.00   100.00
 16.409  16.409 (0.969)    77    179223                    0.00-  53.97    23.97
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.409  16.409 (1.053)    65    234231 5.00000    4.946  80.00- 120.00   100.00
 16.409  16.409 (1.053)    67    119830                   21.16-  81.16    51.16
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.433  16.433 (0.970)    87    210772 5.00000    5.464  80.00- 120.00   100.00
 16.433  16.433 (0.970)    73    777446                  338.86- 398.86   368.86
 16.433  16.433 (0.970)    55    157070                   44.52- 104.52    74.52
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.505  16.505 (0.974)    62    418974 5.00000    5.350  80.00- 120.00   100.00
 16.505  16.505 (0.974)    64    130013                    1.03-  61.03    31.03
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.554  16.554 (0.977)    57    183800 5.00000    5.161  80.00- 120.00   100.00
 16.554  16.554 (0.977)   100    107840                   28.67-  88.67    58.67
 16.554  16.554 (0.977)    43    292088                  128.92- 188.92   158.92
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.939  16.939 (1.000)   114    626935 5.00000           80.00- 120.00   100.00
 16.939  16.939 (1.000)    88     95276                    0.00-  45.20    15.20
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.349  17.349 (1.024)   130    406965 5.00000    5.222  80.00- 120.00   100.00
 17.349  17.349 (1.024)    95    382524                   63.99- 123.99    93.99
 17.349  17.349 (1.024)    97    240947                   29.21-  89.21    59.21
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.590  17.590 (1.038)    83    458031 5.00000    5.476  80.00- 120.00   100.00
 17.590  17.590 (1.038)    55    280737                   31.29-  91.29    61.29
 17.590  17.590 (1.038)    56     86023                    0.00-  48.78    18.78
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.807  17.807 (1.051)    63    251132 5.00000    5.192  80.00- 120.00   100.00
```

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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 17.807  17.807 (1.051)    62    161197                    34.19-  94.19    64.19
 17.807  17.807 (1.051)    41    144112                    27.38-  87.38    57.38
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.927  17.927 (1.058)    88    185804 5.00000    5.129  80.00- 120.00   100.00
 17.927  17.927 (1.058)    58    102246                    25.03-  85.03    55.03
 17.927  17.927 (1.058)    57     38401                     0.00-  50.67    20.67
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.240  18.240 (1.077)    83    658181 5.00000    5.279  80.00- 120.00   100.00
 18.240  18.240 (1.077)    85    428800                    35.15-  95.15    65.15
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 19.086  19.086 (1.127)    75    500326 5.00000    5.385  80.00- 120.00   100.00
 19.086  19.086 (1.127)    77    152346                     0.45-  60.45    30.45
 19.063  19.063 (1.125)    39    218606                    13.69-  73.69    43.69
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.265  19.265 (1.137)    43    412979 5.00000    5.327  80.00- 120.00   100.00
 19.265  19.265 (1.137)    58    188504                    15.64-  75.64    45.64
 19.265  19.265 (1.137)    85    110311                     0.00-  56.71    26.71
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.556  19.556 (1.155)    98    623703 5.00000    5.066  80.00- 120.00   100.00
 19.556  19.556 (1.155)    70     63080                     0.00-  40.11    10.11
 19.556  19.556 (1.155)   100    421519                    37.58-  97.58    67.58
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.713  19.713 (1.164)    91    936282 5.00000    5.232  80.00- 120.00   100.00
 19.713  19.713 (1.164)    92    551687                    28.92-  88.92    58.92
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.276  20.276 (0.907)    75    469728 5.00000    5.344  80.00- 120.00   100.00
 20.276  20.276 (0.907)    77    143498                     0.55-  60.55    30.55
 20.276  20.276 (0.907)    39    179682                     8.25-  68.25    38.25
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.688  20.688 (0.925)    97    340995 5.00000    4.984  80.00- 120.00   100.00
 20.688  20.688 (0.925)    99    214511                    32.91-  92.91    62.91
 20.688  20.688 (0.925)    83    265754                    47.93- 107.93    77.93
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.853  20.853 (0.932)   166    564666 5.00000    5.356  80.00- 120.00   100.00
 20.853  20.853 (0.932)   129    408288                    42.31- 102.31    72.31
 20.853  20.853 (0.932)   131    395886                    40.11- 100.11    70.11
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone					CAS #: 591-78-6		
21.018	21.018 (0.940)	58	235305	5.00000	5.344	80.00- 120.00	100.00
21.018	21.018 (0.940)	43	401046			140.44- 200.44	170.44
21.018	21.018 (0.940)	100	69696			0.00- 59.62	29.62
160 Dibromochloromethane					CAS #: 124-48-1		
21.430	21.430 (0.958)	129	754807	5.00000	5.434	80.00- 120.00	100.00
21.430	21.430 (0.958)	127	579827			46.82- 106.82	76.82
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.677	21.677 (0.969)	107	564793	5.00000	5.379	80.00- 120.00	100.00
21.677	21.677 (0.969)	109	539067			65.45- 125.45	95.45
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.366	22.366 (1.000)	117	567678	5.00000		80.00- 120.00	100.00
22.366	22.366 (1.000)	82	287474			20.64- 80.64	50.64
165 Chlorobenzene					CAS #: 108-90-7		
22.407	22.407 (1.002)	112	811200	5.00000	5.282	80.00- 120.00	100.00
22.407	22.407 (1.002)	114	262983			2.42- 62.42	32.42
22.407	22.407 (1.002)	77	434353			23.54- 83.54	53.54
167 Ethyl Benzene					CAS #: 100-41-4		
22.490	22.490 (1.006)	106	392193	5.00000	5.243	80.00- 120.00	100.00
22.490	22.490 (1.006)	91	1225624			282.51- 342.51	312.51
169 m,p-Xylene					CAS #: 108-38-3		
22.656	22.656 (1.013)	106	477877	5.00000	5.499	80.00- 120.00	100.00
22.656	22.656 (1.013)	91	938840			166.46- 226.46	196.46
171 o-Xylene					CAS #: 95-47-6		
23.257	23.257 (1.040)	106	440673	5.00000	5.529	80.00- 120.00	100.00
23.257	23.257 (1.040)	91	943084			184.01- 244.01	214.01
172 Styrene					CAS #: 100-42-5		
23.299	23.299 (1.042)	104	742314	5.00000	5.504	80.00- 120.00	100.00
23.278	23.278 (1.041)	78	373180			20.27- 80.27	50.27
174 Bromoform					CAS #: 75-25-2		
23.639	23.639 (1.057)	173	757728	5.00000	5.506	80.00- 120.00	100.00
23.639	23.639 (1.057)	171	385536			20.88- 80.88	50.88
175 Cumene					CAS #: 98-82-8		
23.728	23.728 (1.061)	105	1464900	5.00000	5.406	80.00- 120.00	100.00
23.728	23.728 (1.061)	120	402388			0.00- 57.47	27.47

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 24.020  24.020 (1.074)   174    391878 5.00000    5.031  80.00- 120.00   100.00
 24.020  24.020 (1.074)    95    420970                   77.42- 137.42   107.42
 24.020  24.020 (1.074)   176    373758                   65.38- 125.38    95.38
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 24.199  24.199 (1.082)    83    654850 5.00000    5.189  80.00- 120.00   100.00
 24.199  24.199 (1.082)    85    430448                   35.73-  95.73    65.73
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 24.267  24.267 (1.085)    91   1518478 5.00000    5.320  80.00- 120.00   100.00
 24.267  24.267 (1.085)   120    383260                    0.00-  55.24    25.24
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 24.401  24.401 (1.091)   105   1265650 5.00000    5.232  80.00- 120.00   100.00
 24.401  24.401 (1.091)   120    393369                    1.08-  61.08    31.08
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 24.469  24.469 (1.094)   105    998504 5.00000    5.315  80.00- 120.00   100.00
 24.469  24.469 (1.094)   120    483680                   18.44-  78.44    48.44
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.917  24.917 (1.114)   105    825838 5.00000    5.074  80.00- 120.00   100.00
 24.917  24.917 (1.114)   120    381532                   16.20-  76.20    46.20
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 25.321  25.321 (1.132)   146    757713 5.00000    4.930  80.00- 120.00   100.00
 25.321  25.321 (1.132)   148    496358                   35.51-  95.51    65.51
 25.321  25.321 (1.132)   111    298175                    9.35-  69.35    39.35
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 25.433  25.433 (1.137)   146    732048 5.00000    5.079  80.00- 120.00   100.00
 25.433  25.433 (1.137)   148    458311                   32.61-  92.61    62.61
 25.433  25.433 (1.137)   111    270151                    6.90-  66.90    36.90
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 25.567  25.567 (1.143)    91    974701 5.00000    5.374  80.00- 120.00   100.00
 25.567  25.567 (1.143)   126    212719                    0.00-  51.82    21.82
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 25.859  25.859 (1.156)   146    672376 5.00000    5.100  80.00- 120.00   100.00
 25.859  25.859 (1.156)   148    428222                   33.69-  93.69    63.69
 25.859  25.859 (1.156)   111    261969                    8.96-  68.96    38.96
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 27.607  27.607 (1.234)   180    290324 5.00000    4.856  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.607	27.607 (1.234)	182	278853			66.05- 126.05	96.05
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.697	27.697 (1.238)	225	422190	5.00000	5.194	80.00- 120.00	100.00
27.697	27.697 (1.238)	223	269281			33.78- 93.78	63.78
228 Naphthalene					CAS #: 91-20-3		
27.921	27.921 (1.248)	128	44081	0.50000	0.5049	80.00- 120.00	100.00
27.921	27.921 (1.248)	127	7223			0.00- 46.39	16.39

Report Date: 25-Apr-2016 15:58

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031710.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	164946	98968	230924	164946	0.00
123 1,4-Difluorobenze	626935	376161	877709	626935	0.00
163 Chlorobenzene-d5	567678	340607	794749	567678	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031710.d

Date : 17-MAR-2016 17:24

Client ID: Level 12

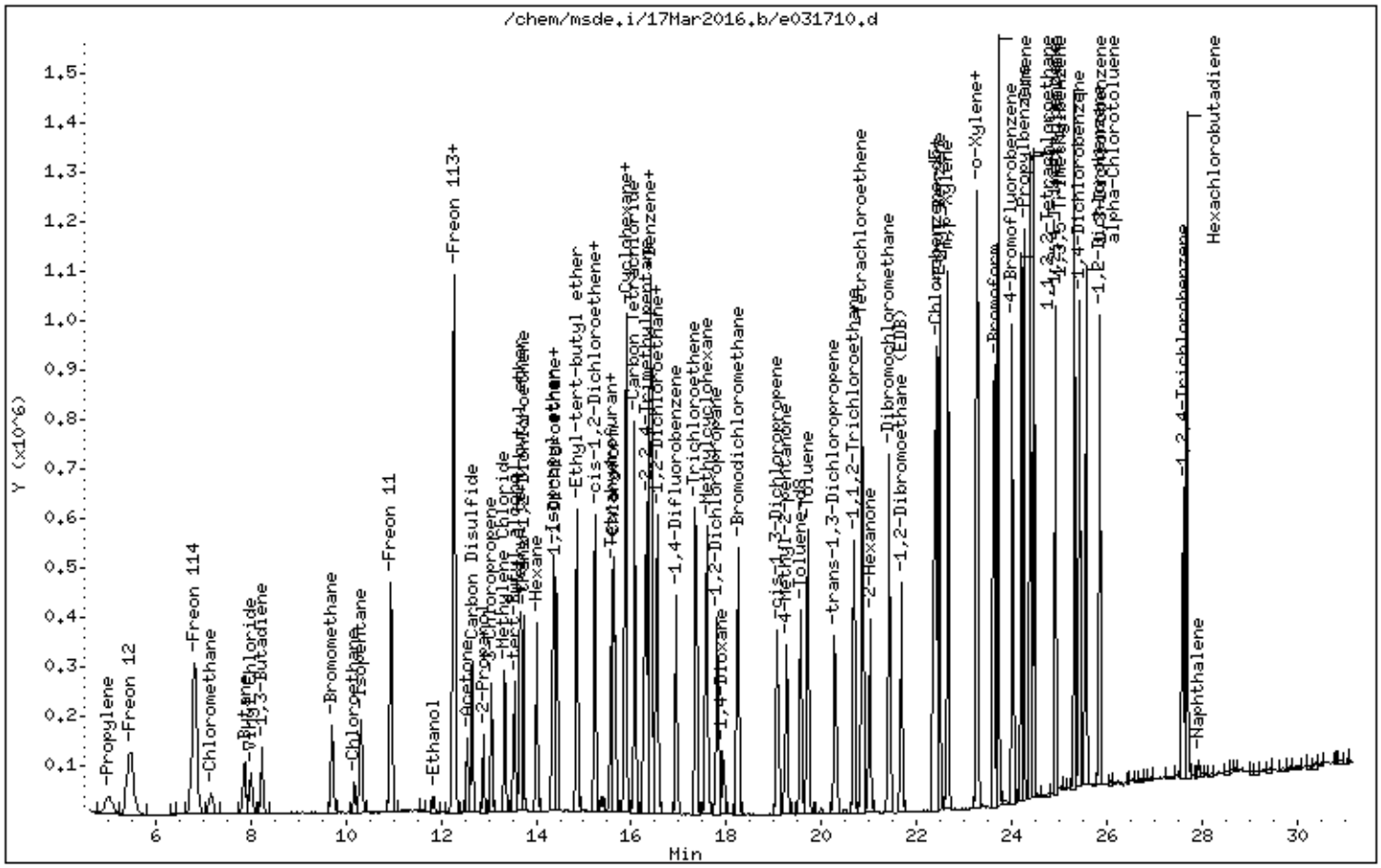
Instrument: msde.i

Sample Info: 25mL# 2759-223

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031711.d
Lab Smp Id: ICAL Client Smp ID: Level 13
Inj Date : 17-MAR-2016 18:10
Operator : ea Inst ID: msde.i
Smp Info : 50mL# 2759-223
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m
Meth Date : 23-Mar-2016 08:52 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 18:10 Cal File: e031711.d
Als bottle: 1 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
5.022	5.022 (0.322)	41	224554	10.0000	10.379	80.00- 120.00	100.00
5.022	5.022 (0.322)	42	143270			38.73- 98.73	63.80
5.022	5.022 (0.322)	39	178226			55.81- 115.81	79.37
11 Freon 12					CAS #: 75-71-8		
5.479	5.479 (0.352)	85	1388089	10.0000	9.906	80.00- 120.00	100.00
5.479	5.479 (0.352)	87	435051			2.00- 62.00	31.34
15 Freon 114					CAS #: 76-14-2		
6.829	6.829 (0.438)	135	1011476	10.0000	9.863	80.00- 120.00	100.00
6.805	6.805 (0.437)	137	331054			1.31- 61.31	32.73
6.805	6.805 (0.437)	85	1257901			93.88- 153.88	124.36
17 Chloromethane					CAS #: 74-87-3		
7.167	7.167 (0.460)	50	261195	10.0000	9.824	80.00- 120.00	100.00
7.167	7.167 (0.460)	52	86785			5.50- 65.50	33.23

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.872	7.872 (0.505)	58	71016	10.0000	10.312	80.00- 120.00	100.00
7.872	7.872 (0.505)	43	441638			588.57- 648.57	621.89
25 Vinyl Chloride					CAS #: 75-01-4		
7.993	7.993 (0.513)	62	377577	10.0000	10.095	80.00- 120.00	100.00
7.993	7.993 (0.513)	64	128285			3.14- 63.14	33.98
26 1,3-Butadiene					CAS #: 106-99-0		
8.236	8.236 (0.529)	54	248933	10.0000	9.895	80.00- 120.00	100.00
8.236	8.236 (0.529)	39	240238			65.21- 125.21	96.51
29 Bromomethane					CAS #: 74-83-9		
9.712	9.712 (0.623)	94	403679	10.0000	9.890	80.00- 120.00	100.00
9.712	9.712 (0.623)	96	378287			64.16- 124.16	93.71
30 Chloroethane					CAS #: 75-00-3		
10.176	10.176 (0.653)	64	188820	10.0000	10.685	80.00- 120.00	100.00
10.176	10.176 (0.653)	49	41555			0.00- 54.91	22.01
10.176	10.176 (0.653)	66	59925			3.62- 63.62	31.74
31 Isopentane					CAS #: 78-78-4		
10.310	10.310 (0.662)	57	253338	10.0000	9.889	80.00- 120.00	100.00
10.310	10.310 (0.662)	43	297512			82.69- 142.69	117.44
10.310	10.310 (0.662)	42	241501			68.65- 128.65	95.33
35 Freon 11					CAS #: 75-69-4		
10.938	10.938 (0.702)	101	1435109	10.0000	9.512	80.00- 120.00	100.00
10.938	10.938 (0.702)	103	939408			37.17- 97.17	65.46
42 Ethanol					CAS #: 64-17-5		
11.833	11.833 (0.759)	45	97164	10.0000	8.887	80.00- 120.00	100.00
11.833	11.833 (0.759)	46	37990			6.61- 66.61	39.10
11.833	11.833 (0.759)	43	25310			0.00- 54.66	26.05
49 Freon 113					CAS #: 76-13-1		
12.252	12.252 (0.786)	151	1151782	10.0000	10.186	80.00- 120.00	100.00
12.252	12.252 (0.786)	153	754407			33.64- 93.64	65.50
12.252	12.252 (0.786)	101	1296774			80.40- 140.40	112.59
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.271	12.271 (0.788)	98	303226	10.0000	9.617	80.00- 120.00	100.00
12.271	12.271 (0.788)	61	716757			204.89- 264.89	236.38
12.271	12.271 (0.788)	96	473247			127.69- 187.69	156.07
52 Acetone					CAS #: 67-64-1		
12.538	12.538 (0.805)	58	174564	10.0000	9.468	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
12.538	12.538 (0.805)	43	577155			321.47- 381.47	330.63
56 Carbon Disulfide					CAS #: 75-15-0		
12.633	12.633 (0.811)	76	1332073	10.0000	9.479	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
12.899	12.899 (0.828)	45	566562	10.0000	10.045	80.00- 120.00	100.00
12.899	12.899 (0.828)	43	135008			0.00- 54.09	23.83
12.899	12.899 (0.828)	59	27684			0.00- 34.43	4.89
58 3-Chloropropene					CAS #: 107-05-1		
13.071	13.071 (0.839)	76	211156	10.0000	10.052	80.00- 120.00	100.00
13.071	13.071 (0.839)	41	404334			163.76- 223.76	191.49
66 Methylene Chloride					CAS #: 75-09-2		
13.338	13.338 (0.856)	84	419651	10.0000	9.499	80.00- 120.00	100.00
13.338	13.338 (0.856)	49	384144			63.99- 123.99	91.54
13.338	13.338 (0.856)	51	123056			0.29- 60.29	29.32
71 tert-Butyl alcohol					CAS #: 75-65-0		
13.536	13.536 (0.869)	59	1099876	10.0000	10.660	80.00- 120.00	100.00
13.536	13.536 (0.869)	41	186403			0.00- 51.66	16.95
13.536	13.536 (0.869)	57	138529			0.00- 43.50	12.59
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.674	13.674 (0.878)	73	1414221	10.0000	10.010	80.00- 120.00	100.00
13.674	13.674 (0.878)	57	252637			0.00- 48.26	17.86
13.674	13.674 (0.878)	41	228634			0.00- 45.58	16.17
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.729	13.729 (0.881)	98	316324	10.0000	9.877	80.00- 120.00	100.00
13.729	13.729 (0.881)	61	604150			155.28- 215.28	190.99
13.729	13.729 (0.881)	96	490570			126.18- 186.18	155.08
78 Hexane					CAS #: 110-54-3		
14.003	14.003 (0.899)	57	555918	10.0000	10.087	80.00- 120.00	100.00
14.003	14.003 (0.899)	43	305203			21.48- 81.48	54.90
14.003	14.003 (0.899)	86	119590			0.00- 51.51	21.51
83 Isopropyl ether					CAS #: 108-20-3		
14.360	14.360 (0.922)	45	1047954	10.0000	10.425	80.00- 120.00	100.00
14.360	14.360 (0.922)	87	432042			9.88- 69.88	41.23
14.360	14.360 (0.922)	59	139127			0.00- 42.70	13.28
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.415	14.415 (0.925)	63	830424	10.0000	9.908	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
82 1,1-Dichloroethane (continued)							
14.415	14.415 (0.925)	65	266513			1.78- 61.78	32.09
86 Vinyl Acetate					CAS #: 108-05-4		
14.442	14.442 (0.927)	86	134038	10.0000	10.280	80.00- 120.00	100.00
14.442	14.442 (0.927)	42	97964			44.70- 104.70	73.09
14.442	14.442 (0.927)	43	1091527			757.33- 817.33	814.34
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
14.859	14.859 (0.954)	59	1377036	10.0000	10.733	80.00- 120.00	100.00
14.859	14.859 (0.954)	87	676670			19.74- 79.74	49.14
14.859	14.859 (0.954)	41	216175			0.00- 46.34	15.70
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.240	15.240 (0.978)	98	345903	10.0000	9.874	80.00- 120.00	100.00
15.240	15.240 (0.978)	61	601158			145.90- 205.90	173.79
15.240	15.240 (0.978)	96	520318			125.53- 185.53	150.42
92 2-Butanone					CAS #: 78-93-3		
15.240	15.240 (0.978)	72	227303	10.0000	10.235	80.00- 120.00	100.00
15.221	15.221 (0.977)	43	667981			262.26- 322.26	293.87
15.221	15.221 (0.977)	57	65479			0.00- 55.71	28.81
99 Tetrahydrofuran					CAS #: 109-99-9		
15.580	15.580 (1.000)	42	419464	10.0000	10.292	80.00- 120.00	100.00
15.580	15.580 (1.000)	71	251643			26.85- 86.85	59.99
15.580	15.580 (1.000)	72	270285			32.22- 92.22	64.44
* 98 Bromochloromethane					CAS #: 74-97-5		
15.580	15.580 (1.000)	130	166597	5.00000		80.00- 120.00	100.00
15.580	15.580 (1.000)	128	130946			52.25- 112.25	78.60
15.580	15.580 (1.000)	49	133949			89.81- 149.81	80.40
100 Chloroform					CAS #: 67-66-3		
15.642	15.642 (1.004)	83	1145811	10.0000	9.526	80.00- 120.00	100.00
15.642	15.642 (1.004)	85	757917			33.97- 93.97	66.15
102 Cyclohexane					CAS #: 110-82-7		
15.888	15.888 (1.020)	84	646781	10.0000	10.362	80.00- 120.00	100.00
15.888	15.888 (1.020)	56	555728			58.69- 118.69	85.92
15.888	15.888 (1.020)	41	307013			18.98- 78.98	47.47
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.888	15.888 (1.020)	97	1333546	10.0000	9.531	80.00- 120.00	100.00
15.888	15.888 (1.020)	99	900202			34.21- 94.21	67.50

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 16.073  16.073 (1.032)   119   1443826 10.0000   10.537  80.00- 120.00   100.00
 16.073  16.073 (1.032)   117   1479227                   74.09- 134.09   102.45
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.313  16.313 (1.047)    56    661721 10.0000    9.482  80.00- 120.00   100.00
 16.313  16.313 (1.047)    57   2173399                  306.64- 366.64   328.45
 16.313  16.313 (1.047)    41    638251                   64.14- 124.14    96.45
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.409  16.409 (0.969)    78   1376713 10.0000    9.011  80.00- 120.00   100.00
 16.409  16.409 (0.969)    77    328971                    0.00-  53.97    23.90
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.409  16.409 (1.053)    65    230796 5.00000    4.826  80.00- 120.00   100.00
 16.409  16.409 (1.053)    67    122076                   21.16-  81.16    52.89
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.433  16.433 (0.970)    87    394090 10.0000   10.046  80.00- 120.00   100.00
 16.433  16.433 (0.970)    73   1502484                  338.86- 398.86   381.25
 16.433  16.433 (0.970)    55    300151                   44.52- 104.52    76.16
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.506  16.506 (0.974)    62    767037 10.0000    9.632  80.00- 120.00   100.00
 16.506  16.506 (0.974)    64    252620                    1.03-  61.03    32.93
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.554  16.554 (0.977)    57    358164 10.0000    9.890  80.00- 120.00   100.00
 16.554  16.554 (0.977)   100    204029                   28.67-  88.67    56.97
 16.554  16.554 (0.977)    43    561210                  128.92- 188.92   156.69
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.939  16.939 (1.000)   114    637581 5.00000           80.00- 120.00   100.00
 16.939  16.939 (1.000)    88     96576                    0.00-  45.20    15.15
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.373  17.373 (1.026)   130    793464 10.0000   10.012  80.00- 120.00   100.00
 17.349  17.349 (1.024)    95    715220                   63.99- 123.99    90.14
 17.349  17.349 (1.024)    97    460751                   29.21-  89.21    58.07
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.590  17.590 (1.038)    83    869819 10.0000   10.225  80.00- 120.00   100.00
 17.590  17.590 (1.038)    55    548772                   31.29-  91.29    63.09
 17.590  17.590 (1.038)    56    164597                    0.00-  48.78    18.92
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.807  17.807 (1.051)    63    485462 10.0000    9.868  80.00- 120.00   100.00
```

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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 17.807  17.807 (1.051)    62    305888                    34.19-  94.19    63.01
 17.807  17.807 (1.051)    41    268343                    27.38-  87.38    55.28
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.927  17.927 (1.058)    88    354646 10.0000    9.626  80.00- 120.00   100.00
 17.927  17.927 (1.058)    58    196318                    25.03-  85.03    55.36
 17.927  17.927 (1.058)    57     70533                     0.00-  50.67    19.89
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.240  18.240 (1.077)    83   1270633 10.0000   10.021  80.00- 120.00   100.00
 18.240  18.240 (1.077)    85    833447                    35.15-  95.15    65.59
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 19.086  19.086 (1.127)    75    945339 10.0000   10.005  80.00- 120.00   100.00
 19.086  19.086 (1.127)    77    305858                     0.45-  60.45    32.35
 19.086  19.086 (1.127)    39    406437                    13.69-  73.69    42.99
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.265  19.265 (1.137)    43    796140 10.0000   10.098  80.00- 120.00   100.00
 19.265  19.265 (1.137)    58    352066                    15.64-  75.64    44.22
 19.265  19.265 (1.137)    85    209083                     0.00-  56.71    26.26
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.556  19.556 (1.155)    98    633038 5.00000    5.055  80.00- 120.00   100.00
 19.556  19.556 (1.155)    70     66373                     0.00-  40.11    10.48
 19.556  19.556 (1.155)   100    419925                    37.58-  97.58    66.33
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.713  19.713 (1.164)    91   1762092 10.0000    9.682  80.00- 120.00   100.00
 19.713  19.713 (1.164)    92   1038319                    28.92-  88.92    58.93
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.276  20.276 (0.907)    75    900982 10.0000   10.057  80.00- 120.00   100.00
 20.276  20.276 (0.907)    77    289316                     0.55-  60.55    32.11
 20.276  20.276 (0.907)    39    341641                     8.25-  68.25    37.92
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.688  20.688 (0.925)    97    640526 10.0000    9.184  80.00- 120.00   100.00
 20.688  20.688 (0.925)    99    412214                    32.91-  92.91    64.36
 20.688  20.688 (0.925)    83    515323                    47.93- 107.93    80.45
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.853  20.853 (0.932)   166   1032947 10.0000    9.612  80.00- 120.00   100.00
 20.853  20.853 (0.932)   129    746739                    42.31- 102.31    72.29
 20.853  20.853 (0.932)   131    743545                    40.11- 100.11    71.98
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone					CAS #: 591-78-6		
21.018	21.018 (0.940)	58	464502	10.0000	10.350	80.00- 120.00	100.00
21.018	21.018 (0.940)	43	787320			140.44- 200.44	169.50
21.018	21.018 (0.940)	100	133775			0.00- 59.62	28.80
160 Dibromochloromethane					CAS #: 124-48-1		
21.430	21.430 (0.958)	129	1426043	10.0000	10.073	80.00- 120.00	100.00
21.430	21.430 (0.958)	127	1094799			46.82- 106.82	76.77
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.677	21.677 (0.969)	107	1055551	10.0000	9.863	80.00- 120.00	100.00
21.677	21.677 (0.969)	109	1005531			65.45- 125.45	95.26
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.366	22.366 (1.000)	117	578602	5.00000		80.00- 120.00	100.00
22.366	22.366 (1.000)	82	288327			20.64- 80.64	49.83
165 Chlorobenzene					CAS #: 108-90-7		
22.407	22.407 (1.002)	112	1520233	10.0000	9.711	80.00- 120.00	100.00
22.407	22.407 (1.002)	114	501335			2.42- 62.42	32.98
22.407	22.407 (1.002)	77	816749			23.54- 83.54	53.73
167 Ethyl Benzene					CAS #: 100-41-4		
22.490	22.490 (1.006)	106	746677	10.0000	9.794	80.00- 120.00	100.00
22.490	22.490 (1.006)	91	2335672			282.51- 342.51	312.81
169 m,p-Xylene					CAS #: 108-38-3		
22.656	22.656 (1.013)	106	907577	10.0000	10.247	80.00- 120.00	100.00
22.656	22.656 (1.013)	91	1816518			166.46- 226.46	200.15
171 o-Xylene					CAS #: 95-47-6		
23.257	23.257 (1.040)	106	834619	10.0000	10.274	80.00- 120.00	100.00
23.257	23.257 (1.040)	91	1766135			184.01- 244.01	211.61
172 Styrene					CAS #: 100-42-5		
23.299	23.299 (1.042)	104	1419978	10.0000	10.330	80.00- 120.00	100.00
23.278	23.278 (1.041)	78	739778			20.27- 80.27	52.10
174 Bromoform					CAS #: 75-25-2		
23.639	23.639 (1.057)	173	1478323	10.0000	10.539	80.00- 120.00	100.00
23.639	23.639 (1.057)	171	754798			20.88- 80.88	51.06
175 Cumene					CAS #: 98-82-8		
23.728	23.728 (1.061)	105	2778980	10.0000	10.061	80.00- 120.00	100.00
23.728	23.728 (1.061)	120	754428			0.00- 57.47	27.15

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 24.020  24.020 (1.074)   174    400816 5.00000    5.048  80.00- 120.00   100.00
 24.020  24.020 (1.074)    95    419905                   77.42- 137.42   104.76
 24.020  24.020 (1.074)   176    392308                   65.38- 125.38    97.88
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 24.200  24.200 (1.082)    83   1258098 10.0000    9.781  80.00- 120.00   100.00
 24.200  24.200 (1.082)    85    820207                   35.73-  95.73    65.19
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 24.267  24.267 (1.085)    91   2940087 10.0000   10.106  80.00- 120.00   100.00
 24.267  24.267 (1.085)   120    735604                    0.00-  55.24    25.02
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 24.401  24.401 (1.091)   105   2457441 10.0000    9.966  80.00- 120.00   100.00
 24.401  24.401 (1.091)   120    760021                    1.08-  61.08    30.93
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 24.469  24.469 (1.094)   105   1954035 10.0000   10.205  80.00- 120.00   100.00
 24.469  24.469 (1.094)   120    940045                   18.44-  78.44    48.11
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.917  24.917 (1.114)   105   1613755 10.0000    9.727  80.00- 120.00   100.00
 24.917  24.917 (1.114)   120    737582                   16.20-  76.20    45.71
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 25.321  25.321 (1.132)   146   1478957 10.0000    9.440  80.00- 120.00   100.00
 25.321  25.321 (1.132)   148    947475                   35.51-  95.51    64.06
 25.321  25.321 (1.132)   111    573984                    9.35-  69.35    38.81
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 25.433  25.433 (1.137)   146   1413836 10.0000    9.624  80.00- 120.00   100.00
 25.433  25.433 (1.137)   148    918447                   32.61-  92.61    64.96
 25.433  25.433 (1.137)   111    524560                    6.90-  66.90    37.10
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 25.567  25.567 (1.143)    91   1937867 10.0000   10.483  80.00- 120.00   100.00
 25.567  25.567 (1.143)   126    432963                    0.00-  51.82    22.34
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 25.859  25.859 (1.156)   146   1320802 10.0000    9.828  80.00- 120.00   100.00
 25.859  25.859 (1.156)   148    832755                   33.69-  93.69    63.05
 25.859  25.859 (1.156)   111    517176                    8.96-  68.96    39.16
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 27.607  27.607 (1.234)   180    635603 10.0000   10.431  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.607	27.607 (1.234)	182	599547			66.05- 126.05	94.33
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.697	27.697 (1.238)	225	866561	10.0000	10.459	80.00- 120.00	100.00
27.697	27.697 (1.238)	223	546910			33.78- 93.78	63.11
228 Naphthalene					CAS #: 91-20-3		
27.921	27.921 (1.248)	128	91163	1.00000	1.024	80.00- 120.00	100.00
27.921	27.921 (1.248)	127	14412			0.00- 46.39	15.81

Report Date: 23-Mar-2016 08:52

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031711.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 13
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	164946	98968	230924	166597	1.00
123 1,4-Difluorobenze	626935	376161	877709	637581	1.70
163 Chlorobenzene-d5	567678	340607	794749	578602	1.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031711.d

Date : 17-MAR-2016 18:10

Client ID: Level 13

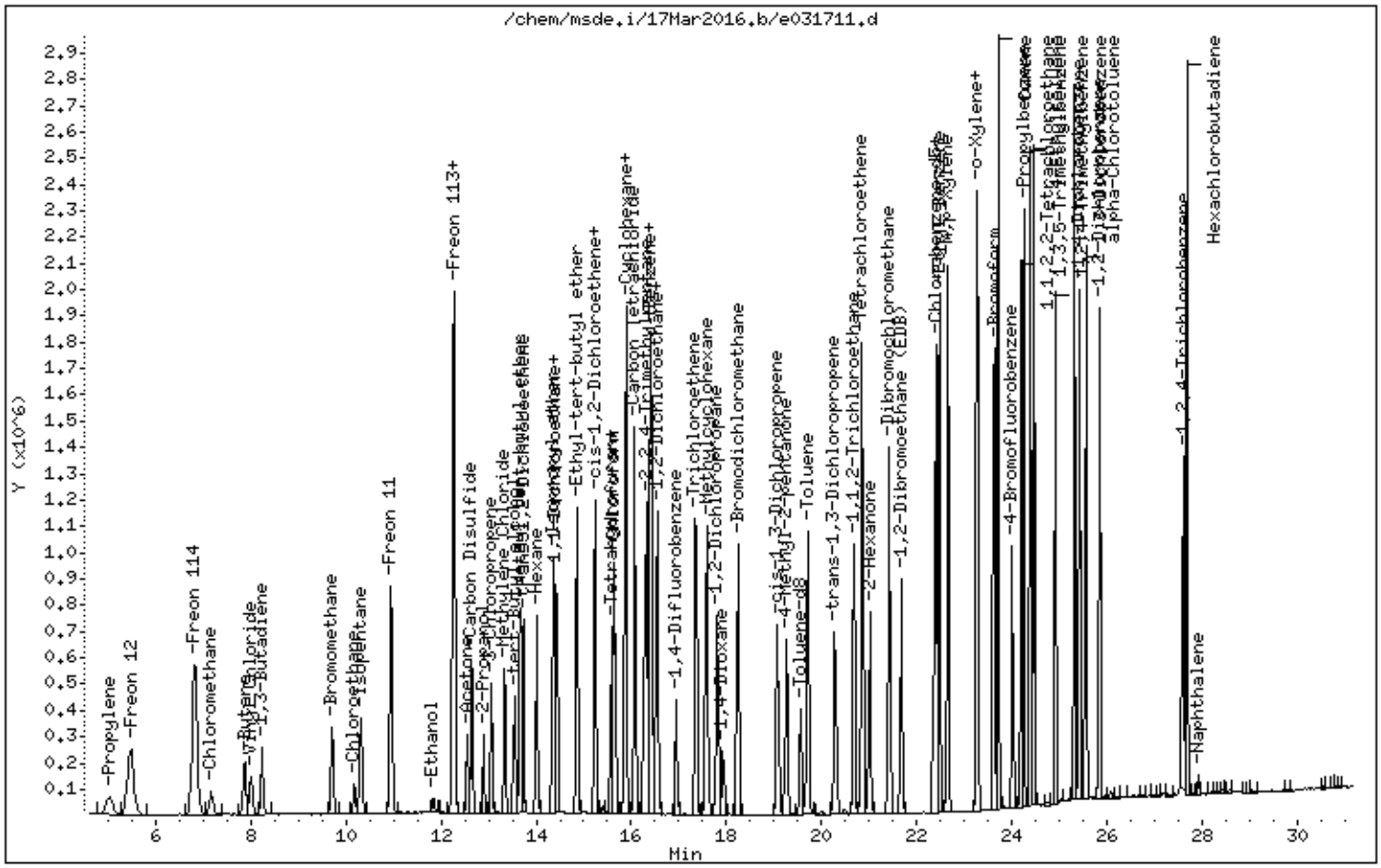
Instrument: msde.i

Sample Info: 50mL# 2759-223

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031712.d
Lab Smp Id: ICAL Client Smp ID: Level 15
Inj Date : 17-MAR-2016 19:01
Operator : ea Inst ID: msde.i
Smp Info : 100mL# 2759-223
Misc Info : 20ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m
Meth Date : 23-Mar-2016 08:52 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712.d
Als bottle: 1 Calibration Sample, Level: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
5.045	5.045 (0.324)	41	418694	20.0000	18.236	80.00- 120.00	100.00
5.045	5.045 (0.324)	42	279974			38.73- 98.73	66.87
5.045	5.045 (0.324)	39	361722			55.81- 115.81	86.39
11 Freon 12					CAS #: 75-71-8		
5.479	5.479 (0.352)	85	2632699	20.0000	17.706	80.00- 120.00	100.00
5.479	5.479 (0.352)	87	857792			2.00- 62.00	32.58
15 Freon 114					CAS #: 76-14-2		
6.829	6.829 (0.438)	135	1987627	20.0000	18.265	80.00- 120.00	100.00
6.829	6.829 (0.438)	137	656978			1.31- 61.31	33.05
6.829	6.829 (0.438)	85	2452054			93.88- 153.88	123.37
17 Chloromethane					CAS #: 74-87-3		
7.167	7.167 (0.460)	50	503169	20.0000	17.835	80.00- 120.00	100.00
7.167	7.167 (0.460)	52	165187			5.50- 65.50	32.83

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.854	7.854 (0.504)	58	135889	20.0000	18.595	80.00- 120.00	100.00
7.871	7.871 (0.505)	43	874878			588.57- 648.57	643.82
25 Vinyl Chloride					CAS #: 75-01-4		
7.993	7.993 (0.513)	62	716755	20.0000	18.058	80.00- 120.00	100.00
7.993	7.993 (0.513)	64	246035			3.14- 63.14	34.33
26 1,3-Butadiene					CAS #: 106-99-0		
8.236	8.236 (0.529)	54	496268	20.0000	18.590	80.00- 120.00	100.00
8.236	8.236 (0.529)	39	477809			65.21- 125.21	96.28
29 Bromomethane					CAS #: 74-83-9		
9.711	9.711 (0.623)	94	748900	20.0000	17.291	80.00- 120.00	100.00
9.711	9.711 (0.623)	96	724975			64.16- 124.16	96.81
30 Chloroethane					CAS #: 75-00-3		
10.176	10.176 (0.653)	64	361425	20.0000	19.274	80.00- 120.00	100.00
10.176	10.176 (0.653)	49	81655			0.00- 54.91	22.59
10.176	10.176 (0.653)	66	116360			3.62- 63.62	32.19
31 Isopentane					CAS #: 78-78-4		
10.309	10.309 (0.662)	57	504085	20.0000	18.544	80.00- 120.00	100.00
10.309	10.309 (0.662)	43	578390			82.69- 142.69	114.74
10.309	10.309 (0.662)	42	481221			68.65- 128.65	95.46
35 Freon 11					CAS #: 75-69-4		
10.938	10.938 (0.702)	101	2802600	20.0000	17.505	80.00- 120.00	100.00
10.938	10.938 (0.702)	103	1820853			37.17- 97.17	64.97
42 Ethanol					CAS #: 64-17-5		
11.833	11.833 (0.759)	45	199906	20.0000	17.231	80.00- 120.00	100.00
11.833	11.833 (0.759)	46	74162			6.61- 66.61	37.10
11.833	11.833 (0.759)	43	50080			0.00- 54.66	25.05
49 Freon 113					CAS #: 76-13-1		
12.252	12.252 (0.786)	151	2261346	20.0000	18.847	80.00- 120.00	100.00
12.252	12.252 (0.786)	153	1455081			33.64- 93.64	64.35
12.252	12.252 (0.786)	101	2489402			80.40- 140.40	110.08
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.271	12.271 (0.788)	98	586348	20.0000	17.525	80.00- 120.00	100.00
12.271	12.271 (0.788)	61	1384315			204.89- 264.89	236.09
12.271	12.271 (0.788)	96	918085			127.69- 187.69	156.58
52 Acetone					CAS #: 67-64-1		
12.537	12.537 (0.805)	58	335171	20.0000	17.131	80.00- 120.00	100.00

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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 12.537  12.537 (0.805)    43   1101970                   321.47- 381.47   328.78
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.633  12.633 (0.811)    76   2592283 20.0000   17.384  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.880  12.880 (0.827)    45   1145088 20.0000   19.132  80.00- 120.00   100.00
 12.880  12.880 (0.827)    43    259174                    0.00-  54.09    22.63
 12.899  12.899 (0.828)    59     50134                    0.00-  34.43     4.38
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.071  13.071 (0.839)    76    407845 20.0000   18.297  80.00- 120.00   100.00
 13.052  13.052 (0.838)    41    789918                  163.76- 223.76   193.68
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.337  13.337 (0.856)    84    777428 20.0000   16.583  80.00- 120.00   100.00
 13.337  13.337 (0.856)    49    739367                   63.99- 123.99    95.10
 13.337  13.337 (0.856)    51    224948                    0.29-  60.29    28.93
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 13.536  13.536 (0.869)    59   1942029 20.0000   17.737  80.00- 120.00   100.00
 13.536  13.536 (0.869)    41    389153                    0.00-  51.66    20.04
 13.536  13.536 (0.869)    57    255553                    0.00-  43.50    13.16
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.674  13.674 (0.878)    73   2724323 20.0000   18.173  80.00- 120.00   100.00
 13.646  13.646 (0.876)    57    500585                    0.00-  48.26    18.37
 13.646  13.646 (0.876)    41    440409                    0.00-  45.58    16.17
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.728  13.728 (0.881)    98    627152 20.0000   18.454  80.00- 120.00   100.00
 13.701  13.701 (0.879)    61   1193618                  155.28- 215.28   190.32
 13.728  13.728 (0.881)    96    947436                  126.18- 186.18   151.07
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.003  14.003 (0.899)    57   1077207 20.0000   18.420  80.00- 120.00   100.00
 14.003  14.003 (0.899)    43    601258                   21.48-  81.48    55.82
 14.003  14.003 (0.899)    86    228691                    0.00-  51.51    21.23
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 14.360  14.360 (0.922)    45   2022509 20.0000   18.961  80.00- 120.00   100.00
 14.360  14.360 (0.922)    87    821885                    9.88-  69.88    40.64
 14.360  14.360 (0.922)    59    273848                    0.00-  42.70    13.54
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.415  14.415 (0.925)    63   1574041 20.0000   17.698  80.00- 120.00   100.00
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 14.415  14.415 (0.925)    65    521077                     1.78-  61.78    33.10
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 14.442  14.442 (0.927)    86    253784 20.0000   18.342  80.00- 120.00   100.00
 14.442  14.442 (0.927)    42    187287                    44.70- 104.70    73.80
 14.442  14.442 (0.927)    43   2008795                   757.33- 817.33   791.54
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 14.859  14.859 (0.954)    59   2651597 20.0000   19.476  80.00- 120.00   100.00
 14.859  14.859 (0.954)    87   1287755                    19.74-  79.74    48.57
 14.859  14.859 (0.954)    41    412828                     0.00-  46.34    15.57
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 15.239  15.239 (0.978)    98    663794 20.0000   17.856  80.00- 120.00   100.00
 15.239  15.239 (0.978)    61   1158555                   145.90- 205.90   174.54
 15.239  15.239 (0.978)    96   1023549                   125.53- 185.53   154.20
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.220  15.220 (0.977)    72    443259 20.0000   18.809  80.00- 120.00   100.00
 15.220  15.220 (0.977)    43   1314838                   262.26- 322.26   296.63
 15.220  15.220 (0.977)    57    126768                     0.00-  55.71    28.60
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.580  15.580 (1.000)    42    838603 20.0000   19.391  80.00- 120.00   100.00
 15.580  15.580 (1.000)    71    494844                    26.85-  86.85    59.01
 15.580  15.580 (1.000)    72    534524                    32.22-  92.22    63.74
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.580  15.580 (1.000)   130    176784 5.00000            80.00- 120.00   100.00
 15.580  15.580 (1.000)   128    163103                    52.25- 112.25    92.26
 15.641  15.641 (1.000)    49    318483                    89.81- 149.81   180.15
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 15.641  15.641 (1.004)    83   2237024 20.0000   17.526  80.00- 120.00   100.00
 15.641  15.641 (1.004)    85   1452544                    33.97-  93.97    64.93
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 15.888  15.888 (1.020)    84   1263544 20.0000   19.076  80.00- 120.00   100.00
 15.888  15.888 (1.020)    56   1087383                    58.69- 118.69    86.06
 15.888  15.888 (1.020)    41    589441                    18.98-  78.98    46.65
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 15.888  15.888 (1.020)    97   2564559 20.0000   17.273  80.00- 120.00   100.00
 15.888  15.888 (1.020)    99   1664024                    34.21-  94.21    64.89
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 16.073  16.073 (1.032)   119   2744213 20.0000   18.873  80.00- 120.00   100.00
 16.073  16.073 (1.032)   117   2840230                   74.09- 134.09   103.50
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.313  16.313 (1.047)    56   1243884 20.0000   16.797  80.00- 120.00   100.00
 16.313  16.313 (1.047)    57   4056024                  306.64- 366.64   326.08
 16.313  16.313 (1.047)    41   1098899                   64.14- 124.14    88.34
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.409  16.409 (0.969)    78   2702628 20.0000   17.387  80.00- 120.00   100.00
 16.409  16.409 (0.969)    77    635782                    0.00-  53.97    23.52
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.409  16.409 (1.053)    65    250827 5.00000    4.942  80.00- 120.00   100.00
 16.409  16.409 (1.053)    67    127229                   21.16-  81.16    50.72
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.433  16.433 (0.970)    87    781060 20.0000   19.570  80.00- 120.00   100.00
 16.433  16.433 (0.970)    73   2909750                  338.86- 398.86   372.54
 16.433  16.433 (0.970)    55    577394                   44.52- 104.52    73.92
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.505  16.505 (0.974)    62   1472227 20.0000   18.172  80.00- 120.00   100.00
 16.505  16.505 (0.974)    64    499418                    1.03-  61.03    33.92
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.553  16.553 (0.977)    57    699144 20.0000   18.975  80.00- 120.00   100.00
 16.553  16.553 (0.977)   100    388942                   28.67-  88.67    55.63
 16.553  16.553 (0.977)    43   1094226                  128.92- 188.92   156.51
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.939  16.939 (1.000)   114    648654 5.00000           80.00- 120.00   100.00
 16.939  16.939 (1.000)    88     91936                    0.00-  45.20    14.17
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.349  17.349 (1.024)   130   1530843 20.0000   18.987  80.00- 120.00   100.00
 17.349  17.349 (1.024)    95   1372279                   63.99- 123.99    89.64
 17.349  17.349 (1.024)    97    884941                   29.21-  89.21    57.81
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.589  17.589 (1.038)    83   1713849 20.0000   19.804  80.00- 120.00   100.00
 17.589  17.589 (1.038)    55   1085608                   31.29-  91.29    63.34
 17.589  17.589 (1.038)    56    328939                    0.00-  48.78    19.19
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.806  17.806 (1.051)    63    922002 20.0000   18.422  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 17.806  17.806 (1.051)    62    594433                    34.19-  94.19    64.47
 17.806  17.806 (1.051)    41    506600                    27.38-  87.38    54.95
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.927  17.927 (1.058)    88    706032 20.0000   18.837  80.00- 120.00   100.00
 17.927  17.927 (1.058)    58    383534                    25.03-  85.03    54.32
 17.927  17.927 (1.058)    57    133620                     0.00-  50.67    18.93
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.240  18.240 (1.077)    83   2475762 20.0000   19.193  80.00- 120.00   100.00
 18.240  18.240 (1.077)    85   1590847                    35.15-  95.15    64.26
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 19.063  19.063 (1.125)    75   1864177 20.0000   19.393  80.00- 120.00   100.00
 19.063  19.063 (1.125)    77    583129                     0.45-  60.45    31.28
 19.063  19.063 (1.125)    39    785432                    13.69-  73.69    42.13
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.265  19.265 (1.137)    43   1586505 20.0000   19.778  80.00- 120.00   100.00
 19.265  19.265 (1.137)    58    699882                    15.64-  75.64    44.11
 19.265  19.265 (1.137)    85    400441                     0.00-  56.71    25.24
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.556  19.556 (1.155)    98    644126 5.00000    5.056  80.00- 120.00   100.00
 19.556  19.556 (1.155)    70     67969                     0.00-  40.11    10.55
 19.556  19.556 (1.155)   100    425854                    37.58-  97.58    66.11
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.713  19.713 (1.164)    91   3453581 20.0000   18.653  80.00- 120.00   100.00
 19.713  19.713 (1.164)    92   2035608                    28.92-  88.92    58.94
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.276  20.276 (0.907)    75   1766927 20.0000   19.589  80.00- 120.00   100.00
 20.276  20.276 (0.907)    77    562651                     0.55-  60.55    31.84
 20.276  20.276 (0.907)    39    663369                     8.25-  68.25    37.54
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.688  20.688 (0.925)    97   1241409 20.0000   17.680  80.00- 120.00   100.00
 20.688  20.688 (0.925)    99    762706                    32.91-  92.91    61.44
 20.688  20.688 (0.925)    83   1006926                    47.93- 107.93    81.11
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.853  20.853 (0.932)   166   2049673 20.0000   18.944  80.00- 120.00   100.00
 20.853  20.853 (0.932)   129   1475541                    42.31- 102.31    71.99
 20.853  20.853 (0.932)   131   1422288                    40.11- 100.11    69.39
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 21.018  21.018 (0.940)    58    925824 20.0000   20.489  80.00- 120.00   100.00
 21.018  21.018 (0.940)    43   1549540                  140.44- 200.44   167.37
 21.018  21.018 (0.940)   100    263024                    0.00-  59.62    28.41
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 21.430  21.430 (0.958)   129   2772219 20.0000   19.449  80.00- 120.00   100.00
 21.430  21.430 (0.958)   127   2136449                   46.82- 106.82    77.07
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 21.677  21.677 (0.969)   107   2057142 20.0000   19.091  80.00- 120.00   100.00
 21.677  21.677 (0.969)   109   1962128                   65.45- 125.45    95.38
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 22.365  22.365 (1.000)   117    582541 5.00000           80.00- 120.00   100.00
 22.365  22.365 (1.000)    82    299842                   20.64-  80.64    51.47
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 22.407  22.407 (1.002)   112   2967481 20.0000   18.828  80.00- 120.00   100.00
 22.407  22.407 (1.002)   114    974023                    2.42-  62.42    32.82
 22.407  22.407 (1.002)    77   1615915                   23.54-  83.54    54.45
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 22.490  22.490 (1.006)   106   1477913 20.0000   19.254  80.00- 120.00   100.00
 22.490  22.490 (1.006)    91   4586862                  282.51- 342.51   310.36
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 22.656  22.656 (1.013)   106   1769334 20.0000   19.842  80.00- 120.00   100.00
 22.656  22.656 (1.013)    91   3555026                  166.46- 226.46   200.92
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 23.257  23.257 (1.040)   106   1669242 20.0000   20.409  80.00- 120.00   100.00
 23.257  23.257 (1.040)    91   3533405                  184.01- 244.01   211.68
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 23.278  23.278 (1.041)   104   2817814 20.0000   20.360  80.00- 120.00   100.00
 23.278  23.278 (1.041)    78   1432244                   20.27-  80.27    50.83
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 23.616  23.616 (1.056)   173   2866617 20.0000   20.298  80.00- 120.00   100.00
 23.616  23.616 (1.056)   171   1472658                   20.88-  80.88    51.37
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 23.728  23.728 (1.061)   105   5502310 20.0000   19.786  80.00- 120.00   100.00
 23.728  23.728 (1.061)   120   1510007                    0.00-  57.47    27.44
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 24.020  24.020 (1.074)   174    410339 5.00000    5.134  80.00- 120.00   100.00
 24.020  24.020 (1.074)    95    445297                   77.42- 137.42   108.52
 24.020  24.020 (1.074)   176    386330                   65.38- 125.38    94.15
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 24.199  24.199 (1.082)    83   2487186 20.0000   19.205  80.00- 120.00   100.00
 24.199  24.199 (1.082)    85   1607378                   35.73-  95.73    64.63
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 24.244  24.244 (1.084)    91   5828029 20.0000   19.898  80.00- 120.00   100.00
 24.267  24.267 (1.085)   120   1460719                    0.00-  55.24    25.06
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 24.401  24.401 (1.091)   105   4874217 20.0000   19.634  80.00- 120.00   100.00
 24.401  24.401 (1.091)   120   1481952                    1.08-  61.08    30.40
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 24.468  24.468 (1.094)   105   3769488 20.0000   19.553  80.00- 120.00   100.00
 24.468  24.468 (1.094)   120   1832663                   18.44-  78.44    48.62
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 24.917  24.917 (1.114)   105   3261797 20.0000   19.528  80.00- 120.00   100.00
 24.917  24.917 (1.114)   120   1513731                   16.20-  76.20    46.41
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 25.320  25.320 (1.132)   146   2941634 20.0000   18.650  80.00- 120.00   100.00
 25.320  25.320 (1.132)   148   1890981                   35.51-  95.51    64.28
 25.320  25.320 (1.132)   111   1115798                    9.35-  69.35    37.93
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 25.433  25.433 (1.137)   146   2840365 20.0000   19.203  80.00- 120.00   100.00
 25.433  25.433 (1.137)   148   1808538                   32.61-  92.61    63.67
 25.410  25.410 (1.136)   111   1050010                    6.90-  66.90    36.97
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 25.567  25.567 (1.143)    91   3909627 20.0000   21.007  80.00- 120.00   100.00
 25.567  25.567 (1.143)   126    885383                    0.00-  51.82    22.65
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 25.858  25.858 (1.156)   146   2590182 20.0000   19.144  80.00- 120.00   100.00
 25.858  25.858 (1.156)   148   1656897                   33.69-  93.69    63.97
 25.858  25.858 (1.156)   111   1036977                    8.96-  68.96    40.03
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 27.607  27.607 (1.234)   180   1279654 20.0000   20.858  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.607	27.607 (1.234)	182	1222301			66.05- 126.05	95.52
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.697	27.697 (1.238)	225	1737234	20.0000	20.826	80.00- 120.00	100.00
27.697	27.697 (1.238)	223	1088824			33.78- 93.78	62.68
228 Naphthalene					CAS #: 91-20-3		
27.921	27.921 (1.248)	128	184142	2.00000	2.055	80.00- 120.00	100.00
27.921	27.921 (1.248)	127	26394			0.00- 46.39	14.33

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031712.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m
Misc Info: 20ppbv (50ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 15
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	164946	98968	230924	176784	7.18
123 1,4-Difluorobenze	626935	376161	877709	648654	3.46
163 Chlorobenzene-d5	567678	340607	794749	582541	2.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031712.d

Date : 17-MAR-2016 19:01

Client ID: Level 15

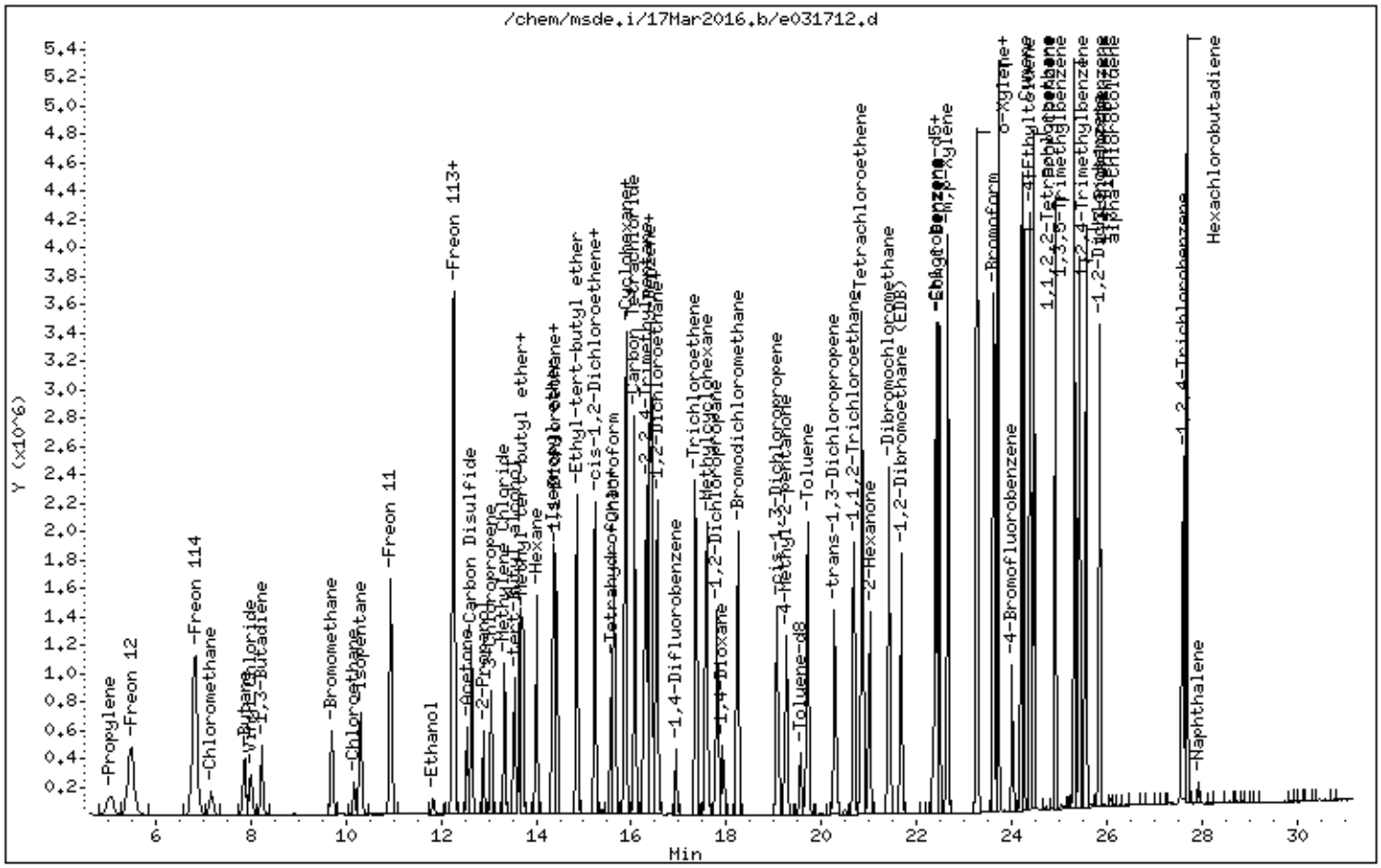
Instrument: msde.i

Sample Info: 100mL# 2759-223

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031713.d
Lab Smp Id: ICAL Client Smp ID: Level 16
Inj Date : 17-MAR-2016 19:49
Operator : ea Inst ID: msde.i
Smp Info : 200mL# 2759-223
Misc Info : 40ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m
Meth Date : 23-Mar-2016 08:53 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:49 Cal File: e031713.d
Als bottle: 1 Calibration Sample, Level: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
5.070	5.070 (0.325)	41	863758	40.0000	38.692	80.00- 120.00	100.00
5.046	5.046 (0.324)	42	555479			38.73- 98.73	64.31
5.070	5.070 (0.325)	39	718996			55.81- 115.81	83.24
11 Freon 12					CAS #: 75-71-8		
5.479	5.479 (0.352)	85	5204716	40.0000	36.000	80.00- 120.00	100.00
5.479	5.479 (0.352)	87	1696862			2.00- 62.00	32.60
15 Freon 114					CAS #: 76-14-2		
6.829	6.829 (0.438)	135	3924996	40.0000	37.094	80.00- 120.00	100.00
6.829	6.829 (0.438)	137	1271459			1.31- 61.31	32.39
6.829	6.829 (0.438)	85	4818737			93.88- 153.88	122.77
17 Chloromethane					CAS #: 74-87-3		
7.167	7.167 (0.460)	50	1005880	40.0000	36.669	80.00- 120.00	100.00
7.167	7.167 (0.460)	52	327142			5.50- 65.50	32.52

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane					CAS #: 106-97-8		
7.872	7.872 (0.505)	58	291239	40.0000	40.988	80.00- 120.00	100.00(A)
7.872	7.872 (0.505)	43	1765809			588.57- 648.57	606.31
25 Vinyl Chloride					CAS #: 75-01-4		
8.010	8.010 (0.514)	62	1457287	40.0000	37.761	80.00- 120.00	100.00
8.010	8.010 (0.514)	64	491266			3.14- 63.14	33.71
26 1,3-Butadiene					CAS #: 106-99-0		
8.236	8.236 (0.529)	54	1013084	40.0000	39.030	80.00- 120.00	100.00
8.236	8.236 (0.529)	39	980715			65.21- 125.21	96.80
29 Bromomethane					CAS #: 74-83-9		
9.711	9.711 (0.623)	94	1501037	40.0000	35.644	80.00- 120.00	100.00
9.711	9.711 (0.623)	96	1418889			64.16- 124.16	94.53
30 Chloroethane					CAS #: 75-00-3		
10.176	10.176 (0.653)	64	701588	40.0000	38.479	80.00- 120.00	100.00
10.176	10.176 (0.653)	49	163149			0.00- 54.91	23.25
10.176	10.176 (0.653)	66	231227			3.62- 63.62	32.96
31 Isopentane					CAS #: 78-78-4		
10.309	10.309 (0.662)	57	1001897	40.0000	37.906	80.00- 120.00	100.00
10.309	10.309 (0.662)	43	1166835			82.69- 142.69	116.46
10.309	10.309 (0.662)	42	953658			68.65- 128.65	95.19
35 Freon 11					CAS #: 75-69-4		
10.938	10.938 (0.702)	101	5489142	40.0000	35.260	80.00- 120.00	100.00
10.938	10.938 (0.702)	103	3611529			37.17- 97.17	65.79
42 Ethanol					CAS #: 64-17-5		
11.852	11.852 (0.761)	45	387299	40.0000	34.334	80.00- 120.00	100.00
11.852	11.852 (0.761)	46	145349			6.61- 66.61	37.53
11.852	11.852 (0.761)	43	94449			0.00- 54.66	24.39
49 Freon 113					CAS #: 76-13-1		
12.252	12.252 (0.786)	151	4503251	40.0000	38.600	80.00- 120.00	100.00
12.252	12.252 (0.786)	153	2889506			33.64- 93.64	64.16
12.252	12.252 (0.786)	101	4908902			80.40- 140.40	109.01
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.271	12.271 (0.788)	98	1185266	40.0000	36.433	80.00- 120.00	100.00
12.271	12.271 (0.788)	61	2751481			204.89- 264.89	232.14
12.271	12.271 (0.788)	96	1868444			127.69- 187.69	157.64
52 Acetone					CAS #: 67-64-1		
12.537	12.537 (0.805)	58	666418	40.0000	35.032	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 12.537  12.537 (0.805)    43   2190345                  321.47- 381.47   328.67
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.633  12.633 (0.811)    76   5014477 40.0000   34.585  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.899  12.899 (0.828)    45   2335707 40.0000   40.136  80.00- 120.00   100.00(A)
 12.899  12.899 (0.828)    43    507081                    0.00-  54.09    21.71
 12.899  12.899 (0.828)    59    103121                    0.00-  34.43     4.41
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.071  13.071 (0.839)    76    827057 40.0000   38.160  80.00- 120.00   100.00
 13.071  13.071 (0.839)    41   1576278                  163.76- 223.76   190.59
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.337  13.337 (0.856)    84   1565356 40.0000   34.340  80.00- 120.00   100.00
 13.337  13.337 (0.856)    49   1444018                   63.99- 123.99    92.25
 13.337  13.337 (0.856)    51    451272                    0.29-  60.29    28.83
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 13.536  13.536 (0.869)    59   4076001 40.0000   38.286  80.00- 120.00   100.00
 13.536  13.536 (0.869)    41    839932                    0.00-  51.66    20.61
 13.536  13.536 (0.869)    57    467210                    0.00-  43.50    11.46
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.674  13.674 (0.878)    73   5452833 40.0000   37.408  80.00- 120.00   100.00
 13.674  13.674 (0.878)    57   1017832                    0.00-  48.26    18.67
 13.674  13.674 (0.878)    41    882802                    0.00-  45.58    16.19
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.729  13.729 (0.881)    98   1250633 40.0000   37.848  80.00- 120.00   100.00
 13.729  13.729 (0.881)    61   2410285                  155.28- 215.28   192.73
 13.729  13.729 (0.881)    96   1896284                  126.18- 186.18   151.63
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.003  14.003 (0.899)    57   2161417 40.0000   38.012  80.00- 120.00   100.00
 14.003  14.003 (0.899)    43   1167365                   21.48-  81.48    54.01
 14.003  14.003 (0.899)    86    449944                    0.00-  51.51    20.82
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 14.360  14.360 (0.922)    45   4028468 40.0000   38.842  80.00- 120.00   100.00
 14.360  14.360 (0.922)    87   1633777                    9.88-  69.88    40.56
 14.360  14.360 (0.922)    59    547515                    0.00-  42.70    13.59
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.415  14.415 (0.925)    63   3159565 40.0000   36.536  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
82 1,1-Dichloroethane (continued)							
14.415	14.415 (0.925)	65	1015877			1.78- 61.78	32.15
86 Vinyl Acetate					CAS #: 108-05-4		
14.442	14.442 (0.927)	86	516090	40.0000	38.361	80.00- 120.00	100.00
14.442	14.442 (0.927)	42	387316			44.70- 104.70	75.05
14.442	14.442 (0.927)	43	4136557			757.33- 817.33	801.52
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
14.859	14.859 (0.954)	59	5270533	40.0000	39.813	80.00- 120.00	100.00
14.859	14.859 (0.954)	87	2604070			19.74- 79.74	49.41
14.859	14.859 (0.954)	41	818740			0.00- 46.34	15.53
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.240	15.240 (0.978)	98	1347909	40.0000	37.292	80.00- 120.00	100.00
15.240	15.240 (0.978)	61	2347413			145.90- 205.90	174.15
15.240	15.240 (0.978)	96	2060982			125.53- 185.53	152.90
92 2-Butanone					CAS #: 78-93-3		
15.221	15.221 (0.977)	72	905755	40.0000	39.528	80.00- 120.00	100.00
15.221	15.221 (0.977)	43	2643825			262.26- 322.26	291.89
15.221	15.221 (0.977)	57	257586			0.00- 55.71	28.44
99 Tetrahydrofuran					CAS #: 109-99-9		
15.580	15.580 (1.000)	42	1732019	40.0000	41.189	80.00- 120.00	100.00(A)
15.580	15.580 (1.000)	71	1007250			26.85- 86.85	58.15
15.580	15.580 (1.000)	72	1080455			32.22- 92.22	62.38
* 98 Bromochloromethane					CAS #: 74-97-5		
15.580	15.580 (1.000)	130	171892	5.00000		80.00- 120.00	100.00
15.580	15.580 (1.000)	128	135575			52.25- 112.25	78.87
15.641	15.641 (1.000)	49	423395			89.81- 149.81	246.31
100 Chloroform					CAS #: 67-66-3		
15.641	15.641 (1.004)	83	4440244	40.0000	35.778	80.00- 120.00	100.00
15.641	15.641 (1.004)	85	2883671			33.97- 93.97	64.94
102 Cyclohexane					CAS #: 110-82-7		
15.888	15.888 (1.020)	84	2533848	40.0000	39.343	80.00- 120.00	100.00
15.888	15.888 (1.020)	56	2175304			58.69- 118.69	85.85
15.888	15.888 (1.020)	41	1154767			18.98- 78.98	45.57
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.888	15.888 (1.020)	97	5085363	40.0000	35.227	80.00- 120.00	100.00
15.888	15.888 (1.020)	99	3315295			34.21- 94.21	65.19

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 16.073  16.073 (1.032)   119   5420654 40.0000   38.341  80.00- 120.00   100.00
 16.073  16.073 (1.032)   117   5603565                   74.09- 134.09   103.37
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 16.313  16.313 (1.047)    56   2487597 40.0000   34.548  80.00- 120.00   100.00
 16.313  16.313 (1.047)    57   8537233                  306.64- 366.64   343.19
 16.313  16.313 (1.047)    41   2399438                   64.14- 124.14    96.46
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 16.409  16.409 (0.969)    78   5322656 40.0000   33.574  80.00- 120.00   100.00
 16.409  16.409 (0.969)    77   1264691                    0.00-  53.97    23.76
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 16.409  16.409 (1.053)    65    239923 5.00000    4.862  80.00- 120.00   100.00
 16.409  16.409 (1.053)    67    140715                   21.16-  81.16    58.65
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 16.433  16.433 (0.970)    87   1549433 40.0000   38.065  80.00- 120.00   100.00
 16.433  16.433 (0.970)    73   5825136                  338.86- 398.86   375.95
 16.433  16.433 (0.970)    55   1119795                   44.52- 104.52    72.27
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.505  16.505 (0.974)    62   2898522 40.0000   35.078  80.00- 120.00   100.00
 16.505  16.505 (0.974)    64    973360                    1.03-  61.03    33.58
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.554  16.554 (0.977)    57   1404053 40.0000   37.364  80.00- 120.00   100.00
 16.554  16.554 (0.977)   100    787152                   28.67-  88.67    56.06
 16.554  16.554 (0.977)    43   2182187                  128.92- 188.92   155.42
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.939  16.939 (1.000)   114    661560 5.00000           80.00- 120.00   100.00
 16.939  16.939 (1.000)    88    104690                    0.00-  45.20    15.82
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.349  17.349 (1.024)   130   3039931 40.0000   36.969  80.00- 120.00   100.00
 17.349  17.349 (1.024)    95   2720928                   63.99- 123.99    89.51
 17.349  17.349 (1.024)    97   1804422                   29.21-  89.21    59.36
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.590  17.590 (1.038)    83   3424441 40.0000   38.798  80.00- 120.00   100.00
 17.590  17.590 (1.038)    55   2160959                   31.29-  91.29    63.10
 17.590  17.590 (1.038)    56    649455                    0.00-  48.78    18.97
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.806  17.806 (1.051)    63   1842737 40.0000   36.101  80.00- 120.00   100.00
```

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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 17.806  17.806 (1.051)    62   1197979                    34.19-  94.19    65.01
 17.806  17.806 (1.051)    41   1029606                    27.38-  87.38    55.87
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.927  17.927 (1.058)    88   1403733 40.0000   36.720  80.00- 120.00   100.00
 17.927  17.927 (1.058)    58    793286                    25.03-  85.03    56.51
 17.927  17.927 (1.058)    57    271870                     0.00-  50.67    19.37
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 18.240  18.240 (1.077)    83   4928740 40.0000   37.464  80.00- 120.00   100.00
 18.240  18.240 (1.077)    85   3156706                    35.15-  95.15    64.05
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 19.063  19.063 (1.125)    75   3760015 40.0000   38.353  80.00- 120.00   100.00
 19.086  19.086 (1.127)    77   1197455                     0.45-  60.45    31.85
 19.063  19.063 (1.125)    39   1561472                    13.69-  73.69    41.53
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 19.265  19.265 (1.137)    43   3171953 40.0000   38.772  80.00- 120.00   100.00
 19.265  19.265 (1.137)    58   1398111                    15.64-  75.64    44.08
 19.265  19.265 (1.137)    85    822493                     0.00-  56.71    25.93
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.556  19.556 (1.155)    98    658694 5.00000    5.070  80.00- 120.00   100.00
 19.556  19.556 (1.155)    70     68390                     0.00-  40.11    10.38
 19.556  19.556 (1.155)   100    441805                    37.58-  97.58    67.07
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.713  19.713 (1.164)    91   6864830 40.0000   36.354  80.00- 120.00   100.00
 19.713  19.713 (1.164)    92   4082893                    28.92-  88.92    59.48
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 20.276  20.276 (0.907)    75   3589089 40.0000   37.805  80.00- 120.00   100.00
 20.276  20.276 (0.907)    77   1127670                     0.55-  60.55    31.42
 20.276  20.276 (0.907)    39   1354089                     8.25-  68.25    37.73
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.688  20.688 (0.925)    97   2453341 40.0000   33.196  80.00- 120.00   100.00
 20.688  20.688 (0.925)    99   1559156                    32.91-  92.91    63.55
 20.688  20.688 (0.925)    83   2007206                    47.93- 107.93    81.82
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.853  20.853 (0.932)   166   4090136 40.0000   35.917  80.00- 120.00   100.00
 20.853  20.853 (0.932)   129   2965927                    42.31- 102.31    72.51
 20.853  20.853 (0.932)   131   2914967                    40.11- 100.11    71.27
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                    CAS #: 591-78-6
 21.018  21.018 (0.940)    58   1915270 40.0000   40.270  80.00- 120.00   100.00(A)
 21.018  21.018 (0.940)    43   3186870                  140.44- 200.44   166.39
 21.018  21.018 (0.940)   100    538711                    0.00-  59.62    28.13
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 21.430  21.430 (0.958)   129   5498473 40.0000   36.649  80.00- 120.00   100.00
 21.430  21.430 (0.958)   127   4243810                   46.82- 106.82    77.18
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                       CAS #: 106-93-4
 21.677  21.677 (0.969)   107   4146365 40.0000   36.560  80.00- 120.00   100.00
 21.677  21.677 (0.969)   109   3948816                   65.45- 125.45    95.24
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                              CAS #: 3114-55-4
 22.366  22.366 (1.000)   117    613145 5.00000           80.00- 120.00   100.00
 22.366  22.366 (1.000)    82    319825                   20.64-  80.64    52.16
-------------------------------------------------------------------------------
  165 Chlorobenzene                                 CAS #: 108-90-7
 22.407  22.407 (1.002)   112   5991758 40.0000   36.119  80.00- 120.00   100.00
 22.407  22.407 (1.002)   114   1926107                    2.42-  62.42    32.15
 22.407  22.407 (1.002)    77   3233167                   23.54-  83.54    53.96
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                 CAS #: 100-41-4
 22.490  22.490 (1.006)   106   2968967 40.0000   36.748  80.00- 120.00   100.00
 22.490  22.490 (1.006)    91   9222100                  282.51- 342.51   310.62
-------------------------------------------------------------------------------
  169 m,p-Xylene                                    CAS #: 108-38-3
 22.656  22.656 (1.013)   106   3568298 40.0000   38.019  80.00- 120.00   100.00
 22.656  22.656 (1.013)    91   7176993                  166.46- 226.46   201.13
-------------------------------------------------------------------------------
  171 o-Xylene                                      CAS #: 95-47-6
 23.257  23.257 (1.040)   106   3352270 40.0000   38.940  80.00- 120.00   100.00
 23.257  23.257 (1.040)    91   7015998                  184.01- 244.01   209.29
-------------------------------------------------------------------------------
  172 Styrene                                       CAS #: 100-42-5
 23.298  23.298 (1.042)   104   5688203 40.0000   39.048  80.00- 120.00   100.00
 23.278  23.278 (1.041)    78   2842935                   20.27-  80.27    49.98
-------------------------------------------------------------------------------
  174 Bromoform                                     CAS #: 75-25-2
 23.639  23.639 (1.057)   173   5716979 40.0000   38.461  80.00- 120.00   100.00
 23.639  23.639 (1.057)   171   2984813                   20.88-  80.88    52.21
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
 23.728  23.728 (1.061)   105  10843336 40.0000   37.047  80.00- 120.00   100.00
 23.728  23.728 (1.061)   120   2997563                    0.00-  57.47    27.64
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
24.020	24.020 (1.074)	174	416867	5.00000	4.955	80.00- 120.00	100.00
24.020	24.020 (1.074)	95	452332			77.42- 137.42	108.51
24.020	24.020 (1.074)	176	403389			65.38- 125.38	96.77
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.199	24.199 (1.082)	83	4899652	40.0000	35.945	80.00- 120.00	100.00
24.199	24.199 (1.082)	85	3194971			35.73- 95.73	65.21
182 Propylbenzene					CAS #: 103-65-1		
24.267	24.267 (1.085)	91	11506199	40.0000	37.324	80.00- 120.00	100.00
24.267	24.267 (1.085)	120	2895821			0.00- 55.24	25.17
188 4-Ethyltoluene					CAS #: 622-96-8		
24.401	24.401 (1.091)	105	9603125	40.0000	36.752	80.00- 120.00	100.00
24.401	24.401 (1.091)	120	2967050			1.08- 61.08	30.90
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.469	24.469 (1.094)	105	7567927	40.0000	37.296	80.00- 120.00	100.00
24.469	24.469 (1.094)	120	3687287			18.44- 78.44	48.72
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.917	24.917 (1.114)	105	6284398	40.0000	35.747	80.00- 120.00	100.00
24.917	24.917 (1.114)	120	2950078			16.20- 76.20	46.94
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.321	25.321 (1.132)	146	5746579	40.0000	34.615	80.00- 120.00	100.00
25.321	25.321 (1.132)	148	3746438			35.51- 95.51	65.19
25.321	25.321 (1.132)	111	2228537			9.35- 69.35	38.78
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.433	25.433 (1.137)	146	5554738	40.0000	35.680	80.00- 120.00	100.00
25.433	25.433 (1.137)	148	3585224			32.61- 92.61	64.54
25.433	25.433 (1.137)	111	2098530			6.90- 66.90	37.78
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.567	25.567 (1.143)	91	7764625	40.0000	39.638	80.00- 120.00	100.00
25.567	25.567 (1.143)	126	1774279			0.00- 51.82	22.85
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.859	25.859 (1.156)	146	5092681	40.0000	35.761	80.00- 120.00	100.00
25.859	25.859 (1.156)	148	3274434			33.69- 93.69	64.30
25.859	25.859 (1.156)	111	2050643			8.96- 68.96	40.27
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.607	27.607 (1.234)	180	2536594	40.0000	39.282	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.607	27.607 (1.234)	182	2425641			66.05- 126.05	95.63
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.697	27.697 (1.238)	225	3486370	40.0000	39.708	80.00- 120.00	100.00
27.697	27.697 (1.238)	223	2253285			33.78- 93.78	64.63
228 Naphthalene					CAS #: 91-20-3		
27.921	27.921 (1.248)	128	361692	4.00000	3.836	80.00- 120.00	100.00
27.921	27.921 (1.248)	127	44834			0.00- 46.39	12.40

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031713.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m
Misc Info: 40ppbv (50ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 16
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	164946	98968	230924	171892	4.21
123 1,4-Difluorobenze	626935	376161	877709	661560	5.52
163 Chlorobenzene-d5	567678	340607	794749	613145	8.01

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.58	15.25	15.91	15.58	0.00
123 1,4-Difluorobenze	16.94	16.61	17.27	16.94	0.00
163 Chlorobenzene-d5	22.37	22.04	22.70	22.37	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031713.d

Date : 17-MAR-2016 19:49

Client ID: Level 16

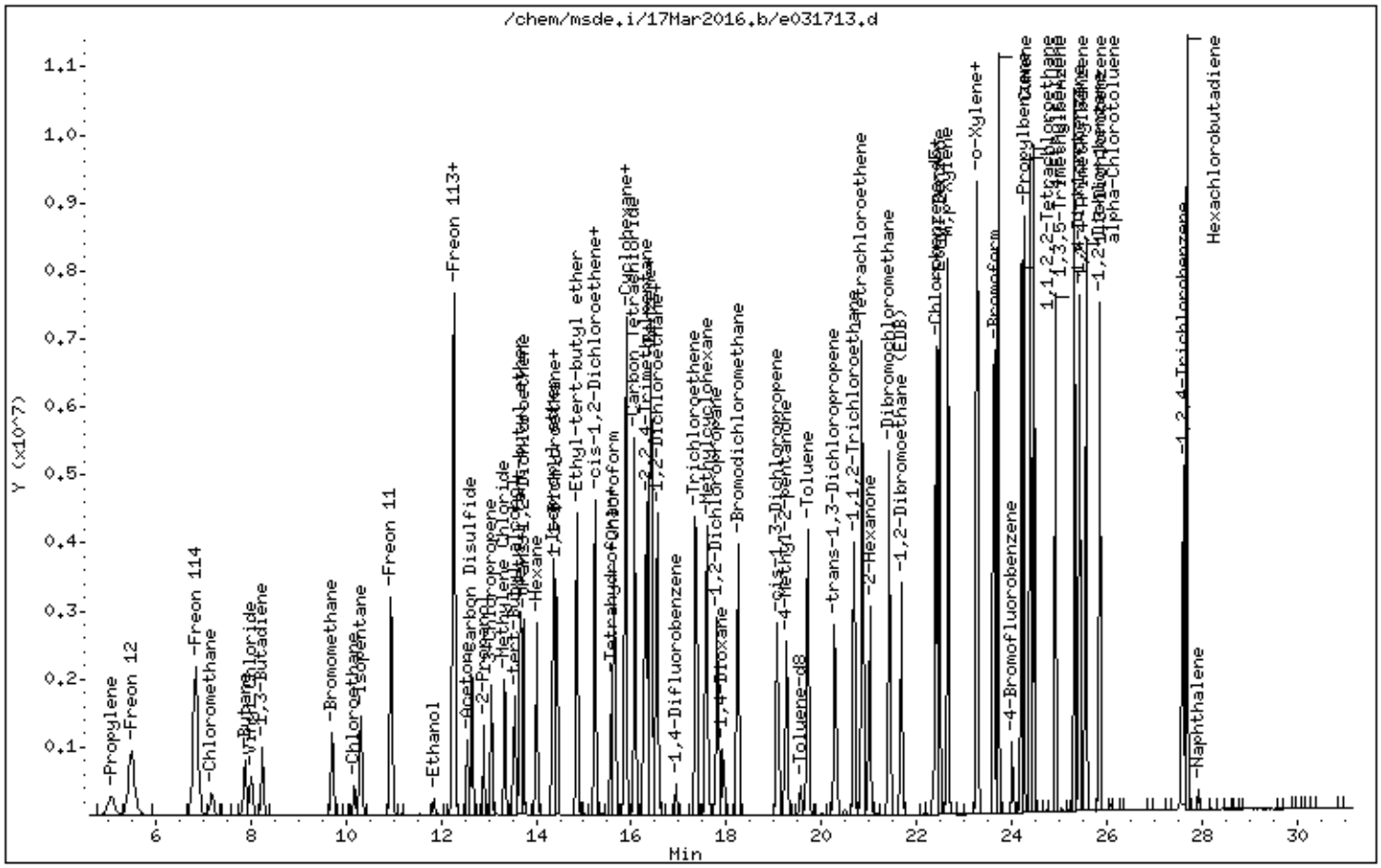
Instrument: msde.i

Sample Info: 200mL# 2759-223

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Report Date : 27-Oct-2015 08:30

0.1 ppbv LL MDL
#2757-22 (1.0 ppbv); 25 mL LOAD.
INCLUDES SPIKED FB.2 1,2,4-TCB AND HEXACHLOROBUTADIENE.

0.5 ppbv LL MDL
#2759-41 (1.0 ppbv); 125 mL LOAD.
INCLUDES 0.05 ppbv NAPHTHALENE MDL.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	e101908	e101909	e101910	e101911	e101912	e101913	e101914	e101915
INJ.DATE:	19-OCT-2015	19-OCT-2015	19-OCT-2015	19-OCT-2015	19-OCT-2015	19-OCT-2015	19-OCT-2015	19-OCT-2015
INJ.TIME:	14:19	15:05	16:00	16:45	17:47	18:47	19:31	20:33

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL (PPBV)	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	120.62	131.35	111.59	122.44	122.60	127.34	116.79	126.66	122.42	6.26	18.76	100
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	110.10	114.51	108.45	100.40	97.29	116.20	85.52	109.09	105.19	10.21	30.62	100
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

MDL VERIFICATION:
0.1 ppbv: #2757-22 (1.0 ppbv); 20 mL LOAD (0.05 ppbv).
0.5 ppbv: #2759-41 (1.0 ppbv); 50 mL LOAD (0.2 ppbv).

Reviewer 1 [signature] Date: 10/27/15
Reviewer 2 Date:

$\bar{x} = 1.02$
$2\bar{x} = 0.04$
$3\bar{x} = 0.06$
$4\bar{x} = 0.08$

ALL 0.1 ppbv COMPOUNDS: THE RATIO OF THE MEAN RECOVERED CONCENTRATION AND THE MDL VALUE IS BETWEEN 1 AND 20.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e15l1016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Rs (ppbv)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	99.12	98.56	115.58	107.20	98.76	106.62	84.89	107.34	102.26	9.13	27.38	100
26 1,3-Butadiene	134.12	140.59	123.19	122.25	127.07	122.49	115.54	134.89	127.52	8.32	24.93	100
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	99.79	104.44	106.48	99.27	104.47	104.01	89.35	107.26	101.88	5.81	17.41	100
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e15l1016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
43 1,2-Dichloro-1-fluorge	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	104.55	102.76	99.94	116.12	94.86	104.42	96.34	94.81	101.72	7.08	21.22	100
50 1,1-Dichloroethene	144.60	102.46	132.31	118.67	129.63	117.07	115.77	127.84	123.55	12.80	38.37	100
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
57 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
58 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e15l1016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	137.24	127.93	127.15	145.53	127.25	132.26	109.88	106.67	126.74	13.00	38.97	200
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
72 Methyl tert-butyl ethe	105.70	106.56	102.02	117.70	107.79	87.50	101.08	111.49	104.98	8.82	26.45	100
73 trans-1,2-Dichloroethe	127.71	126.04	110.78	110.98	106.53	109.15	88.58	102.54	110.29	12.53	37.56	100
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	120.17	108.41	92.49	143.84	93.35	112.32	115.64	88.63	109.36	18.23	54.64	100
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	98.62	99.94	94.88	105.61	91.97	109.34	96.34	93.30	98.75	6.06	18.17	100
83 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e15l1016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	125.61	115.18	118.58	104.22	107.90	115.95	103.82	110.55	112.73	7.52	22.56	100
92 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
100 Chloroform	101.87	106.92	123.61	105.85	131.99	108.08	132.06	98.94	113.67	13.45	40.33	100
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	159.39	120.62	122.71	132.67	122.67	117.64	95.25	101.20	121.52	19.57	58.66	100
103 1,1,1-Trichloroethane	125.29	106.22	126.74	117.46	119.96	131.73	109.24	108.82	118.18	9.42	28.25	100
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	108.32	118.31	119.88	110.07	122.83	109.85	118.43	110.41	114.76	5.66	16.96	100
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e15l1016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
\$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	121.28	119.28	122.19	122.47	129.34	117.23	123.00	122.47	122.16	3.50	10.51	100
\$ 117 1,2-Dichloroethane-d4	5195.46	5331.77	5310.45	5311.83	5289.69	5575.68	5281.57	5422.93	5339.92	114.01	341.81	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
120 1,2-Dichloroethane	111.85	122.89	115.97	119.07	100.97	115.19	111.91	100.88	112.34	7.92	23.74	100
121 Heptane	128.15	135.62	125.92	108.74	139.51	106.95	96.68	127.79	121.37	15.20	45.56	100
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	105.31	97.47	116.24	115.78	102.31	98.46	100.81	102.63	104.88	7.29	21.87	100
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	111.56	102.04	105.91	98.05	92.00	98.30	87.37	93.46	98.59	7.83	23.48	100
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e15l1016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
136 1,4-Dioxane	90.67	130.32	99.98	113.53	104.06	87.34	91.33	82.40	97.45	11.25	33.74	100
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
138 Bromodichloromethane	111.39	120.02	107.73	102.67	105.63	104.43	102.32	101.63	106.98	6.18	18.52	100
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
144 cis-1,3-Dichloropropen	96.47	99.24	102.03	98.85	97.68	99.74	89.56	88.81	96.55	4.82	14.46	100
145 4-Methyl-2-pentanone	119.42	98.77	86.21	104.16	108.90	91.72	109.07	102.01	102.53	10.48	31.42	100
$ 146 Toluene-d8	4908.91	4772.67	4791.14	4960.86	4824.96	4851.56	4770.70	4806.63	4835.93	68.05	204.03	
147 Toluene	108.11	121.37	104.68	110.57	110.70	104.99	106.00	99.58	108.25	6.40	19.20	100
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
150 trans-1,3-Dichloroprop	110.96	100.84	102.06	111.05	100.57	106.23	96.86	116.76	105.67	6.76	20.28	100
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 1,1,2-Trichloroethane	127.67	125.45	124.55	110.03	111.73	103.98	120.91	100.52	115.61	10.42	31.23	100
156 Tetrachloroethene	105.92	105.41	108.52	110.19	101.12	109.00	105.37	93.97	104.94	5.25	15.75	100
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
158 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
160 Dibromochloromethane	98.32	99.71	99.19	102.13	95.86	92.49	98.97	89.73	97.05	4.12	12.34	100
161 1,2-Dibromoethane (EDB	101.29	98.94	93.86	96.80	92.90	108.30	103.66	92.89	98.58	5.58	16.72	100 0.01672
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
165 Chlorobenzene	115.70	119.95	106.63	111.56	100.53	114.05	108.21	111.30	110.99	5.96	17.86	100
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
167 Ethyl Benzene	104.94	115.04	96.48	117.86	111.81	125.30	114.95	106.54	111.62	8.85	26.54	100
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
169 m,p-Xylene	109.46	116.45	113.95	98.79	98.52	102.74	108.04	103.78	106.47	6.66	19.96	100
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
171 o-Xylene	106.45	107.35	103.16	106.09	92.61	89.27	105.58	111.20	102.71	7.65	22.95	100
172 Styrene	101.74	99.19	116.49	105.28	107.19	105.03	104.51	97.15	104.57	5.87	17.61	100
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
174 Bromoform	102.14	99.22	101.01	107.36	94.32	98.87	101.66	94.64	99.90	4.23	12.69	100
175 Cumene	102.07	101.62	104.52	105.01	96.46	97.72	99.92	102.18	101.19	3.02	9.04	100
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 177 4-Bromofluorobenzene	5315.02	5193.57	5234.30	5168.96	5029.84	5161.45	5204.44	5213.90	5190.18	80.44	241.16	
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
181 1,1,2,2-Tetrachloroeth	114.64	122.40	118.15	115.42	109.15	116.06	109.15	117.79	115.34	4.50	13.48	100
182 Propylbenzene	105.54	109.31	109.77	115.43	98.23	112.23	107.71	108.27	108.31	5.06	15.16	100

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
188 4-Ethyltoluene	107.94	108.43	104.25	104.77	109.50	107.43	96.78	106.24	105.67	4.01	12.03	180
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
190 1,3,5-Trimethylbenzene	99.67	103.95	108.32	94.72	102.39	102.63	94.19	104.88	101.35	4.91	14.71	160
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
196 1,2,4-Trimethylbenzene	108.09	102.84	106.13	92.38	94.03	94.80	88.06	104.90	98.91	7.45	22.34	100
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
208 1,3-Dichlorobenzene	101.30	108.50	108.90	108.40	100.24	106.17	110.68	102.40	105.82	3.97	11.89	100
209 1,4-Dichlorobenzene	116.25	111.65	101.89	103.64	99.59	103.00	103.76	100.86	105.08	5.78	17.34	100
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
212 alpha-Chlorotoluene	105.03	99.31	104.91	100.87	95.89	102.36	95.81	96.50	100.08	3.83	11.49	100
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
214 1,2-Dichlorobenzene	113.99	108.31	105.64	113.62	101.10	101.58	112.82	106.57	107.95	5.17	15.50	100
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
226 1,2,4-Trichlorobenzene	137.68	111.62	121.78	111.64	100.46	102.99	105.63	94.37	110.77	13.67	40.99	500
227 Hexachlorobutadiene	120.54	96.92	121.52	110.45	93.00	112.72	105.66	119.31	110.01	10.80	32.39	500
228 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
M 237 1,2-Dichloroethene (To	253.31	241.22	229.36	215.20	214.43	225.09	192.40	213.09	223.01	18.76	56.25	N/A
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
M 239 Total Xylene	215.91	223.81	217.11	204.88	191.13	192.01	213.61	214.98	209.18	12.04	36.09	N/A
M 240 3 and 4-Ethyltoluene	107.94	108.43	104.25	104.77	109.50	107.43	96.78	106.24	105.67	4.01	12.03	N/A
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
245 TPH reference MineralS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/19Oct2015.b/e15l1016a.m
Batch File: /chem/msde.i/19Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Report Date : 27-Oct-2015 11:05

0.5 ppbv LL MDL

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	e102308	e102309	e102310	e102311	e102312	e102313	e102314	e102315
INJ.DATE:	23-OCT-2015	23-OCT-2015	23-OCT-2015	23-OCT-2015	23-OCT-2015	23-OCT-2015	23-OCT-2015	23-OCT-2015
INJ.TIME:	13:41	14:23	15:05	15:53	16:39	17:47	18:43	19:31

RL (ppbv)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	490.35	632.89	598.02	536.37	608.40	454.87	633.76	596.11	568.85	67.28	201.69	500
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	498.27	465.64	448.84	444.02	466.47	460.16	457.87	433.76	459.38	19.30	57.87	500

Reviewer 1 [signature] Date: 10/27/15
Reviewer 2 Date:

$\bar{x}$ = 0.086

2σ = 0.17

All 0.5 ppbv compounds: The ratio of the mean recovered concentration and the MDL value is between 1 and 10.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e15l1016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	493.31	492.66	421.00	454.59	460.88	492.90	401.58	426.73	455.45	36.18	108.48	500
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
26 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	510.40	515.08	529.76	470.84	509.80	550.26	559.60	500.71	518.31	28.20	84.54	500
30 Chloroethane	423.17	488.81	458.92	452.08	444.95	442.11	436.50	414.06	445.07	22.92	68.72	500
31 Isopentane	530.27	528.78	502.73	537.31	449.12	481.75	461.72	471.94	495.45	34.13	102.32	500
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	515.92	465.55	368.04	426.82	469.33	494.30	444.64	538.52	465.39	53.65	160.84	500
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
50 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	545.36	534.60	492.73	440.81	470.20	556.04	484.10	494.04	502.23	39.80	119.32	500
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	616.48	523.53	495.04	497.76	485.88	579.38	535.57	510.71	530.54	45.62	136.77	500
57 2-Propanol	465.19	495.71	471.95	504.84	431.82	448.32	445.52	418.64	460.25	30.01	89.98	500
58 3-Chloropropene	413.63	413.93	384.24	382.75	369.09	375.51	393.80	375.70	388.58	17.18	51.51	500
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	471.26	498.06	490.76	496.66	452.53	463.19	435.39	465.73	471.70	22.28	66.81	500
72 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
73 trans-1,2-Dichloroethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
83 Isopropyl ether	471.91	476.18	437.71	452.66	427.51	433.36	436.16	414.77	443.78	21.48	64.40	500
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	495.75	385.53	391.50	398.34	422.76	464.00	387.74	424.75	421.30	40.00	119.93	500

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

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Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

	Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
	87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	88 Ethyl-tert-butyl ether	444.29	464.60	436.07	438.33	430.29	441.52	425.90	432.54	439.19	11.88	35.61	500
	89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	91 cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	92 2-Butanone	470.61	462.53	428.02	447.32	422.43	450.31	447.77	449.58	447.32	15.95	47.80	500
	93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
*	98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
	99 Tetrahydrofuran	445.53	436.19	422.34	482.39	389.18	389.70	472.64	501.19	442.40	41.46	124.28	500
	100 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	102 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	103 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	106 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	506.51	526.70	477.64	472.84	460.46	496.67	470.50	479.32	486.33	21.94	65.78	500
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 117 1,2-Dichloroethane-d4	5769.96	5916.36	5592.92	5730.06	5569.09	5719.88	5636.47	5761.68	5712.05	112.31	336.69	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	500.40	493.36	499.92	475.18	483.02	478.61	466.27	499.83	487.08	13.13	39.37	500
120 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
121 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	484.89	471.00	430.58	482.01	469.11	469.79	424.18	460.60	461.52	22.47	67.36	500
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 146 Toluene-d8	4783.20	4786.63	4878.80	4829.41	4832.44	4850.84	4766.22	4739.42	4808.37	46.94	140.72
147 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 2-Hexanone	459.56	410.91	407.60	424.62	433.29	407.26	400.07	431.61	421.86	19.51	58.51

500

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1,2-Dibromoethane (EDB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 177 4-Bromofluorobenzene	5256.23	5016.98	5072.15	5244.81	5197.75	5100.79	5188.68	5155.51	5154.11	84.62	253.69
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 Naphthalene	51.57	47.13	35.66	45.98	40.15	33.26	37.90	41.57	41.65	6.21	18.61
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e15l1016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 239 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TPH reference MineralS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/23Oct2015.b/e1511016a.m
Batch File: /chem/msde.i/23Oct2015.b
Inst ID: msde.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1606028A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060302**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/16 07:24 AM**

Compound	%Recovery
Freon 12	112
Freon 114	118
Chloromethane	104
Vinyl Chloride	109
1,3-Butadiene	110
Bromomethane	123
Chloroethane	127
Freon 11	116
Ethanol	117
Freon 113	106
1,1-Dichloroethene	108
Acetone	101
2-Propanol	101
Carbon Disulfide	117
3-Chloropropene	152 Q
Methylene Chloride	106
Methyl tert-butyl ether	107
trans-1,2-Dichloroethene	110
Hexane	108
1,1-Dichloroethane	110
2-Butanone (Methyl Ethyl Ketone)	108
cis-1,2-Dichloroethene	108
Tetrahydrofuran	90
Chloroform	107
1,1,1-Trichloroethane	107
Cyclohexane	110
Carbon Tetrachloride	91
2,2,4-Trimethylpentane	117
Benzene	107
1,2-Dichloroethane	108
Heptane	107
Trichloroethene	116
1,2-Dichloropropane	108
1,4-Dioxane	112
Bromodichloromethane	114
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	106
Toluene	110
trans-1,3-Dichloropropene	111
1,1,2-Trichloroethane	109
Tetrachloroethene	121
2-Hexanone	108

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Client Sample ID: CCV

Lab ID#: 1606028A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060302**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/16 07:24 AM**

Compound	**%Recovery**
Dibromochloromethane	118
1,2-Dibromoethane (EDB)	115
Chlorobenzene	114
Ethyl Benzene	115
m,p-Xylene	118
o-Xylene	116
Styrene	117
Bromoform	122
Cumene	108
1,1,2,2-Tetrachloroethane	92
Propylbenzene	100
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	92
1,2,4-Trimethylbenzene	86
1,3-Dichlorobenzene	93
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	103
1,2,4-Trichlorobenzene	107
Hexachlorobutadiene	134 Q
Naphthalene	71

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 03-JUN-2016 07:24
Lab File ID: e060302.d Init. Cal. Date(s): 17-MAR-2016 24-MAY-2016
Analysis Type: AIR Init. Cal. Times: 14:00 13:20
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/03Jun2016.b/e16l0317f.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	%D / %DRIFT	MAX	CURVE TYPE	
9 Propylene	0.64936	0.70706	0.010	-8.88659	40.00000		Averaged	
11 Freon 12	4.20541	4.70623	0.010	-11.90876	30.00000		Averaged	
15 Freon 114	3.07783	3.62821	0.010	-17.88233	30.00000		Averaged	
17 Chloromethane	0.79793	0.83052	0.010	-4.08468	30.00000		Averaged	
23 Butane	0.20668	0.24044	0.010	-16.33070	40.00000		Averaged	
25 Vinyl Chloride	1.12258	1.22065	0.010	-8.73617	30.00000		Averaged	
26 1,3-Butadiene	0.75503	0.82981	0.010	-9.90365	30.00000		Averaged	
29 Bromomethane	1.22495	1.50901	0.010	-23.18933	30.00000		Averaged	
30 Chloroethane	0.53036	0.67409	0.010	-27.10209	30.00000		Averaged	
31 Isopentane	0.76884	0.94861	0.010	-23.38215	40.00000		Averaged	
35 Freon 11	4.52830	5.24269	0.010	-15.77621	30.00000		Averaged	
42 Ethanol	0.32813	0.38386	0.010	-16.98466	30.00000		Averaged	
49 Freon 113	3.39349	3.58730	0.010	-5.71111	30.00000		Averaged	
50 1,1-Dichloroethene	0.94631	1.01834	0.010	-7.61151	30.00000		Averaged	
52 Acetone	0.55335	0.55772	0.010	-0.78920	30.00000		Averaged	
56 Carbon Disulfide	4.21745	4.93653	0.010	-17.05015	30.00000		Averaged	
57 2-Propanol	1.69275	1.71778	0.010	-1.47857	30.00000		Averaged	
58 3-Chloropropene	0.63044	0.96087	0.010	-52.41267	30.00000		Averaged	<-
66 Methylene Chloride	1.32596	1.41323	0.010	-6.58157	30.00000		Averaged	
71 tert-Butyl alcohol	3.09672	2.58942	0.010	16.38175	40.00000		Averaged	
72 Methyl tert-butyl ether	4.24002	4.55771	0.010	-7.49257	30.00000		Averaged	
73 trans-1,2-Dichloroethene	0.96116	1.06089	0.010	-10.37567	30.00000		Averaged	
78 Hexane	1.65400	1.78520	0.010	-7.93192	30.00000		Averaged	
83 Isopropyl ether	3.01685	3.14618	0.010	-4.28702	40.00000		Averaged	
82 1,1-Dichloroethane	2.51547	2.76029	0.010	-9.73276	30.00000		Averaged	
86 Vinyl Acetate	0.39134	0.42297	0.010	-8.08358	40.00000		Averaged	
88 Ethyl-tert-butyl ether	3.85071	4.13823	0.010	-7.46648	40.00000		Averaged	
91 cis-1,2-Dichloroethene	1.05139	1.14098	0.010	-8.52096	30.00000		Averaged	
92 2-Butanone	0.66654	0.71966	0.010	-7.97043	30.00000		Averaged	
99 Tetrahydrofuran	1.22317	1.09883	0.010	10.16562	30.00000		Averaged	
100 Chloroform	3.60995	3.87887	0.010	-7.44944	30.00000		Averaged	
102 Cyclohexane	1.87337	2.06734	0.010	-10.35414	30.00000		Averaged	
103 1,1,1-Trichloroethane	4.19916	4.50595	0.010	-7.30602	30.00000		Averaged	
106 Carbon Tetrachloride	4.11244	3.72656	0.010	9.38321	30.00000		Averaged	
113 2,2,4-Trimethylpentane	2.09445	2.44702	0.010	-16.83350	30.00000		Averaged	
116 Benzene	1.19817	1.27997	0.010	-6.82688	30.00000		Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 03-JUN-2016 07:24
Lab File ID: e060302.d Init. Cal. Date(s): 17-MAR-2016 24-MAY-2016
Analysis Type: AIR Init. Cal. Times: 14:00 13:20
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/03Jun2016.b/e16l0317f.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 117 1,2-Dichloroethane-d4	1.43539	1.33321	0.010	7.11919	30.00000	Averaged
119 tert-Amyl methyl ether	0.30765	0.33254	0.010	-8.09241	40.00000	Averaged
120 1,2-Dichloroethane	0.62451	0.67783	0.010	-8.53900	30.00000	Averaged
121 Heptane	0.28401	0.30330	0.010	-6.79117	30.00000	Averaged
125 Trichloroethene	0.62148	0.72135	0.010	-16.06899	30.00000	Averaged
127 Methylcyclohexane	0.66709	0.74102	0.010	-11.08284	40.00000	Averaged
132 1,2-Dichloropropane	0.38578	0.41856	0.010	-8.49678	30.00000	Averaged
136 1,4-Dioxane	0.28892	0.32386	0.010	-12.09493	30.00000	Averaged
138 Bromodichloromethane	0.99432	1.13013	0.010	-13.65855	30.00000	Averaged
144 cis-1,3-Dichloropropene	0.74095	0.80396	0.010	-8.50383	30.00000	Averaged
145 4-Methyl-2-pentanone	0.61831	0.65684	0.010	-6.23244	30.00000	Averaged
$ 146 Toluene-d8	0.98198	0.94918	0.010	3.33995	30.00000	Averaged
147 Toluene	1.42718	1.56314	0.010	-9.52609	30.00000	Averaged
150 trans-1,3-Dichloropropene	0.77418	0.85692	0.010	-10.68761	30.00000	Averaged
155 1,1,2-Trichloroethane	0.60267	0.65712	0.010	-9.03451	30.00000	Averaged
156 Tetrachloroethene	0.92863	1.12416	0.010	-21.05523	30.00000	Averaged
158 2-Hexanone	0.38784	0.41967	0.010	-8.20556	30.00000	Averaged
160 Dibromochloromethane	1.22343	1.44295	0.010	-17.94213	30.00000	Averaged
161 1,2-Dibromoethane (EDB)	0.92484	1.06798	0.010	-15.47677	30.00000	Averaged
165 Chlorobenzene	1.35279	1.53920	0.010	-13.77989	30.00000	Averaged
167 Ethyl Benzene	0.65884	0.75806	0.010	-15.05978	30.00000	Averaged
169 m,p-Xylene	0.76536	0.90753	0.010	-18.57531	30.00000	Averaged
171 o-Xylene	0.70201	0.81829	0.010	-16.56293	30.00000	Averaged
172 Styrene	1.18792	1.38857	0.010	-16.89084	30.00000	Averaged
174 Bromoform	1.21214	1.48412	0.010	-22.43801	30.00000	Averaged
175 Cumene	2.38682	2.57994	0.010	-8.09100	30.00000	Averaged
$ 177 4-Bromofluorobenzene	0.68607	0.68566	0.010	0.06016	30.00000	Averaged
181 1,1,2,2-Tetrachloroethane	1.11157	1.01943	0.010	8.28913	30.00000	Averaged
182 Propylbenzene	2.51395	2.51769	0.010	-0.14898	30.00000	Averaged
188 4-Ethyltoluene	2.13075	2.19308	0.010	-2.92511	30.00000	Averaged
190 1,3,5-Trimethylbenzene	1.65469	1.52925	0.010	7.58090	30.00000	Averaged
196 1,2,4-Trimethylbenzene	1.43361	1.23184	0.010	14.07433	30.00000	Averaged
208 1,3-Dichlorobenzene	1.35377	1.26139	0.010	6.82403	30.00000	Averaged
209 1,4-Dichlorobenzene	1.26953	1.22756	0.010	3.30628	30.00000	Averaged
212 alpha-Chlorotoluene	1.59742	1.57212	0.010	1.58346	30.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 03-JUN-2016 07:24
Lab File ID: e060302.d Init. Cal. Date(s): 17-MAR-2016 24-MAY-2016
Analysis Type: AIR Init. Cal. Times: 14:00 13:20
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/03Jun2016.b/e16l0317f.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
214 1,2-Dichlorobenzene	1.16130	1.19190	0.010	-2.63489	30.00000	Averaged	
226 1,2,4-Trichlorobenzene	0.52658	0.56455	0.010	-7.20983	30.00000	Averaged	
227 Hexachlorobutadiene	0.71599	0.95941	0.010	-33.99811	30.00000	Averaged	<-
228 Naphthalene	0.76893	0.54602	0.010	28.98920	40.00000	Averaged	

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/03Jun2016.b/e060302.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 03-JUN-2016 07:24
Operator : act Inst ID: msde.i
Smp Info : 50mL# 2789-51A
Misc Info : 5.0ppbv (25ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/03Jun2016.b/e16l0317f.m
Meth Date : 03-Jun-2016 10:38 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.763	4.763 (0.309)	41	81353	5.00000	5.444	80.00- 120.00	100.00
4.763	4.763 (0.309)	42	54204			38.73- 98.73	66.63
4.738	4.738 (0.308)	39	72046			55.81- 115.81	88.56
11 Freon 12					CAS #: 75-71-8		
5.196	5.196 (0.338)	85	541489	5.00000	5.595	80.00- 120.00	100.00
5.220	5.220 (0.339)	87	174265			2.00- 62.00	32.18
15 Freon 114					CAS #: 76-14-2		
6.594	6.594 (0.428)	135	417455	5.00000	5.894	80.00- 120.00	100.00
6.594	6.594 (0.428)	137	132123			1.31- 61.31	31.65
6.594	6.594 (0.428)	85	490077			93.88- 153.88	117.40
17 Chloromethane					CAS #: 74-87-3		
6.956	6.956 (0.452)	50	95558	5.00000	5.204	80.00- 120.00	100.00
6.932	6.932 (0.450)	52	29895			5.50- 65.50	31.28
23 Butane					CAS #: 106-97-8		
7.658	7.658 (0.498)	58	27664	5.00000	5.816	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.658	7.658 (0.498)	43	166647			588.57- 648.57	602.40
25 Vinyl Chloride					CAS #: 75-01-4		
7.779	7.779 (0.505)	62	140446	5.00000	5.437	80.00- 120.00	100.00
7.779	7.779 (0.505)	64	47775			3.14- 63.14	34.02
26 1,3-Butadiene					CAS #: 106-99-0		
8.022	8.022 (0.521)	54	95476	5.00000	5.495	80.00- 120.00	100.00
8.022	8.022 (0.521)	39	93700			65.21- 125.21	98.14
29 Bromomethane					CAS #: 74-83-9		
9.510	9.510 (0.618)	94	173624	5.00000	6.159	80.00- 120.00	100.00
9.510	9.510 (0.618)	96	161248			64.16- 124.16	92.87
30 Chloroethane					CAS #: 75-00-3		
9.986	9.986 (0.649)	64	77560	5.00000	6.355	80.00- 120.00	100.00
9.986	9.986 (0.649)	49	17128			0.00- 54.91	22.08
9.986	9.986 (0.649)	66	24642			3.62- 63.62	31.77
31 Isopentane					CAS #: 78-78-4		
10.119	10.119 (0.657)	57	109145	5.00000	6.169	80.00- 120.00	100.00
10.119	10.119 (0.657)	43	123016			82.69- 142.69	112.71
10.119	10.119 (0.657)	42	105950			68.65- 128.65	97.07
35 Freon 11					CAS #: 75-69-4		
10.747	10.747 (0.698)	101	603214	5.00000	5.789	80.00- 120.00	100.00
10.747	10.747 (0.698)	103	397807			37.17- 97.17	65.95
42 Ethanol					CAS #: 64-17-5		
11.681	11.681 (0.759)	45	44166	5.00000	5.849	80.00- 120.00	100.00
11.681	11.681 (0.759)	46	15940			6.61- 66.61	36.09
11.681	11.681 (0.759)	43	11858			0.00- 54.66	26.85
49 Freon 113					CAS #: 76-13-1		
12.081	12.081 (0.785)	151	412747	5.00000	5.286	80.00- 120.00	100.00
12.081	12.081 (0.785)	153	261100			33.64- 93.64	63.26
12.081	12.081 (0.785)	101	437506			80.40- 140.40	106.00
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.100	12.100 (0.786)	98	117168	5.00000	5.380	80.00- 120.00	100.00
12.100	12.100 (0.786)	61	260103			204.89- 264.89	221.99
12.100	12.100 (0.786)	96	181269			127.69- 187.69	154.71
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	64170	5.00000	5.039	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
12.366	12.366 (0.803)	43	212679			321.47- 381.47	331.43
56 Carbon Disulfide					CAS #: 75-15-0		
12.443	12.443 (0.808)	76	567987	5.00000	5.852	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
12.709	12.709 (0.826)	45	197644	5.00000	5.074	80.00- 120.00	100.00
12.709	12.709 (0.826)	43	48823			0.00- 54.09	24.70
12.709	12.709 (0.826)	59	9011			0.00- 34.43	4.56
58 3-Chloropropene					CAS #: 107-05-1		
12.881	12.881 (0.837)	76	110556	5.00000	7.621	80.00- 120.00	100.00
12.881	12.881 (0.837)	41	191736			163.76- 223.76	173.43
66 Methylene Chloride					CAS #: 75-09-2		
13.149	13.149 (0.854)	84	162603	5.00000	5.329	80.00- 120.00	100.00
13.149	13.149 (0.854)	49	137984			63.99- 123.99	84.86
13.149	13.149 (0.854)	51	44410			0.29- 60.29	27.31
71 tert-Butyl alcohol					CAS #: 75-65-0		
13.369	13.369 (0.869)	59	297934	5.00000	4.181	80.00- 120.00	100.00
13.369	13.369 (0.869)	41	58310			0.00- 51.66	19.57
13.369	13.369 (0.869)	57	34335			0.00- 43.50	11.52
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.478	13.478 (0.876)	73	524401	5.00000	5.375	80.00- 120.00	100.00
13.478	13.478 (0.876)	57	92215			0.00- 48.26	17.58
13.478	13.478 (0.876)	41	89108			0.00- 45.58	16.99
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.533	13.533 (0.879)	98	122064	5.00000	5.519	80.00- 120.00	100.00
13.533	13.533 (0.879)	61	233254			155.28- 215.28	191.09
13.533	13.533 (0.879)	96	201546			126.18- 186.18	165.12
78 Hexane					CAS #: 110-54-3		
13.835	13.835 (0.899)	57	205401	5.00000	5.396	80.00- 120.00	100.00
13.835	13.835 (0.899)	43	112189			21.48- 81.48	54.62
13.835	13.835 (0.899)	86	40802			0.00- 51.51	19.86
83 Isopropyl ether					CAS #: 108-20-3		
14.192	14.192 (0.922)	45	361993	5.00000	5.214	80.00- 120.00	100.00
14.192	14.192 (0.922)	87	151247			9.88- 69.88	41.78
14.192	14.192 (0.922)	59	50414			0.00- 42.70	13.93
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.247	14.247 (0.926)	63	317594	5.00000	5.487	80.00- 120.00	100.00

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 14.247  14.247 (0.926)    65    104896                     1.78-  61.78    33.03
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 14.247  14.247 (0.926)    86     48666 5.00000    5.404  80.00- 120.00   100.00
 14.247  14.247 (0.926)    42     32715                    44.70- 104.70    67.22
 14.247  14.247 (0.926)    43    350357                   757.33- 817.33   719.92
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 14.685  14.685 (0.954)    59    476136 5.00000    5.373  80.00- 120.00   100.00
 14.685  14.685 (0.954)    87    239004                    19.74-  79.74    50.20
 14.666  14.666 (0.953)    41     83716                     0.00-  46.34    17.58
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 15.047  15.047 (0.978)    98    131279 5.00000    5.426  80.00- 120.00   100.00
 15.047  15.047 (0.978)    61    229058                   145.90- 205.90   174.48
 15.047  15.047 (0.978)    96    207773                   125.53- 185.53   158.27
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72     82803 5.00000    5.398  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    235628                   262.26- 322.26   284.56
 15.047  15.047 (0.978)    57     23546                     0.00-  55.71    28.44
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.360  15.360 (0.998)    42    126429 5.00000    4.492  80.00- 120.00   100.00
 15.360  15.360 (0.998)    71     74002                    26.85-  86.85    58.53
 15.391  15.391 (1.000)    72     80778                    32.22-  92.22    63.89
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    115058 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128     93377                    52.25- 112.25    81.16
 15.391  15.391 (1.000)    49     87860                    89.81- 149.81    76.36
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 15.453  15.453 (1.004)    83    446295 5.00000    5.372  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    294764                    33.97-  93.97    66.05
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 15.669  15.669 (1.018)    84    237864 5.00000    5.518  80.00- 120.00   100.00
 15.669  15.669 (1.018)    56    203450                    58.69- 118.69    85.53
 15.669  15.669 (1.018)    41    114322                    18.98-  78.98    48.06
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 15.669  15.669 (1.018)    97    518446 5.00000    5.365  80.00- 120.00   100.00
 15.669  15.669 (1.018)    99    342227                    34.21-  94.21    66.01
-------------------------------------------------------------------------------
```

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                         CAS #: 56-23-5
 15.854  15.854 (1.030)   119    428771 5.00000    4.531  80.00- 120.00   100.00
 15.854  15.854 (1.030)   117    440224                   74.09- 134.09   102.67
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 16.111  16.111 (1.047)    56    281549 5.00000    5.842  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57    925164                  306.64- 366.64   328.60
 16.111  16.111 (1.047)    41    272717                   64.14- 124.14    96.86
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 16.183  16.183 (0.967)    78    551484 5.00000    5.341  80.00- 120.00   100.00
 16.183  16.183 (0.967)    77    125531                    0.00-  53.97    22.76
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    153396 5.00000    4.644  80.00- 120.00   100.00
 16.183  16.183 (1.051)    67     83246                   21.16-  81.16    54.27
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                       CAS #: 994-05-8
 16.231  16.231 (0.970)    87    143278 5.00000    5.405  80.00- 120.00   100.00
 16.207  16.207 (0.968)    73    545590                  338.86- 398.86   380.79
 16.207  16.207 (0.968)    55    109950                   44.52- 104.52    76.74
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 16.304  16.304 (0.974)    62    292048 5.00000    5.427  80.00- 120.00   100.00
 16.304  16.304 (0.974)    64    100154                    1.03-  61.03    34.29
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 16.352  16.352 (0.977)    57    130678 5.00000    5.340  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100     75346                   28.67-  88.67    57.66
 16.352  16.352 (0.977)    43    210095                  128.92- 188.92   160.77
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.737  16.737 (1.000)   114    430856 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     62360                    0.00-  45.20    14.47
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 17.123  17.123 (1.023)   130    310797 5.00000    5.803  80.00- 120.00   100.00
 17.123  17.123 (1.023)    95    277728                   63.99- 123.99    89.36
 17.123  17.123 (1.023)    97    179549                   29.21-  89.21    57.77
-------------------------------------------------------------------------------
  127 Methylcyclohexane                            CAS #: 108-87-2
 17.340  17.340 (1.036)    83    319272 5.00000    5.554  80.00- 120.00   100.00
 17.340  17.340 (1.036)    55    200209                   31.29-  91.29    62.71
 17.340  17.340 (1.036)    56     62105                    0.00-  48.78    19.45
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 17.556  17.556 (1.049)    63    180340 5.00000    5.425  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
132 1,2-Dichloropropane (continued)							
17.556	17.556 (1.049)	62	116619			34.19- 94.19	64.67
17.556	17.556 (1.049)	41	105883			27.38- 87.38	58.71
136 1,4-Dioxane					CAS #: 123-91-1		
17.701	17.701 (1.058)	88	139539	5.00000	5.605	80.00- 120.00	100.00
17.677	17.677 (1.056)	58	71831			25.03- 85.03	51.48
17.677	17.677 (1.056)	57	23893			0.00- 50.67	17.12
138 Bromodichloromethane					CAS #: 75-27-4		
17.990	17.990 (1.075)	83	486924	5.00000	5.683	80.00- 120.00	100.00
17.990	17.990 (1.075)	85	315708			35.15- 95.15	64.84
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
18.805	18.805 (1.124)	75	346392	5.00000	5.425	80.00- 120.00	100.00
18.805	18.805 (1.124)	77	112142			0.45- 60.45	32.37
18.805	18.805 (1.124)	39	141285			13.69- 73.69	40.79
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
18.984	18.984 (1.134)	43	283004	5.00000	5.312	80.00- 120.00	100.00
18.984	18.984 (1.134)	58	124076			15.64- 75.64	43.84
18.984	18.984 (1.134)	85	74428			0.00- 56.71	26.30
$ 146 Toluene-d8					CAS #: 2037-26-5		
19.275	19.275 (1.152)	98	408961	5.00000	4.833	80.00- 120.00	100.00
19.275	19.275 (1.152)	70	44062			0.00- 40.11	10.77
19.275	19.275 (1.152)	100	282430			37.58- 97.58	69.06
147 Toluene					CAS #: 108-88-3		
19.410	19.410 (1.160)	91	673487	5.00000	5.476	80.00- 120.00	100.00
19.410	19.410 (1.160)	92	401273			28.92- 88.92	59.58
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
19.998	19.998 (0.902)	75	331394	5.00000	5.534	80.00- 120.00	100.00
19.998	19.998 (0.902)	77	104835			0.55- 60.55	31.63
19.998	19.998 (0.902)	39	121935			8.25- 68.25	36.79
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.438	20.438 (0.922)	97	254123	5.00000	5.452	80.00- 120.00	100.00
20.438	20.438 (0.922)	99	160705			32.91- 92.91	63.24
20.438	20.438 (0.922)	83	198499			47.93- 107.93	78.11
156 Tetrachloroethene					CAS #: 127-18-4		
20.603	20.603 (0.929)	166	434741	5.00000	6.053	80.00- 120.00	100.00
20.603	20.603 (0.929)	129	300726			42.31- 102.31	69.17
20.603	20.603 (0.929)	131	295864			40.11- 100.11	68.06

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone					CAS #: 591-78-6		
20.795	20.795 (0.938)	58	162296	5.00000	5.410	80.00- 120.00	100.00
20.795	20.795 (0.938)	43	266745			140.44- 200.44	164.36
20.795	20.795 (0.938)	100	45664			0.00- 59.62	28.14
160 Dibromochloromethane					CAS #: 124-48-1		
21.207	21.207 (0.956)	129	558023	5.00000	5.897	80.00- 120.00	100.00
21.207	21.207 (0.956)	127	426234			46.82- 106.82	76.38
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.482	21.482 (0.969)	107	413014	5.00000	5.774	80.00- 120.00	100.00
21.482	21.482 (0.969)	109	393941			65.45- 125.45	95.38
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	386725	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	187068			20.64- 80.64	48.37
165 Chlorobenzene					CAS #: 108-90-7		
22.219	22.219 (1.002)	112	595247	5.00000	5.689	80.00- 120.00	100.00
22.219	22.219 (1.002)	114	190083			2.42- 62.42	31.93
22.219	22.219 (1.002)	77	314790			23.54- 83.54	52.88
167 Ethyl Benzene					CAS #: 100-41-4		
22.302	22.302 (1.006)	106	293162	5.00000	5.753	80.00- 120.00	100.00
22.302	22.302 (1.006)	91	867522			282.51- 342.51	295.92
169 m,p-Xylene					CAS #: 108-38-3		
22.467	22.467 (1.013)	106	350964	5.00000	5.929	80.00- 120.00	100.00
22.467	22.467 (1.013)	91	678902			166.46- 226.46	193.44
171 o-Xylene					CAS #: 95-47-6		
23.089	23.089 (1.041)	106	316452	5.00000	5.828	80.00- 120.00	100.00
23.089	23.089 (1.041)	91	650709			184.01- 244.01	205.63
172 Styrene					CAS #: 100-42-5		
23.110	23.110 (1.042)	104	536996	5.00000	5.844	80.00- 120.00	100.00
23.110	23.110 (1.042)	78	261106			20.27- 80.27	48.62
174 Bromoform					CAS #: 75-25-2		
23.452	23.452 (1.057)	173	573945	5.00000	6.122	80.00- 120.00	100.00
23.452	23.452 (1.057)	171	295579			20.88- 80.88	51.50
175 Cumene					CAS #: 98-82-8		
23.564	23.564 (1.063)	105	997728	5.00000	5.404	80.00- 120.00	100.00
23.564	23.564 (1.063)	120	284417			0.00- 57.47	28.51

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	265162	5.00000	4.997	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	264057			77.42- 137.42	99.58
23.856	23.856 (1.076)	176	247307			65.38- 125.38	93.27
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.035	24.035 (1.084)	83	394238	5.00000	4.586	80.00- 120.00	100.00
24.035	24.035 (1.084)	85	263549			35.73- 95.73	66.85
182 Propylbenzene					CAS #: 103-65-1		
24.102	24.102 (1.087)	91	973654	5.00000	5.007	80.00- 120.00	100.00
24.102	24.102 (1.087)	120	243794			0.00- 55.24	25.04
188 4-Ethyltoluene					CAS #: 622-96-8		
24.237	24.237 (1.093)	105	848117	5.00000	5.146	80.00- 120.00	100.00
24.237	24.237 (1.093)	120	245299			1.08- 61.08	28.92
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.304	24.304 (1.096)	105	591399	5.00000	4.621	80.00- 120.00	100.00
24.304	24.304 (1.096)	120	323806			18.44- 78.44	54.75
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	476384	5.00000	4.296	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	225712			16.20- 76.20	47.38
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.157	25.157 (1.134)	146	487812	5.00000	4.659	80.00- 120.00	100.00
25.157	25.157 (1.134)	148	321297			35.51- 95.51	65.86
25.157	25.157 (1.134)	111	181037			9.35- 69.35	37.11
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	474727	5.00000	4.835	80.00- 120.00	100.00
25.269	25.269 (1.139)	148	306053			32.61- 92.61	64.47
25.269	25.269 (1.139)	111	165049			6.90- 66.90	34.77
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	607979	5.00000	4.921	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	138186			0.00- 51.82	22.73
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.695	25.695 (1.159)	146	460936	5.00000	5.132	80.00- 120.00	100.00
25.695	25.695 (1.159)	148	292162			33.69- 93.69	63.38
25.695	25.695 (1.159)	111	173429			8.96- 68.96	37.63
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	218324	5.00000	5.360	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.398	27.398 (1.235)	182	215544			66.05- 126.05	98.73
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	371027	5.00000	6.700	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	231993			33.78- 93.78	62.53
228 Naphthalene					CAS #: 91-20-3		
27.735	27.735 (1.251)	128	21116	0.50000	0.3550	80.00- 120.00	100.00(a)
27.712	27.712 (1.250)	127	4743			0.00- 46.39	22.46

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060302.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: act
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 5.0ppbv (25ppbv)

Calibration Date: 03-JUN-2016
Calibration Time: 09:57
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	131780	79068	184492	115058	-12.69
123 1,4-Difluorobenze	452116	271270	632962	430856	-4.70
163 Chlorobenzene-d5	419694	251816	587572	386725	-7.86

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/03Jun2016.b/e060302.d

Date : 03-JUN-2016 07:24

Client ID: CCV

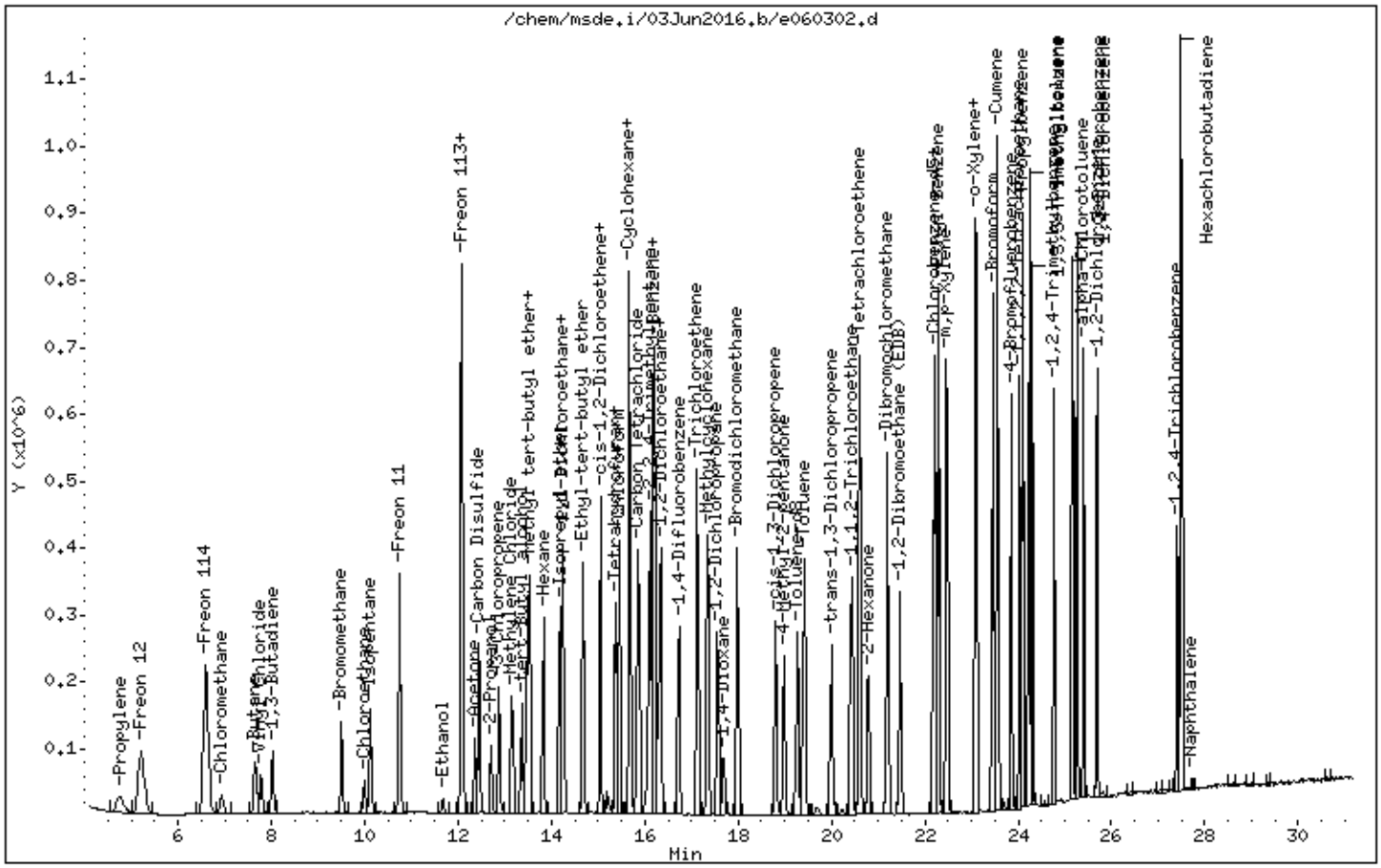
Instrument: msde.i

Sample Info: 50mL# 2789-51A

Operator: act

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: CCV

Lab ID#: 1606028A-09B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060802**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/16 08:32 AM**

Compound	%Recovery
Freon 12	103
Freon 114	106
Chloromethane	104
Vinyl Chloride	104
1,3-Butadiene	100
Bromomethane	115
Chloroethane	115
Freon 11	104
Ethanol	105
Freon 113	95
1,1-Dichloroethene	102
Acetone	98
2-Propanol	97
Carbon Disulfide	137 Q
3-Chloropropene	137 Q
Methylene Chloride	97
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	102
Hexane	99
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	110
cis-1,2-Dichloroethene	103
Tetrahydrofuran	81
Chloroform	99
1,1,1-Trichloroethane	97
Cyclohexane	110
Carbon Tetrachloride	78
2,2,4-Trimethylpentane	105
Benzene	101
1,2-Dichloroethane	98
Heptane	102
Trichloroethene	111
1,2-Dichloropropane	103
1,4-Dioxane	106
Bromodichloromethane	106
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	99
Toluene	104
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	103
Tetrachloroethene	115
2-Hexanone	101

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Client Sample ID: CCV

Lab ID#: 1606028A-09B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060802**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/16 08:32 AM**

Compound	%Recovery
Dibromochloromethane	111
1,2-Dibromoethane (EDB)	109
Chlorobenzene	109
Ethyl Benzene	106
m,p-Xylene	113
o-Xylene	110
Styrene	111
Bromoform	115
Cumene	102
1,1,2,2-Tetrachloroethane	88
Propylbenzene	93
4-Ethyltoluene	97
1,3,5-Trimethylbenzene	88
1,2,4-Trimethylbenzene	85
1,3-Dichlorobenzene	87
1,4-Dichlorobenzene	92
alpha-Chlorotoluene	93
1,2-Dichlorobenzene	96
1,2,4-Trichlorobenzene	106
Hexachlorobutadiene	122
Naphthalene	75

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 08-JUN-2016 08:32
Lab File ID: e060802.d Init. Cal. Date(s): 17-MAR-2016 24-MAY-2016
Analysis Type: AIR Init. Cal. Times: 14:00 13:20
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/08Jun2016.b/e16l0317f.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
9 Propylene	0.64936	0.68769	0.010	-5.90386	40.00000	Averaged	
11 Freon 12	4.20541	4.32079	0.010	-2.74352	30.00000	Averaged	
15 Freon 114	3.07783	3.28042	0.010	-6.58237	30.00000	Averaged	
17 Chloromethane	0.79793	0.83024	0.010	-4.05015	30.00000	Averaged	
23 Butane	0.20668	0.21548	0.010	-4.25731	40.00000	Averaged	
25 Vinyl Chloride	1.12258	1.16223	0.010	-3.53199	30.00000	Averaged	
26 1,3-Butadiene	0.75503	0.75323	0.010	0.23863	30.00000	Averaged	
29 Bromomethane	1.22495	1.40705	0.010	-14.86553	30.00000	Averaged	
30 Chloroethane	0.53036	0.60930	0.010	-14.88479	30.00000	Averaged	
31 Isopentane	0.76884	0.84816	0.010	-10.31732	40.00000	Averaged	
35 Freon 11	4.52830	4.71700	0.010	-4.16700	30.00000	Averaged	
42 Ethanol	0.32813	0.34451	0.010	-4.99423	30.00000	Averaged	
49 Freon 113	3.39349	3.21536	0.010	5.24919	30.00000	Averaged	
50 1,1-Dichloroethene	0.94631	0.96476	0.010	-1.94943	30.00000	Averaged	
52 Acetone	0.55335	0.53977	0.010	2.45506	30.00000	Averaged	
56 Carbon Disulfide	4.21745	5.77485	0.010	-36.92755	30.00000	Averaged	<-
57 2-Propanol	1.69275	1.64736	0.010	2.68113	30.00000	Averaged	
58 3-Chloropropene	0.63044	0.86520	0.010	-37.23726	30.00000	Averaged	<-
66 Methylene Chloride	1.32596	1.28260	0.010	3.26969	30.00000	Averaged	
71 tert-Butyl alcohol	3.09672	2.44678	0.010	20.98806	40.00000	Averaged	
72 Methyl tert-butyl ether	4.24002	4.25547	0.010	-0.36440	30.00000	Averaged	
73 trans-1,2-Dichloroethene	0.96116	0.98176	0.010	-2.14235	30.00000	Averaged	
78 Hexane	1.65400	1.63915	0.010	0.89777	30.00000	Averaged	
83 Isopropyl ether	3.01685	3.01414	0.010	0.08960	40.00000	Averaged	
82 1,1-Dichloroethane	2.51547	2.52813	0.010	-0.50311	30.00000	Averaged	
86 Vinyl Acetate	0.39134	0.40978	0.010	-4.71373	40.00000	Averaged	
88 Ethyl-tert-butyl ether	3.85071	3.85845	0.010	-0.20088	40.00000	Averaged	
91 cis-1,2-Dichloroethene	1.05139	1.08359	0.010	-3.06275	30.00000	Averaged	
92 2-Butanone	0.66654	0.73563	0.010	-10.36523	30.00000	Averaged	
99 Tetrahydrofuran	1.22317	0.98590	0.010	19.39820	30.00000	Averaged	
100 Chloroform	3.60995	3.56386	0.010	1.27671	30.00000	Averaged	
102 Cyclohexane	1.87337	2.05799	0.010	-9.85507	30.00000	Averaged	
103 1,1,1-Trichloroethane	4.19916	4.08683	0.010	2.67520	30.00000	Averaged	
106 Carbon Tetrachloride	4.11244	3.22740	0.010	21.52107	30.00000	Averaged	
113 2,2,4-Trimethylpentane	2.09445	2.20369	0.010	-5.21551	30.00000	Averaged	
116 Benzene	1.19817	1.20580	0.010	-0.63635	30.00000	Averaged	

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 08-JUN-2016 08:32
Lab File ID: e060802.d Init. Cal. Date(s): 17-MAR-2016 24-MAY-2016
Analysis Type: AIR Init. Cal. Times: 14:00 13:20
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/08Jun2016.b/e16l0317f.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 117 1,2-Dichloroethane-d4	1.43539	1.27216	0.010	11.37211	30.00000	Averaged
119 tert-Amyl methyl ether	0.30765	0.30909	0.010	-0.46957	40.00000	Averaged
120 1,2-Dichloroethane	0.62451	0.61538	0.010	1.46197	30.00000	Averaged
121 Heptane	0.28401	0.29007	0.010	-2.13363	30.00000	Averaged
125 Trichloroethene	0.62148	0.68999	0.010	-11.02301	30.00000	Averaged
127 Methylcyclohexane	0.66709	0.69805	0.010	-4.64210	40.00000	Averaged
132 1,2-Dichloropropane	0.38578	0.39905	0.010	-3.43941	30.00000	Averaged
136 1,4-Dioxane	0.28892	0.30588	0.010	-5.86908	30.00000	Averaged
138 Bromodichloromethane	0.99432	1.05352	0.010	-5.95361	30.00000	Averaged
144 cis-1,3-Dichloropropene	0.74095	0.76797	0.010	-3.64561	30.00000	Averaged
145 4-Methyl-2-pentanone	0.61831	0.61328	0.010	0.81227	30.00000	Averaged
$ 146 Toluene-d8	0.98198	0.95877	0.010	2.36328	30.00000	Averaged
147 Toluene	1.42718	1.48037	0.010	-3.72703	30.00000	Averaged
150 trans-1,3-Dichloropropene	0.77418	0.81431	0.010	-5.18257	30.00000	Averaged
155 1,1,2-Trichloroethane	0.60267	0.62025	0.010	-2.91684	30.00000	Averaged
156 Tetrachloroethene	0.92863	1.06813	0.010	-15.02158	30.00000	Averaged
158 2-Hexanone	0.38784	0.39343	0.010	-1.44134	30.00000	Averaged
160 Dibromochloromethane	1.22343	1.35545	0.010	-10.79038	30.00000	Averaged
161 1,2-Dibromoethane (EDB)	0.92484	1.01114	0.010	-9.33132	30.00000	Averaged
165 Chlorobenzene	1.35279	1.47565	0.010	-9.08200	30.00000	Averaged
167 Ethyl Benzene	0.65884	0.69721	0.010	-5.82297	30.00000	Averaged
169 m,p-Xylene	0.76536	0.86590	0.010	-13.13649	30.00000	Averaged
171 o-Xylene	0.70201	0.77361	0.010	-10.19901	30.00000	Averaged
172 Styrene	1.18792	1.32448	0.010	-11.49557	30.00000	Averaged
174 Bromoform	1.21214	1.39969	0.010	-15.47290	30.00000	Averaged
175 Cumene	2.38682	2.43628	0.010	-2.07201	30.00000	Averaged
$ 177 4-Bromofluorobenzene	0.68607	0.65937	0.010	3.89222	30.00000	Averaged
181 1,1,2,2-Tetrachloroethane	1.11157	0.97446	0.010	12.33441	30.00000	Averaged
182 Propylbenzene	2.51395	2.35026	0.010	6.51110	30.00000	Averaged
188 4-Ethyltoluene	2.13075	2.05993	0.010	3.32348	30.00000	Averaged
190 1,3,5-Trimethylbenzene	1.65469	1.45030	0.010	12.35242	30.00000	Averaged
196 1,2,4-Trimethylbenzene	1.43361	1.21354	0.010	15.35090	30.00000	Averaged
208 1,3-Dichlorobenzene	1.35377	1.17669	0.010	13.08103	30.00000	Averaged
209 1,4-Dichlorobenzene	1.26953	1.16277	0.010	8.40969	30.00000	Averaged
212 alpha-Chlorotoluene	1.59742	1.48633	0.010	6.95412	30.00000	Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 08-JUN-2016 08:32
Lab File ID: e060802.d Init. Cal. Date(s): 17-MAR-2016 24-MAY-2016
Analysis Type: AIR Init. Cal. Times: 14:00 13:20
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/08Jun2016.b/e16l0317f.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
214 1,2-Dichlorobenzene	1.16130	1.12141	0.010	3.43430	30.00000	Averaged
226 1,2,4-Trichlorobenzene	0.52658	0.55740	0.010	-5.85360	30.00000	Averaged
227 Hexachlorobutadiene	0.71599	0.87074	0.010	-21.61348	30.00000	Averaged
228 Naphthalene	0.76893	0.57514	0.010	25.20214	40.00000	Averaged

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/08Jun2016.b/e060802.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 08-JUN-2016 08:32
Operator : ef Inst ID: msde.i
Smp Info : 50mL# 2789-51A
Misc Info : 5.0ppbv (25ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/08Jun2016.b/e16l0317f.m
Meth Date : 08-Jun-2016 12:14 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.762	4.762 (0.309)	41	83829	5.00000	5.295	80.00- 120.00	100.00
4.762	4.762 (0.309)	42	55623			38.73- 98.73	66.35
4.738	4.738 (0.308)	39	34038			55.81- 115.81	40.60
11 Freon 12					CAS #: 75-71-8		
5.220	5.220 (0.339)	85	526700	5.00000	5.137	80.00- 120.00	100.00
5.220	5.220 (0.339)	87	173448			2.00- 62.00	32.93
15 Freon 114					CAS #: 76-14-2		
6.618	6.618 (0.430)	135	399880	5.00000	5.329	80.00- 120.00	100.00
6.594	6.594 (0.428)	137	126033			1.31- 61.31	31.52
6.594	6.594 (0.428)	85	485996			93.88- 153.88	121.54
17 Chloromethane					CAS #: 74-87-3		
6.932	6.932 (0.450)	50	101206	5.00000	5.202	80.00- 120.00	100.00
6.956	6.956 (0.452)	52	32676			5.50- 65.50	32.29
23 Butane					CAS #: 106-97-8		
7.675	7.675 (0.499)	58	26267	5.00000	5.213	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.658	7.658 (0.498)	43	158372			588.57- 648.57	602.93
25 Vinyl Chloride					CAS #: 75-01-4		
7.779	7.779 (0.505)	62	141675	5.00000	5.176	80.00- 120.00	100.00
7.779	7.779 (0.505)	64	50045			3.14- 63.14	35.32
26 1,3-Butadiene					CAS #: 106-99-0		
8.022	8.022 (0.521)	54	91818	5.00000	4.988	80.00- 120.00	100.00
8.022	8.022 (0.521)	39	88412			65.21- 125.21	96.29
29 Bromomethane					CAS #: 74-83-9		
9.510	9.510 (0.618)	94	171518	5.00000	5.743	80.00- 120.00	100.00
9.510	9.510 (0.618)	96	160071			64.16- 124.16	93.33
30 Chloroethane					CAS #: 75-00-3		
9.986	9.986 (0.649)	64	74273	5.00000	5.744	80.00- 120.00	100.00
9.986	9.986 (0.649)	49	16756			0.00- 54.91	22.56
9.986	9.986 (0.649)	66	23179			3.62- 63.62	31.21
31 Isopentane					CAS #: 78-78-4		
10.119	10.119 (0.657)	57	103390	5.00000	5.516	80.00- 120.00	100.00
10.119	10.119 (0.657)	43	121178			82.69- 142.69	117.20
10.119	10.119 (0.657)	42	100665			68.65- 128.65	97.36
35 Freon 11					CAS #: 75-69-4		
10.747	10.747 (0.698)	101	574997	5.00000	5.208	80.00- 120.00	100.00
10.747	10.747 (0.698)	103	380204			37.17- 97.17	66.12
42 Ethanol					CAS #: 64-17-5		
11.680	11.680 (0.759)	45	41996	5.00000	5.250	80.00- 120.00	100.00
11.680	11.680 (0.759)	46	16596			6.61- 66.61	39.52
11.680	11.680 (0.759)	43	11570			0.00- 54.66	27.55
49 Freon 113					CAS #: 76-13-1		
12.080	12.080 (0.785)	151	391949	5.00000	4.738	80.00- 120.00	100.00
12.080	12.080 (0.785)	153	245547			33.64- 93.64	62.65
12.080	12.080 (0.785)	101	424473			80.40- 140.40	108.30
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.099	12.099 (0.786)	98	117603	5.00000	5.097	80.00- 120.00	100.00
12.099	12.099 (0.786)	61	265233			204.89- 264.89	225.53
12.099	12.099 (0.786)	96	179383			127.69- 187.69	152.53
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	65797	5.00000	4.877	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
12.366	12.366 (0.803)	43	218574			321.47- 381.47	332.19
56 Carbon Disulfide					CAS #: 75-15-0		
12.442	12.442 (0.808)	76	703948	5.00000	6.846	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
12.709	12.709 (0.826)	45	200812	5.00000	4.866	80.00- 120.00	100.00
12.709	12.709 (0.826)	43	47670			0.00- 54.09	23.74
12.709	12.709 (0.826)	59	9000			0.00- 34.43	4.48
58 3-Chloropropene					CAS #: 107-05-1		
12.880	12.880 (0.837)	76	105467	5.00000	6.862	80.00- 120.00	100.00
12.880	12.880 (0.837)	41	185136			163.76- 223.76	175.54
66 Methylene Chloride					CAS #: 75-09-2		
13.176	13.176 (0.856)	84	156348	5.00000	4.836	80.00- 120.00	100.00
13.149	13.149 (0.854)	49	139745			63.99- 123.99	89.38
13.176	13.176 (0.856)	51	45011			0.29- 60.29	28.79
71 tert-Butyl alcohol					CAS #: 75-65-0		
13.368	13.368 (0.869)	59	298260	5.00000	3.950	80.00- 120.00	100.00
13.368	13.368 (0.869)	41	53743			0.00- 51.66	18.02
13.368	13.368 (0.869)	57	34559			0.00- 43.50	11.59
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.478	13.478 (0.876)	73	518738	5.00000	5.018	80.00- 120.00	100.00
13.478	13.478 (0.876)	57	90834			0.00- 48.26	17.51
13.478	13.478 (0.876)	41	83008			0.00- 45.58	16.00
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.533	13.533 (0.879)	98	119675	5.00000	5.107	80.00- 120.00	100.00
13.533	13.533 (0.879)	61	227455			155.28- 215.28	190.06
13.533	13.533 (0.879)	96	192457			126.18- 186.18	160.82
78 Hexane					CAS #: 110-54-3		
13.835	13.835 (0.899)	57	199811	5.00000	4.955	80.00- 120.00	100.00
13.835	13.835 (0.899)	43	107068			21.48- 81.48	53.58
13.835	13.835 (0.899)	86	44120			0.00- 51.51	22.08
83 Isopropyl ether					CAS #: 108-20-3		
14.192	14.192 (0.922)	45	367421	5.00000	4.996	80.00- 120.00	100.00
14.192	14.192 (0.922)	87	148159			9.88- 69.88	40.32
14.192	14.192 (0.922)	59	51854			0.00- 42.70	14.11
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.247	14.247 (0.926)	63	308176	5.00000	5.025	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
82 1,1-Dichloroethane (continued)							
14.247	14.247 (0.926)	65	97052			1.78- 61.78	31.49
86 Vinyl Acetate					CAS #: 108-05-4		
14.247	14.247 (0.926)	86	49952	5.00000	5.236	80.00- 120.00	100.00
14.247	14.247 (0.926)	42	32664			44.70- 104.70	65.39
14.247	14.247 (0.926)	43	344384			757.33- 817.33	689.43
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
14.685	14.685 (0.954)	59	470341	5.00000	5.010	80.00- 120.00	100.00
14.685	14.685 (0.954)	87	233856			19.74- 79.74	49.72
14.685	14.685 (0.954)	41	76845			0.00- 46.34	16.34
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.047	15.047 (0.978)	98	132089	5.00000	5.153	80.00- 120.00	100.00
15.047	15.047 (0.978)	61	222622			145.90- 205.90	168.54
15.047	15.047 (0.978)	96	205880			125.53- 185.53	155.86
92 2-Butanone					CAS #: 78-93-3		
15.047	15.047 (0.978)	72	89672	5.00000	5.518	80.00- 120.00	100.00
15.047	15.047 (0.978)	43	239432			262.26- 322.26	267.01
15.047	15.047 (0.978)	57	23859			0.00- 55.71	26.61
99 Tetrahydrofuran					CAS #: 109-99-9		
15.391	15.391 (1.000)	42	120180	5.00000	4.030	80.00- 120.00	100.00
15.391	15.391 (1.000)	71	70151			26.85- 86.85	58.37
15.391	15.391 (1.000)	72	74582			32.22- 92.22	62.06
* 98 Bromochloromethane					CAS #: 74-97-5		
15.391	15.391 (1.000)	130	121899	5.00000		80.00- 120.00	100.00
15.391	15.391 (1.000)	128	91049			52.25- 112.25	74.69
15.391	15.391 (1.000)	49	91394			89.81- 149.81	74.98
100 Chloroform					CAS #: 67-66-3		
15.453	15.453 (1.004)	83	434431	5.00000	4.936	80.00- 120.00	100.00
15.453	15.453 (1.004)	85	284035			33.97- 93.97	65.38
102 Cyclohexane					CAS #: 110-82-7		
15.669	15.669 (1.018)	84	250867	5.00000	5.493	80.00- 120.00	100.00
15.669	15.669 (1.018)	56	201765			58.69- 118.69	80.43
15.669	15.669 (1.018)	41	110927			18.98- 78.98	44.22
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.669	15.669 (1.018)	97	498180	5.00000	4.866	80.00- 120.00	100.00
15.669	15.669 (1.018)	99	312695			34.21- 94.21	62.77

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
106 Carbon Tetrachloride					CAS #: 56-23-5		
15.854	15.854 (1.030)	119	393417	5.00000	3.924	80.00- 120.00	100.00
15.854	15.854 (1.030)	117	406866			74.09- 134.09	103.42
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
16.111	16.111 (1.047)	56	268627	5.00000	5.261	80.00- 120.00	100.00
16.111	16.111 (1.047)	57	906280			306.64- 366.64	337.37
16.111	16.111 (1.047)	41	264537			64.14- 124.14	98.48
116 Benzene					CAS #: 71-43-2		
16.183	16.183 (0.967)	78	544685	5.00000	5.032	80.00- 120.00	100.00
16.183	16.183 (0.967)	77	120446			0.00- 53.97	22.11
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.183	16.183 (1.051)	65	155075	5.00000	4.431	80.00- 120.00	100.00
16.183	16.183 (1.051)	67	81440			21.16- 81.16	52.52
119 tert-Amyl methyl ether					CAS #: 994-05-8		
16.231	16.231 (0.970)	87	139623	5.00000	5.023	80.00- 120.00	100.00
16.231	16.231 (0.970)	73	516922			338.86- 398.86	370.23
16.231	16.231 (0.970)	55	103191			44.52- 104.52	73.91
120 1,2-Dichloroethane					CAS #: 107-06-2		
16.303	16.303 (0.974)	62	277978	5.00000	4.927	80.00- 120.00	100.00
16.303	16.303 (0.974)	64	91162			1.03- 61.03	32.79
121 Heptane					CAS #: 142-82-5		
16.352	16.352 (0.977)	57	131031	5.00000	5.107	80.00- 120.00	100.00
16.352	16.352 (0.977)	100	75533			28.67- 88.67	57.65
16.352	16.352 (0.977)	43	194401			128.92- 188.92	148.36
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
16.737	16.737 (1.000)	114	451721	5.00000		80.00- 120.00	100.00
16.737	16.737 (1.000)	88	63443			0.00- 45.20	14.04
125 Trichloroethene					CAS #: 79-01-6		
17.123	17.123 (1.023)	130	311682	5.00000	5.551	80.00- 120.00	100.00
17.123	17.123 (1.023)	95	264833			63.99- 123.99	84.97
17.123	17.123 (1.023)	97	177750			29.21- 89.21	57.03
127 Methylcyclohexane					CAS #: 108-87-2		
17.339	17.339 (1.036)	83	315325	5.00000	5.232	80.00- 120.00	100.00
17.339	17.339 (1.036)	55	204160			31.29- 91.29	64.75
17.339	17.339 (1.036)	56	60047			0.00- 48.78	19.04
132 1,2-Dichloropropane					CAS #: 78-87-5		
17.556	17.556 (1.049)	63	180260	5.00000	5.172	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
132 1,2-Dichloropropane (continued)							
17.556	17.556 (1.049)	62	114866			34.19- 94.19	63.72
17.556	17.556 (1.049)	41	101413			27.38- 87.38	56.26
136 1,4-Dioxane					CAS #: 123-91-1		
17.701	17.701 (1.058)	88	138171	5.00000	5.293	80.00- 120.00	100.00
17.701	17.701 (1.058)	58	73517			25.03- 85.03	53.21
17.677	17.677 (1.056)	57	25247			0.00- 50.67	18.27
138 Bromodichloromethane					CAS #: 75-27-4		
17.990	17.990 (1.075)	83	475897	5.00000	5.298	80.00- 120.00	100.00
17.990	17.990 (1.075)	85	307552			35.15- 95.15	64.63
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
18.805	18.805 (1.124)	75	346906	5.00000	5.182	80.00- 120.00	100.00
18.805	18.805 (1.124)	77	107557			0.45- 60.45	31.00
18.805	18.805 (1.124)	39	140385			13.69- 73.69	40.47
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
18.984	18.984 (1.134)	43	277033	5.00000	4.959	80.00- 120.00	100.00
18.984	18.984 (1.134)	58	124091			15.64- 75.64	44.79
18.984	18.984 (1.134)	85	72606			0.00- 56.71	26.21
$ 146 Toluene-d8					CAS #: 2037-26-5		
19.275	19.275 (1.152)	98	433098	5.00000	4.882	80.00- 120.00	100.00
19.275	19.275 (1.152)	70	42038			0.00- 40.11	9.71
19.275	19.275 (1.152)	100	286873			37.58- 97.58	66.24
147 Toluene					CAS #: 108-88-3		
19.432	19.432 (1.161)	91	668716	5.00000	5.186	80.00- 120.00	100.00
19.432	19.432 (1.161)	92	389169			28.92- 88.92	58.20
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
19.998	19.998 (0.902)	75	326152	5.00000	5.259	80.00- 120.00	100.00
19.998	19.998 (0.902)	77	100297			0.55- 60.55	30.75
19.998	19.998 (0.902)	39	121311			8.25- 68.25	37.19
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.438	20.438 (0.922)	97	248426	5.00000	5.146	80.00- 120.00	100.00
20.438	20.438 (0.922)	99	159623			32.91- 92.91	64.25
20.438	20.438 (0.922)	83	196825			47.93- 107.93	79.23
156 Tetrachloroethene					CAS #: 127-18-4		
20.602	20.602 (0.929)	166	427816	5.00000	5.751	80.00- 120.00	100.00
20.602	20.602 (0.929)	129	291562			42.31- 102.31	68.15
20.602	20.602 (0.929)	131	292284			40.11- 100.11	68.32

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone					CAS #: 591-78-6		
20.795	20.795 (0.938)	58	157581	5.00000	5.072	80.00- 120.00	100.00
20.795	20.795 (0.938)	43	264768			140.44- 200.44	168.02
20.795	20.795 (0.938)	100	42895			0.00- 59.62	27.22
160 Dibromochloromethane					CAS #: 124-48-1		
21.207	21.207 (0.956)	129	542895	5.00000	5.540	80.00- 120.00	100.00
21.207	21.207 (0.956)	127	413481			46.82- 106.82	76.16
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.481	21.481 (0.969)	107	404991	5.00000	5.466	80.00- 120.00	100.00
21.481	21.481 (0.969)	109	391869			65.45- 125.45	96.76
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
22.177	22.177 (1.000)	117	400528	5.00000		80.00- 120.00	100.00
22.177	22.177 (1.000)	82	204441			20.64- 80.64	51.04
165 Chlorobenzene					CAS #: 108-90-7		
22.218	22.218 (1.002)	112	591038	5.00000	5.454	80.00- 120.00	100.00
22.218	22.218 (1.002)	114	194269			2.42- 62.42	32.87
22.218	22.218 (1.002)	77	305464			23.54- 83.54	51.68
167 Ethyl Benzene					CAS #: 100-41-4		
22.301	22.301 (1.006)	106	279251	5.00000	5.291	80.00- 120.00	100.00
22.301	22.301 (1.006)	91	859009			282.51- 342.51	307.61
169 m,p-Xylene					CAS #: 108-38-3		
22.467	22.467 (1.013)	106	346818	5.00000	5.657	80.00- 120.00	100.00
22.467	22.467 (1.013)	91	671988			166.46- 226.46	193.76
171 o-Xylene					CAS #: 95-47-6		
23.089	23.089 (1.041)	106	309853	5.00000	5.510	80.00- 120.00	100.00
23.089	23.089 (1.041)	91	653225			184.01- 244.01	210.82
172 Styrene					CAS #: 100-42-5		
23.110	23.110 (1.042)	104	530492	5.00000	5.575	80.00- 120.00	100.00
23.110	23.110 (1.042)	78	259337			20.27- 80.27	48.89
174 Bromoform					CAS #: 75-25-2		
23.452	23.452 (1.057)	173	560615	5.00000	5.774	80.00- 120.00	100.00
23.452	23.452 (1.057)	171	287965			20.88- 80.88	51.37
175 Cumene					CAS #: 98-82-8		
23.564	23.564 (1.063)	105	975798	5.00000	5.104	80.00- 120.00	100.00
23.564	23.564 (1.063)	120	270585			0.00- 57.47	27.73

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
23.856	23.856 (1.076)	174	264096	5.00000	4.805	80.00- 120.00	100.00
23.856	23.856 (1.076)	95	275800			77.42- 137.42	104.43
23.856	23.856 (1.076)	176	261897			65.38- 125.38	99.17
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.035	24.035 (1.084)	83	390299	5.00000	4.383	80.00- 120.00	100.00
24.035	24.035 (1.084)	85	256139			35.73- 95.73	65.63
182 Propylbenzene					CAS #: 103-65-1		
24.102	24.102 (1.087)	91	941345	5.00000	4.674	80.00- 120.00	100.00
24.102	24.102 (1.087)	120	247858			0.00- 55.24	26.33
188 4-Ethyltoluene					CAS #: 622-96-8		
24.237	24.237 (1.093)	105	825061	5.00000	4.834	80.00- 120.00	100.00
24.237	24.237 (1.093)	120	266022			1.08- 61.08	32.24
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
24.304	24.304 (1.096)	105	580884	5.00000	4.382	80.00- 120.00	100.00
24.304	24.304 (1.096)	120	298086			18.44- 78.44	51.32
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	486057	5.00000	4.232	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	231091			16.20- 76.20	47.54
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.156	25.156 (1.134)	146	471296	5.00000	4.346	80.00- 120.00	100.00
25.156	25.156 (1.134)	148	308588			35.51- 95.51	65.48
25.156	25.156 (1.134)	111	179821			9.35- 69.35	38.15
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.268	25.268 (1.139)	146	465721	5.00000	4.580	80.00- 120.00	100.00
25.268	25.268 (1.139)	148	298150			32.61- 92.61	64.02
25.268	25.268 (1.139)	111	169169			6.90- 66.90	36.32
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	595317	5.00000	4.652	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	134856			0.00- 51.82	22.65
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.694	25.694 (1.159)	146	449158	5.00000	4.828	80.00- 120.00	100.00
25.694	25.694 (1.159)	148	281418			33.69- 93.69	62.65
25.694	25.694 (1.159)	111	176658			8.96- 68.96	39.33
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.421	27.421 (1.236)	180	223256	5.00000	5.293	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)							
27.421	27.421 (1.236)	182	213553			66.05- 126.05	95.65
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	348754	5.00000	6.081	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	232806			33.78- 93.78	66.75
228 Naphthalene					CAS #: 91-20-3		
27.734	27.734 (1.251)	128	23036	0.50000	0.3740	80.00- 120.00	100.00(a)
27.712	27.712 (1.250)	127	4587			0.00- 46.39	19.91

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060802.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/08Jun2016.b/e16l0317f.m
Misc Info: 5.0ppbv (25ppbv)

Calibration Date: 08-JUN-2016
Calibration Time: 10:46
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	133559	80135	186983	121899	-8.73
123 1,4-Difluorobenze	491223	294734	687712	451721	-8.04
163 Chlorobenzene-d5	433998	260399	607597	400528	-7.71

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/08Jun2016.b/e060802.d

Date : 08-JUN-2016 08:32

Client ID: CCV

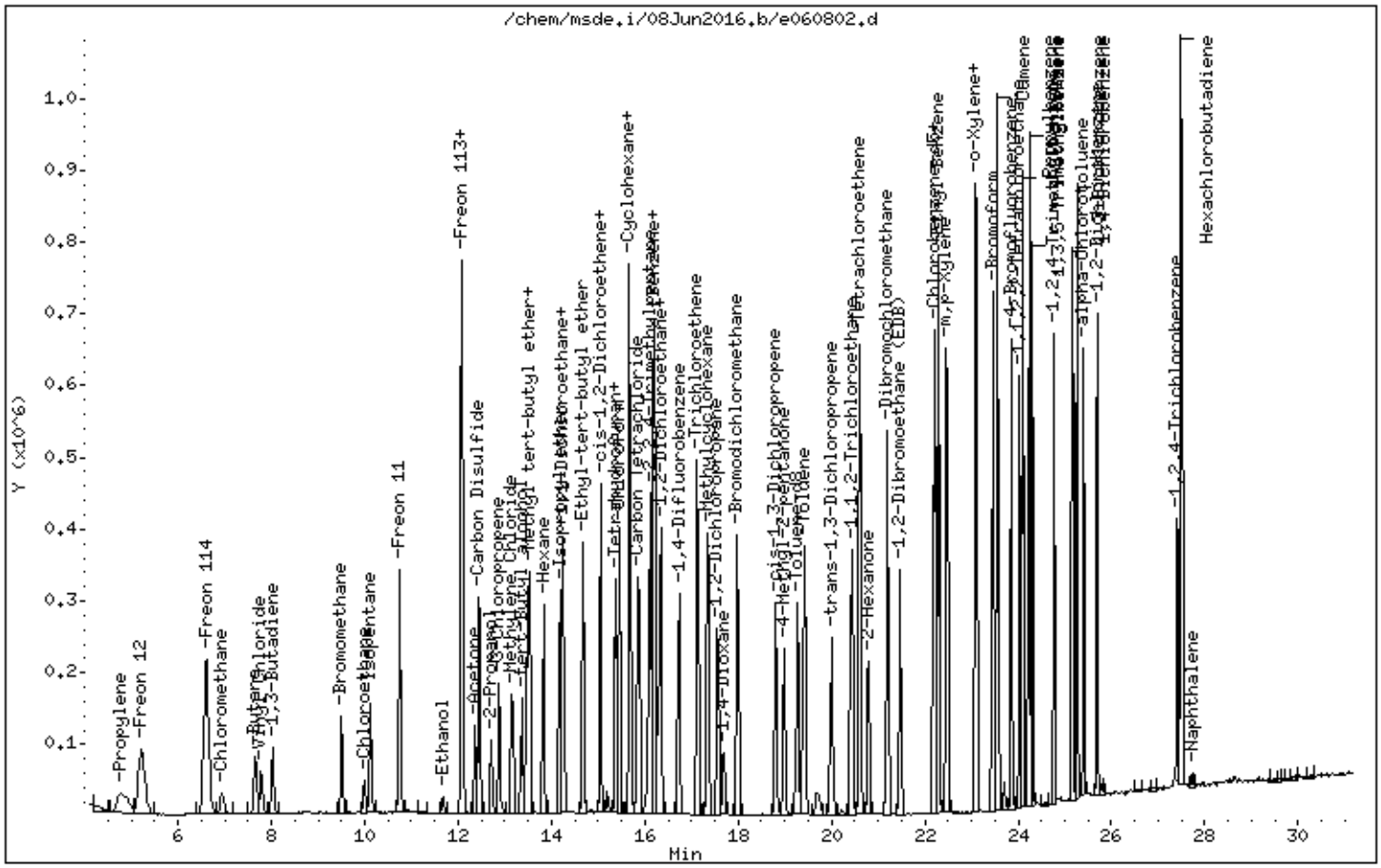
Instrument: msde.i

Sample Info: 50mL# 2789-51A

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCS

Lab ID#: 1606028A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/16 08:26 AM**	

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Freon 114	96	70-130
Chloromethane	84	70-130
Vinyl Chloride	86	70-130
1,3-Butadiene	82	70-130
Bromomethane	96	70-130
Chloroethane	100	70-130
Freon 11	92	70-130
Ethanol	92	70-130
Freon 113	81	70-130
1,1-Dichloroethene	84	70-130
Acetone	86	70-130
2-Propanol	76	70-130
Carbon Disulfide	79	70-130
3-Chloropropene	101	70-130
Methylene Chloride	79	70-130
Methyl tert-butyl ether	80	70-130
trans-1,2-Dichloroethene	89	70-130
Hexane	84	70-130
1,1-Dichloroethane	83	70-130
2-Butanone (Methyl Ethyl Ketone)	84	70-130
cis-1,2-Dichloroethene	83	70-130
Tetrahydrofuran	63 Q	70-130
Chloroform	81	70-130
1,1,1-Trichloroethane	81	70-130
Cyclohexane	83	70-130
Carbon Tetrachloride	83	70-130
2,2,4-Trimethylpentane	87	70-130
Benzene	85	70-130
1,2-Dichloroethane	87	70-130
Heptane	83	70-130
Trichloroethene	93	70-130
1,2-Dichloropropane	84	70-130
1,4-Dioxane	83	70-130
Bromodichloromethane	91	70-130
cis-1,3-Dichloropropene	80	70-130
4-Methyl-2-pentanone	83	70-130
Toluene	87	70-130
trans-1,3-Dichloropropene	84	70-130
1,1,2-Trichloroethane	86	70-130
Tetrachloroethene	98	70-130
2-Hexanone	79	70-130

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Client Sample ID: LCS

Lab ID#: 1606028A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/16 08:26 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	94	70-130
1,2-Dibromoethane (EDB)	94	70-130
Chlorobenzene	91	70-130
Ethyl Benzene	90	70-130
m,p-Xylene	94	70-130
o-Xylene	94	70-130
Styrene	93	70-130
Bromoform	100	70-130
Cumene	87	70-130
1,1,2,2-Tetrachloroethane	78	70-130
Propylbenzene	81	70-130
4-Ethyltoluene	82	70-130
1,3,5-Trimethylbenzene	73	70-130
1,2,4-Trimethylbenzene	69 Q	70-130
1,3-Dichlorobenzene	78	70-130
1,4-Dichlorobenzene	80	70-130
alpha-Chlorotoluene	81	70-130
1,2-Dichlorobenzene	84	70-130
1,2,4-Trichlorobenzene	105	70-130
Hexachlorobutadiene	117	70-130
Naphthalene	74	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130

Report Date: 03-Jun-2016 09:07

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 03Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCS
Client Smp ID: LCS
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT09Bromo.spk
Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	4.046	80.91	60-140
11 Freon 12	5.000	4.520	90.41	70-130
15 Freon 114	5.000	4.824	96.48	70-130
17 Chloromethane	5.000	4.200	84.00	70-130
23 Butane	5.000	4.322	86.44	60-140
25 Vinyl Chloride	5.000	4.329	86.59	70-130
26 1,3-Butadiene	5.000	4.113	82.27	70-130
29 Bromomethane	5.000	4.810	96.21	70-130
30 Chloroethane	5.000	4.991	99.83	70-130
31 Isopentane	5.000	4.711	94.22	60-140
35 Freon 11	5.000	4.586	91.71	70-130
42 Ethanol	5.000	4.605	92.10	70-130
49 Freon 113	5.000	4.069	81.37	70-130
50 1,1-Dichloroethene	5.000	4.188	83.75	70-130
52 Acetone	5.000	4.286	85.72	70-130
56 Carbon Disulfide	5.000	3.964	79.27	70-130
57 2-Propanol	5.000	3.826	76.53	70-130
58 3-Chloropropene	5.000	5.052	101.04	70-130
66 Methylene Chloride	5.000	3.957	79.15	70-130
72 Methyl tert-butyl	5.000	4.007	80.13	70-130
73 trans-1,2-Dichloro	4.250	3.775	88.82	70-130
78 Hexane	5.000	4.193	83.87	70-130
82 1,1-Dichloroethane	5.000	4.168	83.35	70-130
86 Vinyl Acetate	5.000	3.843	76.86	60-140
91 cis-1,2-Dichloroet	5.650	4.670	82.65	70-130
92 2-Butanone	5.000	4.205	84.11	70-130
99 Tetrahydrofuran	5.000	3.140	62.80*	70-130
100 Chloroform	5.000	4.073	81.47	70-130
103 1,1,1-Trichloroeth	5.000	4.037	80.75	70-130
106 Carbon Tetrachlori	5.000	4.144	82.89	70-130
102 Cyclohexane	5.000	4.130	82.60	70-130
113 2,2,4-Trimethylpen	5.000	4.350	86.99	70-130
116 Benzene	5.000	4.264	85.27	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	4.331	86.63	70-130
121 Heptane	5.000	4.151	83.01	70-130
125 Trichloroethene	5.000	4.659	93.18	70-130
127 Methylcyclohexane	5.000	4.415	88.29	60-140
132 1,2-Dichloropropan	5.000	4.227	84.54	70-130
136 1,4-Dioxane	5.000	4.157	83.14	70-130
138 Bromodichlorometha	5.000	4.561	91.23	70-130
144 cis-1,3-Dichloropr	5.000	4.003	80.06	70-130
145 4-Methyl-2-pentano	5.000	4.169	83.38	70-130
147 Toluene	5.000	4.358	87.16	70-130
150 trans-1,3-Dichloro	5.000	4.217	84.33	70-130
155 1,1,2-Trichloroeth	5.000	4.304	86.08	70-130
156 Tetrachloroethene	5.000	4.894	97.88	70-130
158 2-Hexanone	5.000	3.958	79.17	70-130
160 Dibromochlorometha	5.000	4.700	93.99	70-130
161 1,2-Dibromoethane	5.000	4.711	94.22	70-130
165 Chlorobenzene	5.000	4.546	90.91	70-130
167 Ethyl Benzene	5.000	4.502	90.04	70-130
169 m,p-Xylene	5.000	4.680	93.61	70-130
171 o-Xylene	5.000	4.725	94.51	70-130
172 Styrene	5.000	4.668	93.37	70-130
174 Bromoform	6.500	6.469	99.52	70-130
175 Cumene	5.000	4.370	87.41	70-130
181 1,1,2,2-Tetrachlor	5.000	3.888	77.77	70-130
182 Propylbenzene	5.000	4.044	80.88	70-130
188 4-Ethyltoluene	5.000	4.086	81.71	70-130
190 1,3,5-Trimethylben	5.000	3.636	72.73	70-130
196 1,2,4-Trimethylben	5.000	3.467	69.35*	70-130
208 1,3-Dichlorobenzen	5.000	3.921	78.42	70-130
209 1,4-Dichlorobenzen	5.000	3.987	79.75	70-130
212 alpha-Chlorotoluen	5.000	4.036	80.73	70-130
214 1,2-Dichlorobenzen	5.000	4.181	83.61	70-130
226 1,2,4-Trichloroben	5.000	5.260	105.21	70-130
227 Hexachlorobutadien	5.000	5.858	117.16	70-130
228 Naphthalene	0.5000	0.3728	74.57	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.508	90.15	70-130
$ 146 Toluene-d8	5.000	4.852	97.03	70-130
$ 177 4-Bromofluorobenze	5.000	4.922	98.43	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/03Jun2016.b/e060303.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 03-JUN-2016 08:26
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-9
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/03Jun2016.b/e16l0317f.m
Meth Date : 03-Jun-2016 08:22 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.738	4.763 (0.308)	41	73742	4.04560	4.046	80.00- 120.00	100.00
4.738	4.763 (0.308)	42	48361			38.73- 98.73	65.58
4.763	4.738 (0.309)	39	61553			55.81- 115.81	83.47
11 Freon 12					CAS #: 75-71-8		
5.220	5.196 (0.339)	85	533645	4.52057	4.520	80.00- 120.00	100.00
5.220	5.220 (0.339)	87	166025			2.00- 62.00	31.11
15 Freon 114					CAS #: 76-14-2		
6.618	6.594 (0.430)	135	416763	4.82385	4.824	80.00- 120.00	100.00
6.594	6.594 (0.428)	137	128450			1.31- 61.31	30.82
6.594	6.594 (0.428)	85	449431			93.88- 153.88	107.84
17 Chloromethane					CAS #: 74-87-3		
6.932	6.956 (0.450)	50	94075	4.20014	4.200	80.00- 120.00	100.00
6.932	6.932 (0.450)	52	31663			5.50- 65.50	33.66
23 Butane					CAS #: 106-97-8		
7.658	7.658 (0.498)	58	25074	4.32185	4.322	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.658	7.658 (0.498)	43	157336			588.57- 648.57	627.49
25 Vinyl Chloride					CAS #: 75-01-4		
7.779	7.779 (0.505)	62	136426	4.32941	4.329	80.00- 120.00	100.00
7.797	7.779 (0.507)	64	48926			3.14- 63.14	35.86
26 1,3-Butadiene					CAS #: 106-99-0		
8.040	8.022 (0.522)	54	87178	4.11333	4.113	80.00- 120.00	100.00
8.022	8.022 (0.521)	39	81982			65.21- 125.21	94.04
29 Bromomethane					CAS #: 74-83-9		
9.510	9.510 (0.618)	94	165406	4.81041	4.810	80.00- 120.00	100.00
9.510	9.510 (0.618)	96	153221			64.16- 124.16	92.63
30 Chloroethane					CAS #: 75-00-3		
9.986	9.986 (0.649)	64	74309	4.99142	4.991	80.00- 120.00	100.00
9.986	9.986 (0.649)	49	16583			0.00- 54.91	22.32
9.986	9.986 (0.649)	66	24099			3.62- 63.62	32.43
31 Isopentane					CAS #: 78-78-4		
10.138	10.119 (0.659)	57	101671	4.71101	4.711	80.00- 120.00	100.00
10.119	10.119 (0.657)	43	116015			82.69- 142.69	114.11
10.119	10.119 (0.657)	42	100752			68.65- 128.65	99.10
35 Freon 11					CAS #: 75-69-4		
10.747	10.747 (0.698)	101	582878	4.58555	4.586	80.00- 120.00	100.00
10.747	10.747 (0.698)	103	386660			37.17- 97.17	66.34
42 Ethanol					CAS #: 64-17-5		
11.681	11.681 (0.759)	45	42415	4.60503	4.605	80.00- 120.00	100.00
11.681	11.681 (0.759)	46	14841			6.61- 66.61	34.99
11.662	11.681 (0.758)	43	12398			0.00- 54.66	29.23
49 Freon 113					CAS #: 76-13-1		
12.081	12.081 (0.785)	151	387575	4.06873	4.069	80.00- 120.00	100.00
12.081	12.081 (0.785)	153	240385			33.64- 93.64	62.02
12.081	12.081 (0.785)	101	406355			80.40- 140.40	104.85
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.100	12.100 (0.786)	98	111236	4.18756	4.188	80.00- 120.00	100.00
12.100	12.100 (0.786)	61	249486			204.89- 264.89	224.29
12.100	12.100 (0.786)	96	175409			127.69- 187.69	157.69
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	66577	4.28622	4.286	80.00- 120.00	100.00

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   52 Acetone (continued)
 12.366  12.366 (0.803)    43    219949                  321.47- 381.47   330.37
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 12.443  12.443 (0.808)    76    469227 3.96354    3.964  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 12.709  12.709 (0.826)    45    181816 3.82640    3.826  80.00- 120.00   100.00
 12.709  12.709 (0.826)    43     45313                    0.00-  54.09    24.92
 12.728  12.709 (0.827)    59      8856                    0.00-  34.43     4.87
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 12.881  12.881 (0.837)    76     89408 5.05220    5.052  80.00- 120.00   100.00
 12.881  12.881 (0.837)    41    162119                  163.76- 223.76   181.33
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 13.149  13.149 (0.854)    84    147292 3.95731    3.957  80.00- 120.00   100.00
 13.149  13.149 (0.854)    49    135725                   63.99- 123.99    92.15
 13.149  13.149 (0.854)    51     42725                    0.29-  60.29    29.01
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 13.479  13.478 (0.876)    73    476873 4.00667    4.007  80.00- 120.00   100.00
 13.479  13.478 (0.876)    57     85107                    0.00-  48.26    17.85
 13.479  13.478 (0.876)    41     78287                    0.00-  45.58    16.42
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 13.533  13.533 (0.879)    98    101846 3.77483    3.775  80.00- 120.00   100.00
 13.533  13.533 (0.879)    61    190314                  155.28- 215.28   186.86
 13.533  13.533 (0.879)    96    161493                  126.18- 186.18   158.57
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 13.835  13.835 (0.899)    57    194693 4.19338    4.193  80.00- 120.00   100.00
 13.835  13.835 (0.899)    43    107068                   21.48-  81.48    54.99
 13.835  13.835 (0.899)    86     45237                    0.00-  51.51    23.24
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 14.247  14.247 (0.926)    63    294276 4.16759    4.168  80.00- 120.00   100.00
 14.247  14.247 (0.926)    65     92834                    1.78-  61.78    31.55
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                   CAS #: 108-05-4
 14.247  14.247 (0.926)    86     42212 3.84277    3.843  80.00- 120.00   100.00
 14.247  14.247 (0.926)    42     28672                   44.70- 104.70    67.92
 14.247  14.247 (0.926)    43    283950                  757.33- 817.33   672.67
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                          CAS #: 156-59-2
 15.047  15.047 (0.978)    98    137818 4.66972    4.670  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   91 cis-1,2-Dichloroethene (continued)
 15.047  15.047 (0.978)    61    231075                  145.90- 205.90   167.67
 15.047  15.047 (0.978)    96    210749                  125.53- 185.53   152.92
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72     78681 4.20528    4.205  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    221050                  262.26- 322.26   280.94
 15.047  15.047 (0.978)    57     22159                    0.00-  55.71    28.16
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.361  15.360 (0.998)    42    107805 3.13981    3.140  80.00- 120.00   100.00(R)
 15.391  15.360 (1.000)    71     66210                   26.85-  86.85    61.42
 15.391  15.391 (1.000)    72     69496                   32.22-  92.22    64.46
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    140352 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    112276                   52.25- 112.25    80.00
 15.391  15.391 (1.000)    49    103199                   89.81- 149.81    73.53
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.453  15.453 (1.004)    83    412756 4.07325    4.073  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    270140                   33.97-  93.97    65.45
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.669  15.669 (1.018)    84    217184 4.13004    4.130  80.00- 120.00   100.00
 15.669  15.669 (1.018)    56    197334                   58.69- 118.69    90.86
 15.669  15.669 (1.018)    41    106783                   18.98-  78.98    49.17
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.669  15.669 (1.018)    97    475887 4.03730    4.037  80.00- 120.00   100.00
 15.669  15.669 (1.018)    99    310000                   34.21-  94.21    65.14
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 15.854  15.854 (1.030)   119    478444 4.14458    4.144  80.00- 120.00   100.00
 15.854  15.854 (1.030)   117    486560                   74.09- 134.09   101.70
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 16.111  16.111 (1.047)    56    255727 4.34966    4.350  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57    874585                  306.64- 366.64   342.00
 16.111  16.111 (1.047)    41    231897                   64.14- 124.14    90.68
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.183  16.183 (0.967)    78    525662 4.26355    4.264  80.00- 120.00   100.00
 16.183  16.183 (0.967)    77    119393                    0.00-  53.97    22.71
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    181620 4.50757    4.508  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 117 1,2-Dichloroethane-d4 (continued)
 16.183  16.183 (1.051)    67     96573                    21.16-  81.16    53.17
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.304  16.304 (0.974)    62    278348 4.33150    4.331  80.00- 120.00   100.00
 16.304  16.304 (0.974)    64     89225                     1.03-  61.03    32.06
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57    121300 4.15062    4.151  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100     73472                    28.67-  88.67    60.57
 16.352  16.352 (0.977)    43    187740                   128.92- 188.92   154.77
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    514499 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     76598                     0.00-  45.20    14.89
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.123  17.123 (1.023)   130    297954 4.65915    4.659  80.00- 120.00   100.00
 17.123  17.123 (1.023)    95    261187                    63.99- 123.99    87.66
 17.123  17.123 (1.023)    97    172358                    29.21-  89.21    57.85
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.340  17.340 (1.036)    83    303035 4.41466    4.415  80.00- 120.00   100.00
 17.340  17.340 (1.036)    55    193076                    31.29-  91.29    63.71
 17.340  17.340 (1.036)    56     57255                     0.00-  48.78    18.89
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.556  17.556 (1.049)    63    167796 4.22692    4.227  80.00- 120.00   100.00
 17.556  17.556 (1.049)    62    110654                    34.19-  94.19    65.95
 17.556  17.556 (1.049)    41     94520                    27.38-  87.38    56.33
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                   CAS #: 123-91-1
 17.701  17.701 (1.058)    88    123587 4.15702    4.157  80.00- 120.00   100.00
 17.677  17.677 (1.056)    58     69111                    25.03-  85.03    55.92
 17.701  17.677 (1.058)    57     23382                     0.00-  50.67    18.92
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 17.990  17.990 (1.075)    83    466700 4.56139    4.561  80.00- 120.00   100.00
 17.990  17.990 (1.075)    85    306017                    35.15-  95.15    65.57
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                       CAS #: 10061-01-5
 18.805  18.805 (1.124)    75    305212 4.00310    4.003  80.00- 120.00   100.00
 18.805  18.805 (1.124)    77     94351                     0.45-  60.45    30.91
 18.805  18.805 (1.124)    39    124141                    13.69-  73.69    40.67
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 18.984  18.984 (1.134)    43    265253 4.16911    4.169  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  145 4-Methyl-2-pentanone (continued)
 18.984  18.984 (1.134)    58    113994                    15.64-  75.64    42.98
 18.984  18.984 (1.134)    85     69023                     0.00-  56.71    26.02
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.275  19.275 (1.152)    98    490224 4.85152    4.852  80.00- 120.00   100.00
 19.275  19.275 (1.152)    70     49428                     0.00-  40.11    10.08
 19.275  19.275 (1.152)   100    333192                    37.58-  97.58    67.97
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.410  19.410 (1.160)    91    640020 4.35812    4.358  80.00- 120.00   100.00
 19.410  19.410 (1.160)    92    377202                    28.92-  88.92    58.94
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 19.998  19.998 (0.902)    75    297636 4.21675    4.217  80.00- 120.00   100.00
 19.998  19.998 (0.902)    77    100821                     0.55-  60.55    33.87
 19.998  19.998 (0.902)    39    118379                     8.25-  68.25    39.77
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97    236494 4.30406    4.304  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    150287                    32.91-  92.91    63.55
 20.438  20.438 (0.922)    83    196932                    47.93- 107.93    83.27
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.603  20.603 (0.929)   166    414377 4.89425    4.894  80.00- 120.00   100.00
 20.603  20.603 (0.929)   129    292065                    42.31- 102.31    70.48
 20.603  20.603 (0.929)   131    283051                    40.11- 100.11    68.31
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 20.767  20.795 (0.936)    58    139971 3.95840    3.958  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43    233917                   140.44- 200.44   167.12
 20.795  20.795 (0.938)   100     40894                     0.00-  59.62    29.22
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 21.207  21.207 (0.956)   129    524213 4.69962    4.700  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127    404208                    46.82- 106.82    77.11
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 21.482  21.482 (0.969)   107    397225 4.71091    4.711  80.00- 120.00   100.00
 21.482  21.482 (0.969)   109    368756                    65.45- 125.45    92.83
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    455863 5.00000            80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    224044                    20.64-  80.64    49.15
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 22.219  22.219 (1.002)   112    560648 4.54565    4.546  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  165 Chlorobenzene (continued)
 22.219  22.219 (1.002)   114    181444                     2.42-  62.42    32.36
 22.219  22.219 (1.002)    77    285963                    23.54-  83.54    51.01
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 22.302  22.302 (1.006)   106    270429 4.50201    4.502  80.00- 120.00   100.00
 22.302  22.302 (1.006)    91    827231                  282.51- 342.51   305.90
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 22.467  22.467 (1.013)   106    326598 4.68040    4.680  80.00- 120.00   100.00
 22.467  22.467 (1.013)    91    636353                  166.46- 226.46   194.84
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 23.089  23.089 (1.041)   106    302449 4.72544    4.725  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91    641079                  184.01- 244.01   211.96
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 23.110  23.110 (1.042)   104    505630 4.66853    4.668  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78    247578                    20.27-  80.27    48.96
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 23.452  23.452 (1.057)   173    714879 6.46869    6.469  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171    363489                    20.88-  80.88    50.85
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 23.564  23.564 (1.063)   105    951081 4.37051    4.370  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120    262228                     0.00-  57.47    27.57
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 23.856  23.856 (1.076)   174    307854 4.92164    4.922  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    315085                    77.42- 137.42   102.35
 23.856  23.856 (1.076)   176    295898                    65.38- 125.38    96.12
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 24.035  24.035 (1.084)    83    394053 3.88825    3.888  80.00- 120.00   100.00
 24.035  24.035 (1.084)    85    255587                    35.73-  95.73    64.86
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 24.102  24.102 (1.087)    91    926856 4.04382    4.044  80.00- 120.00   100.00
 24.102  24.102 (1.087)   120    242175                     0.00-  55.24    26.13
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 24.237  24.237 (1.093)   105    793680 4.08553    4.086  80.00- 120.00   100.00
 24.237  24.237 (1.093)   120    250744                     1.08-  61.08    31.59
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 24.304  24.304 (1.096)   105    548625 3.63659    3.636  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene (continued)							
24.304	24.304 (1.096)	120	283398			18.44- 78.44	51.66
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	453222	3.46748	3.467	80.00- 120.00	100.00(R)
24.775	24.775 (1.117)	120	220256			16.20- 76.20	48.60
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.157	25.157 (1.134)	146	483946	3.92090	3.921	80.00- 120.00	100.00
25.157	25.157 (1.134)	148	311150			35.51- 95.51	64.29
25.157	25.157 (1.134)	111	172671			9.35- 69.35	35.68
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	461534	3.98745	3.987	80.00- 120.00	100.00
25.269	25.269 (1.139)	148	296072			32.61- 92.61	64.15
25.269	25.269 (1.139)	111	169161			6.90- 66.90	36.65
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	587845	4.03627	4.036	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	135313			0.00- 51.82	23.02
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.695	25.695 (1.159)	146	442647	4.18071	4.181	80.00- 120.00	100.00
25.695	25.695 (1.159)	148	283423			33.69- 93.69	64.03
25.695	25.695 (1.159)	111	169030			8.96- 68.96	38.19
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	252549	5.26037	5.260	80.00- 120.00	100.00
27.398	27.398 (1.235)	182	245808			66.05- 126.05	97.33
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	382394	5.85790	5.858	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	244233			33.78- 93.78	63.87
228 Naphthalene					CAS #: 91-20-3		
27.712	27.735 (1.250)	128	26137	0.37283	0.3728	80.00- 120.00	100.00(a)
27.712	27.712 (1.250)	127	3716			0.00- 46.39	14.22

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060303.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 03-JUN-2016
Calibration Time: 07:24
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	115058	69035	161081	140352	21.98
123 1,4-Difluorobenze	430856	258514	603198	514499	19.41
163 Chlorobenzene-d5	386725	232035	541415	455863	17.88

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/03Jun2016.b/e060303.d

Date : 03-JUN-2016 08:26

Client ID: LCS

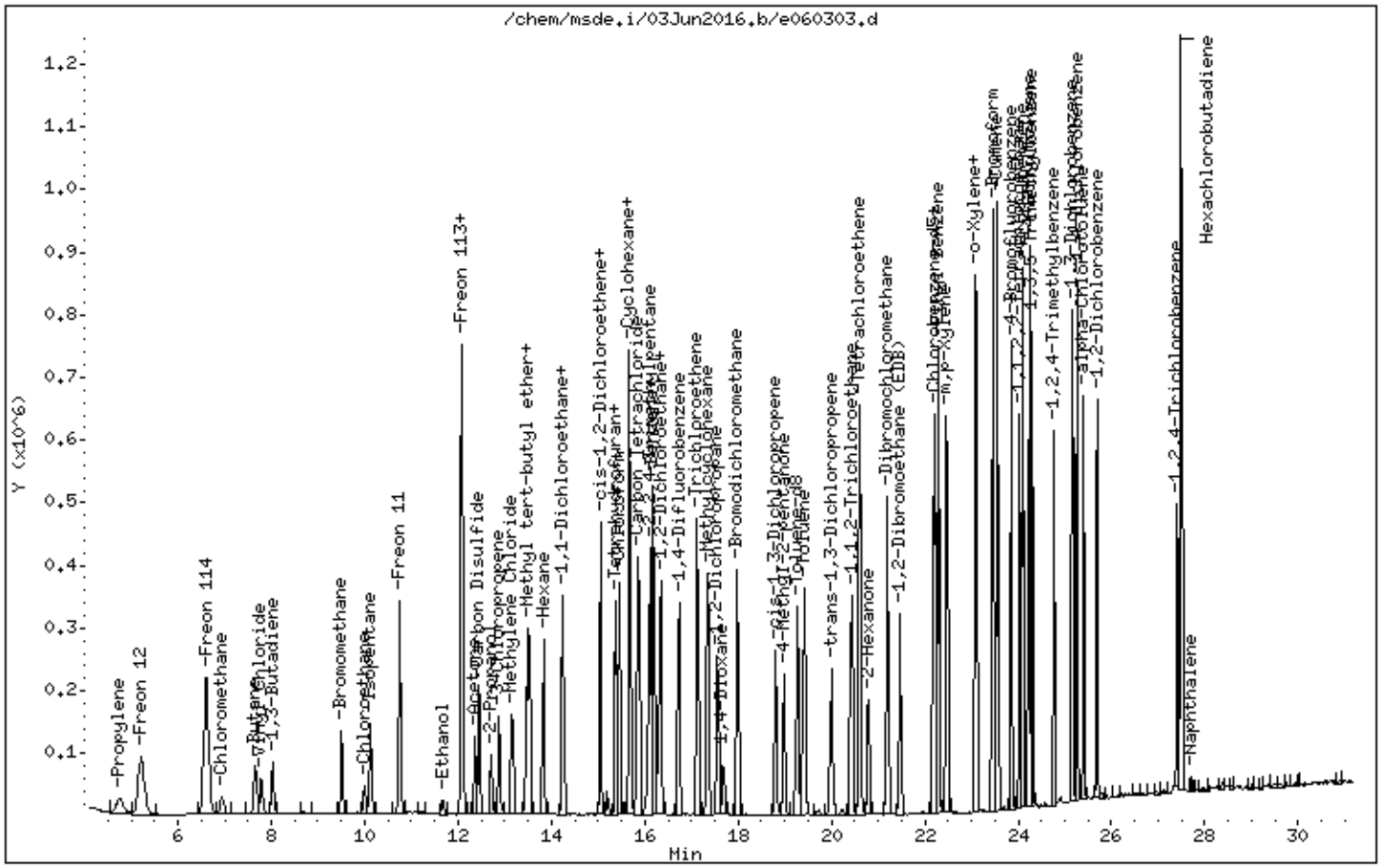
Instrument: msde.i

Sample Info: 25mL# 2789-9

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCSD

Lab ID#: 1606028A-10AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/16 09:10 AM**	

Compound	%Recovery	Method Limits
Freon 12	89	70-130
Freon 114	95	70-130
Chloromethane	84	70-130
Vinyl Chloride	86	70-130
1,3-Butadiene	87	70-130
Bromomethane	95	70-130
Chloroethane	109	70-130
Freon 11	93	70-130
Ethanol	95	70-130
Freon 113	82	70-130
1,1-Dichloroethene	88	70-130
Acetone	86	70-130
2-Propanol	76	70-130
Carbon Disulfide	77	70-130
3-Chloropropene	107	70-130
Methylene Chloride	82	70-130
Methyl tert-butyl ether	84	70-130
trans-1,2-Dichloroethene	93	70-130
Hexane	87	70-130
1,1-Dichloroethane	87	70-130
2-Butanone (Methyl Ethyl Ketone)	86	70-130
cis-1,2-Dichloroethene	82	70-130
Tetrahydrofuran	67 Q	70-130
Chloroform	85	70-130
1,1,1-Trichloroethane	80	70-130
Cyclohexane	89	70-130
Carbon Tetrachloride	83	70-130
2,2,4-Trimethylpentane	89	70-130
Benzene	85	70-130
1,2-Dichloroethane	83	70-130
Heptane	86	70-130
Trichloroethene	93	70-130
1,2-Dichloropropane	87	70-130
1,4-Dioxane	83	70-130
Bromodichloromethane	92	70-130
cis-1,3-Dichloropropene	82	70-130
4-Methyl-2-pentanone	83	70-130
Toluene	90	70-130
trans-1,3-Dichloropropene	86	70-130
1,1,2-Trichloroethane	86	70-130
Tetrachloroethene	96	70-130
2-Hexanone	76	70-130

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Client Sample ID: LCSD

Lab ID#: 1606028A-10AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/16 09:10 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	94	70-130
1,2-Dibromoethane (EDB)	92	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	90	70-130
m,p-Xylene	93	70-130
o-Xylene	94	70-130
Styrene	94	70-130
Bromoform	97	70-130
Cumene	86	70-130
1,1,2,2-Tetrachloroethane	76	70-130
Propylbenzene	81	70-130
4-Ethyltoluene	82	70-130
1,3,5-Trimethylbenzene	74	70-130
1,2,4-Trimethylbenzene	72	70-130
1,3-Dichlorobenzene	77	70-130
1,4-Dichlorobenzene	81	70-130
alpha-Chlorotoluene	82	70-130
1,2-Dichlorobenzene	84	70-130
1,2,4-Trichlorobenzene	122	70-130
Hexachlorobutadiene	125	70-130
Naphthalene	79	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

Report Date: 03-Jun-2016 09:50

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 03Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCSD
Client Smp ID: LCSD
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCSD
SpikeList File: AT09Bromo.spk
Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	4.204	84.07	60-140
11 Freon 12	5.000	4.438	88.77	70-130
15 Freon 114	5.000	4.764	95.27	70-130
17 Chloromethane	5.000	4.185	83.70	70-130
23 Butane	5.000	4.654	93.08	60-140
25 Vinyl Chloride	5.000	4.303	86.06	70-130
26 1,3-Butadiene	5.000	4.352	87.03	70-130
29 Bromomethane	5.000	4.772	95.44	70-130
30 Chloroethane	5.000	5.435	108.70	70-130
31 Isopentane	5.000	4.753	95.05	60-140
35 Freon 11	5.000	4.647	92.94	70-130
42 Ethanol	5.000	4.757	95.14	70-130
49 Freon 113	5.000	4.097	81.95	70-130
50 1,1-Dichloroethene	5.000	4.414	88.29	70-130
52 Acetone	5.000	4.275	85.51	70-130
56 Carbon Disulfide	5.000	3.835	76.70	70-130
57 2-Propanol	5.000	3.825	76.50	70-130
58 3-Chloropropene	5.000	5.343	106.86	70-130
66 Methylene Chloride	5.000	4.088	81.75	70-130
72 Methyl tert-butyl	5.000	4.204	84.09	70-130
73 trans-1,2-Dichloro	4.250	3.947	92.87	70-130
78 Hexane	5.000	4.342	86.84	70-130
82 1,1-Dichloroethane	5.000	4.334	86.67	70-130
86 Vinyl Acetate	5.000	4.097	81.94	60-140
91 cis-1,2-Dichloroet	5.650	4.631	81.96	70-130
92 2-Butanone	5.000	4.281	85.61	70-130
99 Tetrahydrofuran	5.000	3.360	67.19*	70-130
100 Chloroform	5.000	4.254	85.08	70-130
103 1,1,1-Trichloroeth	5.000	4.029	80.58	70-130
106 Carbon Tetrachlori	5.000	4.144	82.89	70-130
102 Cyclohexane	5.000	4.461	89.21	70-130
113 2,2,4-Trimethylpen	5.000	4.445	88.91	70-130
116 Benzene	5.000	4.249	84.97	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	4.132	82.63	70-130
121 Heptane	5.000	4.291	85.82	70-130
125 Trichloroethene	5.000	4.674	93.47	70-130
127 Methylcyclohexane	5.000	4.559	91.19	60-140
132 1,2-Dichloropropan	5.000	4.373	87.47	70-130
136 1,4-Dioxane	5.000	4.156	83.12	70-130
138 Bromodichlorometha	5.000	4.600	92.01	70-130
144 cis-1,3-Dichloropr	5.000	4.091	81.83	70-130
145 4-Methyl-2-pentano	5.000	4.154	83.09	70-130
147 Toluene	5.000	4.527	90.54	70-130
150 trans-1,3-Dichloro	5.000	4.310	86.21	70-130
155 1,1,2-Trichloroeth	5.000	4.314	86.28	70-130
156 Tetrachloroethene	5.000	4.784	95.69	70-130
158 2-Hexanone	5.000	3.798	75.96	70-130
160 Dibromochlorometha	5.000	4.703	94.06	70-130
161 1,2-Dibromoethane	5.000	4.614	92.29	70-130
165 Chlorobenzene	5.000	4.519	90.39	70-130
167 Ethyl Benzene	5.000	4.485	89.70	70-130
169 m,p-Xylene	5.000	4.640	92.80	70-130
171 o-Xylene	5.000	4.718	94.37	70-130
172 Styrene	5.000	4.678	93.56	70-130
174 Bromoform	6.500	6.301	96.94	70-130
175 Cumene	5.000	4.321	86.42	70-130
181 1,1,2,2-Tetrachlor	5.000	3.775	75.51	70-130
182 Propylbenzene	5.000	4.069	81.38	70-130
188 4-Ethyltoluene	5.000	4.120	82.39	70-130
190 1,3,5-Trimethylben	5.000	3.721	74.42	70-130
196 1,2,4-Trimethylben	5.000	3.598	71.97	70-130
208 1,3-Dichlorobenzen	5.000	3.842	76.84	70-130
209 1,4-Dichlorobenzen	5.000	4.044	80.89	70-130
212 alpha-Chlorotoluen	5.000	4.120	82.40	70-130
214 1,2-Dichlorobenzen	5.000	4.201	84.02	70-130
226 1,2,4-Trichloroben	5.000	6.120	122.41	70-130
227 Hexachlorobutadien	5.000	6.240	124.80	70-130
228 Naphthalene	0.5000	0.3944	78.89	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.457	89.14	70-130
$ 146 Toluene-d8	5.000	4.942	98.84	70-130
$ 177 4-Bromofluorobenze	5.000	4.798	95.96	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/03Jun2016.b/e060304.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 03-JUN-2016 09:10
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-9
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/03Jun2016.b/e16l0317f.m
Meth Date : 03-Jun-2016 09:18 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.738	4.763 (0.308)	41	74293	4.20367	4.204	80.00- 120.00	100.00
4.714	4.763 (0.306)	42	50787			38.73- 98.73	68.36
4.738	4.763 (0.308)	39	60945			55.81- 115.81	82.03
11 Freon 12					CAS #: 75-71-8		
5.220	5.196 (0.339)	85	508028	4.43855	4.438	80.00- 120.00	100.00
5.220	5.196 (0.339)	87	166818			2.00- 62.00	32.84
15 Freon 114					CAS #: 76-14-2		
6.594	6.594 (0.428)	135	399036	4.76354	4.764	80.00- 120.00	100.00
6.594	6.594 (0.428)	137	126870			1.31- 61.31	31.79
6.594	6.594 (0.428)	85	448454			93.88- 153.88	112.38
17 Chloromethane					CAS #: 74-87-3		
6.932	6.956 (0.450)	50	90886	4.18503	4.185	80.00- 120.00	100.00
6.956	6.956 (0.452)	52	29278			5.50- 65.50	32.21
23 Butane					CAS #: 106-97-8		
7.658	7.658 (0.498)	58	26179	4.65384	4.654	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.641	7.658 (0.496)	43	154001			588.57- 648.57	588.26
25 Vinyl Chloride					CAS #: 75-01-4		
7.779	7.779 (0.505)	62	131470	4.30302	4.303	80.00- 120.00	100.00
7.779	7.779 (0.505)	64	46565			3.14- 63.14	35.42
26 1,3-Butadiene					CAS #: 106-99-0		
8.022	8.022 (0.521)	54	89425	4.35168	4.352	80.00- 120.00	100.00
8.022	8.022 (0.521)	39	87232			65.21- 125.21	97.55
29 Bromomethane					CAS #: 74-83-9		
9.510	9.510 (0.618)	94	159102	4.77220	4.772	80.00- 120.00	100.00
9.510	9.510 (0.618)	96	155953			64.16- 124.16	98.02
30 Chloroethane					CAS #: 75-00-3		
9.986	9.986 (0.649)	64	78449	5.43479	5.435	80.00- 120.00	100.00
9.986	9.986 (0.649)	49	17576			0.00- 54.91	22.40
9.986	9.986 (0.649)	66	25626			3.62- 63.62	32.67
31 Isopentane					CAS #: 78-78-4		
10.119	10.119 (0.657)	57	99451	4.75269	4.753	80.00- 120.00	100.00
10.119	10.119 (0.657)	43	116226			82.69- 142.69	116.87
10.119	10.119 (0.657)	42	96778			68.65- 128.65	97.31
35 Freon 11					CAS #: 75-69-4		
10.747	10.747 (0.698)	101	572735	4.64708	4.647	80.00- 120.00	100.00
10.747	10.747 (0.698)	103	373950			37.17- 97.17	65.29
42 Ethanol					CAS #: 64-17-5		
11.681	11.681 (0.759)	45	42483	4.75702	4.757	80.00- 120.00	100.00
11.681	11.681 (0.759)	46	16400			6.61- 66.61	38.61
11.681	11.681 (0.759)	43	11146			0.00- 54.66	26.24
49 Freon 113					CAS #: 76-13-1		
12.081	12.081 (0.785)	151	378436	4.09740	4.097	80.00- 120.00	100.00
12.081	12.081 (0.785)	153	243683			33.64- 93.64	64.39
12.081	12.081 (0.785)	101	409413			80.40- 140.40	108.19
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.100	12.100 (0.786)	98	113700	4.41458	4.414	80.00- 120.00	100.00
12.100	12.100 (0.786)	61	251956			204.89- 264.89	221.60
12.100	12.100 (0.786)	96	178056			127.69- 187.69	156.60
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	64390	4.27545	4.275	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
12.366	12.366 (0.803)	43	222497			321.47- 381.47	345.54
56 Carbon Disulfide					CAS #: 75-15-0		
12.443	12.443 (0.808)	76	440203	3.83500	3.835	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
12.709	12.709 (0.826)	45	176212	3.82477	3.825	80.00- 120.00	100.00
12.709	12.709 (0.826)	43	47898			0.00- 54.09	27.18
12.728	12.709 (0.827)	59	8713			0.00- 34.43	4.94
58 3-Chloropropene					CAS #: 107-05-1		
12.881	12.881 (0.837)	76	91678	5.34300	5.343	80.00- 120.00	100.00
12.881	12.881 (0.837)	41	160450			163.76- 223.76	175.01
66 Methylene Chloride					CAS #: 75-09-2		
13.149	13.149 (0.854)	84	147516	4.08764	4.088	80.00- 120.00	100.00
13.149	13.149 (0.854)	49	134464			63.99- 123.99	91.15
13.149	13.149 (0.854)	51	45585			0.29- 60.29	30.90
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.478	13.478 (0.876)	73	485203	4.20453	4.204	80.00- 120.00	100.00
13.478	13.478 (0.876)	57	82020			0.00- 48.26	16.90
13.478	13.478 (0.876)	41	81568			0.00- 45.58	16.81
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.533	13.533 (0.879)	98	103252	3.94699	3.947	80.00- 120.00	100.00
13.533	13.533 (0.879)	61	187185			155.28- 215.28	181.29
13.533	13.533 (0.879)	96	159747			126.18- 186.18	154.71
78 Hexane					CAS #: 110-54-3		
13.835	13.835 (0.899)	57	195454	4.34182	4.342	80.00- 120.00	100.00
13.835	13.835 (0.899)	43	97426			21.48- 81.48	49.85
13.835	13.835 (0.899)	86	43056			0.00- 51.51	22.03
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.247	14.247 (0.926)	63	296698	4.33369	4.334	80.00- 120.00	100.00
14.247	14.247 (0.926)	65	92136			1.78- 61.78	31.05
86 Vinyl Acetate					CAS #: 108-05-4		
14.247	14.247 (0.926)	86	43639	4.09723	4.097	80.00- 120.00	100.00
14.247	14.247 (0.926)	42	30782			44.70- 104.70	70.54
14.247	14.247 (0.926)	43	280847			757.33- 817.33	643.57
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.047	15.047 (0.978)	98	132508	4.63064	4.631	80.00- 120.00	100.00

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   91 cis-1,2-Dichloroethene (continued)
 15.047  15.047 (0.978)    61    227434                  145.90- 205.90   171.64
 15.047  15.047 (0.978)    96    210514                  125.53- 185.53   158.87
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72     77656 4.28068    4.281  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    223922                  262.26- 322.26   288.35
 15.047  15.047 (0.978)    57     21086                    0.00-  55.71    27.15
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.360  15.360 (0.998)    42    111840 3.35950    3.360  80.00- 120.00   100.00(R)
 15.391  15.360 (1.000)    71     64742                   26.85-  86.85    57.89
 15.391  15.360 (1.000)    72     69809                   32.22-  92.22    62.42
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    136084 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    108134                   52.25- 112.25    79.46
 15.391  15.391 (1.000)    49     96588                   89.81- 149.81    70.98
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.453  15.453 (1.004)    83    417947 4.25386    4.254  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    273798                   33.97-  93.97    65.51
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.669  15.669 (1.018)    84    227434 4.46062    4.461  80.00- 120.00   100.00
 15.669  15.669 (1.018)    56    196278                   58.69- 118.69    86.30
 15.669  15.669 (1.018)    41    102715                   18.98-  78.98    45.16
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.669  15.669 (1.018)    97    460456 4.02891    4.029  80.00- 120.00   100.00
 15.669  15.669 (1.018)    99    312184                   34.21-  94.21    67.80
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 15.854  15.854 (1.030)   119    463862 4.14430    4.144  80.00- 120.00   100.00
 15.854  15.854 (1.030)   117    480488                   74.09- 134.09   103.58
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 16.111  16.111 (1.047)    56    253411 4.44548    4.445  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57    848712                  306.64- 366.64   334.91
 16.111  16.111 (1.047)    41    245646                   64.14- 124.14    96.94
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.183  16.183 (0.967)    78    515458 4.24872    4.249  80.00- 120.00   100.00
 16.183  16.183 (0.967)    77    113373                    0.00-  53.97    21.99
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    174119 4.45695    4.457  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 117 1,2-Dichloroethane-d4 (continued)
 16.183  16.183 (1.051)    67     91461                    21.16-  81.16    52.53
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 16.304  16.304 (0.974)    62    261255 4.13156    4.132  80.00- 120.00   100.00
 16.304  16.304 (0.974)    64     90124                     1.03-  61.03    34.50
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 16.352  16.352 (0.977)    57    123404 4.29121    4.291  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100     74465                    28.67-  88.67    60.34
 16.352  16.352 (0.977)    43    192290                   128.92- 188.92   155.82
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 16.737  16.737 (1.000)   114    506274 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     73533                     0.00-  45.20    14.52
-------------------------------------------------------------------------------
  125 Trichloroethene                              CAS #: 79-01-6
 17.123  17.123 (1.023)   130    294107 4.67371    4.674  80.00- 120.00   100.00
 17.123  17.123 (1.023)    95    264100                    63.99- 123.99    89.80
 17.123  17.123 (1.023)    97    167671                    29.21-  89.21    57.01
-------------------------------------------------------------------------------
  127 Methylcyclohexane                            CAS #: 108-87-2
 17.340  17.340 (1.036)    83    307960 4.55929    4.559  80.00- 120.00   100.00
 17.340  17.340 (1.036)    55    191843                    31.29-  91.29    62.29
 17.340  17.340 (1.036)    56     60083                     0.00-  48.78    19.51
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                          CAS #: 78-87-5
 17.556  17.556 (1.049)    63    170834 4.37337    4.373  80.00- 120.00   100.00
 17.556  17.556 (1.049)    62    109161                    34.19-  94.19    63.90
 17.556  17.556 (1.049)    41     97827                    27.38-  87.38    57.26
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 17.701  17.701 (1.058)    88    121581 4.15600    4.156  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58     66627                    25.03-  85.03    54.80
 17.677  17.701 (1.056)    57     22164                     0.00-  50.67    18.23
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 17.990  17.990 (1.075)    83    463160 4.60032    4.600  80.00- 120.00   100.00
 17.990  17.990 (1.075)    85    298988                    35.15-  95.15    64.55
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 18.805  18.805 (1.124)    75    306952 4.09133    4.091  80.00- 120.00   100.00
 18.805  18.805 (1.124)    77     98016                     0.45-  60.45    31.93
 18.805  18.805 (1.124)    39    129791                    13.69-  73.69    42.28
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 18.984  18.984 (1.134)    43    260084 4.15427    4.154  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  145 4-Methyl-2-pentanone (continued)
 18.984  18.984 (1.134)    58    119476                    15.64-  75.64    45.94
 18.984  18.984 (1.134)    85     74154                     0.00-  56.71    28.51
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.275  19.275 (1.152)    98    491377 4.94193    4.942  80.00- 120.00   100.00
 19.275  19.275 (1.152)    70     51838                     0.00-  40.11    10.55
 19.275  19.275 (1.152)   100    333859                    37.58-  97.58    67.94
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.410  19.410 (1.160)    91    654225 4.52723    4.527  80.00- 120.00   100.00
 19.410  19.410 (1.160)    92    381921                    28.92-  88.92    58.38
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 19.998  19.998 (0.902)    75    307319 4.31048    4.310  80.00- 120.00   100.00
 19.998  19.998 (0.902)    77    100839                     0.55-  60.55    32.81
 19.998  19.998 (0.902)    39    116396                     8.25-  68.25    37.87
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97    239437 4.31413    4.314  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    150803                    32.91-  92.91    62.98
 20.438  20.438 (0.922)    83    196180                    47.93- 107.93    81.93
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.603  20.603 (0.929)   166    409167 4.78449    4.784  80.00- 120.00   100.00
 20.603  20.603 (0.929)   129    279039                    42.31- 102.31    68.20
 20.603  20.603 (0.929)   131    272041                    40.11- 100.11    66.49
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 20.767  20.795 (0.936)    58    135653 3.79800    3.798  80.00- 120.00   100.00
 20.767  20.795 (0.936)    43    228607                   140.44- 200.44   168.52
 20.795  20.795 (0.938)   100     42064                     0.00-  59.62    31.01
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 21.207  21.207 (0.956)   129    529877 4.70299    4.703  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127    405852                    46.82- 106.82    76.59
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 21.482  21.482 (0.969)   107    393003 4.61433    4.614  80.00- 120.00   100.00
 21.482  21.482 (0.969)   109    380518                    65.45- 125.45    96.82
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    460458 5.00000            80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    228669                    20.64-  80.64    49.66
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 22.219  22.219 (1.002)   112    563041 4.51950    4.519  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  165 Chlorobenzene (continued)
 22.219  22.219 (1.002)   114    181909                     2.42-  62.42    32.31
 22.219  22.219 (1.002)    77    287699                    23.54-  83.54    51.10
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 22.302  22.302 (1.006)   106    272115 4.48487    4.485  80.00- 120.00   100.00
 22.302  22.302 (1.006)    91    834765                  282.51- 342.51   306.77
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 22.467  22.467 (1.013)   106    327049 4.64010    4.640  80.00- 120.00   100.00
 22.467  22.467 (1.013)    91    652986                  166.46- 226.46   199.66
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 23.089  23.089 (1.041)   106    305040 4.71836    4.718  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91    640054                  184.01- 244.01   209.83
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 23.110  23.110 (1.042)   104    511765 4.67802    4.678  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78    247862                   20.27-  80.27    48.43
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 23.452  23.452 (1.057)   173    703382 6.30114    6.301  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171    361846                   20.88-  80.88    51.44
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 23.564  23.564 (1.063)   105    949782 4.32099    4.321  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120    268149                    0.00-  57.47    28.23
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 23.856  23.856 (1.076)   174    303139 4.79791    4.798  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    320053                   77.42- 137.42   105.58
 23.856  23.856 (1.076)   176    310976                   65.38- 125.38   102.59
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 24.035  24.035 (1.084)    83    386478 3.77545    3.775  80.00- 120.00   100.00
 24.035  24.035 (1.084)    85    250911                   35.73-  95.73    64.92
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 24.102  24.102 (1.087)    91    941979 4.06879    4.069  80.00- 120.00   100.00
 24.102  24.102 (1.087)   120    244990                    0.00-  55.24    26.01
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 24.237  24.237 (1.093)   105    808376 4.11966    4.120  80.00- 120.00   100.00
 24.237  24.237 (1.093)   120    238849                    1.08-  61.08    29.55
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 24.304  24.304 (1.096)   105    567037 3.72113    3.721  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene (continued)							
24.304	24.304 (1.096)	120	311719			18.44- 78.44	54.97
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	475055	3.59825	3.598	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	225992			16.20- 76.20	47.57
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.157	25.157 (1.134)	146	478962	3.84180	3.842	80.00- 120.00	100.00
25.157	25.157 (1.134)	148	316002			35.51- 95.51	65.98
25.157	25.157 (1.134)	111	181457			9.35- 69.35	37.89
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.269 (1.139)	146	472840	4.04437	4.044	80.00- 120.00	100.00
25.269	25.269 (1.139)	148	300942			32.61- 92.61	63.65
25.269	25.269 (1.139)	111	168673			6.90- 66.90	35.67
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	606100	4.12008	4.120	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	141270			0.00- 51.82	23.31
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.695	25.695 (1.159)	146	449264	4.20087	4.201	80.00- 120.00	100.00
25.695	25.695 (1.159)	148	299737			33.69- 93.69	66.72
25.695	25.695 (1.159)	111	174785			8.96- 68.96	38.90
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.398 (1.235)	180	296798	6.12036	6.120	80.00- 120.00	100.00
27.398	27.398 (1.235)	182	285291			66.05- 126.05	96.12
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	411455	6.24019	6.240	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	257797			33.78- 93.78	62.65
228 Naphthalene					CAS #: 91-20-3		
27.712	27.735 (1.250)	128	27930	0.39443	0.3944	80.00- 120.00	100.00(a)
27.735	27.735 (1.251)	127	4696			0.00- 46.39	16.82

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060304.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/03Jun2016.b/e16l0317f.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 03-JUN-2016
Calibration Time: 07:24
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	115058	69035	161081	136084	18.27
123 1,4-Difluorobenze	430856	258514	603198	506274	17.50
163 Chlorobenzene-d5	386725	232035	541415	460458	19.07

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

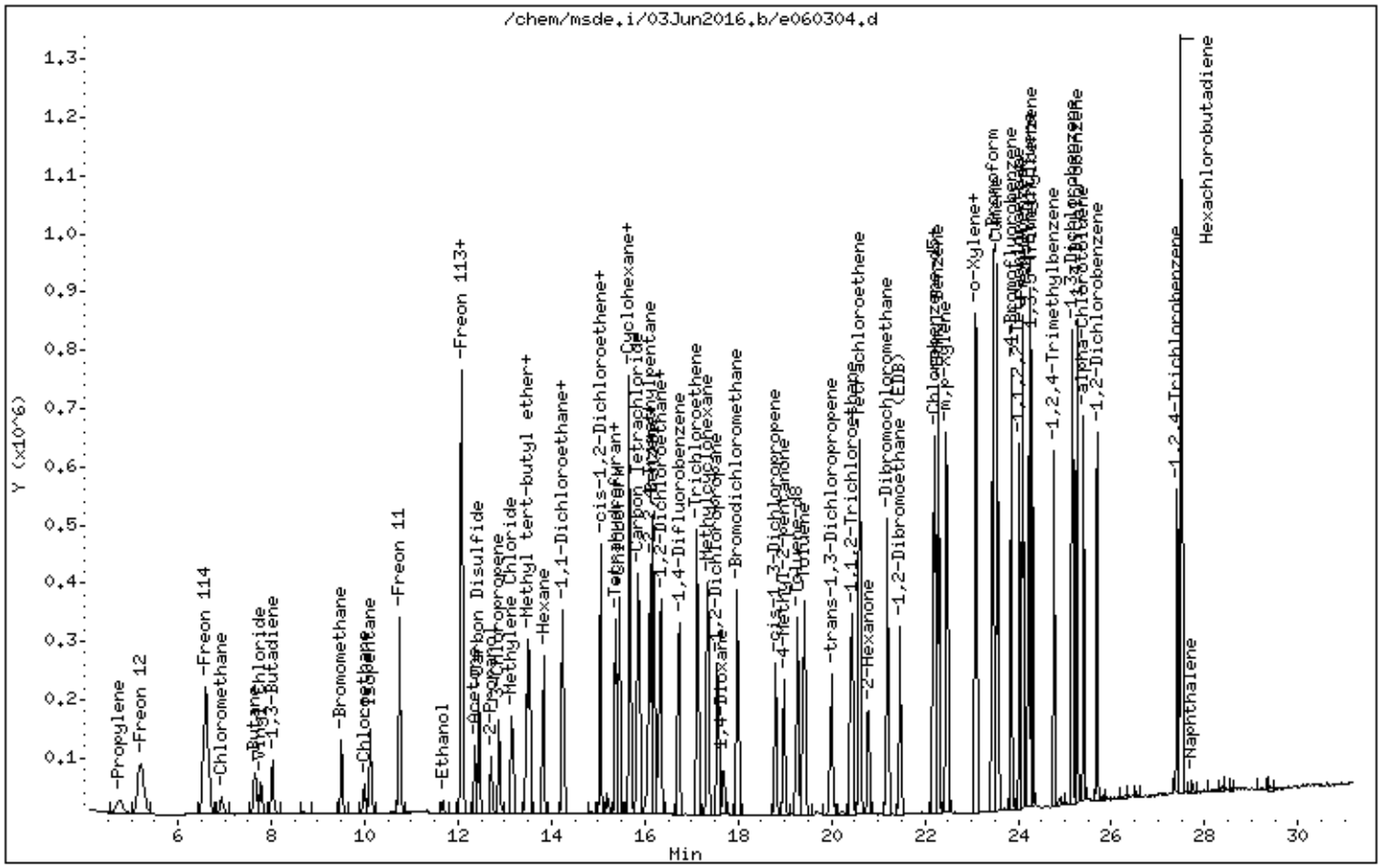
Instrument: msde.i

Sample Info: 25mL# 2789-9

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

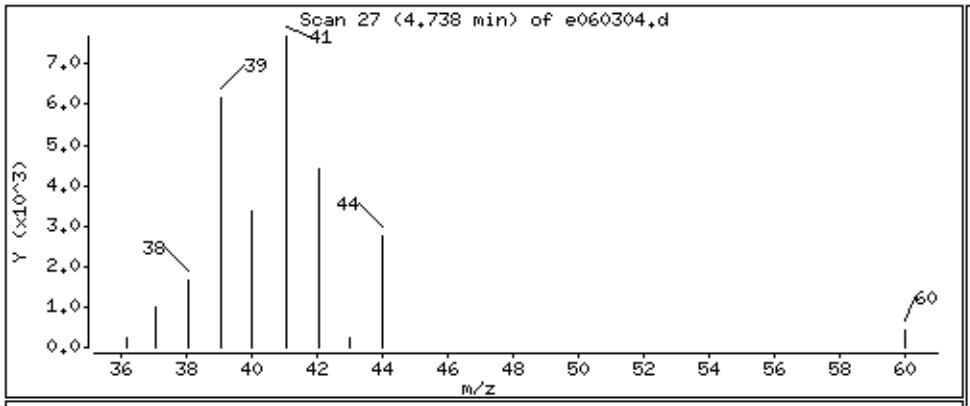
Operator: ef

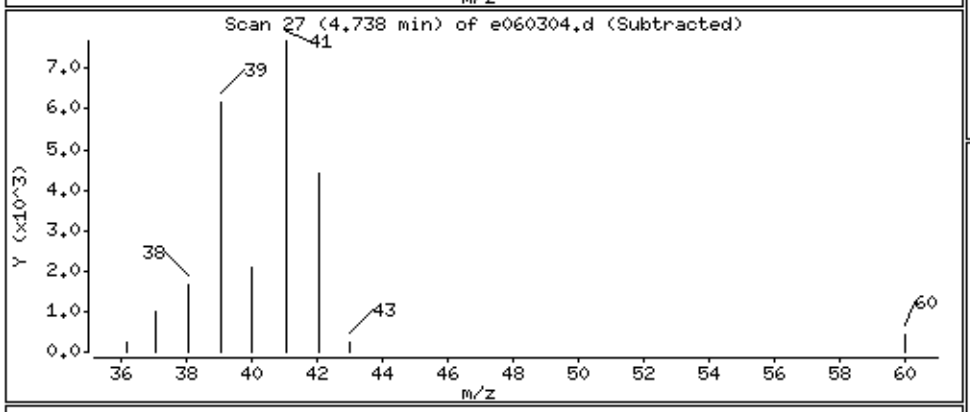
Column phase: RTX-624

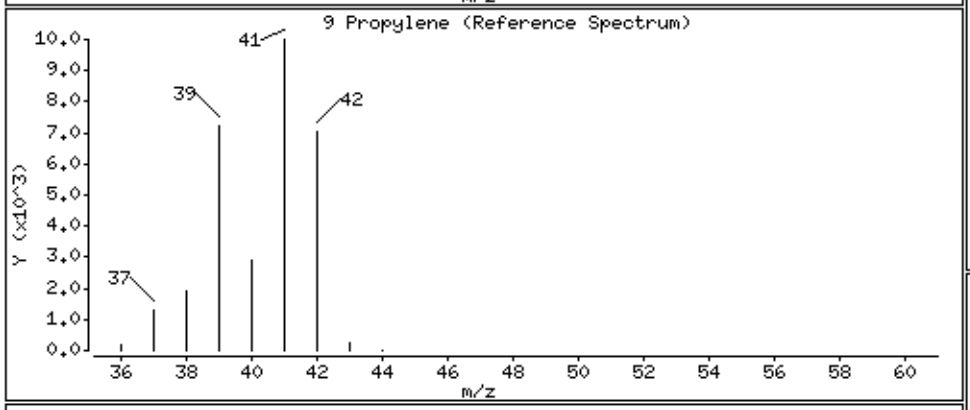
Column diameter: 0.32

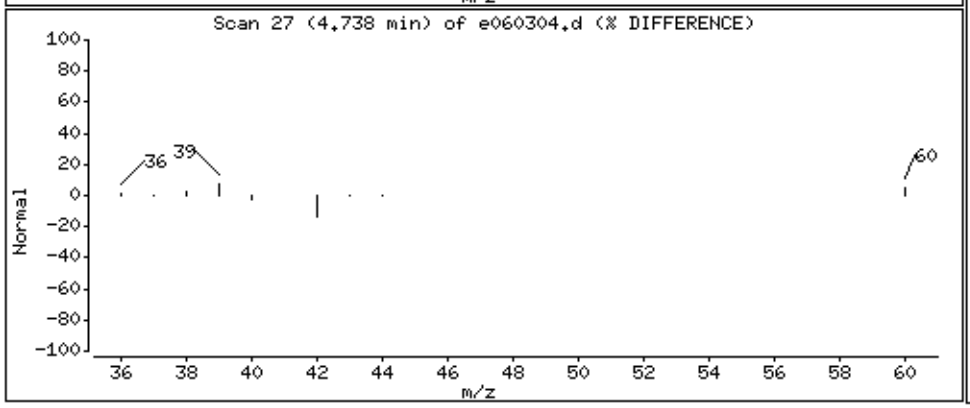
9 Propylene

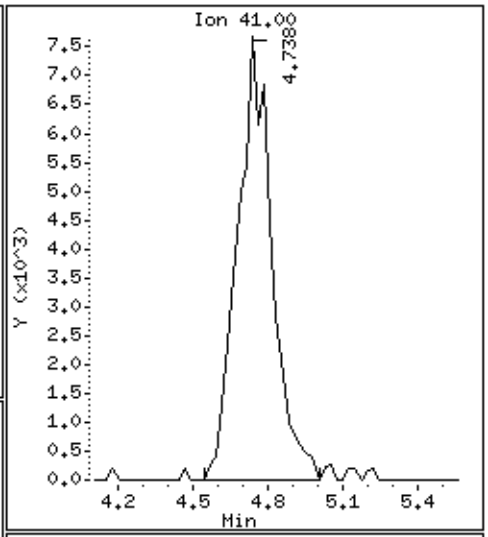
Concentration: 4.204 PPBV

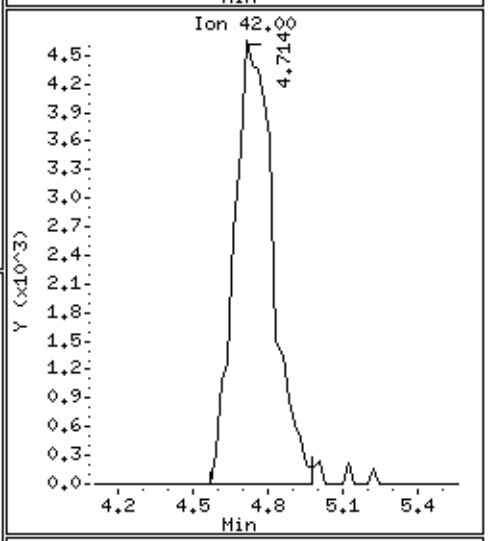


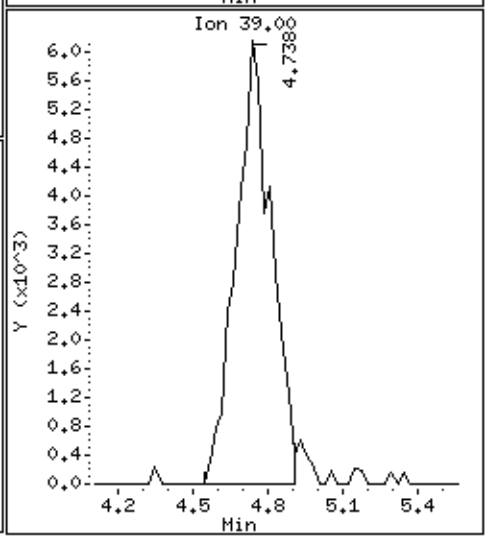












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

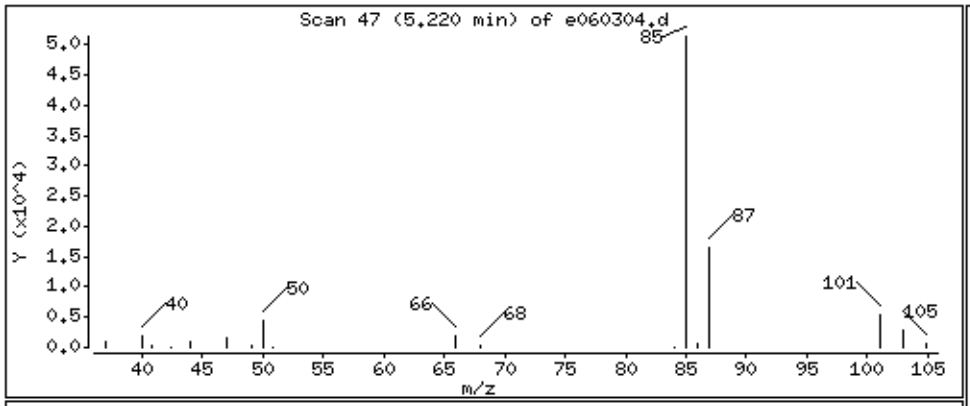
Operator: ef

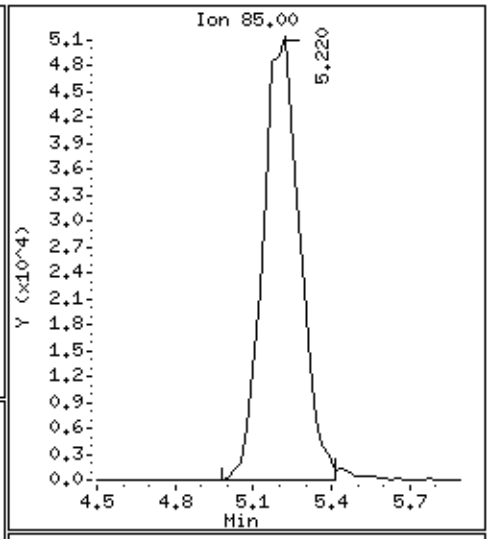
Column phase: RTX-624

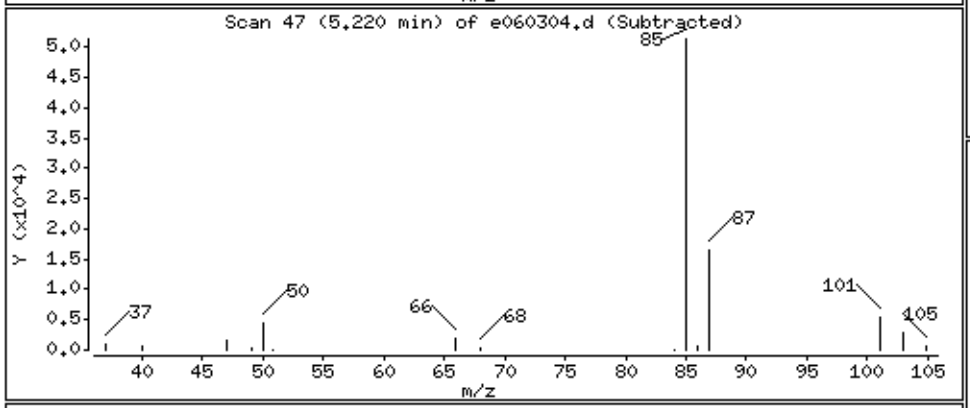
Column diameter: 0.32

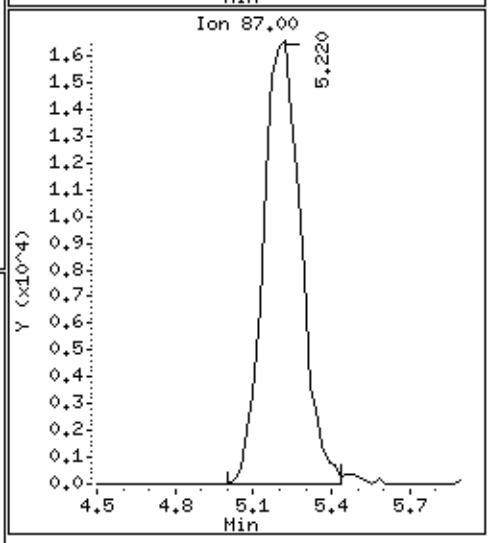
11 Freon 12

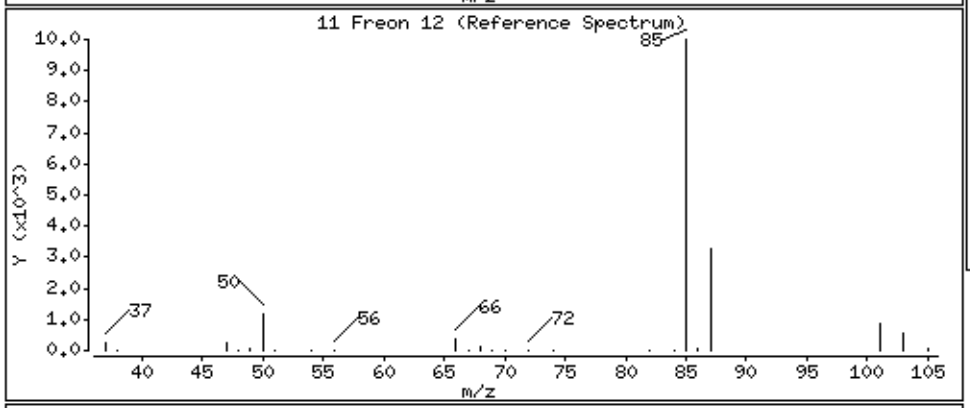
Concentration: 4.438 PPBV

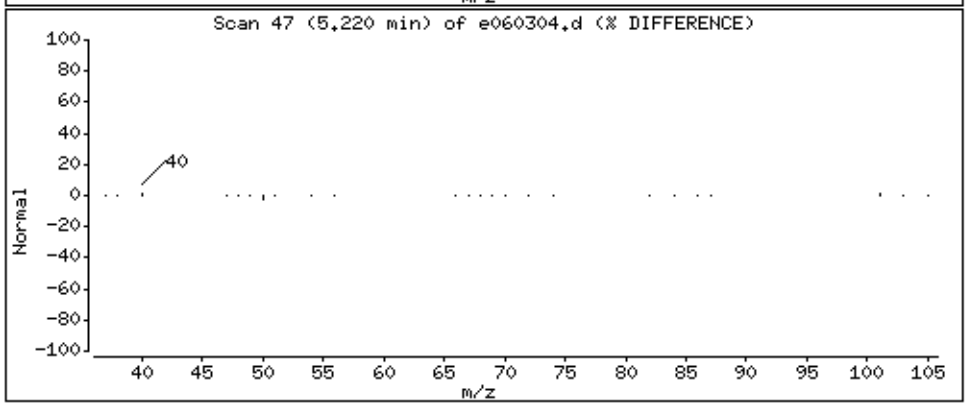












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

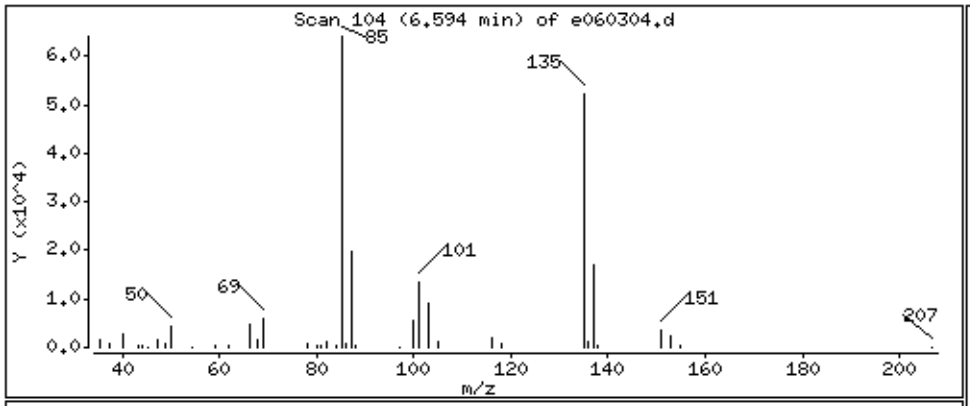
Operator: ef

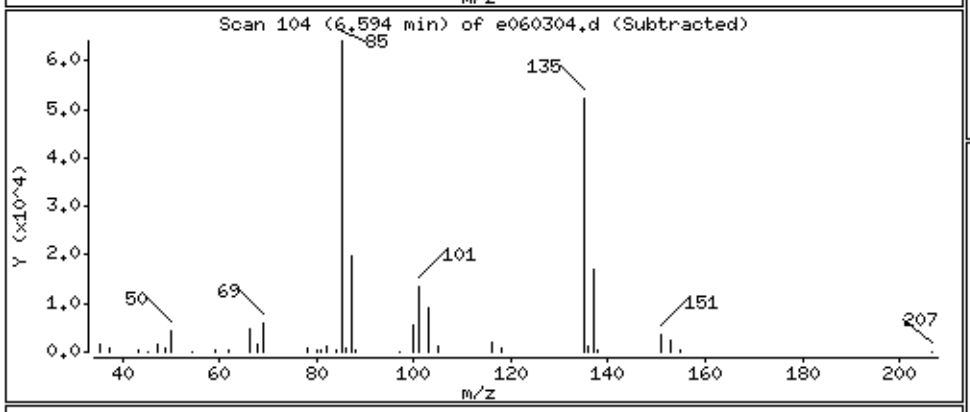
Column phase: RTX-624

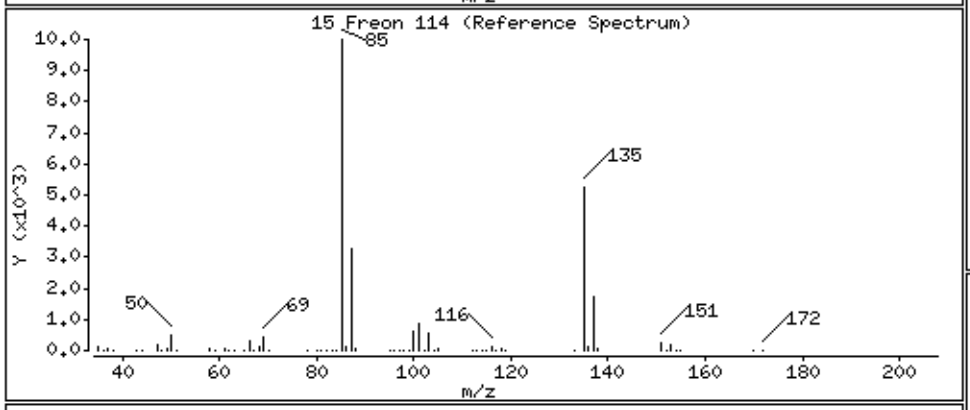
Column diameter: 0.32

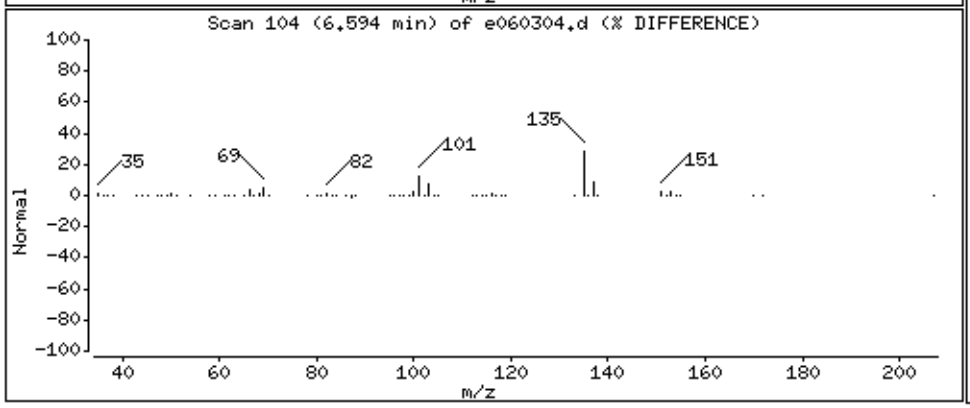
15 Freon 114

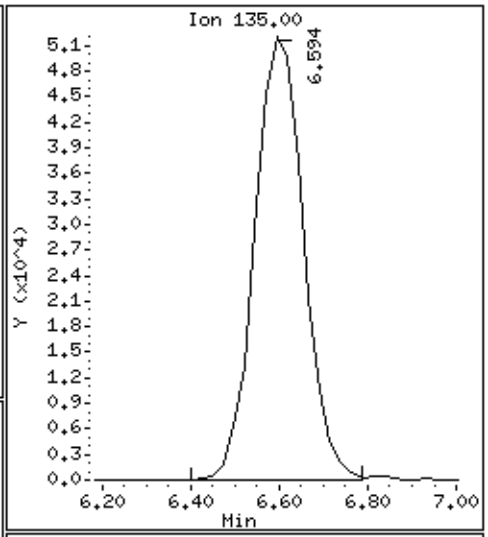
Concentration: 4.764 PPBV

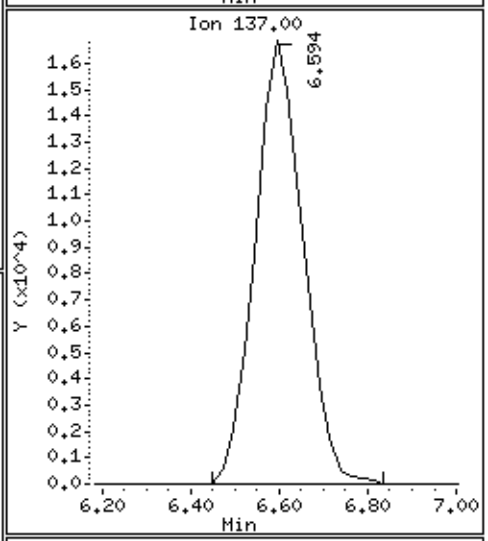


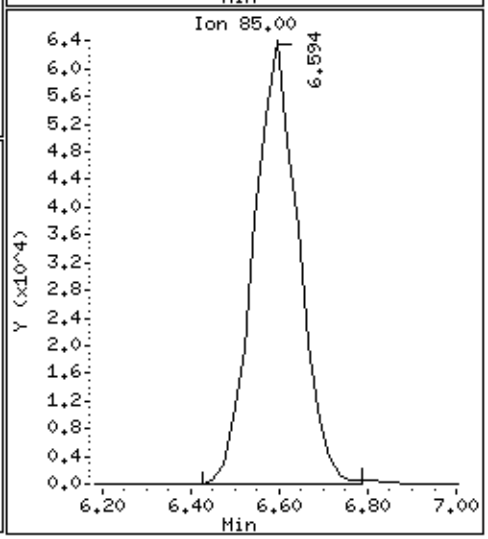












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

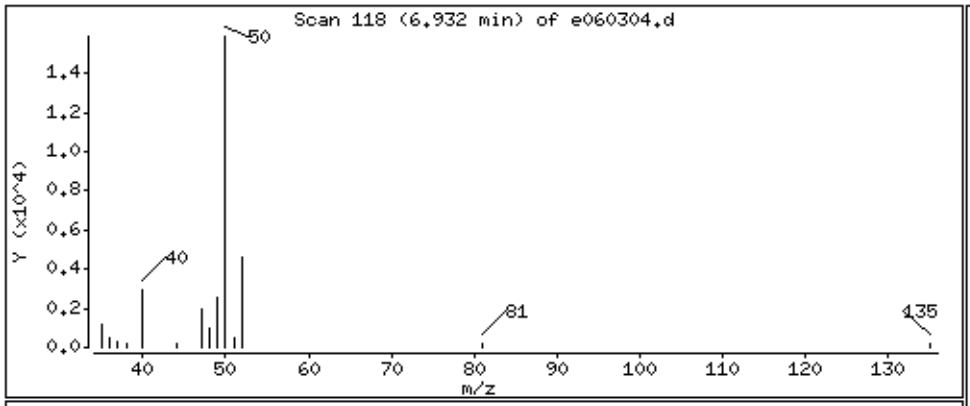
Operator: ef

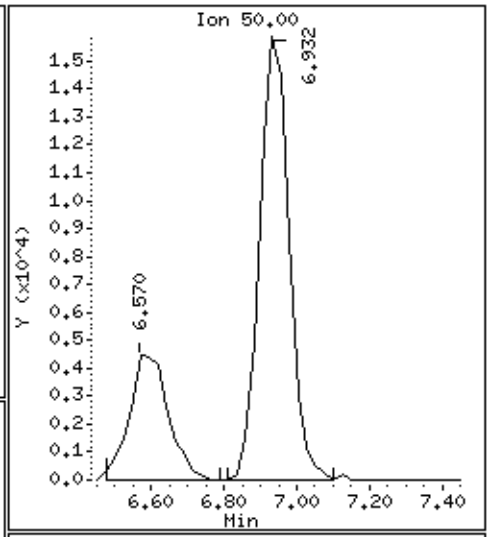
Column phase: RTX-624

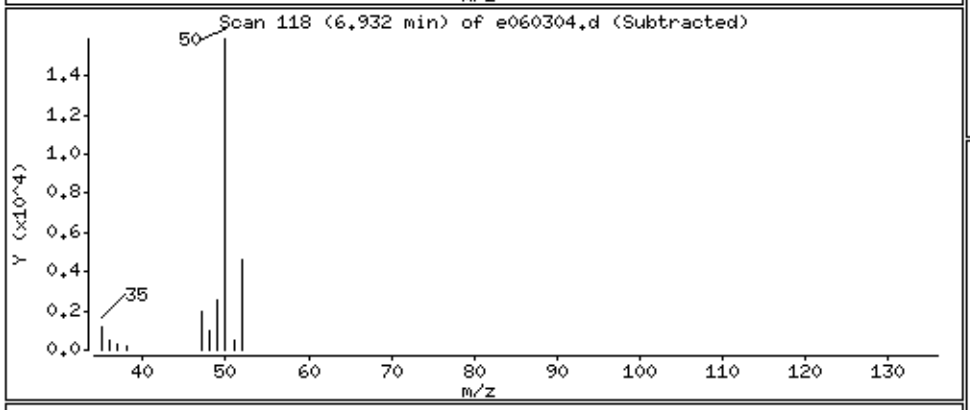
Column diameter: 0.32

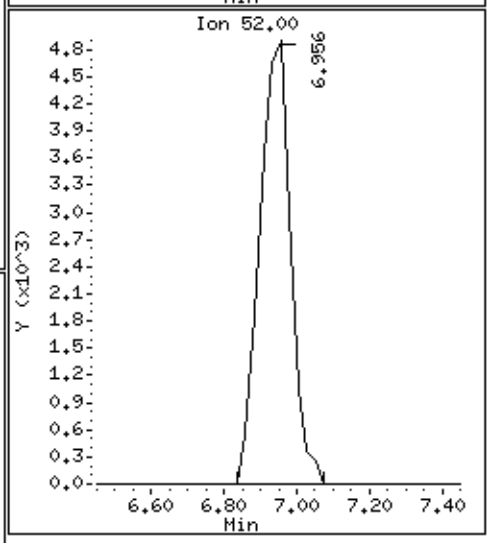
17 Chloromethane

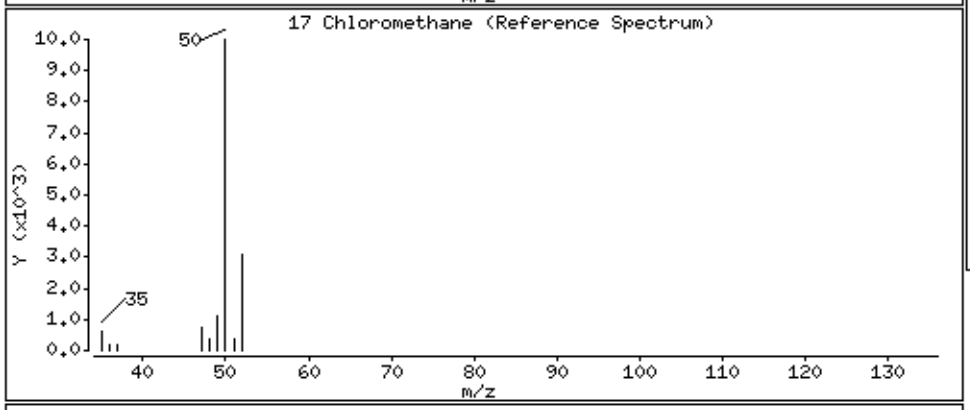
Concentration: 4.185 PPBV

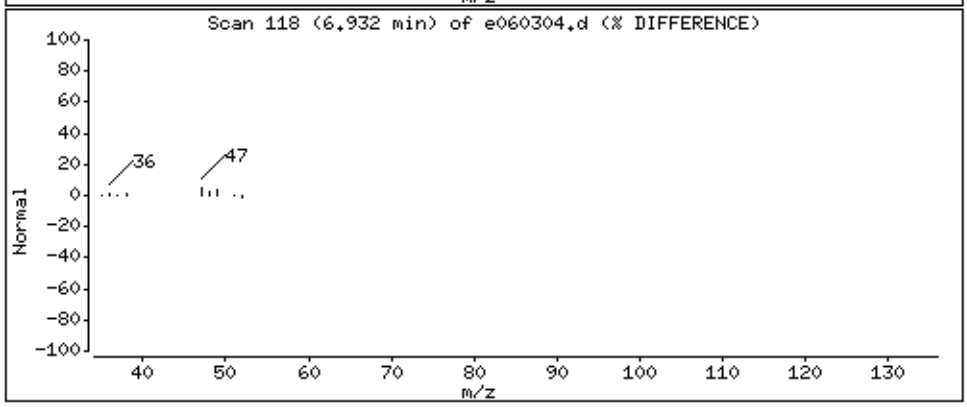












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

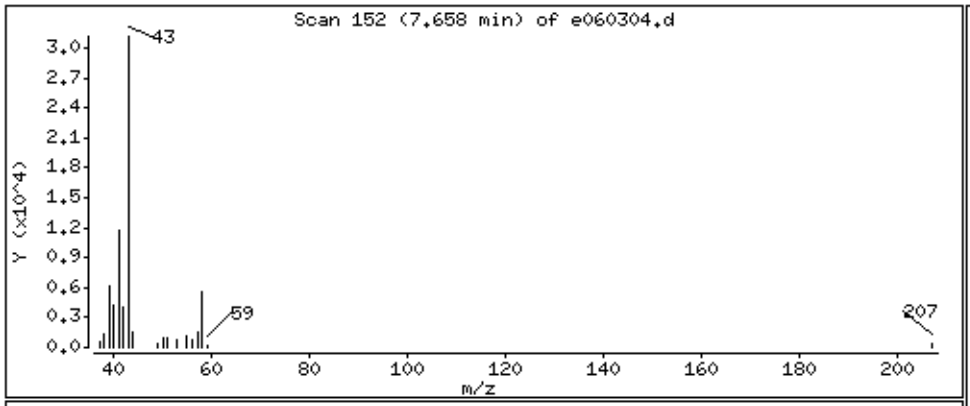
Operator: ef

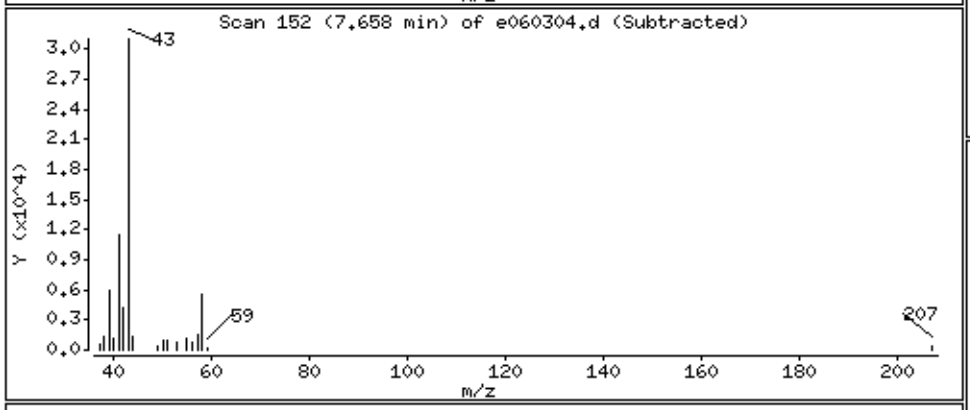
Column phase: RTX-624

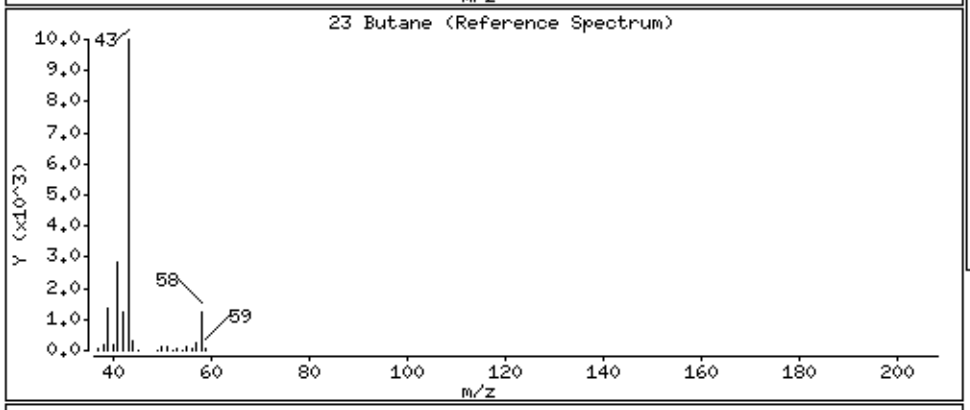
Column diameter: 0.32

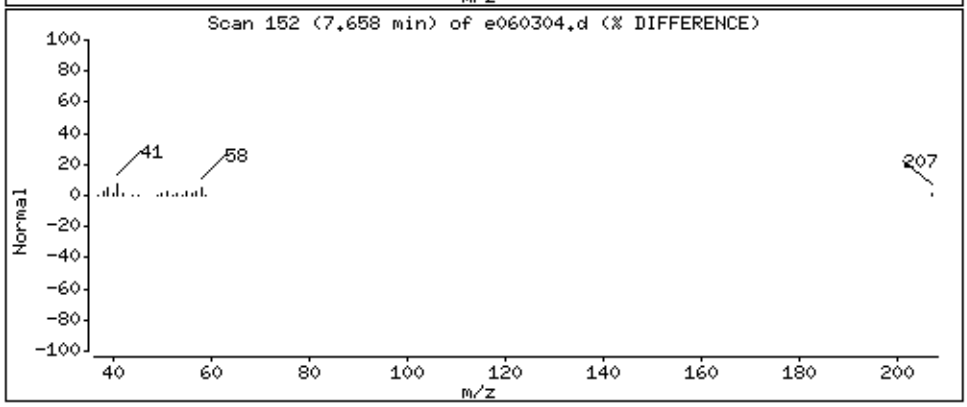
23 Butane

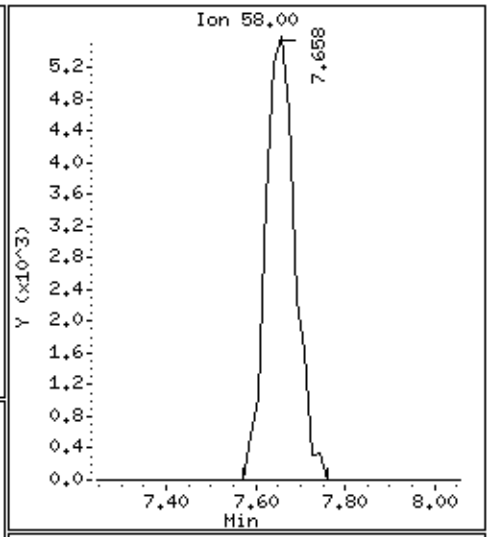
Concentration: 4.654 PPBV

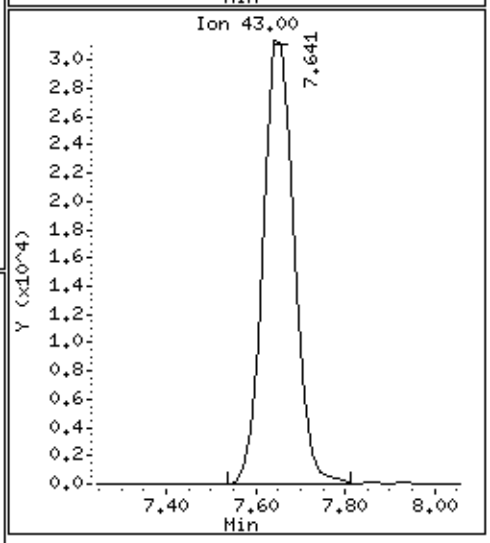












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

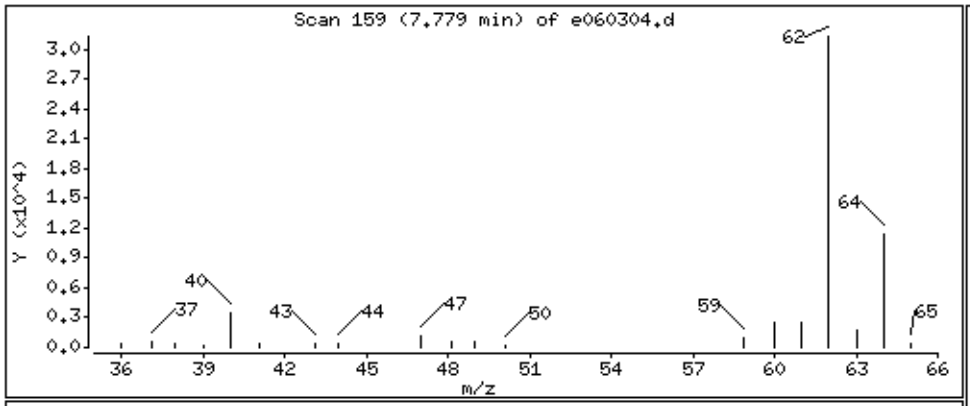
Operator: ef

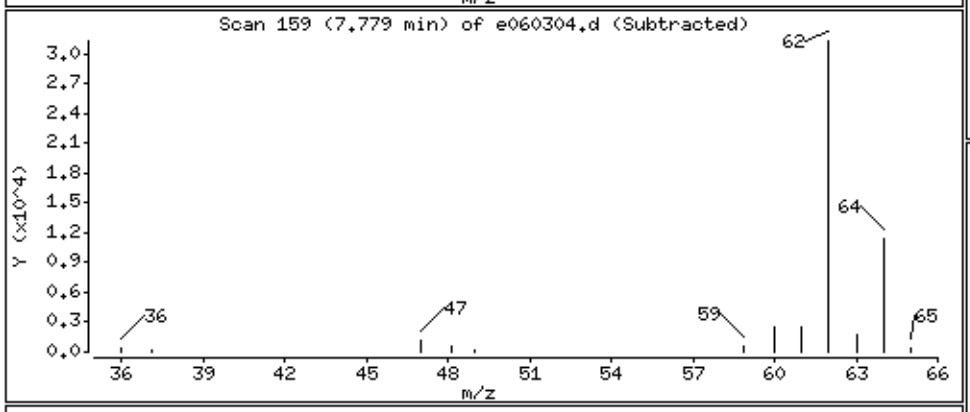
Column phase: RTX-624

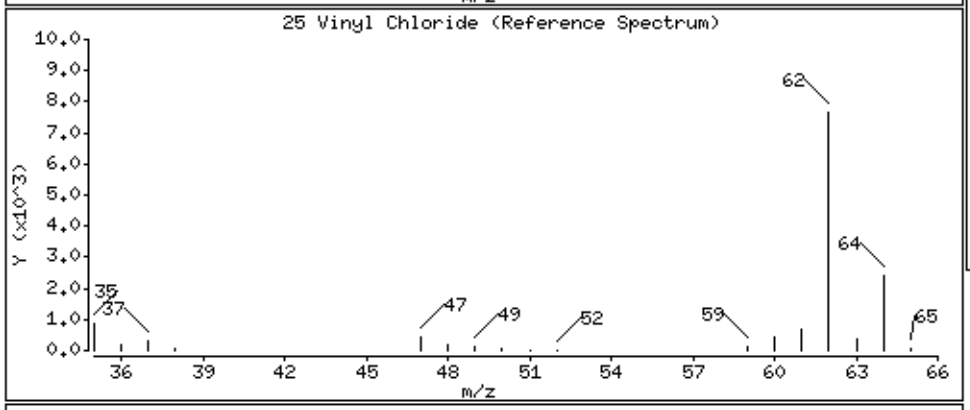
Column diameter: 0.32

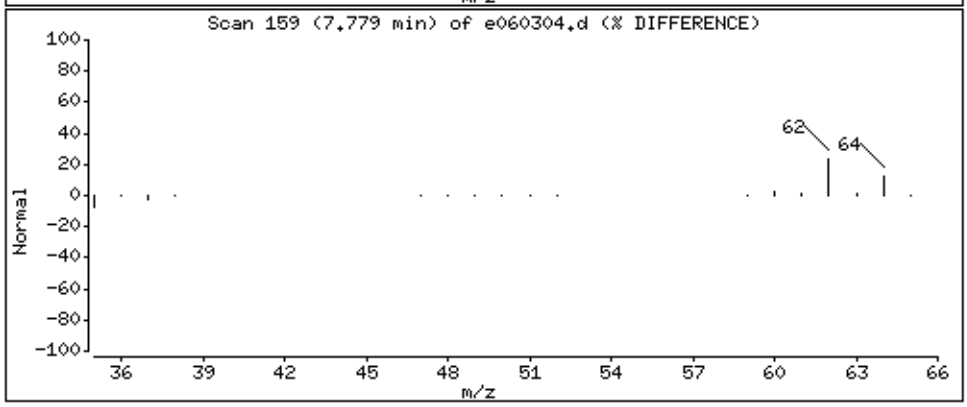
25 Vinyl Chloride

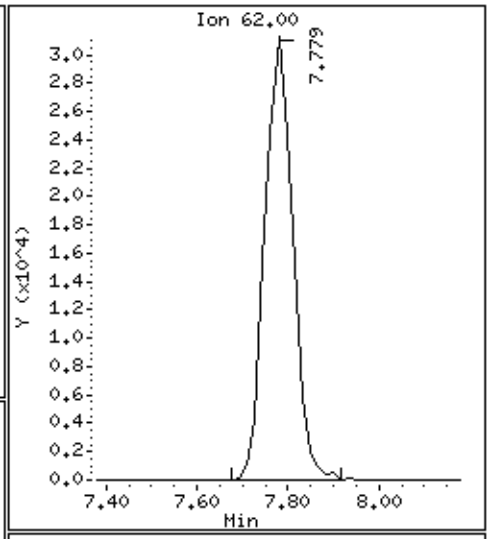
Concentration: 4.303 PPBV

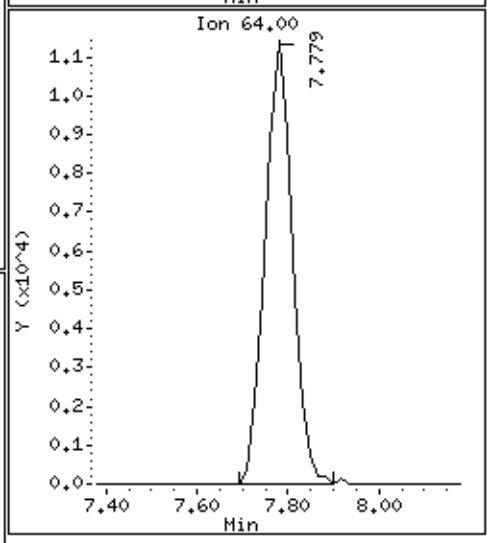












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

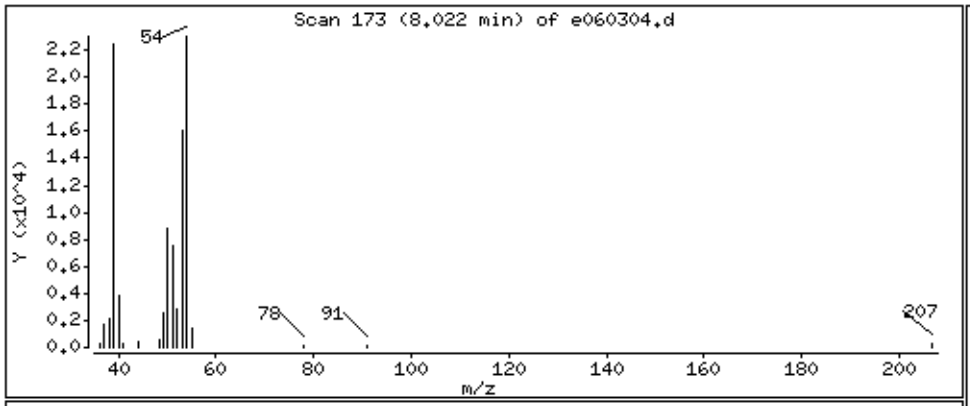
Operator: ef

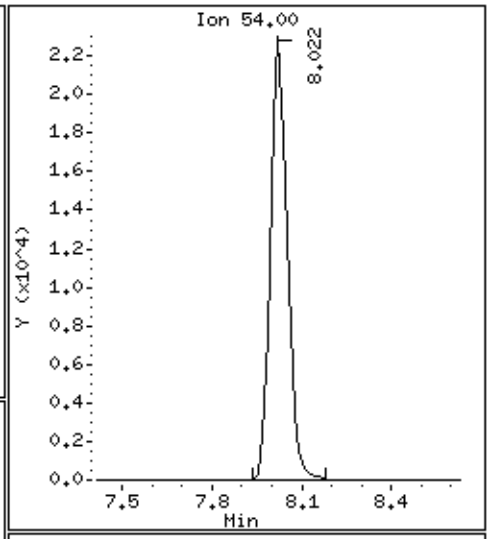
Column phase: RTX-624

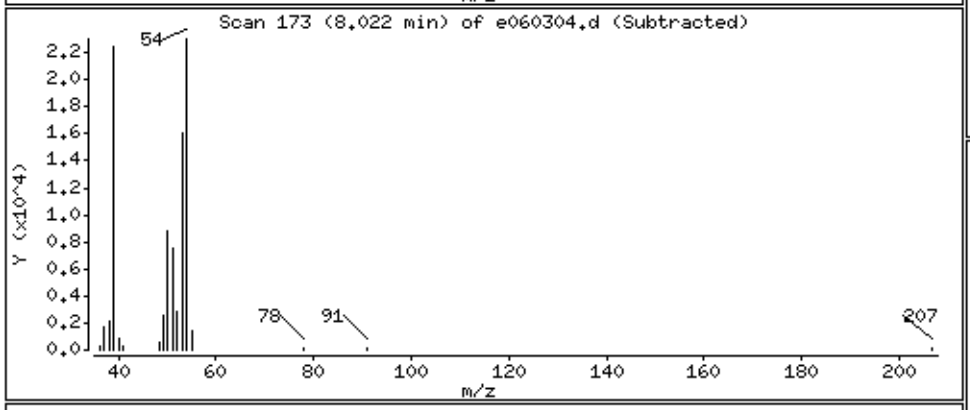
Column diameter: 0.32

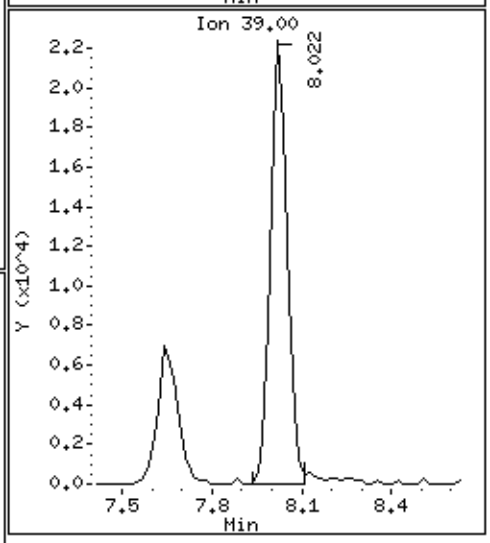
26 1,3-Butadiene

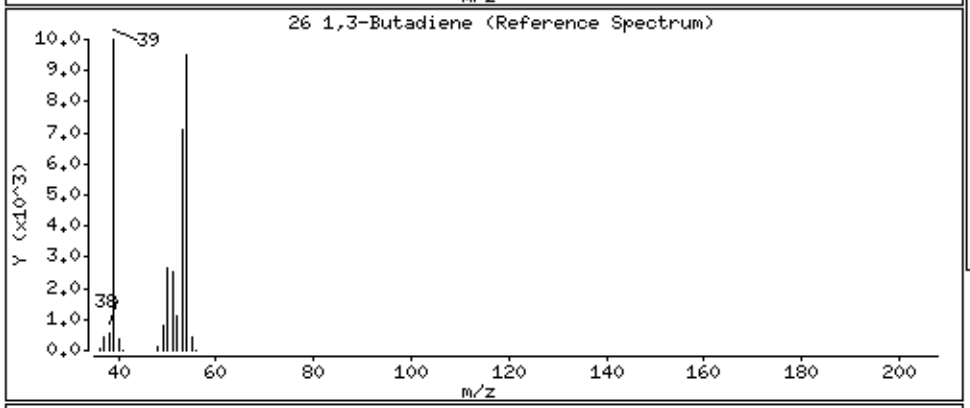
Concentration: 4.352 PPBV

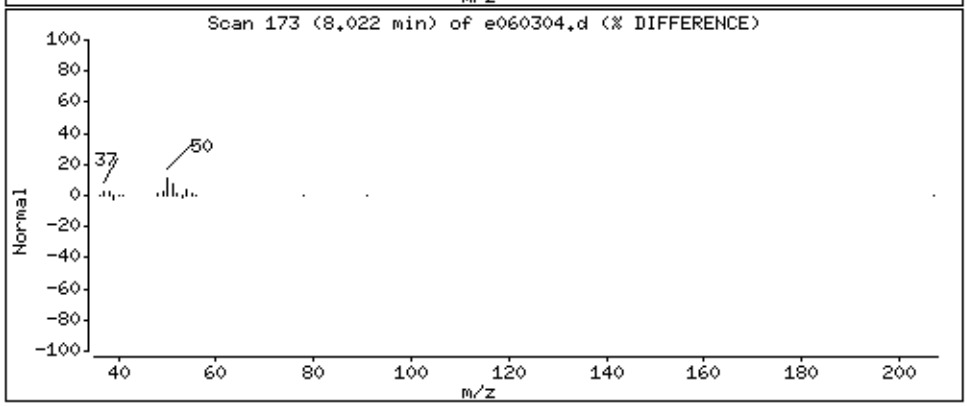












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

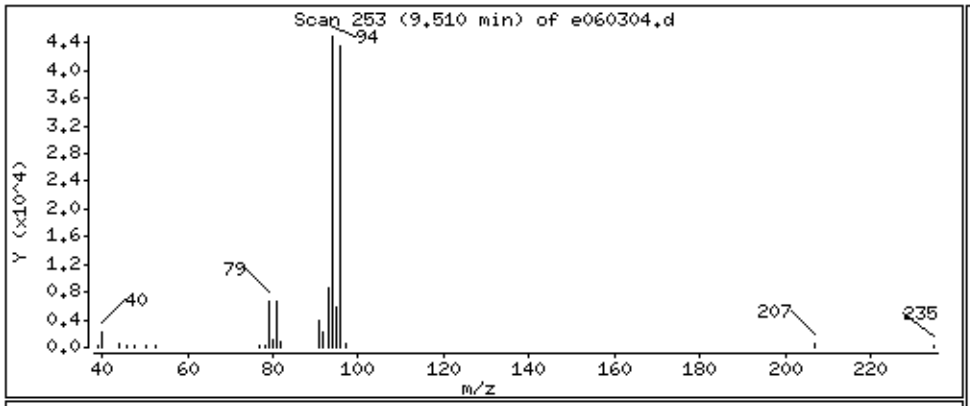
Operator: ef

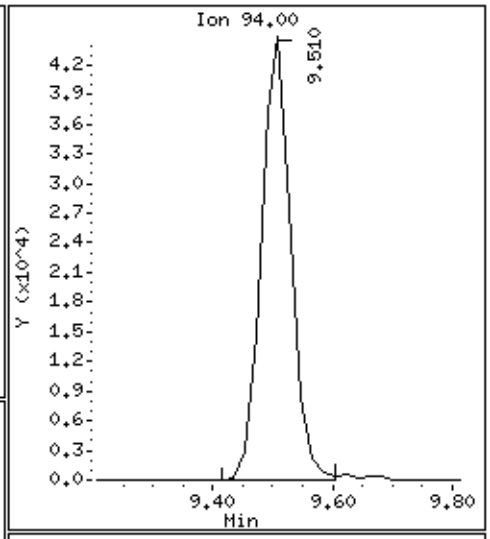
Column phase: RTX-624

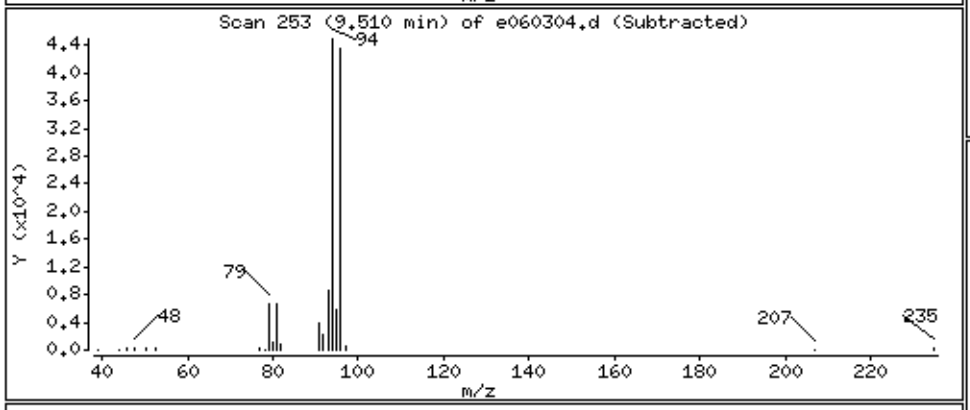
Column diameter: 0.32

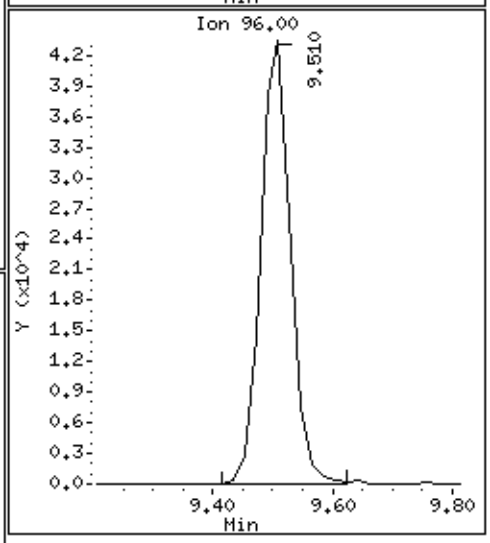
29 Bromomethane

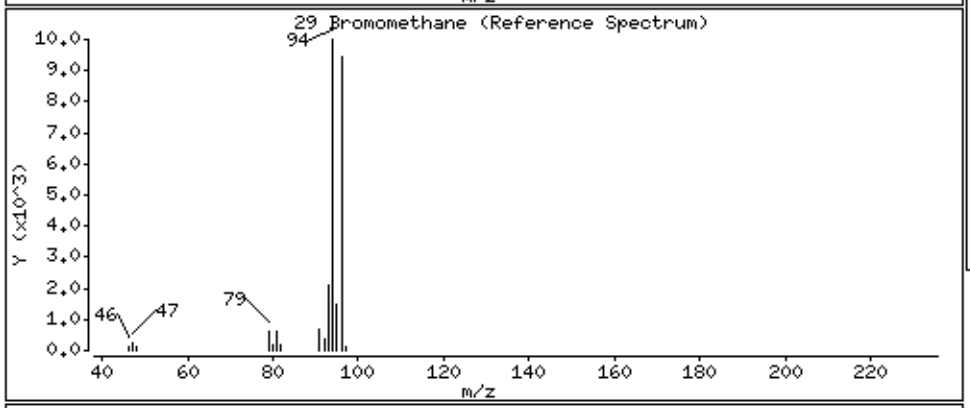
Concentration: 4.772 PPBV

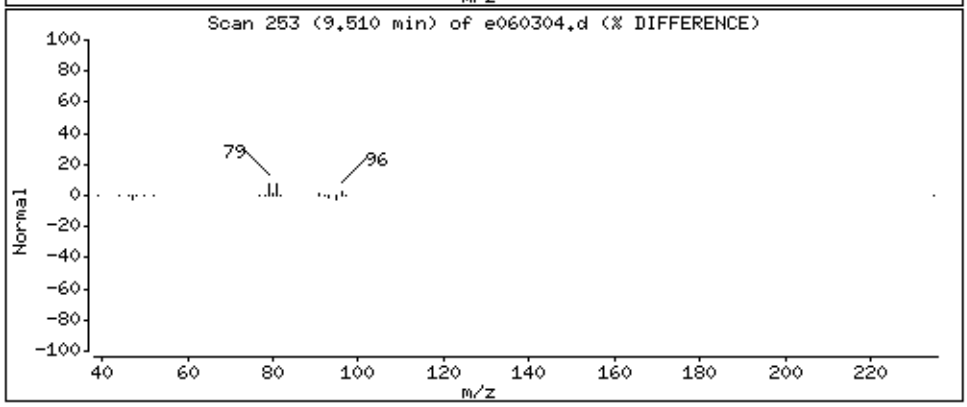












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

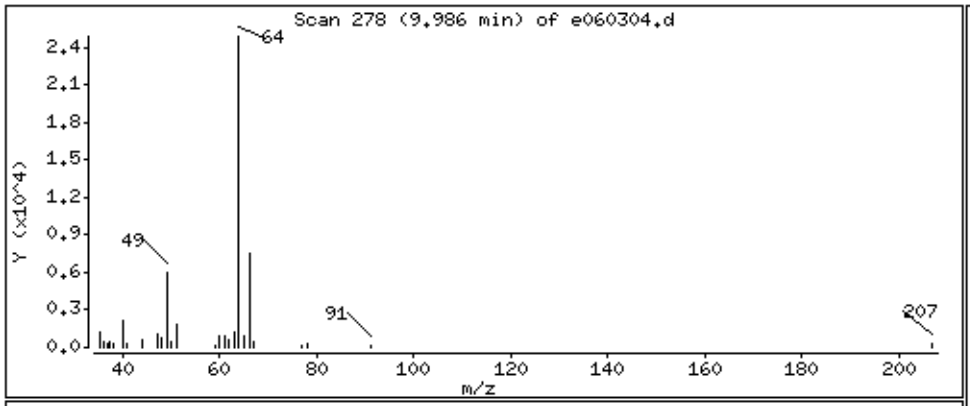
Operator: ef

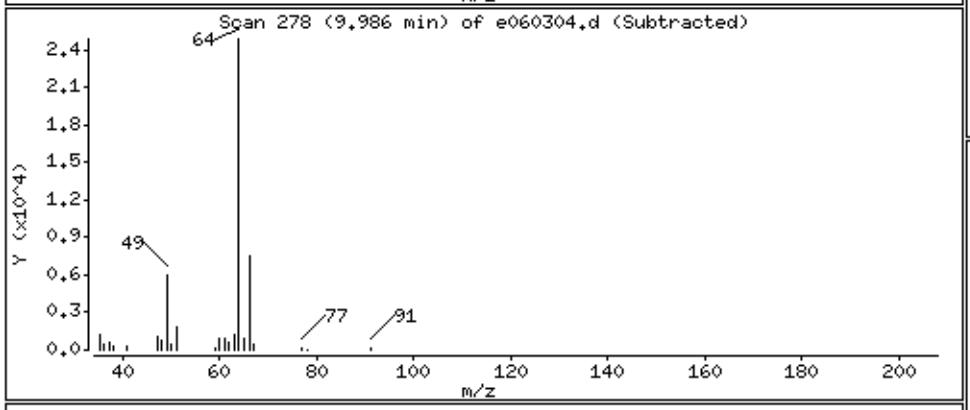
Column phase: RTX-624

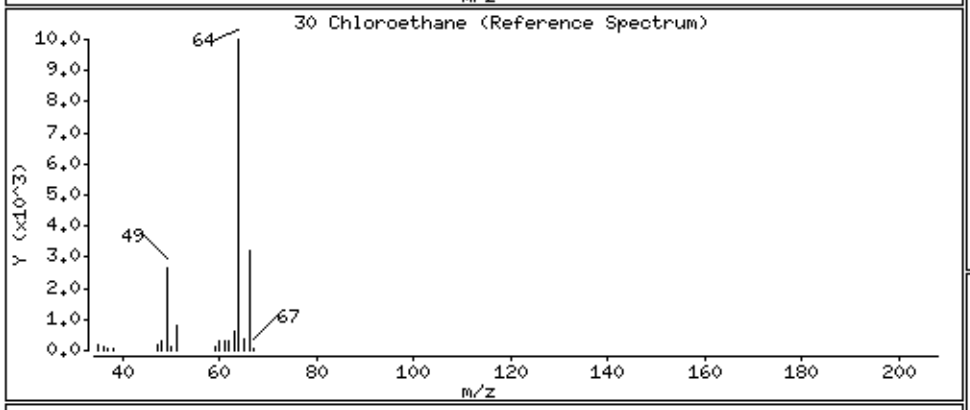
Column diameter: 0.32

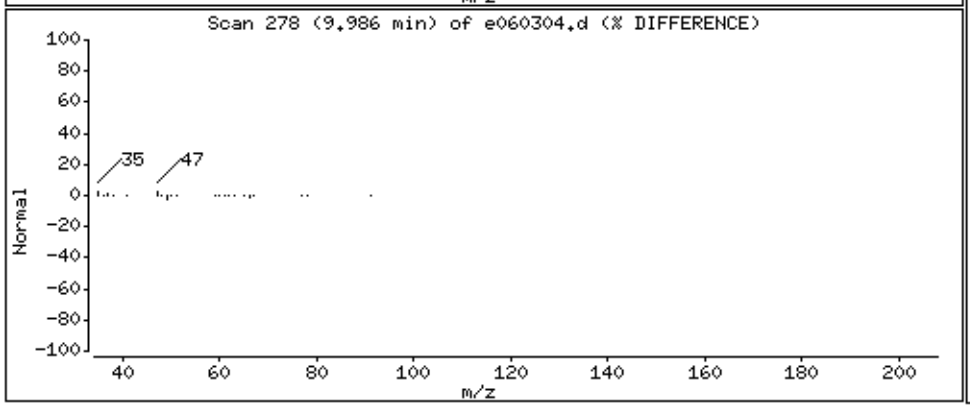
30 Chloroethane

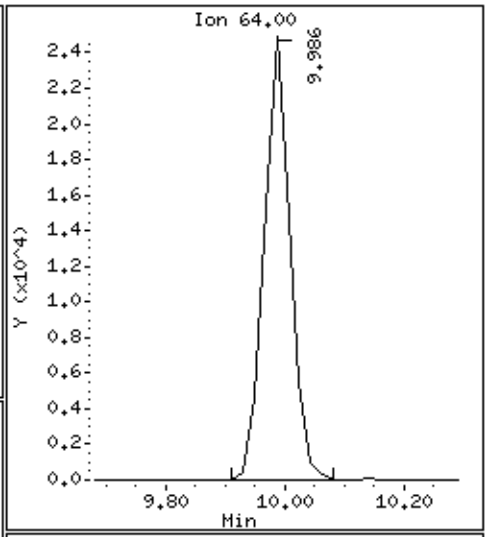
Concentration: 5.435 PPBV

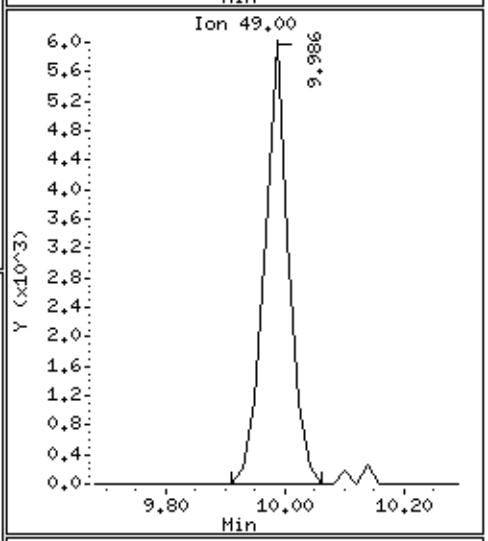


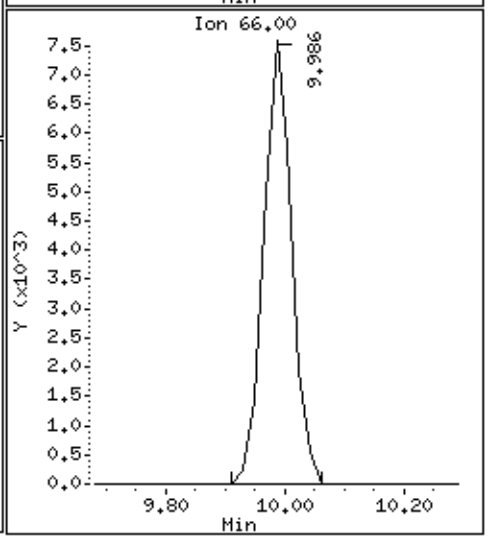












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

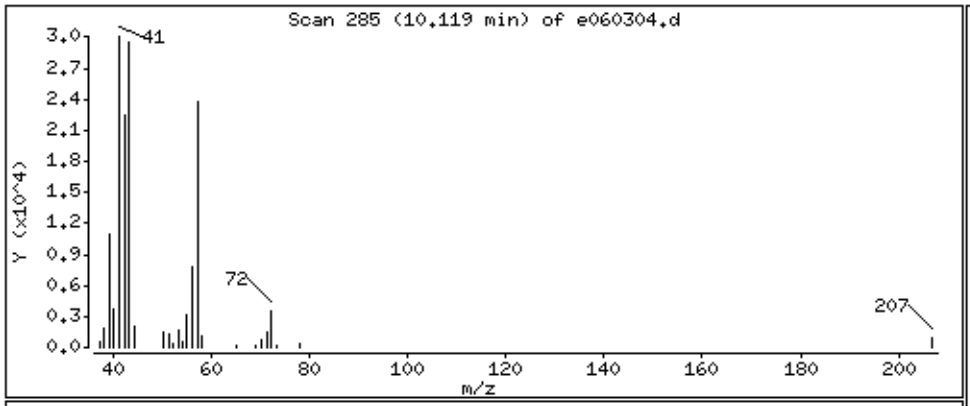
Operator: ef

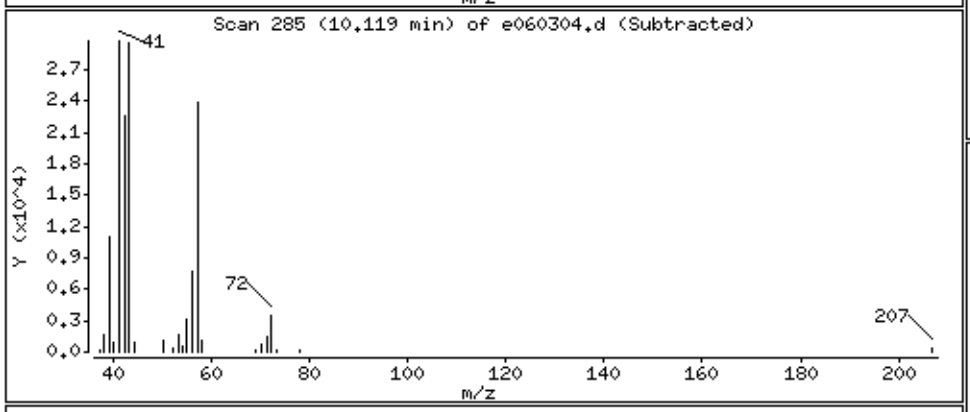
Column phase: RTX-624

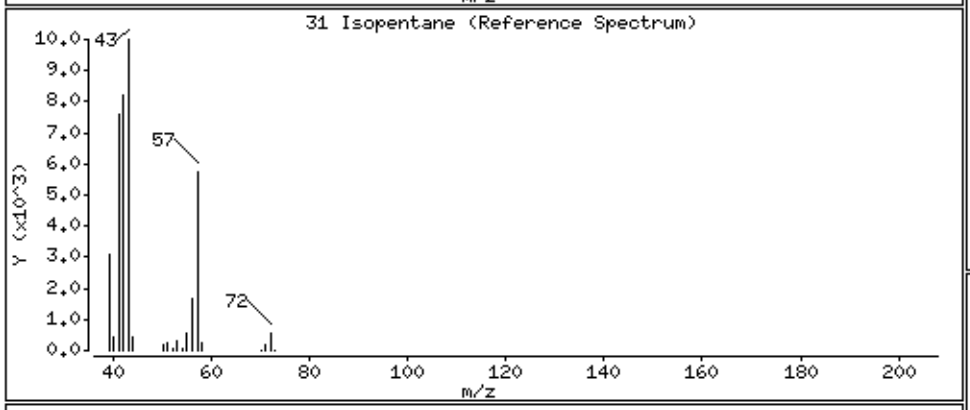
Column diameter: 0.32

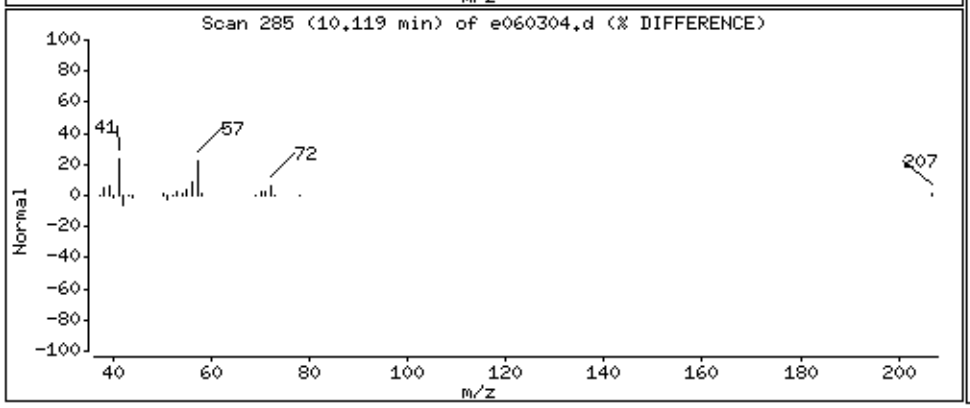
31 Isopentane

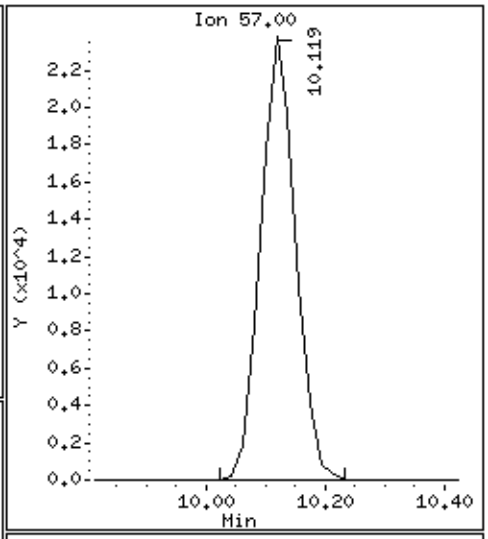
Concentration: 4.753 PPBV

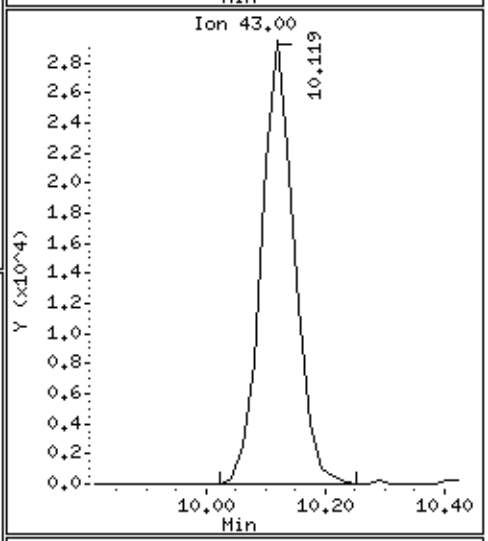


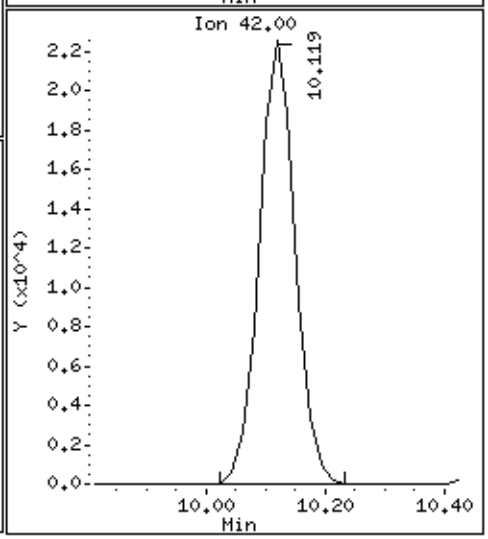












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

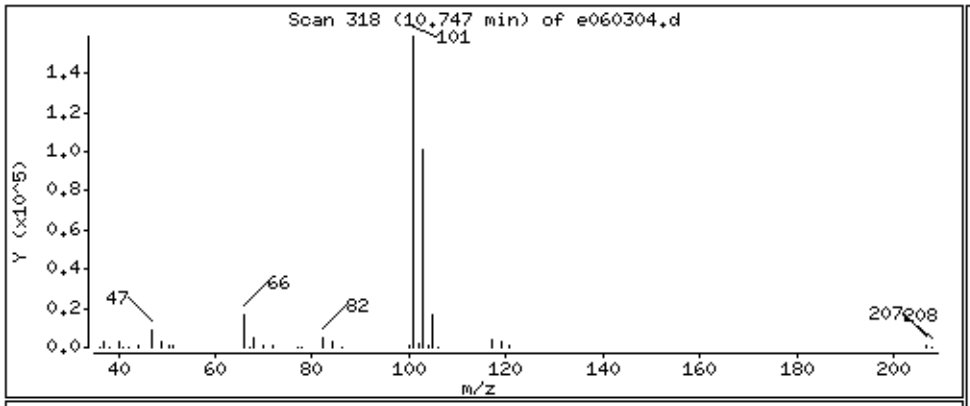
Operator: ef

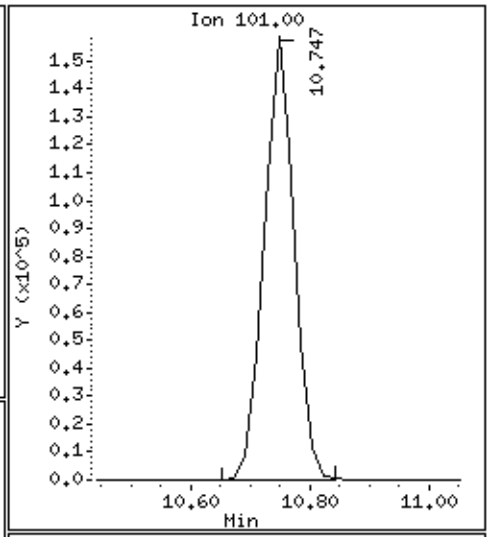
Column phase: RTX-624

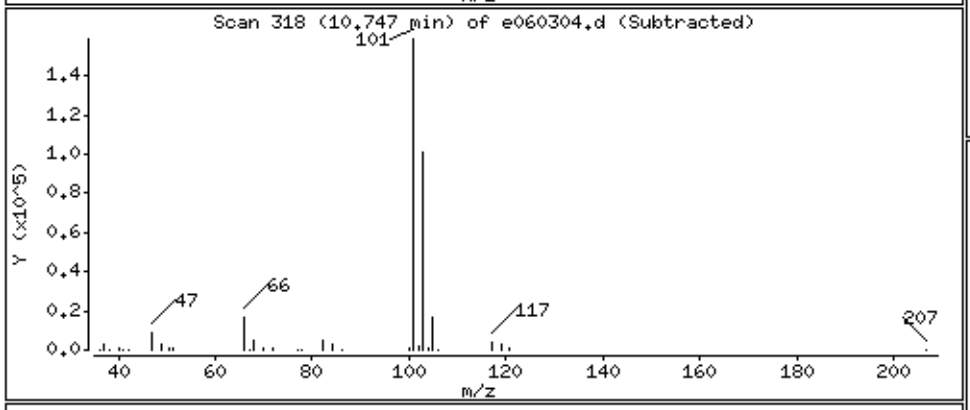
Column diameter: 0.32

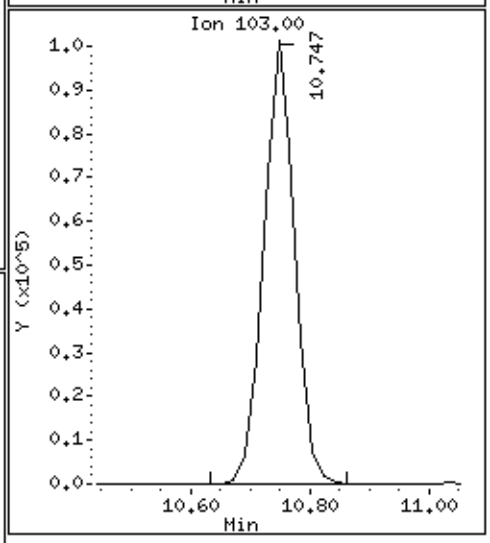
35 Freon 11

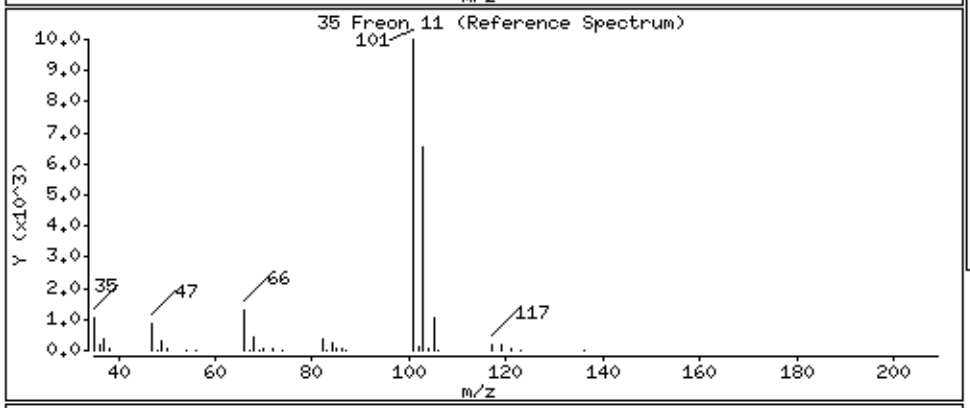
Concentration: 4.647 PPBV

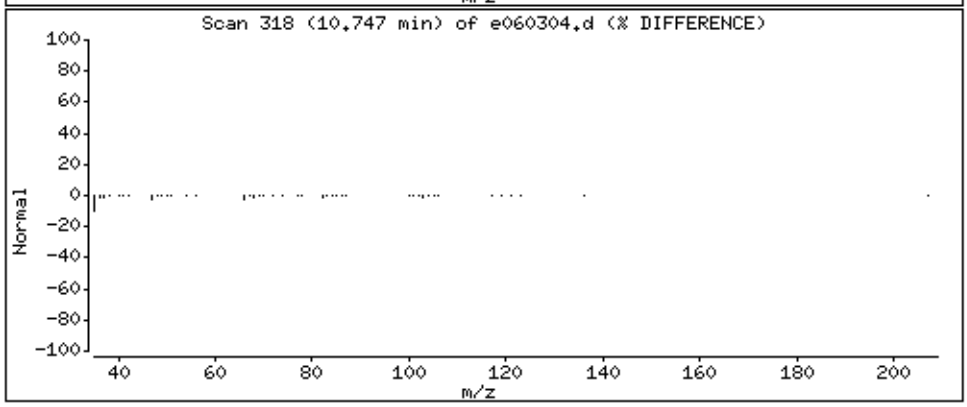












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

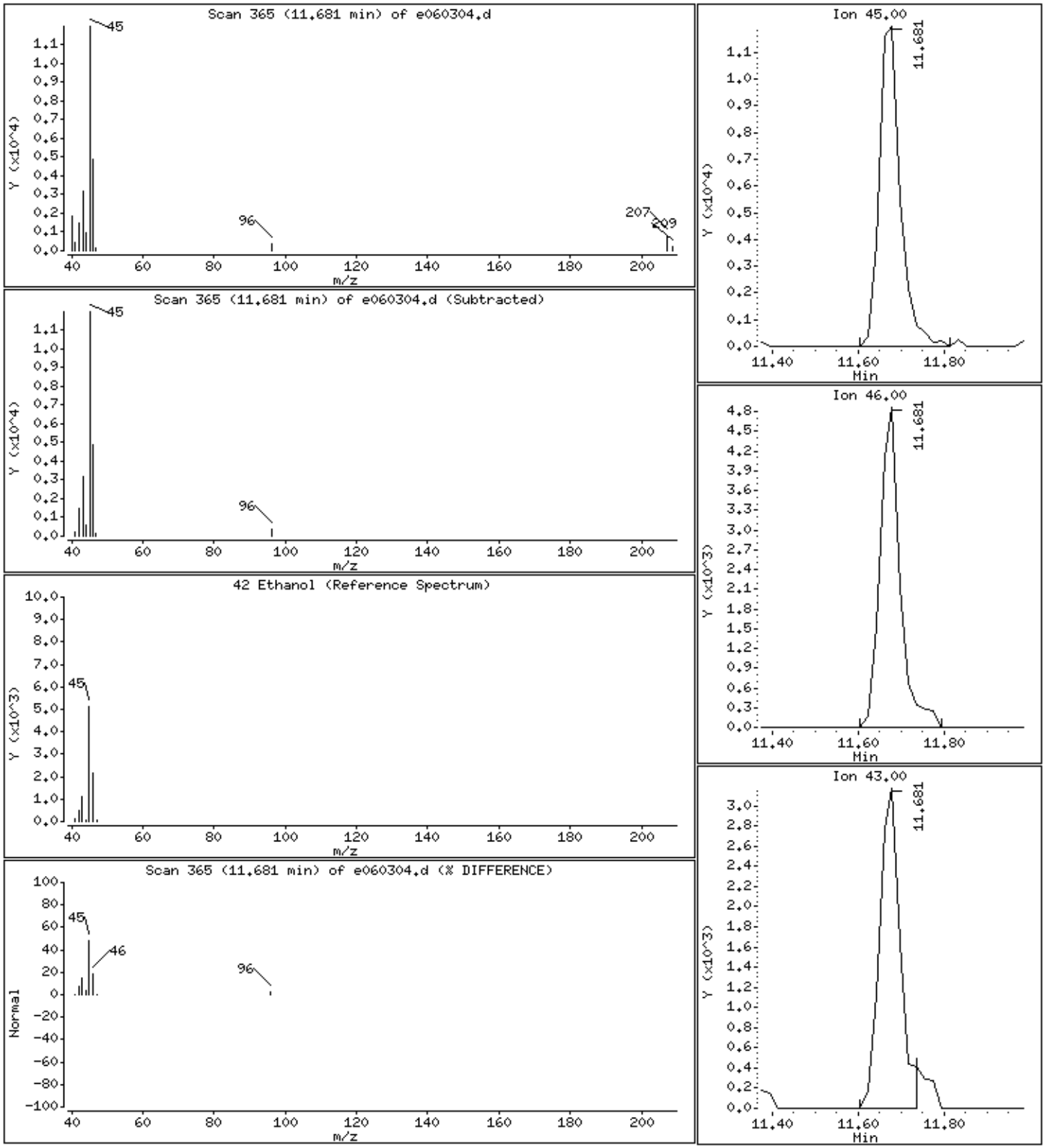
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

42 Ethanol

Concentration: 4.757 PPBV



Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

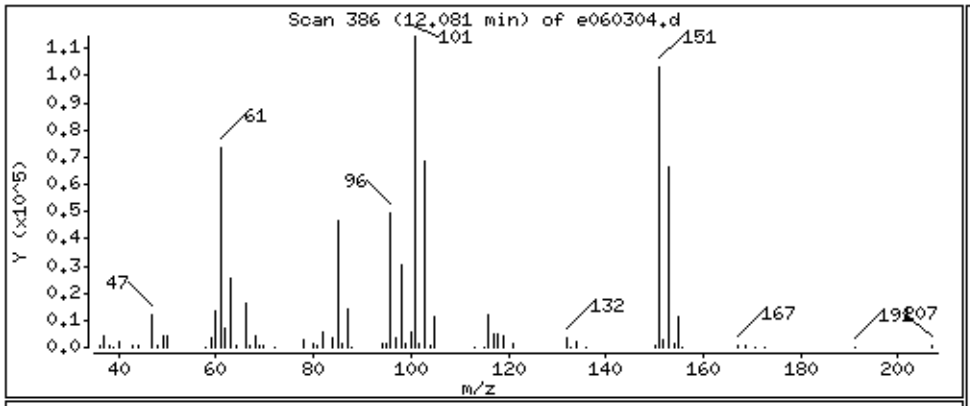
Operator: ef

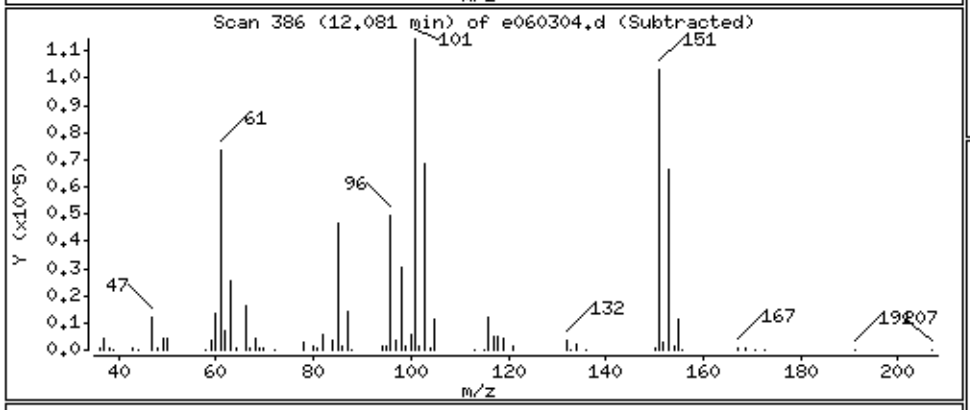
Column phase: RTX-624

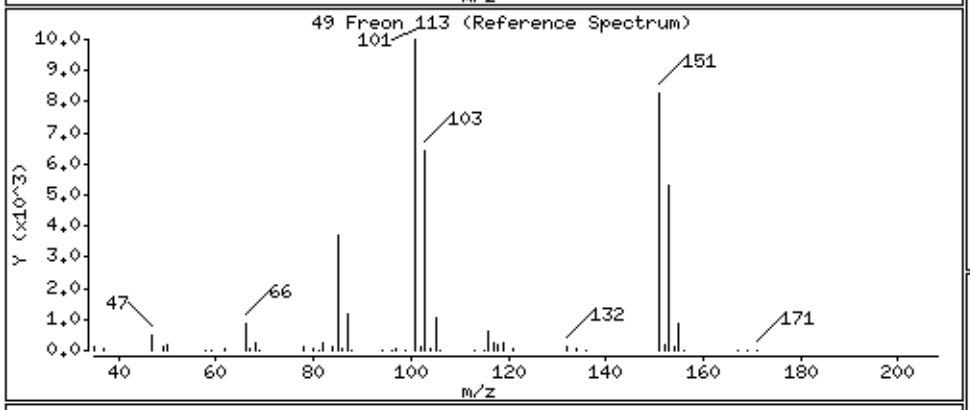
Column diameter: 0.32

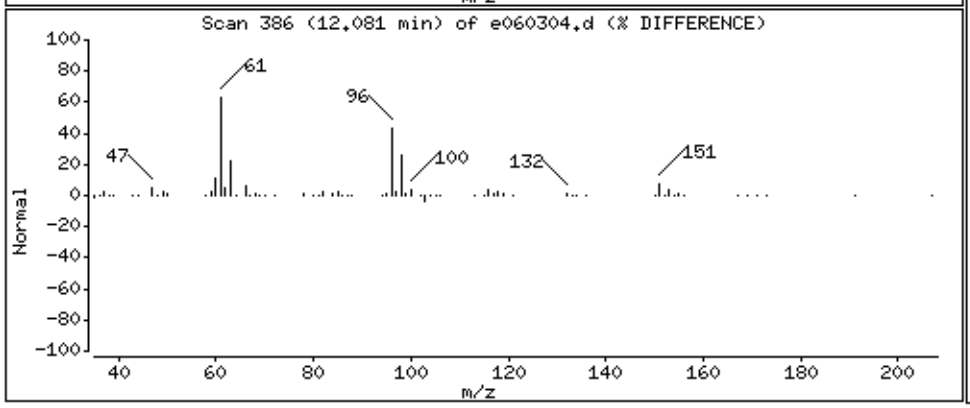
49 Freon 113

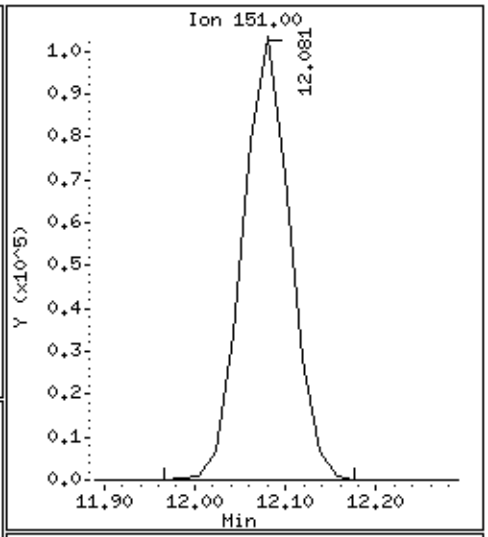
Concentration: 4.097 PPBV

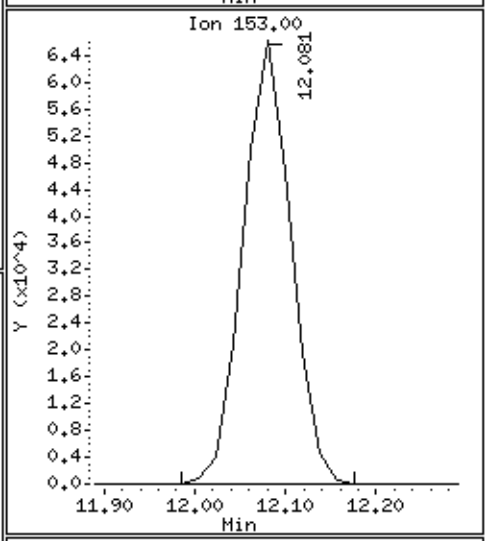


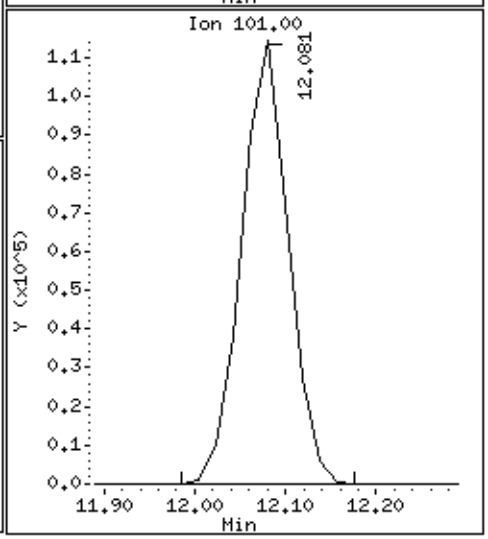












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

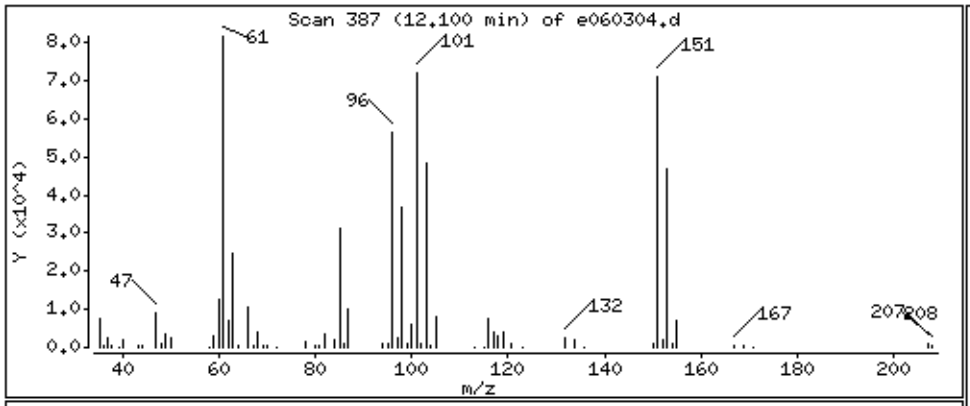
Operator: ef

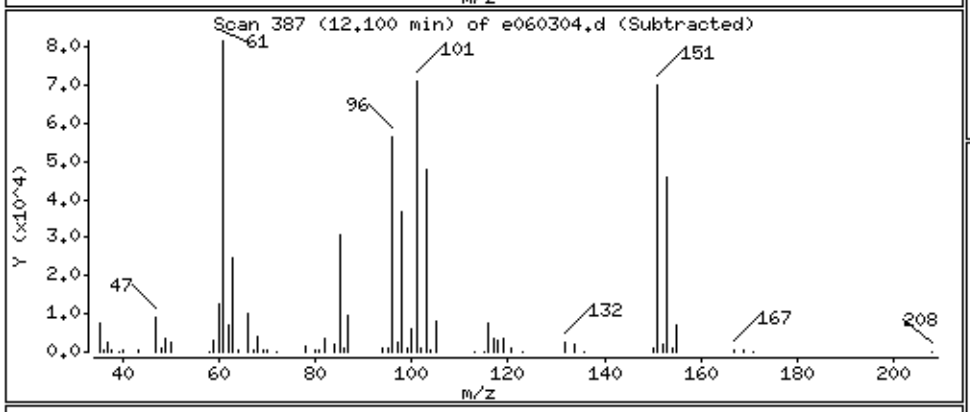
Column phase: RTX-624

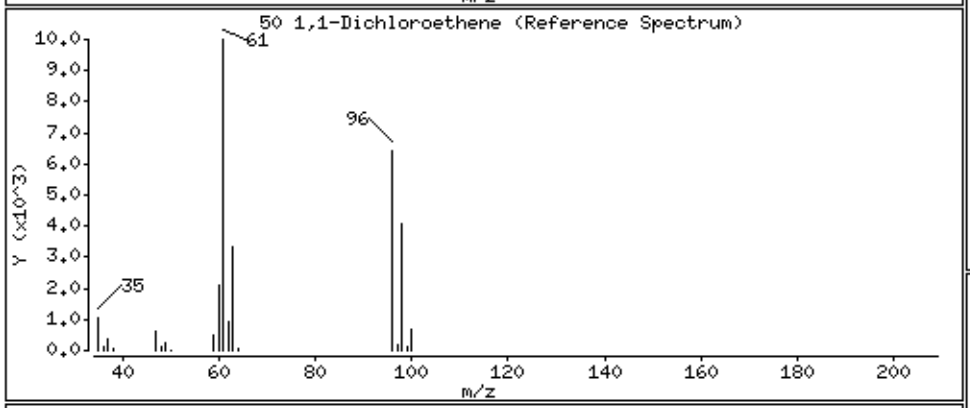
Column diameter: 0.32

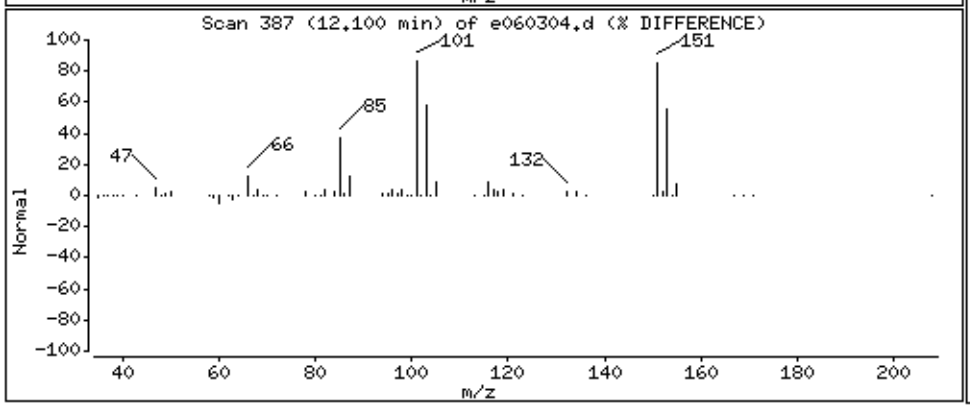
50 1,1-Dichloroethene

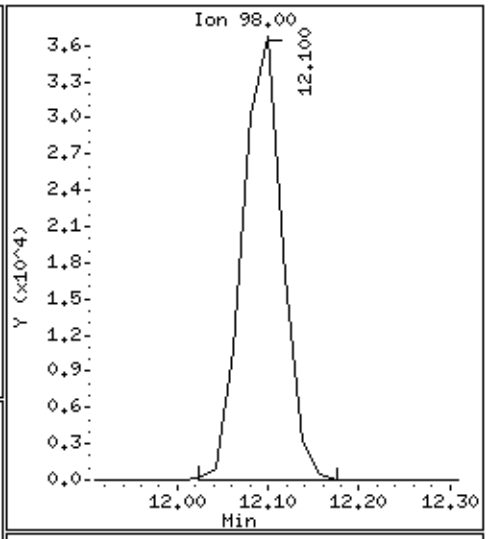
Concentration: 4.414 PPBV

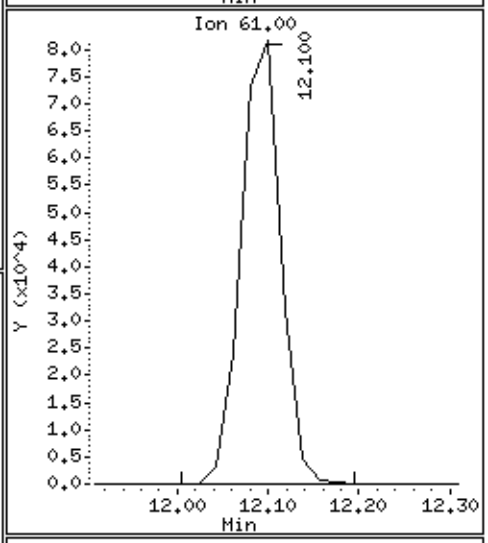


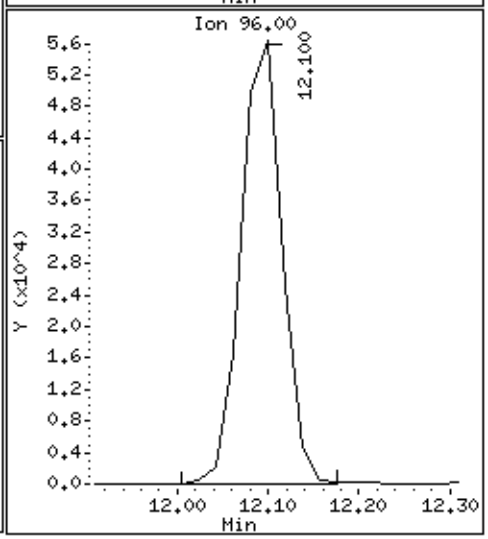












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

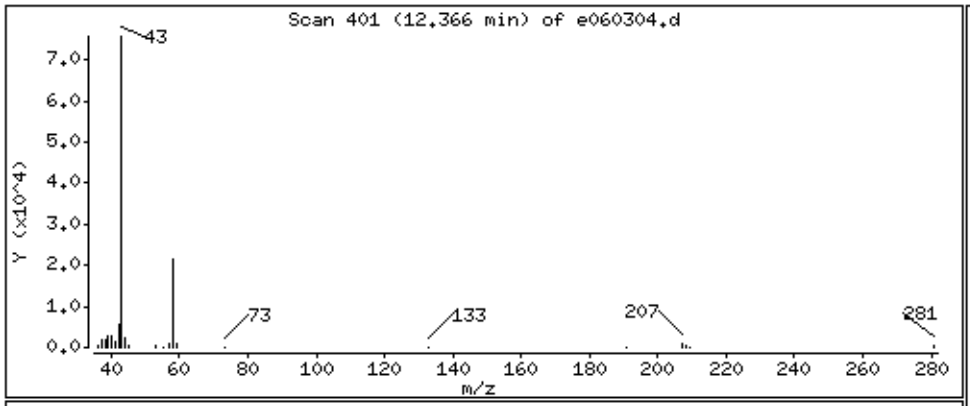
Operator: ef

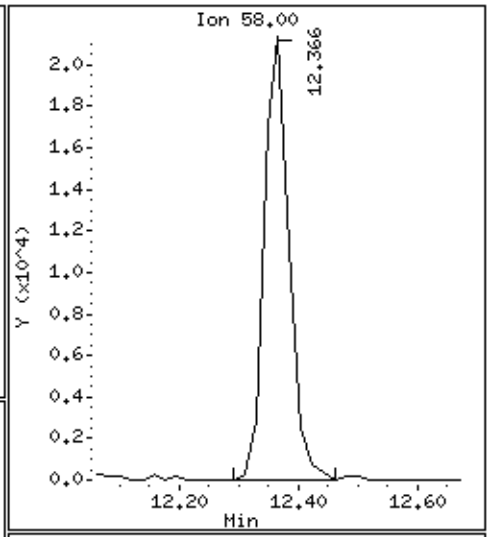
Column phase: RTX-624

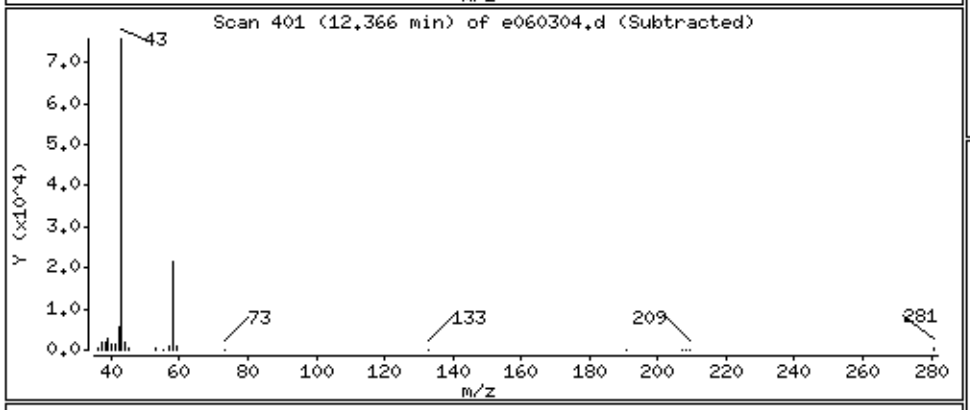
Column diameter: 0.32

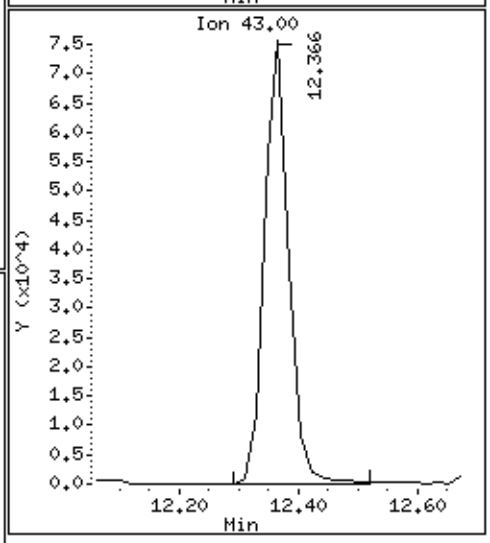
52 Acetone

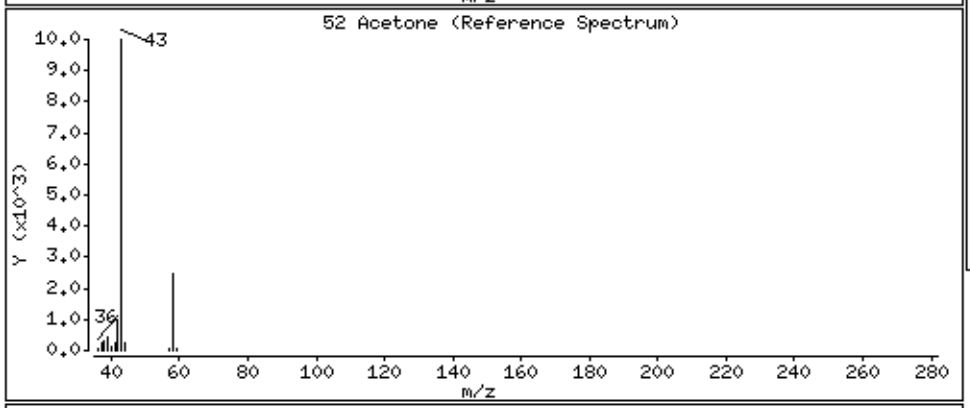
Concentration: 4.275 PPBV

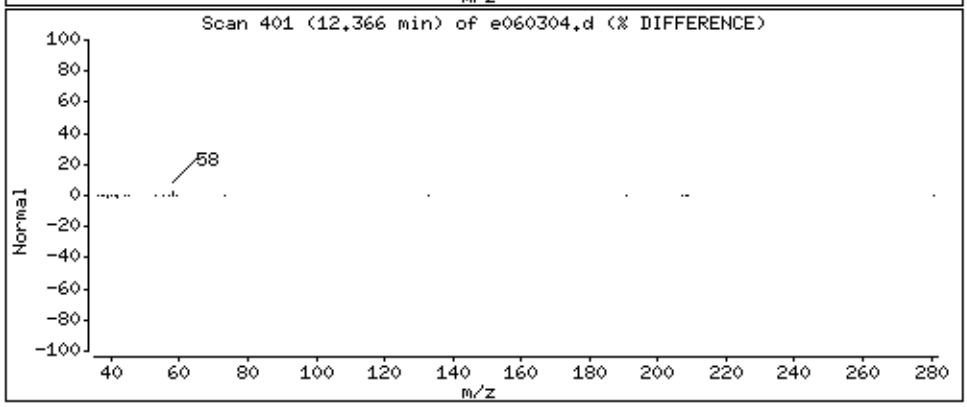












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

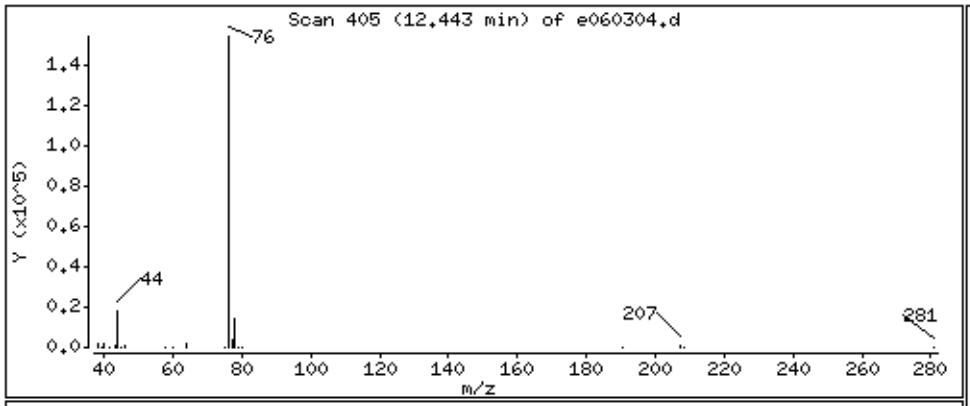
Operator: ef

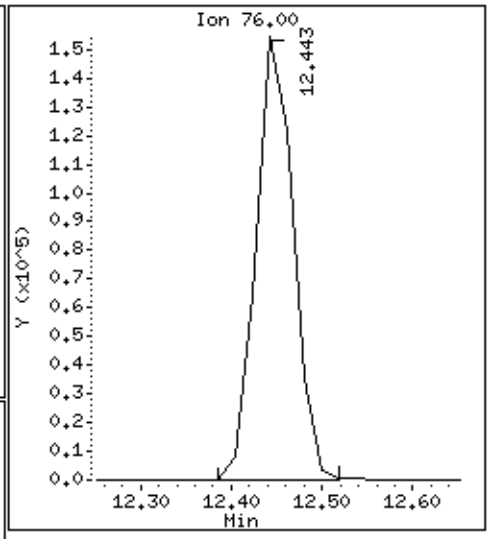
Column phase: RTX-624

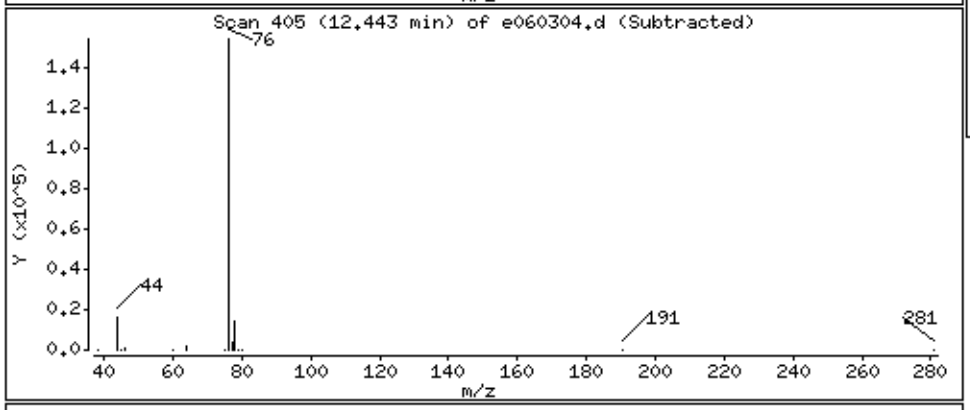
Column diameter: 0.32

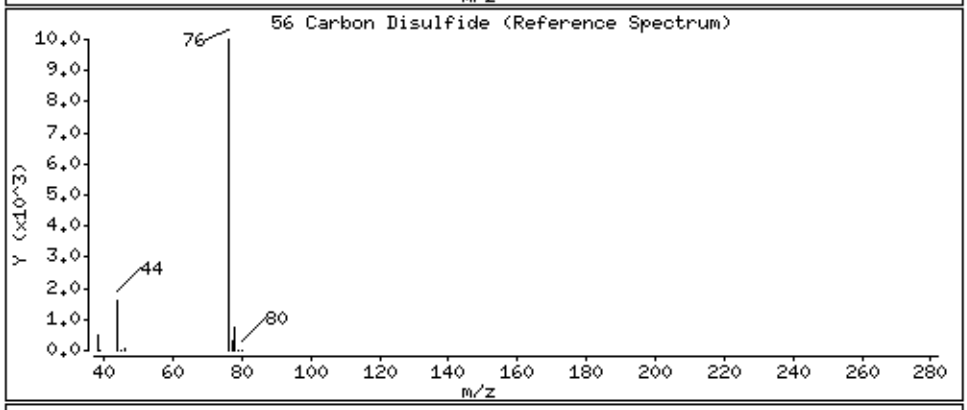
56 Carbon Disulfide

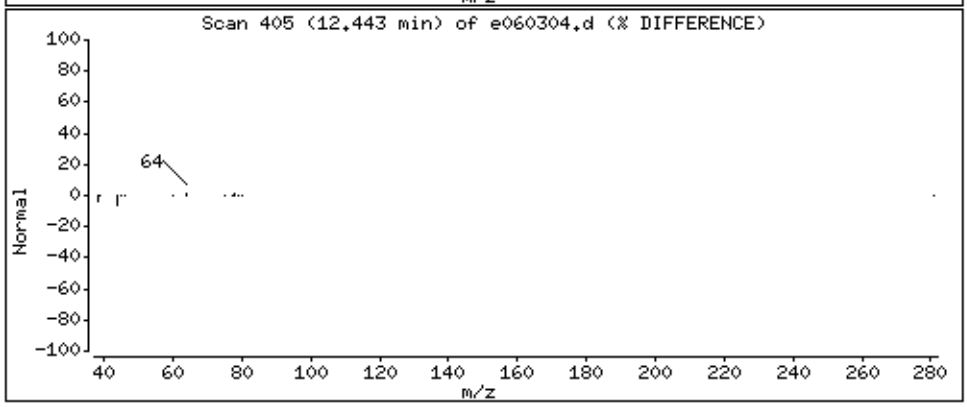
Concentration: 3.835 PPBV











Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

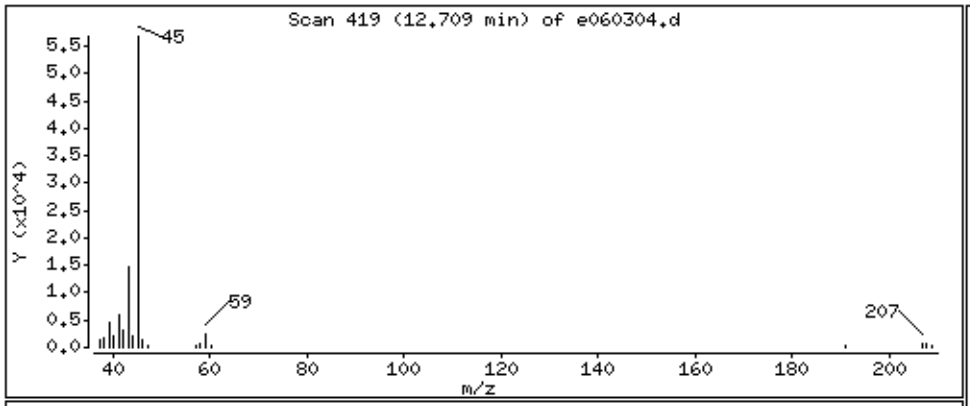
Operator: ef

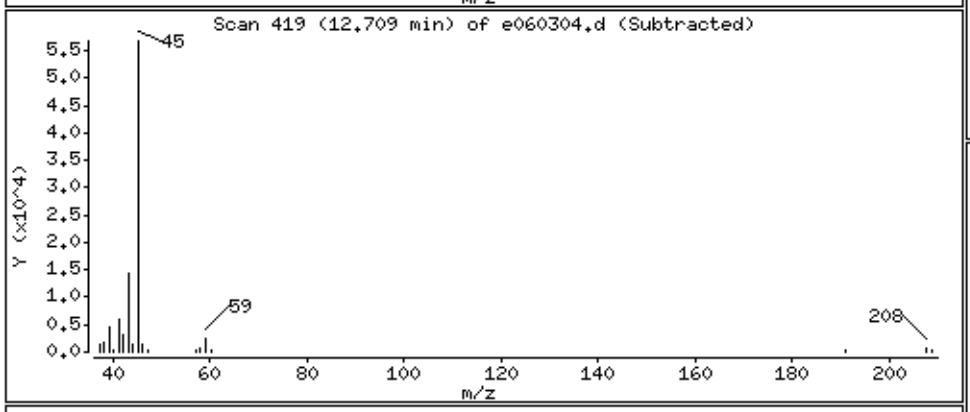
Column phase: RTX-624

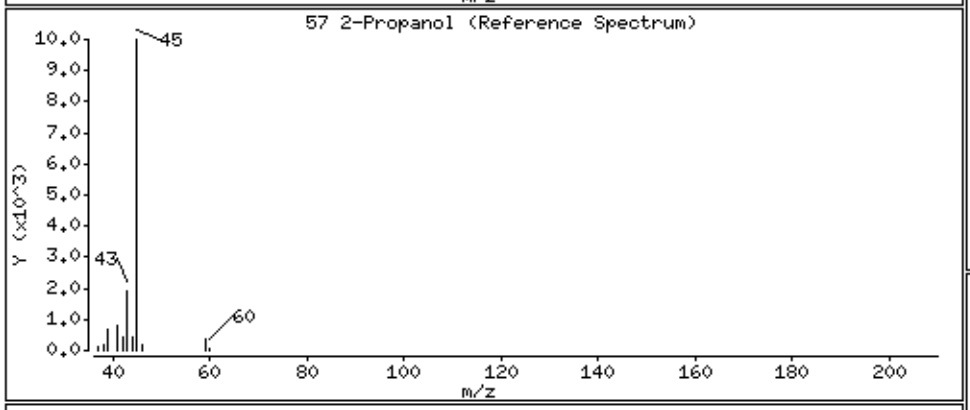
Column diameter: 0.32

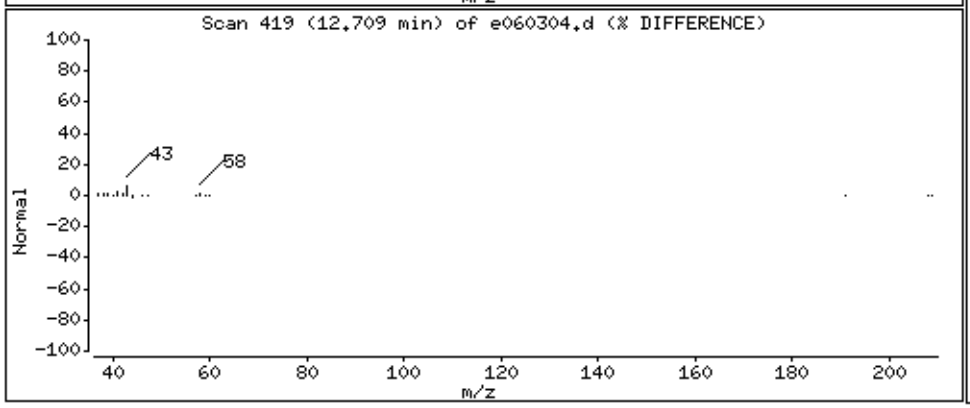
57 2-Propanol

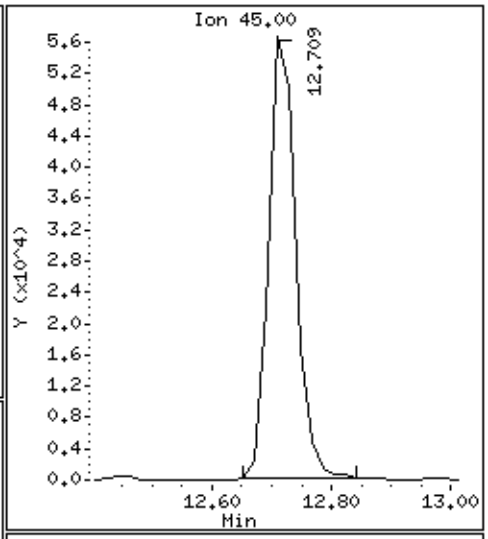
Concentration: 3.825 PPBV

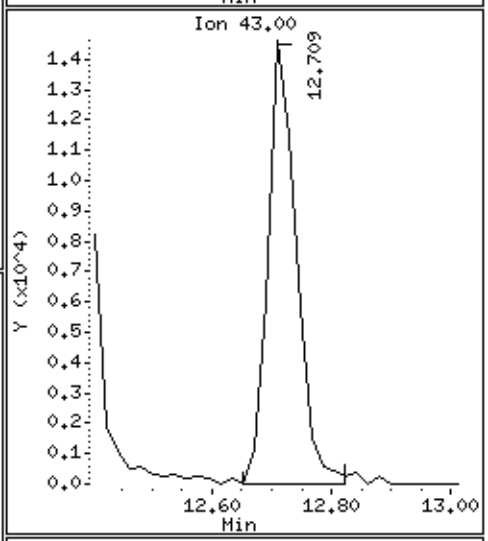


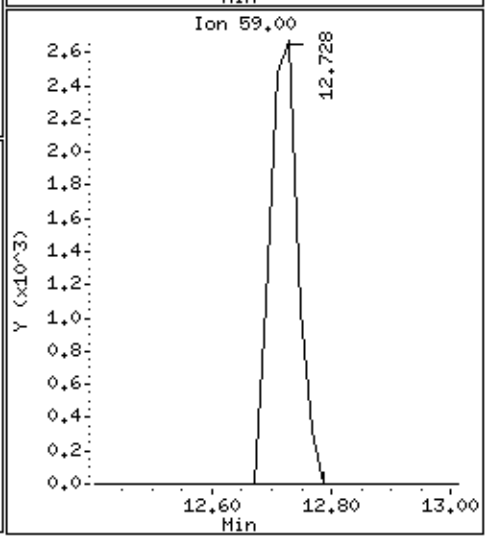












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

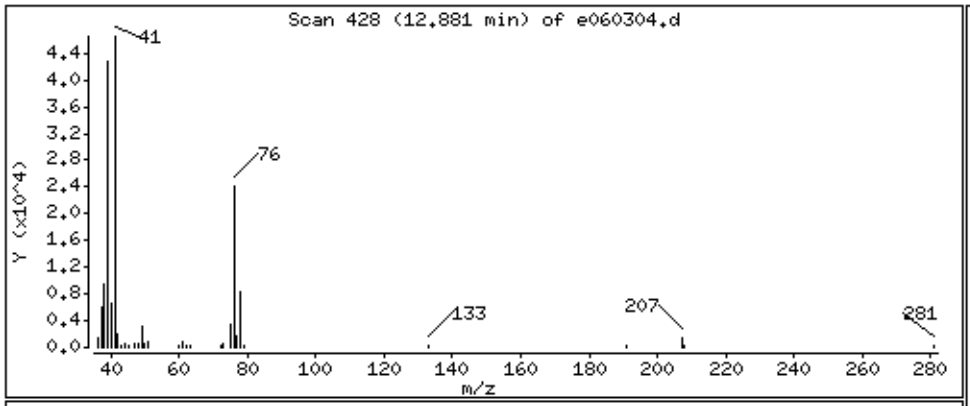
Operator: ef

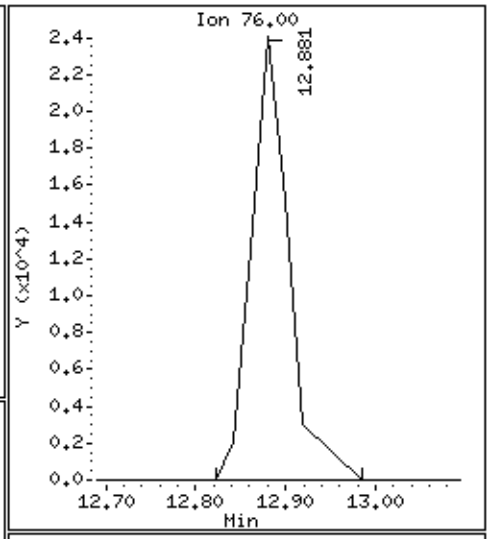
Column phase: RTX-624

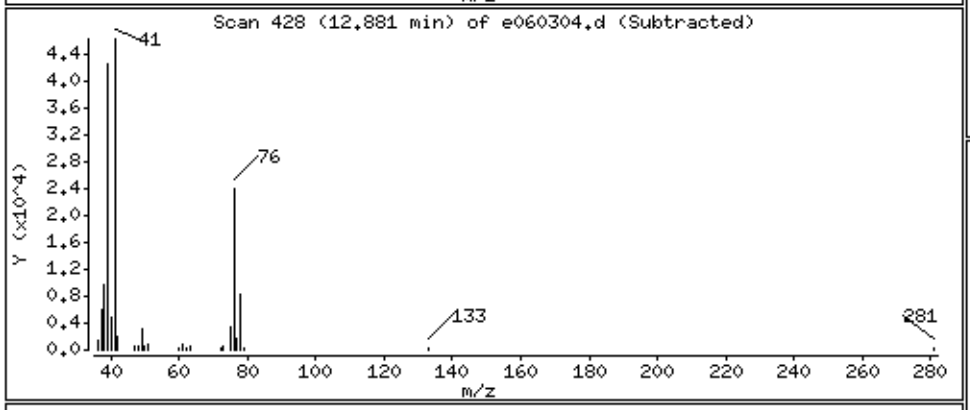
Column diameter: 0.32

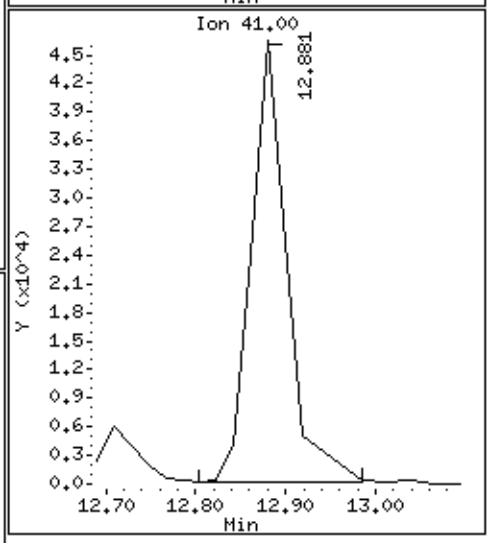
58 3-Chloropropene

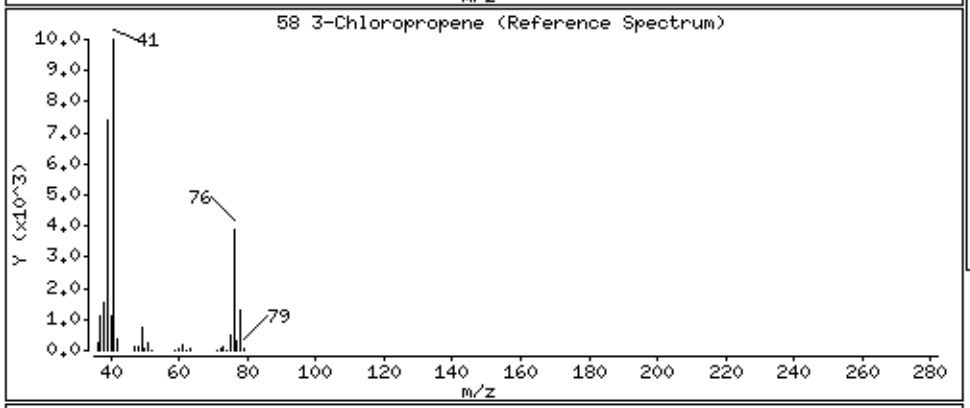
Concentration: 5.343 PPBV

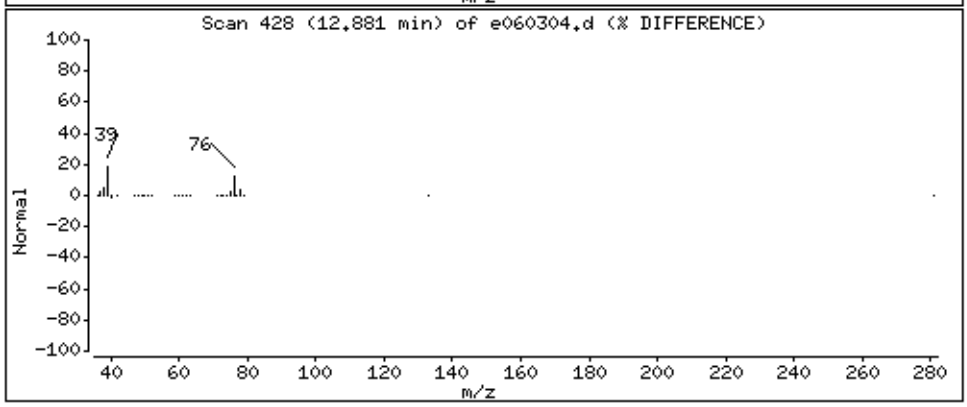












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

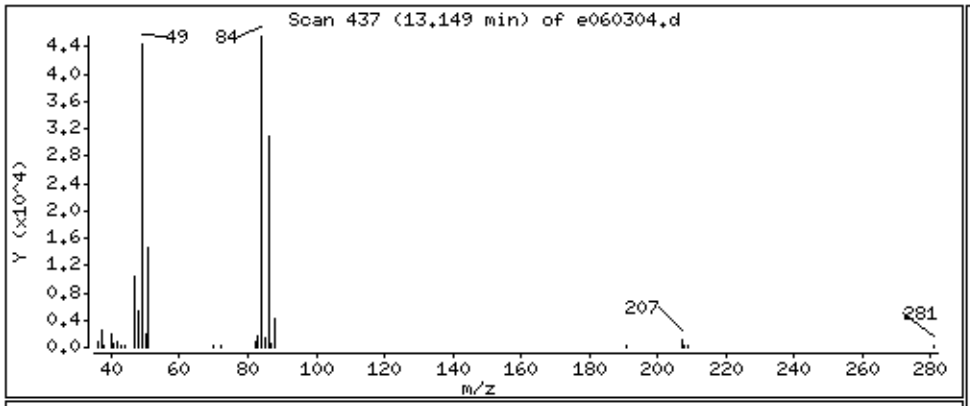
Operator: ef

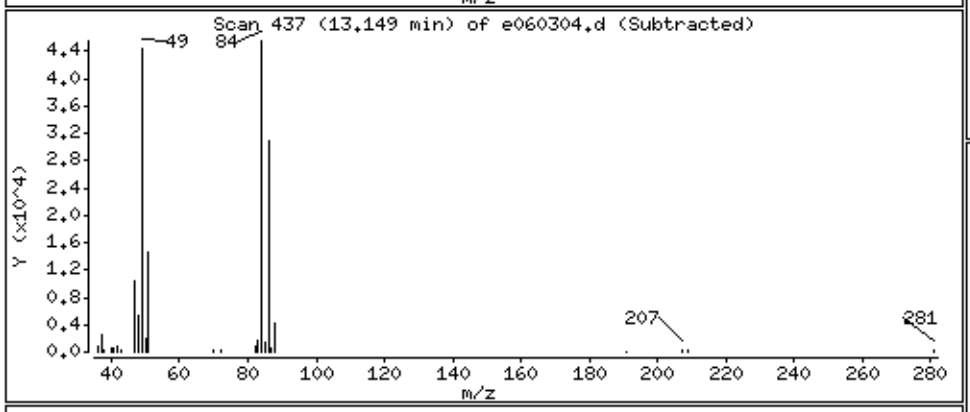
Column phase: RTX-624

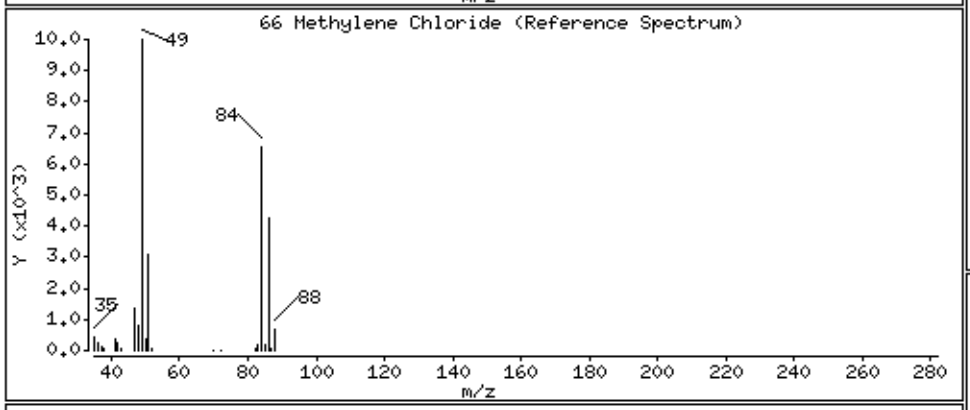
Column diameter: 0.32

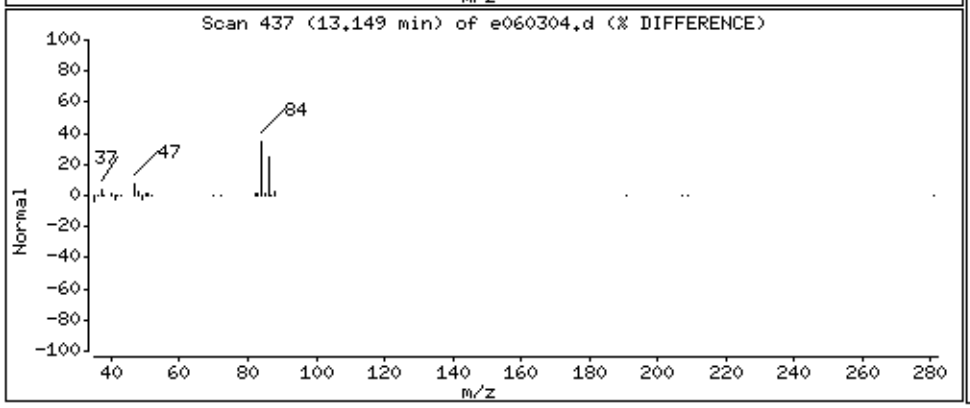
66 Methylene Chloride

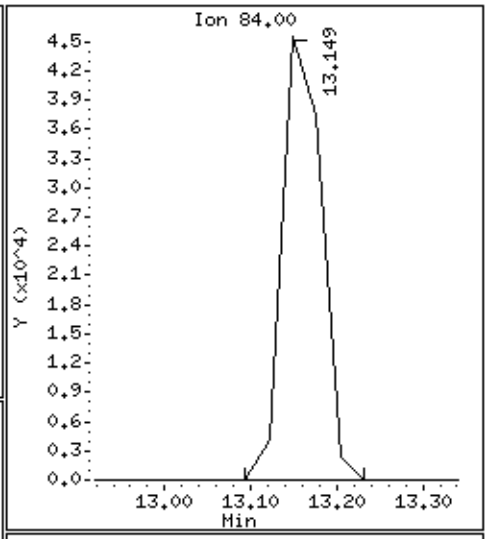
Concentration: 4.088 PPBV

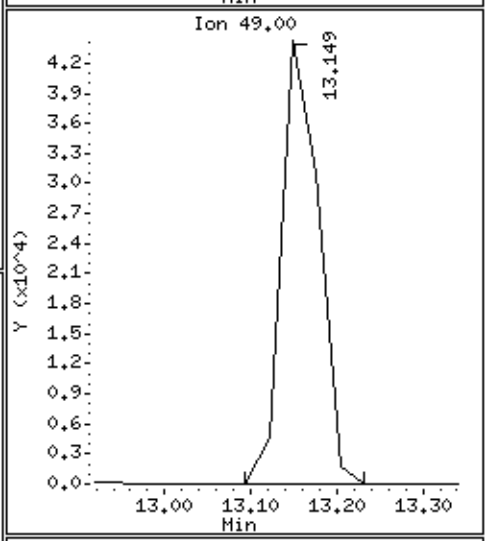


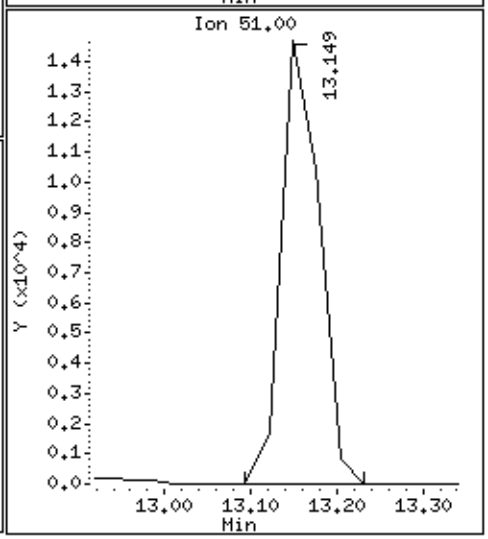












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

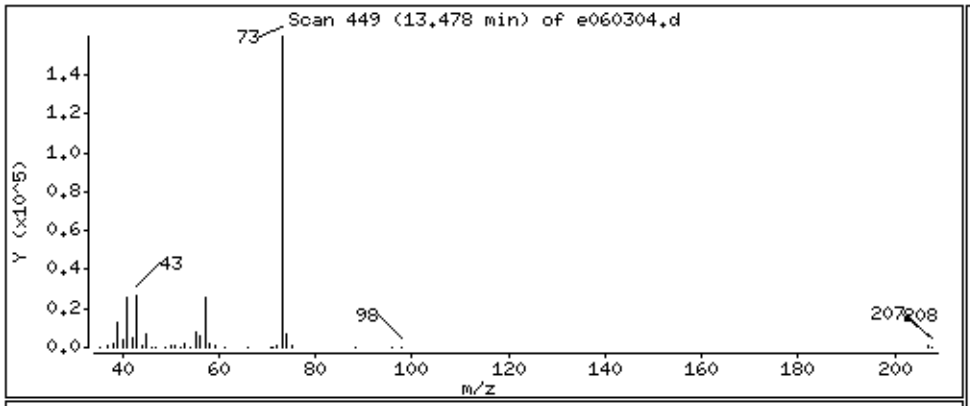
Operator: ef

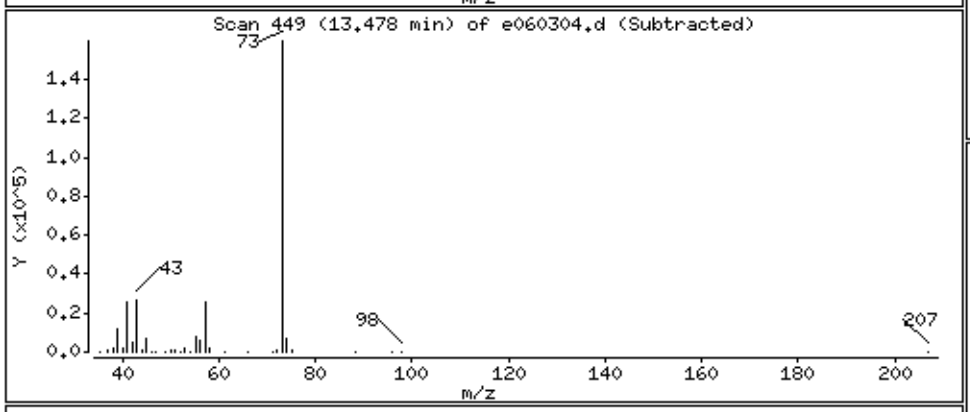
Column phase: RTX-624

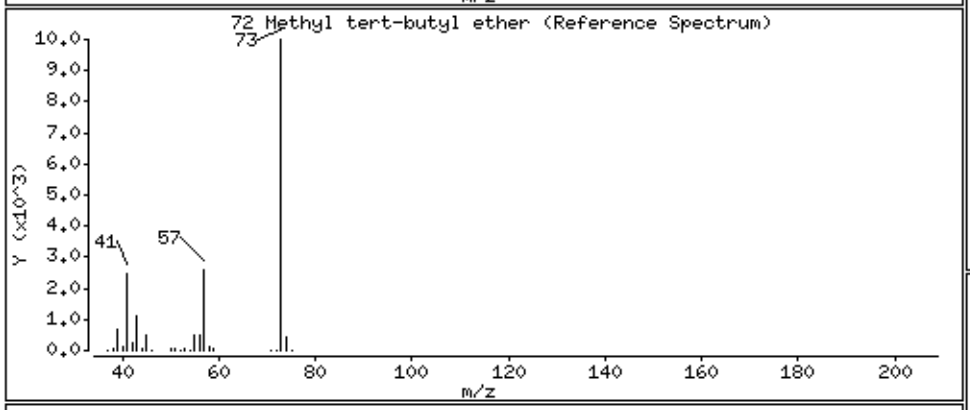
Column diameter: 0.32

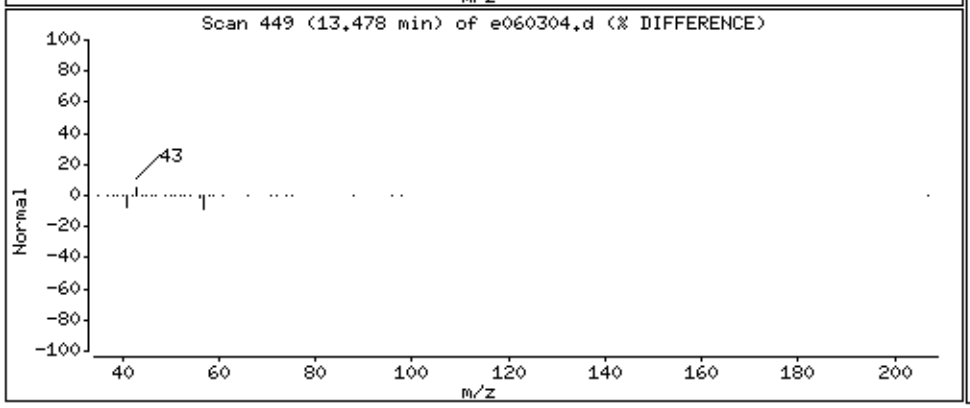
72 Methyl tert-butyl ether

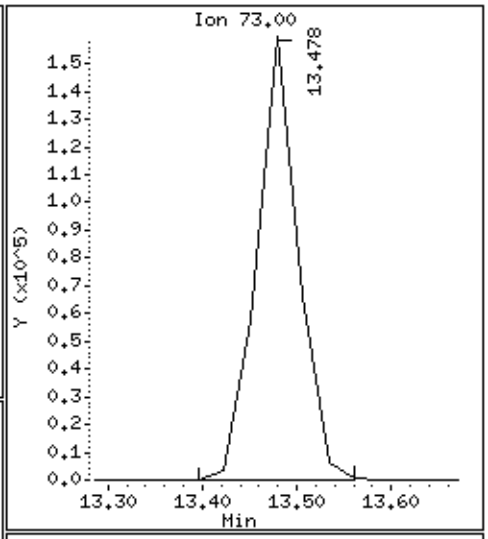
Concentration: 4.204 PPBV

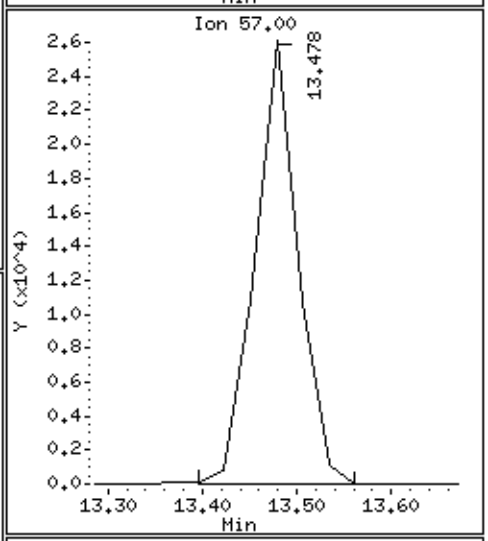


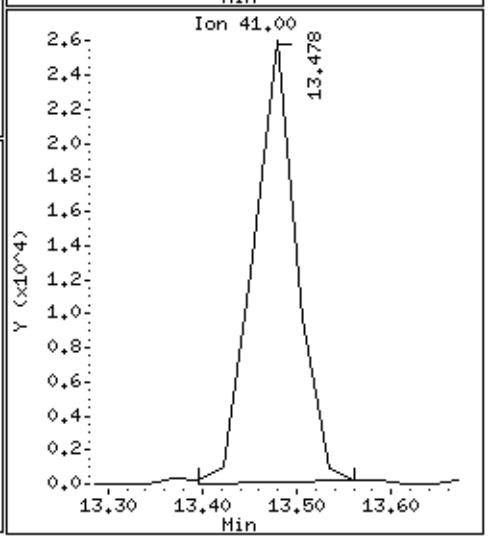












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

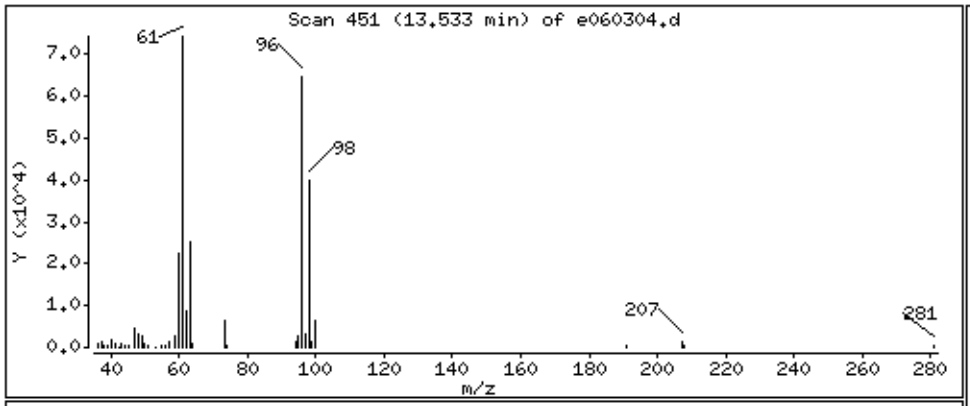
Operator: ef

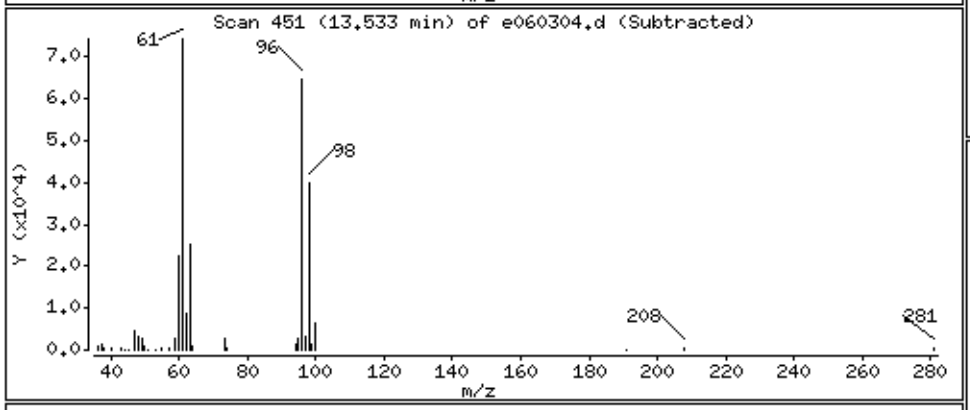
Column phase: RTX-624

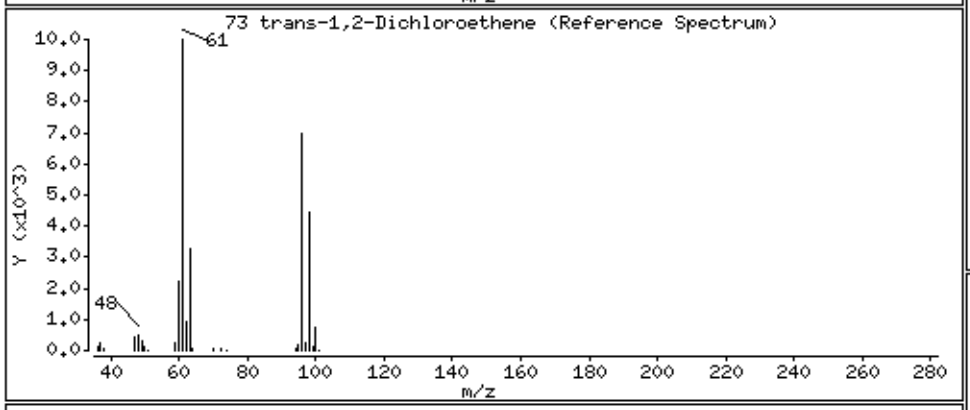
Column diameter: 0.32

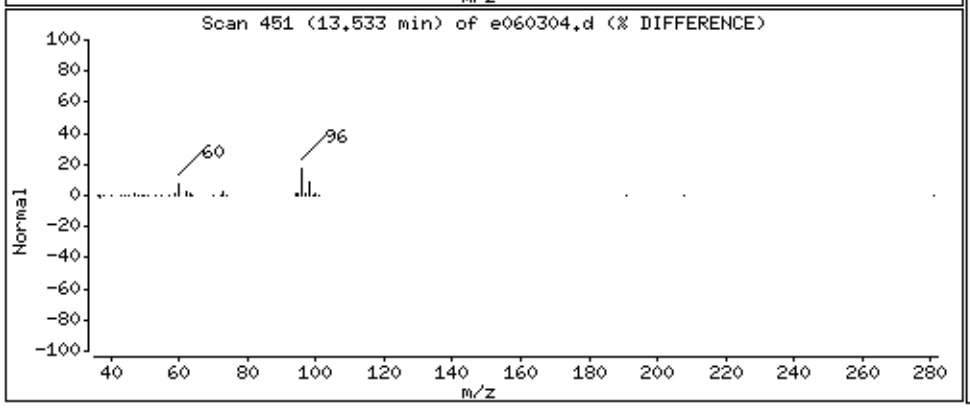
73 trans-1,2-Dichloroethene

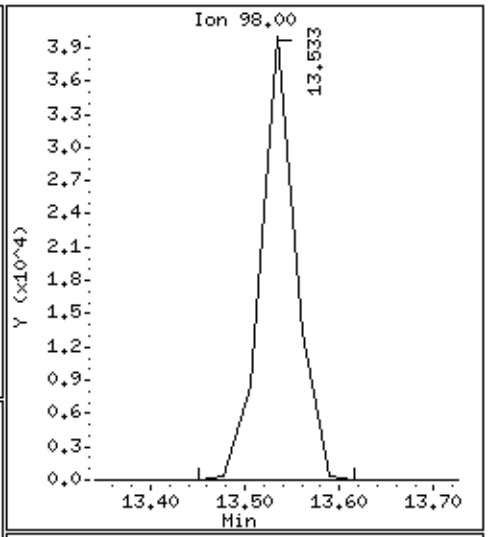
Concentration: 3.947 PPBV

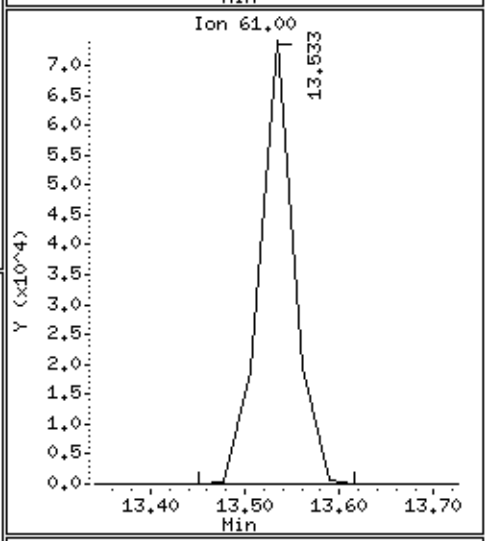


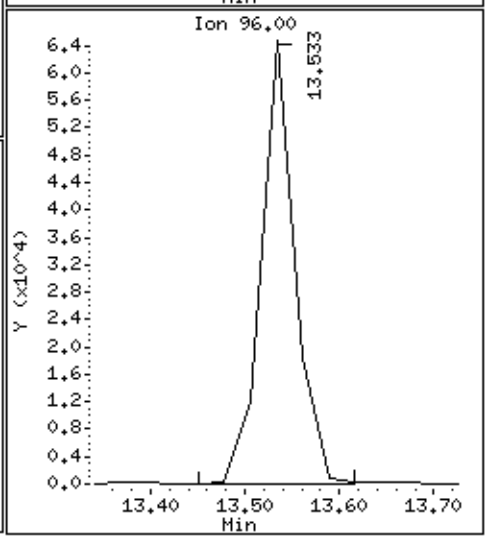












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

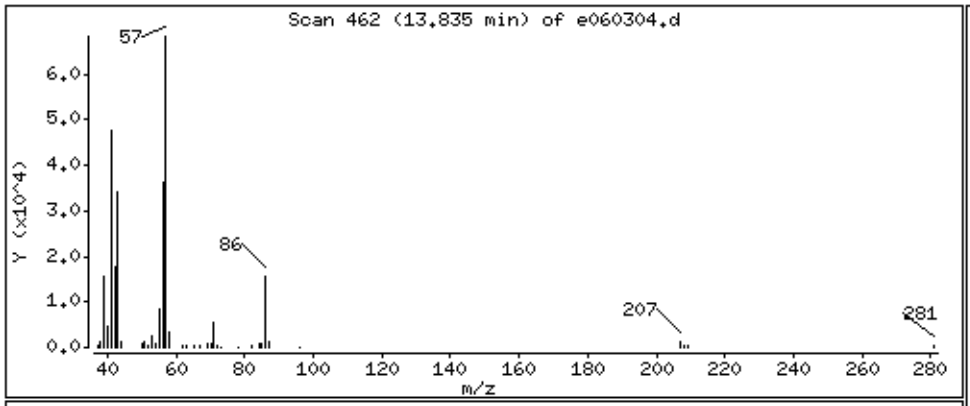
Operator: ef

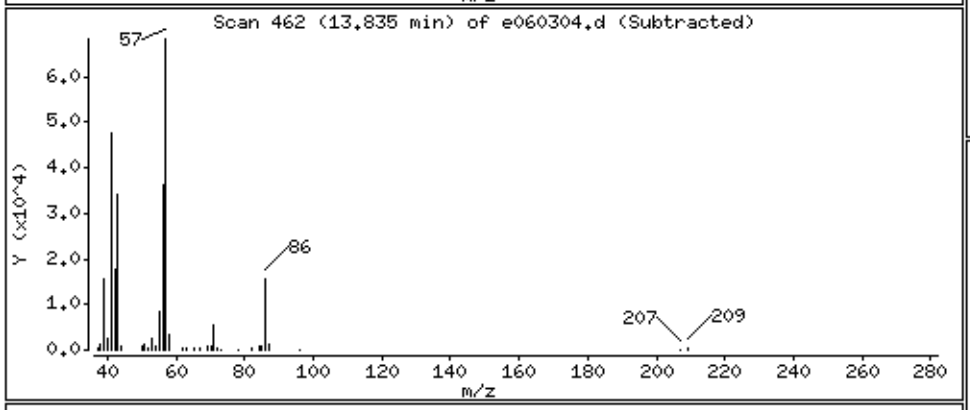
Column phase: RTX-624

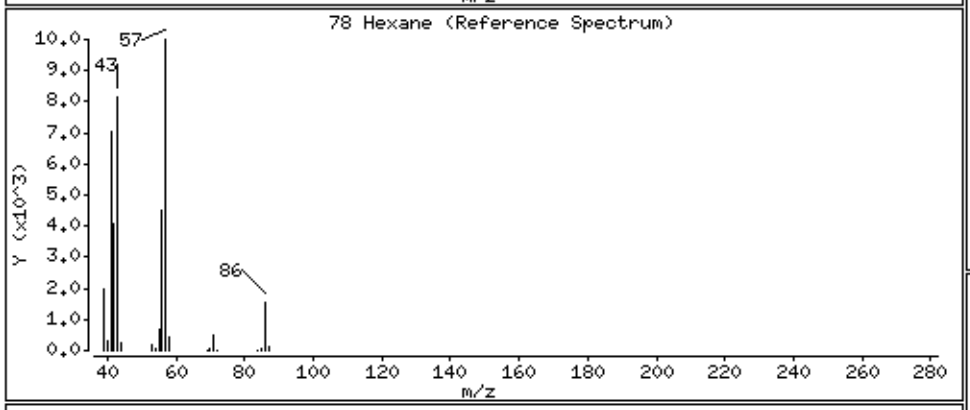
Column diameter: 0.32

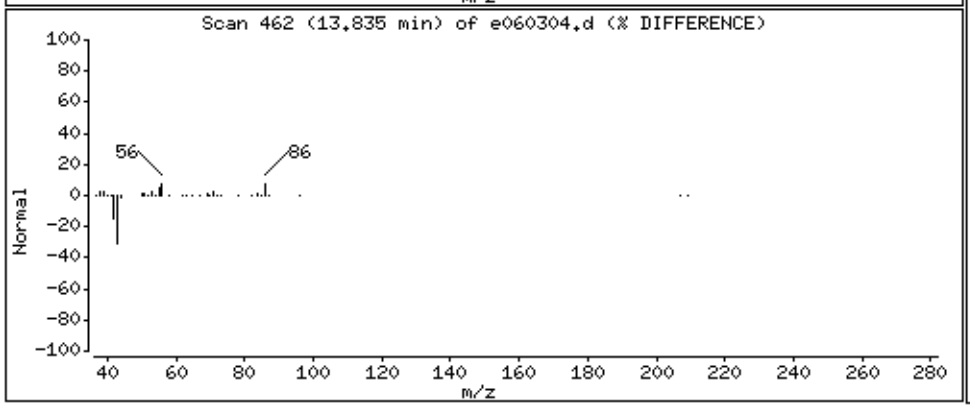
78 Hexane

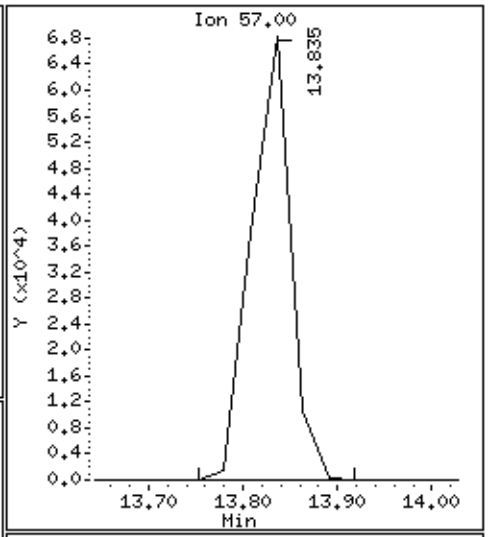
Concentration: 4.342 PPBV

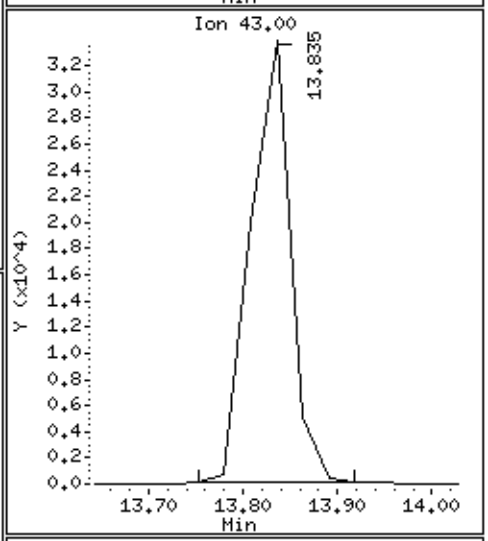


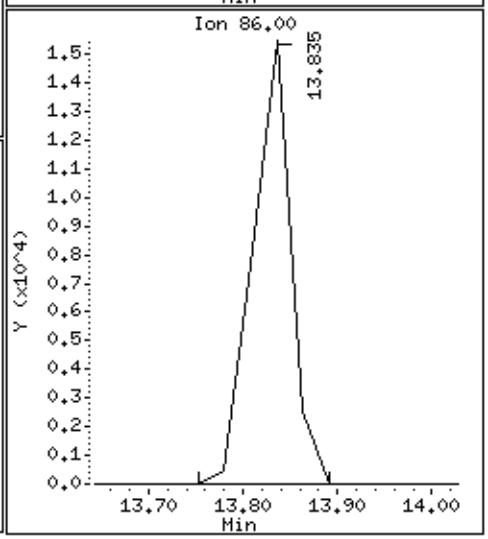












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

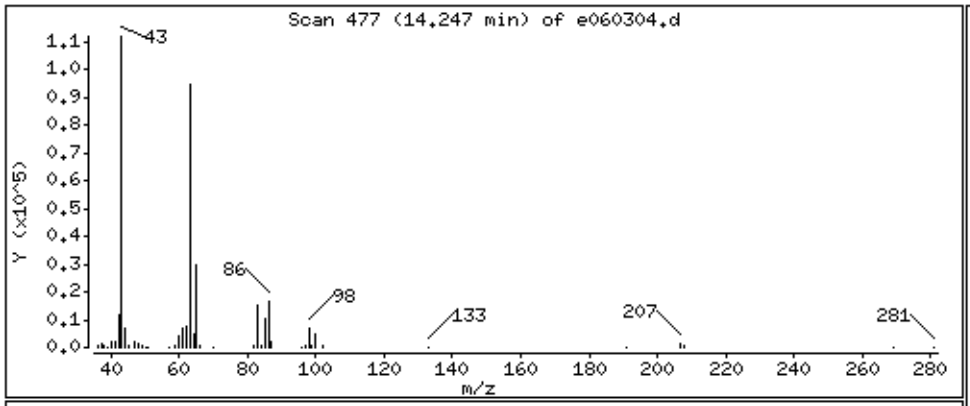
Operator: ef

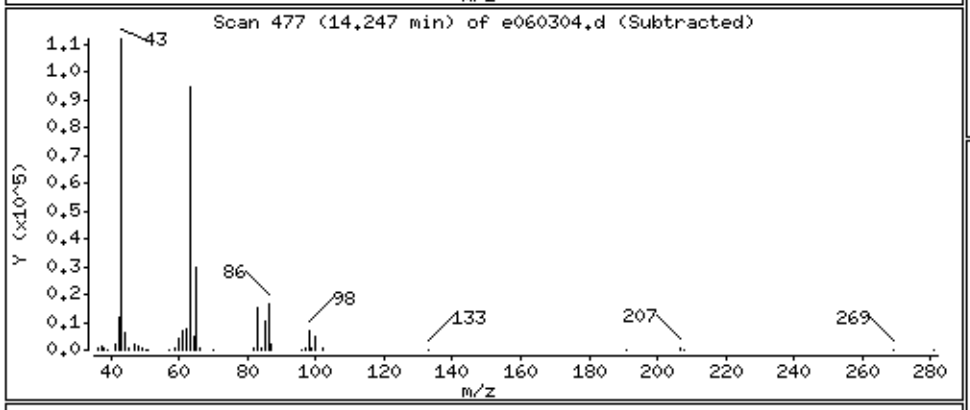
Column phase: RTX-624

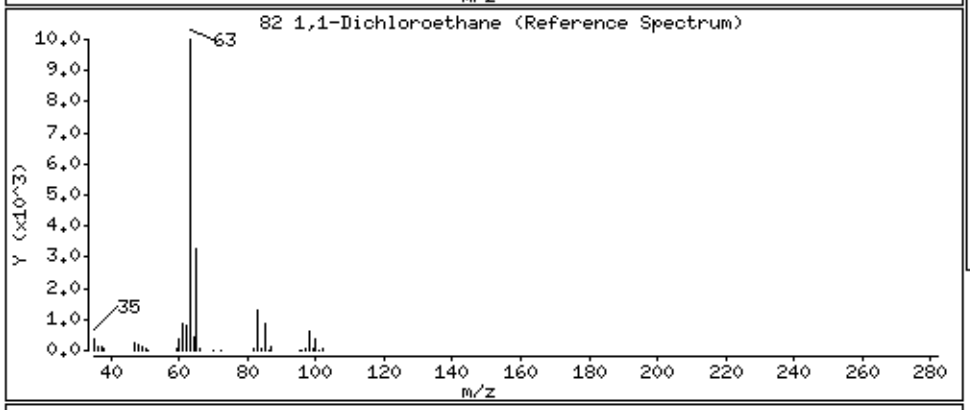
Column diameter: 0.32

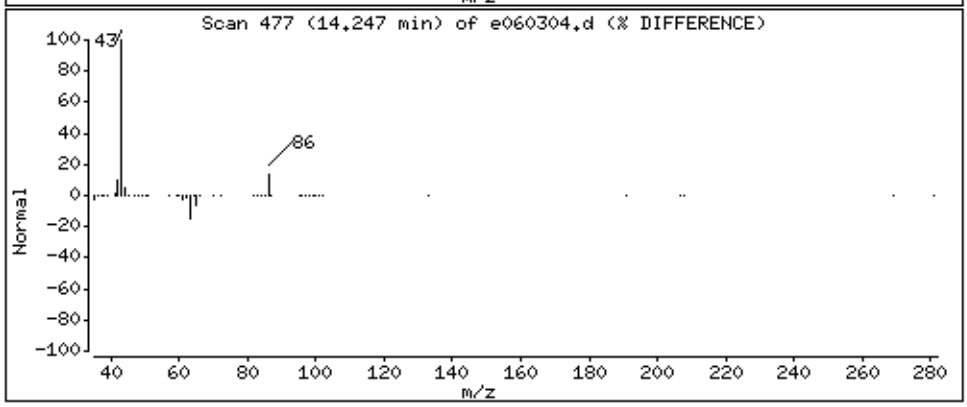
82 1,1-Dichloroethane

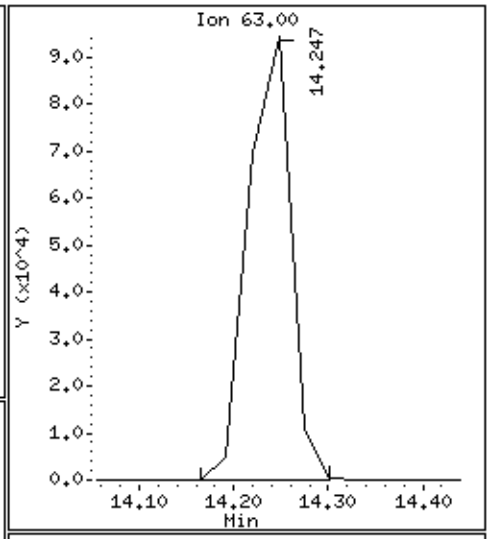
Concentration: 4.334 PPBV

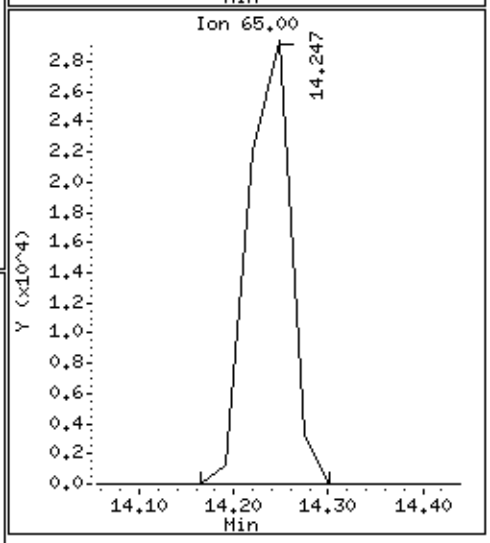












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

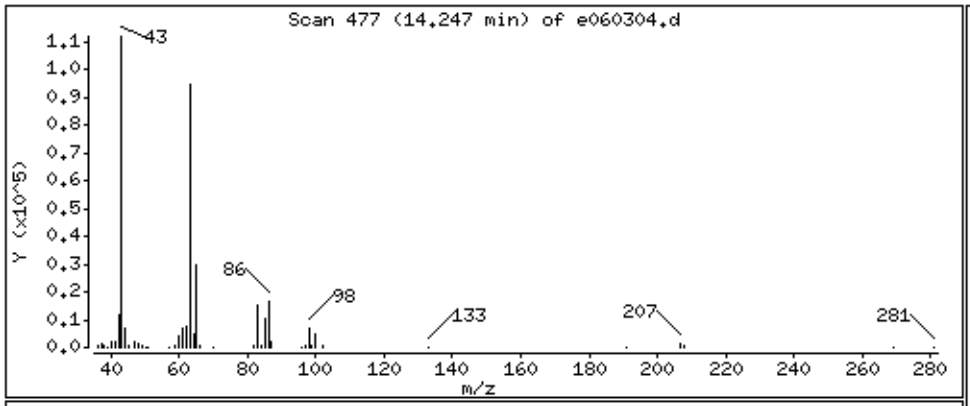
Operator: ef

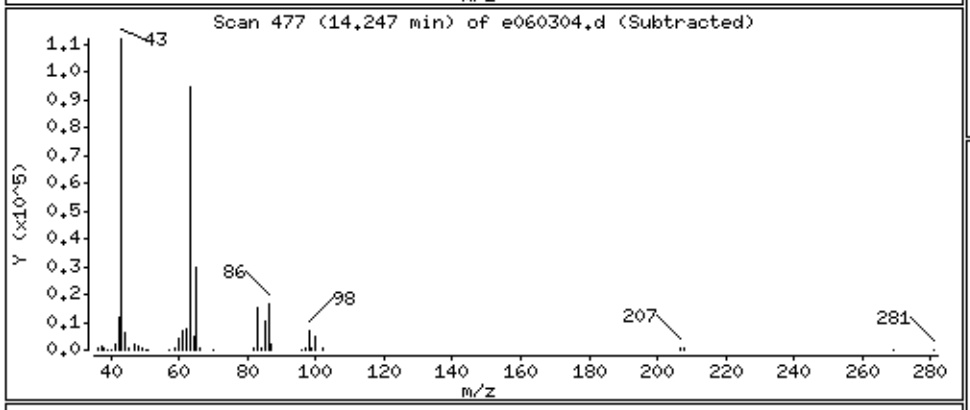
Column phase: RTX-624

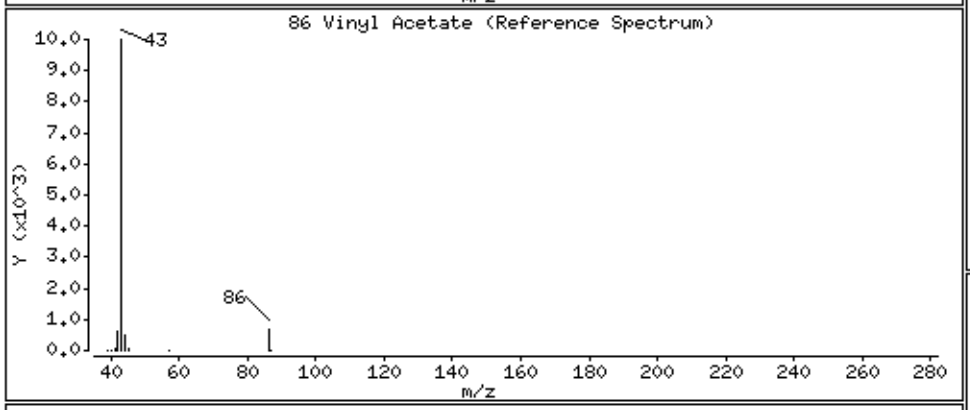
Column diameter: 0.32

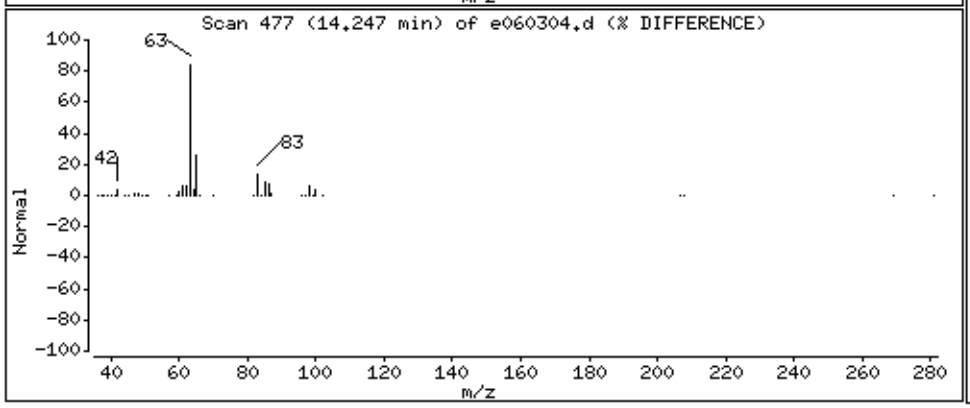
86 Vinyl Acetate

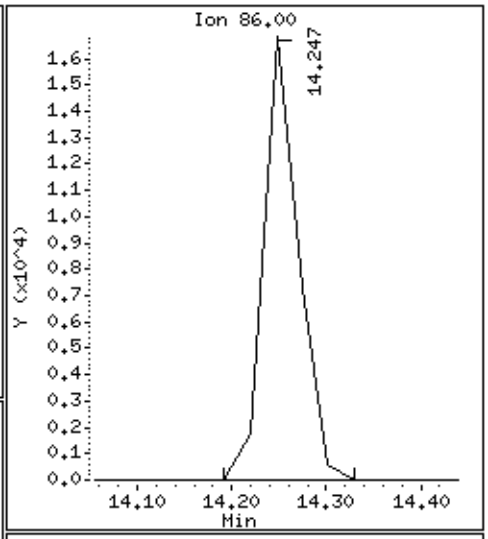
Concentration: 4.097 PPBV

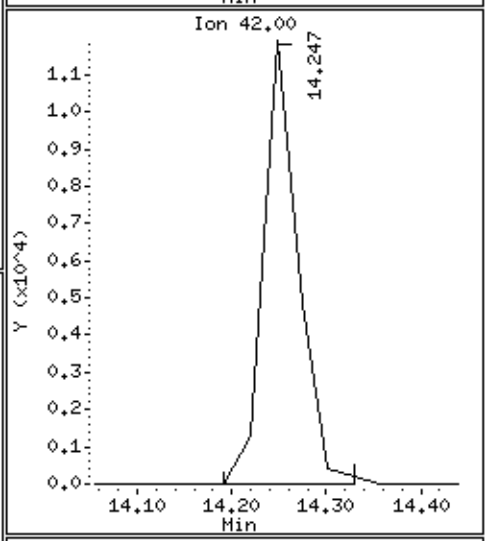


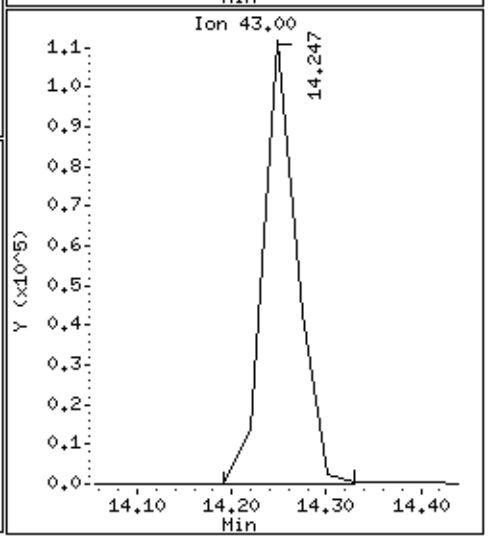












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

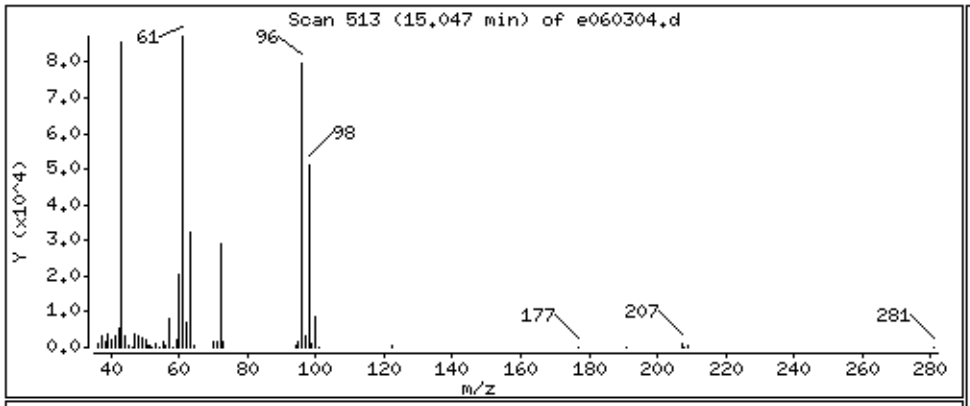
Operator: ef

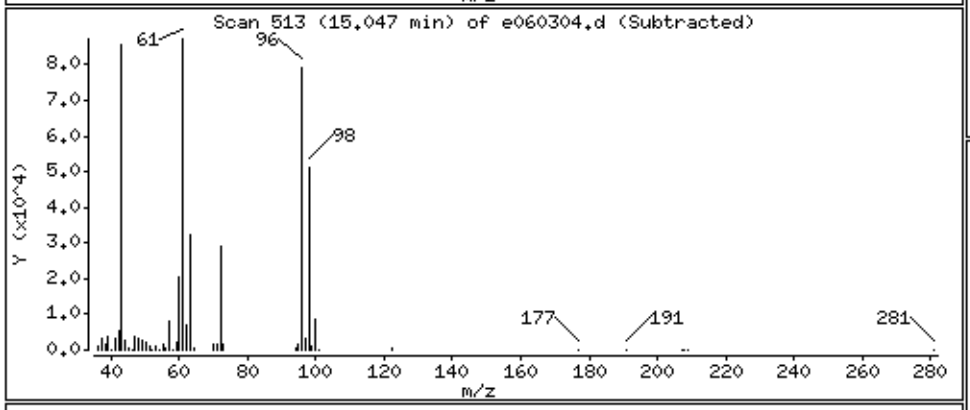
Column phase: RTX-624

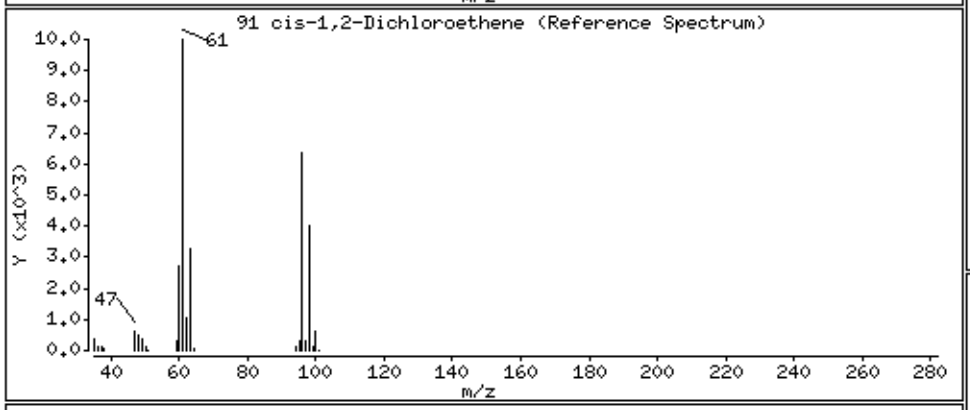
Column diameter: 0.32

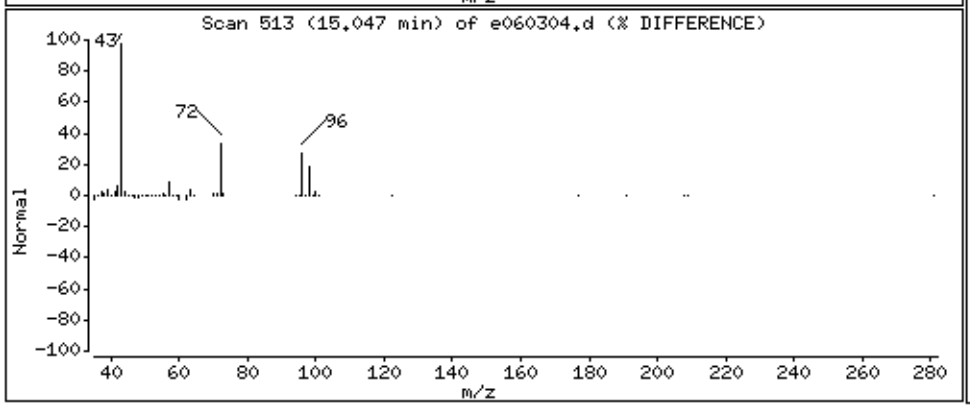
91 cis-1,2-Dichloroethene

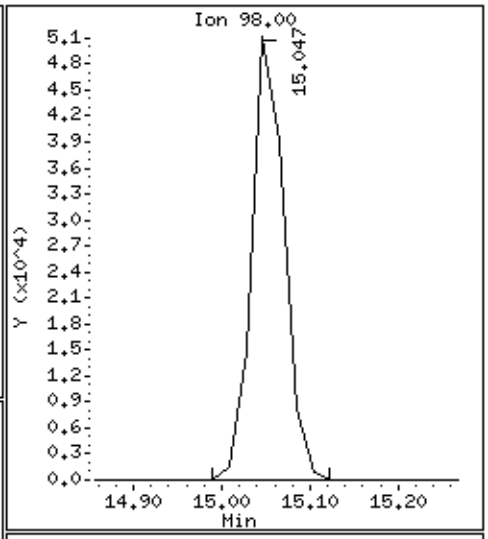
Concentration: 4.631 PPBV

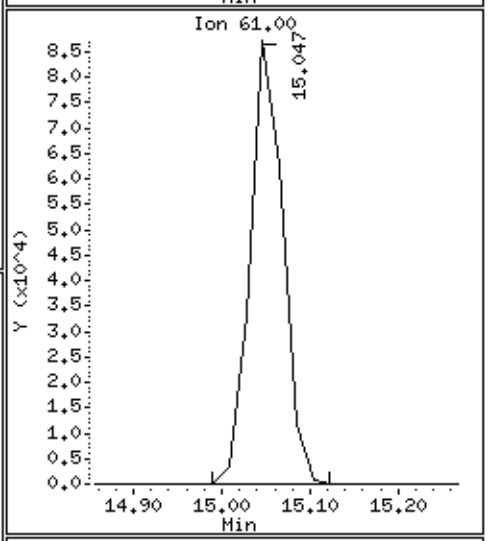


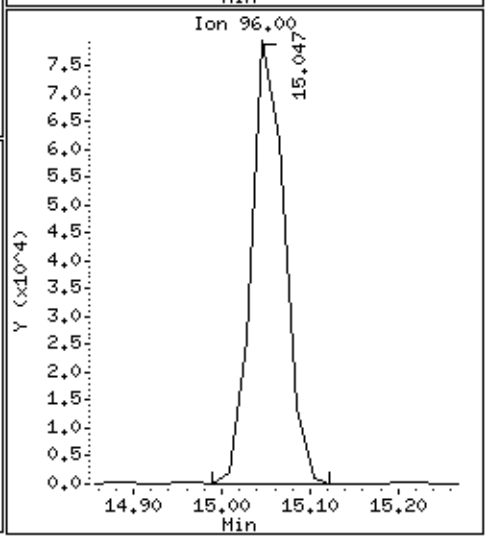












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

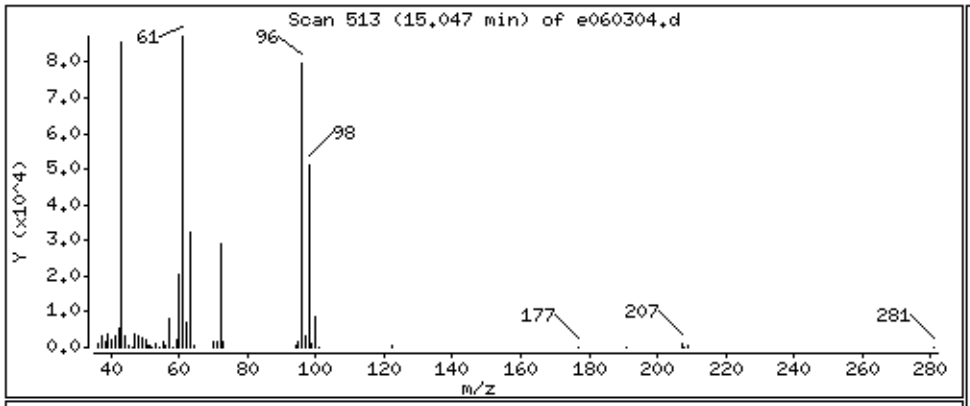
Operator: ef

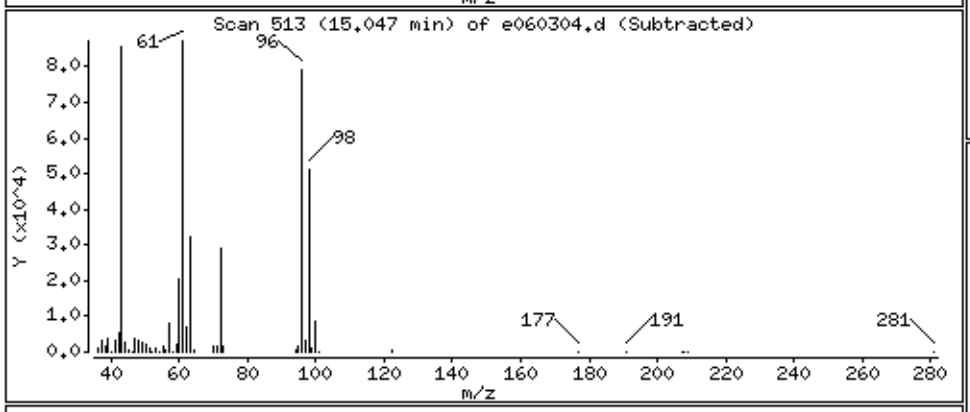
Column phase: RTX-624

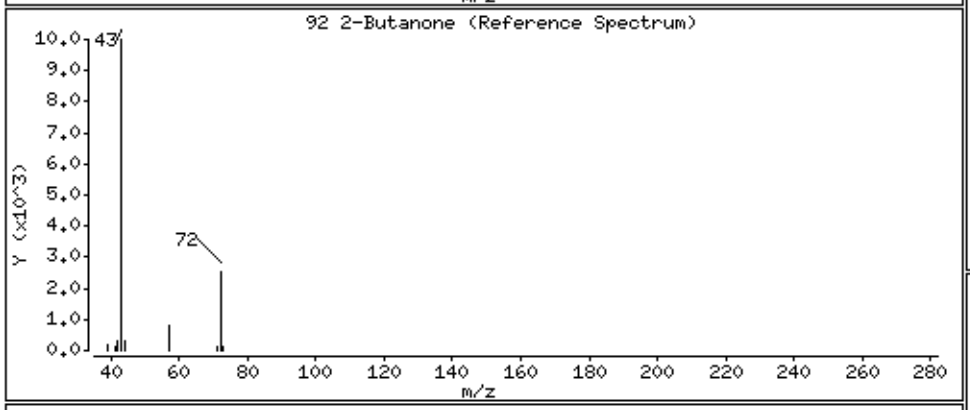
Column diameter: 0.32

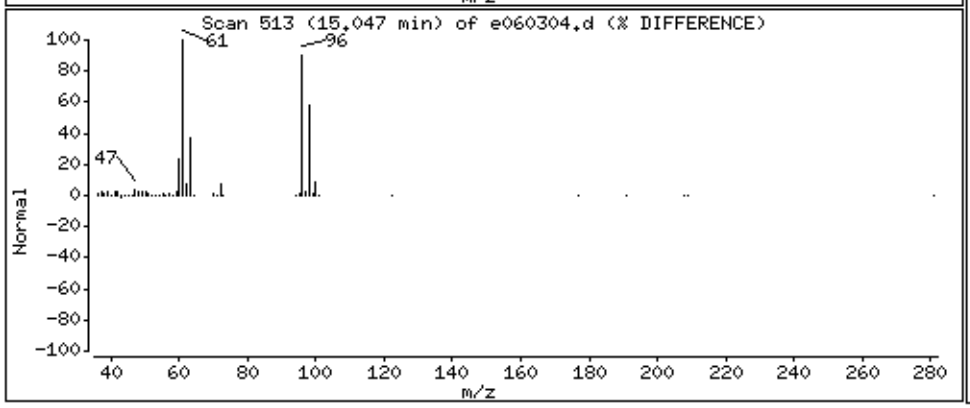
92 2-Butanone

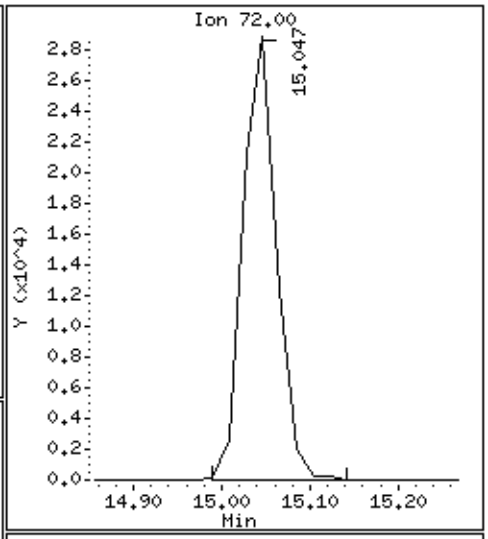
Concentration: 4.281 PPBV

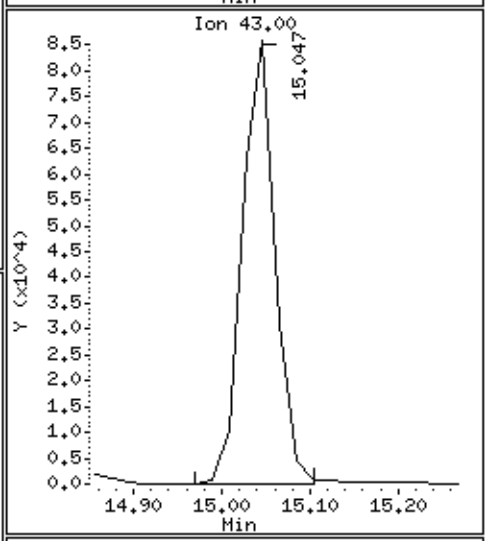


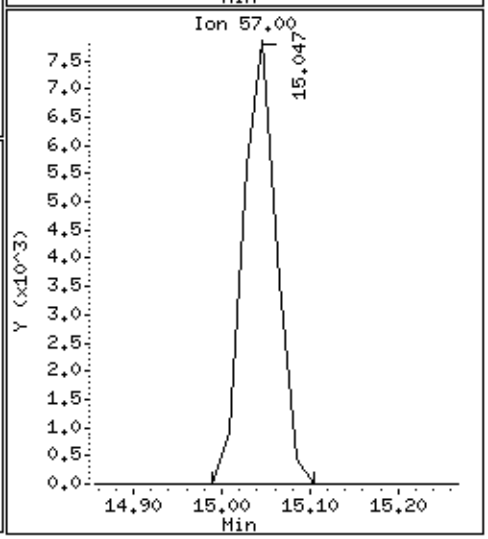












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

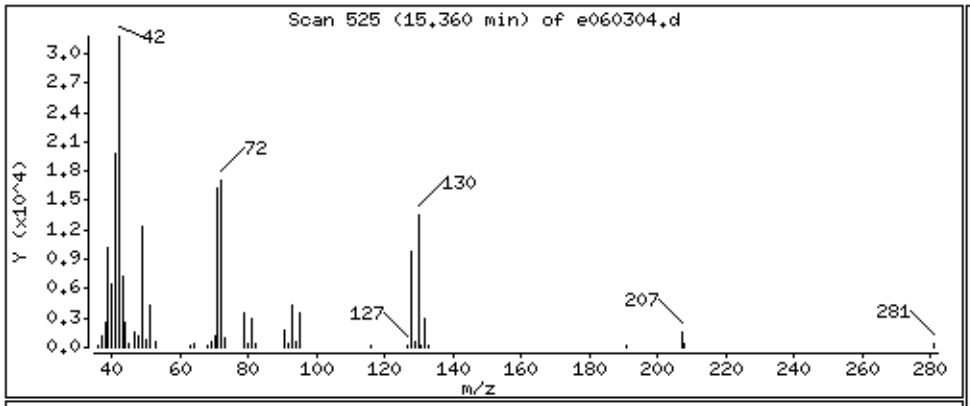
Operator: ef

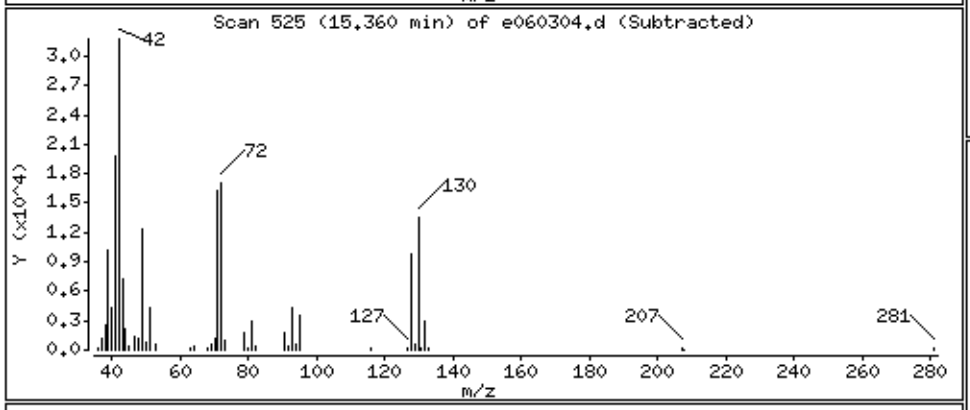
Column phase: RTX-624

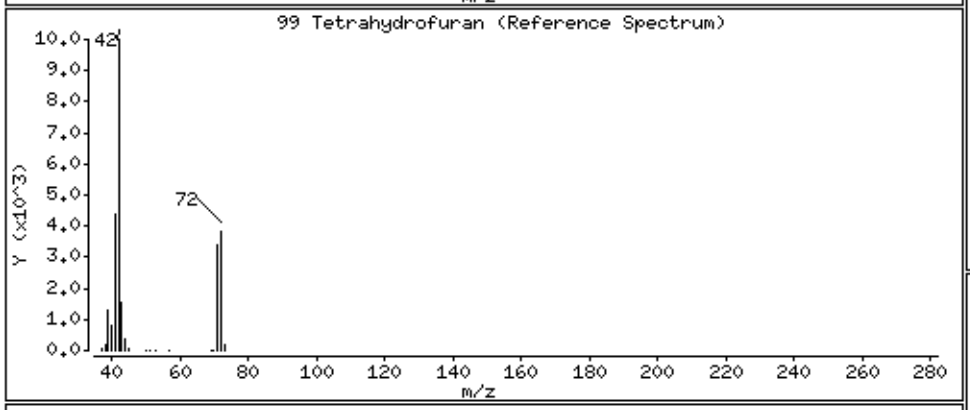
Column diameter: 0.32

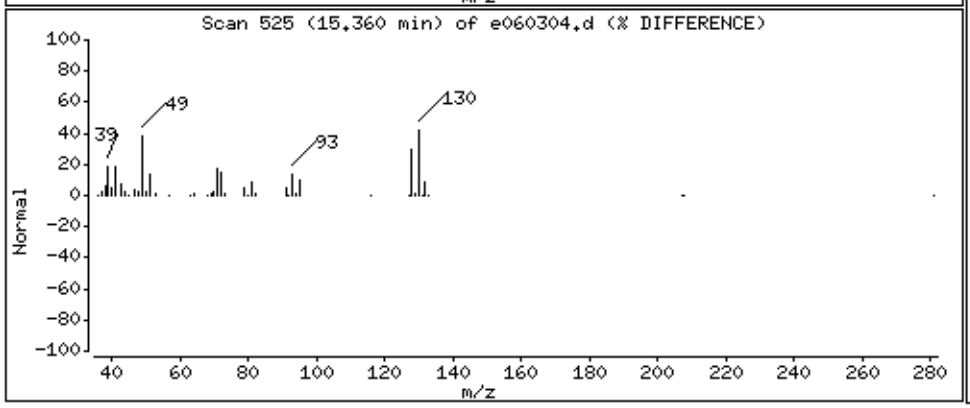
99 Tetrahydrofuran

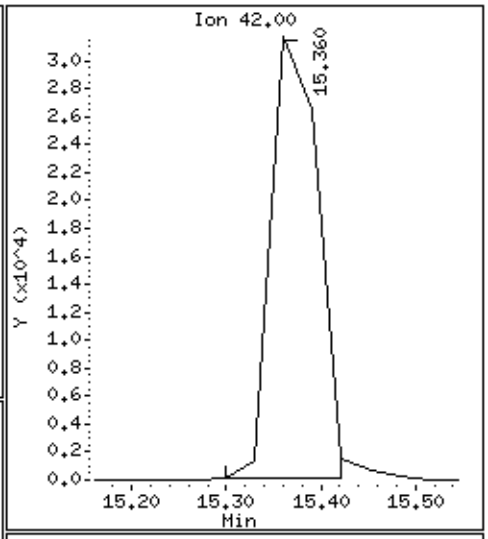
Concentration: 3.360 PPBV

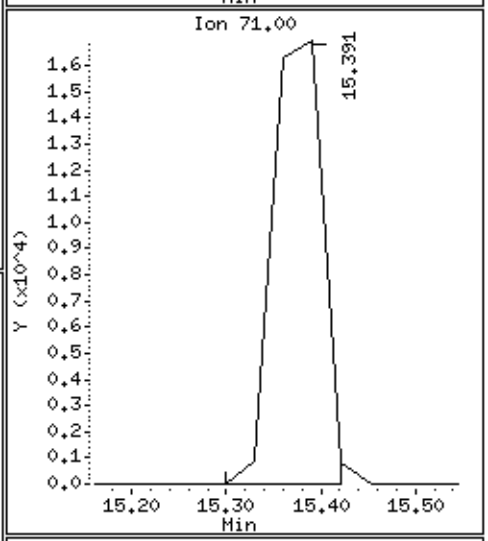


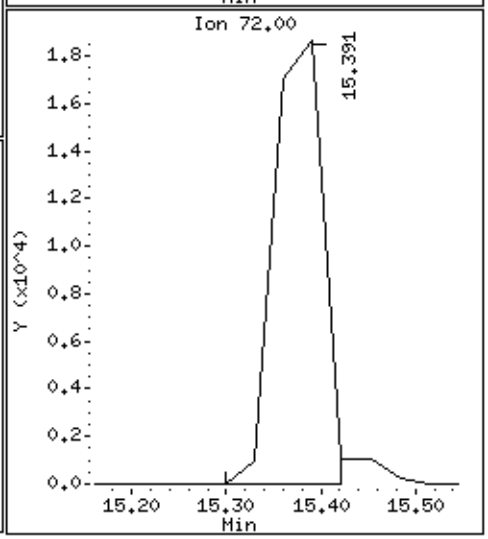












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

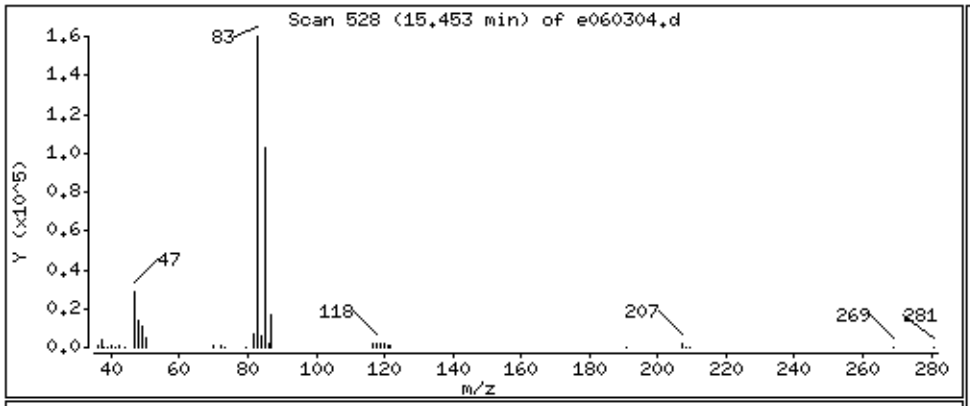
Operator: ef

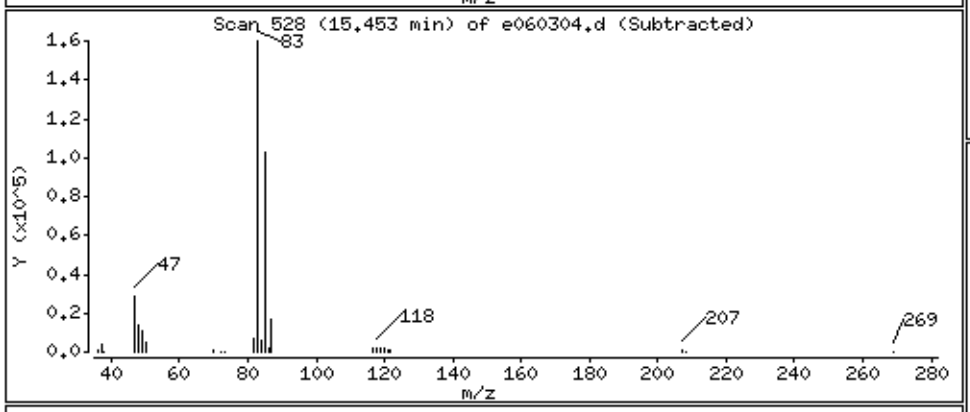
Column phase: RTX-624

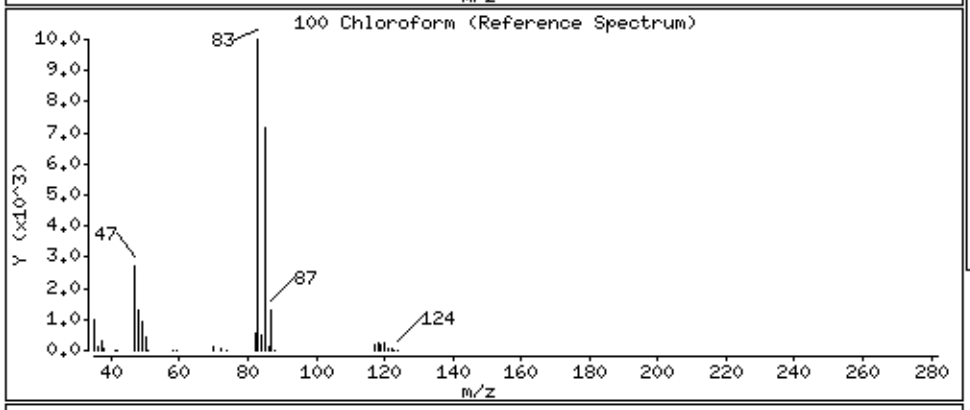
Column diameter: 0.32

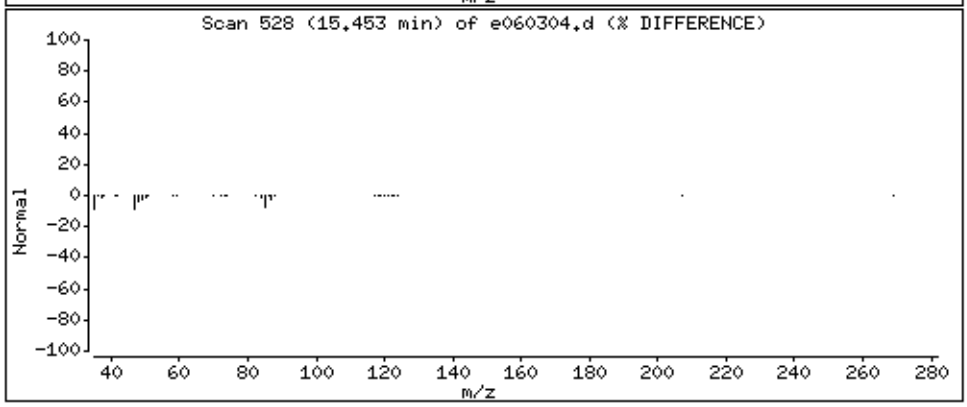
100 Chloroform

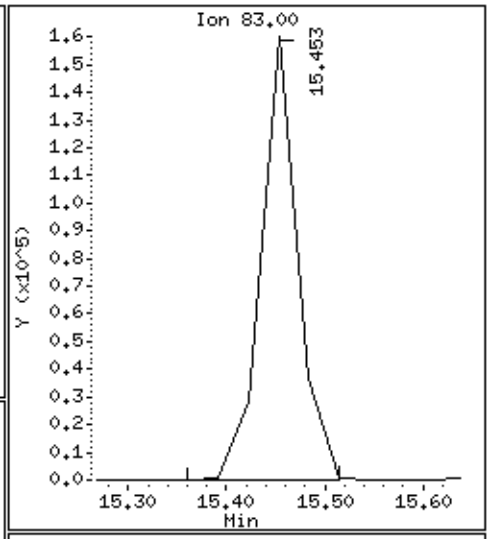
Concentration: 4.254 PPBV

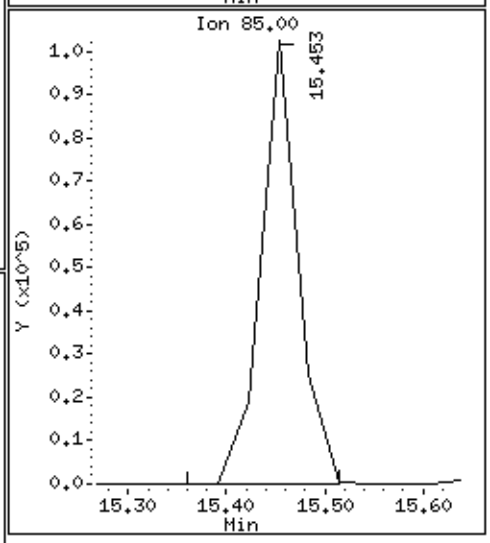












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

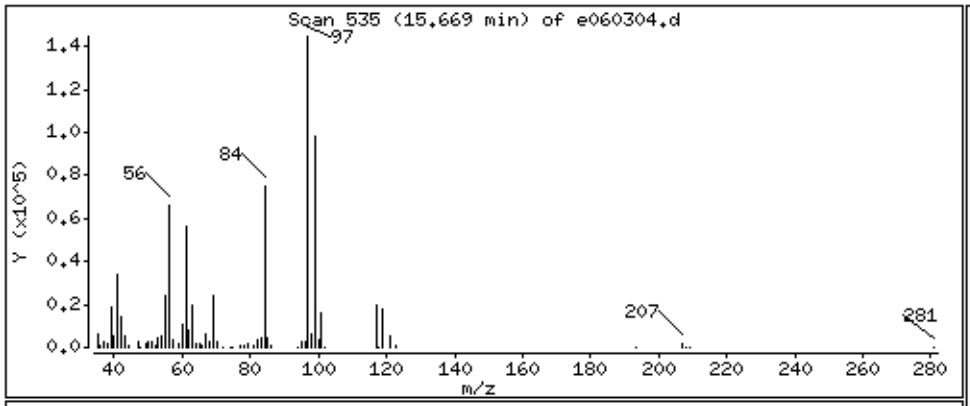
Operator: ef

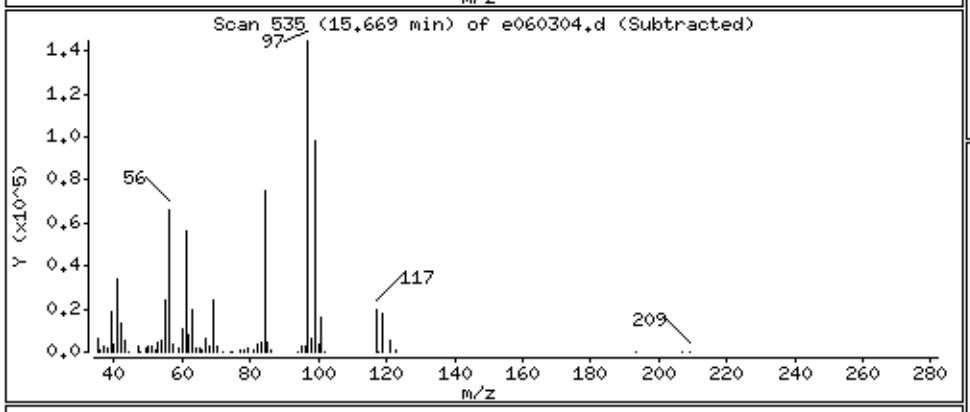
Column phase: RTX-624

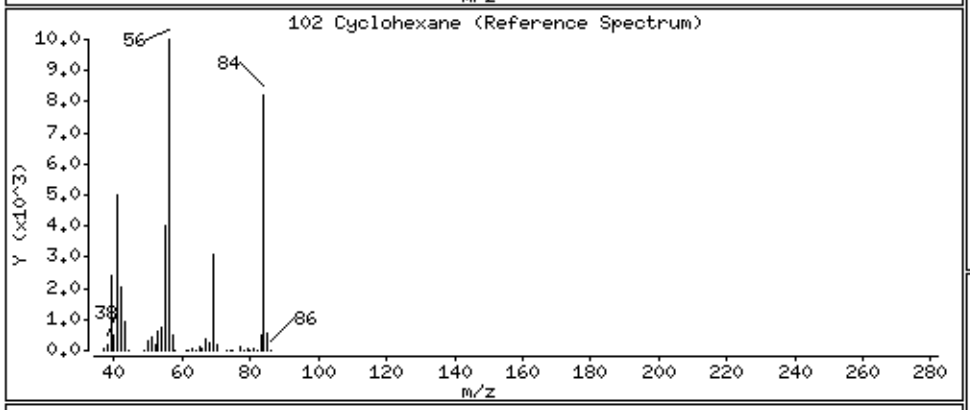
Column diameter: 0.32

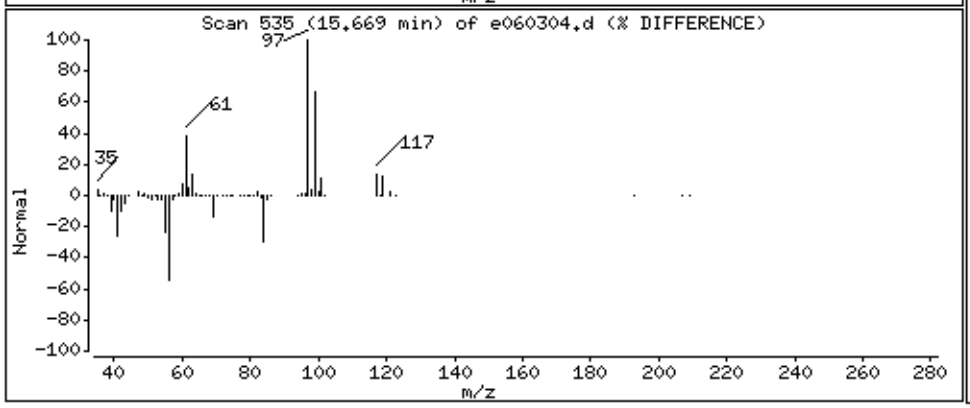
102 Cyclohexane

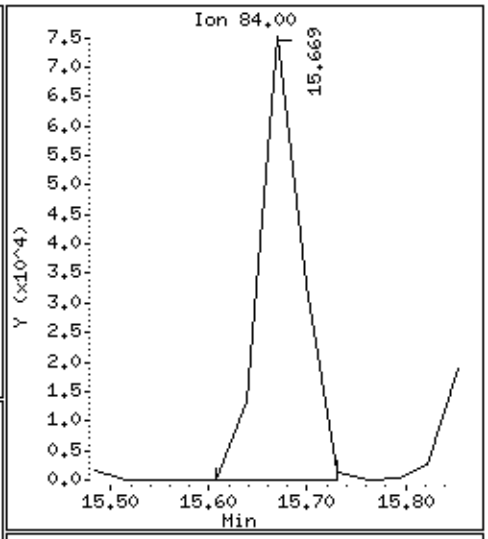
Concentration: 4.461 PPBV

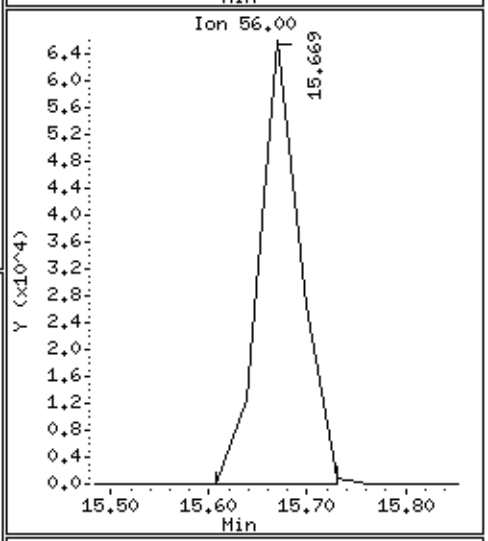


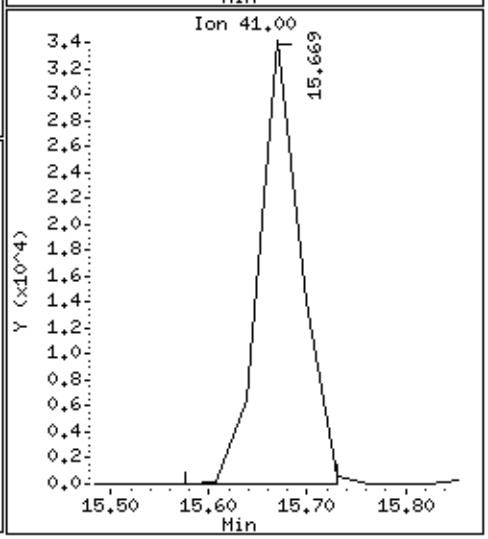












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

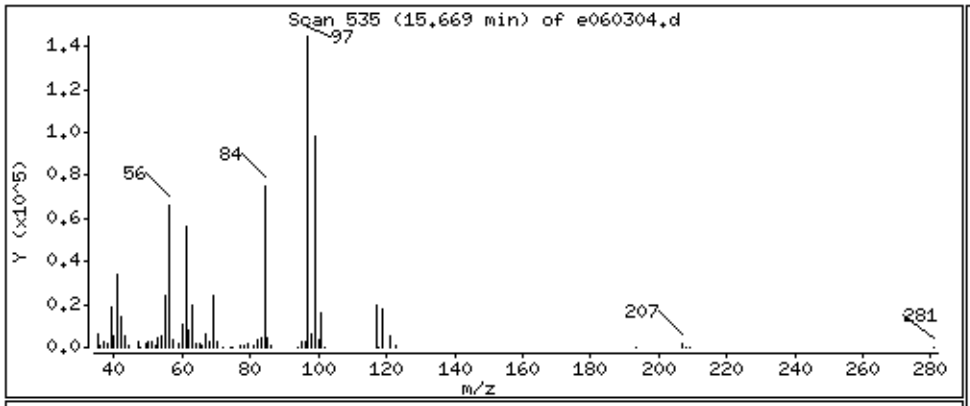
Operator: ef

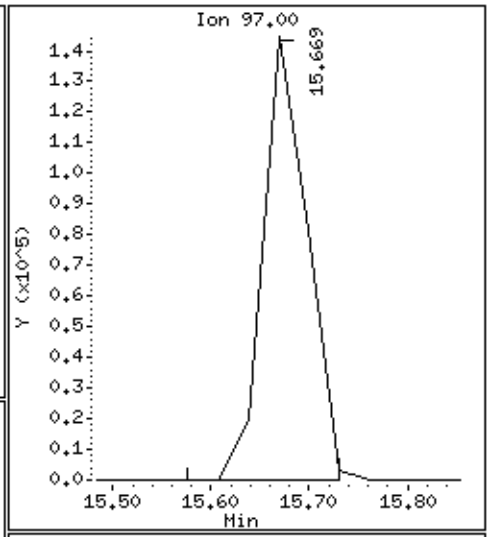
Column phase: RTX-624

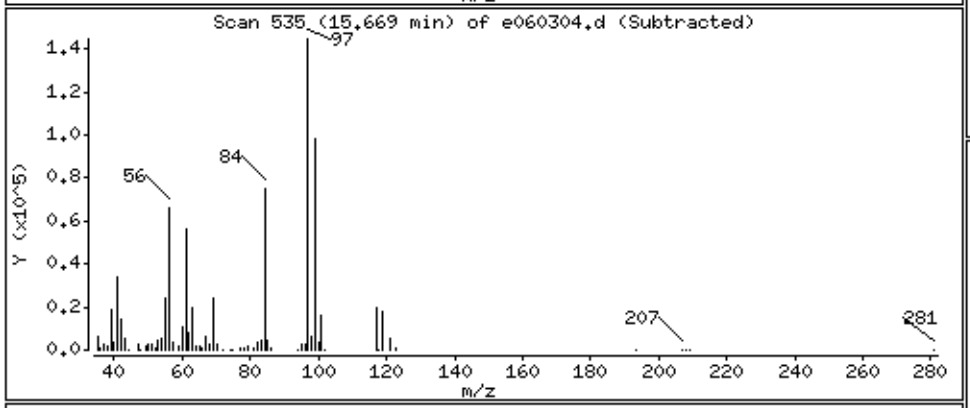
Column diameter: 0.32

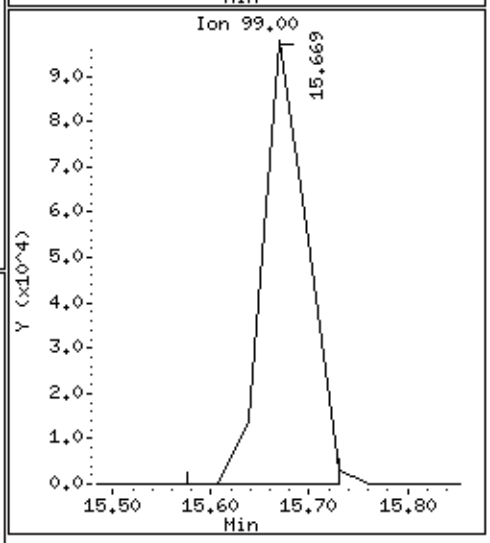
103 1,1,1-Trichloroethane

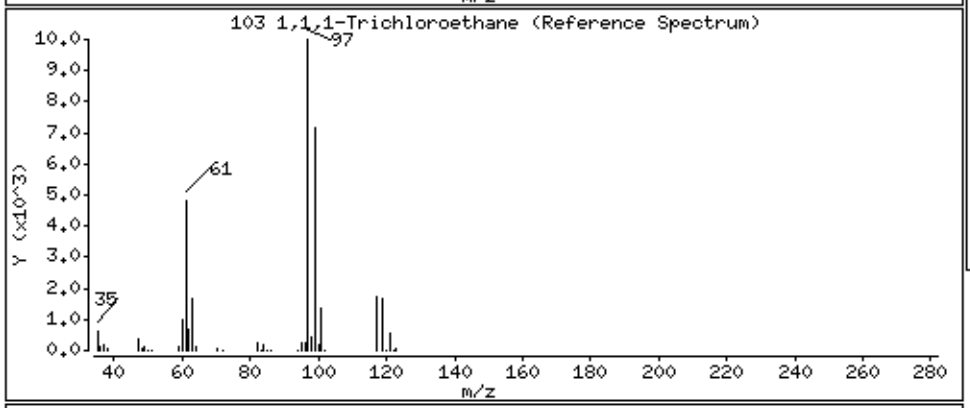
Concentration: 4.029 PPBV

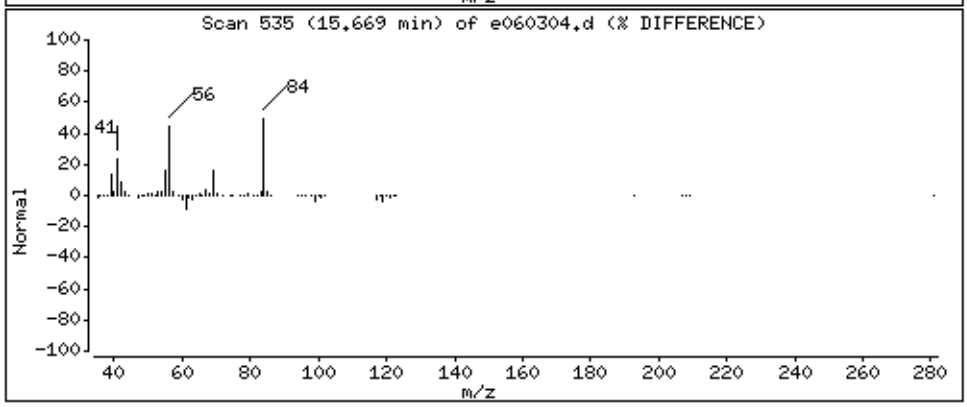












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

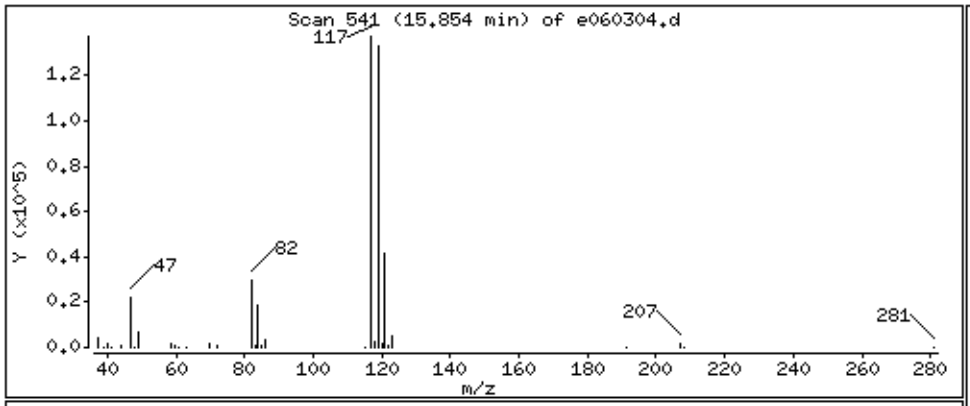
Operator: ef

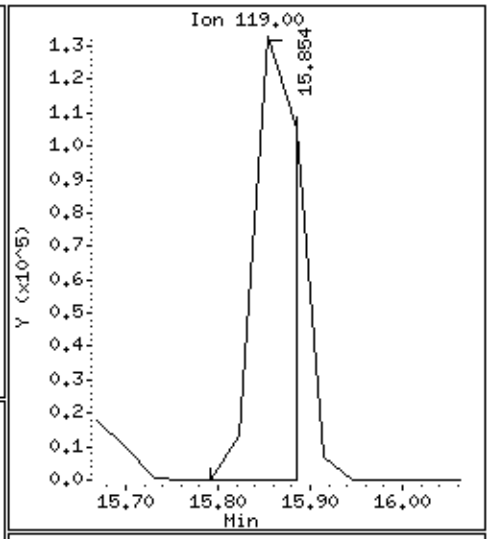
Column phase: RTX-624

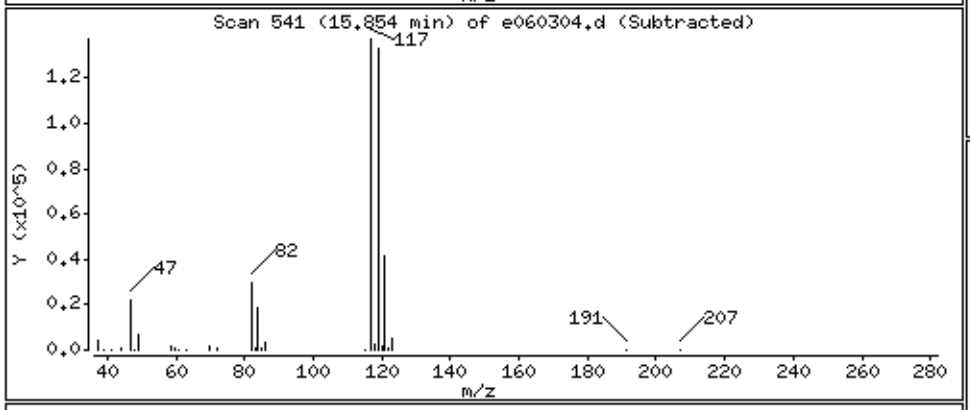
Column diameter: 0.32

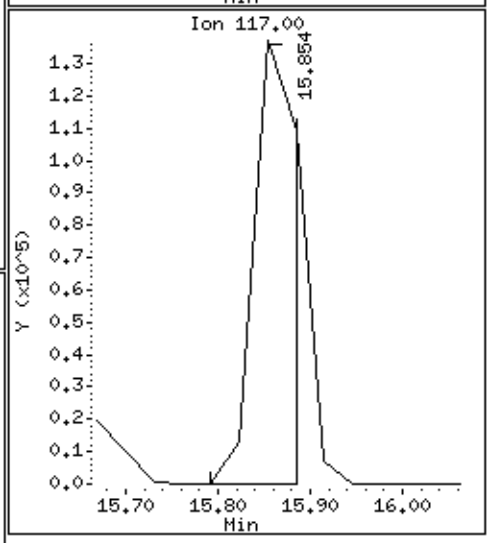
106 Carbon Tetrachloride

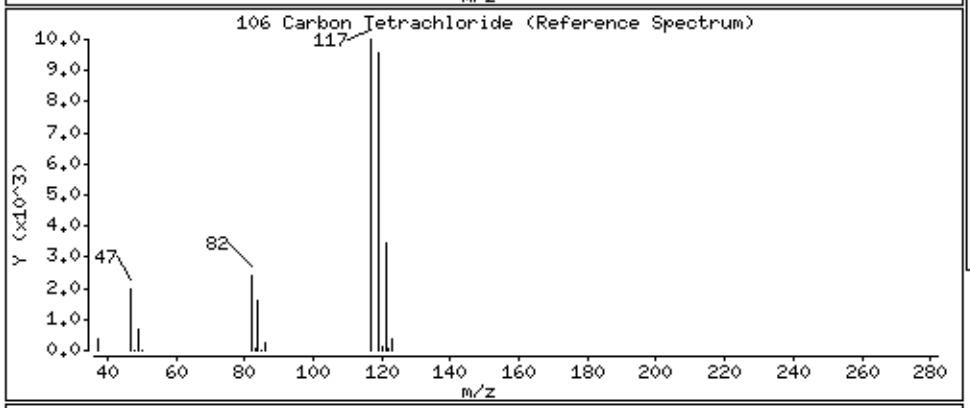
Concentration: 4.144 PPBV

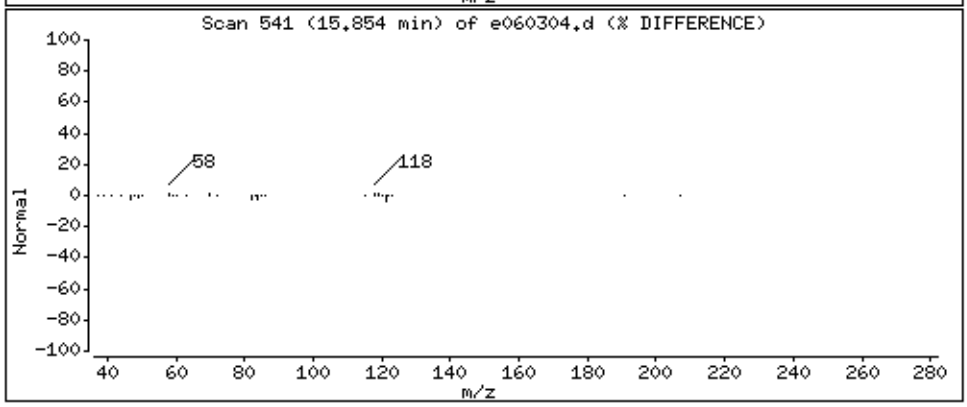












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

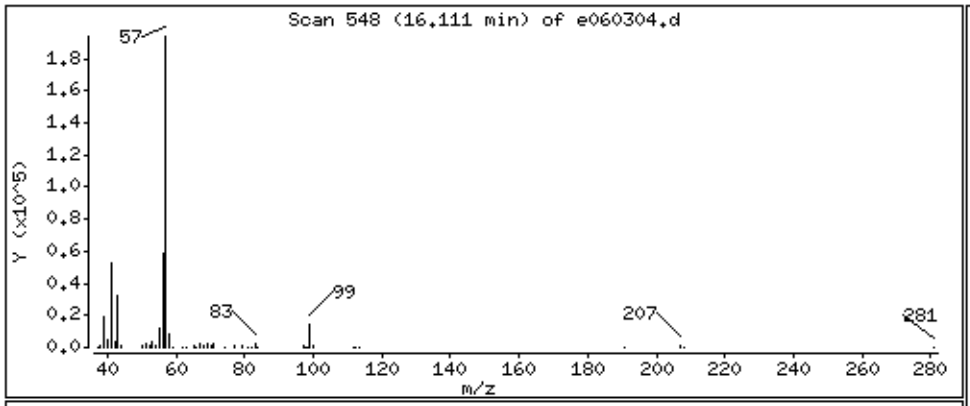
Operator: ef

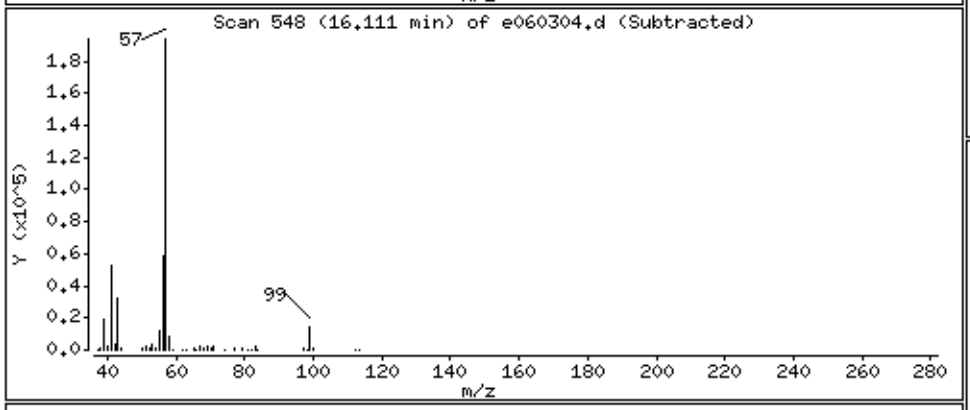
Column phase: RTX-624

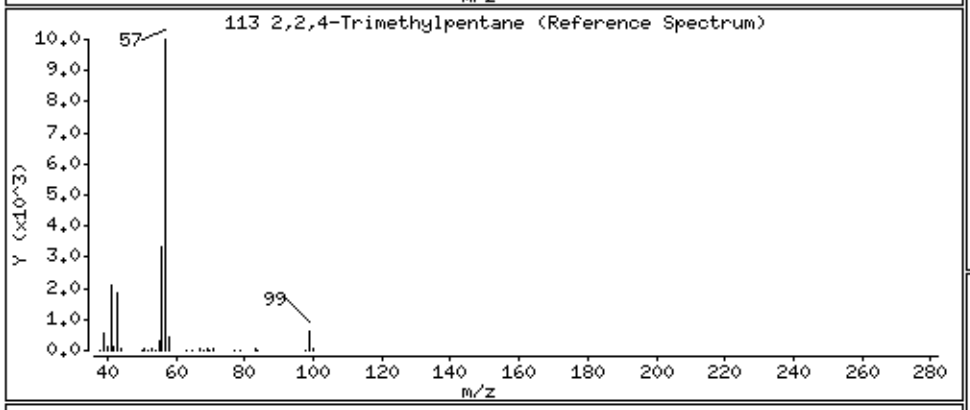
Column diameter: 0.32

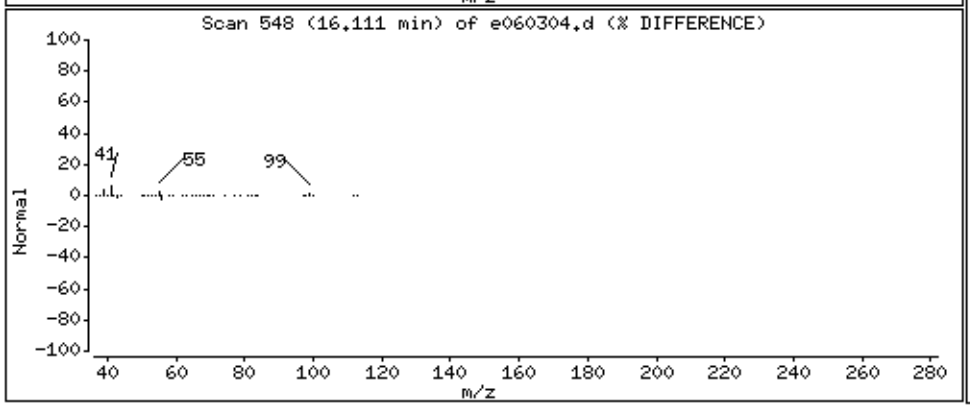
113 2,2,4-Trimethylpentane

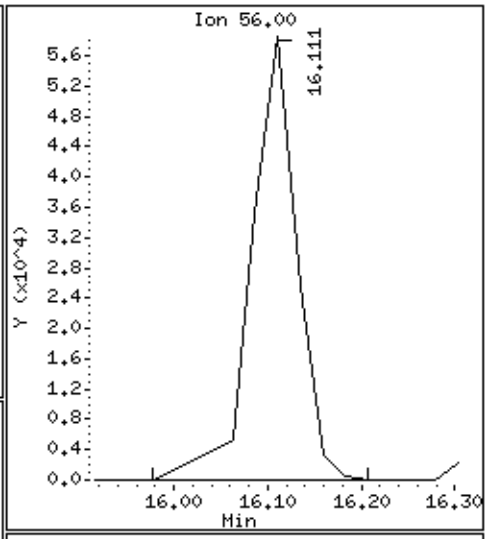
Concentration: 4.445 PPBV

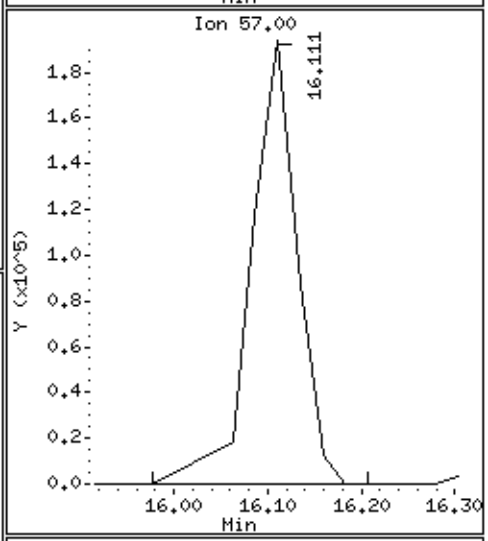


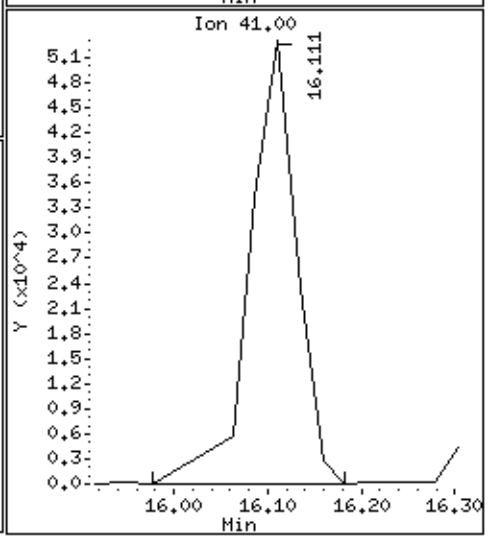












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

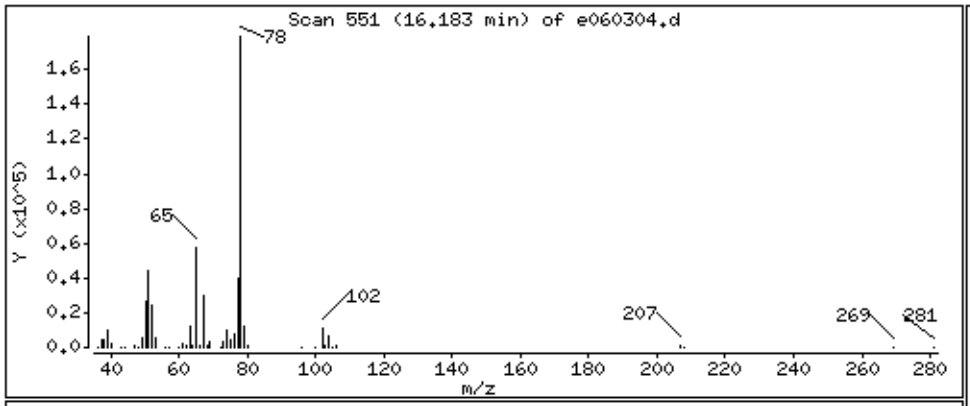
Operator: ef

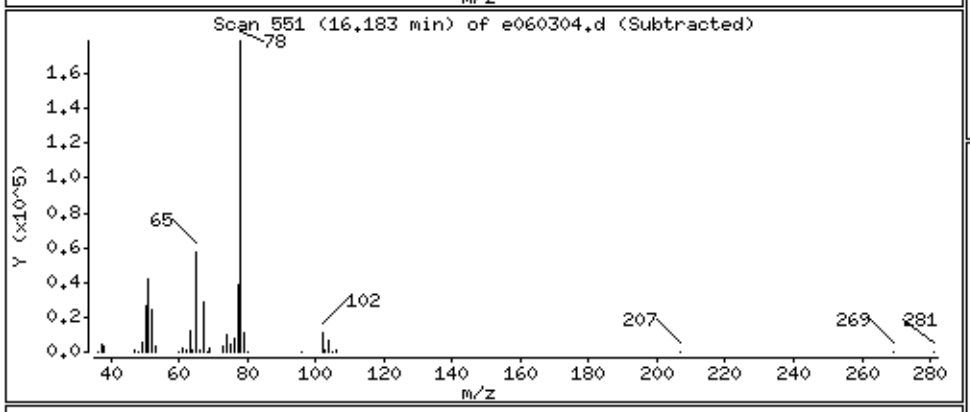
Column phase: RTX-624

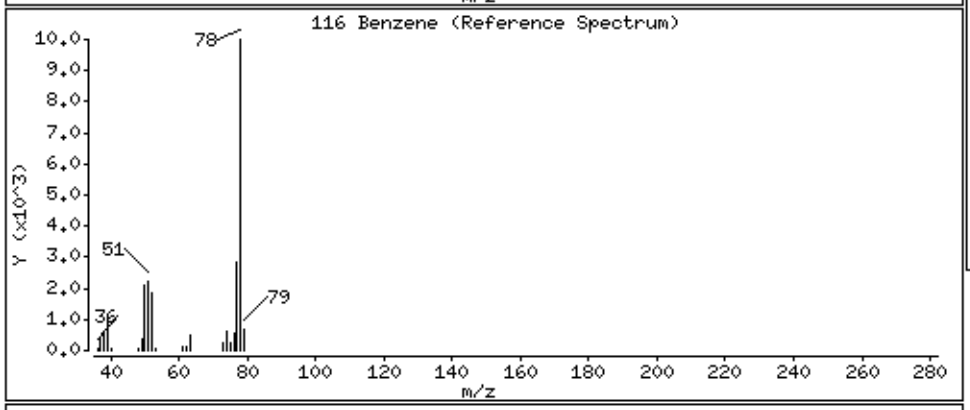
Column diameter: 0.32

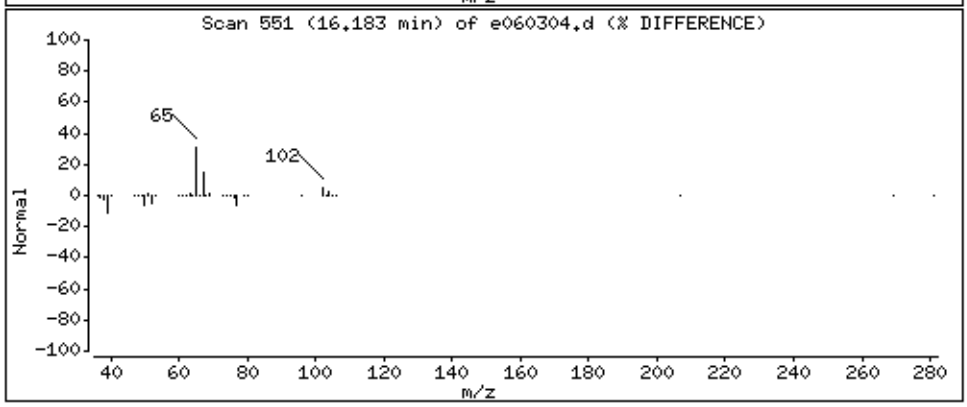
116 Benzene

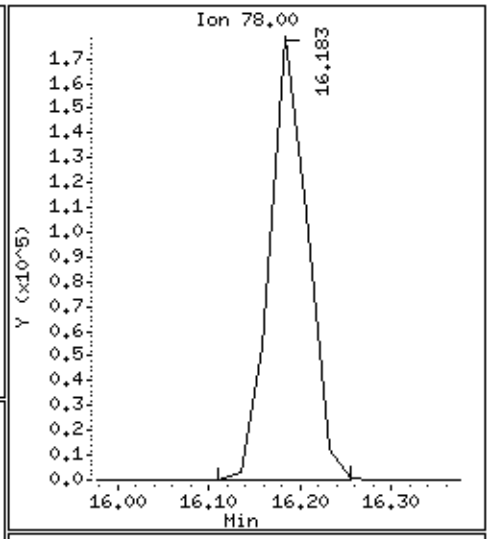
Concentration: 4.249 PPBV

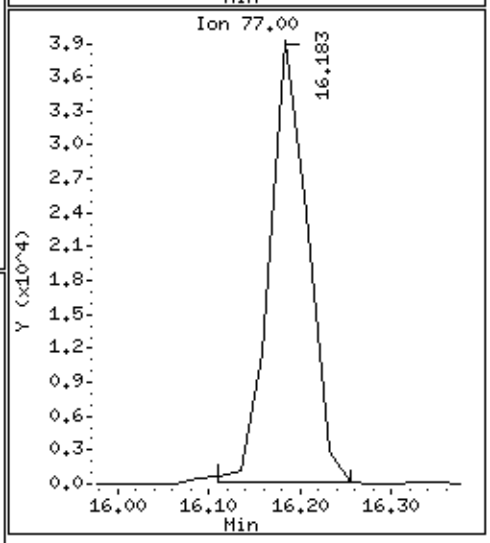












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

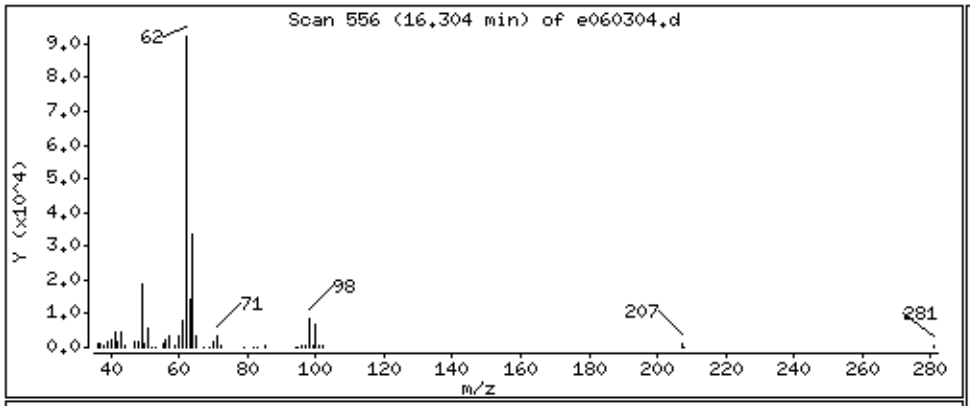
Operator: ef

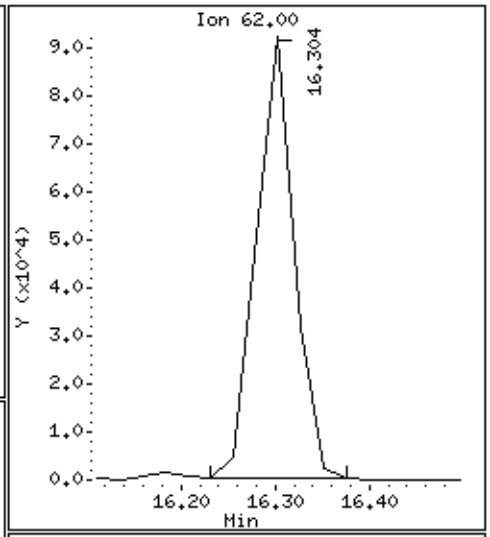
Column phase: RTX-624

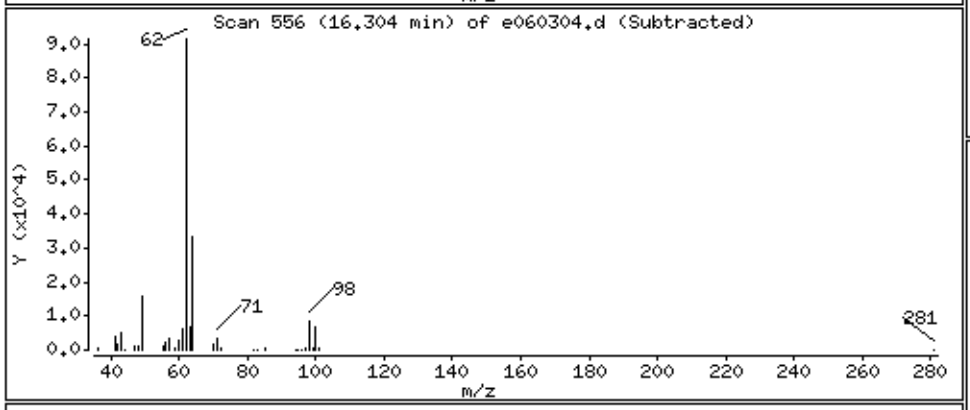
Column diameter: 0.32

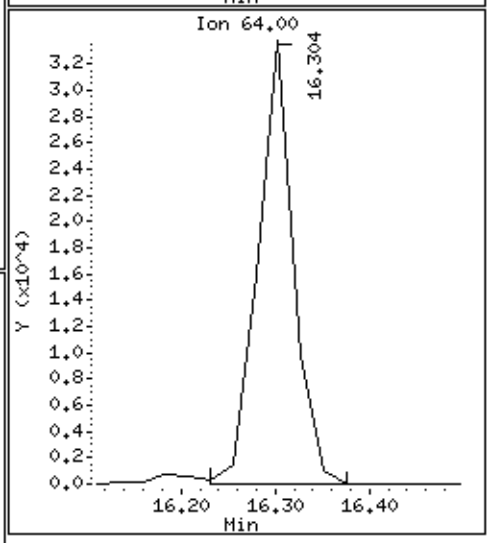
120 1,2-Dichloroethane

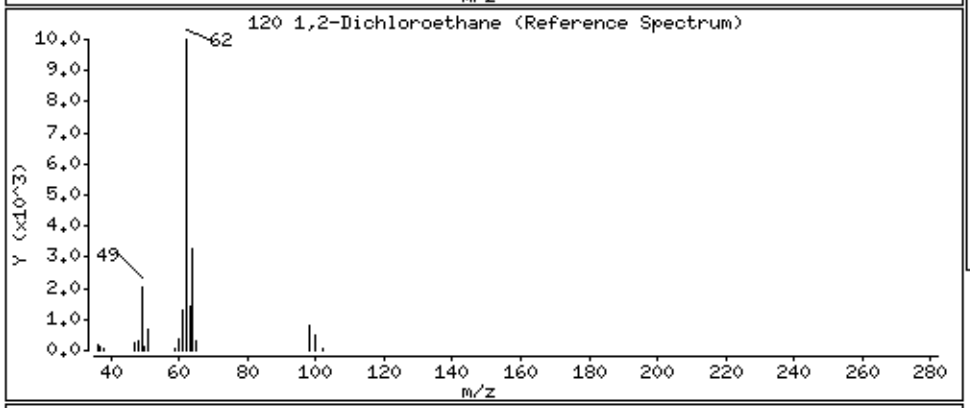
Concentration: 4.132 PPBV

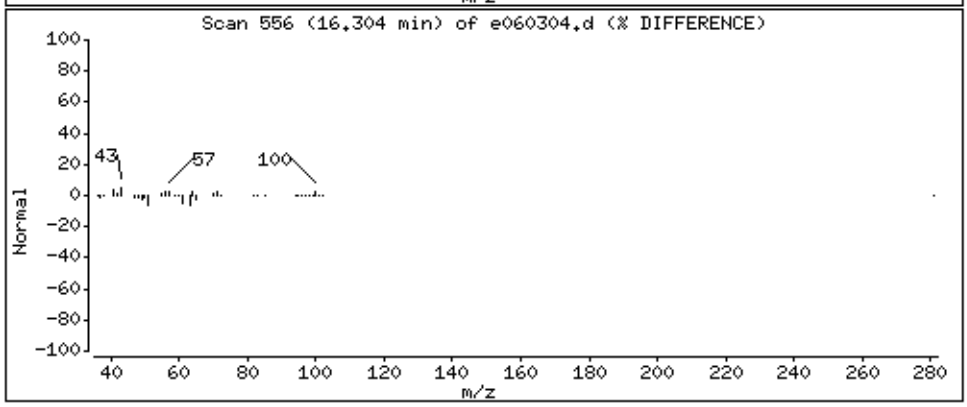












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

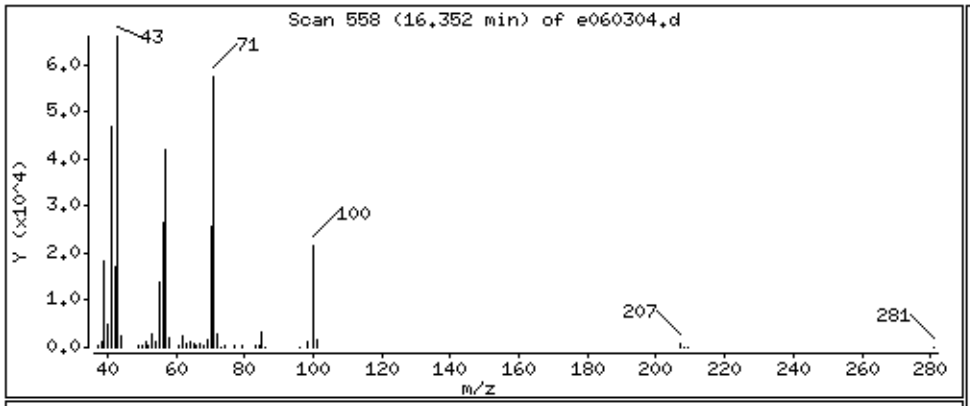
Operator: ef

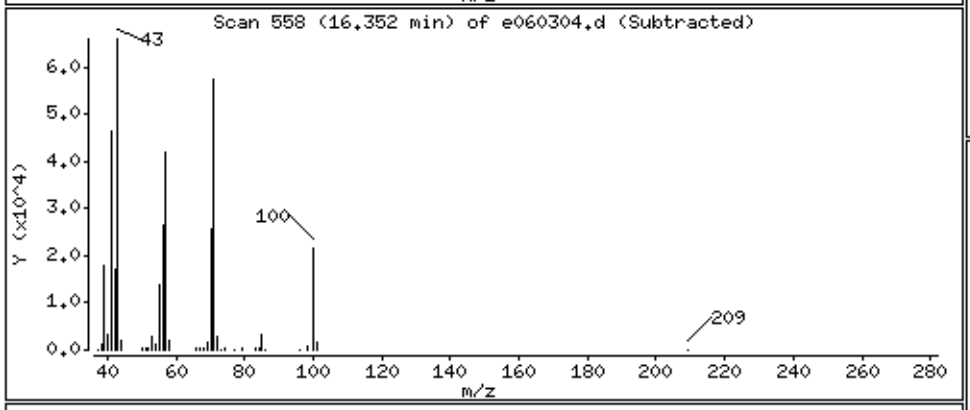
Column phase: RTX-624

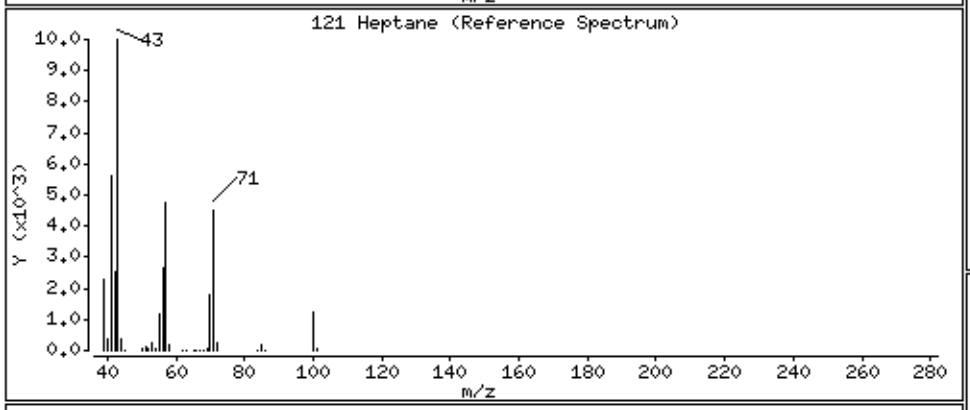
Column diameter: 0.32

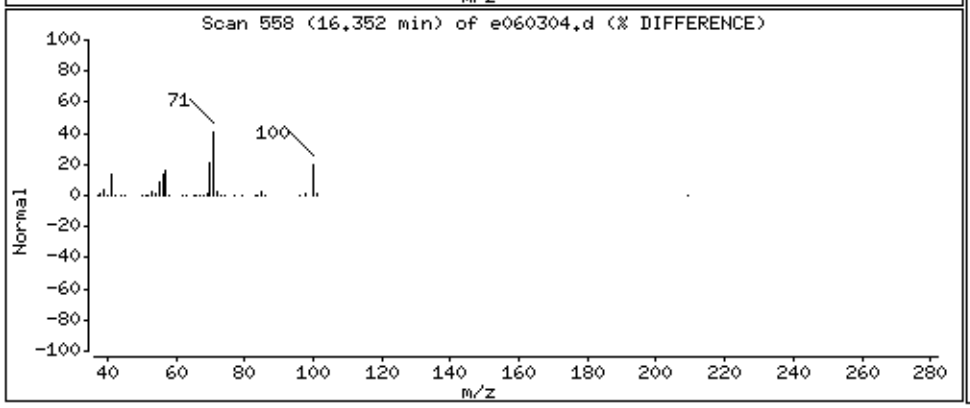
121 Heptane

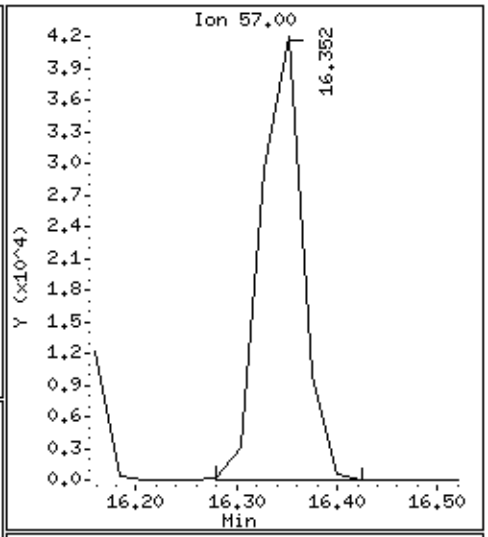
Concentration: 4.291 PPBV

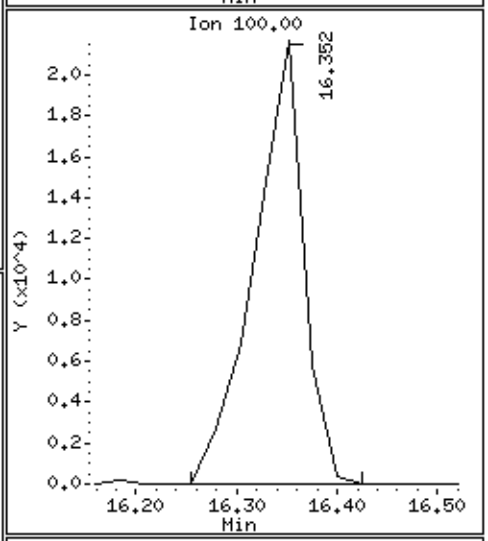


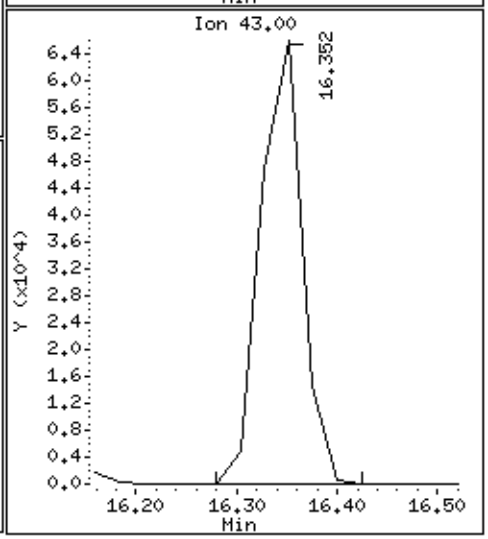












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

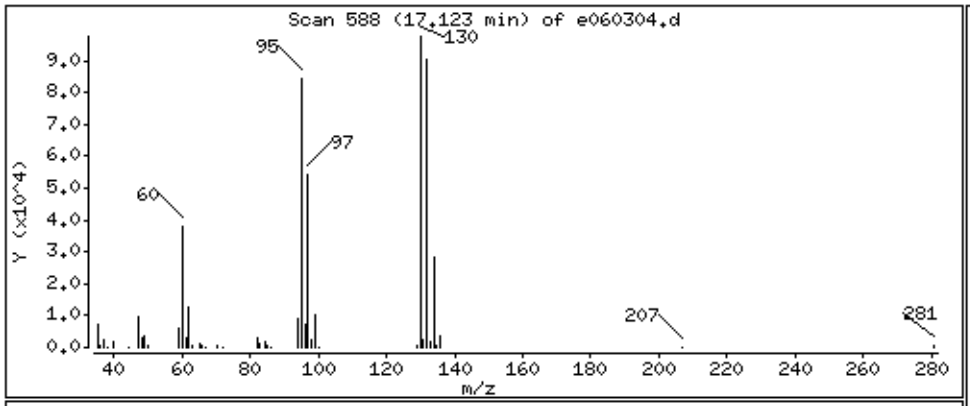
Operator: ef

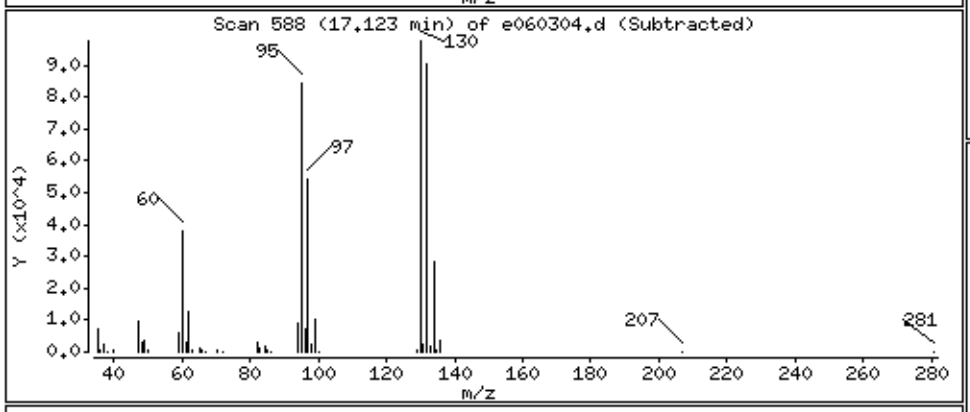
Column phase: RTX-624

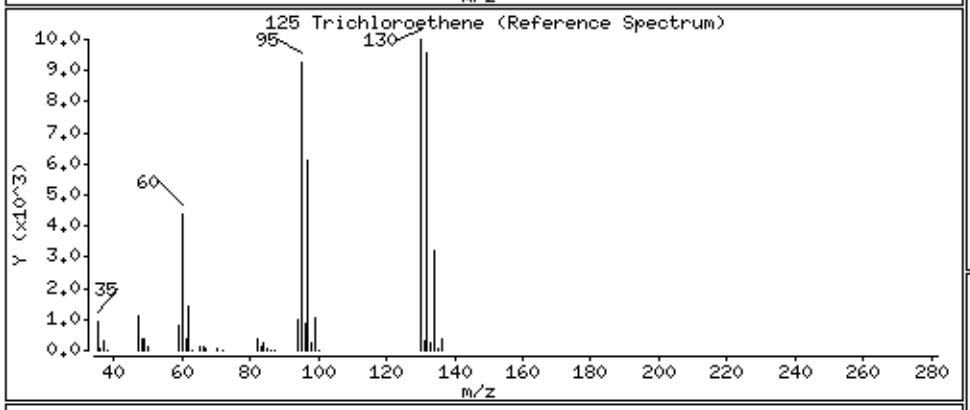
Column diameter: 0.32

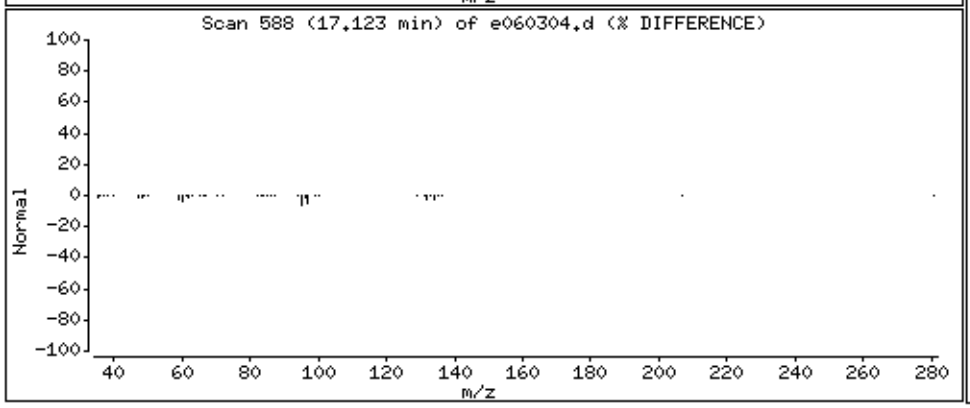
125 Trichloroethene

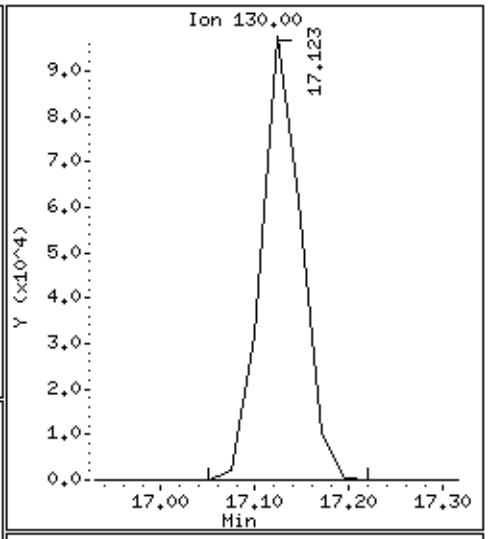
Concentration: 4.674 PPBV

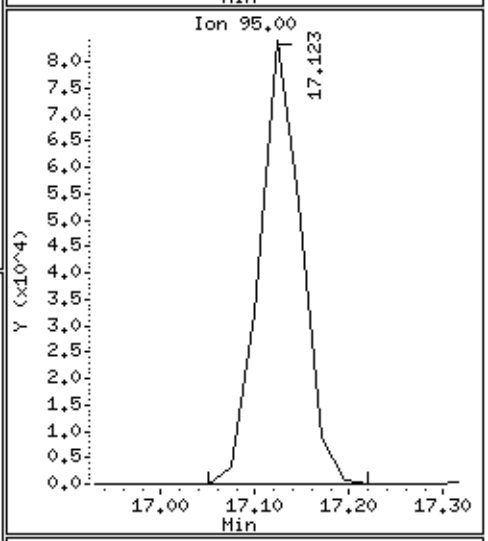


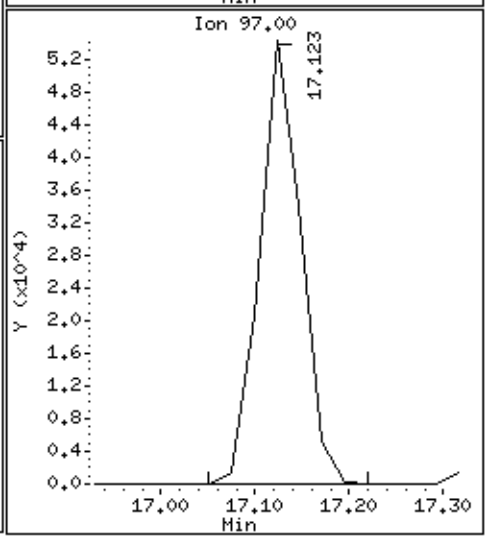












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

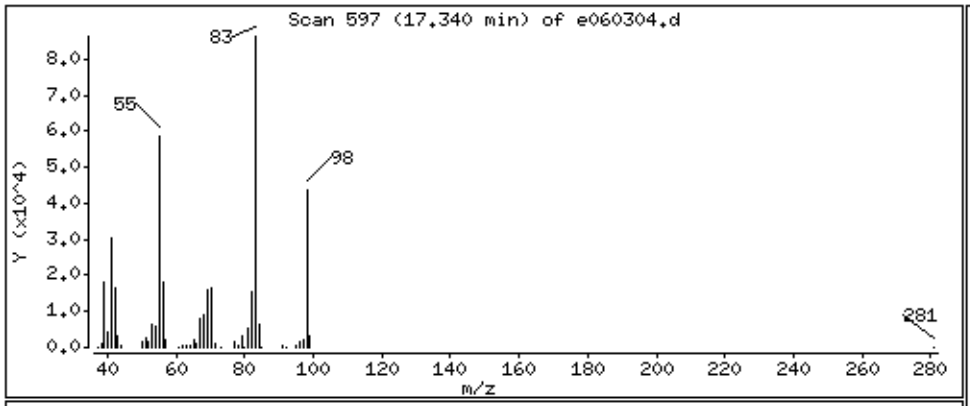
Operator: ef

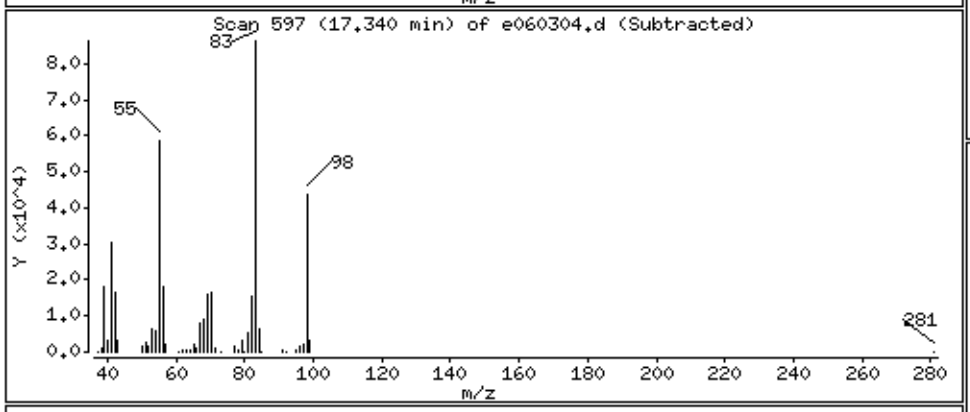
Column phase: RTX-624

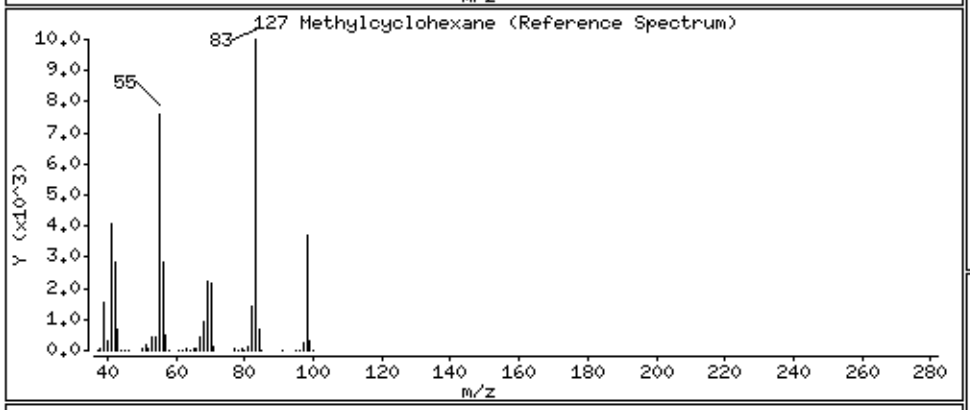
Column diameter: 0.32

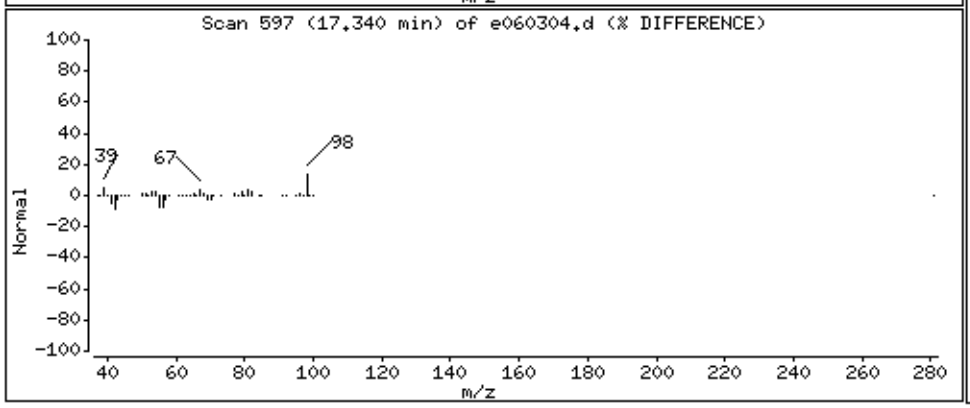
127 Methylcyclohexane

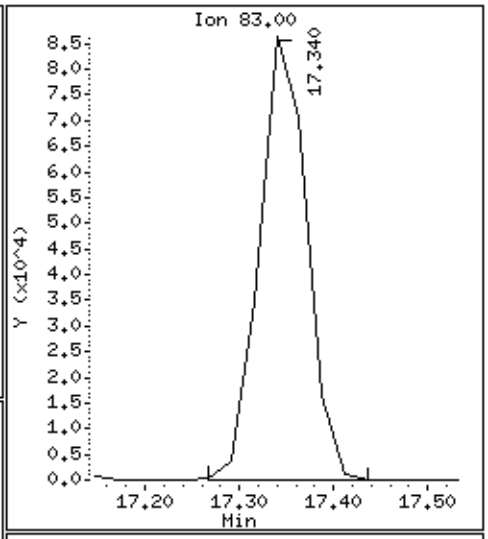
Concentration: 4.559 PPBV

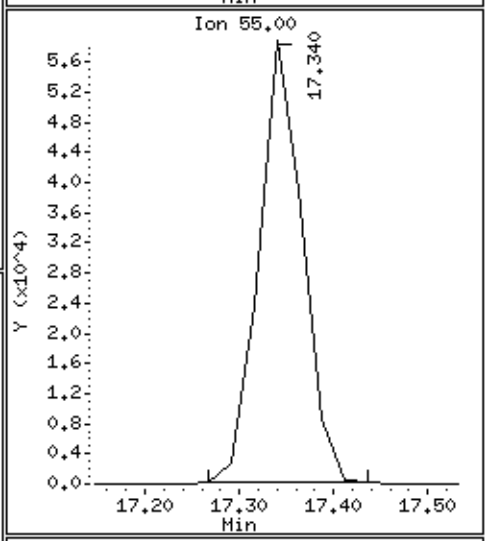


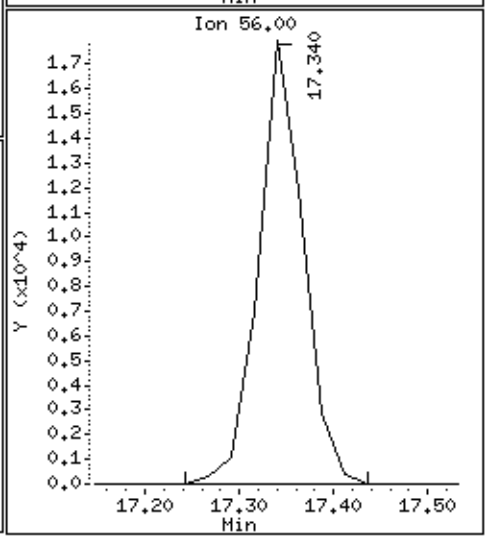












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

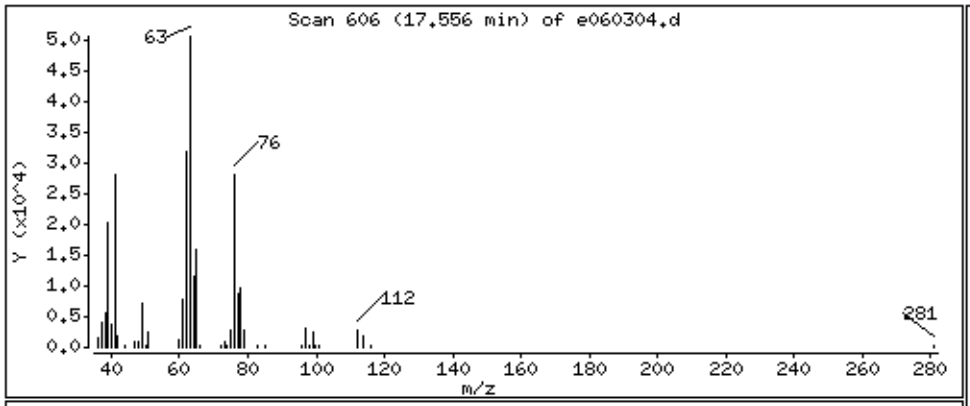
Operator: ef

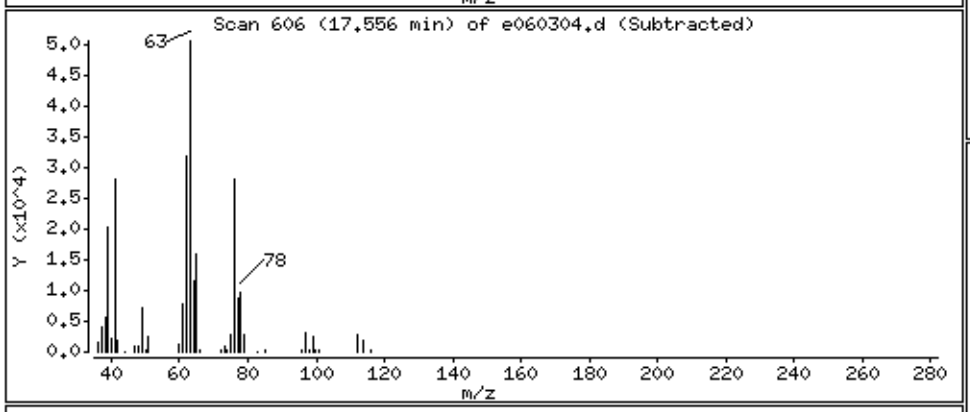
Column phase: RTX-624

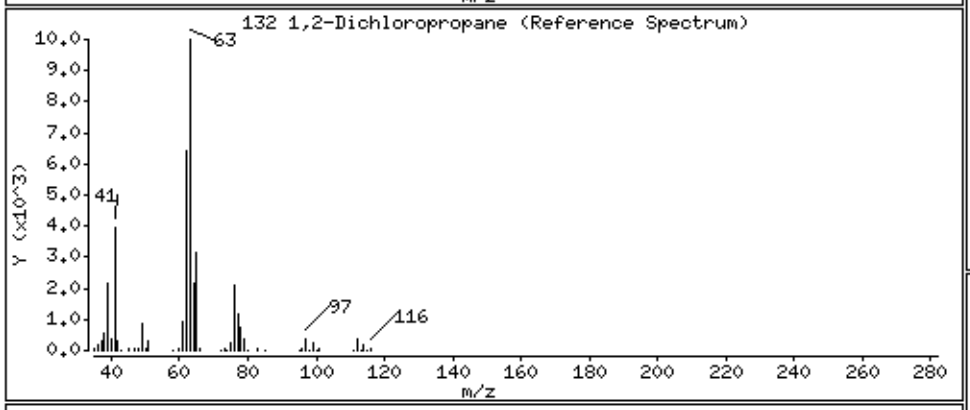
Column diameter: 0.32

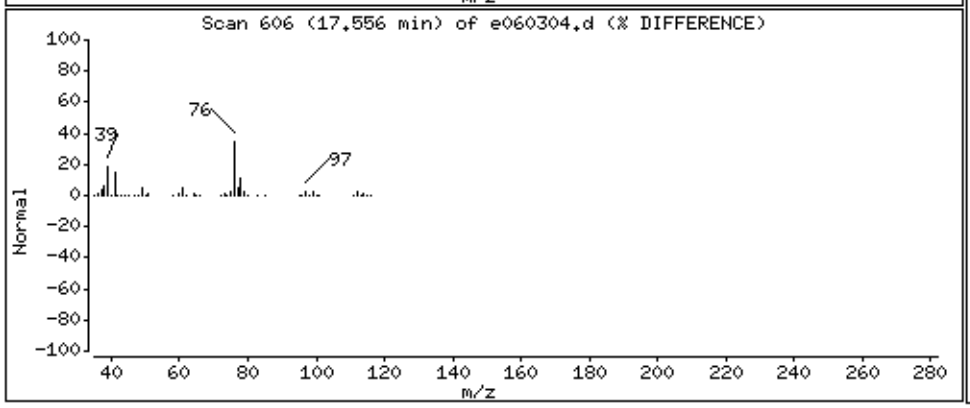
132 1,2-Dichloropropane

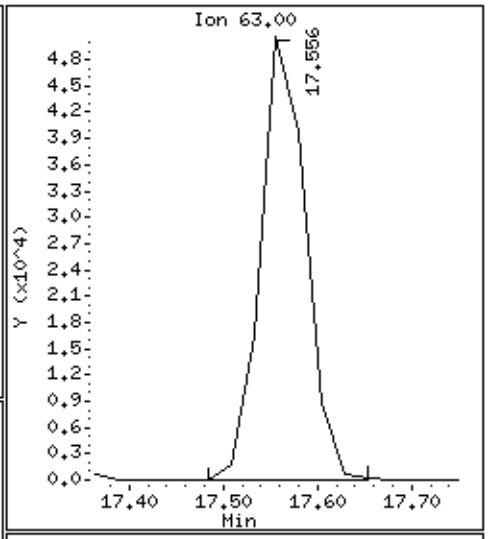
Concentration: 4.373 PPBV

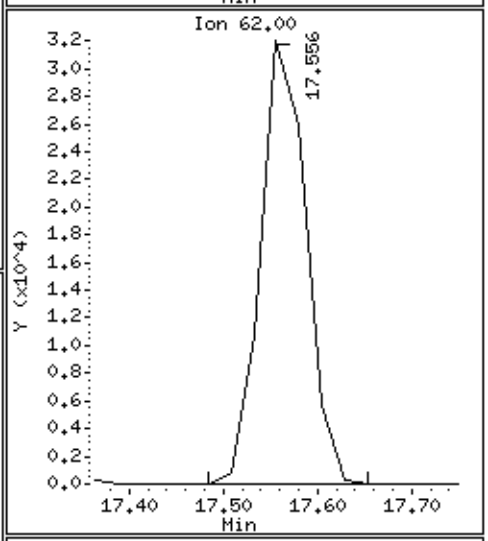


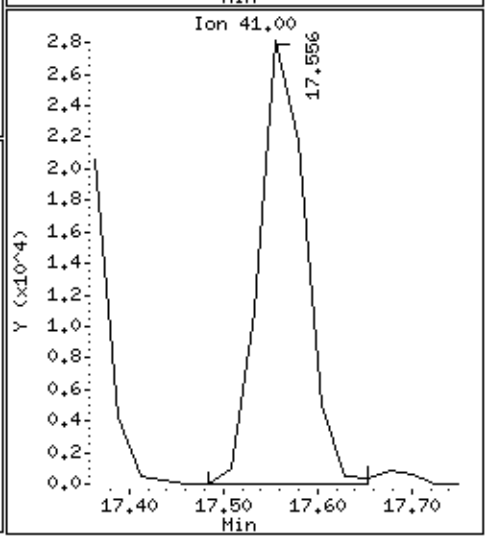












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

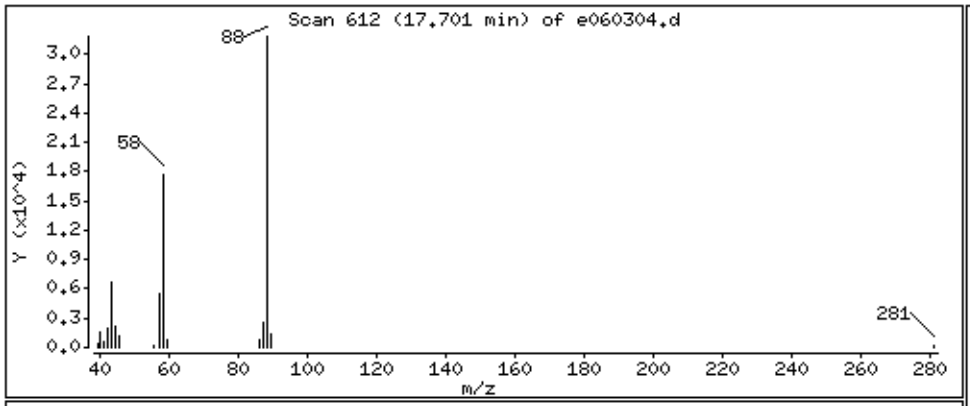
Operator: ef

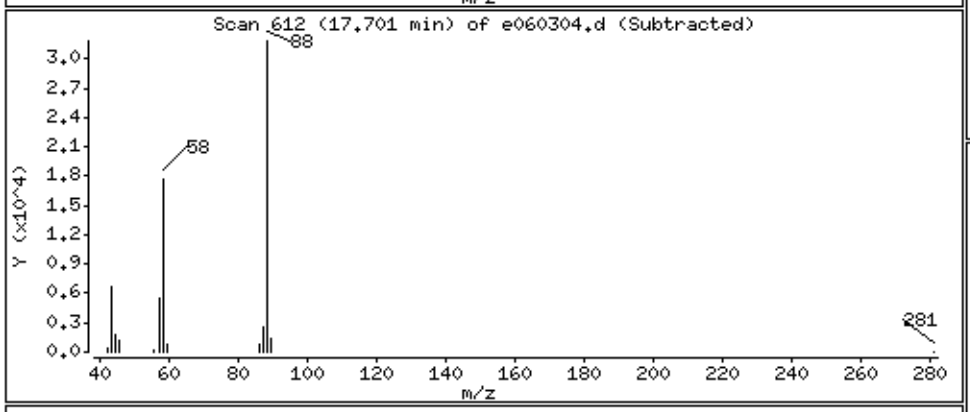
Column phase: RTX-624

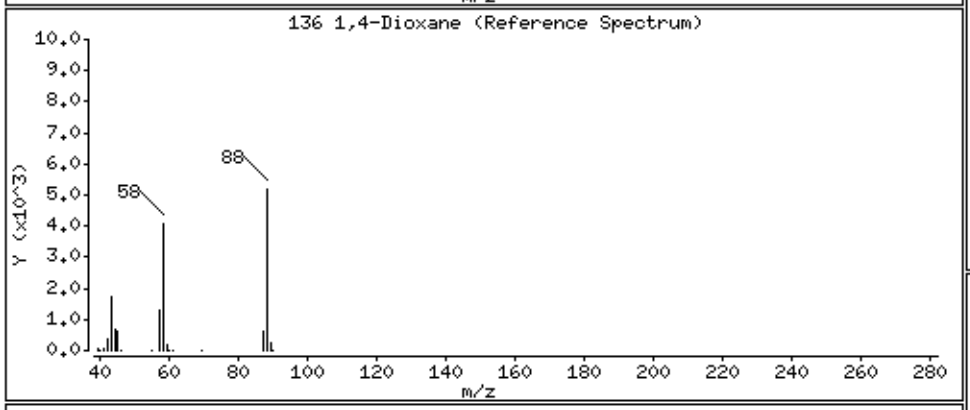
Column diameter: 0.32

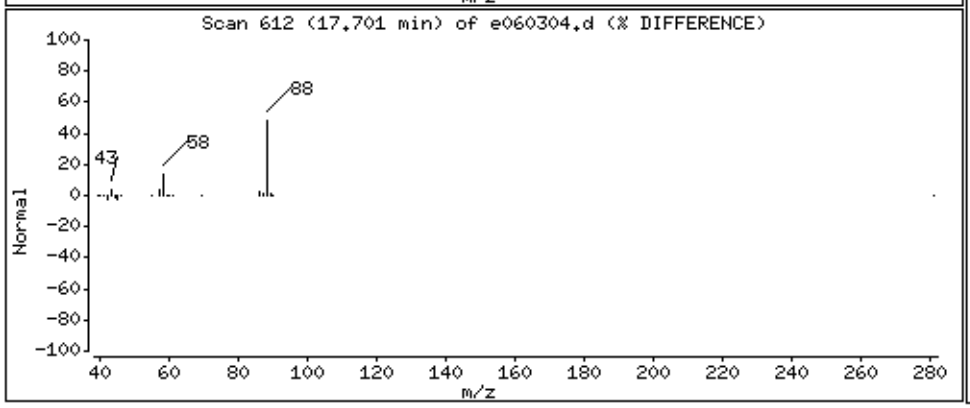
136 1,4-Dioxane

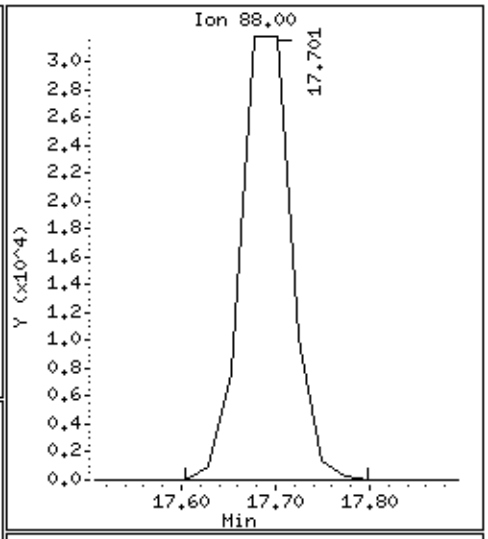
Concentration: 4.156 PPBV

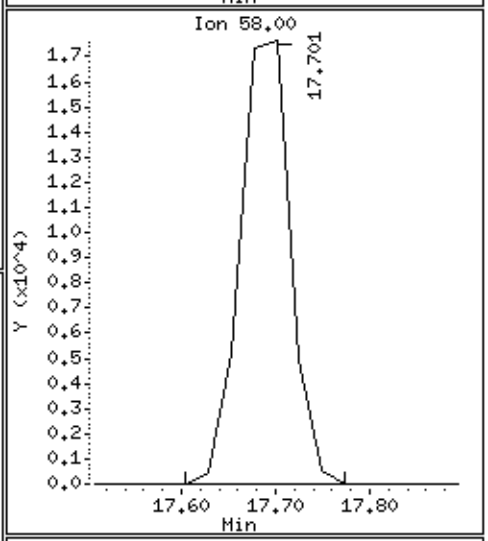


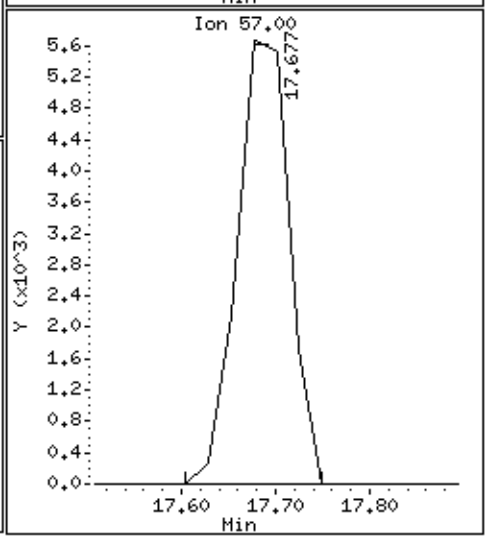












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

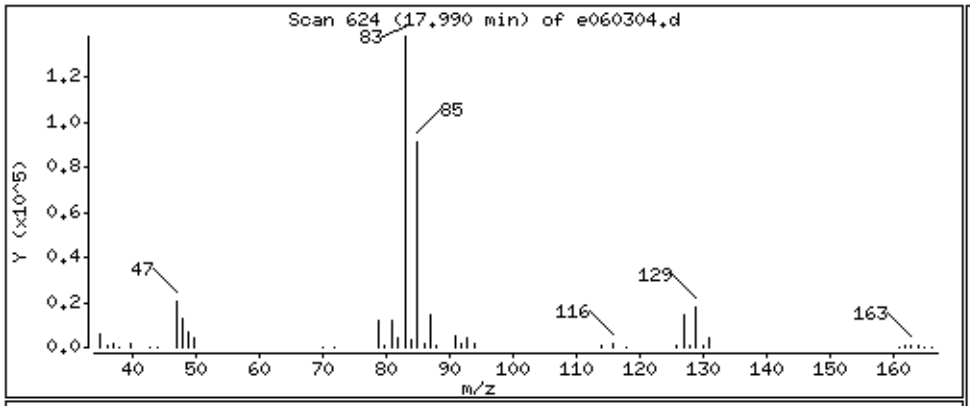
Operator: ef

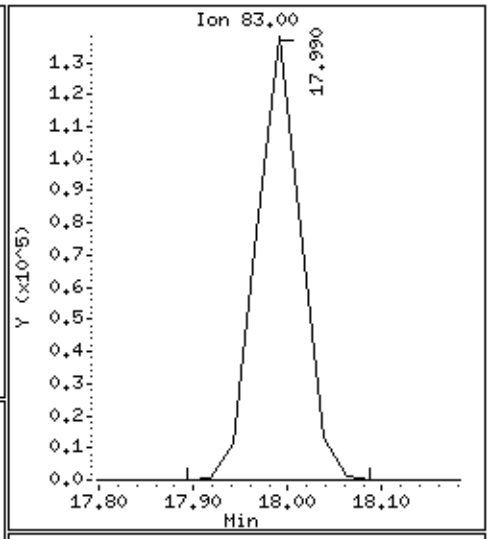
Column phase: RTX-624

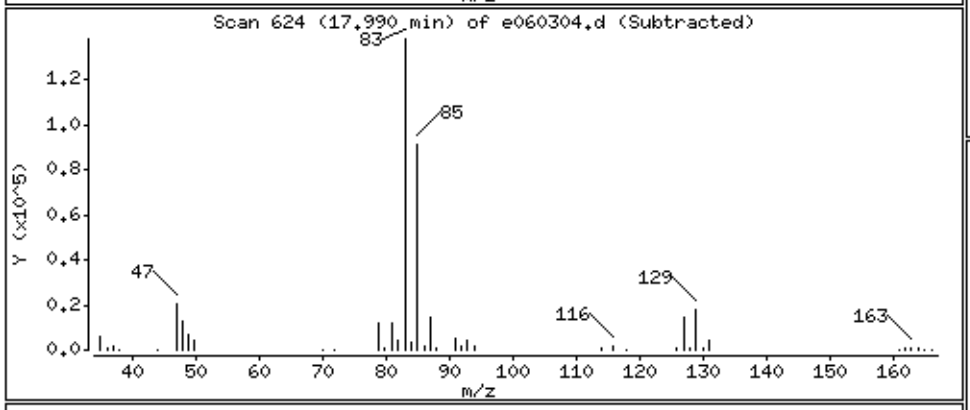
Column diameter: 0.32

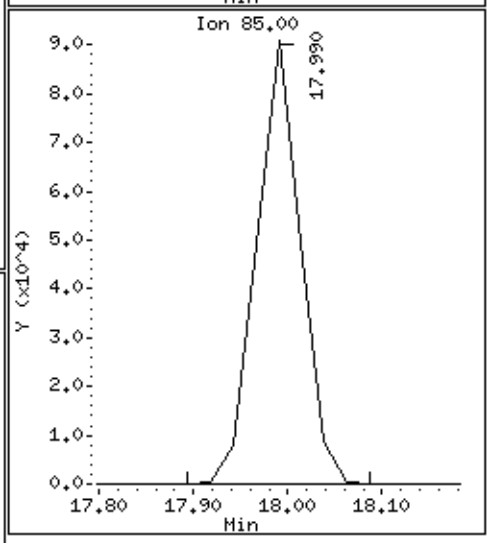
138 Bromodichloromethane

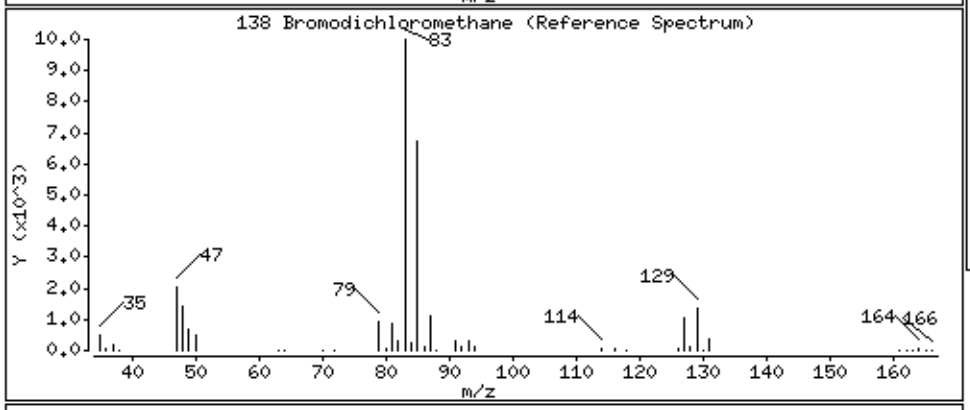
Concentration: 4.600 PPBV

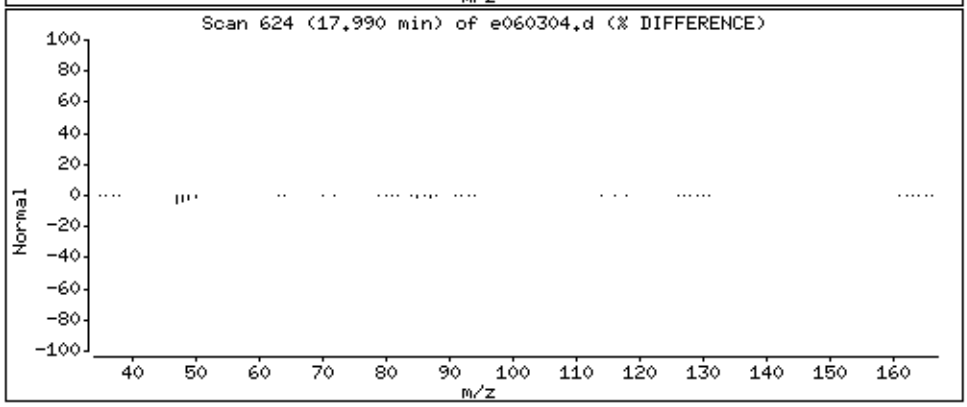












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

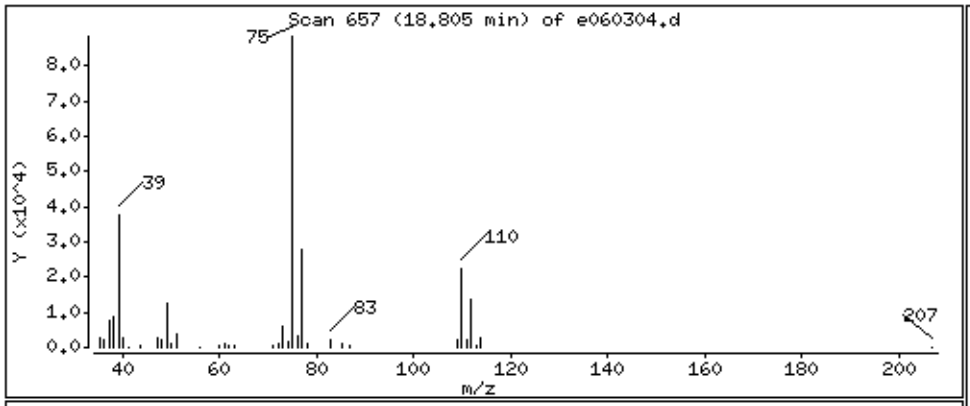
Operator: ef

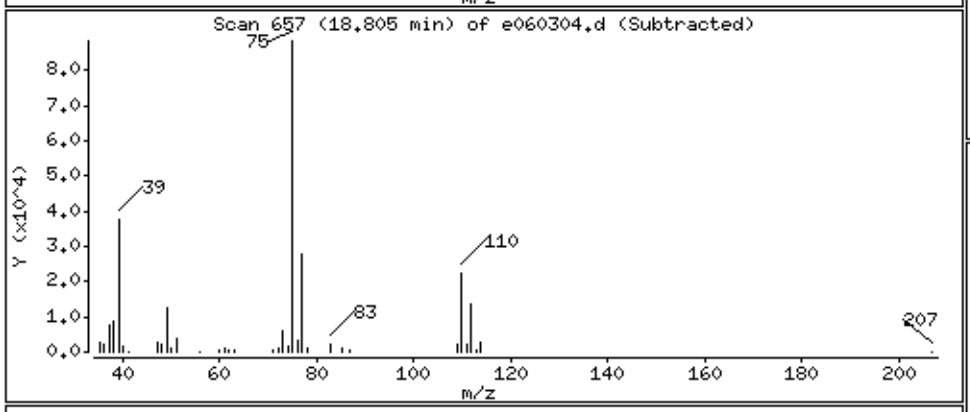
Column phase: RTX-624

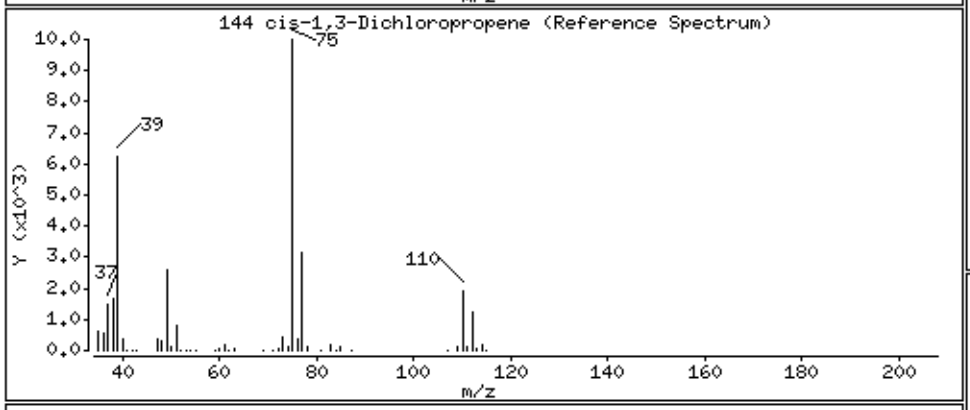
Column diameter: 0.32

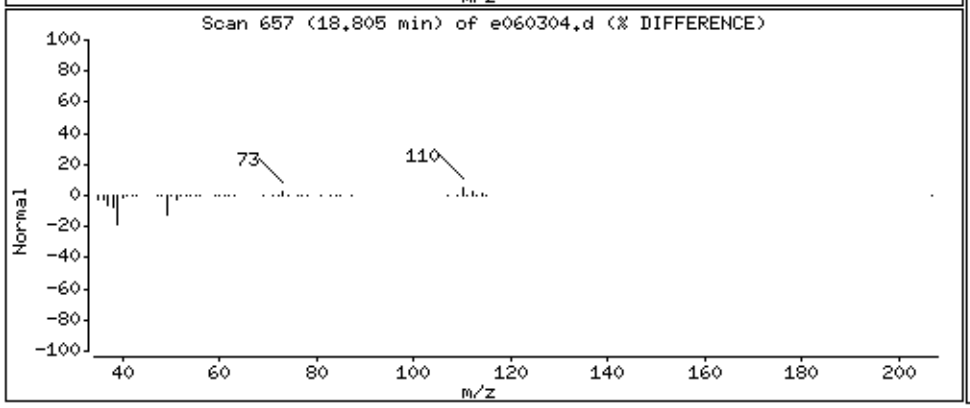
144 cis-1,3-Dichloropropene

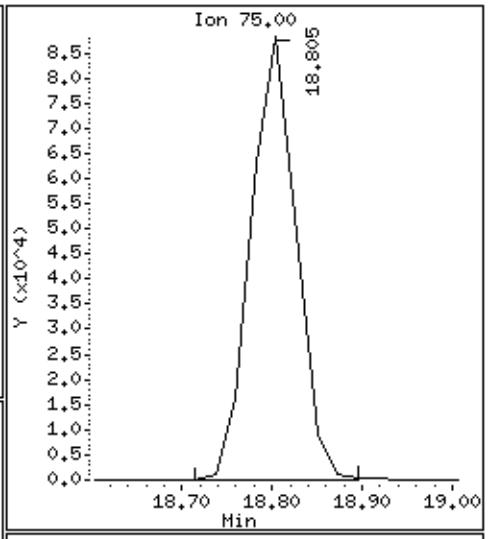
Concentration: 4.091 PPBV

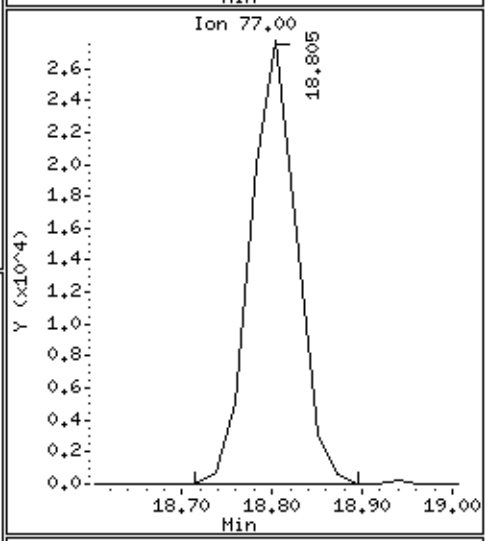


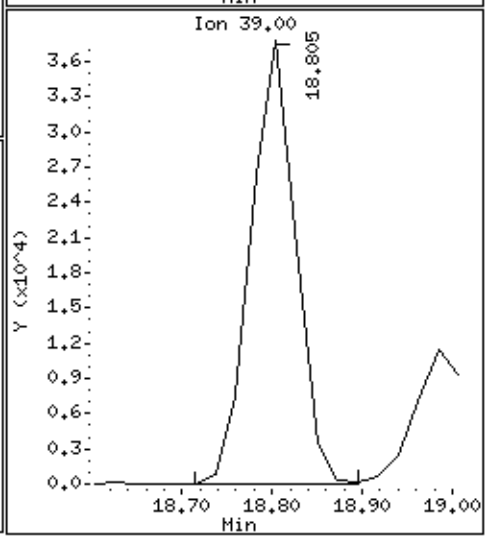












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

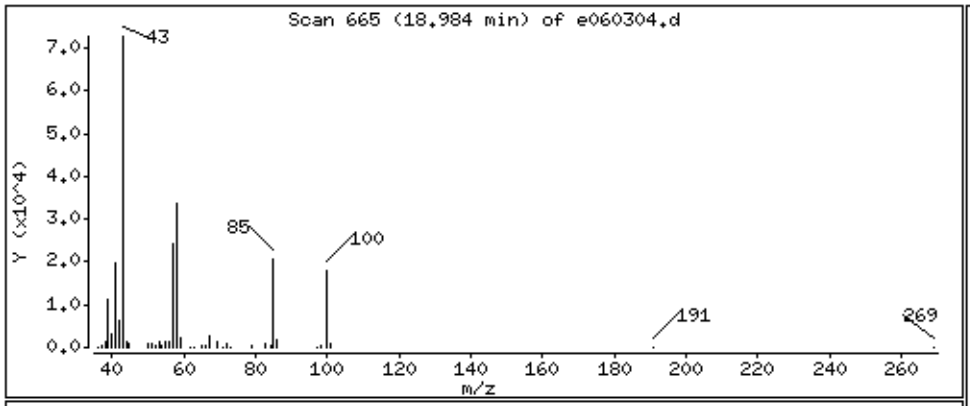
Operator: ef

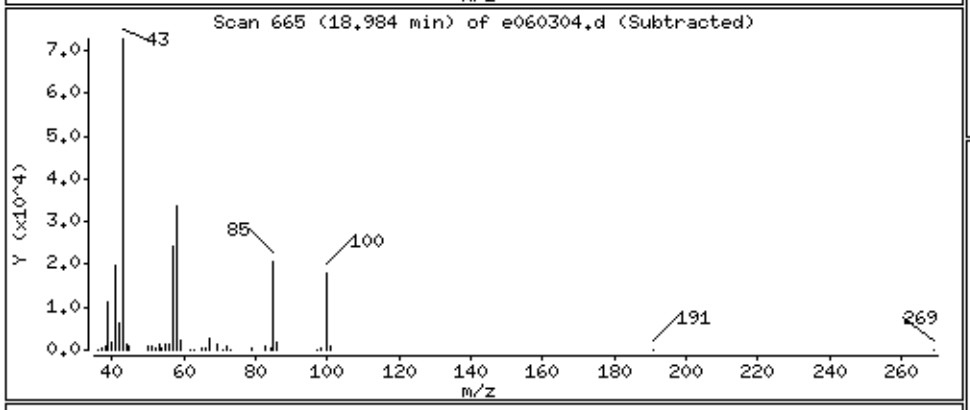
Column phase: RTX-624

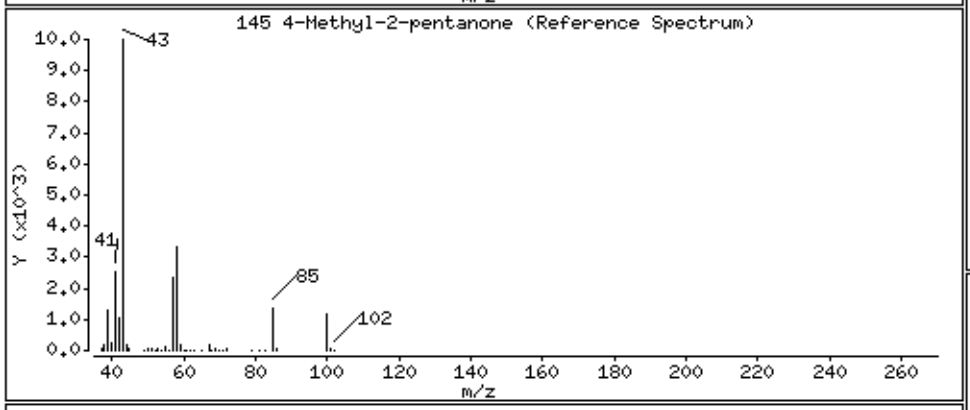
Column diameter: 0.32

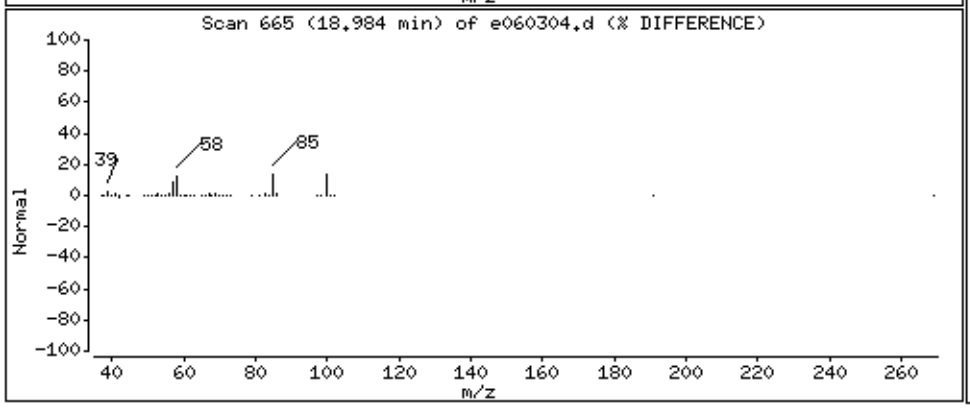
145 4-Methyl-2-pentanone

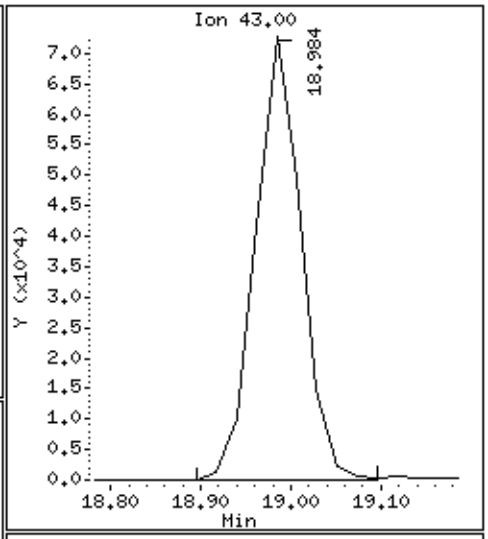
Concentration: 4.154 PPBV

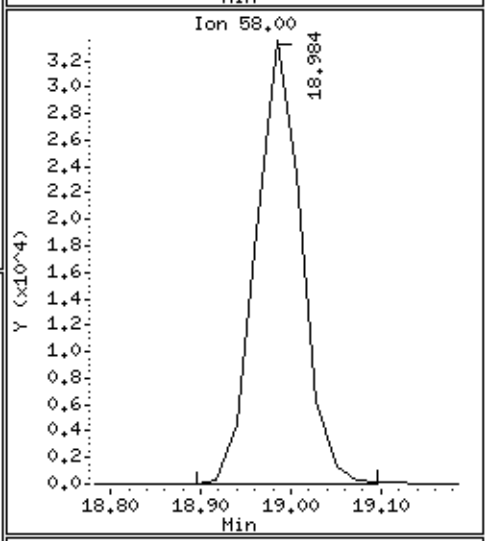


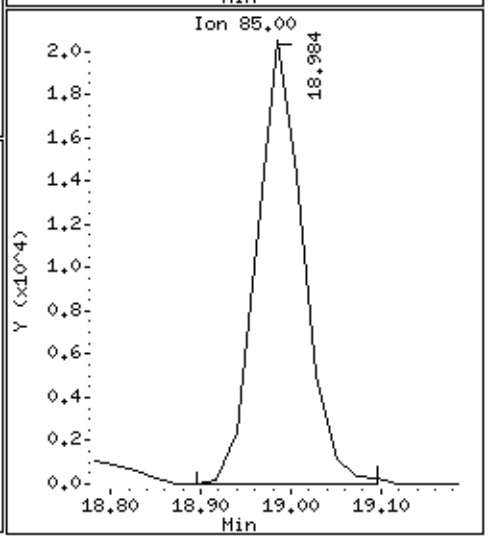












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

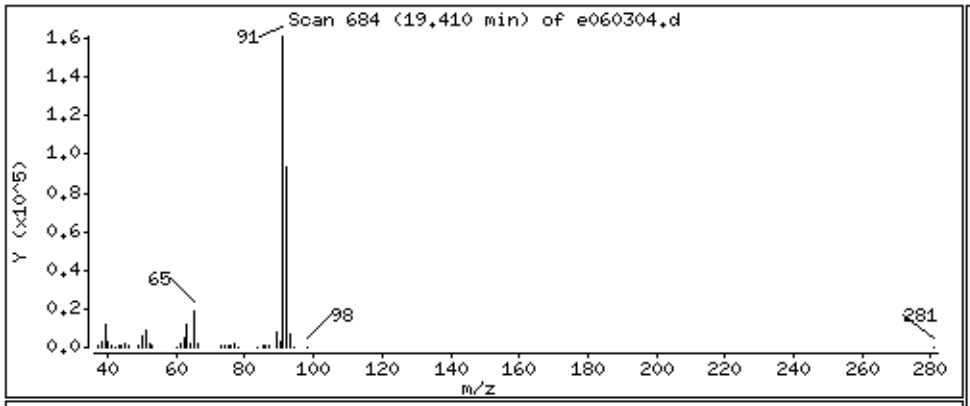
Operator: ef

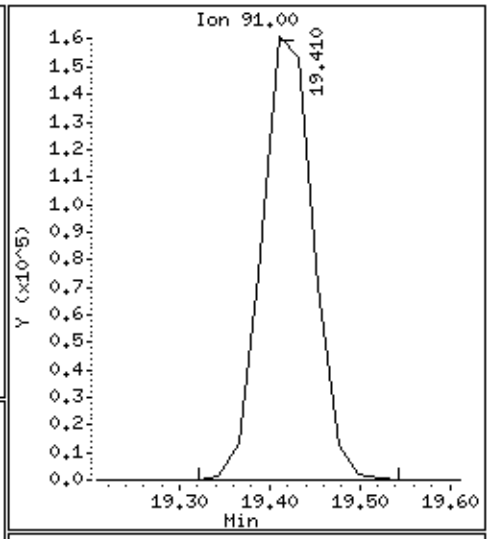
Column phase: RTX-624

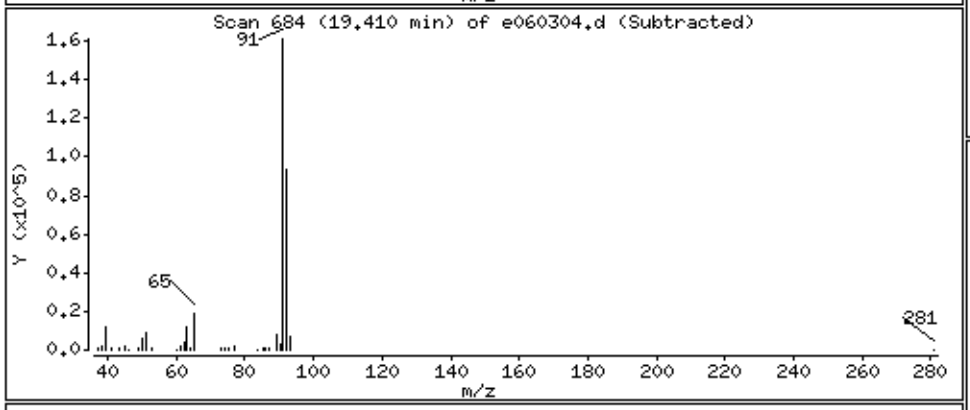
Column diameter: 0.32

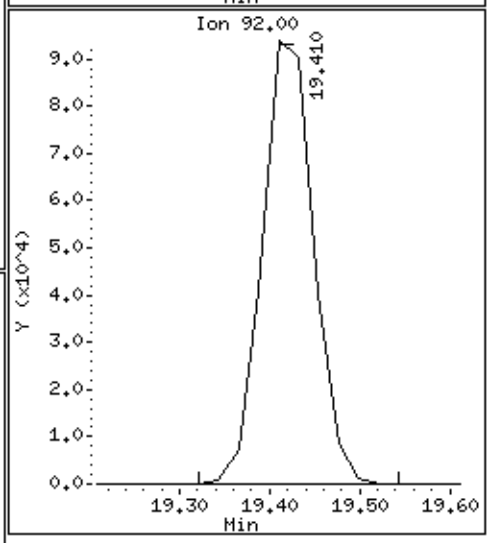
147 Toluene

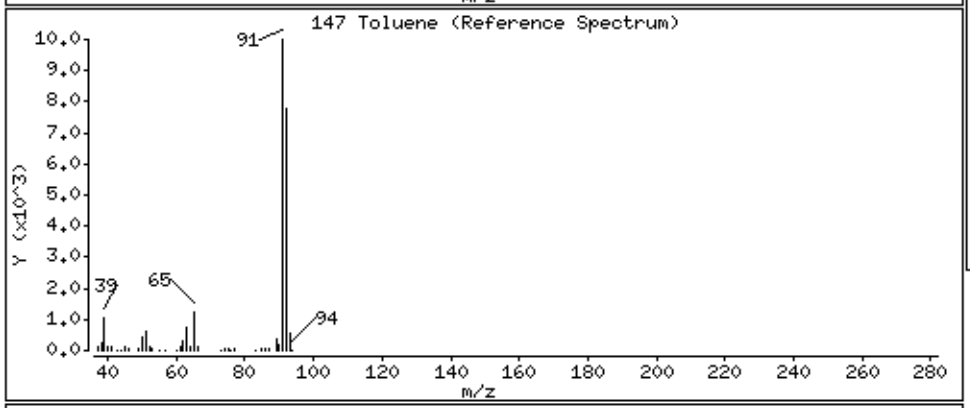
Concentration: 4.527 PPBV

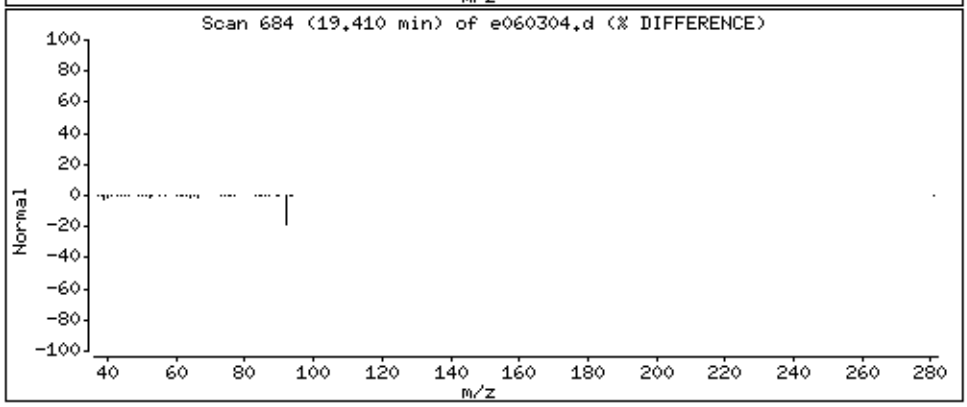












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

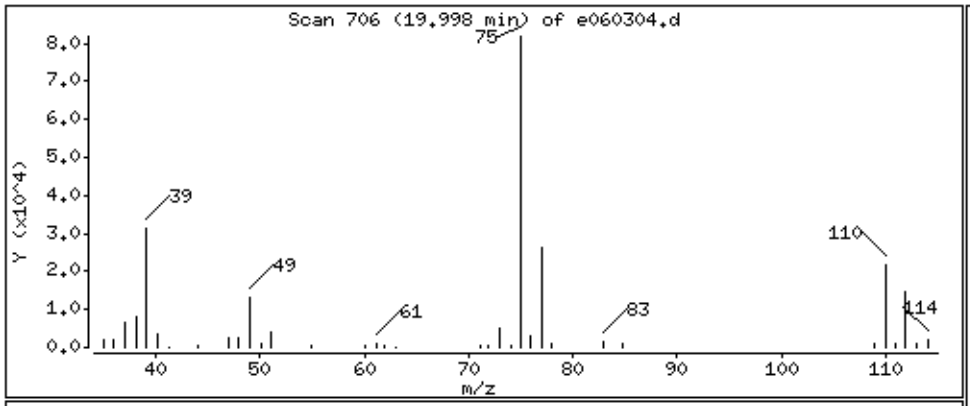
Operator: ef

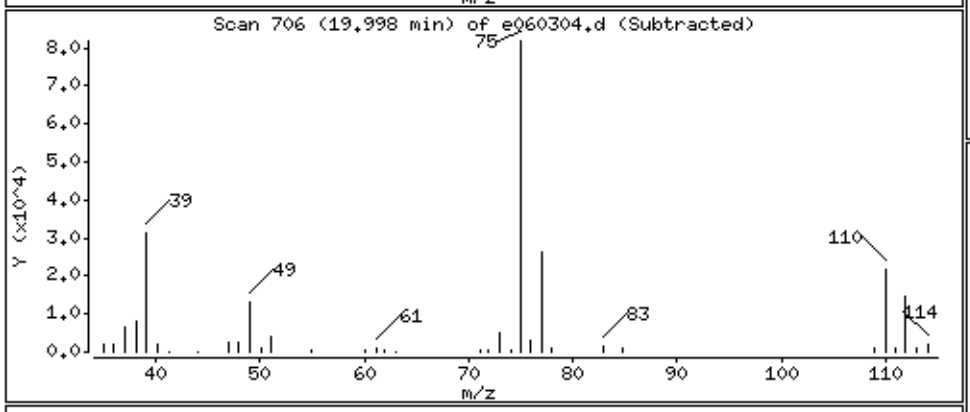
Column phase: RTX-624

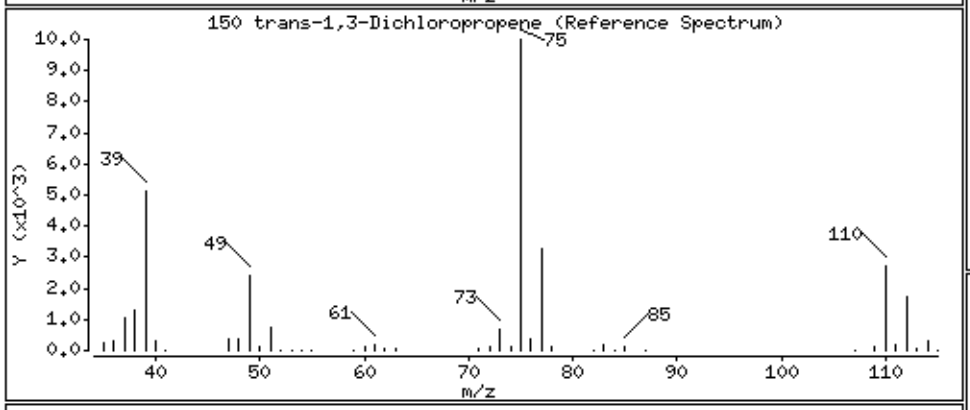
Column diameter: 0.32

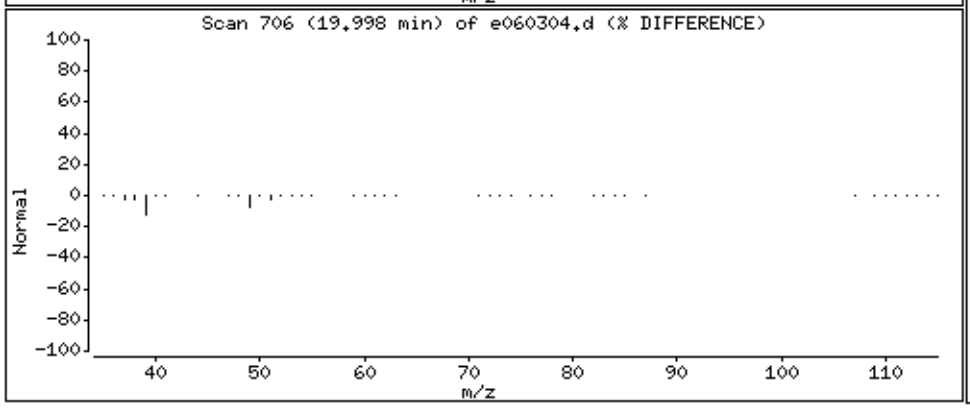
150 trans-1,3-Dichloropropene

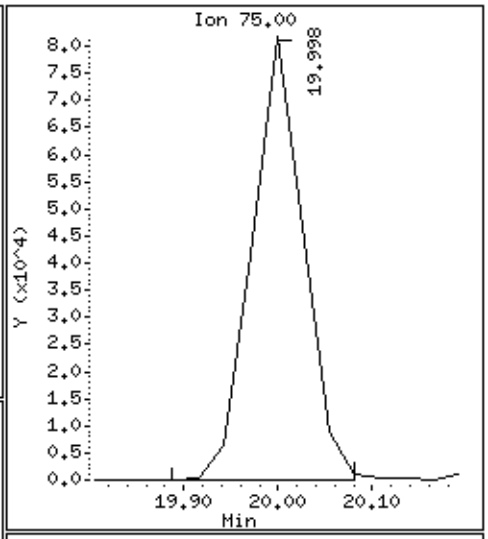
Concentration: 4.310 PPBV

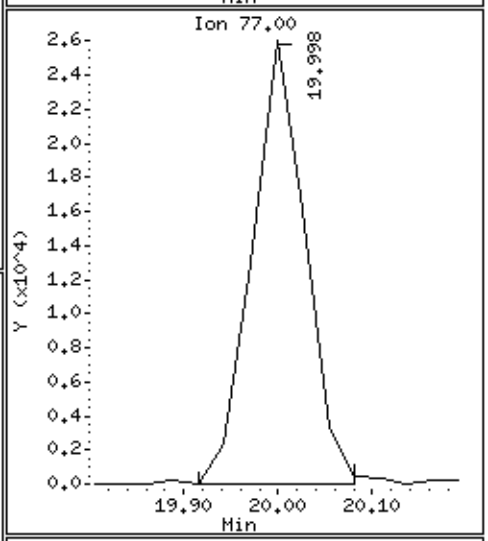


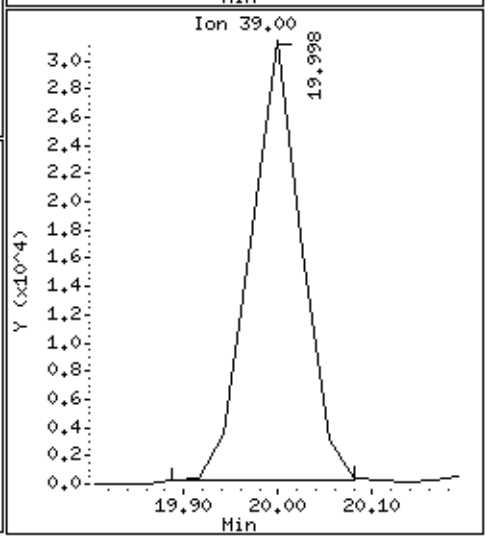












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

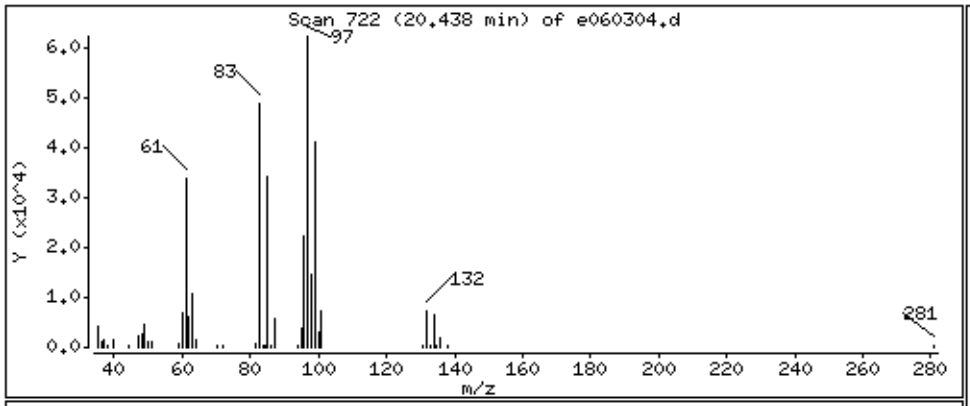
Operator: ef

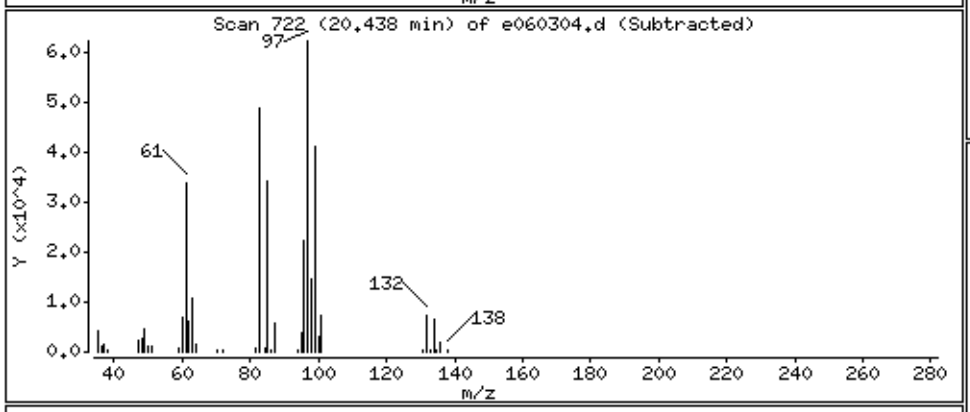
Column phase: RTX-624

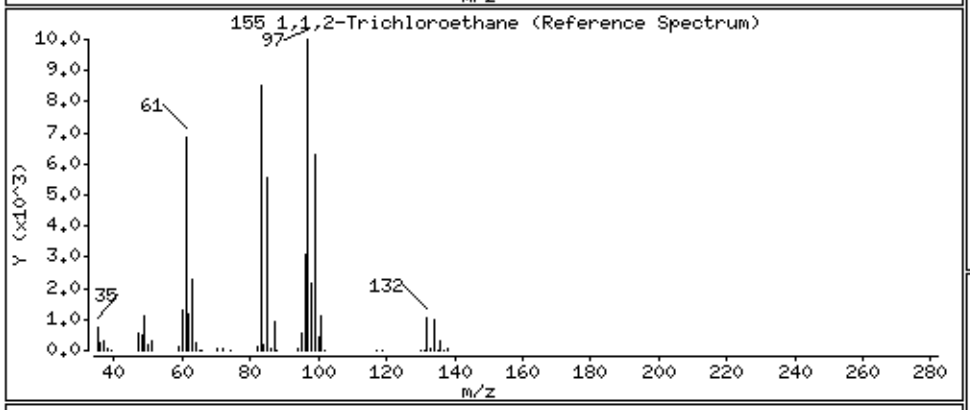
Column diameter: 0.32

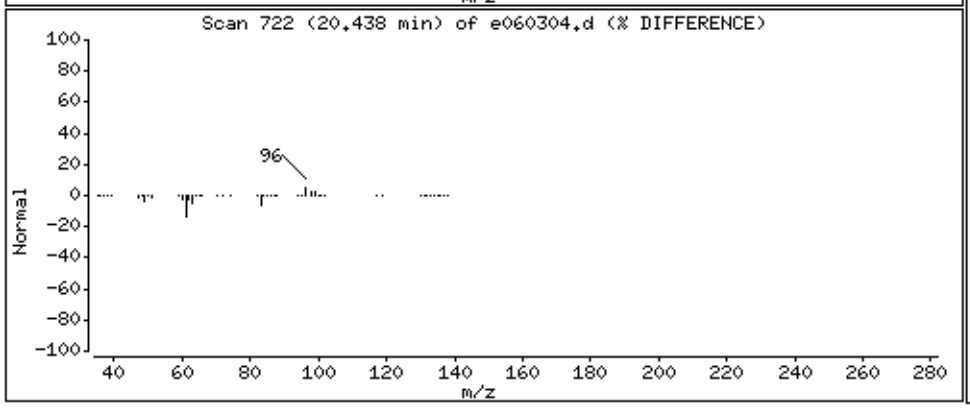
155 1,1,2-Trichloroethane

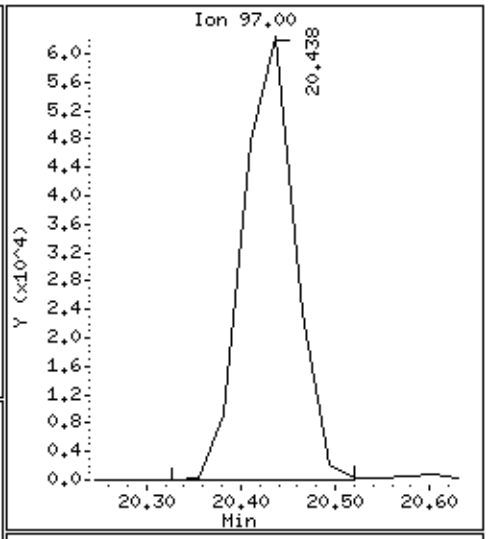
Concentration: 4.314 PPBV

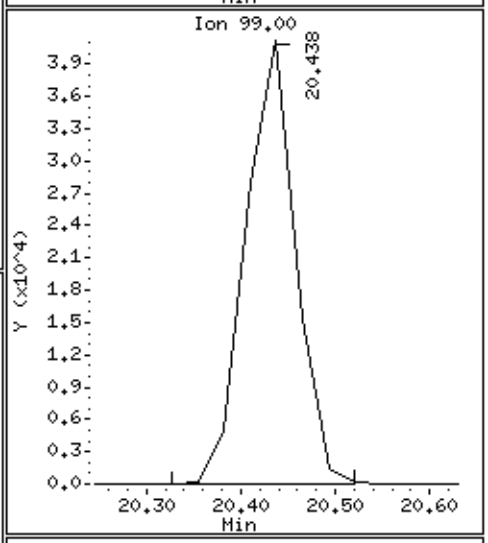


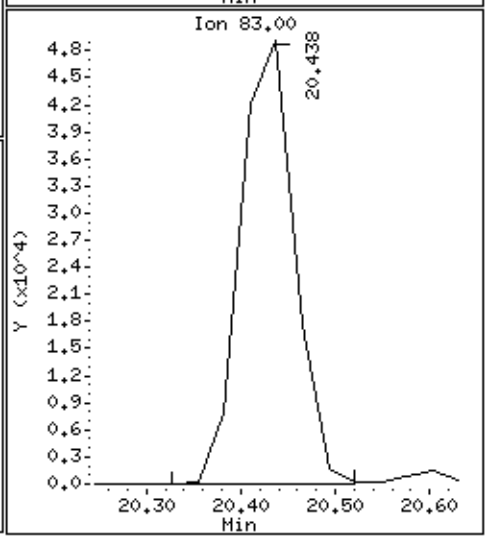












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

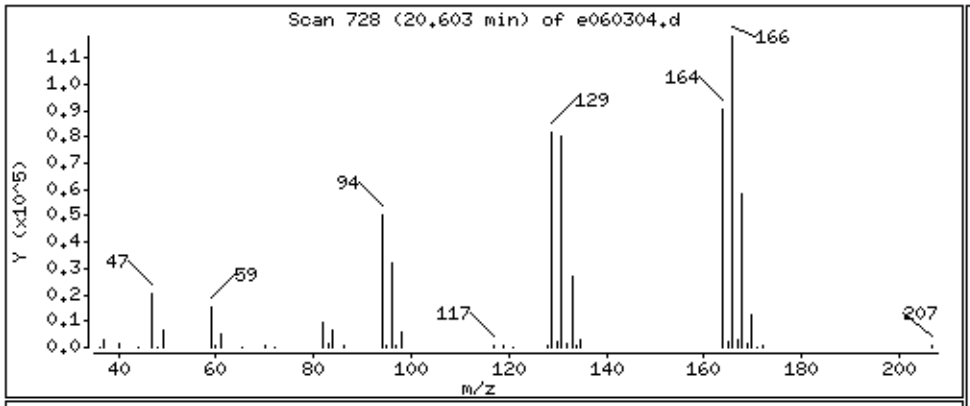
Operator: ef

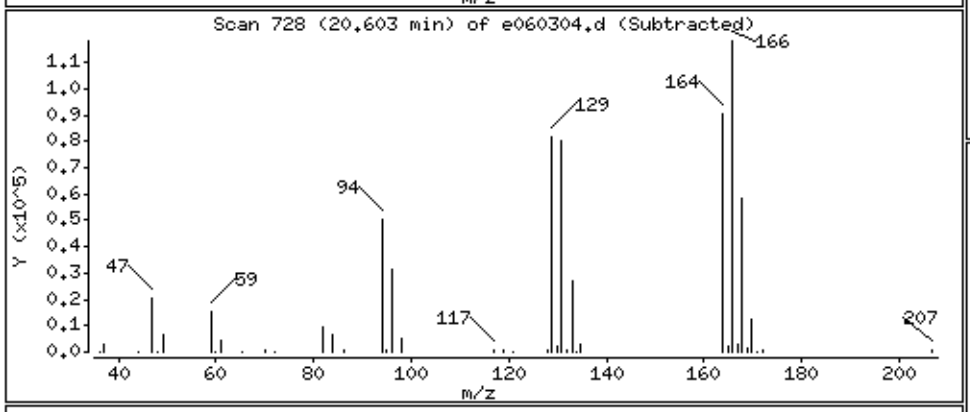
Column phase: RTX-624

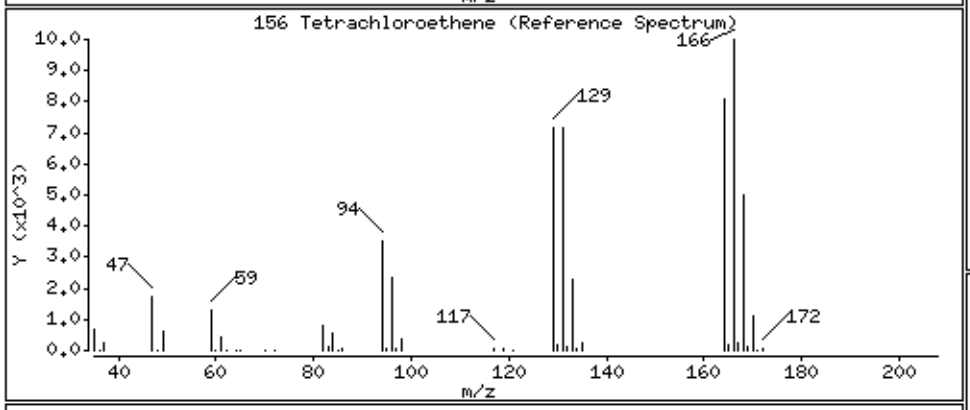
Column diameter: 0.32

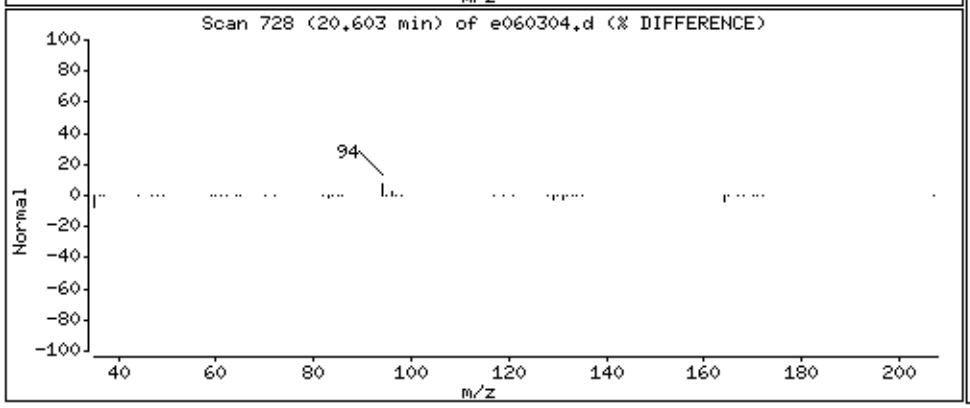
156 Tetrachloroethene

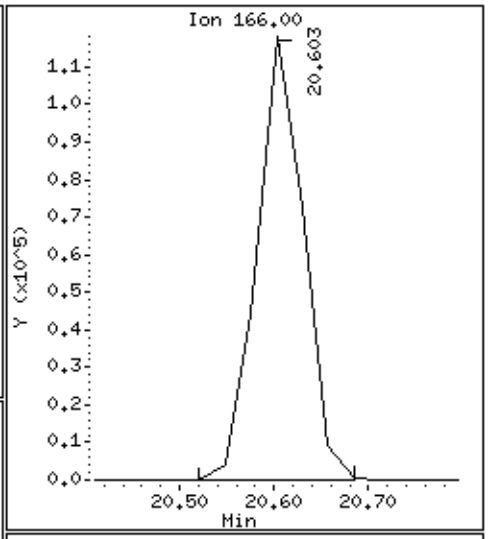
Concentration: 4.784 PPBV

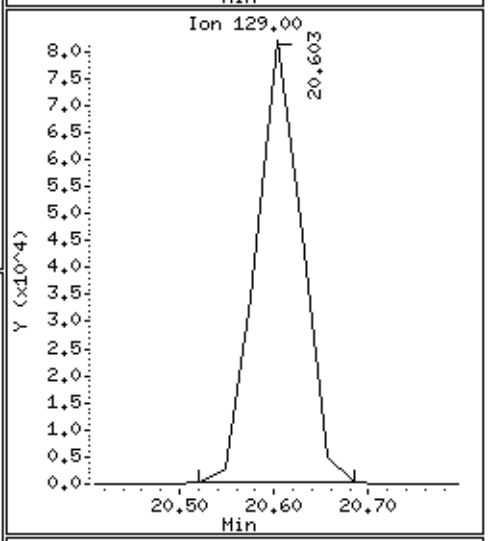


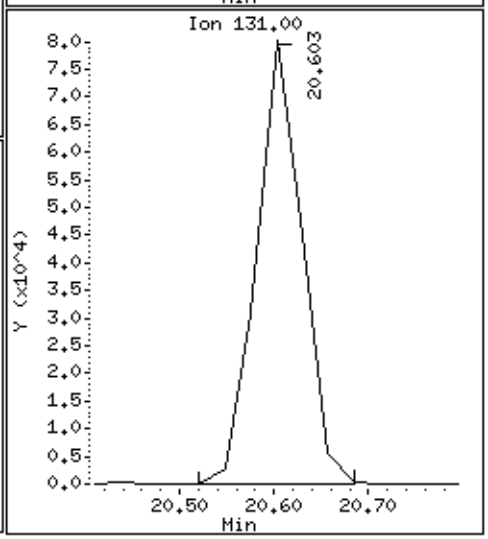












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

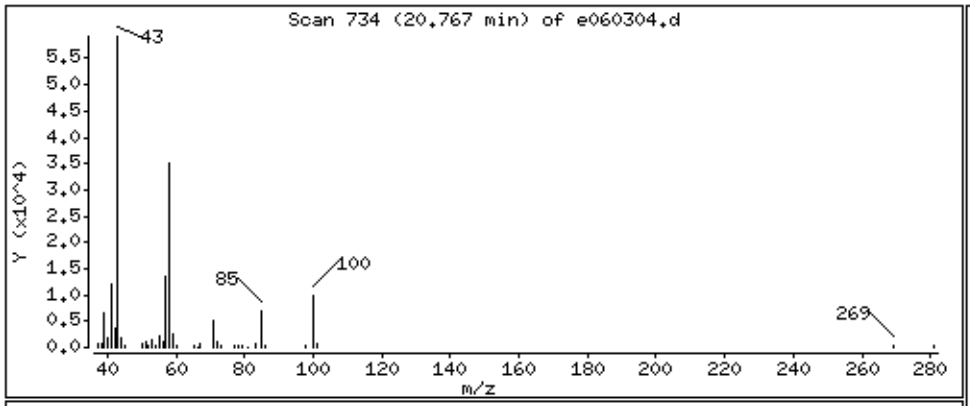
Operator: ef

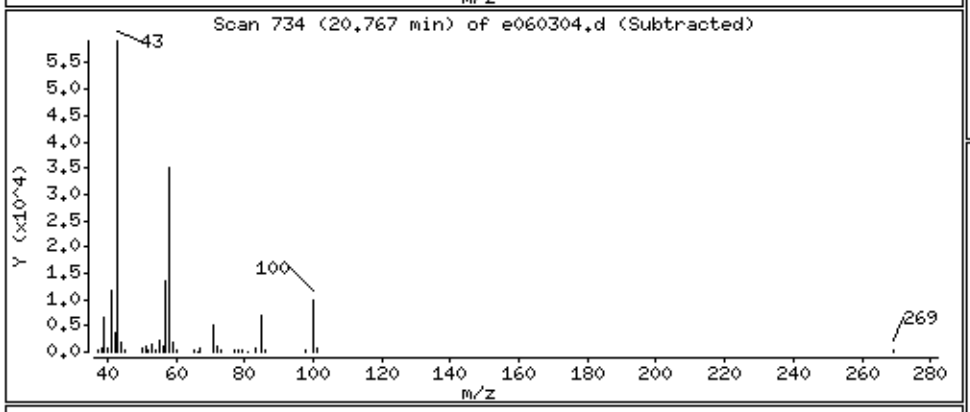
Column phase: RTX-624

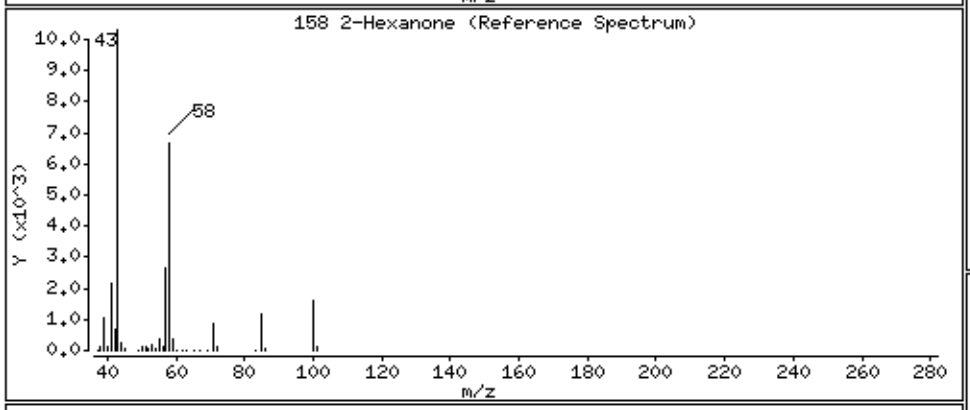
Column diameter: 0.32

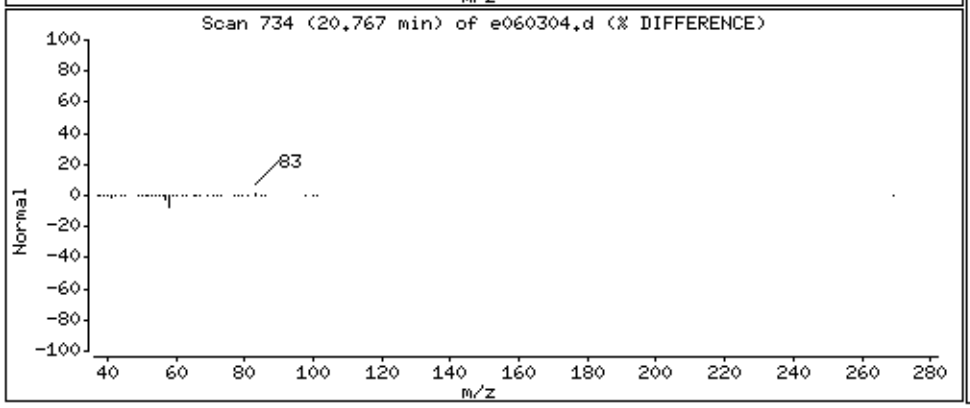
158 2-Hexanone

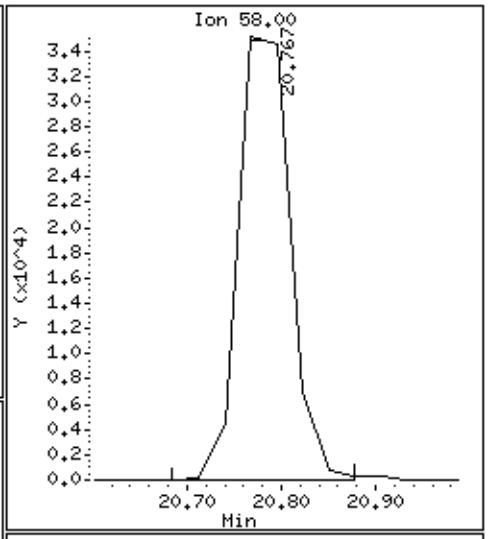
Concentration: 3.798 PPBV

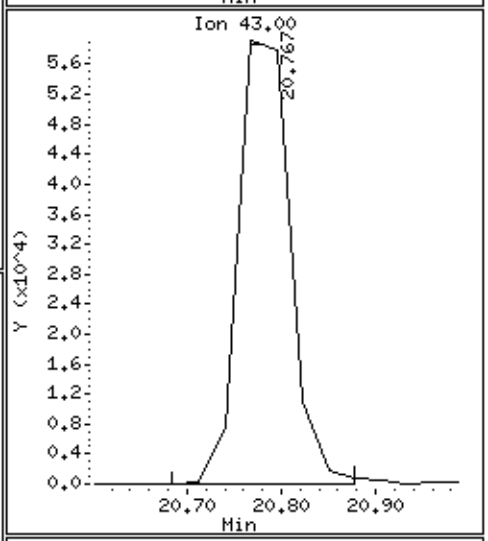


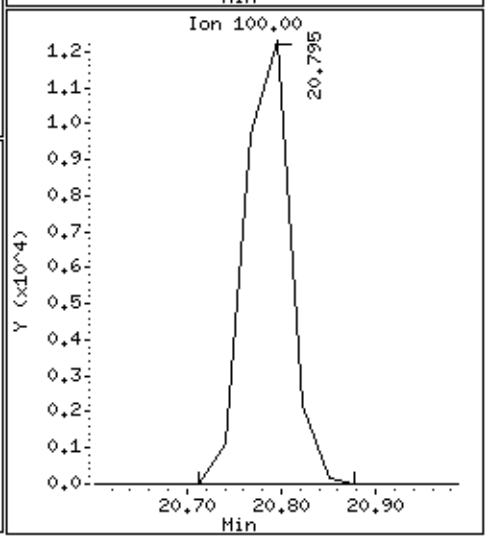












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

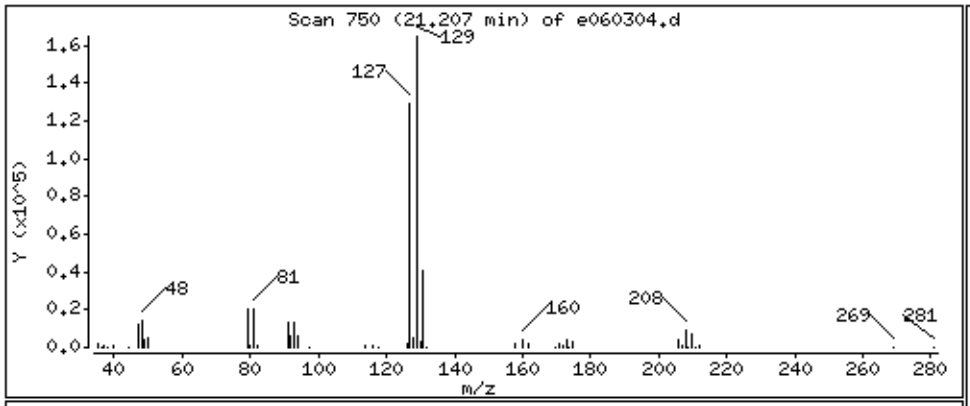
Operator: ef

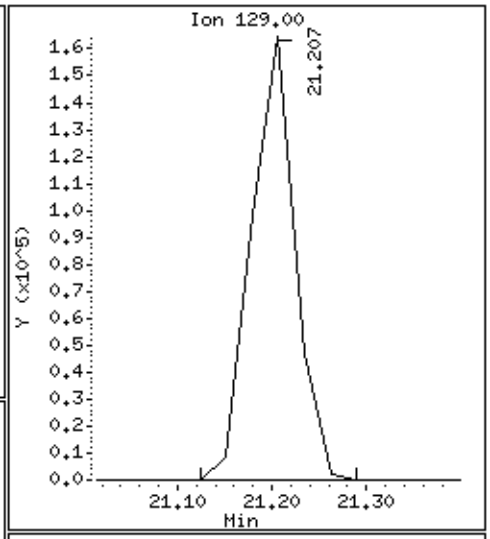
Column phase: RTX-624

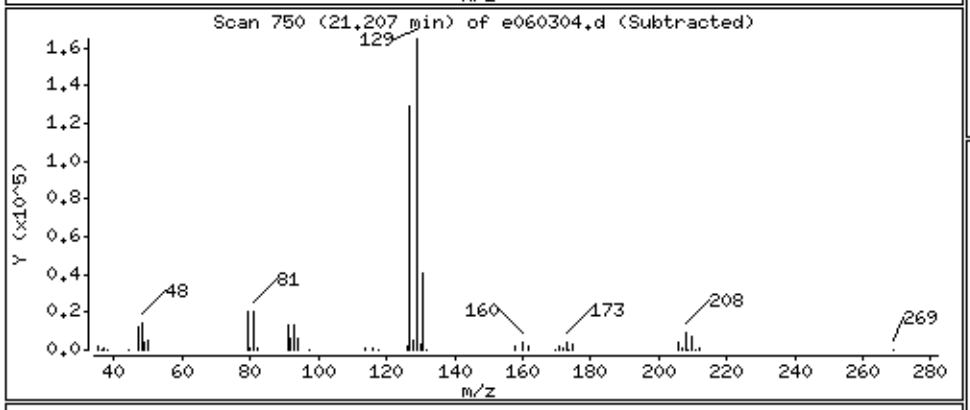
Column diameter: 0.32

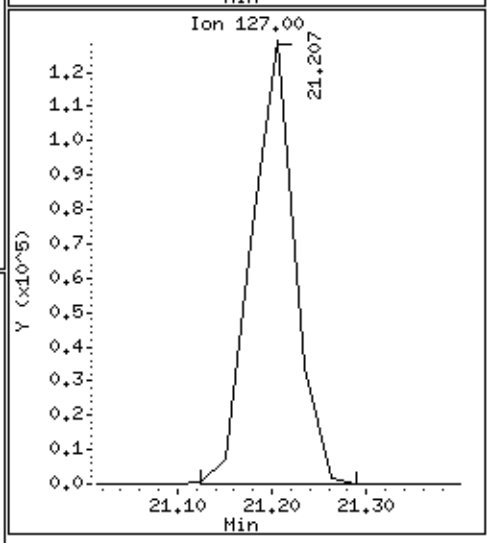
160 Dibromochloromethane

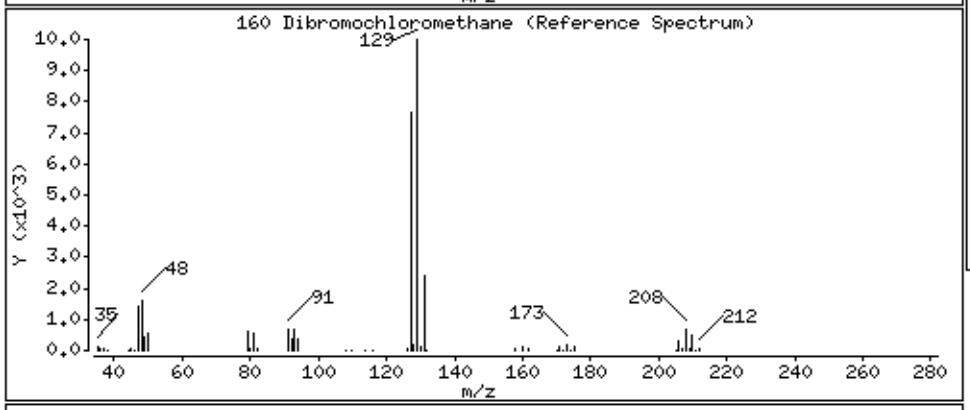
Concentration: 4.703 PPBV

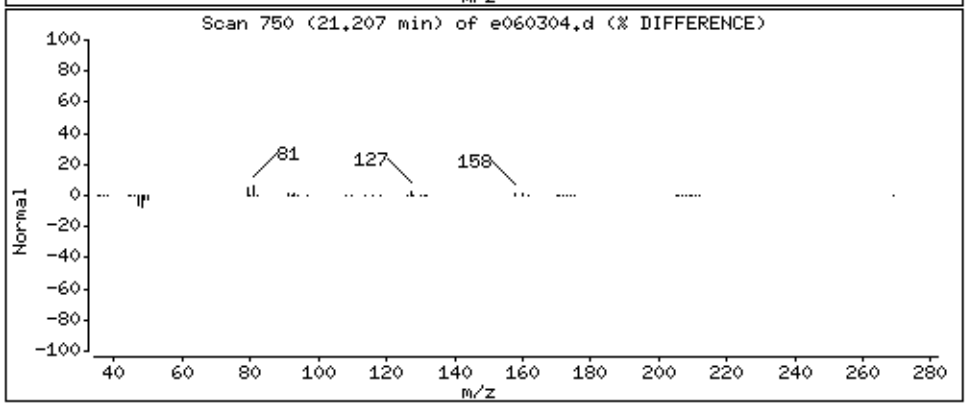












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

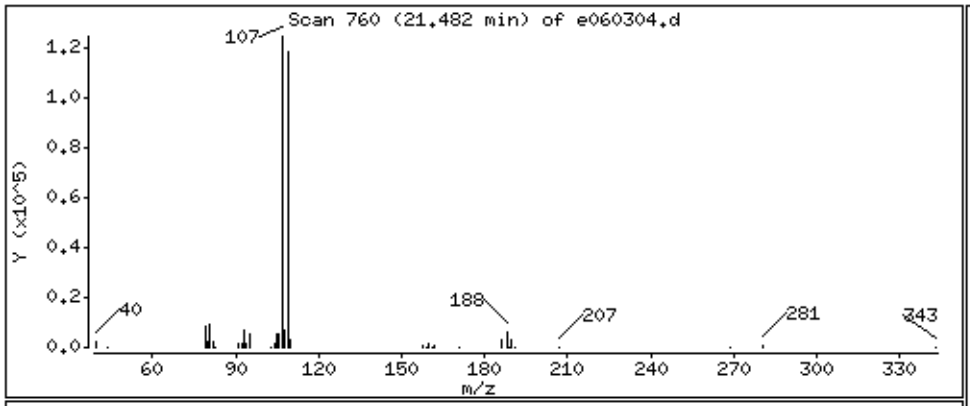
Operator: ef

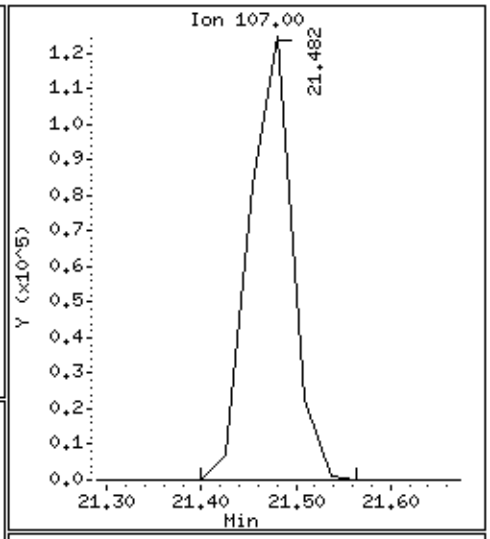
Column phase: RTX-624

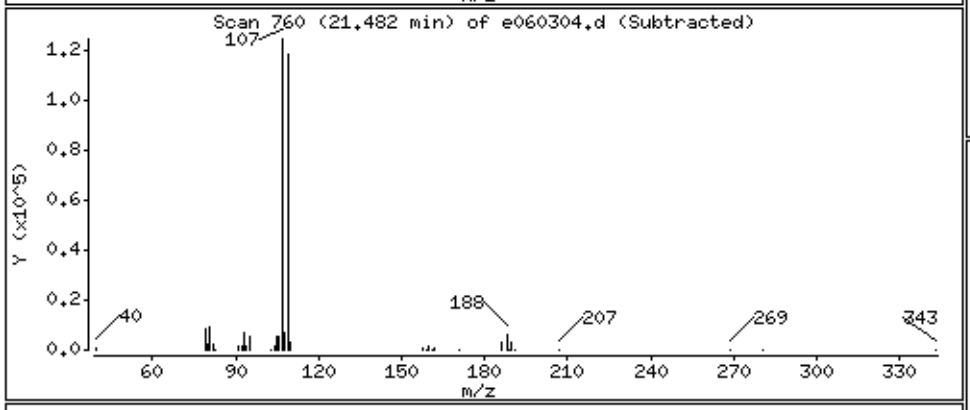
Column diameter: 0.32

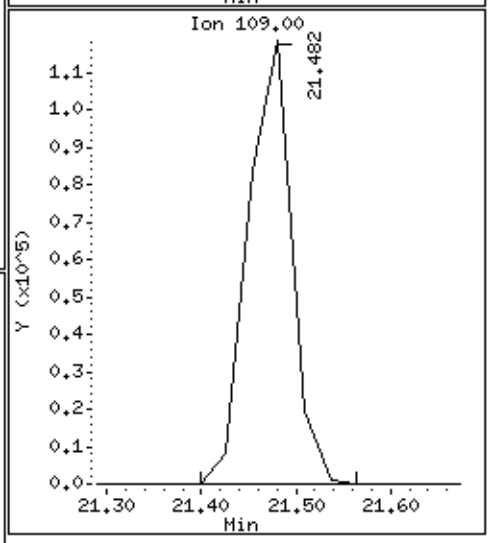
161 1,2-Dibromoethane (EDB)

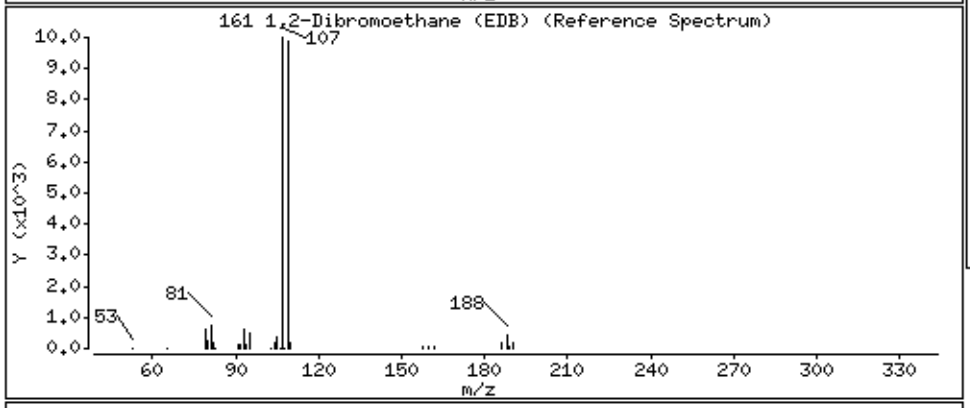
Concentration: 4.614 PPBV

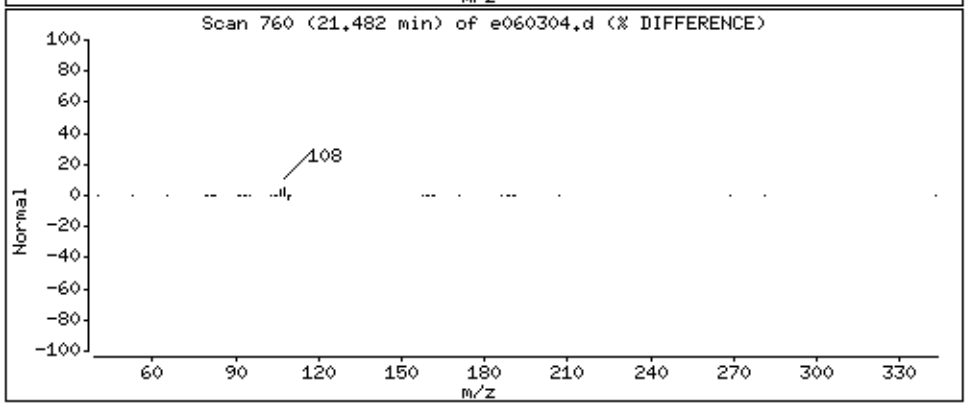












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

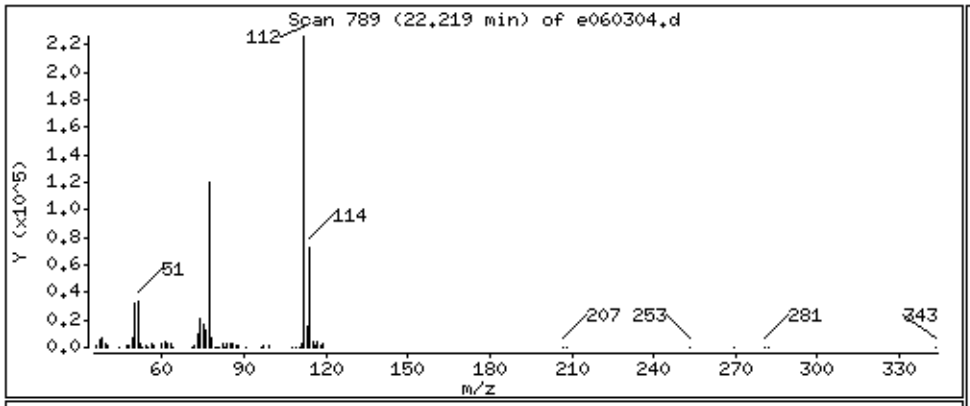
Operator: ef

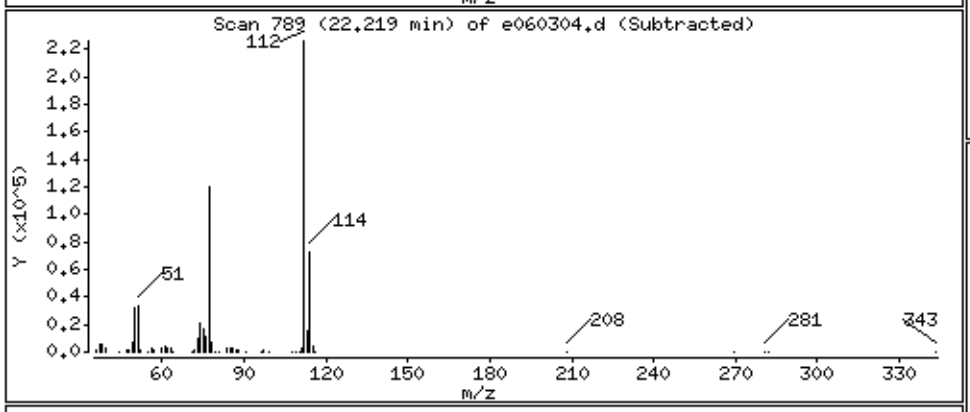
Column phase: RTX-624

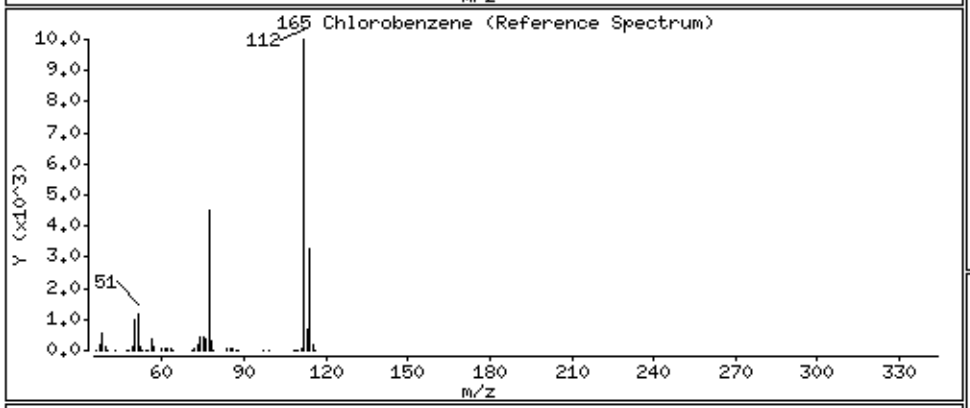
Column diameter: 0.32

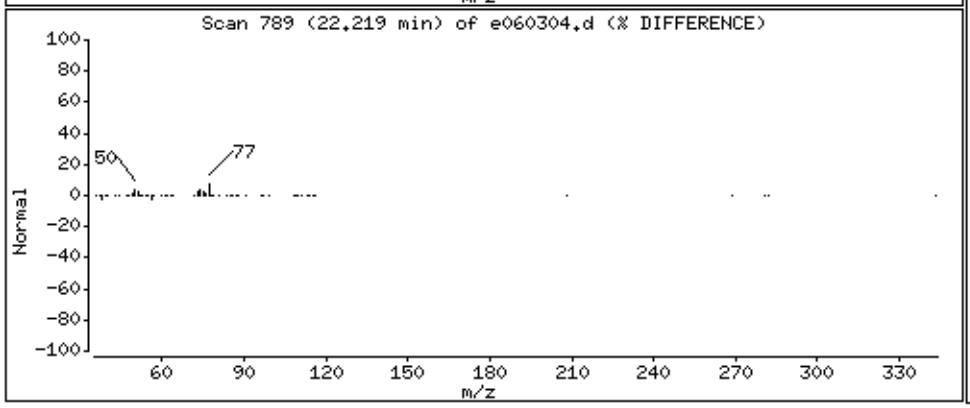
165 Chlorobenzene

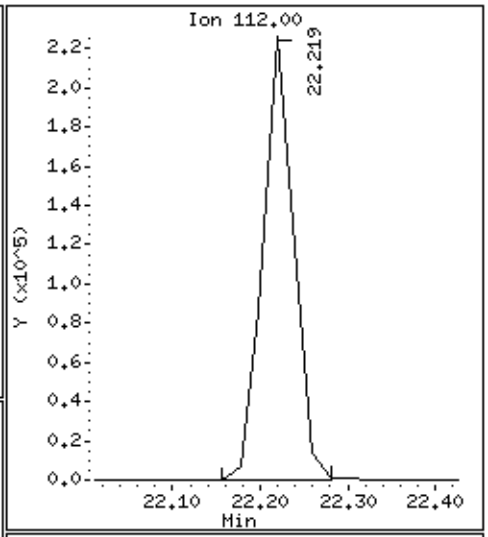
Concentration: 4.519 PPBV

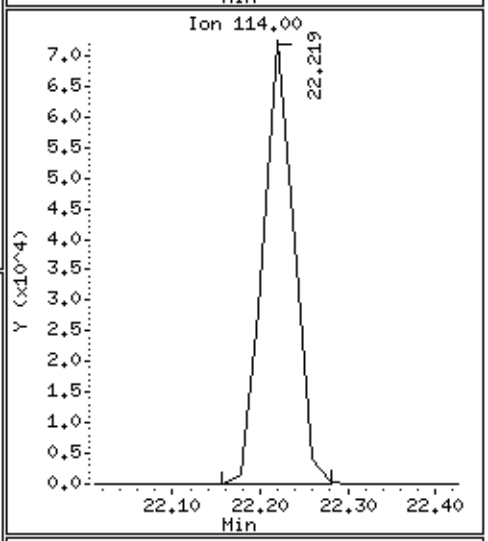


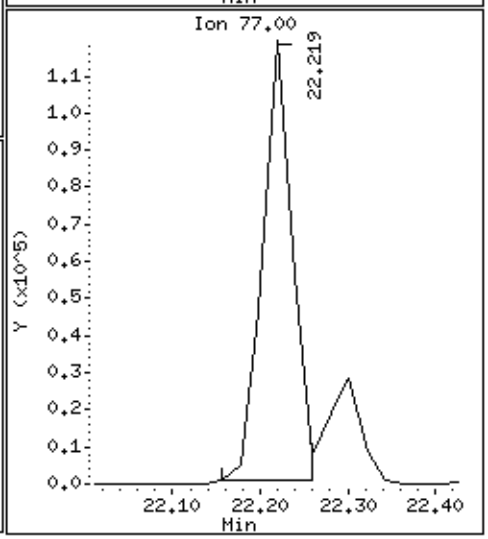












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

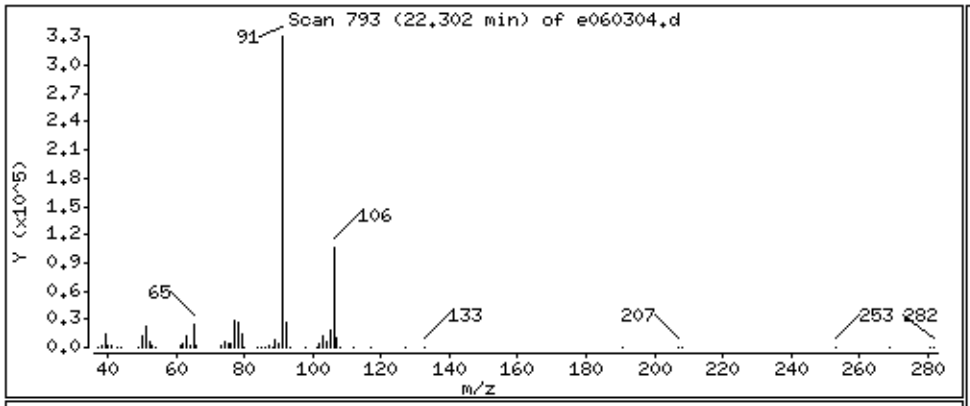
Operator: ef

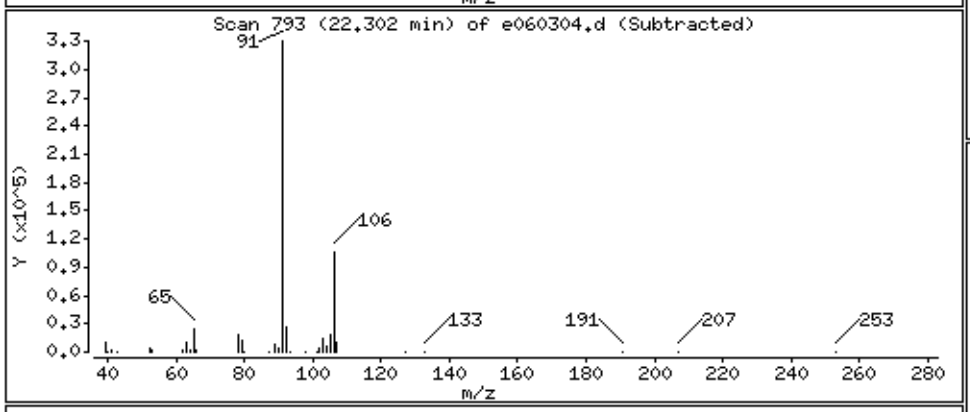
Column phase: RTX-624

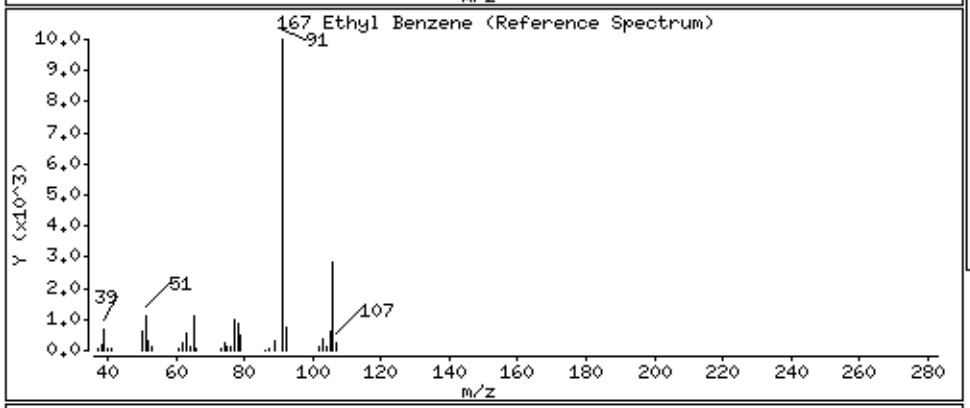
Column diameter: 0.32

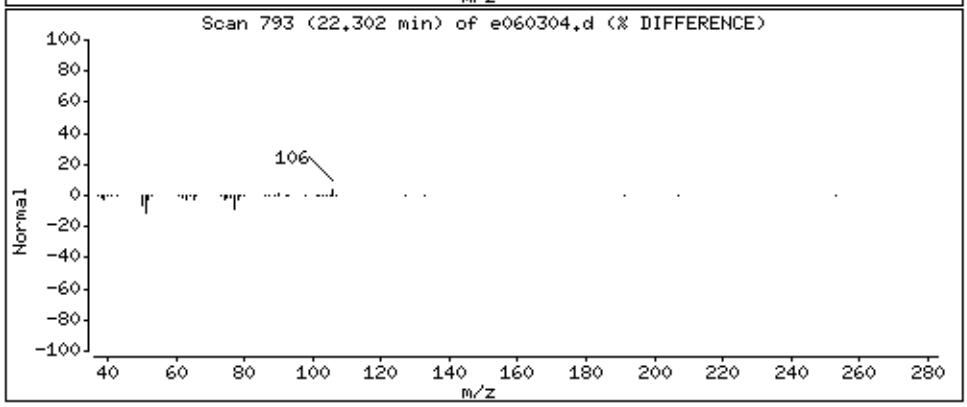
167 Ethyl Benzene

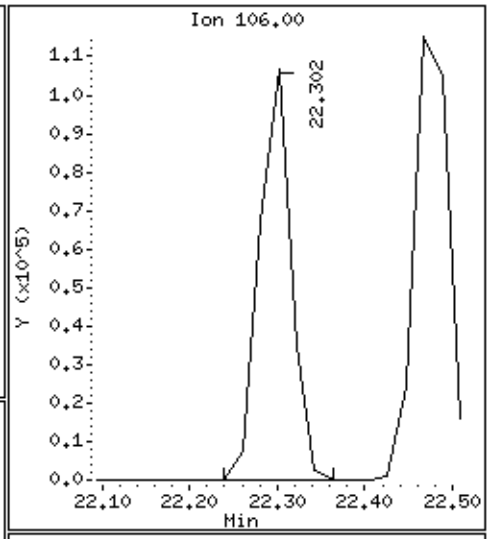
Concentration: 4.485 PPBV

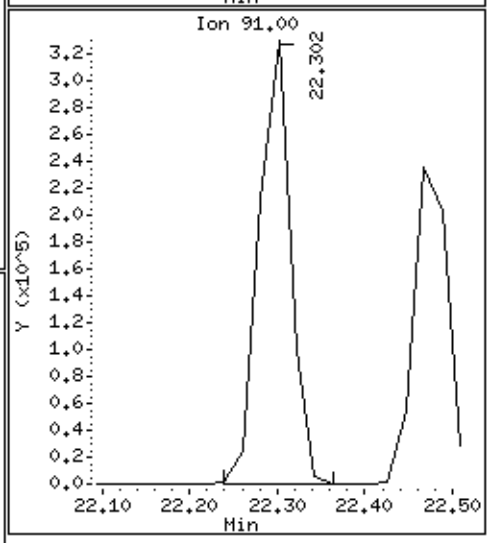












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

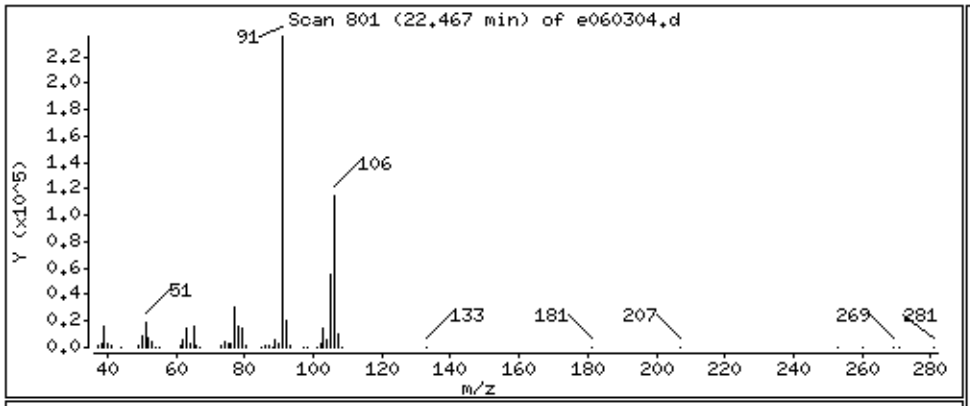
Operator: ef

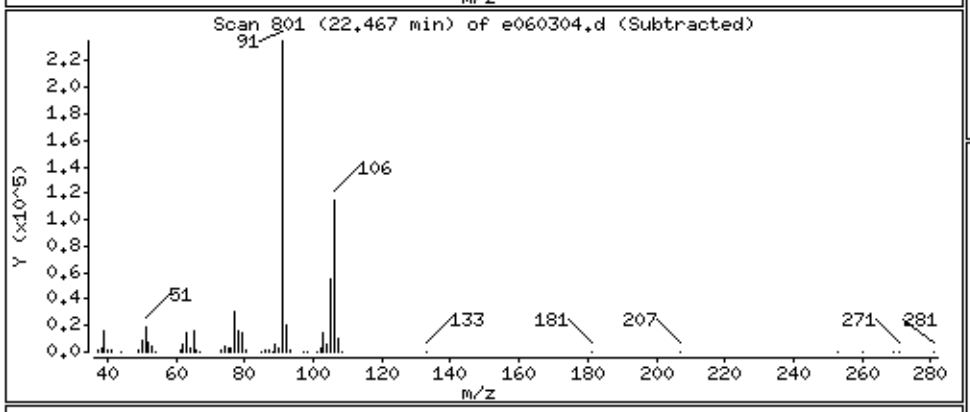
Column phase: RTX-624

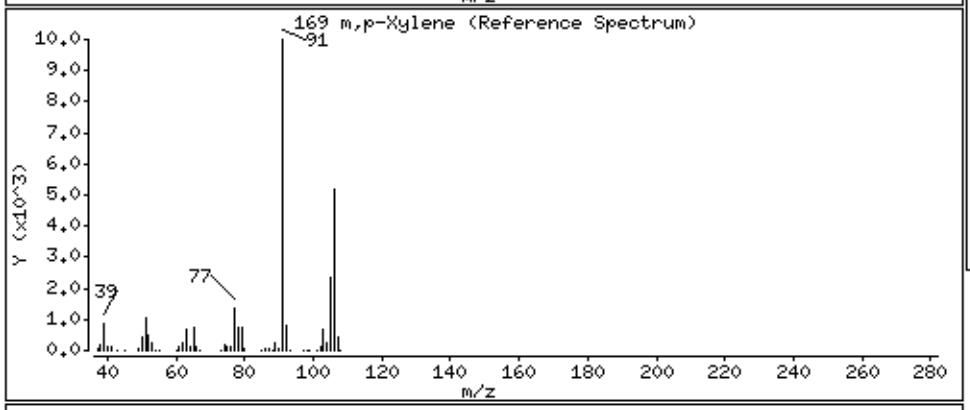
Column diameter: 0.32

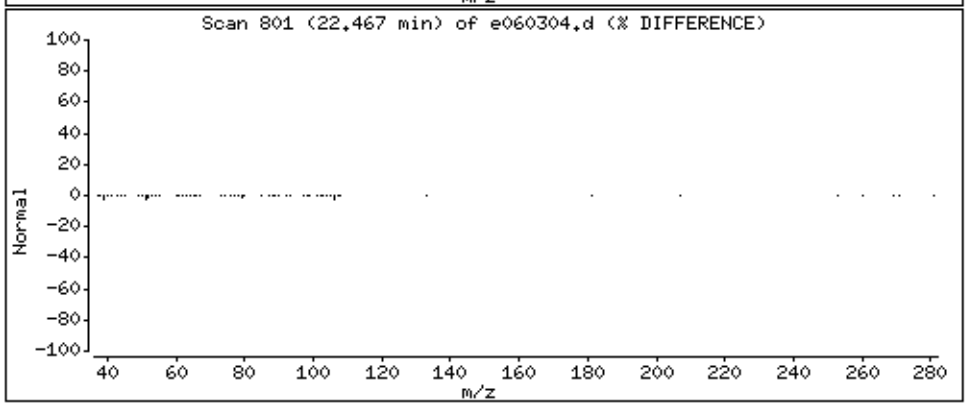
169 m,p-Xylene

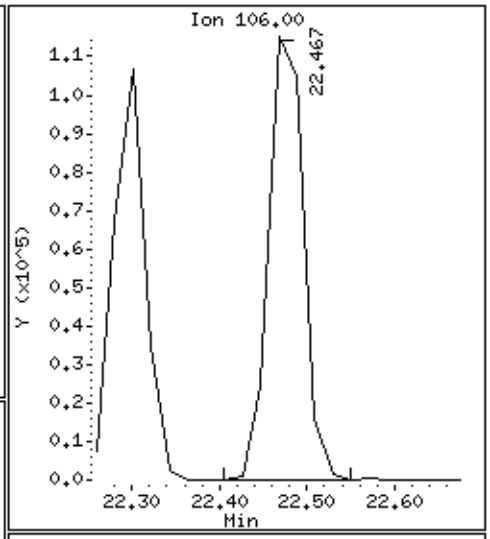
Concentration: 4.640 PPBV

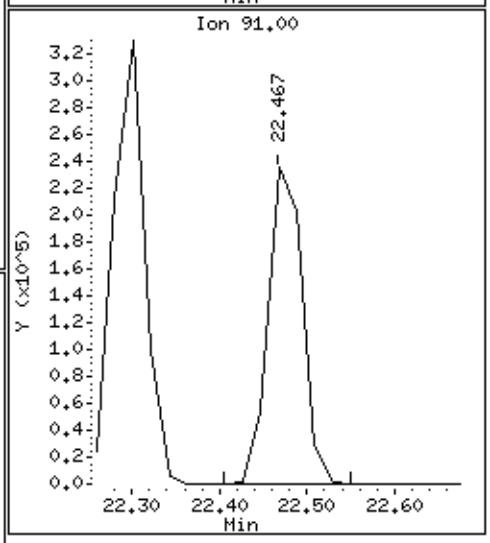












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

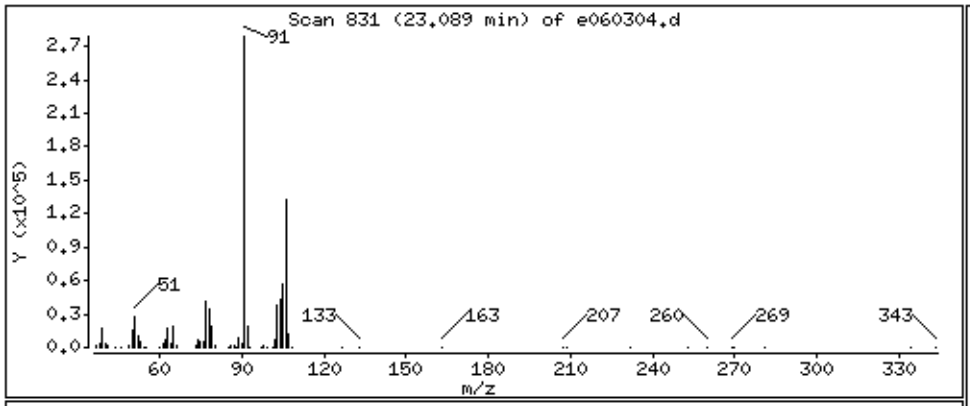
Operator: ef

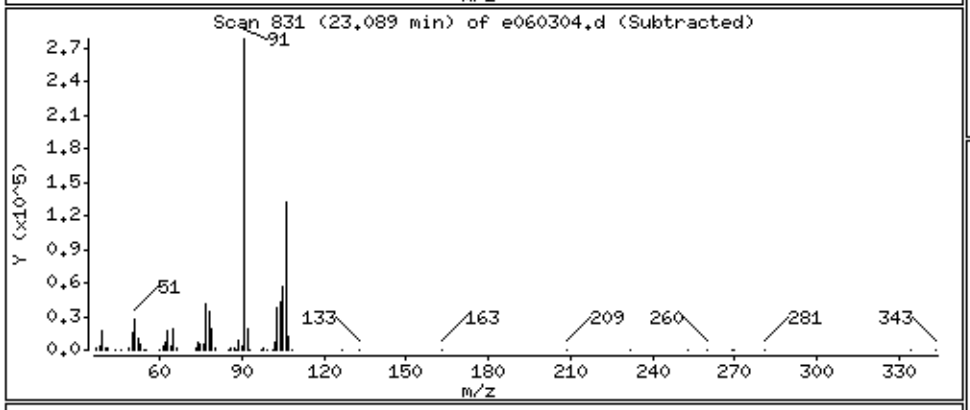
Column phase: RTX-624

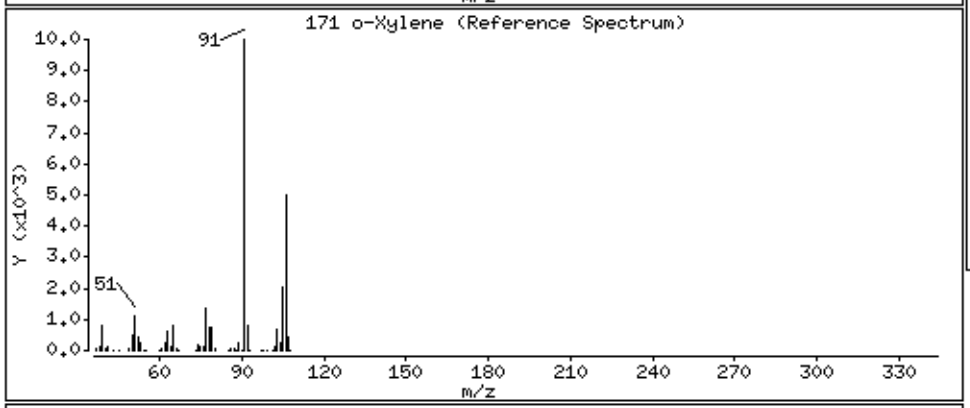
Column diameter: 0.32

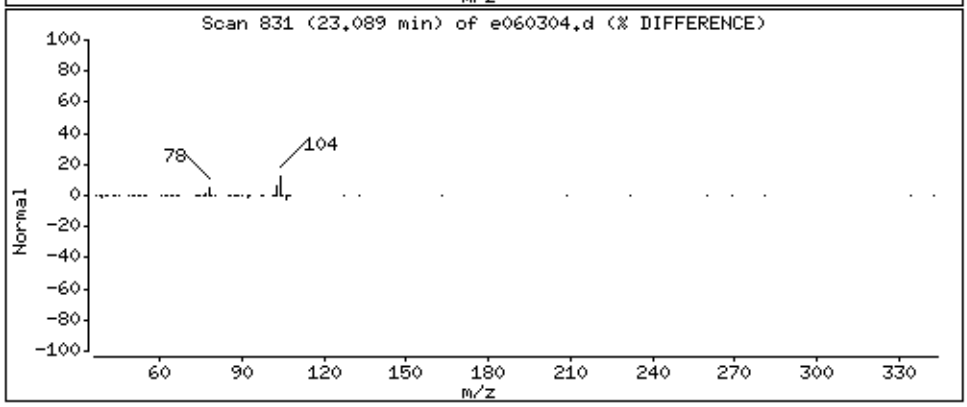
171 o-Xylene

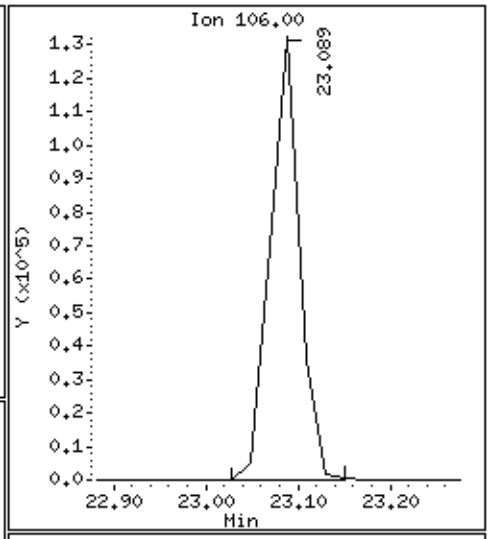
Concentration: 4.718 PPBV

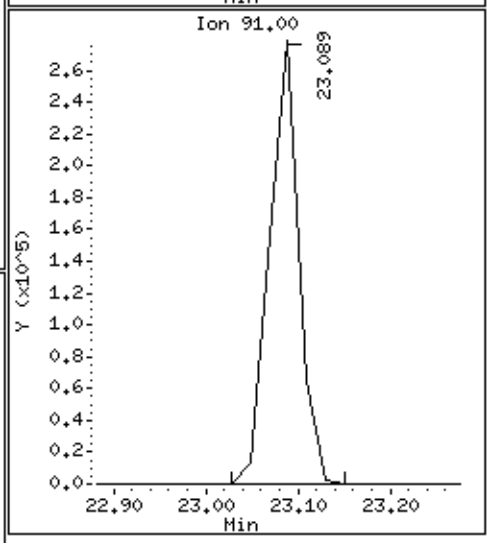












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

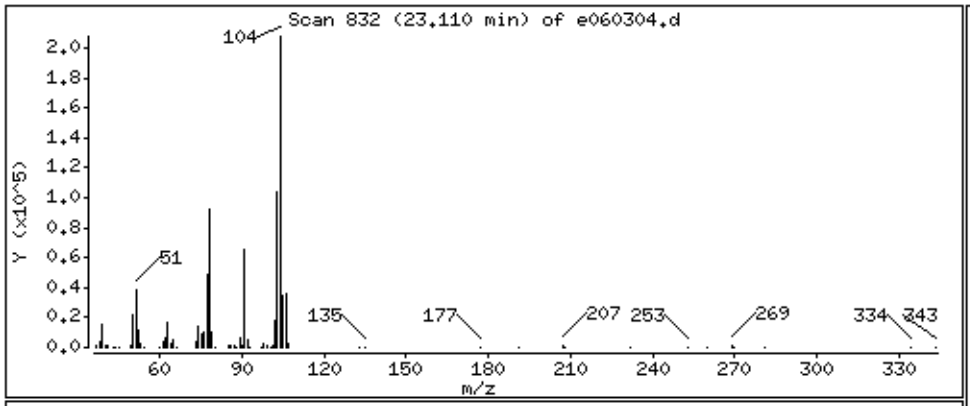
Operator: ef

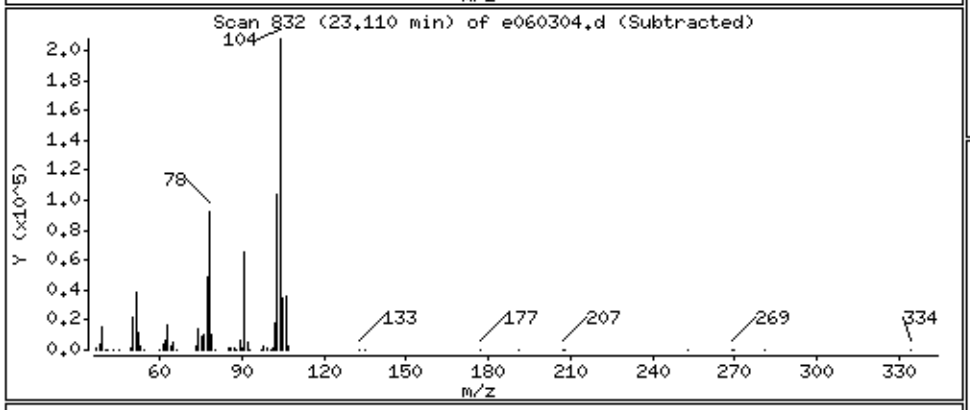
Column phase: RTX-624

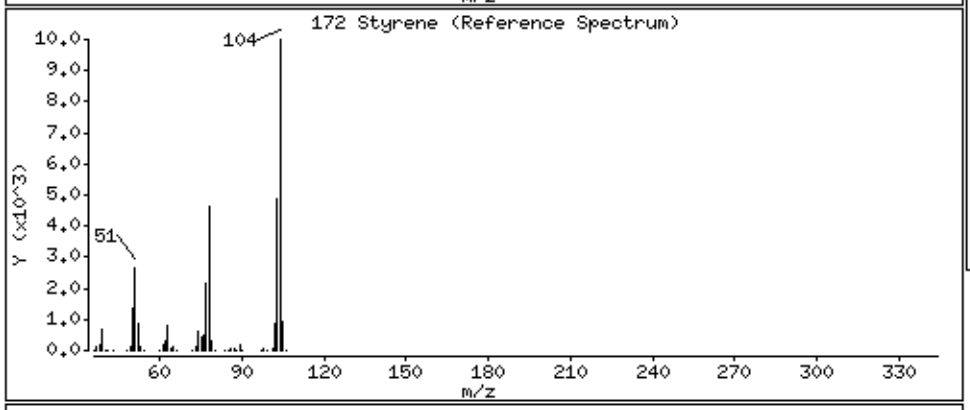
Column diameter: 0.32

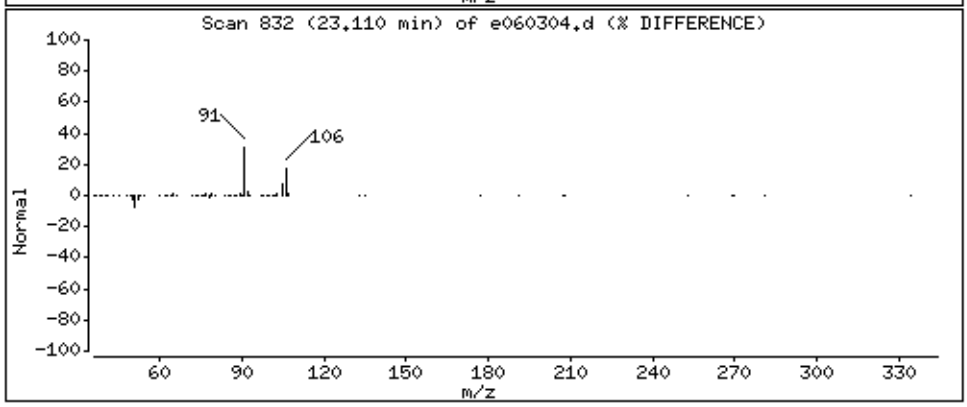
172 Styrene

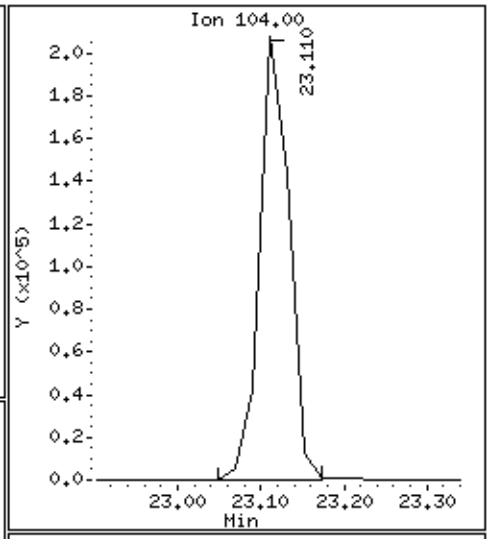
Concentration: 4.678 PPBV

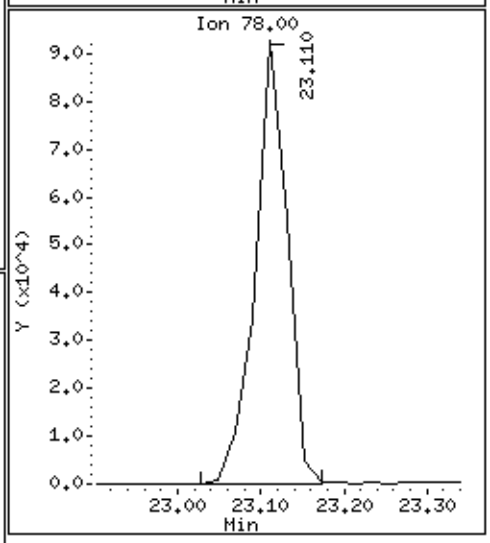












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

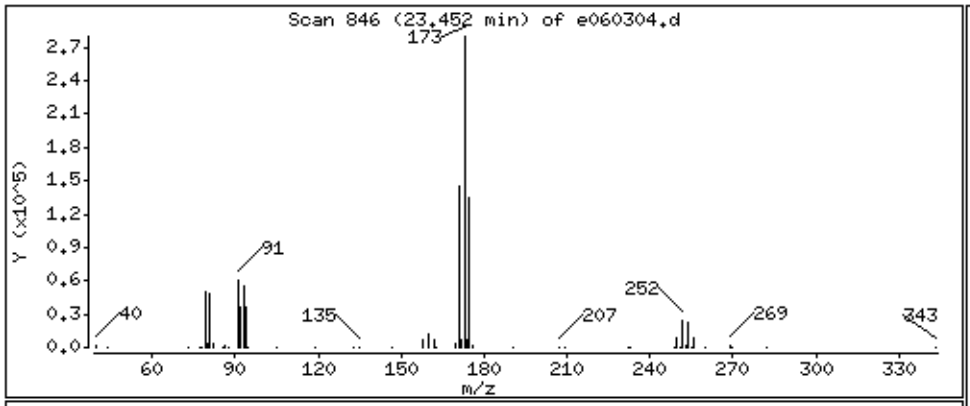
Operator: ef

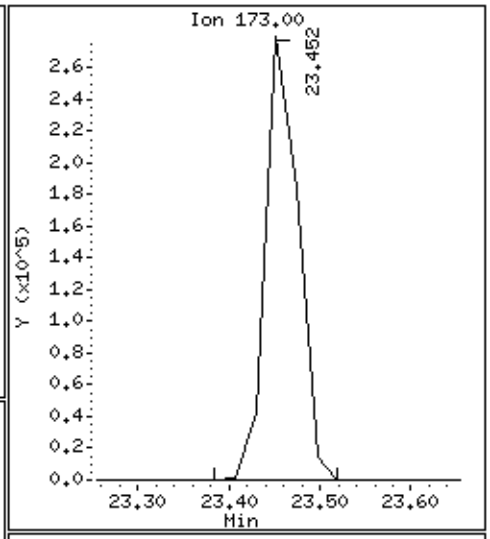
Column phase: RTX-624

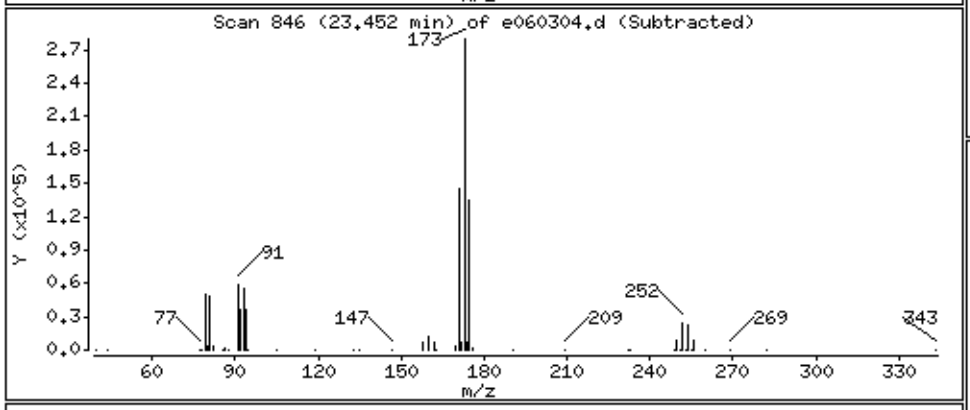
Column diameter: 0.32

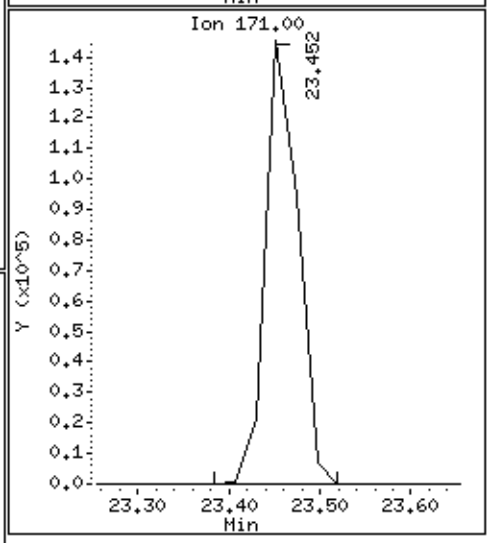
174 Bromoform

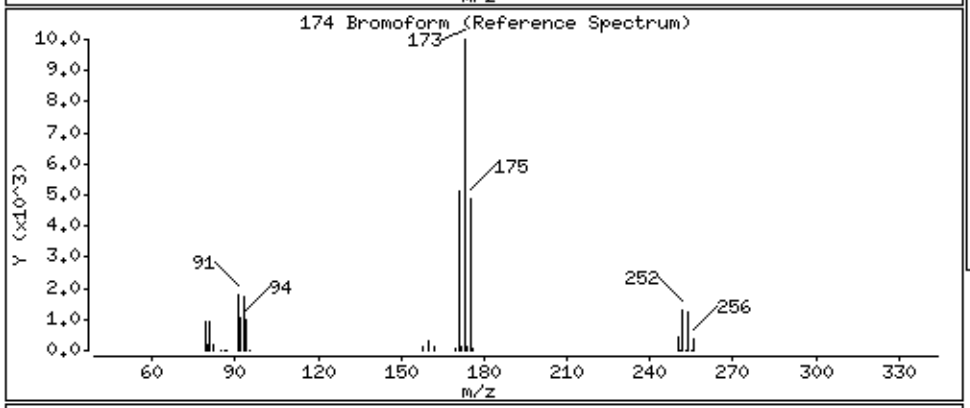
Concentration: 6.301 PPBV

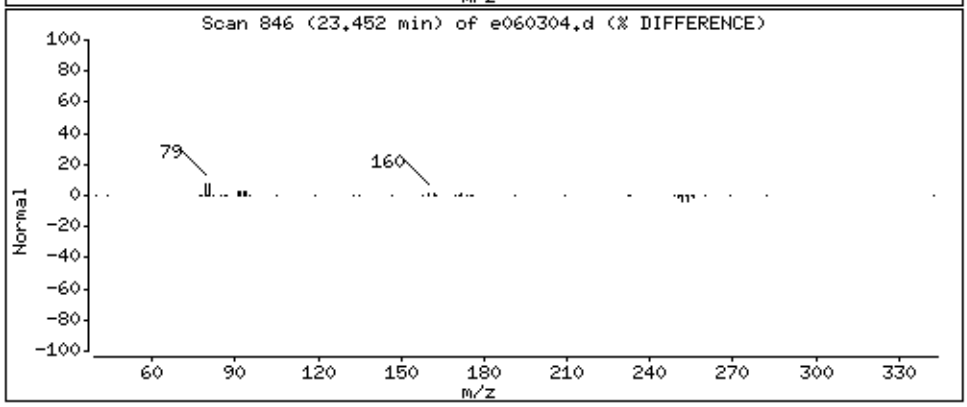












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

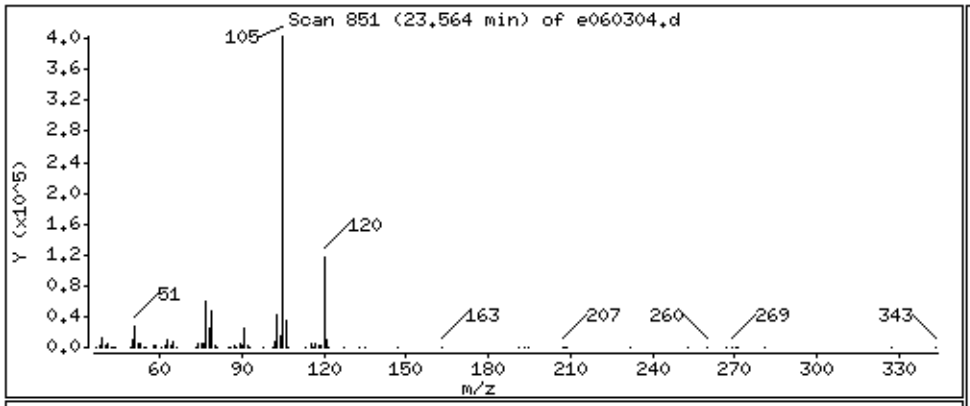
Operator: ef

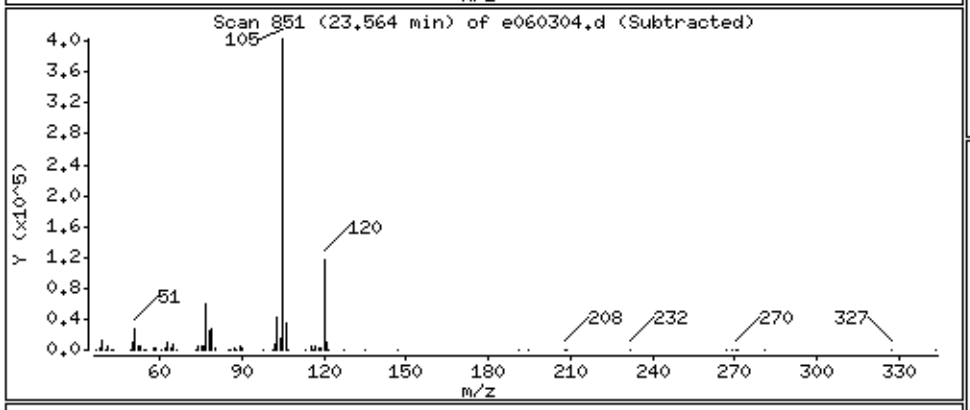
Column phase: RTX-624

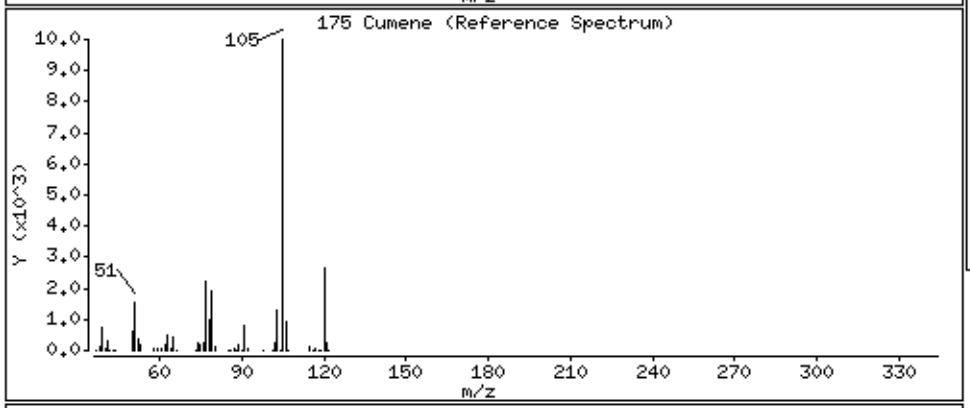
Column diameter: 0.32

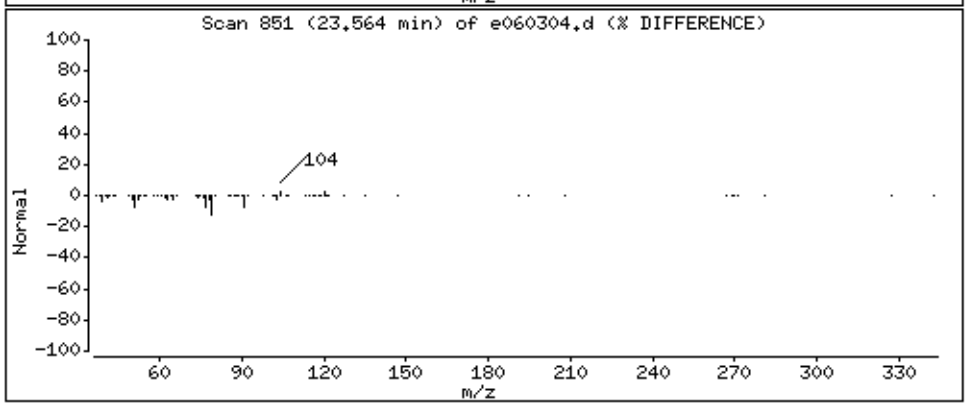
175 Cumene

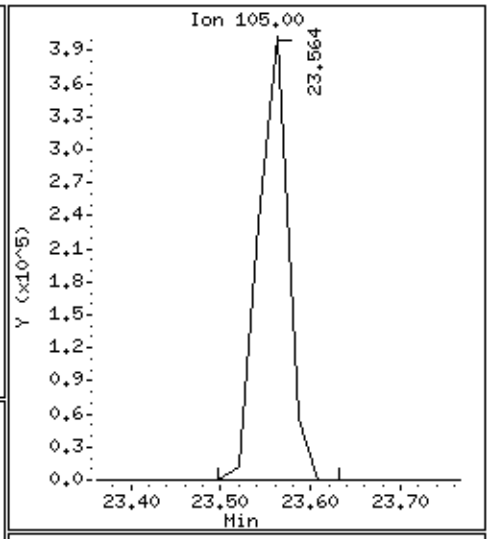
Concentration: 4.321 PPBV

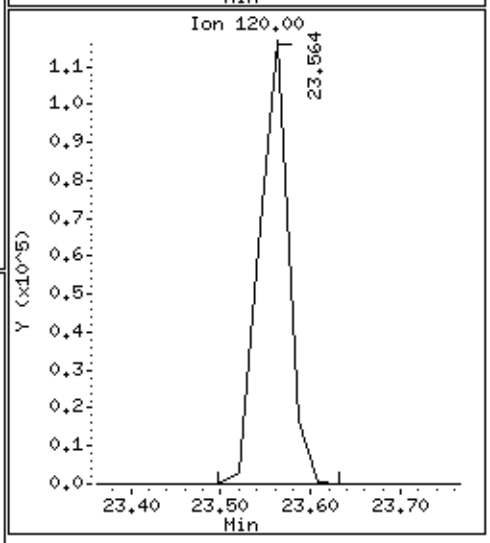












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

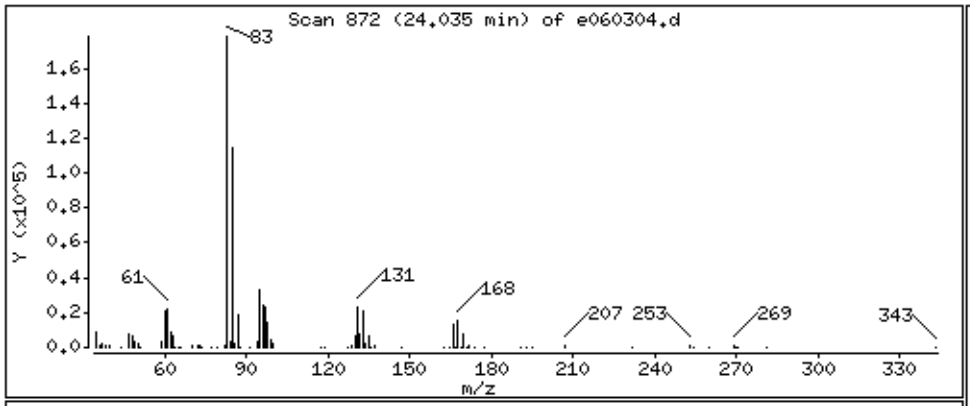
Operator: ef

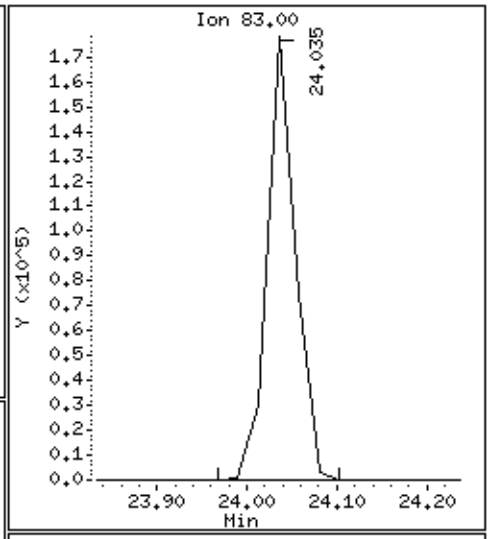
Column phase: RTX-624

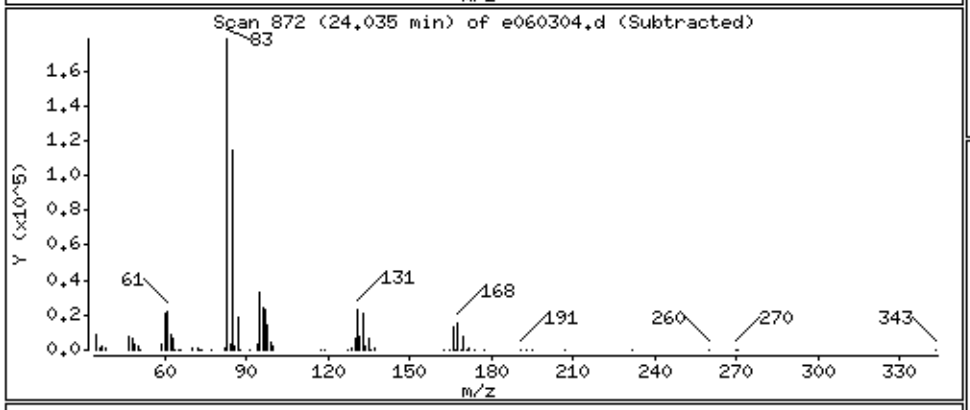
Column diameter: 0.32

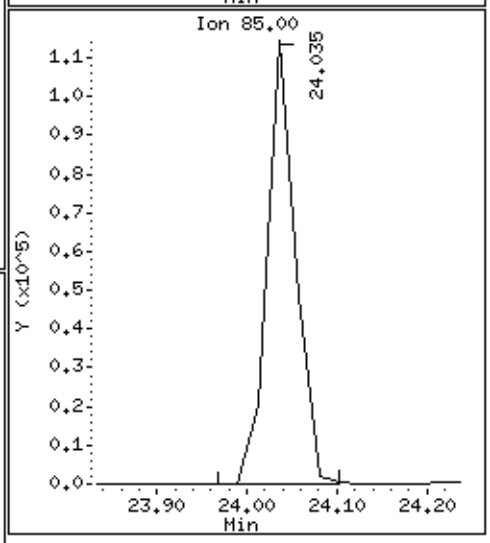
181 1,1,2,2-Tetrachloroethane

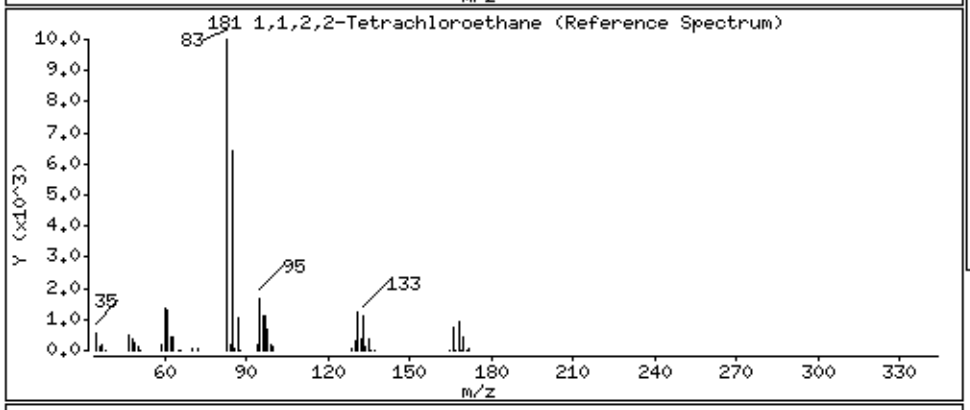
Concentration: 3.775 PPBV

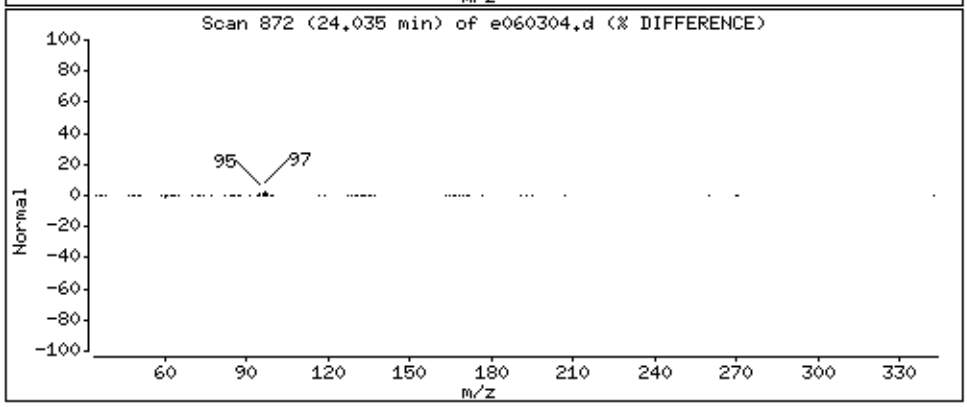












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

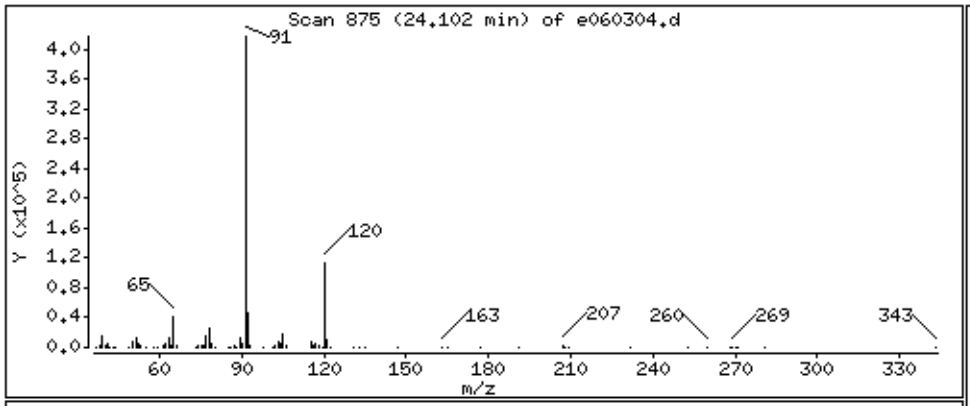
Operator: ef

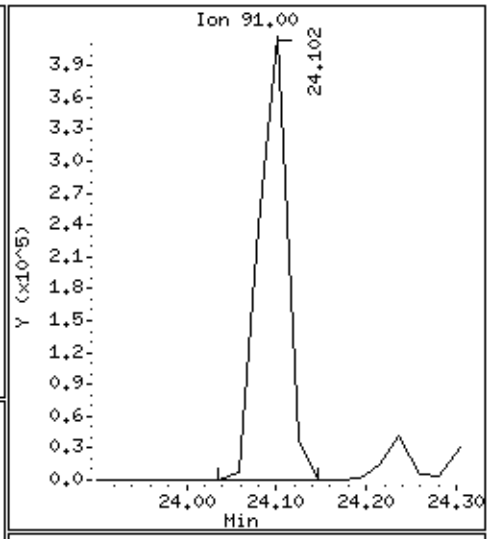
Column phase: RTX-624

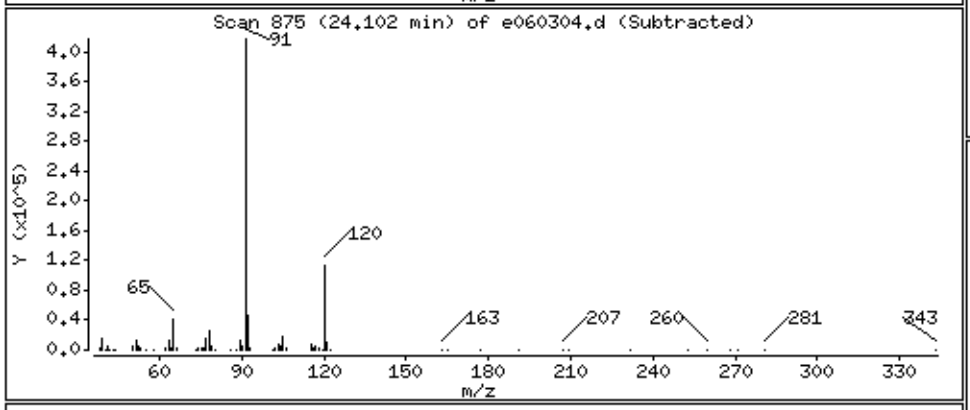
Column diameter: 0.32

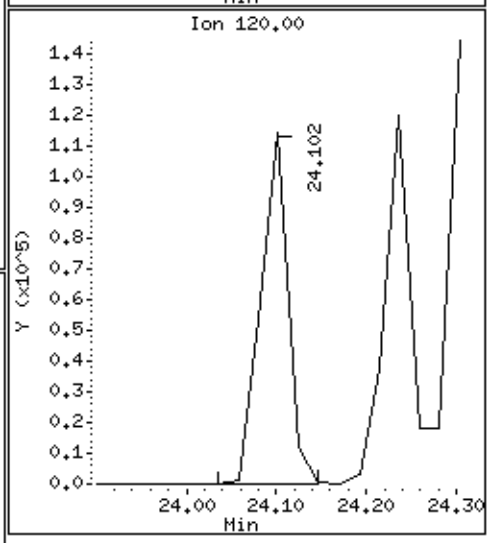
182 Propylbenzene

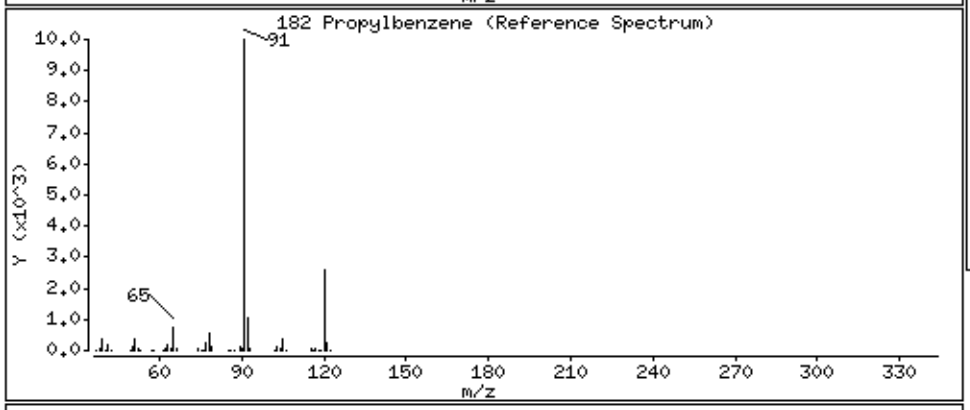
Concentration: 4.069 PPBV

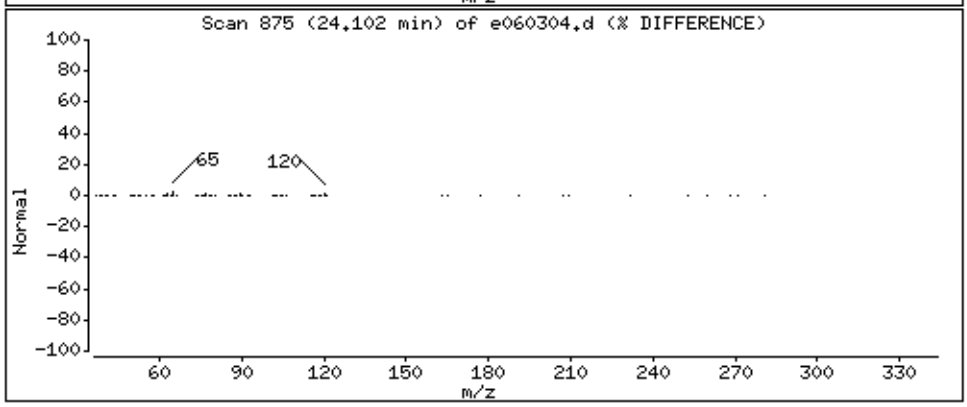












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

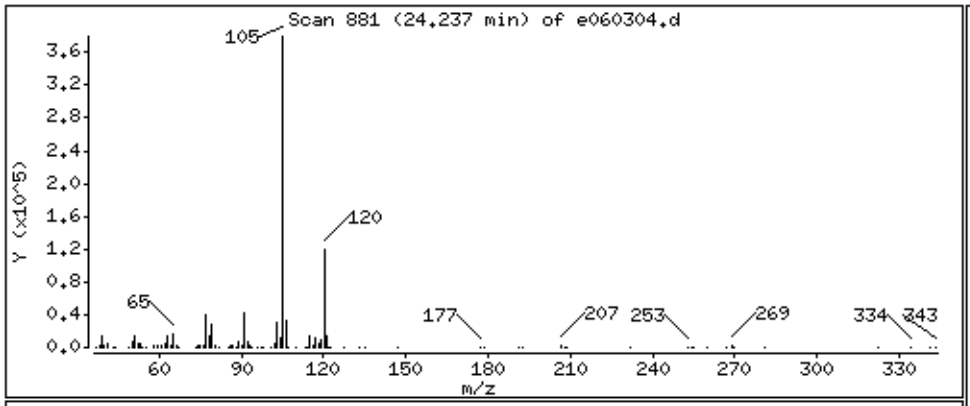
Operator: ef

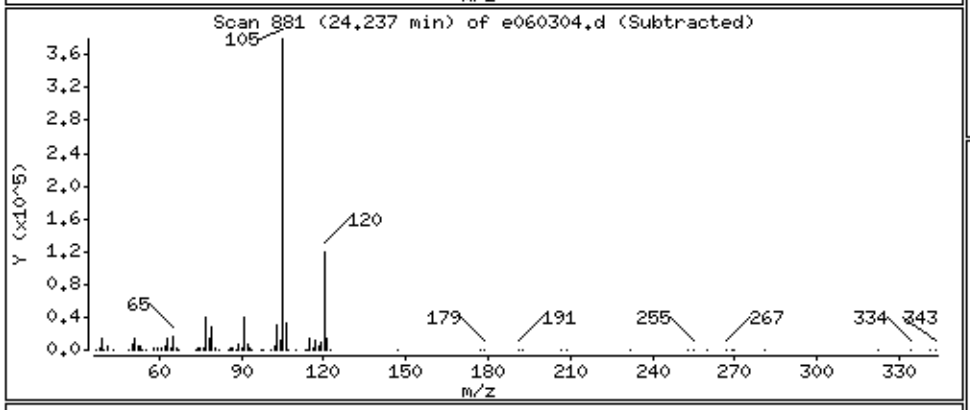
Column phase: RTX-624

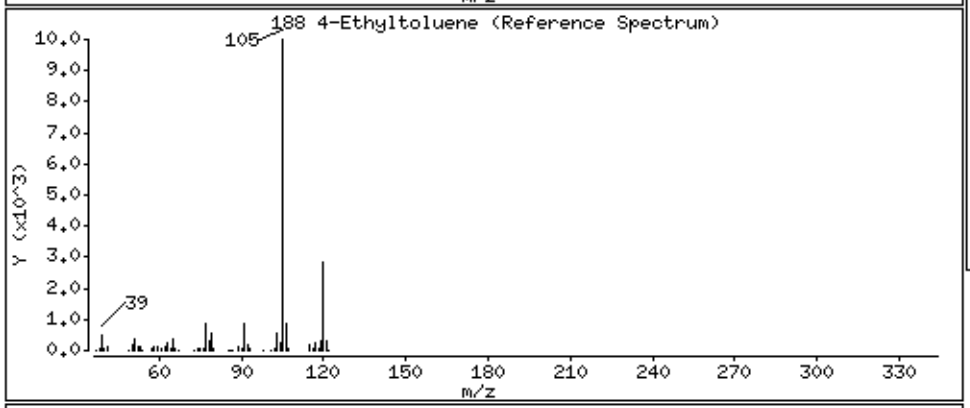
Column diameter: 0.32

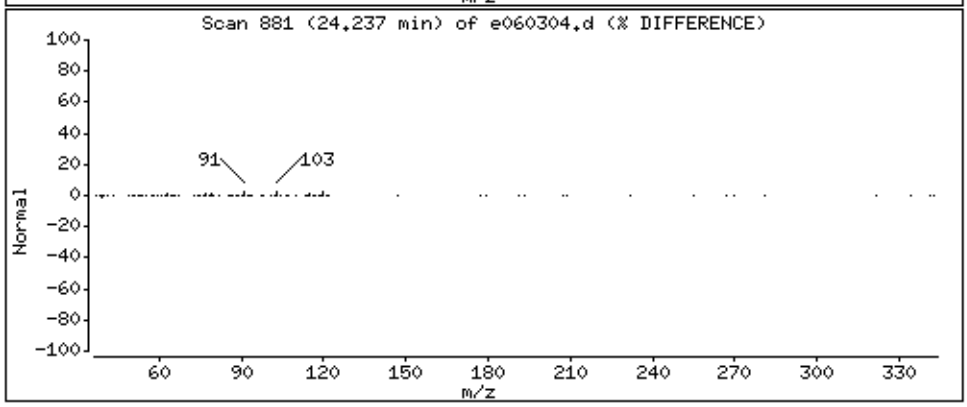
188 4-Ethyltoluene

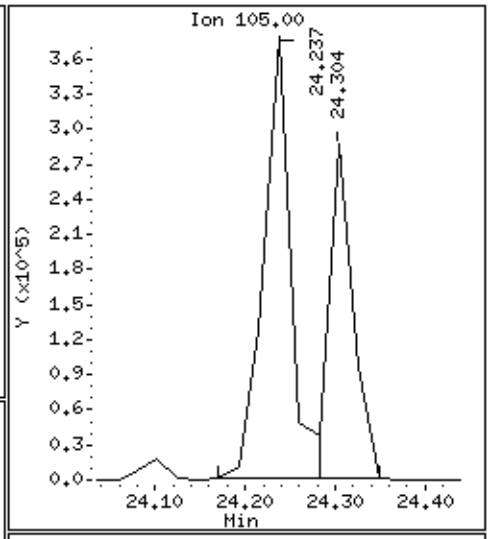
Concentration: 4.120 PPBV

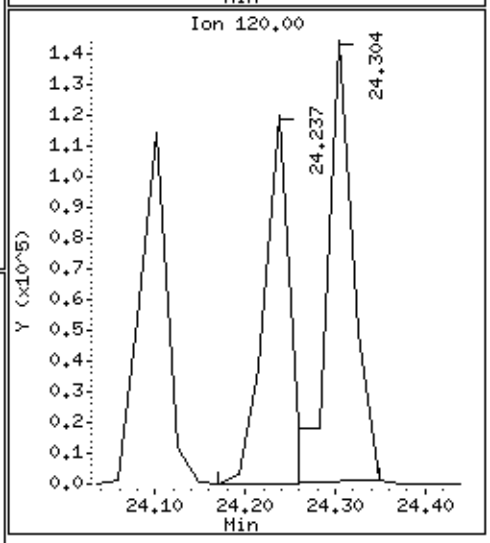












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

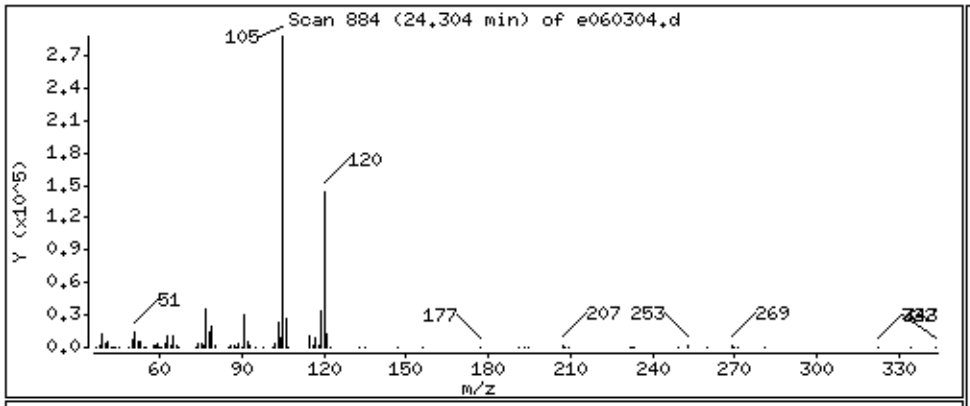
Operator: ef

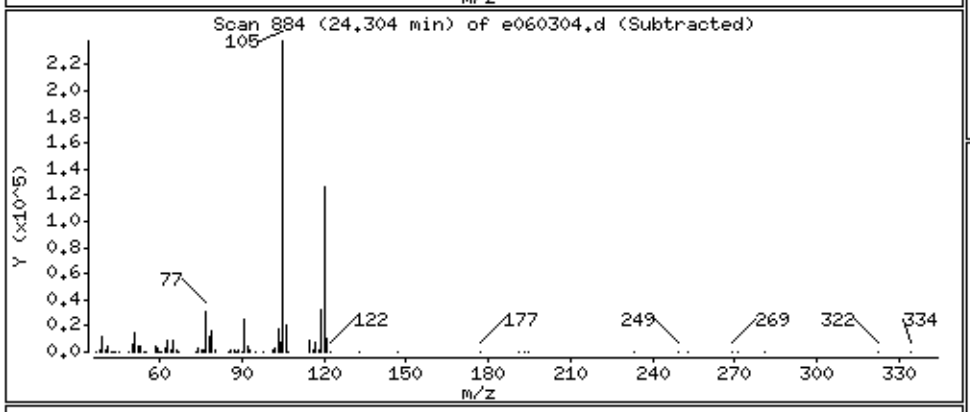
Column phase: RTX-624

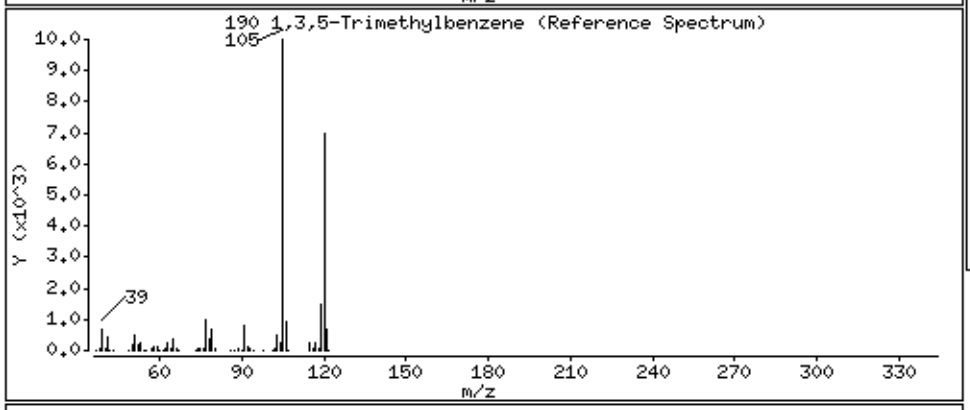
Column diameter: 0.32

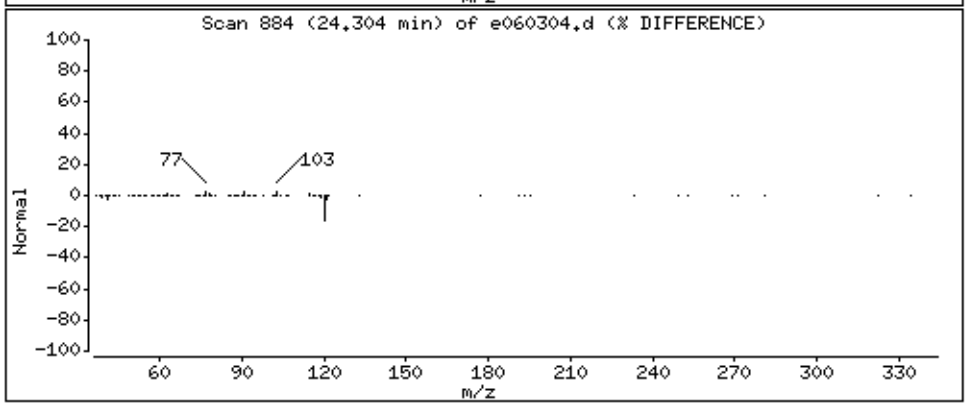
190 1,3,5-Trimethylbenzene

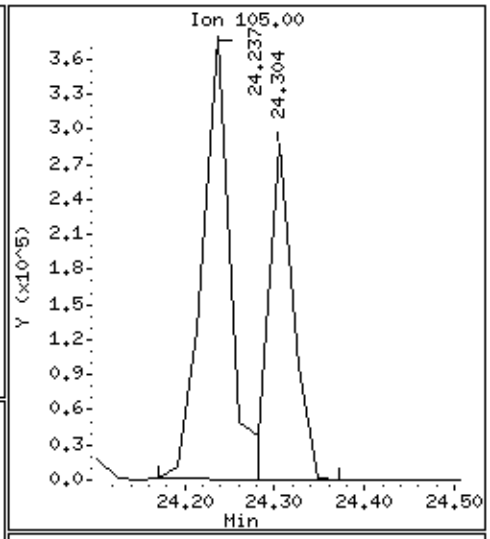
Concentration: 3.721 PPBV

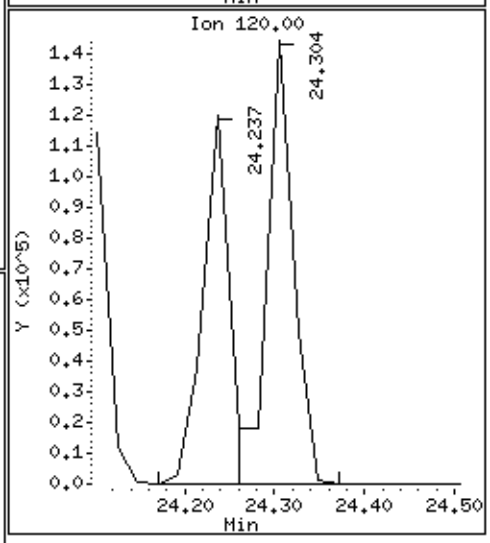












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

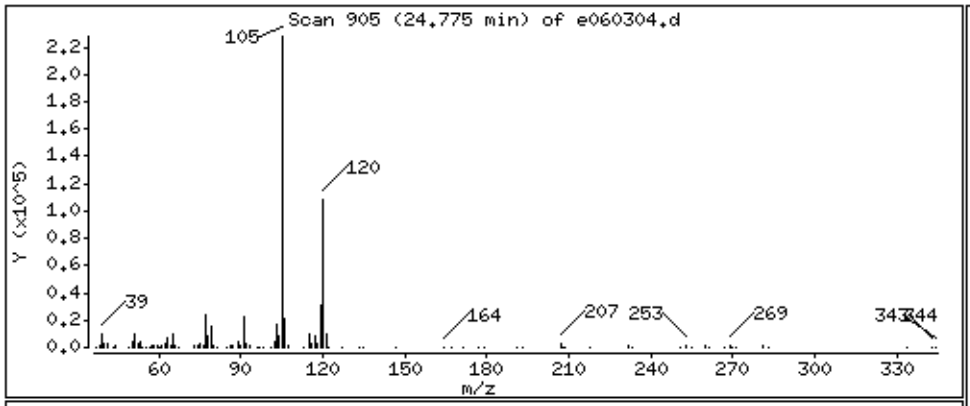
Operator: ef

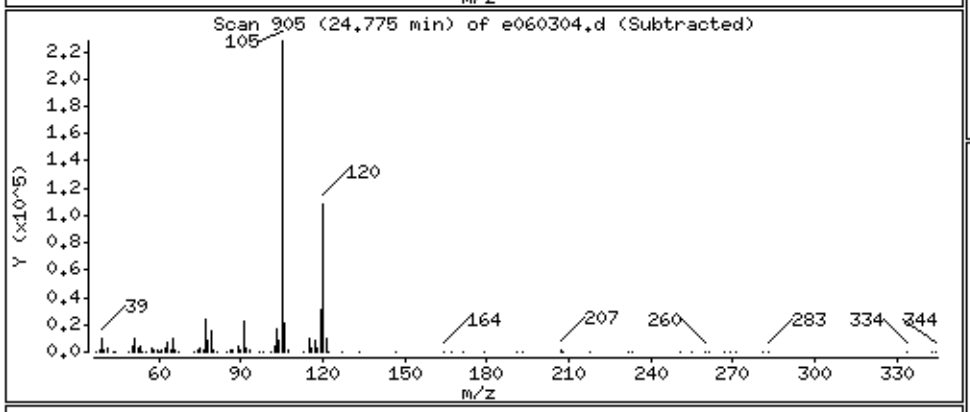
Column phase: RTX-624

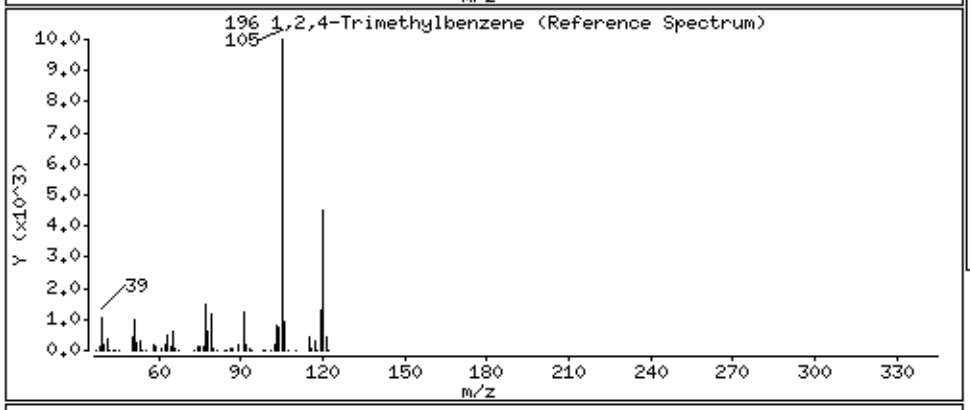
Column diameter: 0.32

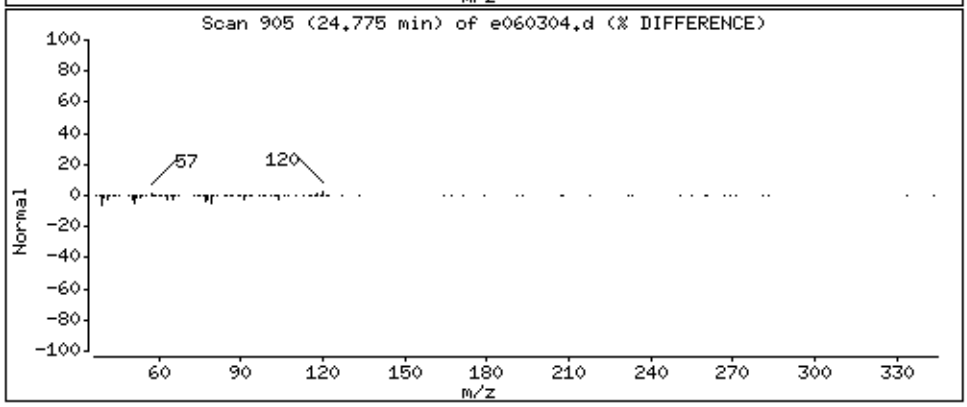
196 1,2,4-Trimethylbenzene

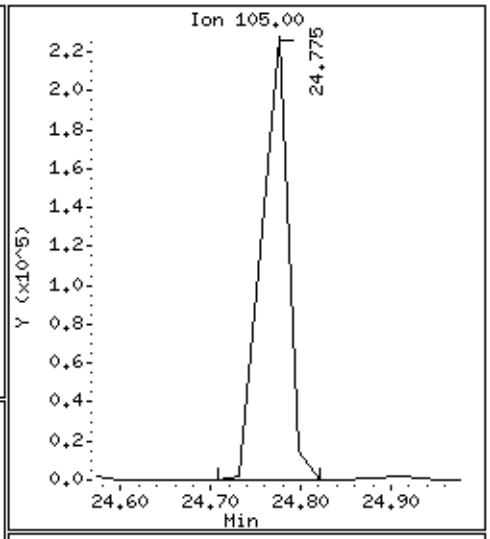
Concentration: 3.598 PPBV

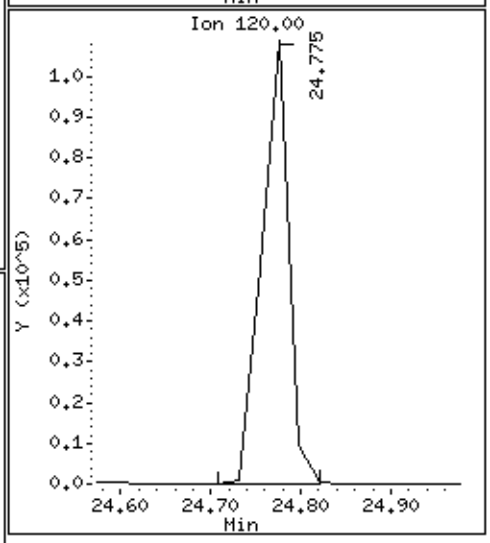












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

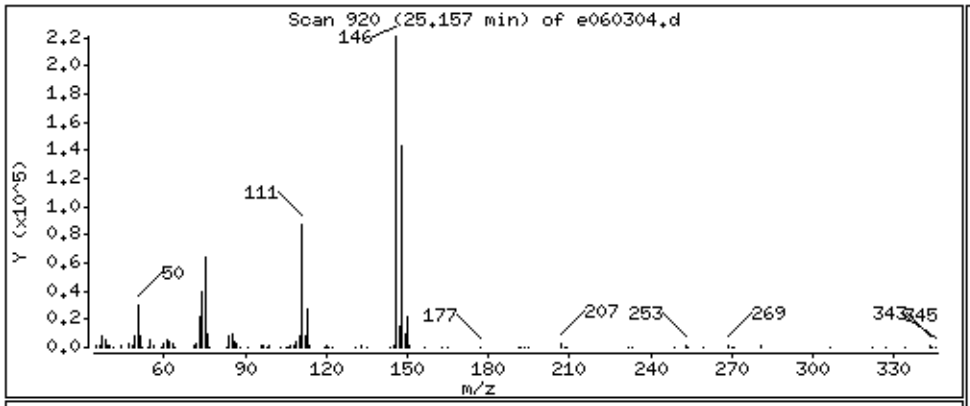
Operator: ef

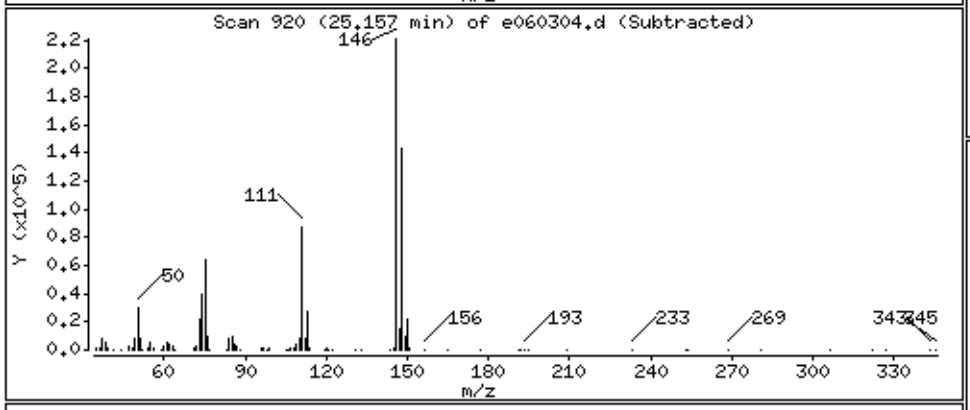
Column phase: RTX-624

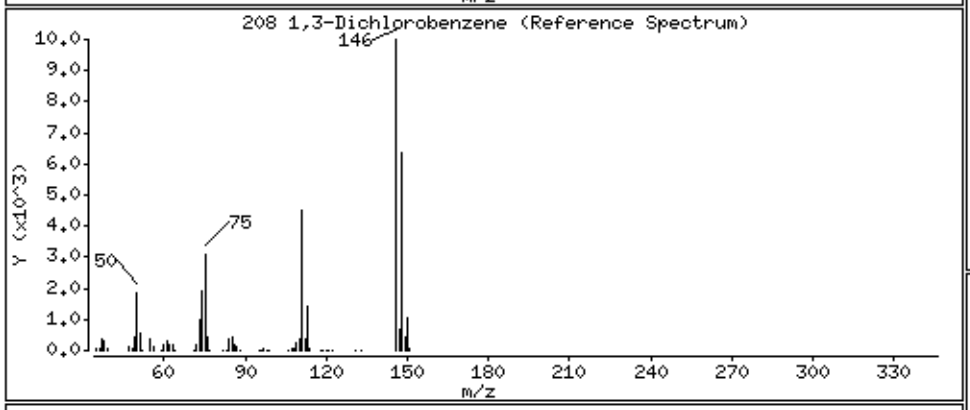
Column diameter: 0.32

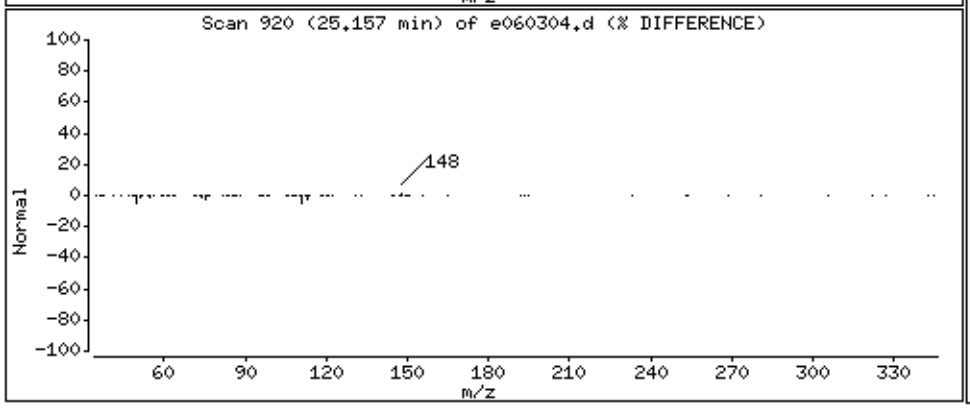
208 1,3-Dichlorobenzene

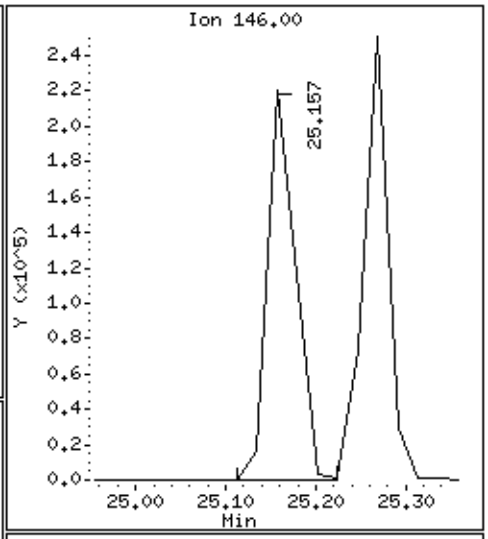
Concentration: 3.842 PPBV

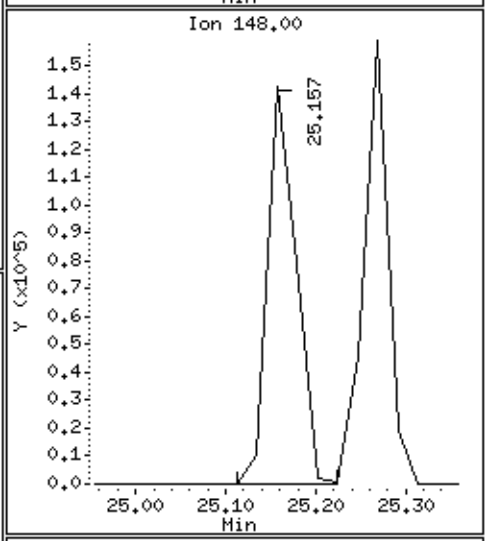


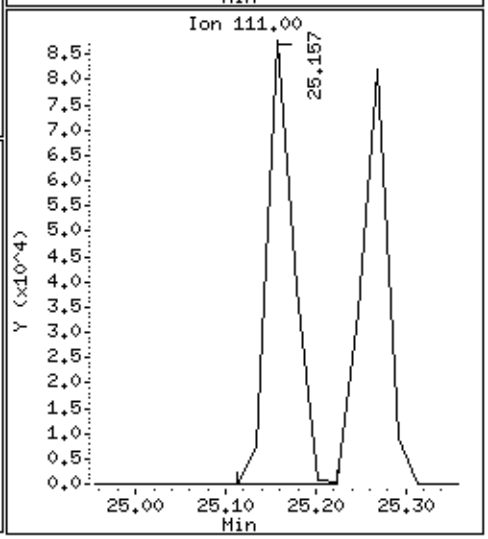












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

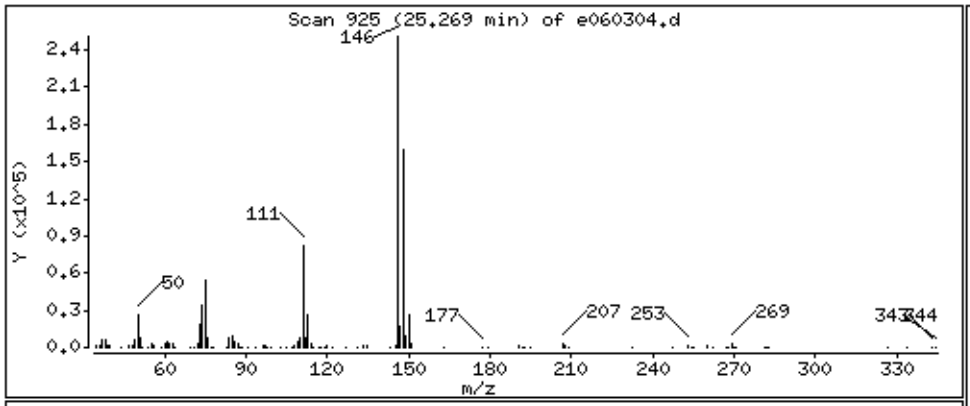
Operator: ef

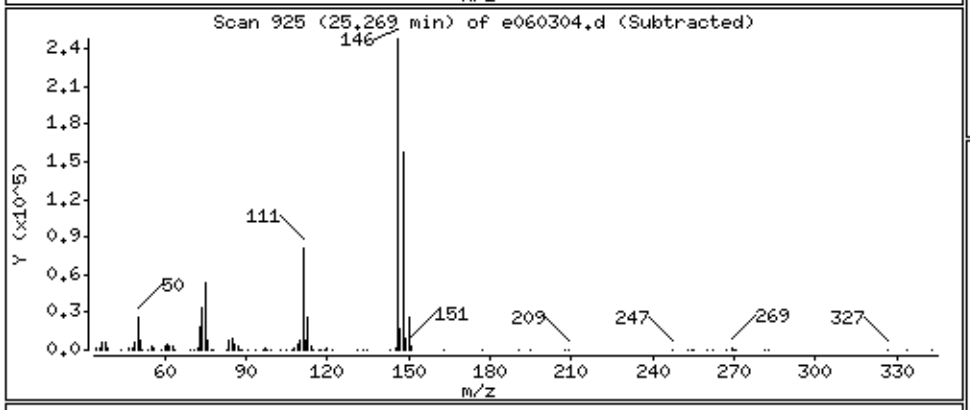
Column phase: RTX-624

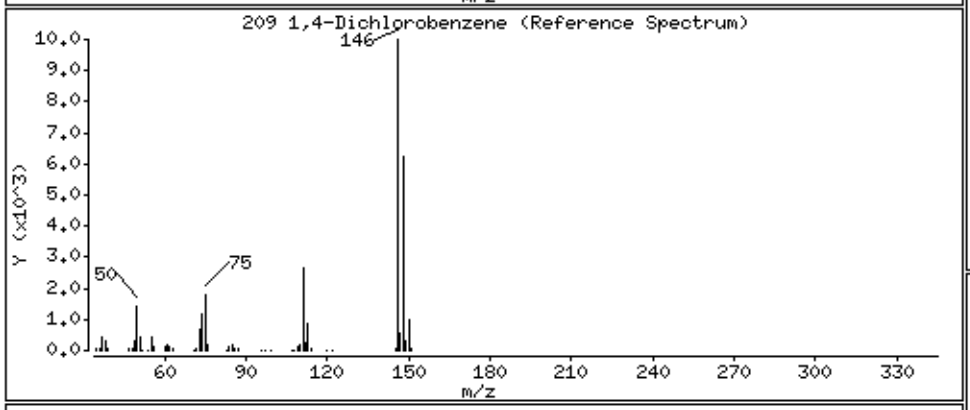
Column diameter: 0.32

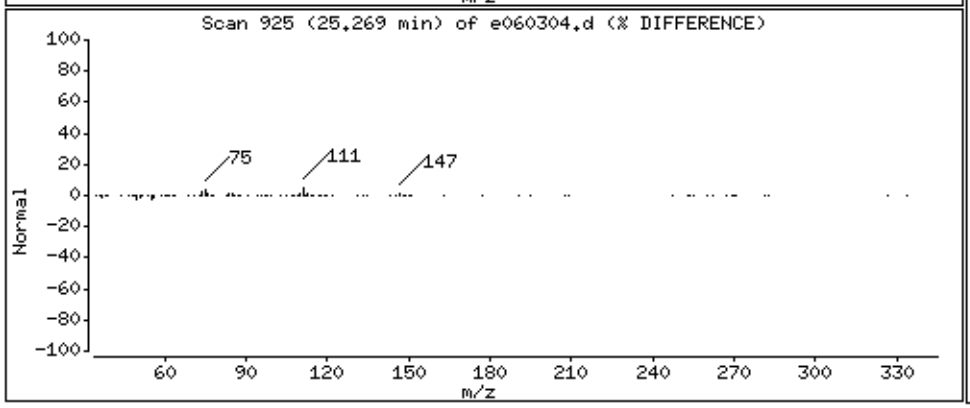
209 1,4-Dichlorobenzene

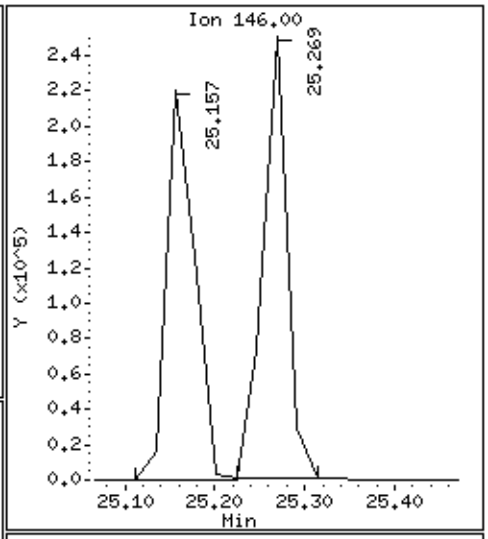
Concentration: 4.044 PPBV

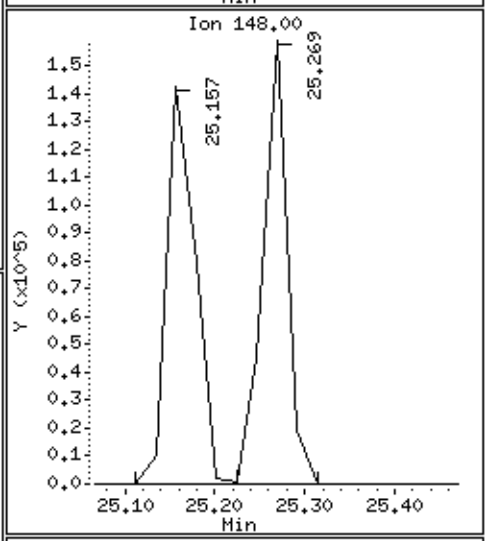


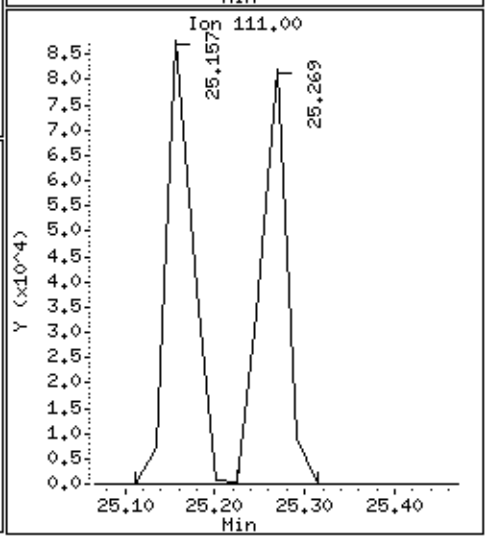












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

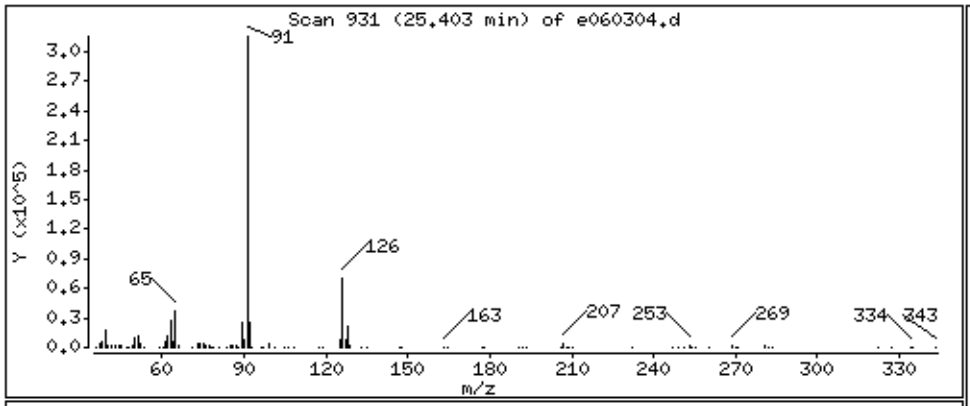
Operator: ef

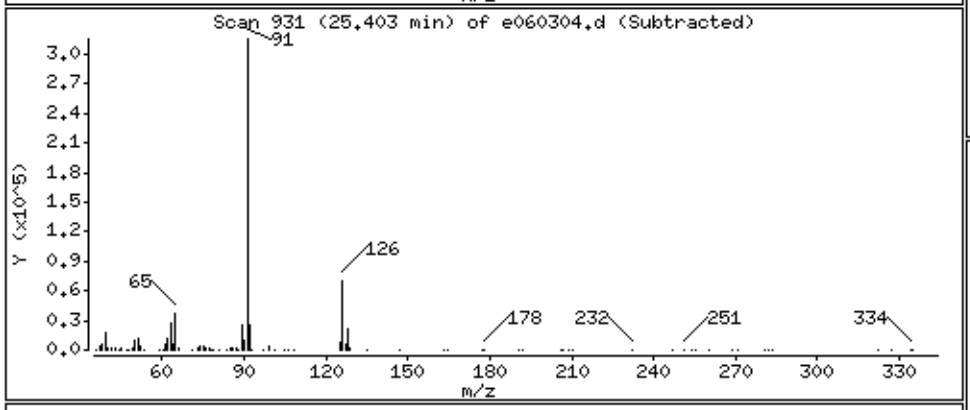
Column phase: RTX-624

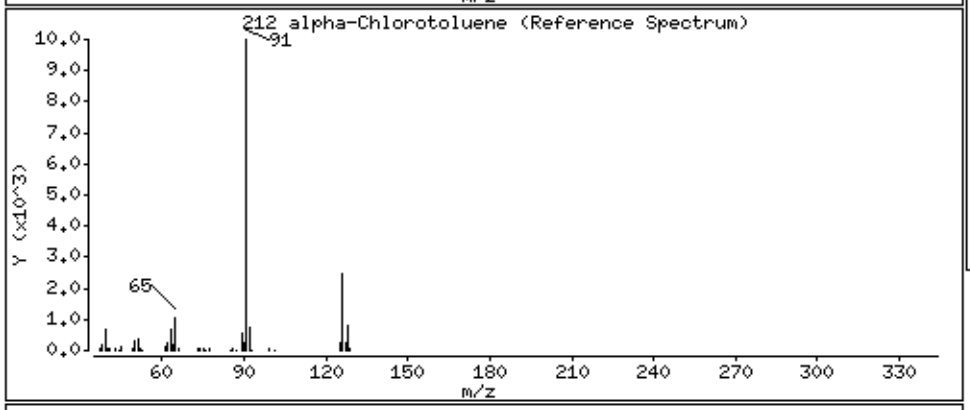
Column diameter: 0.32

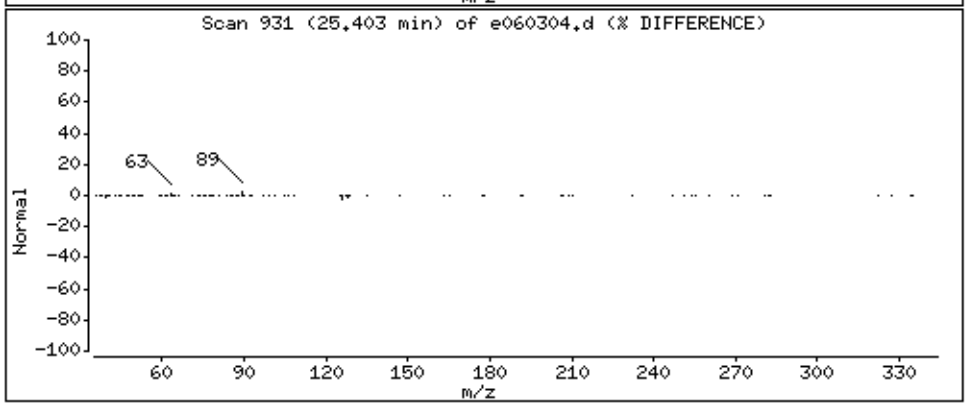
212 alpha-Chlorotoluene

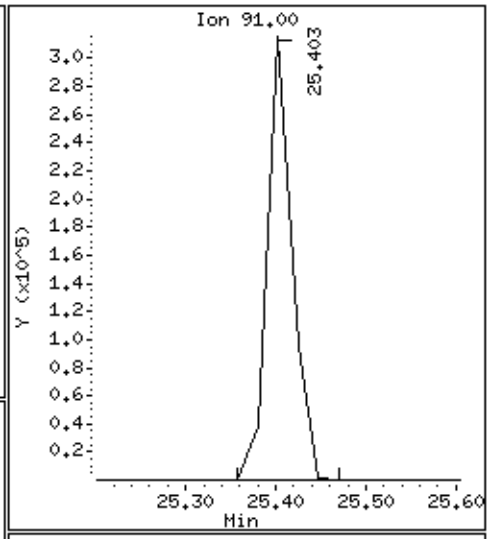
Concentration: 4.120 PPBV

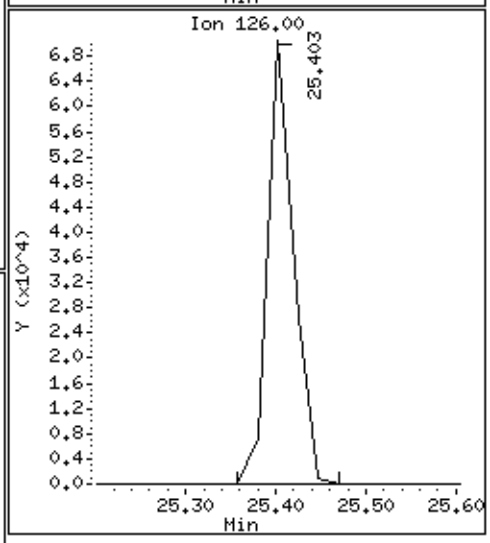












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

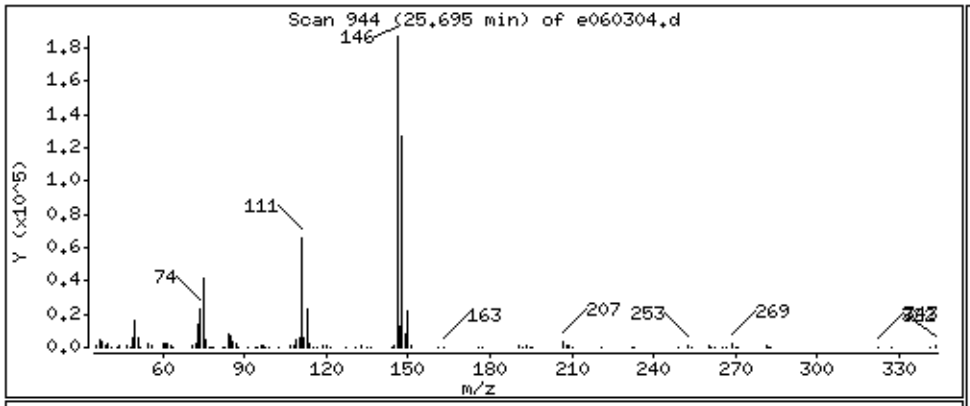
Operator: ef

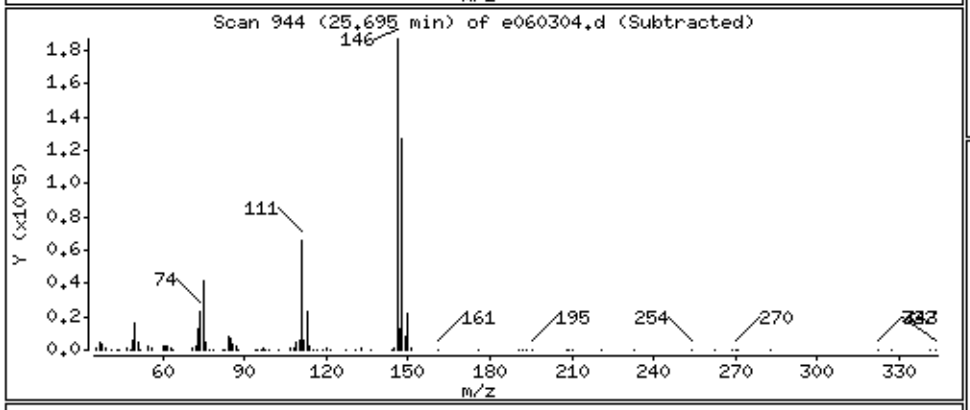
Column phase: RTX-624

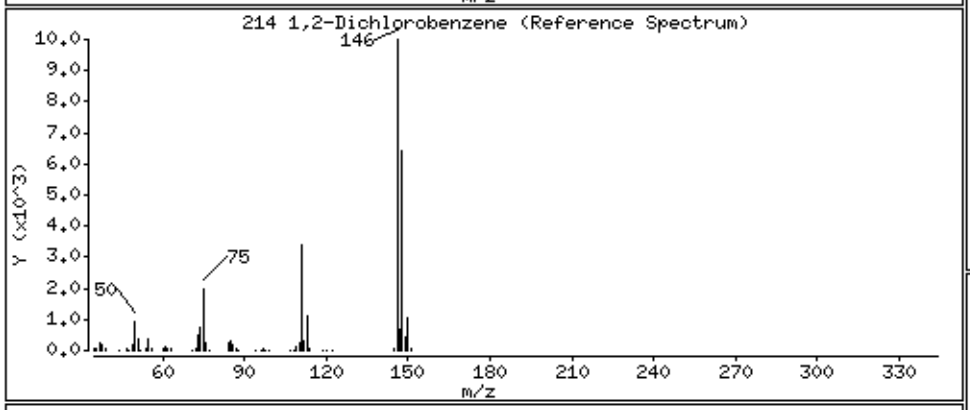
Column diameter: 0.32

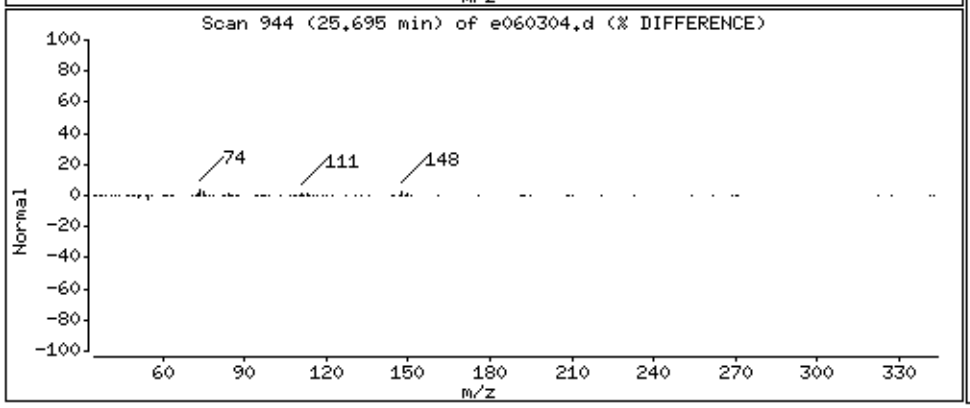
214 1,2-Dichlorobenzene

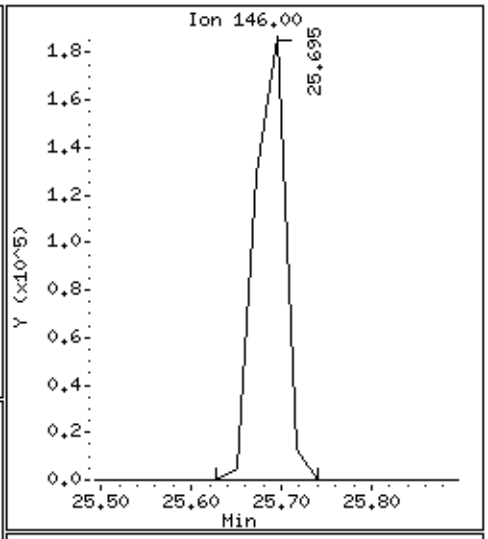
Concentration: 4.201 PPBV

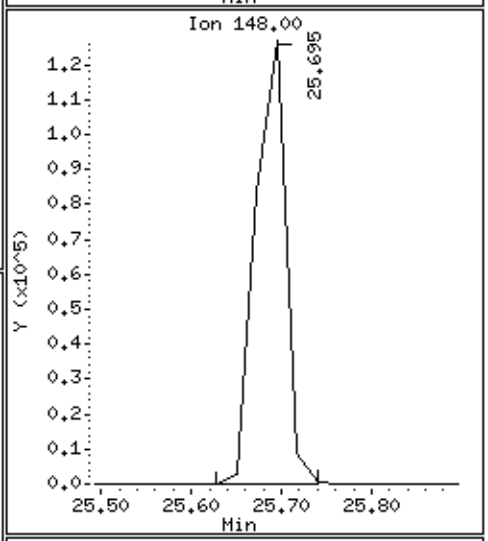


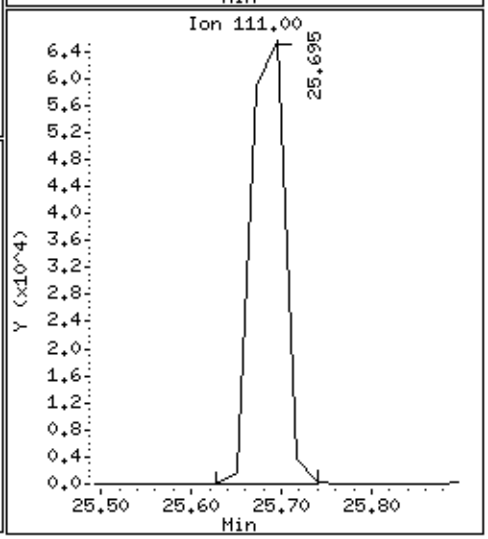












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

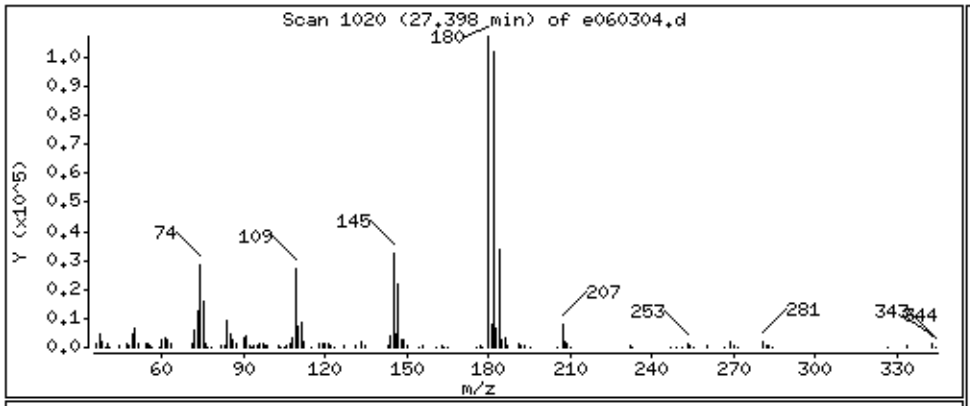
Operator: ef

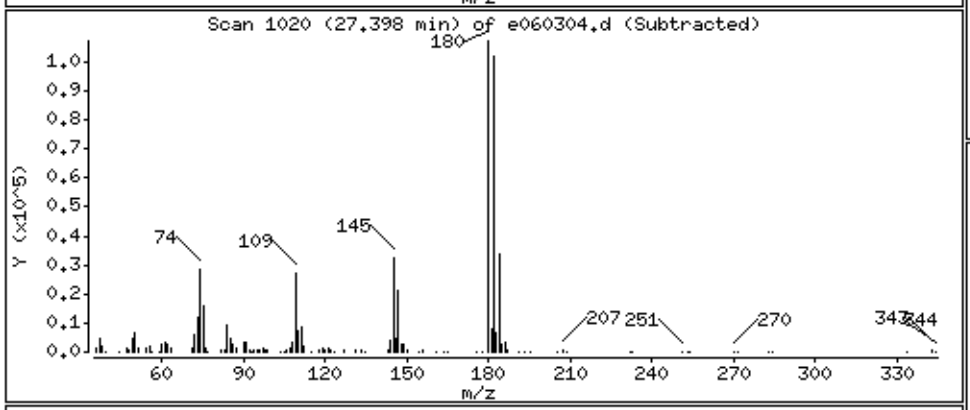
Column phase: RTX-624

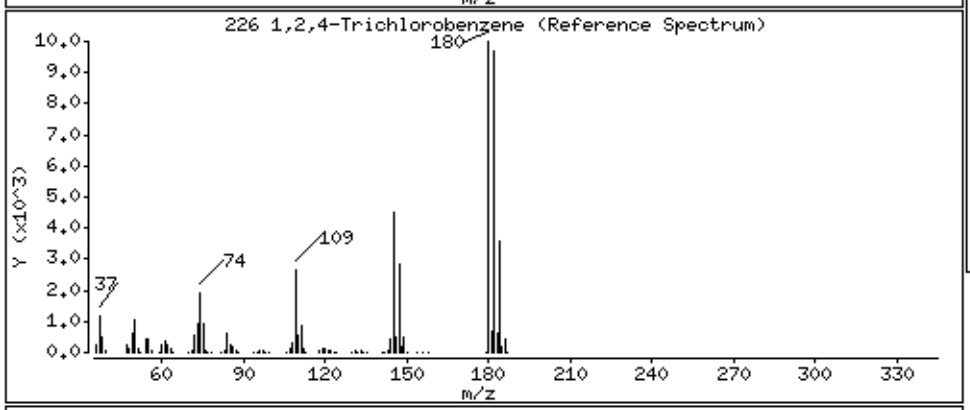
Column diameter: 0.32

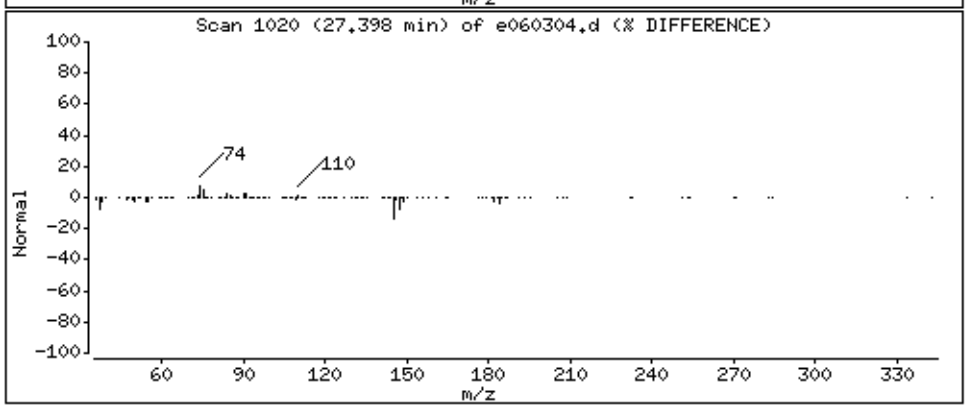
226 1,2,4-Trichlorobenzene

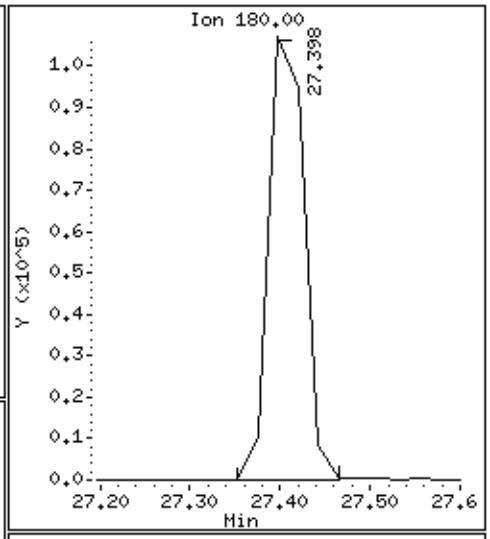
Concentration: 6.120 PPBV

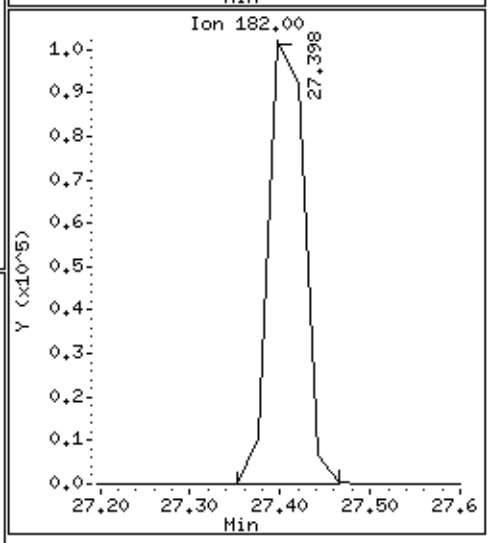












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

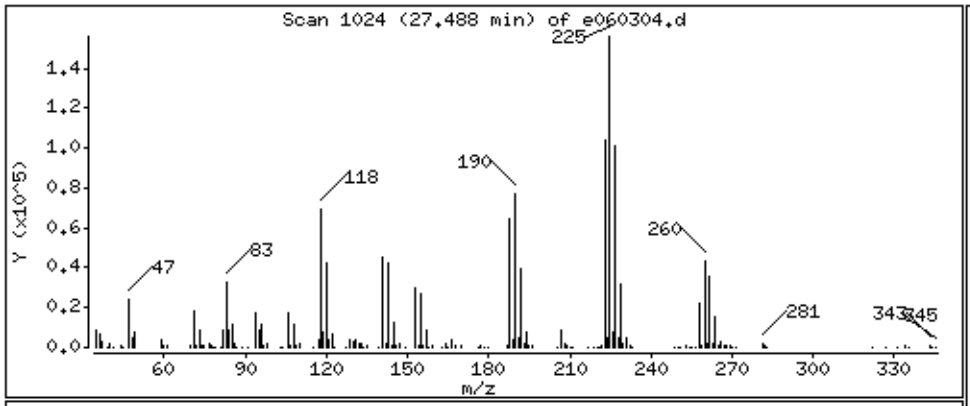
Operator: ef

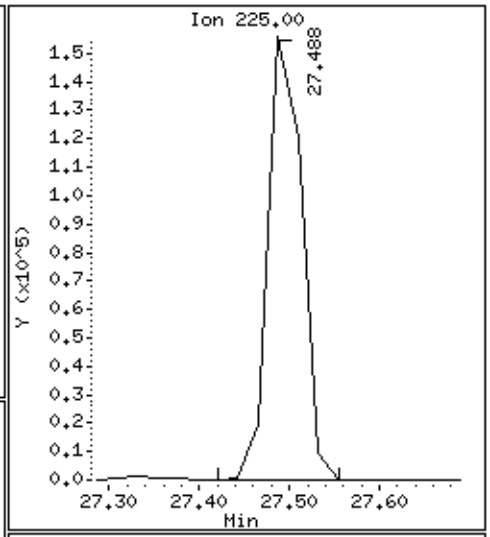
Column phase: RTX-624

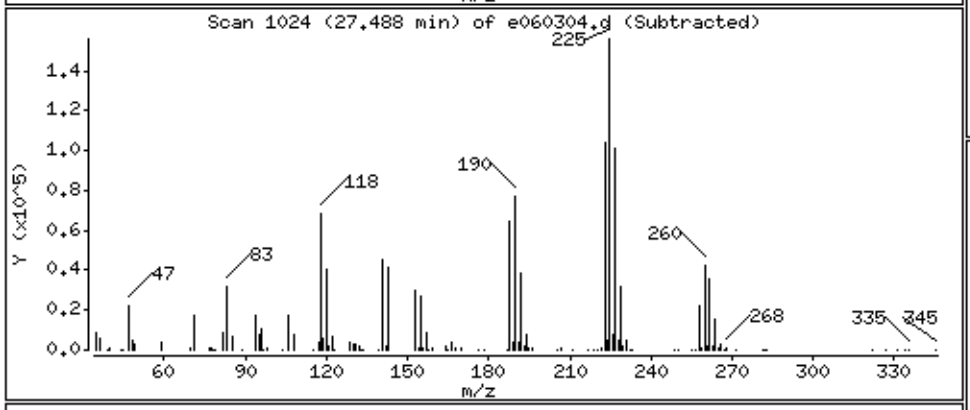
Column diameter: 0.32

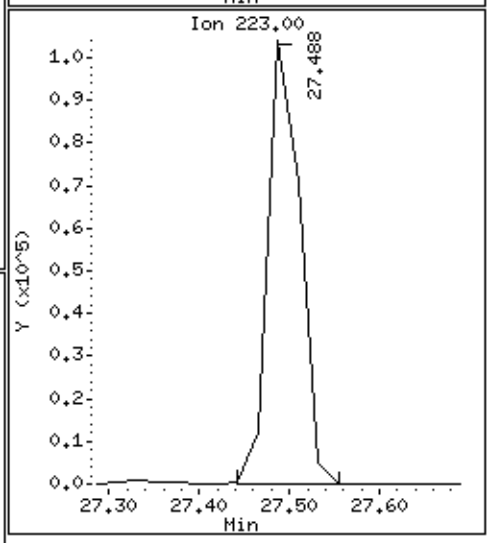
227 Hexachlorobutadiene

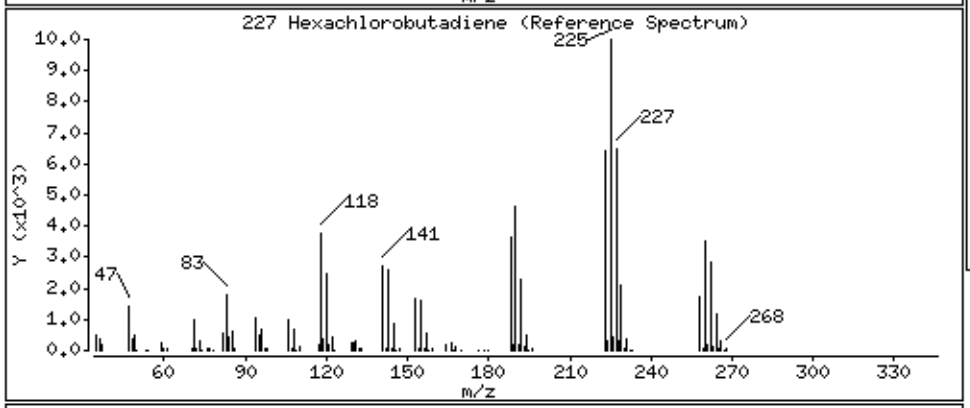
Concentration: 6.240 PPBV

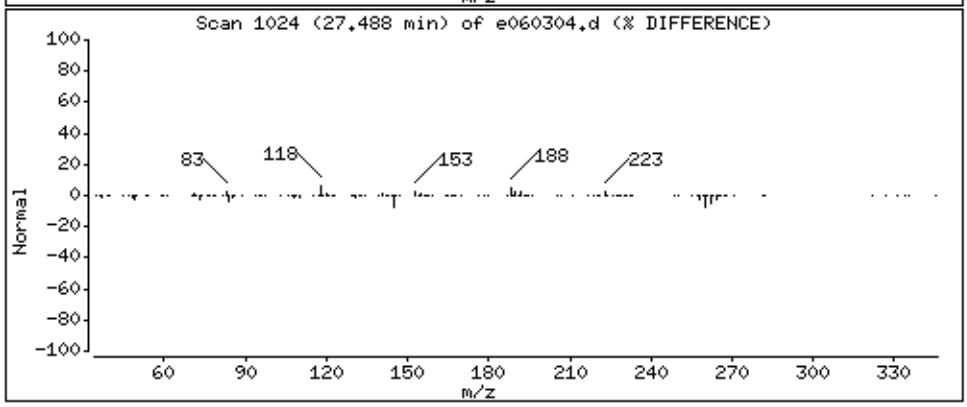












Data File: /chem/msde.i/03Jun2016.b/e060304.d

Date : 03-JUN-2016 09:10

Client ID: LCSD

Instrument: msde.i

Sample Info: 25mL# 2789-9

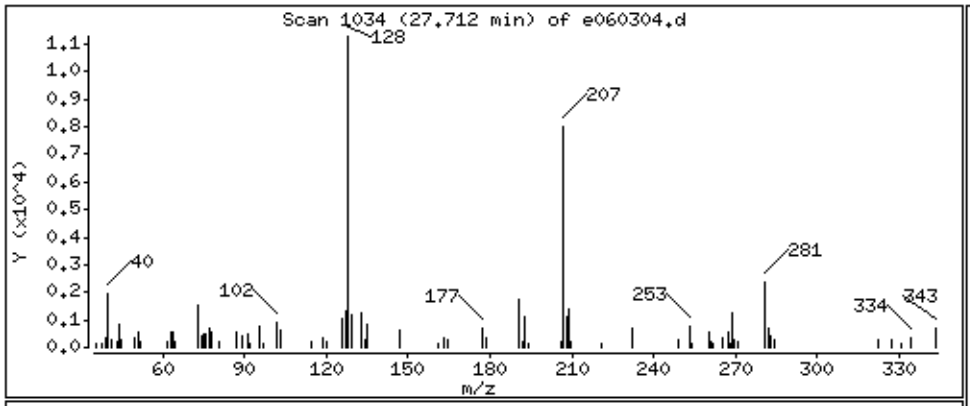
Operator: ef

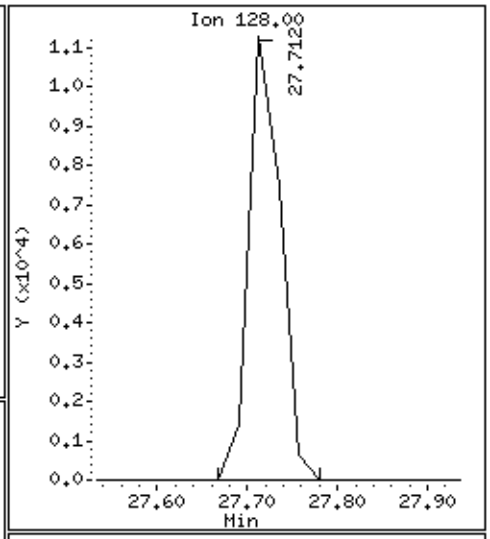
Column phase: RTX-624

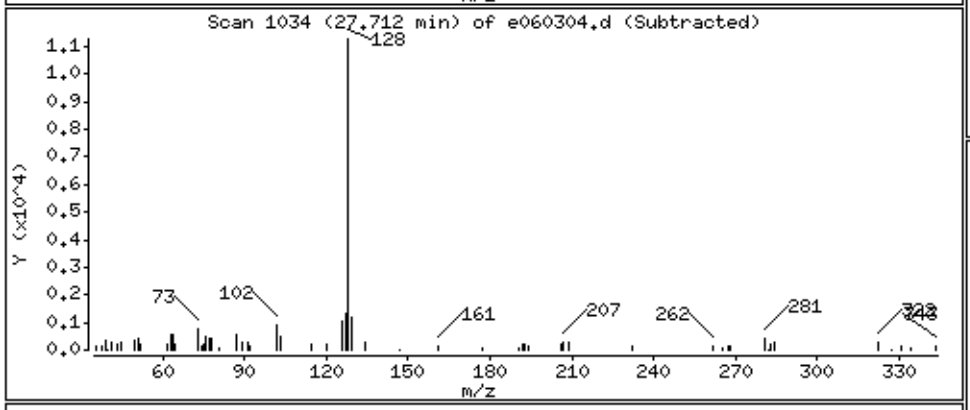
Column diameter: 0.32

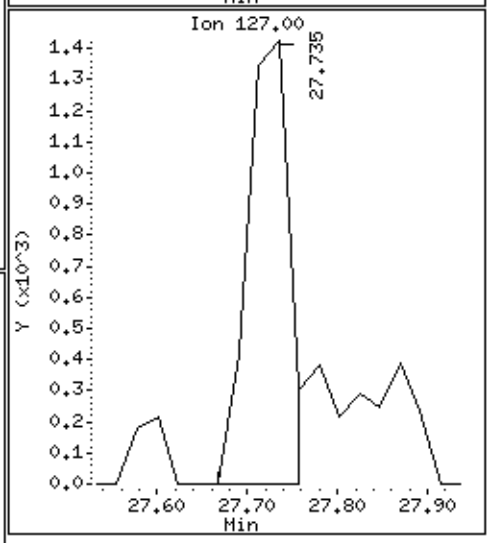
228 Naphthalene

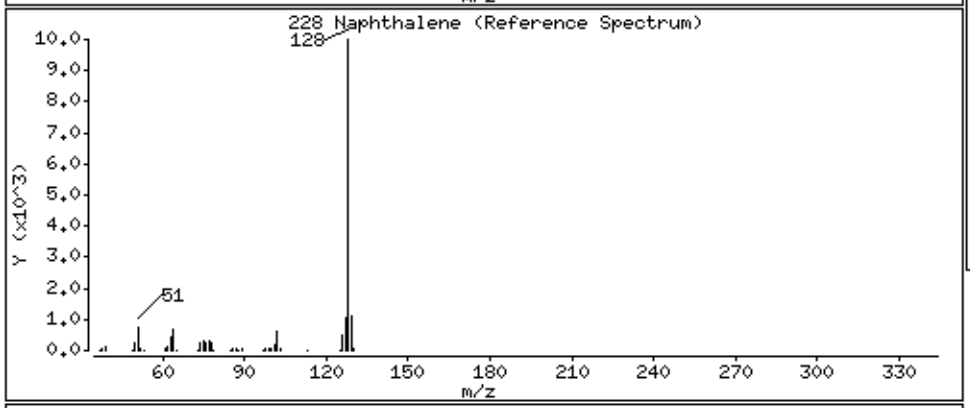
Concentration: 0.3944 PPBV

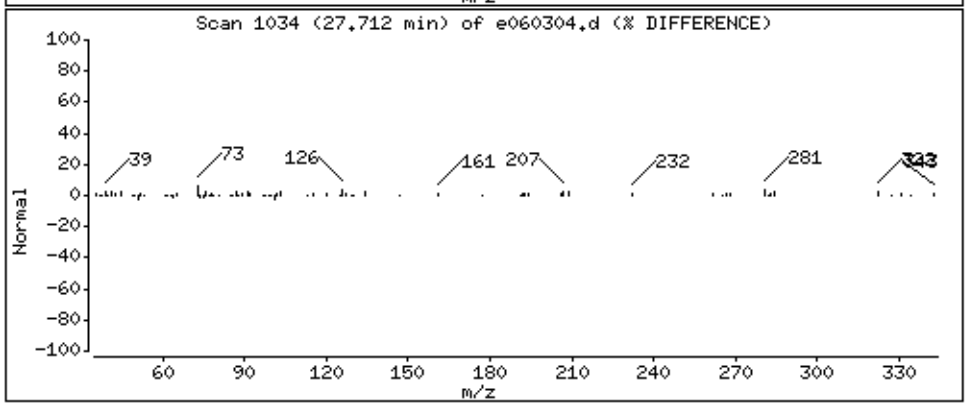












eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1606028A-10B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/16 09:15 AM**	

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Freon 114	96	70-130
Chloromethane	84	70-130
Vinyl Chloride	89	70-130
1,3-Butadiene	84	70-130
Bromomethane	98	70-130
Chloroethane	105	70-130
Freon 11	94	70-130
Ethanol	100	70-130
Freon 113	82	70-130
1,1-Dichloroethene	85	70-130
Acetone	78	70-130
2-Propanol	84	70-130
Carbon Disulfide	82	70-130
3-Chloropropene	112	70-130
Methylene Chloride	82	70-130
Methyl tert-butyl ether	84	70-130
trans-1,2-Dichloroethene	96	70-130
Hexane	89	70-130
1,1-Dichloroethane	88	70-130
2-Butanone (Methyl Ethyl Ketone)	84	70-130
cis-1,2-Dichloroethene	85	70-130
Tetrahydrofuran	68 Q	70-130
Chloroform	85	70-130
1,1,1-Trichloroethane	83	70-130
Cyclohexane	91	70-130
Carbon Tetrachloride	67 Q	70-130
2,2,4-Trimethylpentane	92	70-130
Benzene	89	70-130
1,2-Dichloroethane	89	70-130
Heptane	90	70-130
Trichloroethene	95	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	91	70-130
Bromodichloromethane	95	70-130
cis-1,3-Dichloropropene	86	70-130
4-Methyl-2-pentanone	91	70-130
Toluene	93	70-130
trans-1,3-Dichloropropene	93	70-130
1,1,2-Trichloroethane	88	70-130
Tetrachloroethene	98	70-130
2-Hexanone	93	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1606028A-10B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/16 09:15 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	98	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	95	70-130
Ethyl Benzene	92	70-130
m,p-Xylene	99	70-130
o-Xylene	99	70-130
Styrene	98	70-130
Bromoform	98	70-130
Cumene	90	70-130
1,1,2,2-Tetrachloroethane	76	70-130
Propylbenzene	84	70-130
4-Ethyltoluene	86	70-130
1,3,5-Trimethylbenzene	76	70-130
1,2,4-Trimethylbenzene	75	70-130
1,3-Dichlorobenzene	79	70-130
1,4-Dichlorobenzene	81	70-130
alpha-Chlorotoluene	84	70-130
1,2-Dichlorobenzene	84	70-130
1,2,4-Trichlorobenzene	93	70-130
Hexachlorobutadiene	101	70-130
Naphthalene	80	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

Report Date: 08-Jun-2016 09:55

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 08Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCS
Client Smp ID: LCS
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT09Bromo.spk
Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/08Jun2016.b/e16l0317f.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	4.269	85.39	60-140
11 Freon 12	5.000	4.523	90.47	70-130
15 Freon 114	5.000	4.802	96.04	70-130
17 Chloromethane	5.000	4.179	83.58	70-130
23 Butane	5.000	4.497	89.94	60-140
25 Vinyl Chloride	5.000	4.442	88.85	70-130
26 1,3-Butadiene	5.000	4.229	84.58	70-130
29 Bromomethane	5.000	4.921	98.43	70-130
30 Chloroethane	5.000	5.247	104.93	70-130
31 Isopentane	5.000	4.898	97.95	60-140
35 Freon 11	5.000	4.681	93.61	70-130
42 Ethanol	5.000	4.977	99.54	70-130
49 Freon 113	5.000	4.099	81.98	70-130
50 1,1-Dichloroethene	5.000	4.233	84.67	70-130
52 Acetone	5.000	3.907	78.13	70-130
56 Carbon Disulfide	5.000	4.080	81.60	70-130
57 2-Propanol	5.000	4.226	84.53	70-130
58 3-Chloropropene	5.000	5.604	112.09	70-130
66 Methylene Chloride	5.000	4.101	82.03	70-130
72 Methyl tert-butyl	5.000	4.189	83.78	70-130
73 trans-1,2-Dichloro	4.250	4.059	95.51	70-130
78 Hexane	5.000	4.448	88.97	70-130
82 1,1-Dichloroethane	5.000	4.395	87.90	70-130
86 Vinyl Acetate	5.000	4.110	82.19	60-140
91 cis-1,2-Dichloroet	5.650	4.817	85.25	70-130
92 2-Butanone	5.000	4.183	83.66	70-130
99 Tetrahydrofuran	5.000	3.394	67.87*	70-130
100 Chloroform	5.000	4.238	84.75	70-130
103 1,1,1-Trichloroeth	5.000	4.155	83.09	70-130
106 Carbon Tetrachlori	5.000	3.347	66.94*	70-130
102 Cyclohexane	5.000	4.561	91.23	70-130
113 2,2,4-Trimethylpen	5.000	4.604	92.09	70-130
116 Benzene	5.000	4.455	89.10	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	4.466	89.33	70-130
121 Heptane	5.000	4.493	89.87	70-130
125 Trichloroethene	5.000	4.737	94.74	70-130
127 Methylcyclohexane	5.000	4.730	94.60	60-140
132 1,2-Dichloropropan	5.000	4.512	90.23	70-130
136 1,4-Dioxane	5.000	4.543	90.86	70-130
138 Bromodichlorometha	5.000	4.764	95.27	70-130
144 cis-1,3-Dichloropr	5.000	4.329	86.57	70-130
145 4-Methyl-2-pentano	5.000	4.543	90.87	70-130
147 Toluene	5.000	4.640	92.81	70-130
150 trans-1,3-Dichloro	5.000	4.630	92.60	70-130
155 1,1,2-Trichloroeth	5.000	4.411	88.22	70-130
156 Tetrachloroethene	5.000	4.928	98.57	70-130
158 2-Hexanone	5.000	4.642	92.83	70-130
160 Dibromochlorometha	5.000	4.905	98.11	70-130
161 1,2-Dibromoethane	5.000	4.851	97.01	70-130
165 Chlorobenzene	5.000	4.757	95.15	70-130
167 Ethyl Benzene	5.000	4.591	91.83	70-130
169 m,p-Xylene	5.000	4.959	99.17	70-130
171 o-Xylene	5.000	4.964	99.28	70-130
172 Styrene	5.000	4.926	98.52	70-130
174 Bromoform	6.500	6.379	98.14	70-130
175 Cumene	5.000	4.475	89.51	70-130
181 1,1,2,2-Tetrachlor	5.000	3.798	75.96	70-130
182 Propylbenzene	5.000	4.178	83.56	70-130
188 4-Ethyltoluene	5.000	4.284	85.67	70-130
190 1,3,5-Trimethylben	5.000	3.784	75.69	70-130
196 1,2,4-Trimethylben	5.000	3.732	74.65	70-130
208 1,3-Dichlorobenzen	5.000	3.942	78.83	70-130
209 1,4-Dichlorobenzen	5.000	4.042	80.84	70-130
212 alpha-Chlorotoluen	5.000	4.228	84.56	70-130
214 1,2-Dichlorobenzen	5.000	4.186	83.72	70-130
226 1,2,4-Trichloroben	5.000	4.642	92.84	70-130
227 Hexachlorobutadien	5.000	5.037	100.74	70-130
228 Naphthalene	0.5000	0.3986	79.73	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.496	89.92	70-130
$ 146 Toluene-d8	5.000	4.914	98.29	70-130
$ 177 4-Bromofluorobenze	5.000	4.950	99.00	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/08Jun2016.b/e060803.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 08-JUN-2016 09:15
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-10
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/08Jun2016.b/e16l0317f.m
Meth Date : 08-Jun-2016 09:13 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.763	4.762 (0.309)	41	77929	4.26944	4.269	80.00- 120.00	100.00
4.787	4.762 (0.311)	42	53097			38.73- 98.73	68.14
4.738	4.738 (0.308)	39	61601			55.81- 115.81	79.05
11 Freon 12					CAS #: 75-71-8		
5.220	5.220 (0.339)	85	534706	4.52336	4.523	80.00- 120.00	100.00
5.220	5.220 (0.339)	87	171111			2.00- 62.00	32.00
15 Freon 114					CAS #: 76-14-2		
6.618	6.618 (0.430)	135	415446	4.80203	4.802	80.00- 120.00	100.00
6.618	6.594 (0.430)	137	130632			1.31- 61.31	31.44
6.594	6.594 (0.428)	85	451850			93.88- 153.88	108.76
17 Chloromethane					CAS #: 74-87-3		
6.956	6.932 (0.452)	50	93726	4.17880	4.179	80.00- 120.00	100.00
6.956	6.956 (0.452)	52	33069			5.50- 65.50	35.28
23 Butane					CAS #: 106-97-8		
7.675	7.675 (0.499)	58	26127	4.49718	4.497	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.658	7.658 (0.498)	43	157181			588.57- 648.57	601.60
25 Vinyl Chloride					CAS #: 75-01-4		
7.779	7.779 (0.505)	62	140180	4.44245	4.442	80.00- 120.00	100.00
7.797	7.779 (0.507)	64	49450			3.14- 63.14	35.28
26 1,3-Butadiene					CAS #: 106-99-0		
8.040	8.022 (0.522)	54	89752	4.22896	4.229	80.00- 120.00	100.00
8.040	8.022 (0.522)	39	88230			65.21- 125.21	98.30
29 Bromomethane					CAS #: 74-83-9		
9.510	9.510 (0.618)	94	169455	4.92141	4.921	80.00- 120.00	100.00
9.510	9.510 (0.618)	96	163493			64.16- 124.16	96.48
30 Chloroethane					CAS #: 75-00-3		
9.986	9.986 (0.649)	64	78217	5.24671	5.247	80.00- 120.00	100.00
9.986	9.986 (0.649)	49	18081			0.00- 54.91	23.12
9.986	9.986 (0.649)	66	27681			3.62- 63.62	35.39
31 Isopentane					CAS #: 78-78-4		
10.138	10.119 (0.659)	57	105846	4.89772	4.898	80.00- 120.00	100.00
10.119	10.119 (0.657)	43	122105			82.69- 142.69	115.36
10.119	10.119 (0.657)	42	103055			68.65- 128.65	97.36
35 Freon 11					CAS #: 75-69-4		
10.747	10.747 (0.698)	101	595779	4.68063	4.681	80.00- 120.00	100.00
10.747	10.747 (0.698)	103	390680			37.17- 97.17	65.57
42 Ethanol					CAS #: 64-17-5		
11.681	11.680 (0.759)	45	45904	4.97694	4.977	80.00- 120.00	100.00
11.681	11.680 (0.759)	46	16649			6.61- 66.61	36.27
11.681	11.680 (0.759)	43	12992			0.00- 54.66	28.30
49 Freon 113					CAS #: 76-13-1		
12.081	12.080 (0.785)	151	391009	4.09916	4.099	80.00- 120.00	100.00
12.081	12.080 (0.785)	153	257792			33.64- 93.64	65.93
12.081	12.080 (0.785)	101	420401			80.40- 140.40	107.52
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.100	12.099 (0.786)	98	112609	4.23345	4.233	80.00- 120.00	100.00
12.100	12.099 (0.786)	61	256887			204.89- 264.89	228.12
12.100	12.099 (0.786)	96	183197			127.69- 187.69	162.68
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	60764	3.90661	3.907	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
12.366	12.366 (0.803)	43	200636			321.47- 381.47	330.19
56 Carbon Disulfide					CAS #: 75-15-0		
12.462	12.442 (0.810)	76	483677	4.08000	4.080	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
12.728	12.709 (0.827)	45	201092	4.22627	4.226	80.00- 120.00	100.00
12.728	12.709 (0.827)	43	49603			0.00- 54.09	24.67
12.728	12.709 (0.827)	59	8508			0.00- 34.43	4.23
58 3-Chloropropene					CAS #: 107-05-1		
12.881	12.880 (0.837)	76	99318	5.60452	5.604	80.00- 120.00	100.00
12.881	12.880 (0.837)	41	177684			163.76- 223.76	178.90
66 Methylene Chloride					CAS #: 75-09-2		
13.177	13.176 (0.856)	84	152865	4.10141	4.101	80.00- 120.00	100.00
13.177	13.149 (0.856)	49	136426			63.99- 123.99	89.25
13.177	13.176 (0.856)	51	42453			0.29- 60.29	27.77
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.479	13.478 (0.876)	73	499257	4.18900	4.189	80.00- 120.00	100.00
13.479	13.478 (0.876)	57	88451			0.00- 48.26	17.72
13.479	13.478 (0.876)	41	80948			0.00- 45.58	16.21
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.533	13.533 (0.879)	98	109672	4.05932	4.059	80.00- 120.00	100.00
13.533	13.533 (0.879)	61	193524			155.28- 215.28	176.46
13.533	13.533 (0.879)	96	166097			126.18- 186.18	151.45
78 Hexane					CAS #: 110-54-3		
13.835	13.835 (0.899)	57	206814	4.44835	4.448	80.00- 120.00	100.00
13.835	13.835 (0.899)	43	104504			21.48- 81.48	50.53
13.835	13.835 (0.899)	86	42894			0.00- 51.51	20.74
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.247	14.247 (0.926)	63	310749	4.39486	4.395	80.00- 120.00	100.00
14.247	14.247 (0.926)	65	100116			1.78- 61.78	32.22
86 Vinyl Acetate					CAS #: 108-05-4		
14.247	14.247 (0.926)	86	45207	4.10971	4.110	80.00- 120.00	100.00
14.247	14.247 (0.926)	42	30791			44.70- 104.70	68.11
14.247	14.247 (0.926)	43	311304			757.33- 817.33	688.62
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.047	15.047 (0.978)	98	142348	4.81661	4.817	80.00- 120.00	100.00

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   91 cis-1,2-Dichloroethene (continued)
 15.047  15.047 (0.978)    61    240404                  145.90- 205.90   168.88
 15.047  15.047 (0.978)    96    219765                  125.53- 185.53   154.39
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72     78373 4.18308    4.183  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    227387                  262.26- 322.26   290.13
 15.047  15.047 (0.978)    57     22703                    0.00-  55.71    28.97
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42    116680 3.39362    3.394  80.00- 120.00   100.00(R)
 15.391  15.391 (1.000)    71     71702                   26.85-  86.85    61.45
 15.391  15.391 (1.000)    72     74611                   32.22-  92.22    63.94
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    140545 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    102560                   52.25- 112.25    72.97
 15.391  15.391 (1.000)    49    101739                   89.81- 149.81    72.39
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.453  15.453 (1.004)    83    430009 4.23771    4.238  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    277560                   33.97-  93.97    64.55
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.669  15.669 (1.018)    84    240196 4.56139    4.561  80.00- 120.00   100.00
 15.669  15.669 (1.018)    56    197992                   58.69- 118.69    82.43
 15.669  15.669 (1.018)    41    104800                   18.98-  78.98    43.63
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.669  15.669 (1.018)    97    490400 4.15473    4.155  80.00- 120.00   100.00
 15.669  15.669 (1.018)    99    316625                   34.21-  94.21    64.56
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 15.854  15.854 (1.030)   119    386874 3.34676    3.347  80.00- 120.00   100.00(R)
 15.854  15.854 (1.030)   117    393634                   74.09- 134.09   101.75
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 16.111  16.111 (1.047)    56    271085 4.60458    4.604  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57    879488                  306.64- 366.64   324.43
 16.111  16.111 (1.047)    41    242788                   64.14- 124.14    89.56
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.183  16.183 (0.967)    78    534035 4.45514    4.455  80.00- 120.00   100.00
 16.183  16.183 (0.967)    77    125138                    0.00-  53.97    23.43
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    181395 4.49582    4.496  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 117 1,2-Dichloroethane-d4 (continued)
 16.183  16.183 (1.051)    67     95972                    21.16-  81.16    52.91
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.304  16.303 (0.974)    62    279062 4.46659    4.466  80.00- 120.00   100.00
 16.304  16.303 (0.974)    64     91826                     1.03-  61.03    32.91
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57    127671 4.49334    4.493  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100     73004                    28.67-  88.67    57.18
 16.352  16.352 (0.977)    43    198017                   128.92- 188.92   155.10
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    500217 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     71316                     0.00-  45.20    14.26
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.123  17.123 (1.023)   130    294510 4.73678    4.737  80.00- 120.00   100.00
 17.123  17.123 (1.023)    95    267256                   63.99- 123.99    90.75
 17.123  17.123 (1.023)    97    173789                   29.21-  89.21    59.01
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.340  17.339 (1.036)    83    315666 4.72996    4.730  80.00- 120.00   100.00
 17.340  17.339 (1.036)    55    192642                   31.29-  91.29    61.03
 17.340  17.339 (1.036)    56     59520                    0.00-  48.78    18.86
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.556  17.556 (1.049)    63    174128 4.51167    4.512  80.00- 120.00   100.00
 17.556  17.556 (1.049)    62    110557                   34.19-  94.19    63.49
 17.556  17.556 (1.049)    41     98030                   27.38-  87.38    56.30
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                   CAS #: 123-91-1
 17.701  17.701 (1.058)    88    131313 4.54299    4.543  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58     70164                   25.03-  85.03    53.43
 17.677  17.677 (1.056)    57     23672                    0.00-  50.67    18.03
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 17.990  17.990 (1.075)    83    473853 4.76352    4.764  80.00- 120.00   100.00
 17.990  17.990 (1.075)    85    313477                   35.15-  95.15    66.15
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                       CAS #: 10061-01-5
 18.805  18.805 (1.124)    75    320878 4.32873    4.329  80.00- 120.00   100.00
 18.805  18.805 (1.124)    77     96736                    0.45-  60.45    30.15
 18.805  18.805 (1.124)    39    130588                   13.69-  73.69    40.70
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 18.984  18.984 (1.134)    43    281036 4.54329    4.543  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  145 4-Methyl-2-pentanone (continued)
 18.984  18.984 (1.134)    58    119174                    15.64-  75.64    42.41
 18.984  18.984 (1.134)    85     71734                     0.00-  56.71    25.52
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.275  19.275 (1.152)    98    482813 4.91460    4.914  80.00- 120.00   100.00
 19.275  19.275 (1.152)    70     48713                     0.00-  40.11    10.09
 19.275  19.275 (1.152)   100    323613                    37.58-  97.58    67.03
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91    662539 4.64027    4.640  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92    390910                    28.92-  88.92    59.00
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 19.998  19.998 (0.902)    75    320921 4.63015    4.630  80.00- 120.00   100.00
 19.998  19.998 (0.902)    77     96457                     0.55-  60.55    30.06
 19.998  19.998 (0.902)    39    119433                     8.25-  68.25    37.22
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97    237990 4.41084    4.411  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    155629                    32.91-  92.91    65.39
 20.438  20.438 (0.922)    83    197437                    47.93- 107.93    82.96
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.603  20.602 (0.929)   166    409755 4.92856    4.928  80.00- 120.00   100.00
 20.603  20.602 (0.929)   129    294687                    42.31- 102.31    71.92
 20.603  20.602 (0.929)   131    278561                    40.11- 100.11    67.98
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 20.795  20.795 (0.938)    58    161168 4.64155    4.642  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43    265112                   140.44- 200.44   164.49
 20.795  20.795 (0.938)   100     45926                     0.00-  59.62    28.50
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 21.207  21.207 (0.956)   129    537307 4.90548    4.905  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127    414346                    46.82- 106.82    77.12
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 21.482  21.481 (0.969)   107    401629 4.85062    4.851  80.00- 120.00   100.00
 21.482  21.481 (0.969)   109    384325                    65.45- 125.45    95.69
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    447641 5.00000            80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    219428                    20.64-  80.64    49.02
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 22.219  22.218 (1.002)   112    576185 4.75743    4.757  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  165 Chlorobenzene (continued)
 22.219  22.218 (1.002)   114    182182                     2.42-  62.42    31.62
 22.219  22.218 (1.002)    77    296621                    23.54-  83.54    51.48
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 22.302  22.301 (1.006)   106    270827 4.59145    4.591  80.00- 120.00   100.00
 22.302  22.301 (1.006)    91    839881                  282.51- 342.51   310.12
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 22.488  22.467 (1.014)   106    339771 4.95862    4.959  80.00- 120.00   100.00
 22.467  22.467 (1.013)    91    671945                  166.46- 226.46   197.76
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 23.089  23.089 (1.041)   106    311995 4.96412    4.964  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91    645294                  184.01- 244.01   206.83
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 23.110  23.110 (1.042)   104    523916 4.92622    4.926  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78    256525                    20.27-  80.27    48.96
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 23.452  23.452 (1.057)   173    692263 6.37910    6.379  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171    355345                    20.88-  80.88    51.33
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 23.564  23.564 (1.063)   105    956328 4.47535    4.475  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120    264258                     0.00-  57.47    27.63
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 23.856  23.856 (1.076)   174    304039 4.94993    4.950  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    302080                    77.42- 137.42    99.36
 23.856  23.856 (1.076)   176    294285                    65.38- 125.38    96.79
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 24.035  24.035 (1.084)    83    377957 3.79793    3.798  80.00- 120.00   100.00
 24.035  24.035 (1.084)    85    251887                    35.73-  95.73    66.64
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 24.102  24.102 (1.087)    91    940393 4.17824    4.178  80.00- 120.00   100.00
 24.102  24.102 (1.087)   120    240921                     0.00-  55.24    25.62
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 24.237  24.237 (1.093)   105    817130 4.28350    4.284  80.00- 120.00   100.00
 24.237  24.237 (1.093)   120    257712                     1.08-  61.08    31.54
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 24.304  24.304 (1.096)   105    560631 3.78443    3.784  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene (continued)							
24.304	24.304 (1.096)	120	289365			18.44- 78.44	51.61
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	479046	3.73238	3.732	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	225959			16.20- 76.20	47.17
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.157	25.156 (1.134)	146	477741	3.94173	3.942	80.00- 120.00	100.00
25.157	25.156 (1.134)	148	309666			35.51- 95.51	64.82
25.157	25.156 (1.134)	111	172147			9.35- 69.35	36.03
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.269	25.268 (1.139)	146	459394	4.04187	4.042	80.00- 120.00	100.00
25.269	25.268 (1.139)	148	303129			32.61- 92.61	65.98
25.269	25.268 (1.139)	111	161164			6.90- 66.90	35.08
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	604683	4.22814	4.228	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	141433			0.00- 51.82	23.39
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.695	25.694 (1.159)	146	435225	4.18611	4.186	80.00- 120.00	100.00
25.695	25.694 (1.159)	148	281169			33.69- 93.69	64.60
25.695	25.694 (1.159)	111	170092			8.96- 68.96	39.08
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.421	27.421 (1.236)	180	218840	4.64197	4.642	80.00- 120.00	100.00
27.421	27.421 (1.236)	182	207928			66.05- 126.05	95.01
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	322864	5.03681	5.037	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	196090			33.78- 93.78	60.73
228 Naphthalene					CAS #: 91-20-3		
27.735	27.734 (1.251)	128	27443	0.39865	0.3986	80.00- 120.00	100.00(a)
27.712	27.712 (1.250)	127	5022			0.00- 46.39	18.30

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060803.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/08Jun2016.b/e16l0317f.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 08-JUN-2016
Calibration Time: 08:32
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	121899	73139	170659	140545	15.30
123 1,4-Difluorobenze	451721	271033	632409	500217	10.74
163 Chlorobenzene-d5	400528	240317	560739	447641	11.76

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/08Jun2016.b/e060803.d

Date : 08-JUN-2016 09:15

Client ID: LCS

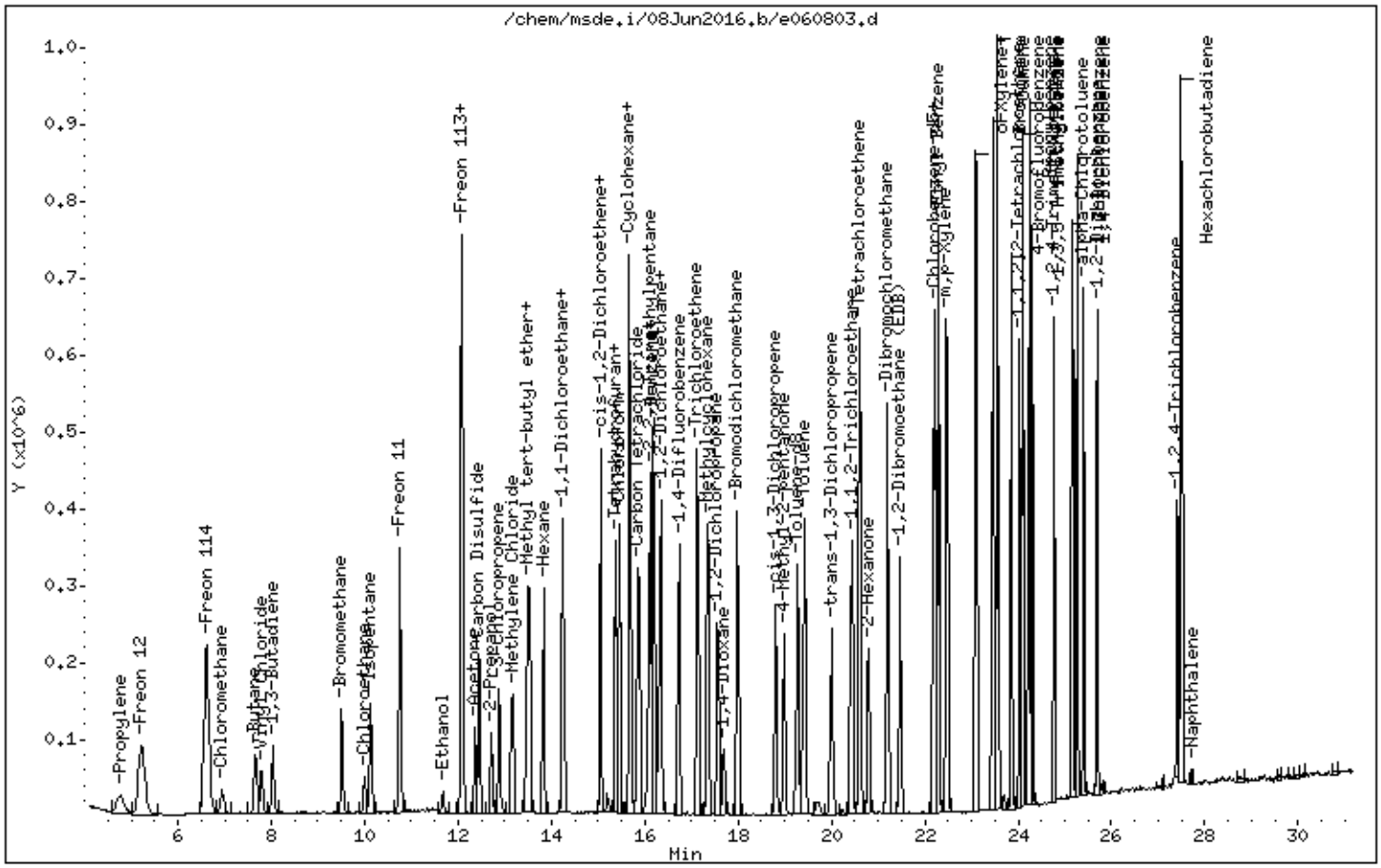
Instrument: msde.i

Sample Info: 25mL# 2789-10

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCSD

Lab ID#: 1606028A-10BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/16 09:58 AM**	

Compound	%Recovery	Method Limits
Freon 12	94	70-130
Freon 114	99	70-130
Chloromethane	90	70-130
Vinyl Chloride	92	70-130
1,3-Butadiene	88	70-130
Bromomethane	103	70-130
Chloroethane	110	70-130
Freon 11	96	70-130
Ethanol	96	70-130
Freon 113	83	70-130
1,1-Dichloroethene	88	70-130
Acetone	83	70-130
2-Propanol	87	70-130
Carbon Disulfide	82	70-130
3-Chloropropene	120	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	86	70-130
trans-1,2-Dichloroethene	93	70-130
Hexane	91	70-130
1,1-Dichloroethane	86	70-130
2-Butanone (Methyl Ethyl Ketone)	88	70-130
cis-1,2-Dichloroethene	86	70-130
Tetrahydrofuran	71	70-130
Chloroform	87	70-130
1,1,1-Trichloroethane	86	70-130
Cyclohexane	95	70-130
Carbon Tetrachloride	70	70-130
2,2,4-Trimethylpentane	94	70-130
Benzene	88	70-130
1,2-Dichloroethane	85	70-130
Heptane	93	70-130
Trichloroethene	95	70-130
1,2-Dichloropropane	91	70-130
1,4-Dioxane	86	70-130
Bromodichloromethane	93	70-130
cis-1,3-Dichloropropene	84	70-130
4-Methyl-2-pentanone	88	70-130
Toluene	90	70-130
trans-1,3-Dichloropropene	91	70-130
1,1,2-Trichloroethane	90	70-130
Tetrachloroethene	99	70-130
2-Hexanone	90	70-130

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Client Sample ID: LCSD

Lab ID#: 1606028A-10BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**e060804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/8/16 09:58 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	97	70-130
1,2-Dibromoethane (EDB)	99	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	94	70-130
m,p-Xylene	96	70-130
o-Xylene	101	70-130
Styrene	97	70-130
Bromoform	101	70-130
Cumene	90	70-130
1,1,2,2-Tetrachloroethane	76	70-130
Propylbenzene	84	70-130
4-Ethyltoluene	85	70-130
1,3,5-Trimethylbenzene	76	70-130
1,2,4-Trimethylbenzene	75	70-130
1,3-Dichlorobenzene	79	70-130
1,4-Dichlorobenzene	80	70-130
alpha-Chlorotoluene	85	70-130
1,2-Dichlorobenzene	86	70-130
1,2,4-Trichlorobenzene	115	70-130
Hexachlorobutadiene	118	70-130
Naphthalene	93	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

Report Date: 08-Jun-2016 10:39

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 08Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCSD
Client Smp ID: LCSD
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCSD
SpikeList File: AT09Bromo.spk
Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/08Jun2016.b/e16l0317f.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	4.506	90.12	60-140
11 Freon 12	5.000	4.702	94.03	70-130
15 Freon 114	5.000	4.970	99.40	70-130
17 Chloromethane	5.000	4.480	89.60	70-130
23 Butane	5.000	5.028	100.55	60-140
25 Vinyl Chloride	5.000	4.580	91.60	70-130
26 1,3-Butadiene	5.000	4.382	87.65	70-130
29 Bromomethane	5.000	5.156	103.12	70-130
30 Chloroethane	5.000	5.502	110.05	70-130
31 Isopentane	5.000	4.708	94.16	60-140
35 Freon 11	5.000	4.807	96.14	70-130
42 Ethanol	5.000	4.828	96.57	70-130
49 Freon 113	5.000	4.130	82.59	70-130
50 1,1-Dichloroethene	5.000	4.414	88.27	70-130
52 Acetone	5.000	4.160	83.20	70-130
56 Carbon Disulfide	5.000	4.082	81.64	70-130
57 2-Propanol	5.000	4.373	87.45	70-130
58 3-Chloropropene	5.000	6.017	120.34	70-130
66 Methylene Chloride	5.000	4.375	87.50	70-130
72 Methyl tert-butyl	5.000	4.302	86.05	70-130
73 trans-1,2-Dichloro	4.250	3.966	93.32	70-130
78 Hexane	5.000	4.564	91.29	70-130
82 1,1-Dichloroethane	5.000	4.279	85.59	70-130
86 Vinyl Acetate	5.000	4.628	92.56	60-140
91 cis-1,2-Dichloroet	5.650	4.838	85.63	70-130
92 2-Butanone	5.000	4.406	88.13	70-130
99 Tetrahydrofuran	5.000	3.537	70.73	70-130
100 Chloroform	5.000	4.335	86.70	70-130
103 1,1,1-Trichloroeth	5.000	4.300	85.99	70-130
106 Carbon Tetrachlori	5.000	3.492	69.85*	70-130
102 Cyclohexane	5.000	4.731	94.62	70-130
113 2,2,4-Trimethylpen	5.000	4.708	94.16	70-130
116 Benzene	5.000	4.387	87.74	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	4.273	85.47	70-130
121 Heptane	5.000	4.674	93.49	70-130
125 Trichloroethene	5.000	4.733	94.66	70-130
127 Methylcyclohexane	5.000	4.635	92.70	60-140
132 1,2-Dichloropropan	5.000	4.562	91.23	70-130
136 1,4-Dioxane	5.000	4.305	86.10	70-130
138 Bromodichlorometha	5.000	4.641	92.82	70-130
144 cis-1,3-Dichloropr	5.000	4.198	83.95	70-130
145 4-Methyl-2-pentano	5.000	4.428	88.56	70-130
147 Toluene	5.000	4.523	90.46	70-130
150 trans-1,3-Dichloro	5.000	4.542	90.84	70-130
155 1,1,2-Trichloroeth	5.000	4.492	89.83	70-130
156 Tetrachloroethene	5.000	4.974	99.48	70-130
158 2-Hexanone	5.000	4.485	89.69	70-130
160 Dibromochlorometha	5.000	4.850	97.01	70-130
161 1,2-Dibromoethane	5.000	4.946	98.93	70-130
165 Chlorobenzene	5.000	4.685	93.71	70-130
167 Ethyl Benzene	5.000	4.698	93.96	70-130
169 m,p-Xylene	5.000	4.821	96.41	70-130
171 o-Xylene	5.000	5.034	100.68	70-130
172 Styrene	5.000	4.865	97.31	70-130
174 Bromoform	6.500	6.575	101.15	70-130
175 Cumene	5.000	4.483	89.66	70-130
181 1,1,2,2-Tetrachlor	5.000	3.799	75.99	70-130
182 Propylbenzene	5.000	4.179	83.59	70-130
188 4-Ethyltoluene	5.000	4.254	85.08	70-130
190 1,3,5-Trimethylben	5.000	3.797	75.94	70-130
196 1,2,4-Trimethylben	5.000	3.750	75.00	70-130
208 1,3-Dichlorobenzen	5.000	3.944	78.87	70-130
209 1,4-Dichlorobenzen	5.000	4.013	80.26	70-130
212 alpha-Chlorotoluen	5.000	4.257	85.14	70-130
214 1,2-Dichlorobenzen	5.000	4.310	86.20	70-130
226 1,2,4-Trichloroben	5.000	5.755	115.09	70-130
227 Hexachlorobutadien	5.000	5.926	118.53	70-130
228 Naphthalene	0.5000	0.4648	92.97	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.568	91.37	70-130
$ 146 Toluene-d8	5.000	4.842	96.84	70-130
$ 177 4-Bromofluorobenze	5.000	5.086	101.71	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/08Jun2016.b/e060804.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 08-JUN-2016 09:58
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-10
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/08Jun2016.b/e16l0317f.m
Meth Date : 08-Jun-2016 09:13 efinn Quant Type: ISTD
Cal Date : 24-MAY-2016 10:14 Cal File: e052406.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.762	4.762 (0.309)	41	79814	4.50583	4.506	80.00- 120.00	100.00
4.762	4.762 (0.309)	42	50196			38.73- 98.73	62.89
4.762	4.738 (0.309)	39	64486			55.81- 115.81	80.80
11 Freon 12					CAS #: 75-71-8		
5.196	5.220 (0.338)	85	539357	4.70160	4.702	80.00- 120.00	100.00
5.220	5.220 (0.339)	87	175544			2.00- 62.00	32.55
15 Freon 114					CAS #: 76-14-2		
6.594	6.618 (0.428)	135	417279	4.97004	4.970	80.00- 120.00	100.00
6.594	6.594 (0.428)	137	128017			1.31- 61.31	30.68
6.594	6.594 (0.428)	85	453521			93.88- 153.88	108.69
17 Chloromethane					CAS #: 74-87-3		
6.956	6.932 (0.452)	50	97510	4.47987	4.480	80.00- 120.00	100.00
6.932	6.956 (0.450)	52	34063			5.50- 65.50	34.93
23 Butane					CAS #: 106-97-8		
7.675	7.675 (0.499)	58	28346	5.02774	5.028	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.658	7.658 (0.498)	43	159385			588.57- 648.57	562.27
25 Vinyl Chloride					CAS #: 75-01-4		
7.779	7.779 (0.505)	62	140258	4.58024	4.580	80.00- 120.00	100.00
7.779	7.779 (0.505)	64	49327			3.14- 63.14	35.17
26 1,3-Butadiene					CAS #: 106-99-0		
8.040	8.022 (0.522)	54	90258	4.38228	4.382	80.00- 120.00	100.00
8.040	8.022 (0.522)	39	84998			65.21- 125.21	94.17
29 Bromomethane					CAS #: 74-83-9		
9.510	9.510 (0.618)	94	172283	5.15585	5.156	80.00- 120.00	100.00
9.510	9.510 (0.618)	96	162723			64.16- 124.16	94.45
30 Chloroethane					CAS #: 75-00-3		
9.986	9.986 (0.649)	64	79604	5.50232	5.502	80.00- 120.00	100.00
9.986	9.986 (0.649)	49	17391			0.00- 54.91	21.85
9.986	9.986 (0.649)	66	26775			3.62- 63.62	33.64
31 Isopentane					CAS #: 78-78-4		
10.119	10.119 (0.657)	57	98738	4.70794	4.708	80.00- 120.00	100.00
10.119	10.119 (0.657)	43	120381			82.69- 142.69	121.92
10.119	10.119 (0.657)	42	101960			68.65- 128.65	103.26
35 Freon 11					CAS #: 75-69-4		
10.747	10.747 (0.698)	101	593775	4.80689	4.807	80.00- 120.00	100.00
10.747	10.747 (0.698)	103	384153			37.17- 97.17	64.70
42 Ethanol					CAS #: 64-17-5		
11.680	11.680 (0.759)	45	43217	4.82835	4.828	80.00- 120.00	100.00
11.680	11.680 (0.759)	46	17272			6.61- 66.61	39.97
11.680	11.680 (0.759)	43	12513			0.00- 54.66	28.95
49 Freon 113					CAS #: 76-13-1		
12.080	12.080 (0.785)	151	382271	4.12954	4.130	80.00- 120.00	100.00
12.080	12.080 (0.785)	153	256189			33.64- 93.64	67.02
12.080	12.080 (0.785)	101	409634			80.40- 140.40	107.16
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.100	12.099 (0.786)	98	113931	4.41356	4.414	80.00- 120.00	100.00
12.100	12.099 (0.786)	61	259937			204.89- 264.89	228.15
12.100	12.099 (0.786)	96	180376			127.69- 187.69	158.32
52 Acetone					CAS #: 67-64-1		
12.366	12.366 (0.803)	58	62794	4.16002	4.160	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
12.366	12.366 (0.803)	43	199843			321.47- 381.47	318.25
56 Carbon Disulfide					CAS #: 75-15-0		
12.442	12.442 (0.808)	76	469600	4.08184	4.082	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
12.728	12.709 (0.827)	45	201911	4.37265	4.373	80.00- 120.00	100.00
12.728	12.709 (0.827)	43	49408			0.00- 54.09	24.47
12.728	12.709 (0.827)	59	9888			0.00- 34.43	4.90
58 3-Chloropropene					CAS #: 107-05-1		
12.881	12.880 (0.837)	76	103481	6.01720	6.017	80.00- 120.00	100.00
12.881	12.880 (0.837)	41	175674			163.76- 223.76	169.76
66 Methylene Chloride					CAS #: 75-09-2		
13.149	13.176 (0.854)	84	158246	4.37504	4.375	80.00- 120.00	100.00
13.149	13.149 (0.854)	49	136187			63.99- 123.99	86.06
13.149	13.176 (0.854)	51	43286			0.29- 60.29	27.35
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.478	13.478 (0.876)	73	497627	4.30242	4.302	80.00- 120.00	100.00
13.478	13.478 (0.876)	57	87807			0.00- 48.26	17.65
13.478	13.478 (0.876)	41	82115			0.00- 45.58	16.50
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.533	13.533 (0.879)	98	103983	3.96594	3.966	80.00- 120.00	100.00
13.533	13.533 (0.879)	61	190349			155.28- 215.28	183.06
13.533	13.533 (0.879)	96	169835			126.18- 186.18	163.33
78 Hexane					CAS #: 110-54-3		
13.835	13.835 (0.899)	57	205944	4.56449	4.564	80.00- 120.00	100.00
13.835	13.835 (0.899)	43	107308			21.48- 81.48	52.11
13.835	13.835 (0.899)	86	42049			0.00- 51.51	20.42
82 1,1-Dichloroethane					CAS #: 75-34-3		
14.247	14.247 (0.926)	63	293648	4.27943	4.279	80.00- 120.00	100.00
14.247	14.247 (0.926)	65	98913			1.78- 61.78	33.68
86 Vinyl Acetate					CAS #: 108-05-4		
14.247	14.247 (0.926)	86	49406	4.62816	4.628	80.00- 120.00	100.00
14.247	14.247 (0.926)	42	30777			44.70- 104.70	62.30
14.247	14.247 (0.926)	43	330303			757.33- 817.33	668.55
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.047	15.047 (0.978)	98	138764	4.83829	4.838	80.00- 120.00	100.00

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   91 cis-1,2-Dichloroethene (continued)
 15.047  15.047 (0.978)    61    238579                  145.90- 205.90   171.93
 15.047  15.047 (0.978)    96    220590                  125.53- 185.53   158.97
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 15.047  15.047 (0.978)    72     80117 4.40636    4.406  80.00- 120.00   100.00
 15.047  15.047 (0.978)    43    229655                  262.26- 322.26   286.65
 15.047  15.047 (0.978)    57     20450                    0.00-  55.71    25.53
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 15.391  15.391 (1.000)    42    118005 3.53665    3.537  80.00- 120.00   100.00
 15.391  15.391 (1.000)    71     70906                   26.85-  86.85    60.09
 15.391  15.391 (1.000)    72     71982                   32.22-  92.22    61.00
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 15.391  15.391 (1.000)   130    136393 5.00000           80.00- 120.00   100.00
 15.391  15.391 (1.000)   128    105364                   52.25- 112.25    77.25
 15.391  15.391 (1.000)    49    103214                   89.81- 149.81    75.67
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 15.453  15.453 (1.004)    83    426866 4.33479    4.335  80.00- 120.00   100.00
 15.453  15.453 (1.004)    85    276862                   33.97-  93.97    64.86
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 15.669  15.669 (1.018)    84    241755 4.73075    4.731  80.00- 120.00   100.00
 15.669  15.669 (1.018)    56    206737                   58.69- 118.69    85.51
 15.669  15.669 (1.018)    41    110521                   18.98-  78.98    45.72
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 15.669  15.669 (1.018)    97    492518 4.29969    4.300  80.00- 120.00   100.00
 15.669  15.669 (1.018)    99    317385                   34.21-  94.21    64.44
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                        CAS #: 56-23-5
 15.854  15.854 (1.030)   119    391783 3.49239    3.492  80.00- 120.00   100.00(R)
 15.854  15.854 (1.030)   117    403291                   74.09- 134.09   102.94
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                      CAS #: 540-84-1
 16.111  16.111 (1.047)    56    268992 4.70812    4.708  80.00- 120.00   100.00
 16.111  16.111 (1.047)    57    895488                  306.64- 366.64   332.90
 16.111  16.111 (1.047)    41    231834                   64.14- 124.14    86.19
-------------------------------------------------------------------------------
  116 Benzene                                     CAS #: 71-43-2
 16.183  16.183 (0.967)    78    541197 4.38693    4.387  80.00- 120.00   100.00
 16.183  16.183 (0.967)    77    118979                    0.00-  53.97    21.98
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                       CAS #: 17060-07-0
 16.183  16.183 (1.051)    65    178885 4.56857    4.568  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$ 117 1,2-Dichloroethane-d4 (continued)
 16.183  16.183 (1.051)    67     90861                    21.16-  81.16    50.79
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 16.303  16.303 (0.974)    62    274775 4.27333    4.273  80.00- 120.00   100.00
 16.303  16.303 (0.974)    64     94630                     1.03-  61.03    34.44
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 16.352  16.352 (0.977)    57    136686 4.67431    4.674  80.00- 120.00   100.00
 16.352  16.352 (0.977)   100     73291                    28.67-  88.67    53.62
 16.352  16.352 (0.977)    43    204934                   128.92- 188.92   149.93
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 16.737  16.737 (1.000)   114    514807 5.00000           80.00- 120.00   100.00
 16.737  16.737 (1.000)    88     75046                     0.00-  45.20    14.58
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 17.123  17.123 (1.023)   130    302845 4.73280    4.733  80.00- 120.00   100.00
 17.123  17.123 (1.023)    95    272835                    63.99- 123.99    90.09
 17.123  17.123 (1.023)    97    176459                    29.21-  89.21    58.27
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 17.339  17.339 (1.036)    83    318336 4.63479    4.635  80.00- 120.00   100.00
 17.339  17.339 (1.036)    55    196065                    31.29-  91.29    61.59
 17.339  17.339 (1.036)    56     61052                     0.00-  48.78    19.18
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 17.556  17.556 (1.049)    63    181194 4.56171    4.562  80.00- 120.00   100.00
 17.556  17.556 (1.049)    62    116671                    34.19-  94.19    64.39
 17.556  17.556 (1.049)    41     96899                    27.38-  87.38    53.48
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                   CAS #: 123-91-1
 17.701  17.701 (1.058)    88    128066 4.30512    4.305  80.00- 120.00   100.00
 17.701  17.701 (1.058)    58     70033                    25.03-  85.03    54.69
 17.701  17.677 (1.058)    57     23474                     0.00-  50.67    18.33
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 17.990  17.990 (1.075)    83    475122 4.64092    4.641  80.00- 120.00   100.00
 17.990  17.990 (1.075)    85    311392                    35.15-  95.15    65.54
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                       CAS #: 10061-01-5
 18.805  18.805 (1.124)    75    320233 4.19760    4.198  80.00- 120.00   100.00
 18.805  18.805 (1.124)    77    100672                     0.45-  60.45    31.44
 18.805  18.805 (1.124)    39    134420                    13.69-  73.69    41.98
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 18.984  18.984 (1.134)    43    281899 4.42809    4.428  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  145 4-Methyl-2-pentanone (continued)
 18.984  18.984 (1.134)    58    124082                    15.64-  75.64    44.02
 18.984  18.984 (1.134)    85     76010                     0.00-  56.71    26.96
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 19.275  19.275 (1.152)    98    489554 4.84198    4.842  80.00- 120.00   100.00
 19.275  19.275 (1.152)    70     50990                     0.00-  40.11    10.42
 19.275  19.275 (1.152)   100    333537                    37.58-  97.58    68.13
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 19.432  19.432 (1.161)    91    664596 4.52276    4.523  80.00- 120.00   100.00
 19.432  19.432 (1.161)    92    392571                    28.92-  88.92    59.07
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 19.998  19.998 (0.902)    75    320366 4.54222    4.542  80.00- 120.00   100.00
 19.998  19.998 (0.902)    77    108034                     0.55-  60.55    33.72
 19.998  19.998 (0.902)    39    121029                     8.25-  68.25    37.78
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 20.438  20.438 (0.922)    97    246606 4.49150    4.492  80.00- 120.00   100.00
 20.438  20.438 (0.922)    99    156992                    32.91-  92.91    63.66
 20.438  20.438 (0.922)    83    200333                    47.93- 107.93    81.24
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 20.602  20.602 (0.929)   166    420796 4.97384    4.974  80.00- 120.00   100.00
 20.602  20.602 (0.929)   129    289933                    42.31- 102.31    68.90
 20.602  20.602 (0.929)   131    288923                    40.11- 100.11    68.66
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 20.795  20.795 (0.938)    58    158458 4.48460    4.485  80.00- 120.00   100.00
 20.795  20.795 (0.938)    43    272175                   140.44- 200.44   171.76
 20.795  20.795 (0.938)   100     46603                     0.00-  59.62    29.41
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 21.207  21.207 (0.956)   129    540631 4.85048    4.850  80.00- 120.00   100.00
 21.207  21.207 (0.956)   127    419708                    46.82- 106.82    77.63
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 21.481  21.481 (0.969)   107    416776 4.94652    4.946  80.00- 120.00   100.00
 21.481  21.481 (0.969)   109    386982                    65.45- 125.45    92.85
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 22.177  22.177 (1.000)   117    455517 5.00000            80.00- 120.00   100.00
 22.177  22.177 (1.000)    82    231622                    20.64-  80.64    50.85
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 22.218  22.218 (1.002)   112    577456 4.68548    4.685  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  165 Chlorobenzene (continued)
 22.218  22.218 (1.002)   114    187317                     2.42-  62.42    32.44
 22.218  22.218 (1.002)    77    304613                    23.54-  83.54    52.75
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 22.301  22.301 (1.006)   106    281990 4.69805    4.698  80.00- 120.00   100.00
 22.301  22.301 (1.006)    91    862050                  282.51- 342.51   305.70
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 22.467  22.467 (1.013)   106    336128 4.82063    4.821  80.00- 120.00   100.00
 22.467  22.467 (1.013)    91    664780                  166.46- 226.46   197.78
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 23.089  23.089 (1.041)   106    321954 5.03401    5.034  80.00- 120.00   100.00
 23.089  23.089 (1.041)    91    653284                  184.01- 244.01   202.91
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 23.110  23.110 (1.042)   104    526550 4.86537    4.865  80.00- 120.00   100.00
 23.110  23.110 (1.042)    78    259620                    20.27-  80.27    49.31
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 23.452  23.452 (1.057)   173    726081 6.57503    6.575  80.00- 120.00   100.00
 23.452  23.452 (1.057)   171    368637                    20.88-  80.88    50.77
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 23.564  23.564 (1.063)   105    974803 4.48292    4.483  80.00- 120.00   100.00
 23.564  23.564 (1.063)   120    271147                     0.00-  57.47    27.82
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                         CAS #: 460-00-4
 23.856  23.856 (1.076)   174    317875 5.08570    5.086  80.00- 120.00   100.00
 23.856  23.856 (1.076)    95    301751                    77.42- 137.42    94.93
 23.856  23.856 (1.076)   176    303222                    65.38- 125.38    95.39
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 24.035  24.035 (1.084)    83    384750 3.79934    3.799  80.00- 120.00   100.00
 24.035  24.035 (1.084)    85    253941                    35.73-  95.73    66.00
-------------------------------------------------------------------------------
  182 Propylbenzene                                CAS #: 103-65-1
 24.102  24.102 (1.087)    91    957184 4.17931    4.179  80.00- 120.00   100.00
 24.102  24.102 (1.087)   120    251574                     0.00-  55.24    26.28
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                               CAS #: 622-96-8
 24.237  24.237 (1.093)   105    825776 4.25397    4.254  80.00- 120.00   100.00
 24.237  24.237 (1.093)   120    265405                     1.08-  61.08    32.14
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 24.304  24.304 (1.096)   105    572370 3.79686    3.797  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene (continued)							
24.304	24.304 (1.096)	120	287831			18.44- 78.44	50.29
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.775	24.775 (1.117)	105	489790	3.75010	3.750	80.00- 120.00	100.00
24.775	24.775 (1.117)	120	233667			16.20- 76.20	47.71
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
25.156	25.156 (1.134)	146	486373	3.94356	3.944	80.00- 120.00	100.00
25.156	25.156 (1.134)	148	312717			35.51- 95.51	64.30
25.156	25.156 (1.134)	111	178520			9.35- 69.35	36.70
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.268	25.268 (1.139)	146	464112	4.01277	4.013	80.00- 120.00	100.00
25.268	25.268 (1.139)	148	309774			32.61- 92.61	66.75
25.268	25.268 (1.139)	111	171302			6.90- 66.90	36.91
212 alpha-Chlorotoluene					CAS #: 100-44-7		
25.403	25.403 (1.145)	91	619494	4.25681	4.257	80.00- 120.00	100.00
25.403	25.403 (1.145)	126	146724			0.00- 51.82	23.68
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
25.694	25.694 (1.159)	146	455987	4.30997	4.310	80.00- 120.00	100.00
25.694	25.694 (1.159)	148	287820			33.69- 93.69	63.12
25.694	25.694 (1.159)	111	170860			8.96- 68.96	37.47
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.398	27.421 (1.235)	180	276072	5.75471	5.755	80.00- 120.00	100.00
27.421	27.421 (1.236)	182	272076			66.05- 126.05	98.55
227 Hexachlorobutadiene					CAS #: 87-68-3		
27.488	27.488 (1.239)	225	386585	5.92659	5.926	80.00- 120.00	100.00
27.488	27.488 (1.239)	223	245420			33.78- 93.78	63.48
228 Naphthalene					CAS #: 91-20-3		
27.712	27.734 (1.250)	128	32563	0.46485	0.4648	80.00- 120.00	100.00(a)
27.712	27.712 (1.250)	127	5332			0.00- 46.39	16.37

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Report Date: 08-Jun-2016 10:39

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e060804.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/08Jun2016.b/e16l0317f.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 08-JUN-2016
Calibration Time: 08:32
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	121899	73139	170659	136393	11.89
123 1,4-Difluorobenze	451721	271033	632409	514807	13.97
163 Chlorobenzene-d5	400528	240317	560739	455517	13.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	15.39	15.06	15.72	15.39	0.00
123 1,4-Difluorobenze	16.74	16.41	17.07	16.74	0.00
163 Chlorobenzene-d5	22.18	21.85	22.51	22.18	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/08Jun2016.b/e060804.d

Date : 08-JUN-2016 09:58

Client ID: LCSD

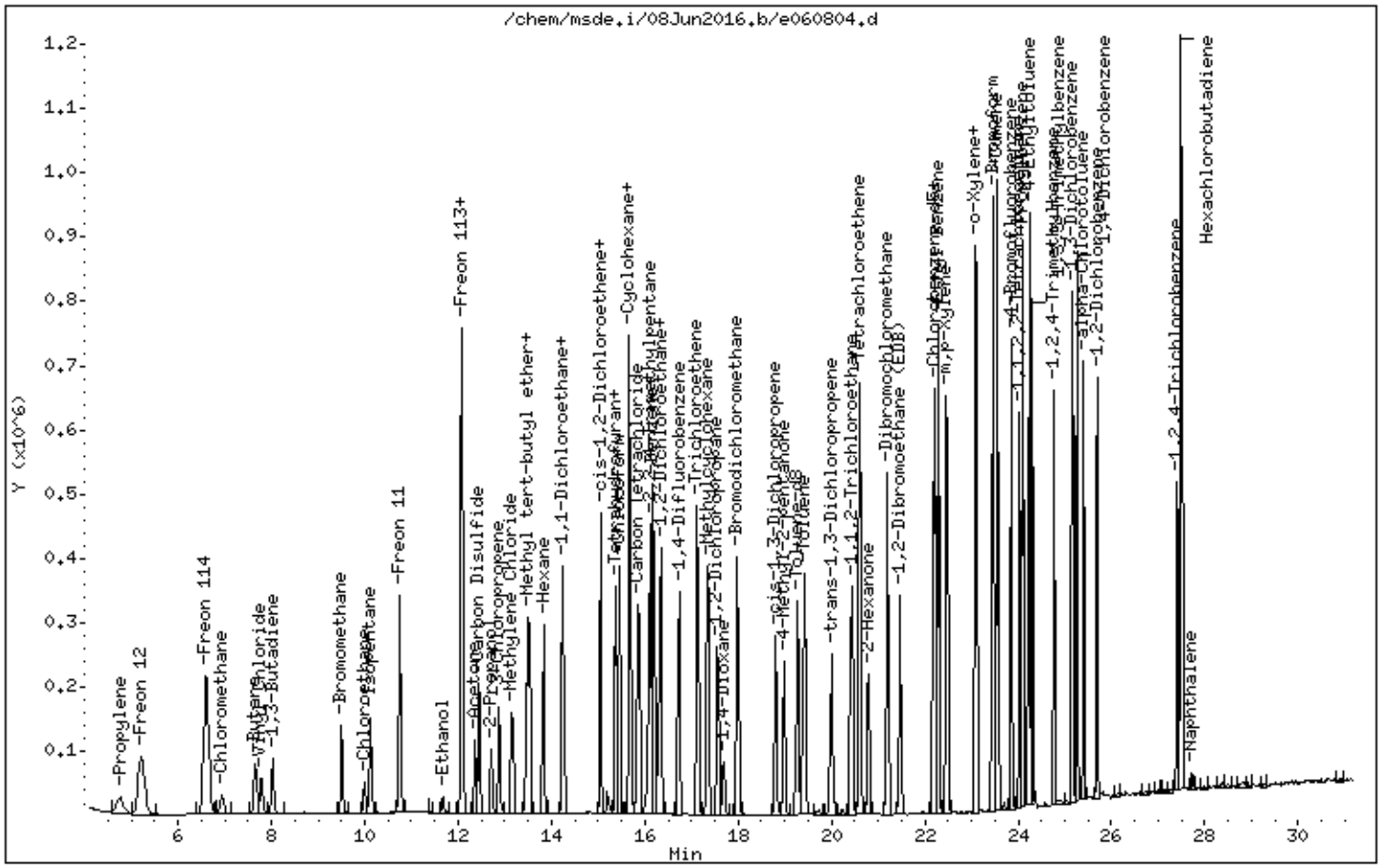
Instrument: msde.i

Sample Info: 25mL# 2789-10

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



MSD-E

Eurofins Air Toxics, Inc.

BFB Verification of 176/174 m/z Ratio:	(577792/595584) x 100 = 97.01%
Tekmar Purge Flow:	NA
Vacuum:	9.75 x 10^-6

IS/S Std. #:	2789-150		Exp. Date: 8/19/16
BCM LL	415058		SIM 118424
1,4-DFB	4308850		~~4726050~~ 4726050
CB-d5	3867255		4227857

Verified CCV IS vs ICAL mid-point (-40%D): ~~SF~~

File ID:	
Compound:	
Initials:	

Calculation Check: See Lumin Report

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = ( ) x ( ) = ( ) ( )

Reported Result: 6/3/16 AT

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17

Method Name: E16L0317F / E16S0317A

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	E060301	BFB Tune Check	2299-1484	50 ng	20 ml	AT	1.00	AT	6/3/16	0702	AT	
2	✓	02	CCV (25 ppbv)	2789-51A	5.0 ppbv	50 mL	AT	1	AT		0724	SF	Exp 7/1/16
3	✓	03	LCS (50 ppbv)	2789-9	5.0 ppbv	25 mL	SF	1.00	SF		0826	SF	Exp. 6/11/16
4	✓	04	LCSD (50 ppbv)	2789-9	5.0 ppbv	25 mL	SF	1.00	SF		0910	SF	Exp. 6/11/16
5	✓	05	CCV-p (5.0 ppbv)	2789-129	1.0 ppbv	50 mL	SF	1.00	SF		0957	SF	Exp 8/4/16
6	X	06	IAB Blank	35248	Humid	250 mL	SF	1.00	SF		1017	SF	
7	✓	07	IAB Blank	35248	Humid	250 mL	SF	1.00	SF		1135	SF	"C"
8	✓	08	1605600-01AB	33997	8.4" Hg - 5.6 psi	250 mL	SF	1.72	SF		1227	SF	
9	✓	09	-02AB	6007-2	3.9" Hg - 4.9 psi	250 mL	SF	1.53	SF		1316	SF	
10	✓	10	-03AB	5411	5.5" Hg - 5.0 psi	250 mL	SF	1.64	SF		1423	SF	
11	✓	11	-04AB	22501	8.0" Hg - 4.9 psi	250 mL	SF	1.81	SF		1520	SF	
12	✓	12	1606028A-01A	33321	6.5" Hg - 5.2 psi	250 mL	SF	1.73	SF		1606	EA	
13	✓	13	-02A	35258	4.3" Hg - 5 psi	250 mL	ED	1.56	EA		1652	EA	
14	✓	14	-03A	14038	4.3" Hg - 5 psi	250 mL	ED	1.56	ED		1740	EA	

Reviewed

6/3/16
Date

* 3-Chloropropene and > 150%, unusable BE ND.

Eurofins Air Toxics, Inc.

MSD-E

Logbook #2755

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
			EDG/3/16 EDG/4/16 GSA										
15	✓	E060315	~~1670~~ 16060234A-~~AA~~	33926	3.5"Hg-5psi	250 ml	EA	1.52	EA	6/3/16	1834	EA	
16	✓	16	16060238A-06A	00337	7.1"Hg-5psi	250ml	EA	1.76	EA		1922	EA	
17	✓	17	↓ -07A	61187	3.3"Hg-5.3psi	250ml	EA	1.53	EA		2016	EA	
18	X	18	16055167A-~~07A~~ A	37699	0.3psi-14.5psi	125ml	EA	3.90	EA		2121	EA	AA overdil / remin 250ml
19		19	-08A	37696	4.3"Hg-14.7psi	30ml	EA	11.6	EA				
20		20	-09A	31579	4.3"Hg-14.9psi	30ml	EA	19.5	EA				
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													

0730 of 0803

Reviewed _____ Date _____

Eurofins Air Toxics, Inc. **MSD-E** **Logbook #2755**

0731 of 0803

BFB Verification of 176/174 m/z Ratio: (438600/486620) x100 = 97.34	
Tekmar Purge Flow:	
Vacuum:	6/8/16

IS/S Std. #:	2789-15D	Exp. Date:	8/19/16
BCM	L: 121899		S: 121917
1,4-DFB	451721		479600
CB-d5	400528		441752

Verified CCV IS vs ICAL mid-point (-40%D):

File ID:	E060802
Compound:	Toluene-d8
Initials:	

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (433098) x (5.000) = 4.882 / (451721) (0.98198)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 4.882

Method Name: E6L0317F / E6S0317A

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	E060801	BFB Tune check	2789-1484	5 Hg	2.0 µL	1.22	1.00		6/8/16	0811		
2	✓	02	CCV (25 ppbv)	2789-51A	5.0 ppbv	50 mL	1.00	1.00			0832		Exp. 6/11/16 L: 2 out S: 0 out
3	✓	03	LCS (50 ppbv)	2789-10	5.0 ppbv	25 mL		1.00			0715		Exp. 6/11/16 L: 2 out S: 0 out
4	✓	04	LCSD (50 ppbv)	2789-10	5.0 ppbv	25 mL		1.00			0958		Exp. 6/11/16
5	✓	05	Cont (5.0 ppbv)	2789-105	1.0 ppbv	50 mL		1.00			1044		Exp. 6/8/16
6	X	06	LAB BLANK	96107	Humid	250 mL		1.00			1129		
7	✓	07	LAB BLANK	96107	Humid	250 mL		1.00			1217		"C"
8	✓	08	16ole 120 - DIAB	11874	4.3" Hg 5.1 psi	250 mL		1.57			1309		
9	✓	09	- 02AB	34742	6.1" Hg 4.9 psi	250 mL		1.68			1350		
10	✓	10	- 03AB	64250	5.9" Hg 5.2 psi	250 mL		1.69			1432	gd/	E EtOH, Acetone
11	✓	11	- 04AB	08417	5.5 Hg - 5.1 psi	250 mL	gd	1.65	gd		1515		
12	✓	12	- 05AB	21007	5.1 Hg - 5.1 psi	250 mL		1.62			1559	gd/	
13	✓	13	- 06AB	08123							1641	gd/	E 2-prop
14	✓	14	- 07AB	1621	5.7 Hg - 4.8 psi			1.64			1740	gd/	2-prop > 5x RL

Reviewed: gd Date: 6/8/16

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
15	✓	E060815	1606120 - 08AB	04327	5.5Hg - 4.8psi	250mL	gd ~~250mL~~ gd 6/8/16	1.62	gd	6/8/16	1843	gd/Act	
16	✓	16	1605590 - 01A	04342	13.2psi - 13.2psi			1.00			1933	gd	
17	✓	17	- 02A	05408	5.2psi - 5.2psi						2017		
18	✓	18	1606028A - 04A	33586	0.2psi - 4.9psi			1.32			2101	gd/Act	Passed Leak Test
19	✓	19	1606061 - 05A	N0423	6.1Hg - 5psi			1.68			2145	Act	
20	✓	20	- 04A	61215	2.6Hg - 4.9psi			1.46			2231	Act	
21		21	-03A	12691	3.7"Hg - 5.0psi		Act	1.53	Act	6/9/16			
22													
23													
24													
25													
26										6/9/16			
27										Act			
28													
29													
30													
31													
32													
33													
34													
35													
36													

Reviewed

6/9/16
Date

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/17Mar2016.b/e031701.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 17-MAR-2016 10:47
Operator : ef Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/17Mar2016.b/bfb60.m
Meth Date : 17-Mar-2016 11:03 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
6.204	6.235	-0.031	95	703018			100.00- 100.00	100.00
6.204	6.235	-0.031	50	113232			8.00- 40.00	16.11
6.204	6.235	-0.031	75	351481			30.00- 66.00	50.00
6.204	6.235	-0.031	96	46382			5.00- 9.00	6.60
6.204	6.235	-0.031	173	4154			0.00- 1.99	0.64
6.204	6.235	-0.031	174	649216			50.00- 120.00	92.35
6.204	6.235	-0.031	175	48733			4.00- 9.00	7.51
6.204	6.235	-0.031	176	627466			93.00- 101.00	96.65
6.204	6.235	-0.031	177	40597			5.00- 9.00	6.47

Data File: /var/chem/msde.i/17Mar2016.b/e031701.d

Date : 17-MAR-2016 10:47

Client ID: BFB

Instrument: msde.i

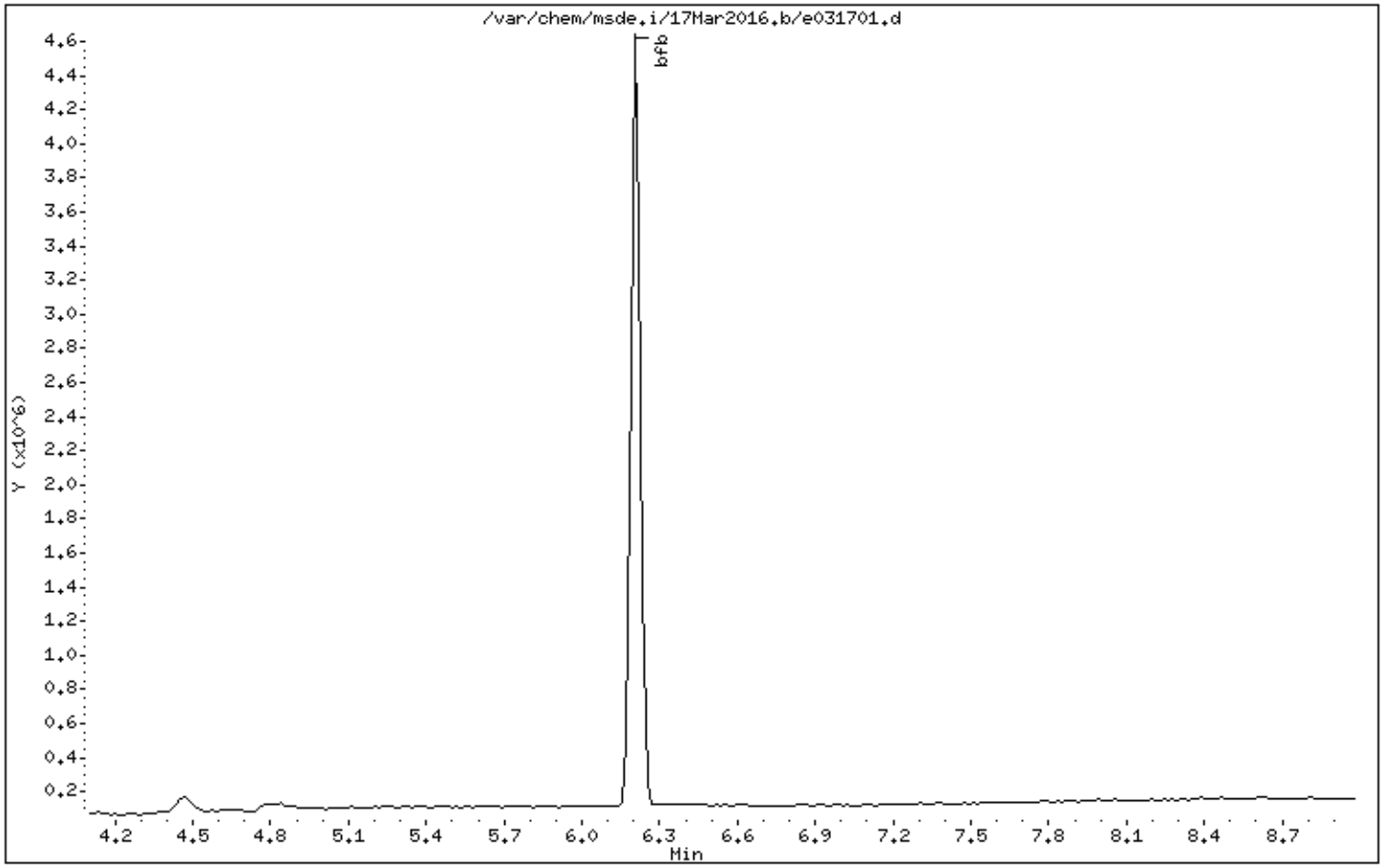
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00



Data File: /var/chem/msde.i/17Mar2016.b/e031701.d

Date : 17-MAR-2016 10:47

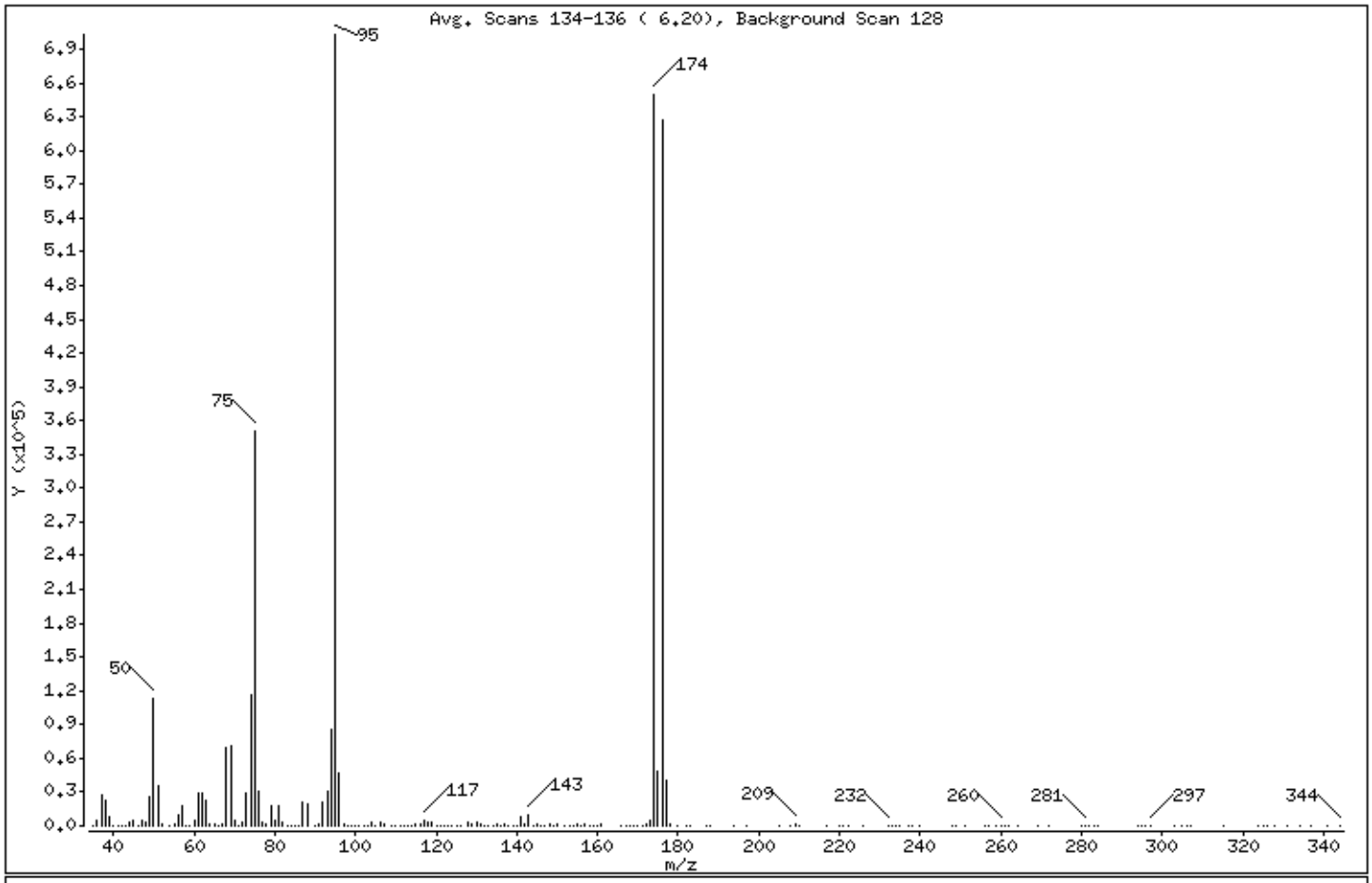
Client ID: BFB | Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 | Operator: ef

Column phase: Rtx-624 | Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	16.11
75	30.00 - 66.00% of mass 95	50.00
96	5.00 - 9.00% of mass 95	6.60
173	Less than 1.99% of mass 174	0.59 (0.64)
174	50.00 - 120.00% of mass 95	92.35
175	4.00 - 9.00% of mass 174	6.93 (7.51)
176	93.00 - 101.00% of mass 174	89.25 (96.65)
177	5.00 - 9.00% of mass 176	5.77 (6.47)

Data File: /var/chem/msde.i/17Mar2016.b/e031701.d

Date : 17-MAR-2016 10:47

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e031701.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 128
Location of Maximum: 95.00
Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	41	85.00	549	137.00	1190	220.00	59
36.00	4253	86.00	563	138.00	193	221.00	149
37.00	26736	87.00	20696	139.00	322	222.00	106
38.00	23192	88.00	19648	140.00	602	226.00	52
39.00	8791	90.00	61	141.00	8559	232.00	663
40.00	82	91.00	2353	142.00	1116	233.00	215
41.00	298	92.00	20304	143.00	8906	234.00	254
42.00	392	93.00	30728	144.00	696	235.00	245
43.00	717	94.00	85000	145.00	1387	237.00	145
44.00	2676	95.00	702976	146.00	707	238.00	176
45.00	5031	96.00	46376	147.00	293	240.00	45
46.00	531	97.00	1640	148.00	2237	248.00	155
47.00	4560	98.00	135	149.00	178	249.00	214
48.00	3475	99.00	246	150.00	1028	251.00	46
49.00	25368	100.00	44	152.00	536	256.00	5
50.00	113232	101.00	217	153.00	611	257.00	99
51.00	36000	102.00	190	154.00	646	259.00	45
52.00	1438	103.00	677	155.00	1917	260.00	776
54.00	195	104.00	2695	156.00	85	261.00	28
55.00	1716	105.00	590	157.00	1591	262.00	132
56.00	9255	106.00	2892	158.00	267	264.00	44
57.00	18064	107.00	922	159.00	799	269.00	37
58.00	733	109.00	464	160.00	178	272.00	3
59.00	322	110.00	603	161.00	1203	280.00	43
60.00	5505	111.00	513	166.00	121	281.00	599
61.00	29368	112.00	536	167.00	86	282.00	149
62.00	29112	113.00	413	168.00	50	283.00	129
63.00	23232	114.00	154	169.00	46	284.00	58
64.00	2007	115.00	990	170.00	499	294.00	39
65.00	901	116.00	2391	171.00	602	295.00	185
66.00	46	117.00	4315	172.00	997	296.00	44
67.00	1454	118.00	2681	173.00	4154	297.00	233
68.00	68856	119.00	3451	174.00	649216	303.00	44
69.00	71408	120.00	325	175.00	48728	305.00	50
70.00	5417	121.00	178	176.00	627456	306.00	97

Data File: /var/chem/msde.i/17Mar2016.b/e031701.d

Date : 17-MAR-2016 10:47

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e031701.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 128
Location of Maximum: 95.00
Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
71.00	575	122.00	380	177.00	40592	307.00	88
72.00	3739	123.00	369	178.00	976	315.00	18
73.00	28920	124.00	734	180.00	19	324.00	74
74.00	117080	125.00	508	182.00	38	325.00	219
75.00	351424	126.00	740	183.00	61	326.00	60
76.00	30496	128.00	3148	187.00	54	328.00	3
77.00	3650	129.00	1205	188.00	176	331.00	6
78.00	2210	130.00	2821	194.00	57	334.00	30
79.00	17272	131.00	999	197.00	37	337.00	92
80.00	4999	132.00	252	205.00	49	341.00	48
81.00	16976	133.00	152	208.00	37	344.00	265
82.00	3403	134.00	309	209.00	919		
83.00	645	135.00	1548	210.00	39		
84.00	242	136.00	203	217.00	107		

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/22Mar2016.b/e032201.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 22-MAR-2016 09:24
Operator : ef Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/22Mar2016.b/bfb60.m
Meth Date : 22-Mar-2016 09:45 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.189	6.235	-0.046	95	749880			100.00- 100.00	100.00
6.189	6.235	-0.046	50	119669			8.00- 40.00	15.96
6.189	6.235	-0.046	75	380507			30.00- 66.00	50.74
6.189	6.235	-0.046	96	50043			5.00- 9.00	6.67
6.189	6.235	-0.046	173	6598			0.00- 1.99	0.95
6.189	6.235	-0.046	174	692096			50.00- 120.00	92.29
6.189	6.235	-0.046	175	51082			4.00- 9.00	7.38
6.189	6.235	-0.046	176	669859			93.00- 101.00	96.79
6.189	6.235	-0.046	177	43218			5.00- 9.00	6.45

Data File: /var/chem/msde.i/22Mar2016.b/e032201.d

Date : 22-MAR-2016 09:24

Client ID: BFB

Instrument: msde.i

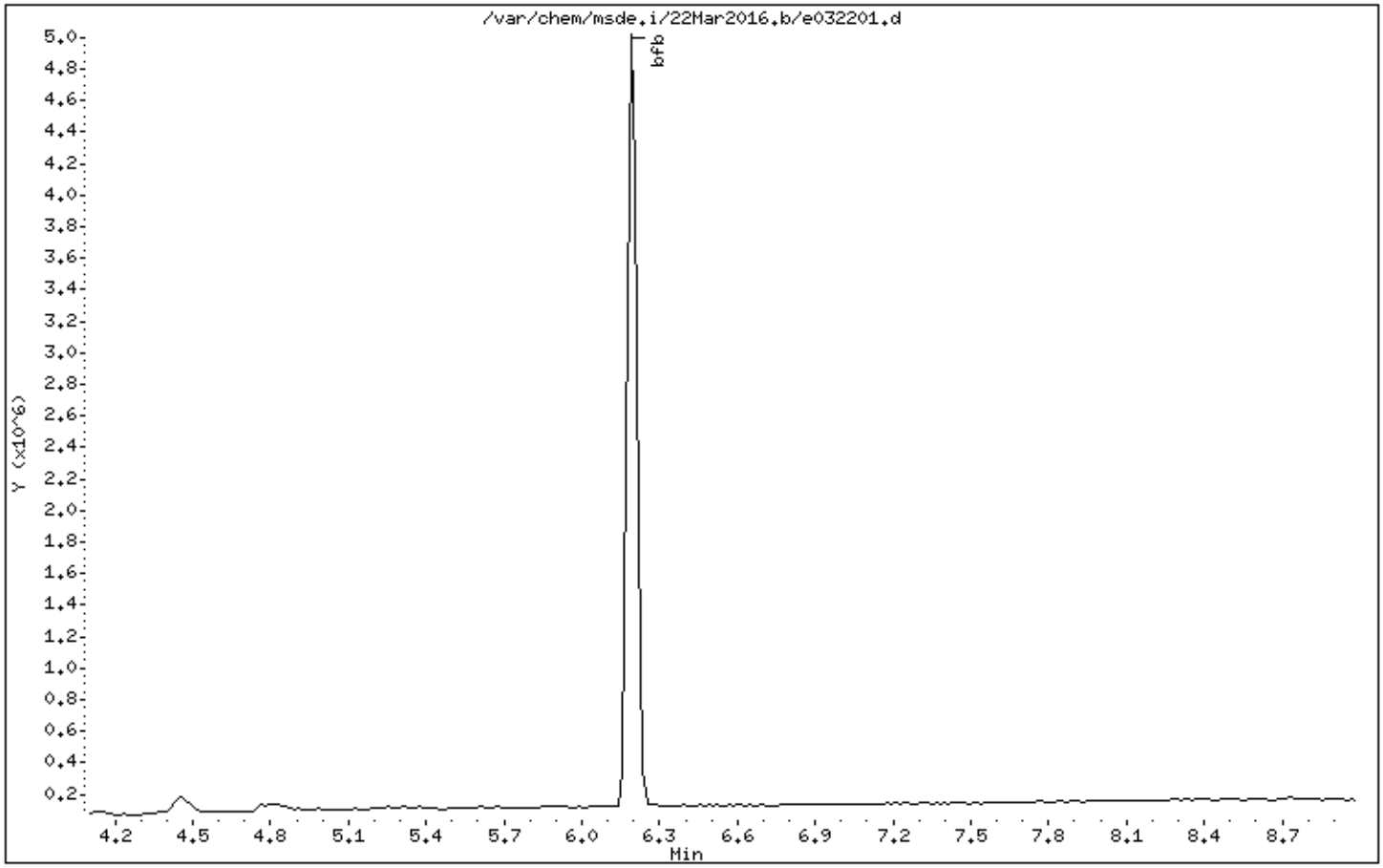
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00



Data File: /var/chem/msde.i/22Mar2016.b/e032201.d

Date : 22-MAR-2016 09:24

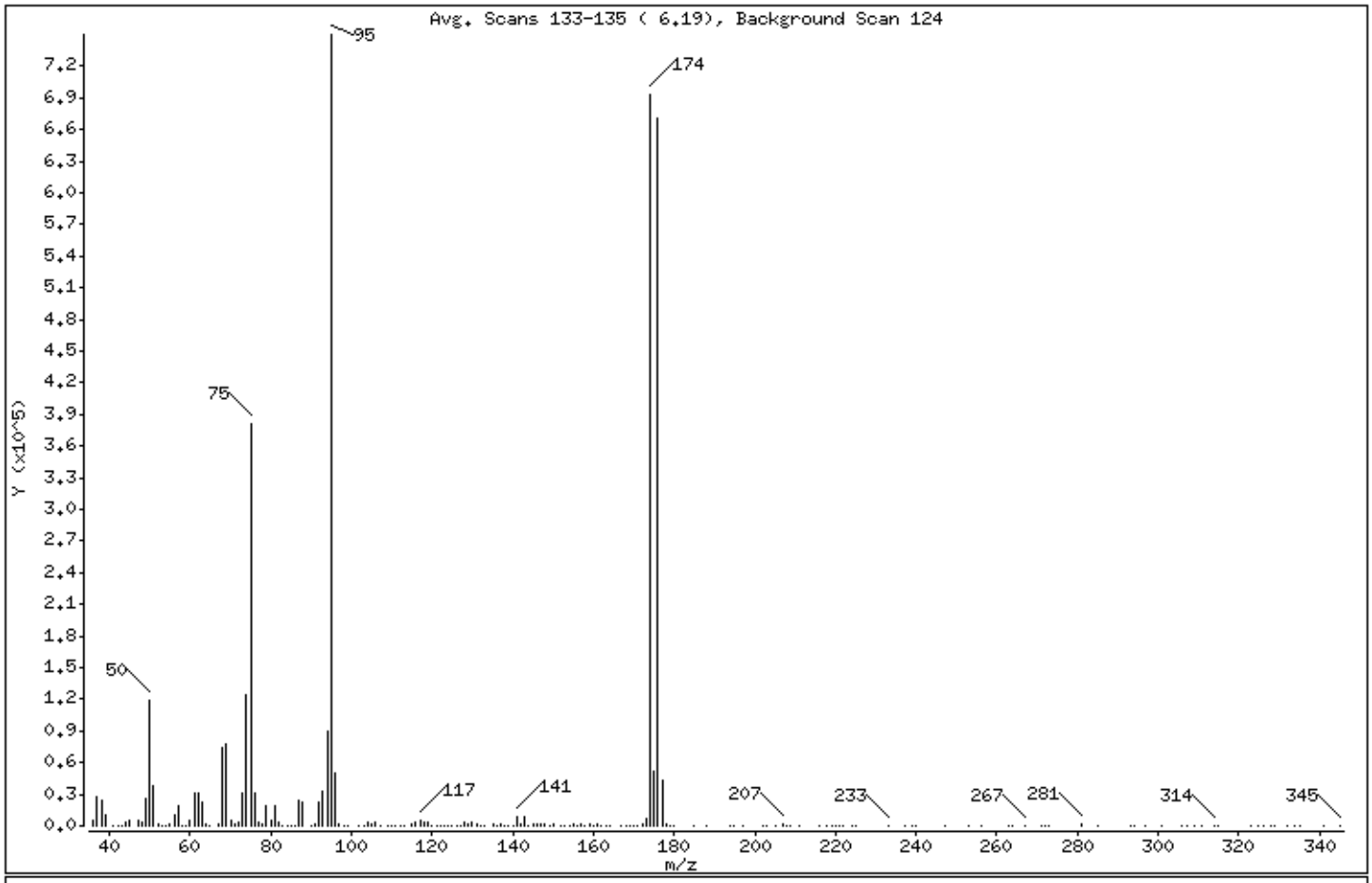
Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	15.96
75	30.00 - 66.00% of mass 95	50.74
96	5.00 - 9.00% of mass 95	6.67
173	Less than 1.99% of mass 174	0.88 (0.95)
174	50.00 - 120.00% of mass 95	92.29
175	4.00 - 9.00% of mass 174	6.81 (7.38)
176	93.00 - 101.00% of mass 174	89.33 (96.79)
177	5.00 - 9.00% of mass 176	5.76 (6.45)

Data File: /var/chem/msde.i/22Mar2016.b/e032201.d

Date : 22-MAR-2016 09:24

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e032201.d
Spectrum: Avg. Scans 133-135 (6.19), Background Scan 124
Location of Maximum: 95.00
Number of points: 188

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5221	87.00	24312	141.00	8861	211.00	216
37.00	28264	88.00	22496	142.00	1144	216.00	332
38.00	24872	90.00	206	143.00	8494	218.00	272
39.00	9657	91.00	2067	144.00	312	219.00	117
41.00	761	92.00	22000	145.00	1085	220.00	136
42.00	332	93.00	33352	146.00	1087	221.00	357
43.00	767	94.00	89360	147.00	870	222.00	87
44.00	2866	95.00	749824	148.00	2067	224.00	108
45.00	5265	96.00	50040	149.00	391	225.00	30
47.00	5037	97.00	1512	150.00	1122	233.00	549
48.00	3729	98.00	107	152.00	562	237.00	217
49.00	25408	99.00	137	153.00	665	239.00	145
50.00	119664	102.00	107	154.00	465	240.00	112
51.00	37208	103.00	197	155.00	2220	247.00	112
52.00	1821	104.00	3048	156.00	172	253.00	25
53.00	110	105.00	901	157.00	1033	256.00	40
54.00	134	106.00	2888	158.00	187	263.00	218
55.00	1800	107.00	604	159.00	1103	264.00	55
56.00	9860	109.00	95	160.00	129	267.00	254
57.00	18192	110.00	354	161.00	1171	271.00	251
58.00	638	111.00	633	162.00	93	272.00	194
59.00	100	112.00	708	163.00	115	273.00	42
60.00	6007	113.00	593	164.00	193	281.00	940
61.00	31512	115.00	1165	167.00	51	285.00	219
62.00	31240	116.00	3000	168.00	50	293.00	90
63.00	23184	117.00	4423	169.00	172	294.00	30
64.00	2195	118.00	2703	170.00	440	297.00	34
65.00	491	119.00	3872	171.00	385	301.00	38
67.00	1856	120.00	325	172.00	1279	306.00	51
68.00	74976	121.00	68	173.00	6598	307.00	41
69.00	78344	122.00	442	174.00	692096	309.00	79
70.00	5330	123.00	268	175.00	51080	311.00	40
71.00	961	124.00	427	176.00	669824	314.00	138
72.00	4015	125.00	368	177.00	43216	315.00	15
73.00	31184	126.00	440	178.00	892	323.00	286

Data File: /var/chem/msde.i/22Mar2016.b/e032201.d

Date : 22-MAR-2016 09:24

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e032201.d
Spectrum: Avg. Scans 133-135 (6.19), Background Scan 124
Location of Maximum: 95.00
Number of points: 188

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	123696	127.00	163	179.00	296	325.00	226
75.00	380480	128.00	2805	180.00	107	326.00	44
76.00	31144	129.00	1474	185.00	42	328.00	74
77.00	3589	130.00	3028	188.00	94	329.00	132
78.00	2451	131.00	1029	194.00	23	332.00	193
79.00	18216	132.00	239	195.00	457	334.00	209
80.00	5413	133.00	524	197.00	153	335.00	49
81.00	19272	135.00	1682	202.00	110	341.00	98
82.00	3568	136.00	24	203.00	9	345.00	516
83.00	587	137.00	1806	205.00	275		
84.00	303	138.00	262	207.00	2572		
85.00	690	139.00	176	208.00	462		
86.00	599	140.00	675	209.00	129		

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/25Mar2016.b/e032501.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 25-MAR-2016 09:02
Operator : ef Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/25Mar2016.b/bfb60.m
Meth Date : 25-Mar-2016 09:18 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.204	6.235	-0.031	95	747861			100.00- 100.00	100.00
6.204	6.235	-0.031	50	114889			8.00- 40.00	15.36
6.204	6.235	-0.031	75	366501			30.00- 66.00	49.01
6.204	6.235	-0.031	96	49258			5.00- 9.00	6.59
6.204	6.235	-0.031	173	7075			0.00- 1.99	0.97
6.204	6.235	-0.031	174	728106			50.00- 120.00	97.36
6.204	6.235	-0.031	175	56144			4.00- 9.00	7.71
6.204	6.235	-0.031	176	705132			93.00- 101.00	96.84
6.204	6.235	-0.031	177	46645			5.00- 9.00	6.62

Data File: /chem/msde.i/25Mar2016.b/e032501.d

Date : 25-MAR-2016 09:02

Client ID: BFB

Instrument: msde.i

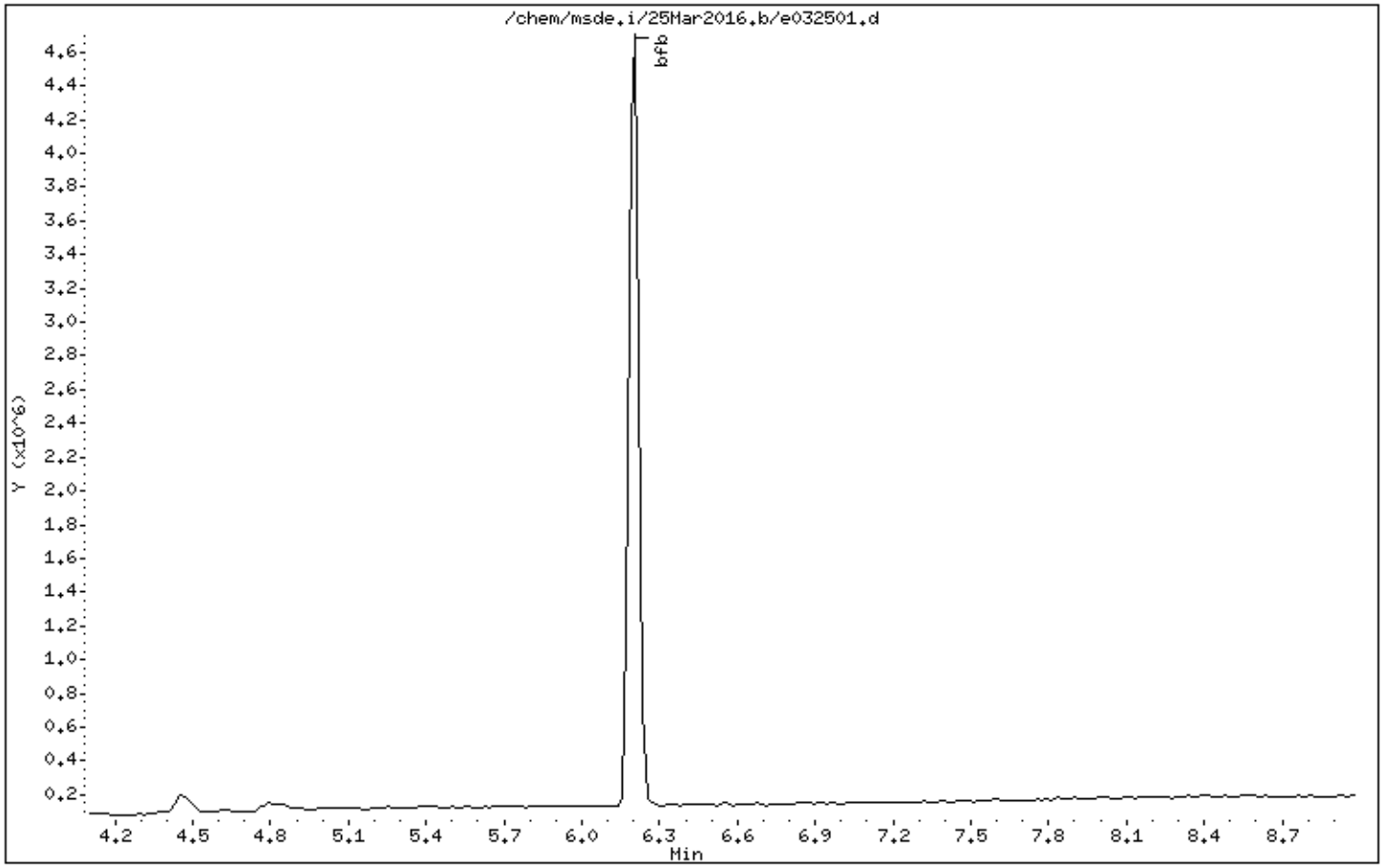
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/25Mar2016.b/e032501.d

Date : 25-MAR-2016 09:02

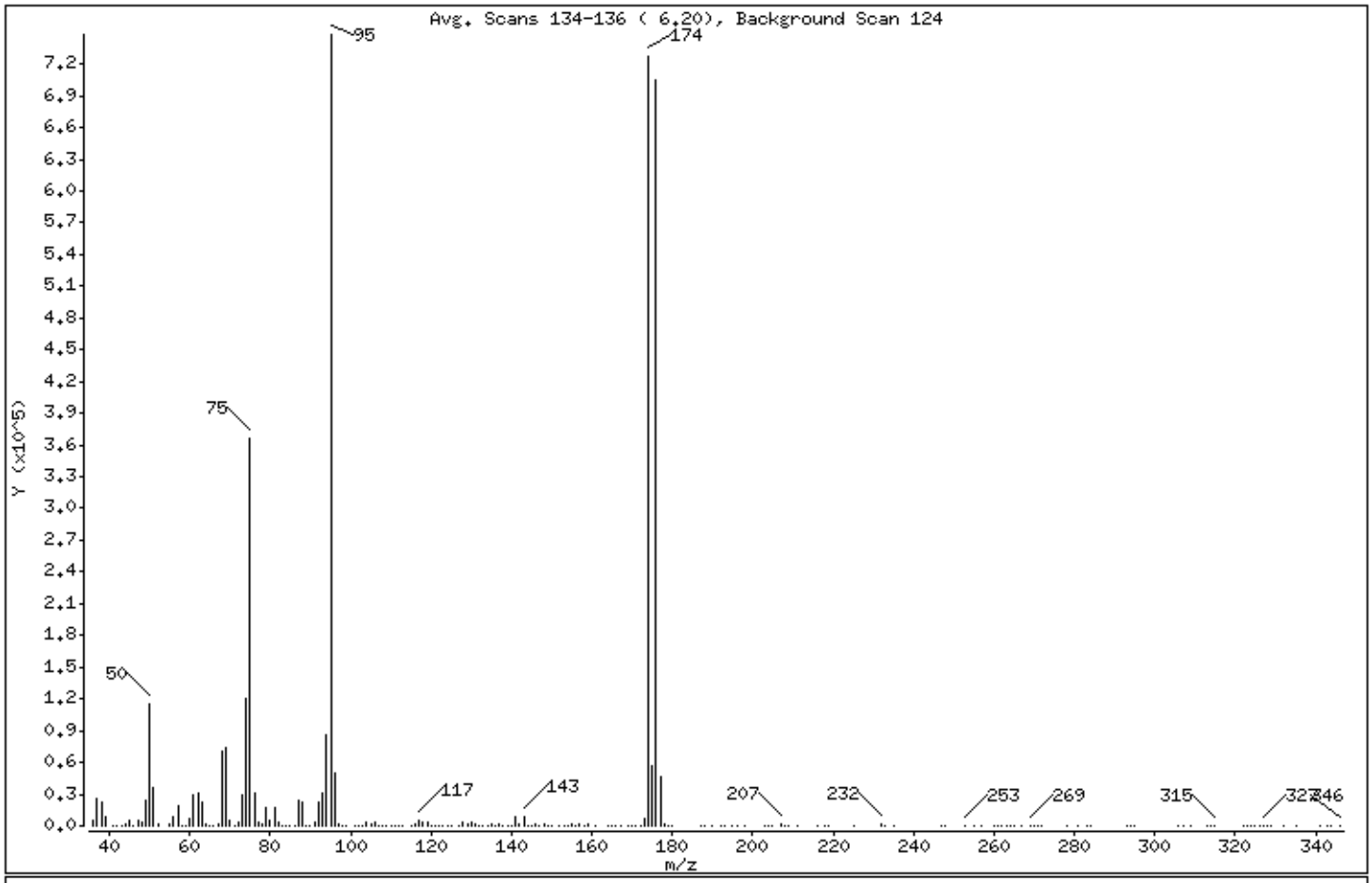
Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	15.36
75	30.00 - 66.00% of mass 95	49.01
96	5.00 - 9.00% of mass 95	6.59
173	Less than 1.99% of mass 174	0.95 (0.97)
174	50.00 - 120.00% of mass 95	97.36
175	4.00 - 9.00% of mass 174	7.51 (7.71)
176	93.00 - 101.00% of mass 174	94.29 (96.84)
177	5.00 - 9.00% of mass 176	6.24 (6.62)

Data File: /chem/msde.i/25Mar2016.b/e032501.d

Date : 25-MAR-2016 09:02

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e032501.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 124
Location of Maximum: 95.00
Number of points: 199

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5323	89.00	40	142.00	1138	218.00	156
37.00	26432	90.00	110	143.00	8689	219.00	183
38.00	23064	91.00	2642	144.00	597	225.00	84
39.00	8546	92.00	21680	145.00	789	232.00	868
41.00	642	93.00	31384	146.00	1577	233.00	35
42.00	130	94.00	86296	147.00	368	235.00	67
43.00	714	95.00	747840	148.00	1508	247.00	73
44.00	2571	96.00	49256	149.00	700	248.00	149
45.00	4676	97.00	1106	150.00	622	253.00	802
46.00	528	98.00	64	152.00	732	255.00	90
47.00	4846	99.00	118	153.00	688	257.00	42
48.00	3888	101.00	250	154.00	588	260.00	442
49.00	24176	102.00	99	155.00	2393	261.00	29
50.00	114888	103.00	613	156.00	367	262.00	181
51.00	36136	104.00	3044	157.00	1454	263.00	102
52.00	1525	105.00	1157	158.00	369	264.00	138
55.00	1572	106.00	2849	159.00	1162	265.00	84
56.00	8138	107.00	815	161.00	728	267.00	302
57.00	18816	108.00	93	164.00	814	269.00	411
58.00	371	109.00	25	165.00	84	270.00	238
59.00	390	110.00	347	166.00	13	271.00	391
60.00	6128	111.00	550	167.00	51	272.00	162
61.00	29280	112.00	479	169.00	207	278.00	51
62.00	30560	113.00	811	170.00	344	281.00	232
63.00	21616	115.00	494	171.00	572	283.00	338
64.00	2304	116.00	2169	172.00	390	284.00	15
65.00	540	117.00	4467	173.00	7075	293.00	201
66.00	171	118.00	3277	174.00	728064	294.00	321
67.00	1897	119.00	3962	175.00	56144	295.00	87
68.00	70376	120.00	130	176.00	705088	306.00	33
69.00	74480	121.00	91	177.00	46640	307.00	148
70.00	5510	122.00	504	178.00	1390	309.00	41
71.00	388	123.00	166	179.00	134	313.00	18
72.00	4214	124.00	656	180.00	215	314.00	85
73.00	28616	125.00	273	187.00	216	315.00	203

Data File: /chem/msde.i/25Mar2016.b/e032501.d

Date : 25-MAR-2016 09:02

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e032501.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 124
Location of Maximum: 95.00
Number of points: 199

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	120280	127.00	362	188.00	56	322.00	261
75.00	366464	128.00	3362	190.00	33	323.00	132
76.00	30824	129.00	1247	192.00	256	324.00	181
77.00	3053	130.00	3431	193.00	321	325.00	262
78.00	2578	131.00	1021	195.00	250	326.00	72
79.00	16416	132.00	209	196.00	256	327.00	359
80.00	5185	133.00	27	198.00	33	328.00	31
81.00	17920	134.00	627	203.00	64	329.00	93
82.00	3370	135.00	2077	204.00	41	332.00	33
83.00	451	136.00	252	205.00	54	335.00	44
84.00	80	137.00	1282	207.00	1681	341.00	224
85.00	640	138.00	194	208.00	138	343.00	78
86.00	826	139.00	258	209.00	177	344.00	212
87.00	23608	140.00	574	211.00	287	346.00	36
88.00	22752	141.00	8243	216.00	82		

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/30Mar2016.b/e033001.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 30-MAR-2016 10:46
Operator : ef Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/30Mar2016.b/bfb60.m
Meth Date : 30-Mar-2016 11:02 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.204	6.235	-0.031	95	972288			100.00- 100.00	100.00
6.204	6.235	-0.031	50	151554			8.00- 40.00	15.59
6.204	6.235	-0.031	75	482262			30.00- 66.00	49.60
6.204	6.235	-0.031	96	65046			5.00- 9.00	6.69
6.204	6.235	-0.031	173	9030			0.00- 1.99	0.98
6.204	6.235	-0.031	174	916943			50.00- 120.00	94.31
6.204	6.235	-0.031	175	67176			4.00- 9.00	7.33
6.204	6.235	-0.031	176	890170			93.00- 101.00	97.08
6.204	6.235	-0.031	177	58210			5.00- 9.00	6.54

Data File: /chem/msde.i/30Mar2016.b/e033001.d

Date : 30-MAR-2016 10:46

Client ID: BFB

Instrument: msde.i

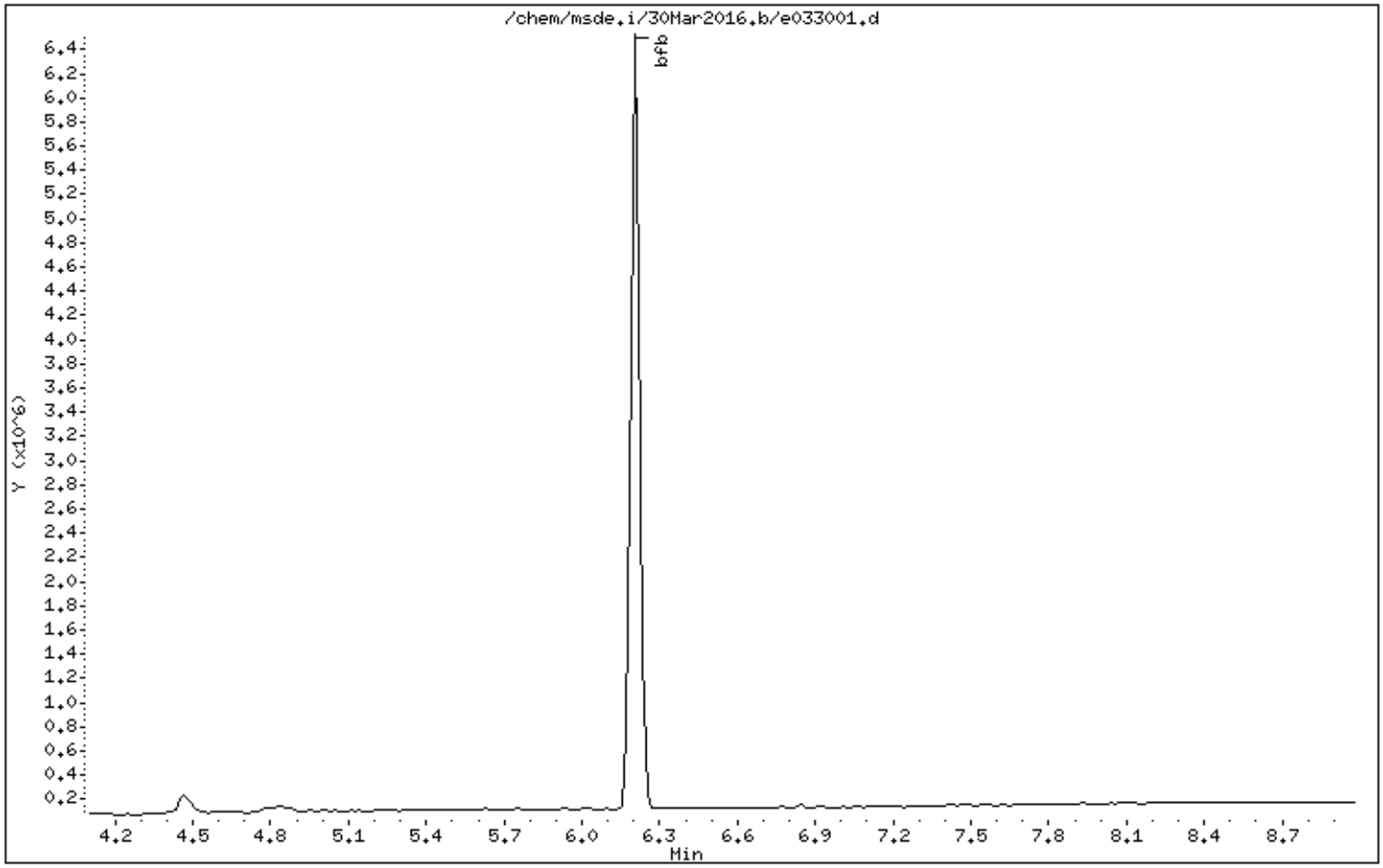
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/30Mar2016.b/e033001.d

Date : 30-MAR-2016 10:46

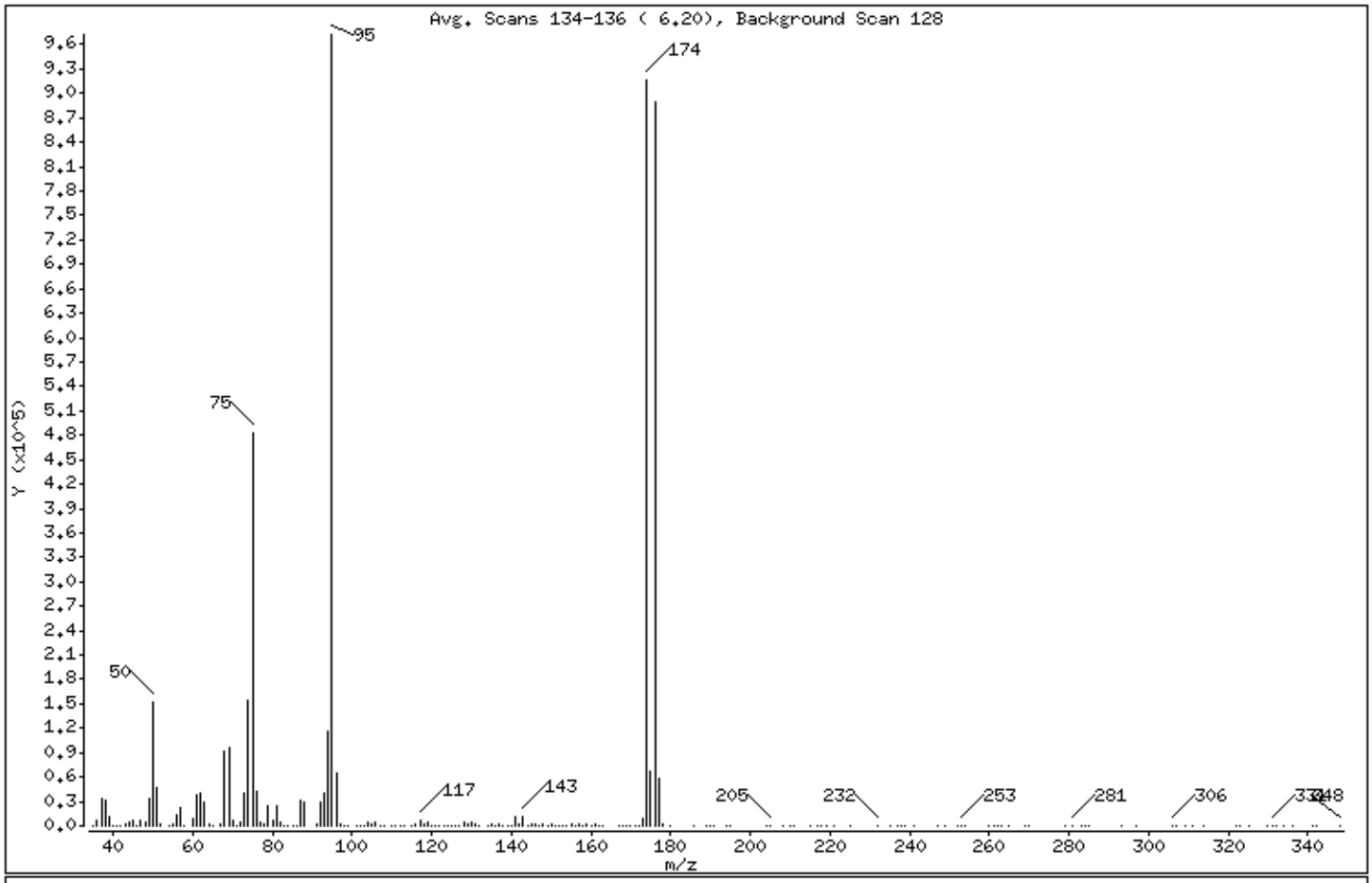
Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	15.59
75	30.00 - 66.00% of mass 95	49.60
96	5.00 - 9.00% of mass 95	6.69
173	Less than 1.99% of mass 174	0.93 (0.98)
174	50.00 - 120.00% of mass 95	94.31
175	4.00 - 9.00% of mass 174	6.91 (7.33)
176	93.00 - 101.00% of mass 174	91.55 (97.08)
177	5.00 - 9.00% of mass 176	5.99 (6.54)

Data File: /chem/msde.i/30Mar2016.b/e033001.d

Date : 30-MAR-2016 10:46

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e033001.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 128
Location of Maximum: 95.00
Number of points: 191

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	111	86.00	791	140.00	884	215.00	33
36.00	6808	87.00	30552	141.00	10602	217.00	1
37.00	34280	88.00	29488	142.00	1490	218.00	53
38.00	30208	91.00	3339	143.00	11542	219.00	151
39.00	11615	92.00	28296	144.00	586	221.00	133
40.00	140	93.00	40584	145.00	1147	225.00	174
41.00	649	94.00	115848	146.00	1390	232.00	402
42.00	186	95.00	972288	147.00	730	235.00	142
43.00	1292	96.00	65040	148.00	2715	237.00	209
44.00	3766	97.00	1509	149.00	627	238.00	54
45.00	6670	98.00	29	150.00	1411	239.00	106
46.00	259	99.00	140	151.00	320	241.00	55
47.00	6163	101.00	13	152.00	772	247.00	58
48.00	4547	102.00	10	153.00	755	249.00	110
49.00	33288	103.00	287	154.00	647	252.00	14
50.00	151552	104.00	3763	155.00	2906	253.00	450
51.00	46912	105.00	1608	156.00	407	254.00	25
52.00	2291	106.00	4223	157.00	2213	260.00	62
54.00	126	107.00	916	158.00	20	261.00	276
55.00	2343	108.00	256	159.00	1553	262.00	87
56.00	12530	110.00	562	160.00	119	263.00	103
57.00	23208	111.00	730	161.00	1424	265.00	135
58.00	1087	112.00	721	162.00	53	269.00	430
60.00	8099	113.00	877	163.00	251	270.00	225
61.00	38832	115.00	839	167.00	179	279.00	45
62.00	40968	116.00	2845	168.00	222	281.00	607
63.00	29992	117.00	6208	169.00	250	283.00	307
64.00	2676	118.00	3149	170.00	454	284.00	40
65.00	853	119.00	4303	171.00	259	285.00	34
67.00	2452	120.00	171	172.00	495	293.00	80
68.00	91672	121.00	363	173.00	9030	297.00	118
69.00	95256	122.00	240	174.00	916928	306.00	208
70.00	6893	123.00	415	175.00	67176	307.00	115
71.00	657	124.00	727	176.00	890112	309.00	52
72.00	4793	125.00	274	177.00	58208	311.00	125

Data File: /chem/msde.i/30Mar2016.b/e033001.d

Date : 30-MAR-2016 10:46

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e033001.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 128
Location of Maximum: 95.00
Number of points: 191

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	40808	126.00	171	178.00	1395	314.00	35
74.00	154688	127.00	55	180.00	127	322.00	102
75.00	482240	128.00	3945	186.00	46	323.00	101
76.00	41392	129.00	1703	189.00	298	325.00	112
77.00	4878	130.00	4144	190.00	70	330.00	37
78.00	2851	131.00	1834	191.00	663	331.00	359
79.00	23688	132.00	523	194.00	38	332.00	153
80.00	6065	134.00	81	195.00	104	334.00	29
81.00	23712	135.00	2404	204.00	44	336.00	68
82.00	4553	136.00	121	205.00	189	341.00	62
83.00	580	137.00	1329	208.00	42	342.00	352
84.00	298	138.00	238	210.00	66	348.00	51
85.00	640	139.00	474	211.00	104		

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/09May2016.b/e050901.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 09-MAY-2016 06:45
Operator : act Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/09May2016.b/bfb60.m
Meth Date : 09-May-2016 07:01 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.063	6.235	-0.172	95	693402			100.00- 100.00	100.00
6.063	6.235	-0.172	50	101354			8.00- 40.00	14.62
6.063	6.235	-0.172	75	329892			30.00- 66.00	47.58
6.063	6.235	-0.172	96	44685			5.00- 9.00	6.44
6.063	6.235	-0.172	173	6907			0.00- 1.99	1.00
6.063	6.235	-0.172	174	693098			50.00- 120.00	99.96
6.063	6.235	-0.172	175	51520			4.00- 9.00	7.43
6.063	6.235	-0.172	176	677226			93.00- 101.00	97.71
6.063	6.235	-0.172	177	43672			5.00- 9.00	6.45

Data File: /chem/msde.i/09May2016.b/e050901.d

Date : 09-MAY-2016 06:45

Client ID: BFB

Instrument: msde.i

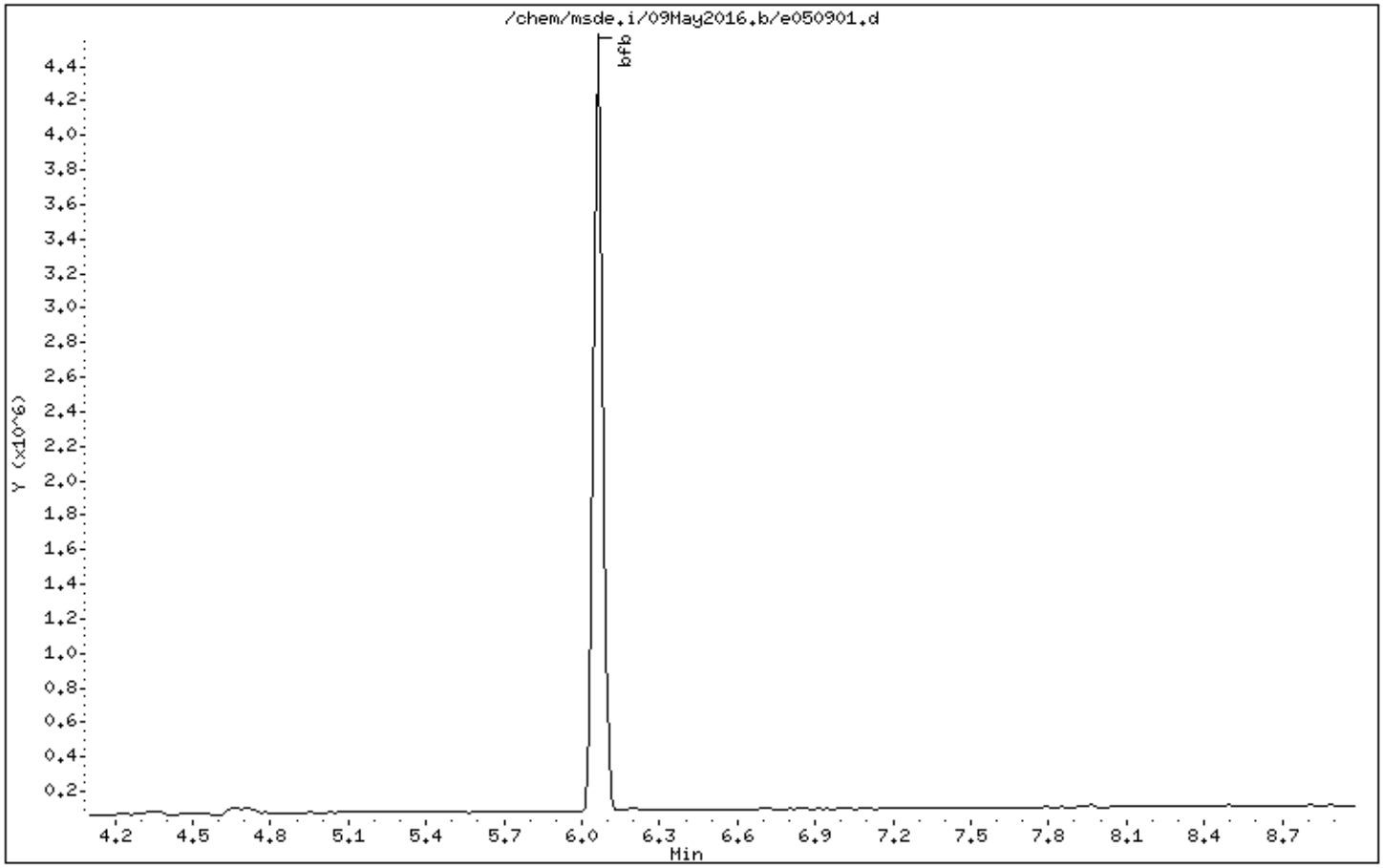
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/09May2016.b/e050901.d

Date : 09-MAY-2016 06:45

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

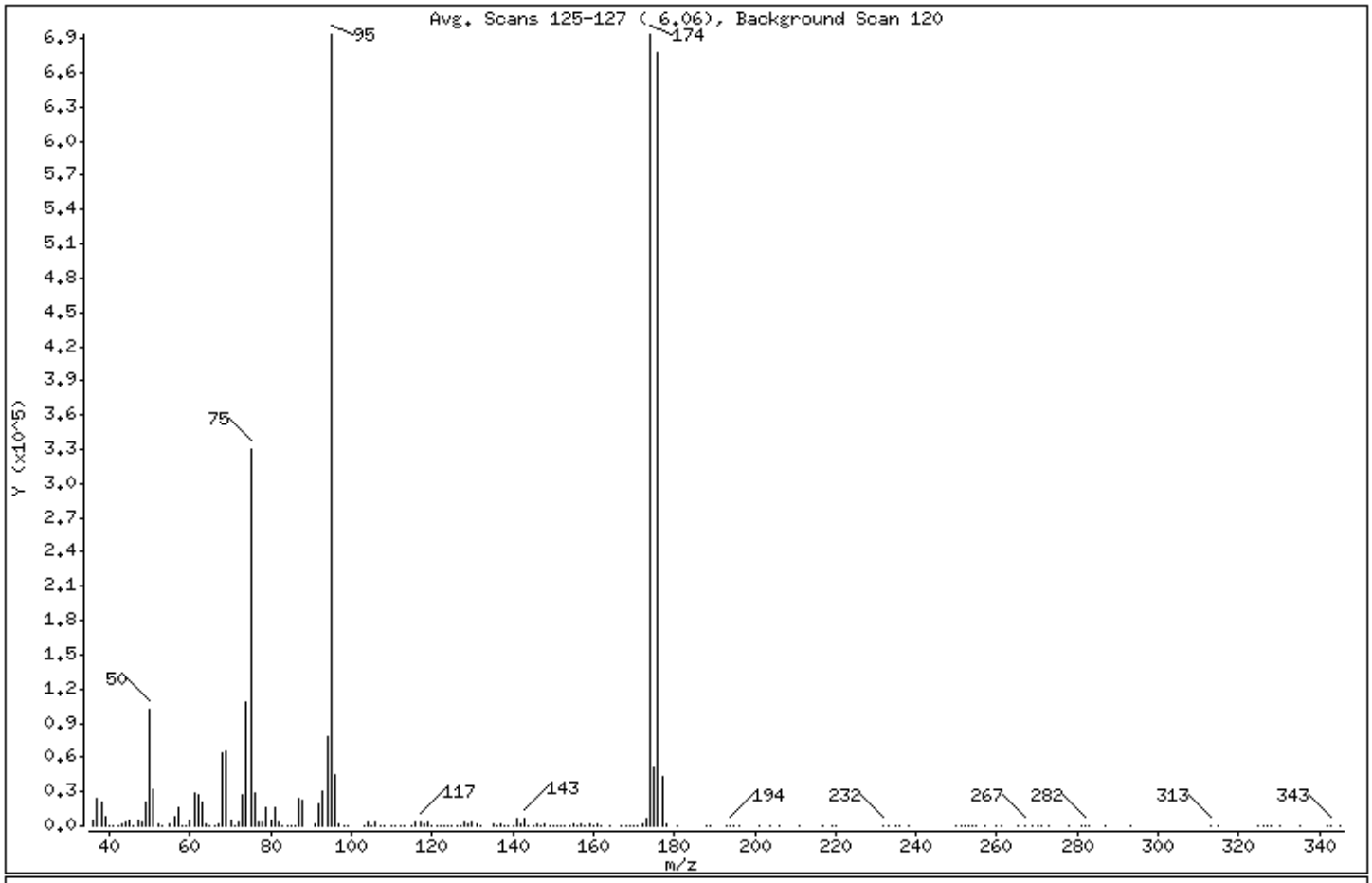
Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	14.62
75	30.00 - 66.00% of mass 95	47.58
96	5.00 - 9.00% of mass 95	6.44
173	Less than 1.99% of mass 174	1.00 (1.00)
174	50.00 - 120.00% of mass 95	99.96
175	4.00 - 9.00% of mass 174	7.43 (7.43)
176	93.00 - 101.00% of mass 174	97.67 (97.71)
177	5.00 - 9.00% of mass 176	6.30 (6.45)

Data File: /chem/msde.i/09May2016.b/e050901.d

Date : 09-MAY-2016 06:45

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00

Data File: e050901.d
Spectrum: Avg. Scans 125-127 (6.06), Background Scan 120
Location of Maximum: 95.00
Number of points: 181

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4782	83.00	642	138.00	236	204.00	225
37.00	23360	84.00	235	139.00	185	206.00	24
38.00	20216	85.00	428	140.00	617	211.00	112
39.00	8065	86.00	640	141.00	6814	217.00	134
40.00	554	87.00	24320	142.00	1015	219.00	25
41.00	222	88.00	21720	143.00	7098	220.00	46
42.00	236	91.00	2052	144.00	624	232.00	412
43.00	918	92.00	19408	145.00	722	233.00	87
44.00	2632	93.00	29808	146.00	1167	235.00	75
45.00	4346	94.00	77440	147.00	766	236.00	36
46.00	357	95.00	693376	148.00	2208	238.00	40
47.00	5026	96.00	44680	149.00	426	250.00	128
48.00	3105	97.00	1059	150.00	707	251.00	153
49.00	20936	98.00	197	151.00	247	252.00	143
50.00	101352	99.00	132	152.00	388	253.00	9
51.00	32400	103.00	455	153.00	760	254.00	88
52.00	1388	104.00	2535	154.00	635	255.00	70
53.00	207	105.00	249	155.00	2281	257.00	85
55.00	1596	106.00	2647	156.00	135	260.00	30
56.00	8044	107.00	748	157.00	1725	261.00	217
57.00	15975	108.00	344	158.00	324	265.00	204
58.00	700	110.00	298	159.00	1034	267.00	395
59.00	194	111.00	508	160.00	51	269.00	118
60.00	5391	112.00	576	161.00	947	270.00	129
61.00	28184	113.00	597	162.00	144	271.00	103
62.00	26976	115.00	552	164.00	219	273.00	47
63.00	20688	116.00	2714	167.00	204	278.00	36
64.00	1562	117.00	3876	168.00	181	281.00	276
65.00	689	118.00	2360	169.00	208	282.00	442
66.00	163	119.00	3202	170.00	438	283.00	122
67.00	1566	120.00	29	171.00	394	287.00	38
68.00	63496	121.00	175	172.00	1477	293.00	46
69.00	64728	122.00	152	173.00	6907	313.00	292
70.00	4395	123.00	234	174.00	693056	315.00	92
71.00	525	124.00	513	175.00	51520	325.00	5

Data File: /chem/msde.i/09May2016.b/e050901.d

Date : 09-MAY-2016 06:45

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00

Data File: e050901.d
Spectrum: Avg. Scans 125-127 (6.06), Background Scan 120
Location of Maximum: 95.00
Number of points: 181

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	3525	125.00	272	176.00	677184	326.00	62
73.00	27784	126.00	342	177.00	43672	327.00	129
74.00	108408	127.00	230	178.00	1479	328.00	33
75.00	329856	128.00	2559	181.00	156	330.00	84
76.00	28128	129.00	1277	188.00	64	335.00	100
77.00	3601	130.00	2663	189.00	82	342.00	101
78.00	2436	131.00	1239	193.00	90	343.00	500
79.00	15669	132.00	129	194.00	289	345.00	47
80.00	4285	135.00	1345	195.00	76		
81.00	16109	136.00	283	196.00	42		
82.00	3238	137.00	1305	201.00	44		

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/19May2016.b/e051901.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 19-MAY-2016 09:32
Operator : ef Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /chem/msde.i/19May2016.b/bfb60.m
Meth Date : 03-Oct-2014 15:46 ejakob Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.063	6.235	-0.172	95	686762			100.00- 100.00	100.00
6.063	6.235	-0.172	50	105809			8.00- 40.00	15.41
6.063	6.235	-0.172	75	330628			30.00- 66.00	48.14
6.063	6.235	-0.172	96	43817			5.00- 9.00	6.38
6.063	6.235	-0.172	173	6081			0.00- 1.99	0.93
6.063	6.235	-0.172	174	653845			50.00- 120.00	95.21
6.063	6.235	-0.172	175	47714			4.00- 9.00	7.30
6.063	6.235	-0.172	176	633858			93.00- 101.00	96.94
6.063	6.235	-0.172	177	42471			5.00- 9.00	6.70

Data File: /chem/msde.i/19May2016.b/e051901.d

Date : 19-MAY-2016 09:32

Client ID: BFB

Instrument: msde.i

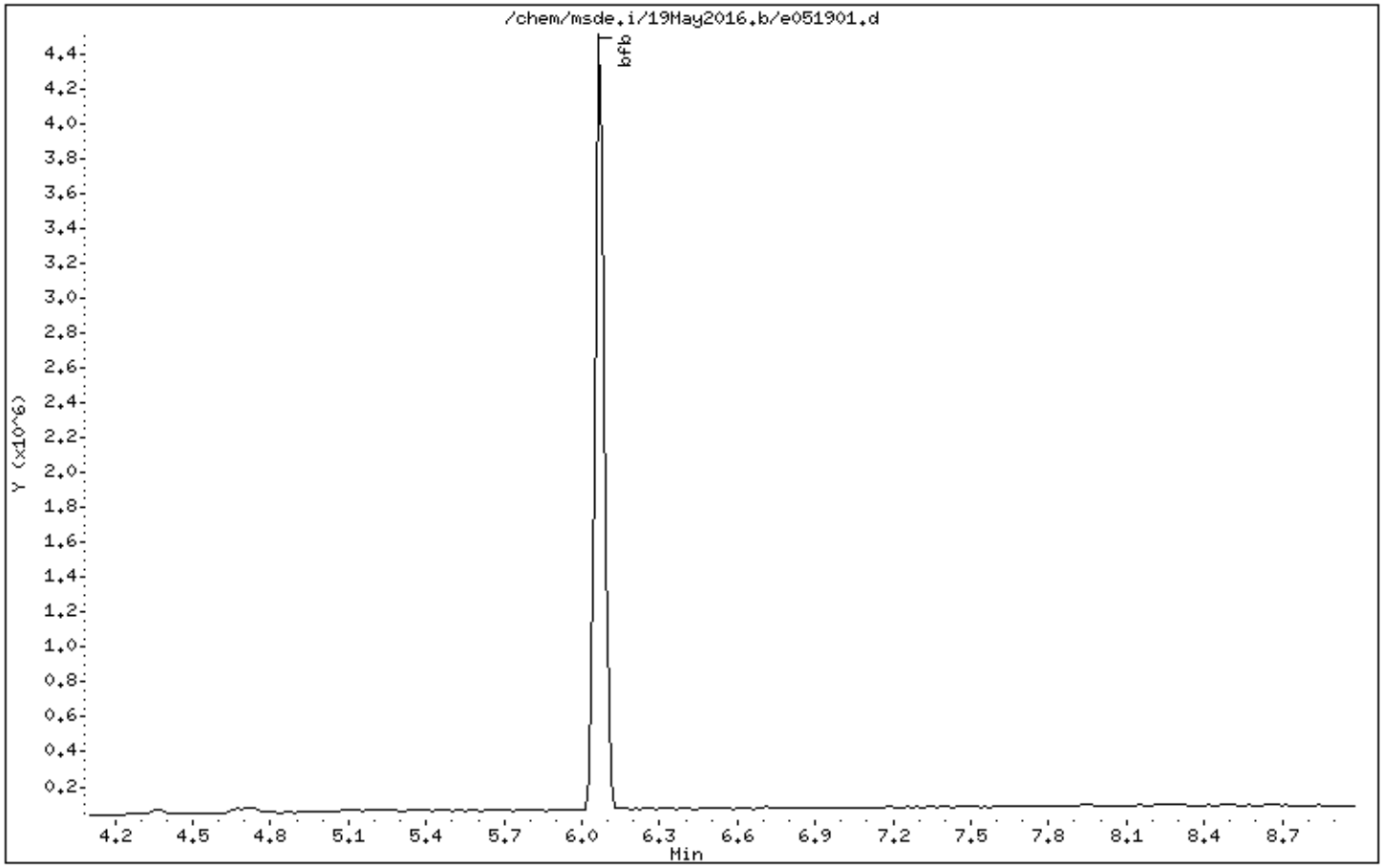
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/19May2016.b/e051901.d

Date : 19-MAY-2016 09:32

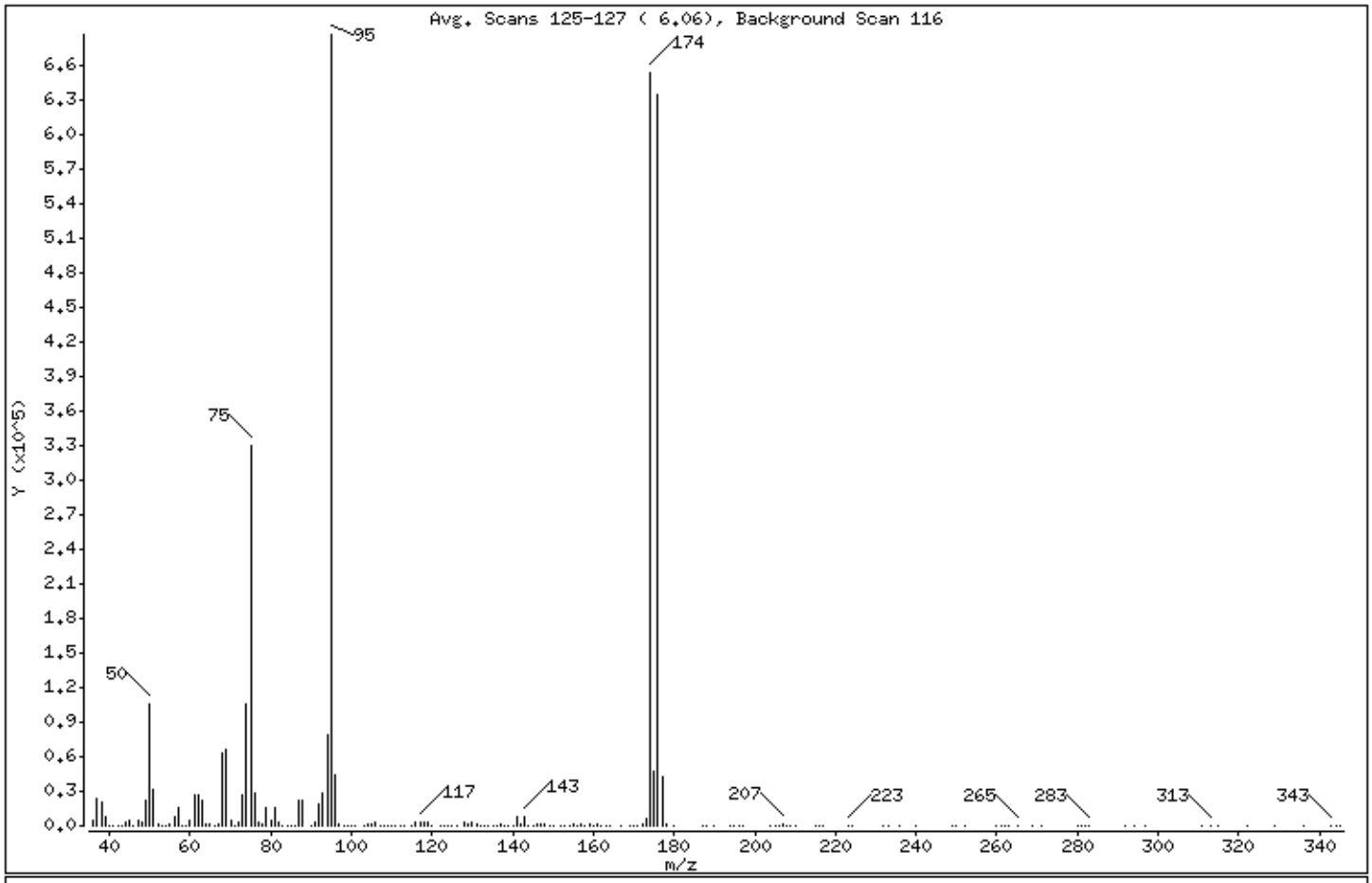
Client ID: BFB | Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 | Operator: ef

Column phase: Rtx-624 | Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	15.41
75	30.00 - 66.00% of mass 95	48.14
96	5.00 - 9.00% of mass 95	6.38
173	Less than 1.99% of mass 174	0.89 (0.93)
174	50.00 - 120.00% of mass 95	95.21
175	4.00 - 9.00% of mass 174	6.95 (7.30)
176	93.00 - 101.00% of mass 174	92.30 (96.94)
177	5.00 - 9.00% of mass 176	6.18 (6.70)

Data File: /chem/msde.i/19May2016.b/e051901.d

Date : 19-MAY-2016 09:32

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e051901.d
Spectrum: Avg. Scans 125-127 (6.06), Background Scan 116
Location of Maximum: 95.00
Number of points: 184

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4729	83.00	353	135.00	515	197.00	41
37.00	24384	84.00	196	136.00	474	204.00	50
38.00	21008	85.00	648	137.00	910	205.00	220
39.00	7630	86.00	378	138.00	187	206.00	97
40.00	411	87.00	22688	139.00	513	207.00	1447
41.00	56	88.00	21968	140.00	104	208.00	351
42.00	87	90.00	54	141.00	7112	209.00	178
43.00	721	91.00	2613	142.00	1158	210.00	11
44.00	2549	92.00	19600	143.00	7567	215.00	57
45.00	4548	93.00	28848	144.00	472	216.00	72
46.00	285	94.00	78752	145.00	471	217.00	107
47.00	4144	95.00	686720	146.00	1234	223.00	221
48.00	3421	96.00	43816	147.00	805	224.00	79
49.00	21824	97.00	1178	148.00	1636	232.00	76
50.00	105808	98.00	110	149.00	572	233.00	2
51.00	31280	99.00	56	150.00	762	236.00	39
52.00	1601	100.00	56	152.00	556	240.00	39
53.00	239	101.00	160	153.00	657	249.00	240
54.00	100	103.00	779	154.00	572	250.00	27
55.00	1439	104.00	2361	155.00	2154	252.00	73
56.00	8284	105.00	1080	156.00	449	260.00	11
57.00	15268	106.00	2634	157.00	1440	261.00	63
58.00	668	107.00	632	158.00	229	262.00	38
59.00	372	108.00	315	159.00	1471	263.00	48
60.00	5191	109.00	271	160.00	164	265.00	271
61.00	26176	110.00	500	161.00	891	269.00	142
62.00	27584	111.00	510	162.00	213	271.00	215
63.00	21320	112.00	232	163.00	497	280.00	38
64.00	2324	113.00	500	164.00	271	281.00	71
65.00	791	115.00	668	167.00	43	282.00	23
66.00	143	116.00	2789	169.00	130	283.00	289
67.00	2058	117.00	3942	170.00	540	292.00	40
68.00	63184	118.00	2755	171.00	595	294.00	41
69.00	66104	119.00	2966	172.00	1641	297.00	80
70.00	4569	120.00	91	173.00	6081	311.00	62

Data File: /chem/msde.i/19May2016.b/e051901.d

Date : 19-MAY-2016 09:32

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e051901.d
Spectrum: Avg. Scans 125-127 (6.06), Background Scan 116
Location of Maximum: 95.00
Number of points: 184

m/z	Y	m/z	Y	m/z	Y	m/z	Y
71.00	493	122.00	100	174.00	653824	313.00	208
72.00	3865	123.00	378	175.00	47712	315.00	45
73.00	27472	124.00	411	176.00	633856	322.00	193
74.00	106104	125.00	525	177.00	42464	329.00	141
75.00	330624	126.00	347	178.00	1045	336.00	104
76.00	28320	128.00	2519	180.00	57	343.00	276
77.00	3473	129.00	1384	187.00	34	344.00	117
78.00	2093	130.00	2579	188.00	82	345.00	60
79.00	15370	131.00	1253	190.00	43		
80.00	4316	132.00	364	194.00	132		
81.00	15964	133.00	269	195.00	23		
82.00	2988	134.00	40	196.00	94		

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/24May2016.b/e052401.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 24-MAY-2016 06:55
Operator : act Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/24May2016.b/bfb60.m
Meth Date : 24-May-2016 07:11 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.063	6.235	-0.172	95	670422			100.00- 100.00	97.31
6.063	6.235	-0.172	50	100133			8.00- 40.00	14.94
6.063	6.235	-0.172	75	318233			30.00- 66.00	47.47
6.063	6.235	-0.172	96	43612			5.00- 9.00	6.51
6.063	6.235	-0.172	173	6380			0.00- 1.99	0.93
6.063	6.235	-0.172	174	688960			50.00- 120.00	102.77
6.063	6.235	-0.172	175	52490			4.00- 9.00	7.62
6.063	6.235	-0.172	176	667641			93.00- 101.00	96.91
6.063	6.235	-0.172	177	44606			5.00- 9.00	6.68

Data File: /chem/msde.i/24May2016.b/e052401.d

Date : 24-MAY-2016 06:55

Client ID: BFB

Instrument: msde.i

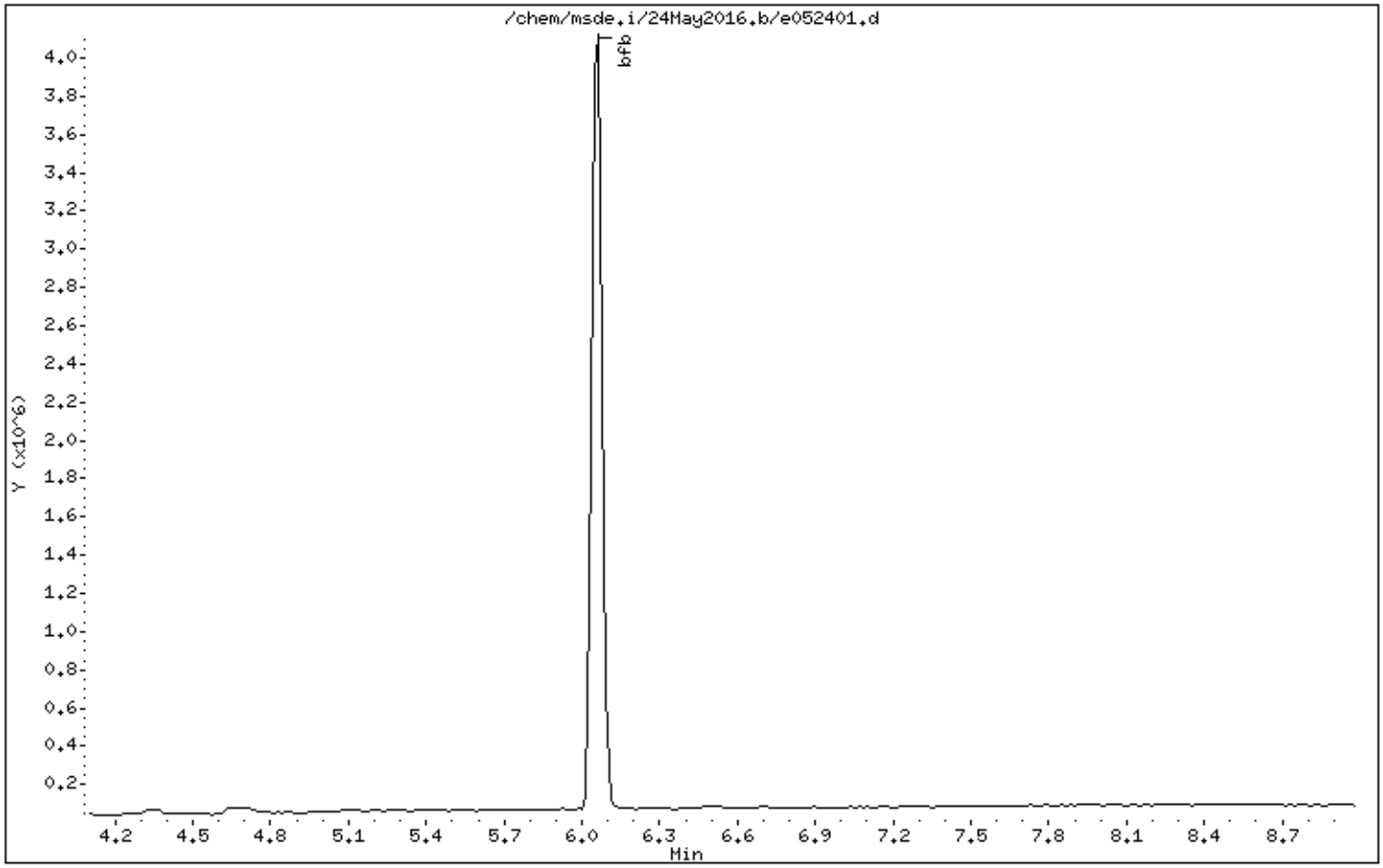
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/24May2016.b/e052401.d

Date : 24-MAY-2016 06:55

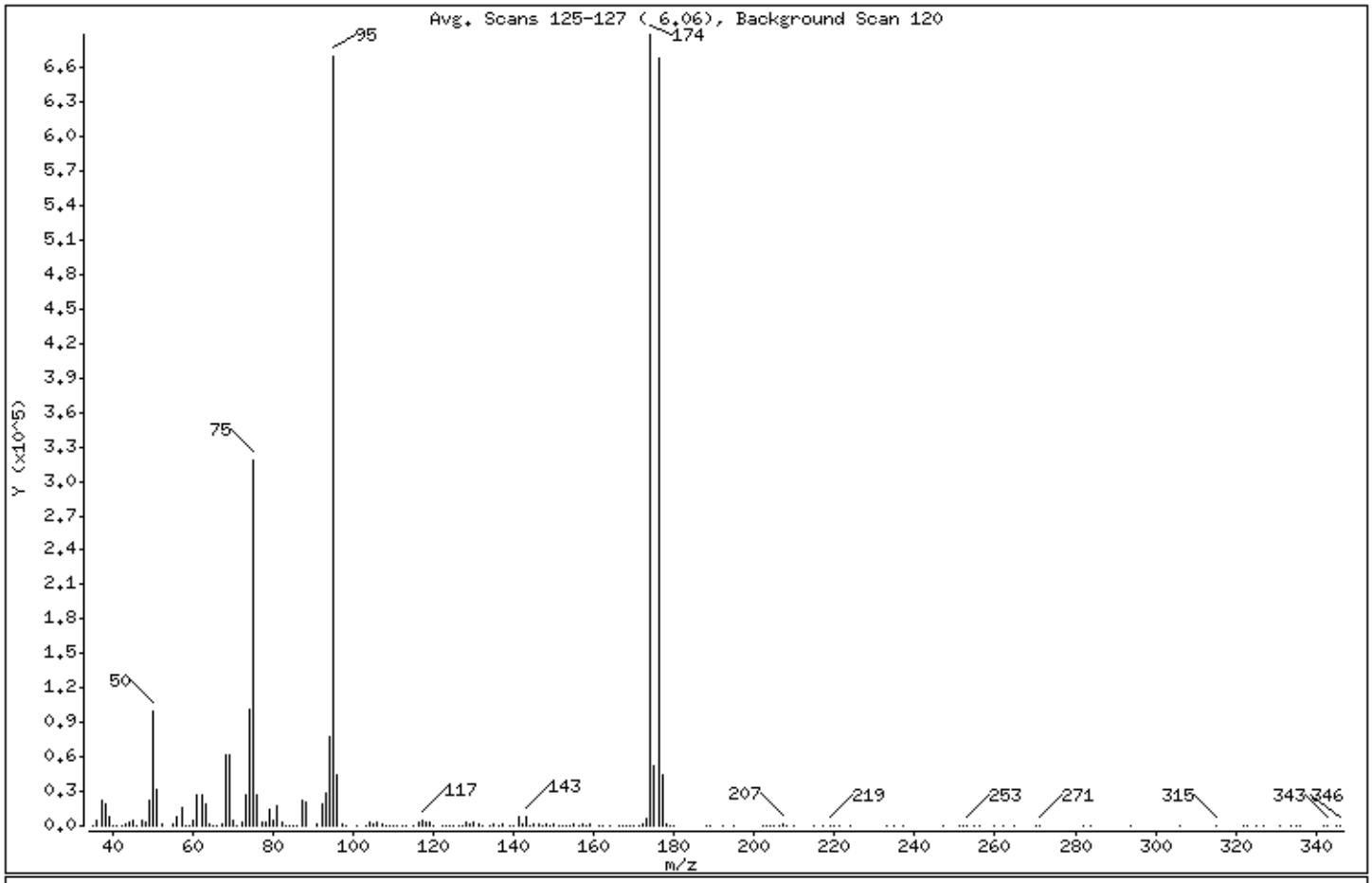
Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: act

Column phase: Rtx-624 Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	14.94
75	30.00 - 66.00% of mass 95	47.47
96	5.00 - 9.00% of mass 95	6.51
173	Less than 1.99% of mass 174	0.95 (0.93)
174	50.00 - 120.00% of mass 95	102.77
175	4.00 - 9.00% of mass 174	7.83 (7.62)
176	93.00 - 101.00% of mass 174	99.59 (96.91)
177	5.00 - 9.00% of mass 176	6.65 (6.68)

Data File: /chem/msde.i/24May2016.b/e052401.d

Date : 24-MAY-2016 06:55

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00

Data File: e052401.d
Spectrum: Avg. Scans 125-127 (6.06), Background Scan 120
Location of Maximum: 174.00
Number of points: 181

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	34	83.00	443	137.00	1355	204.00	33
36.00	4087	84.00	170	139.00	441	205.00	200
37.00	22832	85.00	344	140.00	421	206.00	76
38.00	19248	86.00	523	141.00	7623	207.00	810
39.00	7418	87.00	22464	142.00	890	208.00	534
40.00	380	88.00	21376	143.00	7763	210.00	40
41.00	629	91.00	2040	144.00	464	215.00	75
42.00	318	92.00	19392	145.00	923	217.00	94
43.00	812	93.00	28496	146.00	1043	219.00	307
44.00	2582	94.00	77352	147.00	581	220.00	72
45.00	4234	95.00	670400	148.00	2023	221.00	47
46.00	265	96.00	43608	149.00	627	224.00	35
47.00	4691	97.00	1296	150.00	1082	233.00	17
48.00	3225	98.00	70	151.00	118	235.00	51
49.00	21728	101.00	61	152.00	495	237.00	117
50.00	100128	103.00	173	153.00	473	247.00	158
51.00	31056	104.00	2676	154.00	752	251.00	29
52.00	1666	105.00	1062	155.00	1977	252.00	72
55.00	1583	106.00	2723	156.00	310	253.00	271
56.00	7961	107.00	889	157.00	1614	255.00	103
57.00	16007	108.00	12	158.00	356	256.00	33
58.00	776	109.00	67	159.00	1032	260.00	225
59.00	164	110.00	518	161.00	767	262.00	111
60.00	5468	111.00	168	162.00	228	265.00	47
61.00	26656	112.00	448	164.00	232	270.00	175
62.00	27088	113.00	483	166.00	111	271.00	217
63.00	19432	115.00	464	167.00	144	282.00	91
64.00	2041	116.00	2882	168.00	36	284.00	69
65.00	652	117.00	4075	169.00	119	294.00	81
66.00	180	118.00	2772	170.00	433	306.00	135
67.00	1582	119.00	3426	171.00	320	315.00	177
68.00	61944	120.00	126	172.00	972	322.00	234
69.00	61384	122.00	341	173.00	6380	323.00	138
70.00	4642	123.00	225	174.00	688960	325.00	48
71.00	480	124.00	386	175.00	52488	327.00	59

Data File: /chem/msde.i/24May2016.b/e052401.d

Date : 24-MAY-2016 06:55

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00

Data File: e052401.d
Spectrum: Avg. Scans 125-127 (6.06), Background Scan 120
Location of Maximum: 174.00
Number of points: 181

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	3238	125.00	506	176.00	667584	331.00	57
73.00	26920	126.00	544	177.00	44600	334.00	132
74.00	101120	127.00	187	178.00	1244	335.00	87
75.00	318208	128.00	2470	179.00	103	336.00	204
76.00	27296	129.00	1376	180.00	22	342.00	129
77.00	3410	130.00	2662	188.00	39	343.00	758
78.00	2714	131.00	1448	189.00	47	345.00	141
79.00	14814	132.00	244	192.00	20	346.00	36
80.00	4191	134.00	75	195.00	277		
81.00	16800	135.00	983	202.00	48		
82.00	3040	136.00	460	203.00	29		

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/03Jun2016.b/e060301.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 03-JUN-2016 07:02
Operator : act Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/03Jun2016.b/bfb60.m
Meth Date : 03-Jun-2016 07:18 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.047	6.235	-0.188	95	632618			100.00- 100.00	100.00
6.047	6.235	-0.188	50	101836			8.00- 40.00	16.10
6.047	6.235	-0.188	75	315862			30.00- 66.00	49.93
6.047	6.235	-0.188	96	41144			5.00- 9.00	6.50
6.047	6.235	-0.188	173	6038			0.00- 1.99	1.01
6.047	6.235	-0.188	174	595626			50.00- 120.00	94.15
6.047	6.235	-0.188	175	44632			4.00- 9.00	7.49
6.047	6.235	-0.188	176	577841			93.00- 101.00	97.01
6.047	6.235	-0.188	177	39374			5.00- 9.00	6.81

Data File: /chem/msde.i/03Jun2016.b/e060301.d

Date : 03-JUN-2016 07:02

Client ID: BFB

Instrument: msde.i

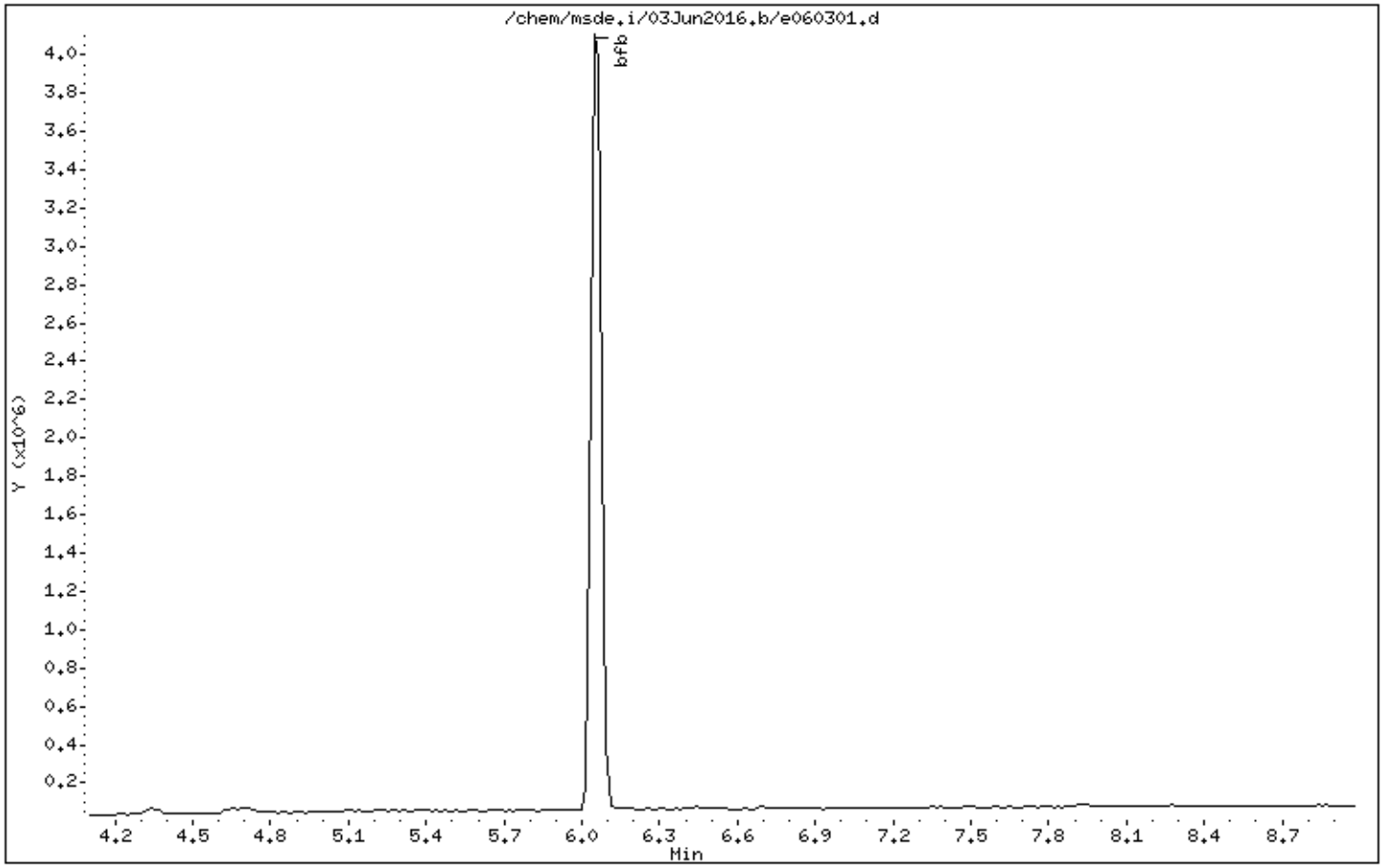
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/03Jun2016.b/e060301.d

Date : 03-JUN-2016 07:02

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

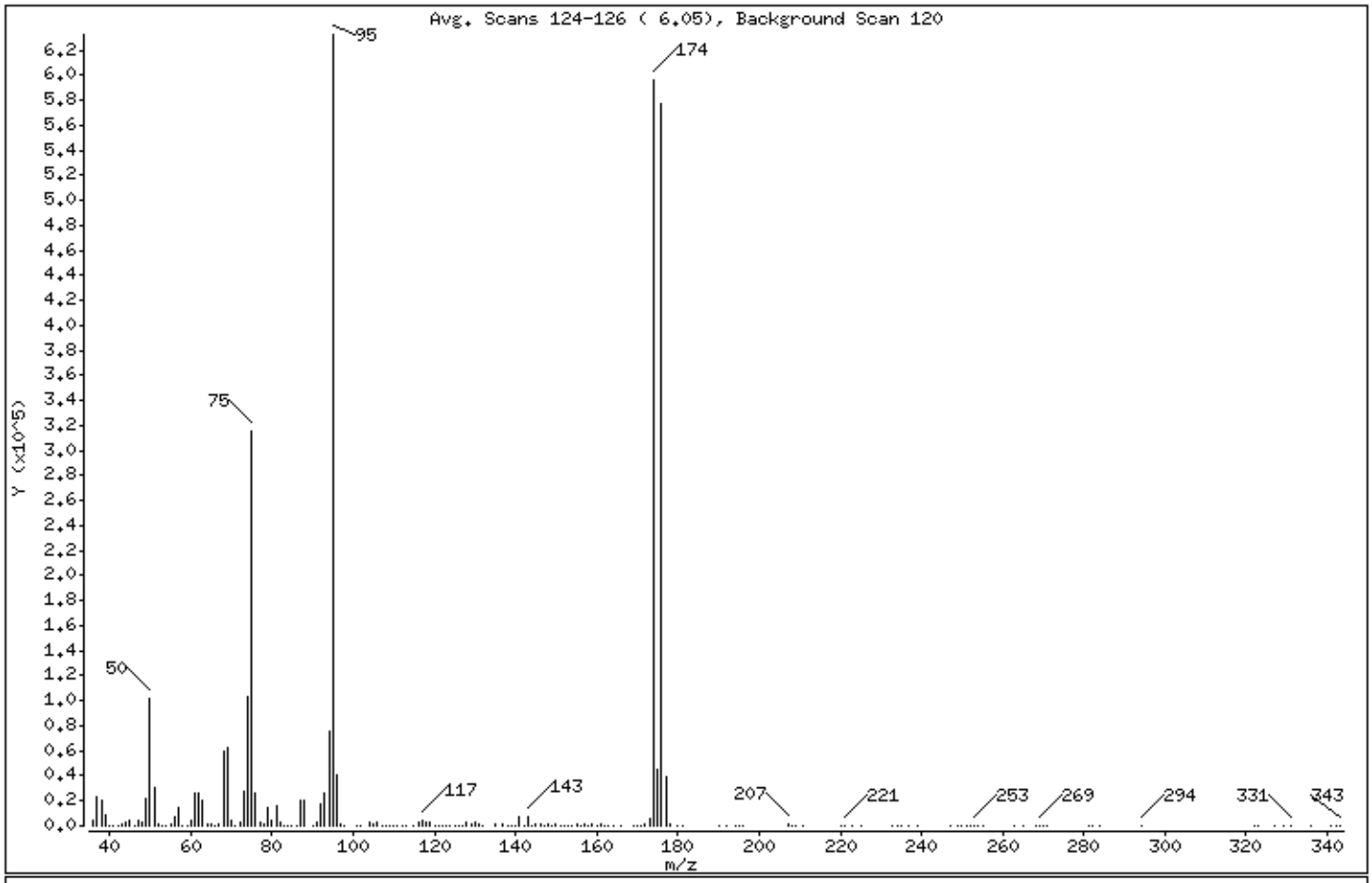
Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	16.10
75	30.00 - 66.00% of mass 95	49.93
96	5.00 - 9.00% of mass 95	6.50
173	Less than 1.99% of mass 174	0.95 (1.01)
174	50.00 - 120.00% of mass 95	94.15
175	4.00 - 9.00% of mass 174	7.06 (7.49)
176	93.00 - 101.00% of mass 174	91.34 (97.01)
177	5.00 - 9.00% of mass 176	6.22 (6.81)

Data File: /chem/msde.i/03Jun2016.b/e060301.d

Date : 03-JUN-2016 07:02

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00

Data File: e060301.d
Spectrum: Avg. Scans 124-126 (6.05), Background Scan 120
Location of Maximum: 95.00
Number of points: 179

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4241	81.00	15646	131.00	1241	192.00	50
37.00	23120	82.00	3046	132.00	138	194.00	83
38.00	20152	83.00	407	135.00	1218	195.00	125
39.00	8267	84.00	178	137.00	1058	196.00	45
40.00	271	85.00	524	138.00	81	207.00	760
41.00	468	86.00	224	139.00	363	208.00	446
42.00	420	87.00	19800	140.00	192	209.00	114
43.00	758	88.00	19912	141.00	6780	211.00	136
44.00	2910	90.00	48	142.00	487	220.00	174
45.00	4195	91.00	2214	143.00	7377	221.00	214
46.00	356	92.00	17400	144.00	658	223.00	98
47.00	3831	93.00	26024	145.00	800	225.00	43
48.00	3070	94.00	75120	146.00	1454	233.00	43
49.00	22072	95.00	632576	147.00	528	234.00	61
50.00	101832	96.00	41144	148.00	2012	235.00	118
51.00	31120	97.00	1141	149.00	654	237.00	43
52.00	1203	98.00	143	150.00	823	239.00	98
53.00	275	101.00	138	151.00	38	247.00	144
54.00	69	102.00	60	152.00	402	249.00	160
55.00	1595	104.00	2897	153.00	431	250.00	149
56.00	7961	105.00	1016	154.00	554	251.00	6
57.00	15107	106.00	2596	155.00	2128	252.00	112
58.00	568	107.00	447	156.00	215	253.00	483
59.00	451	108.00	66	157.00	1225	254.00	259
60.00	4950	109.00	109	158.00	423	255.00	65
61.00	26744	110.00	527	159.00	1026	263.00	70
62.00	25928	111.00	494	160.00	121	265.00	100
63.00	20216	112.00	421	161.00	762	268.00	179
64.00	2142	113.00	625	162.00	159	269.00	337
65.00	954	115.00	653	163.00	48	270.00	154
66.00	311	116.00	2851	164.00	120	271.00	236
67.00	1589	117.00	3712	166.00	99	281.00	238
68.00	60192	118.00	2413	169.00	325	282.00	248
69.00	62672	119.00	3236	170.00	259	284.00	173
70.00	4673	120.00	281	171.00	434	294.00	46

Data File: /chem/msde.i/03Jun2016.b/e060301.d

Date : 03-JUN-2016 07:02

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase: Rtx-624

Column diameter: 2.00

Data File: e060301.d
Spectrum: Avg. Scans 124-126 (6.05), Background Scan 120
Location of Maximum: 95.00
Number of points: 179

m/z	Y	m/z	Y	m/z	Y	m/z	Y
71.00	579	121.00	41	172.00	2027	322.00	90
72.00	3089	122.00	196	173.00	6038	323.00	79
73.00	27824	123.00	507	174.00	595584	327.00	137
74.00	103032	124.00	286	175.00	44632	329.00	59
75.00	315840	125.00	311	176.00	577792	331.00	387
76.00	26848	126.00	391	177.00	39368	336.00	128
77.00	3257	127.00	206	178.00	1129	341.00	104
78.00	1765	128.00	2335	180.00	36	342.00	106
79.00	15023	129.00	1044	181.00	37	343.00	318
80.00	4305	130.00	2360	190.00	73		

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/08Jun2016.b/e060801.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 08-JUN-2016 08:11
Operator : ef Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/08Jun2016.b/bfb60.m
Meth Date : 08-Jun-2016 08:27 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.079	6.235	-0.156	95	472277			100.00- 100.00	97.07
6.079	6.235	-0.156	50	73005			8.00- 40.00	15.46
6.079	6.235	-0.156	75	230308			30.00- 66.00	48.77
6.079	6.235	-0.156	96	29831			5.00- 9.00	6.32
6.079	6.235	-0.156	173	4709			0.00- 1.99	0.97
6.079	6.235	-0.156	174	486528			50.00- 120.00	103.02
6.079	6.235	-0.156	175	36517			4.00- 9.00	7.51
6.079	6.235	-0.156	176	473620			93.00- 101.00	97.35
6.079	6.235	-0.156	177	30552			5.00- 9.00	6.45

Data File: /chem/msde.i/08Jun2016.b/e060801.d

Date : 08-JUN-2016 08:11

Client ID: BFB

Instrument: msde.i

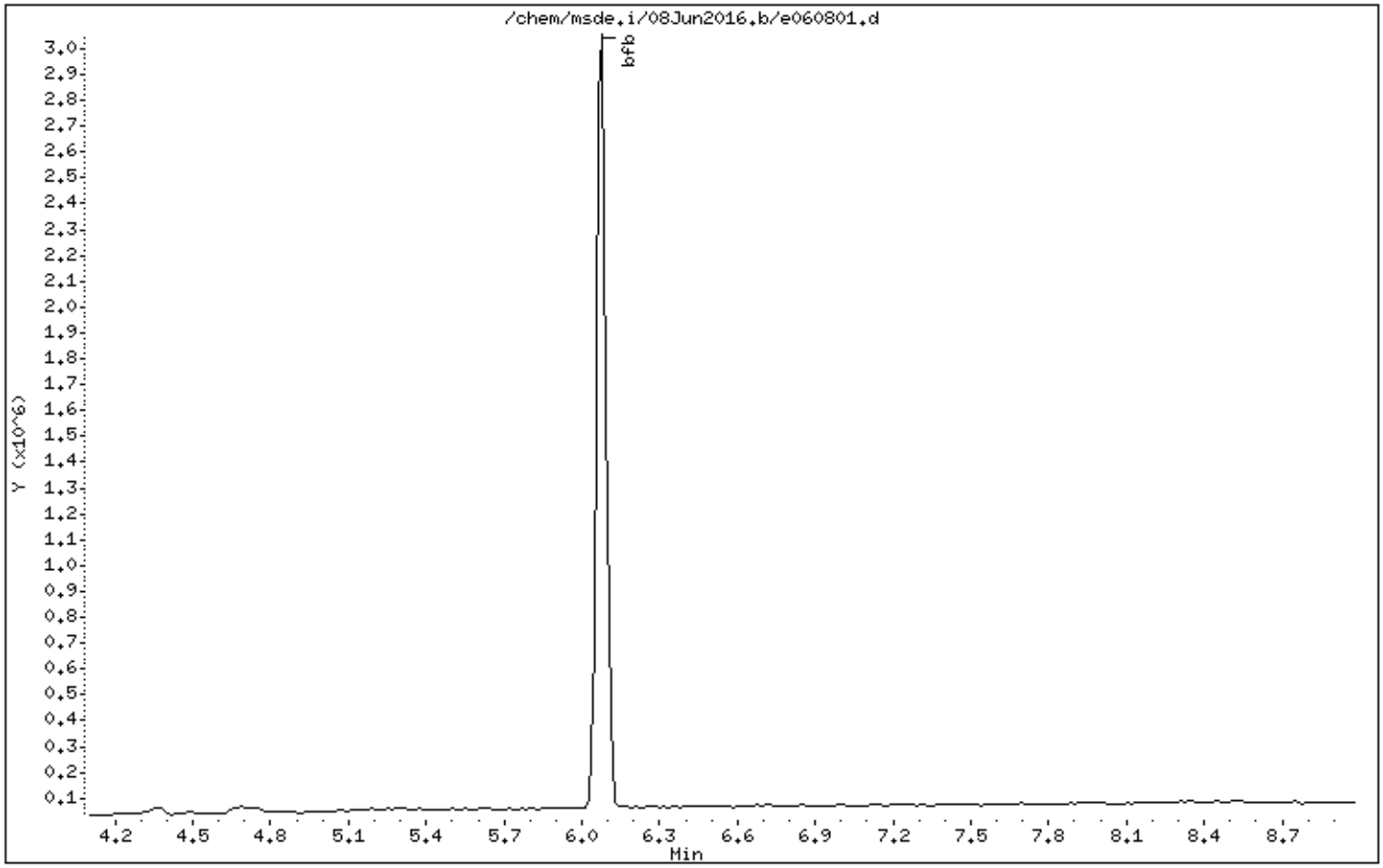
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/08Jun2016.b/e060801.d

Date : 08-JUN-2016 08:11

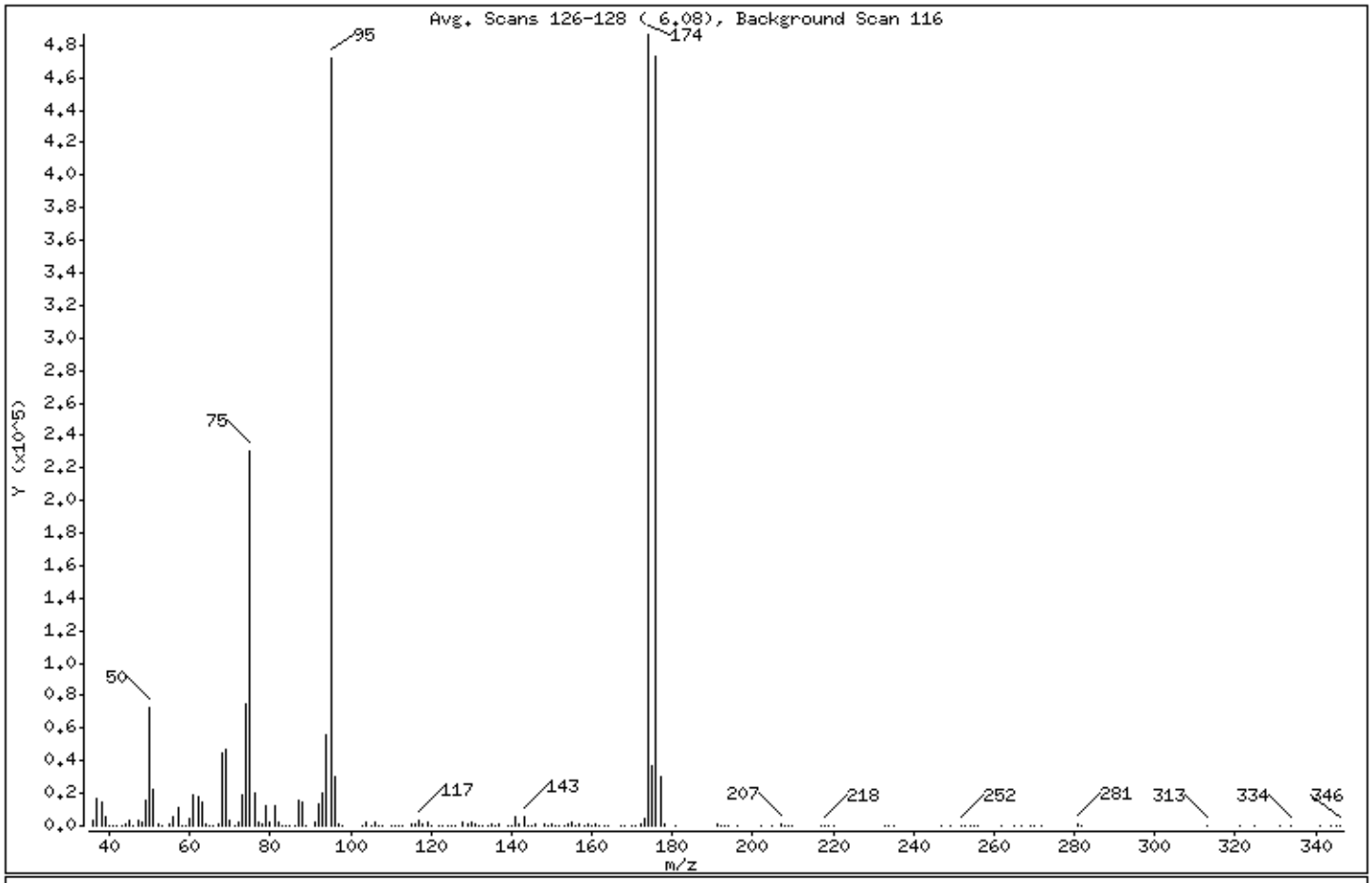
Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	15.46
75	30.00 - 66.00% of mass 95	48.77
96	5.00 - 9.00% of mass 95	6.32
173	Less than 1.99% of mass 174	1.00 (0.97)
174	50.00 - 120.00% of mass 95	103.02
175	4.00 - 9.00% of mass 174	7.73 (7.51)
176	93.00 - 101.00% of mass 174	100.28 (97.35)
177	5.00 - 9.00% of mass 176	6.47 (6.45)

Data File: /chem/msde.i/08Jun2016.b/e060801.d

Date : 08-JUN-2016 08:11

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e060801.d
Spectrum: Avg. Scans 126-128 (6.08), Background Scan 116
Location of Maximum: 174.00
Number of points: 171

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3221	80.00	2717	132.00	129	191.00	597
37.00	16528	81.00	11754	133.00	48	192.00	476
38.00	14669	82.00	2138	134.00	54	193.00	308
39.00	5577	83.00	440	135.00	1169	194.00	223
40.00	468	84.00	135	136.00	211	196.00	36
41.00	431	85.00	289	137.00	988	202.00	62
42.00	119	86.00	482	139.00	324	205.00	143
43.00	346	87.00	15406	140.00	451	207.00	1513
44.00	1641	88.00	14607	141.00	5469	208.00	405
45.00	3128	89.00	19	142.00	586	209.00	117
46.00	297	91.00	1767	143.00	5639	210.00	247
47.00	3398	92.00	13392	144.00	371	217.00	49
48.00	2180	93.00	19976	145.00	541	218.00	97
49.00	15668	94.00	56360	146.00	699	219.00	15
50.00	73000	95.00	472256	148.00	1632	220.00	37
51.00	22904	96.00	29824	149.00	66	233.00	73
52.00	1039	97.00	820	150.00	824	234.00	95
53.00	224	98.00	272	151.00	151	235.00	86
55.00	985	103.00	312	152.00	412	247.00	19
56.00	5323	104.00	1906	153.00	510	249.00	10
57.00	11484	105.00	546	154.00	724	252.00	186
58.00	534	106.00	1895	155.00	1796	253.00	31
59.00	1	107.00	368	156.00	104	254.00	127
60.00	4103	108.00	133	157.00	1071	255.00	37
61.00	19280	110.00	352	158.00	106	256.00	53
62.00	18184	111.00	515	159.00	723	262.00	66
63.00	14387	112.00	397	160.00	95	265.00	58
64.00	1486	113.00	478	161.00	572	267.00	78
65.00	451	115.00	693	162.00	89	269.00	132
66.00	119	116.00	1529	163.00	67	270.00	226
67.00	965	117.00	3108	164.00	127	272.00	75
68.00	44512	118.00	1590	167.00	120	281.00	566
69.00	47152	119.00	2758	168.00	170	282.00	86
70.00	3440	120.00	95	170.00	36	313.00	38
71.00	485	122.00	142	171.00	199	321.00	41

Data File: /chem/msde.i/08Jun2016.b/e060801.d

Date : 08-JUN-2016 08:11

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: e060801.d
Spectrum: Avg. Scans 126-128 (6.08), Background Scan 116
Location of Maximum: 174.00
Number of points: 171

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	2344	123.00	179	172.00	1021	325.00	52
73.00	18840	124.00	456	173.00	4709	331.00	55
74.00	75056	125.00	193	174.00	486528	334.00	294
75.00	230272	126.00	278	175.00	36512	341.00	19
76.00	20648	128.00	1743	176.00	473600	344.00	11
77.00	2155	129.00	820	177.00	30552	345.00	40
78.00	1437	130.00	2200	178.00	1169	346.00	124
79.00	11846	131.00	845	181.00	216		

Shipping/ Receiving Documents

eurofins | Air Toxics

Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Brian Whittaker at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

Please note : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 6:30 A.M to 5:30 P.M. PST

eurofins | Air Toxics

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

0780 of 0803

Project Manager Terry Taylor
Collected by: (Print and Sign) Terry Taylor
Company AMAI Email
Address 2700 Westchester City Purchase State NY Zip
Phone 914-251-0400 Fax

Project Info:
P.O. #
Project #
Project Name Building 30 VI

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	B30 AA(052816)	33321	5/29/16	1824	TO-15	30+	7.5		
02A	B30IA-1(052816)	35258	5/29/16	1739	TO-15	30+	5.5		
03A	B30IA-1D(052816)	14038	5/29/16	1739	TO-15	29	5.0		
04A	B30IA-2(052816)	33586	5/29/16	1045	TO-15	30+	0		
05A	B30IA-3(052816)	33926	5/29/16	1800	TO-15	29	4		
06A	B30IA-4(052816)	0337	5/29/16	1804	TO-15	30	8		
07A	B30IA-5(052816)	6L1279	5/29/16	1736	TO-15	28.5	4		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	05/31/15	Fed Ex-track: 7764 0738 2968	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
		[signature]	6-1-16 1000
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx		Na	Good	Yes No None	1606028

Form 1293 rev.11

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY

WORKORDER 1606028A

Client

Mr. Terry Taylor
Anderson Mulholland &
Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577
Sales Rep: N/A

Phone

(914) 251-0400

Fax

Date Promised: 06/14/16
Date Completed: 6/14/16
Date Received: 6/1/16
PO#:
Project#: Building 30 VI

Total $: $ 1,864.94
Logged By: AA

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	B30AA (052816)	Modified TO-15	5/29/2016	6.5 "Hg	$135.00
02A	B30IA-1 (052816)	Modified TO-15	5/29/2016	4.3 "Hg	$135.00
03A	B30IA-1D (052816)	Modified TO-15	5/29/2016	4.3 "Hg	$135.00
04A	B30IA-2 (052816)	Modified TO-15	5/29/2016	0.2 psi	$135.00
05A	B30IA-3 (052816)	Modified TO-15	5/29/2016	3.5 "Hg	$135.00
06A	B30IA-4 (052816)	Modified TO-15	5/29/2016	7.1 "Hg	$135.00
07A	B30IA-5 (052816)	Modified TO-15	5/29/2016	3.3 "Hg	$135.00
08A	Lab Blank	Modified TO-15	NA	NA	$0.00
08B	Lab Blank	Modified TO-15	NA	NA	$0.00
09A	CCV	Modified TO-15	NA	NA	$0.00
09B	CCV	Modified TO-15	NA	NA	$0.00
10A	LCS	Modified TO-15	NA	NA	$0.00
10AA	LCSD	Modified TO-15	NA	NA	$0.00
10B	LCS	Modified TO-15	NA	NA	$0.00
10BB	LCSD	Modified TO-15	NA	NA	$0.00

Misc. Charges	6 Liter Summa Canister (100% Certified) (7) @ $55.00 each., Shipme	$385.00
	Flow Controller-24 hr (100% Certified) (7) @ $25.00 each., Shipment	$175.00
	eCVP (7) @ $5.00 each.	$35.00
	Shipping Charges (Shipped Via DHL DHL EXPRESS WORLDWIDE	$308.94
	Duplicate Sampling T (2) @ $8.00 each.	$16.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: BMS/19256

BILL TO: Accounts Payable
Anderson Mulholland & Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577

Analysis Code: pptv

TERMS:

Reporting Method: Modified TO-15-LL + Naph

Sample Discrepancy Report

Identification

Initiated By: SU **Project ID:**19256 **PM**: BSW **Date:** 6/3/2016 **Discrepancy Type:** ☐ **1.** ☒ **2.** ☐ **3.**

Workorder(s) affected:1606028A **Sample(s) affected:** 04A

1. Sample Receipt Discrepancies

Narration Not Required:

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☐ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

Describe the Discrepancy: _____

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of H_2O in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☒ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☒ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (<25"Hg).

2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one).

2.19. ☐ Flow Controller RPD of = 20% was not met.

2.20. ☐ Other (describe below)

Initials: su **Date:** 6/3/2016 **Notify Receiving:** ☐ **Notify PM:** ☒

Describe the Discrepancy: 2.14: Sample 04A was received at ambient pressure at time of pressurization and the sample canister failed leak check on two manifolds. A blue sticker was placed on the

tag to inform the lab of the leaky can. The sample canister was still able to be pressurized.

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Team Lead Initials: _____ **Date:** _____

Describe the Discrepancy: _____

_____

_____

How Does this Affect Client: _____

_____

_____

Project Manager Use Only

Project Manager Notification ☒ **Section 2 Complete** ☐ **Section 3 Complete**

Action:

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☒ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:BSW Person notified: Terry Taylor and David Lindstrand Date: 6/6/2016

☐ Waiting for Client Reply

Comments: **Narrate and proceed with analysis unless notified otherwise.**

_____

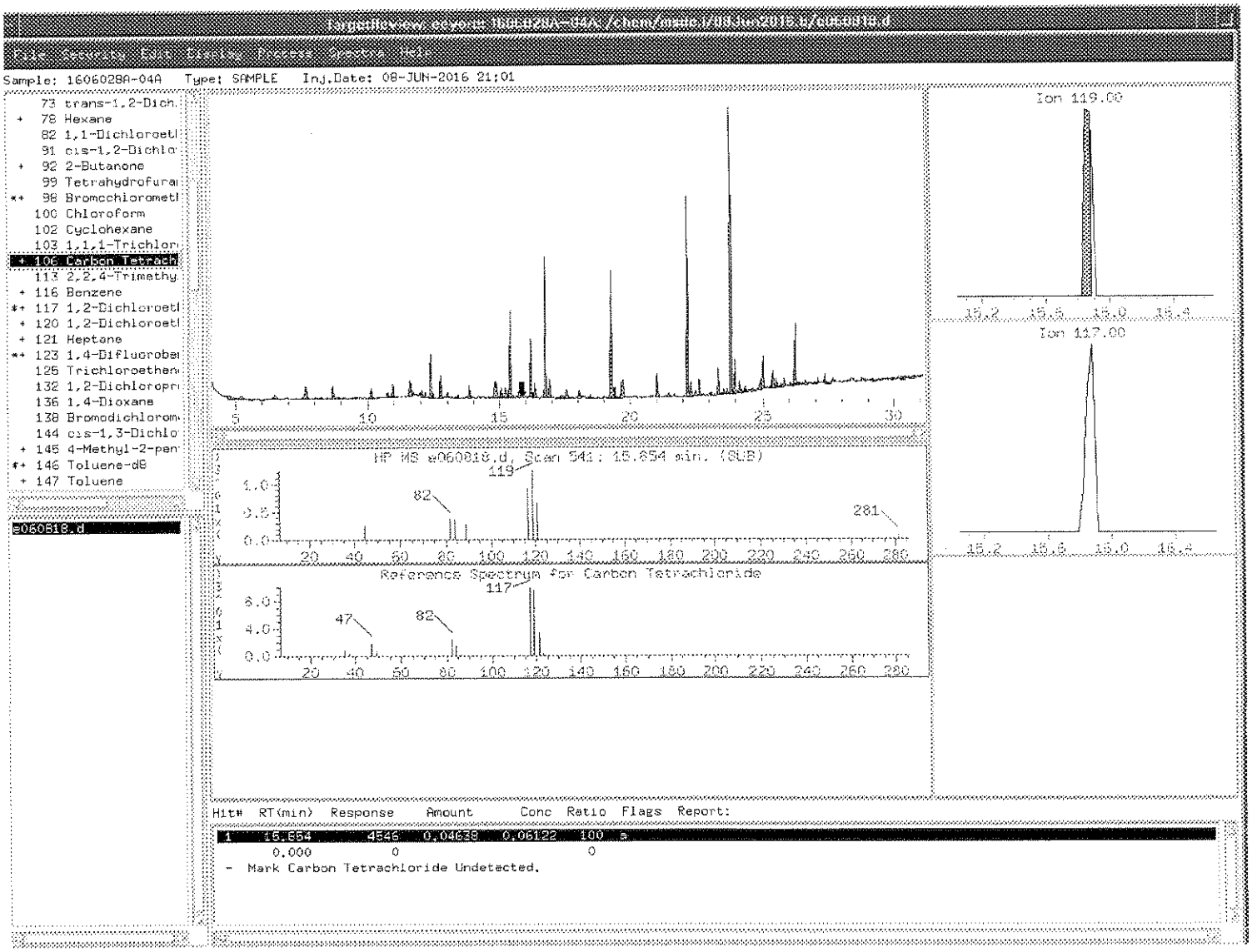
☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☐

☐ **Additional notifications attached.**

Additional Comments:

_____

Other Records



before HAB 6/14/16

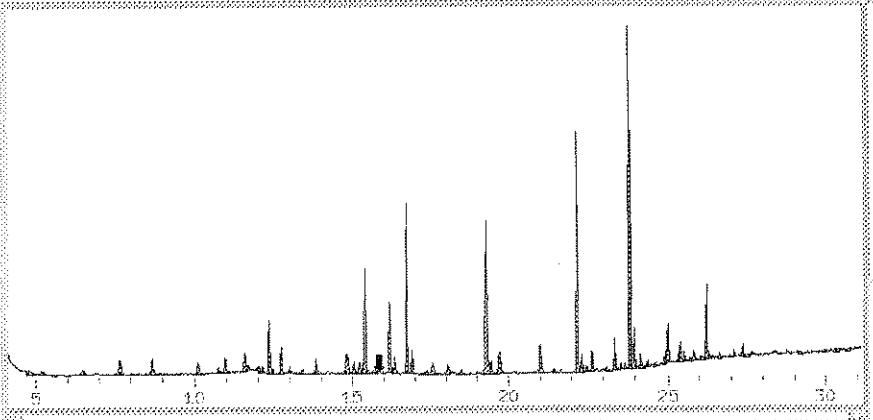
Targetfile:view:st,vmr: 1606020A-04A:/chem/msdx:/08Jun2016.b/c0808010.d

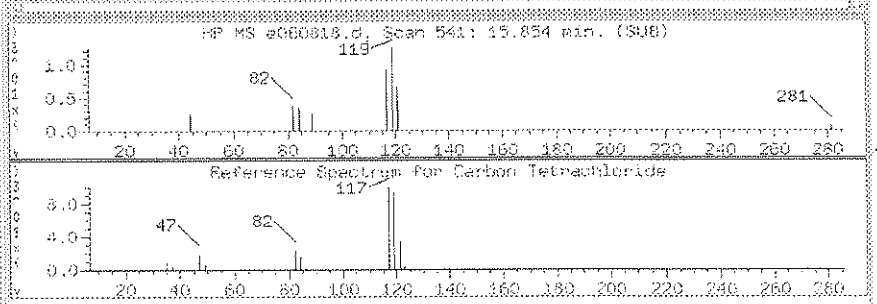
File Searches Edit Results Process Search Help

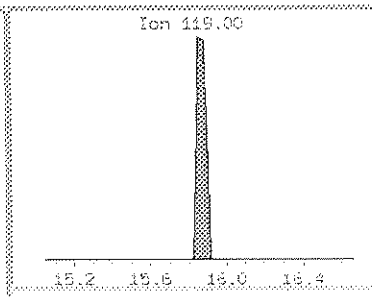
Sample: 1606020A-04A Type: SAMPLE Inj.Date: 08-JUN-2016 21:01

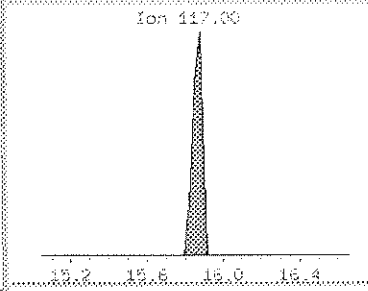
73 trans-1,2-Dich
+ 78 Hexane
82 1,1-Dichloroetl
91 cis-1,2-Dichlo
+ 92 2-Butanone
99 Tetrahydrofura
*+ 98 Bromochloromet
100 Chloroform
102 Cyclohexane
103 1,1,1-Trichlor
*+106 Carbon Tetrach
113 2,2,4-Trimethy
+ 116 Benzene
*+ 117 1,2-Dichloroetl
+ 120 1,2-Dichloroetl
+ 121 Heptane
*+ 123 1,4-Difluorobe
125 Trichloroethen
132 1,2-Dichloropr
136 1,4-Dioxane
138 Bromodichlorom
144 cis-1,3-Dichlo
+ 145 4-Methyl-2-pen
*+ 146 Toluene-dB
+ 147 Toluene

e080818.d









Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	15.854	4546	0.04637	0.06121	100	aM	
	15.884	4365			96		

- Mark Carbon Tetrachloride Undetected.

after HAB 6/14/16

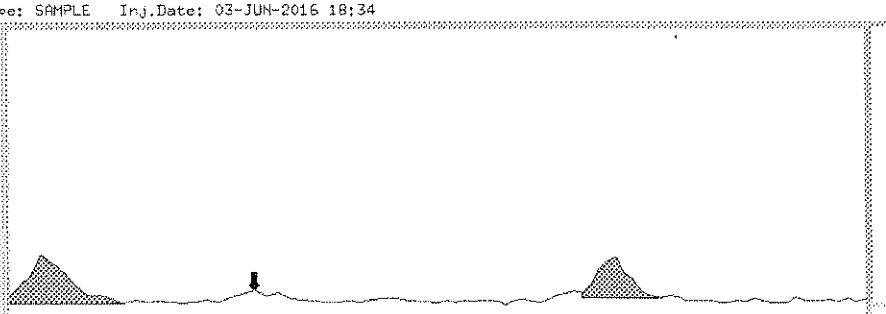
corrected peak integration

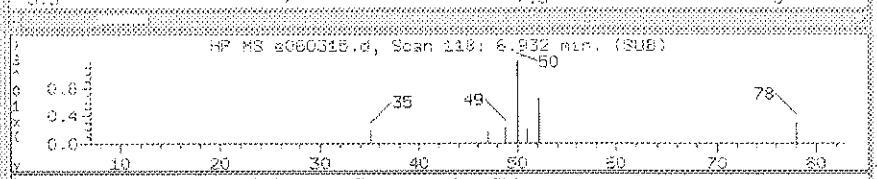
TargetView session: 1606020A-05A /chem/msdc/09Jun2016.b/e060315.d

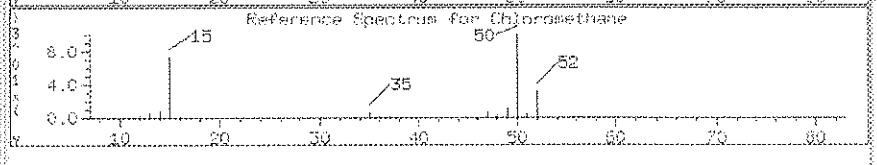
Sample: 1606028A-08A Type: SAMPLE Inj.Date: 03-JUN-2016 18:34

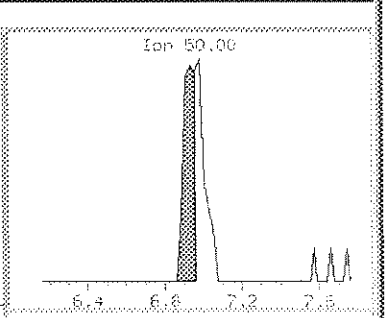
- + 11 Freon 12
- 16 Freon 114
- * 17 Chloromethane
- 25 Vinyl Chloride
- 26 1,3-Butadiene
- 29 Bromomethane
- 30 Chloroethane
- + 35 Freon 11
- + 42 Ethanol
- + 49 Freon 113
- 60 1,1-Dichloroetl
- + 52 Acetone
- + 56 Carbon Disulfi
- + 57 2-Propanol
- 58 3-Chloroprope
- + 66 Methylene Chlo
- 72 Methyl tert-bu
- 73 trans-1,2-Dich
- + 78 Hexane
- 82 1,1-Dichloroetl
- 91 cis-1,2-Dichlo
- - 92 2-Butanone
- 99 Tetrahydrofura
- *+ 98 Bromochloromet
- 100 Chloroform

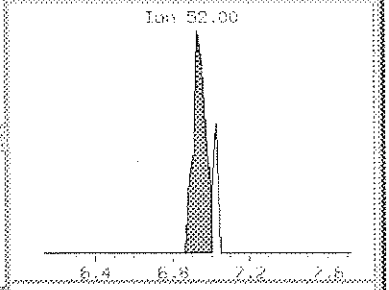
e060315.d







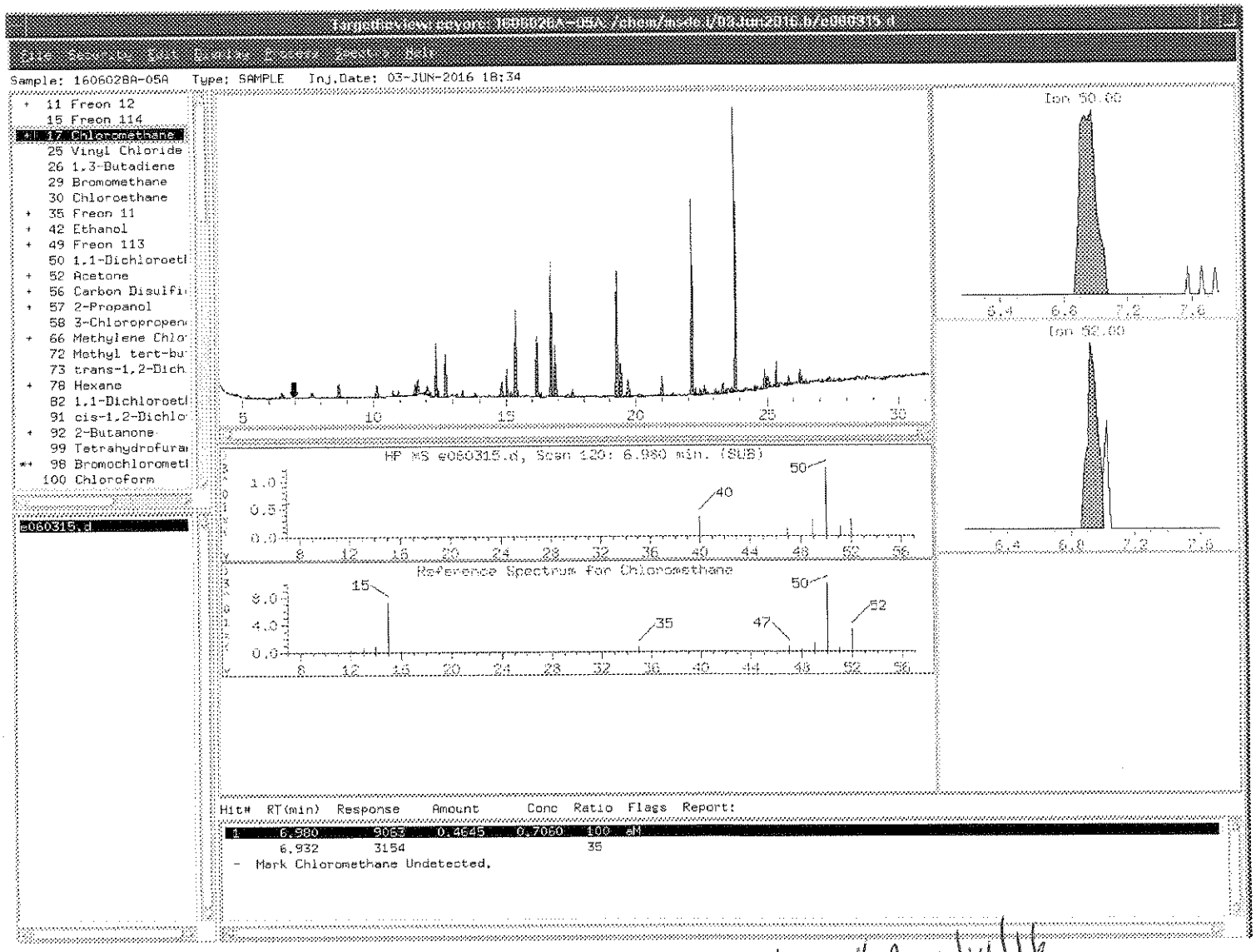




Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	6.932	5510	0.2824	0.4292	100	a	
	6.932	3154			57		

- Mark Chloromethane Undetected.

before ~~AB~~ 6/14/16



after HB 6/14/16
corrected peak integration

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure ("Hg)})*(14.7\text{psi}/30\text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
0.0	1.34	2.02
0.2	1.35	2.03
0.4	1.36	2.05
0.5	1.36	2.05
0.6	1.37	2.06
0.8	1.38	2.08
1.0	1.39	2.09
1.2	1.40	2.10
1.4	1.40	2.12
1.5	1.41	2.13
1.6	1.42	2.13
1.8	1.42	2.15
2.0	1.44	2.16
2.2	1.45	2.18
2.4	1.46	2.20
2.5	1.46	2.20
2.6	1.47	2.21
2.8	1.48	2.23
3.0	1.49	2.24
3.2	1.50	2.26
3.4	1.51	2.28
3.5	1.52	2.29
3.6	1.52	2.30
3.8	1.53	2.31
4.0	1.55	2.33
4.2	1.56	2.35
4.4	1.57	2.37
4.5	1.58	2.38
4.6	1.58	2.39
4.8	1.60	2.40
5.0	1.61	2.42
5.2	1.62	2.44
5.4	1.63	2.46
5.5	1.64	2.47
5.6	1.65	2.48
5.8	1.66	2.50
6.0	1.68	2.52
6.2	1.69	2.55
6.4	1.70	2.57
6.5	1.71	2.58
6.6	1.72	2.59
6.8	1.73	2.61
7.0	1.75	2.64
7.2	1.76	2.66
7.4	1.78	2.68
7.5	1.79	2.69
7.6	1.79	2.70

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
7.7	1.80	2.72
7.8	1.81	2.73
8.0	1.83	2.76
8.2	1.84	2.78
8.4	1.86	2.81
8.5	1.87	2.82
8.6	1.88	2.83
8.8	1.90	2.86
9.0	1.91	2.89
9.2	1.93	2.91
9.4	1.95	2.94
9.5	1.96	2.96
9.6	1.97	2.97
9.8	1.99	3.00
10.0	2.01	3.03
10.2	2.03	3.06
10.4	2.05	3.09
10.5	2.06	3.11
10.6	2.07	3.12
10.8	2.09	3.16
11.0	2.12	3.19
11.2	2.14	3.22
11.4	2.16	3.26
11.5	2.17	3.28
11.6	2.18	3.29
11.8	2.21	3.33
12.0	2.23	3.37
12.2	2.26	3.40
12.4	2.28	3.44
12.5	2.30	3.46
12.6	2.31	3.48
12.8	2.34	3.52
13.0	2.36	3.56
13.2	2.39	3.61
13.4	2.42	3.65
13.5	2.44	3.67
13.6	2.45	3.70
13.8	2.48	3.74
14.0	2.51	3.79
14.2	2.54	3.84
14.4	2.58	3.88
14.5	2.59	3.91
14.6	2.61	3.94
14.8	2.64	3.99
15.0	2.68	4.04
15.2	2.72	4.10
15.4	2.75	4.15

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
15.5	2.77	4.18
15.6	2.79	4.21
15.8	2.83	4.27
16.0	2.87	4.33
16.2	2.91	4.39
16.4	2.96	4.46
16.5	2.98	4.49
16.6	3.00	4.52
16.8	3.05	4.59
17.0	3.09	4.66
17.2	3.14	4.74
17.4	3.19	4.81
17.5	3.22	4.85
17.6	3.24	4.89
17.8	3.30	4.97
18.0	3.35	5.05
18.2	3.41	5.14
18.4	3.47	5.22
18.5	3.50	5.27
18.6	3.53	5.32
18.8	3.59	5.41
19.0	3.65	5.51
19.2	3.72	5.61
19.4	3.79	5.72
19.5	3.83	5.77
19.6	3.87	5.83
19.8	3.94	5.94
20.0	4.02	6.06
20.2	4.10	6.18
20.4	4.19	6.31
20.5	4.23	6.38
20.6	4.28	6.45
20.8	4.37	6.59
21.0	4.47	6.73
21.2	4.57	6.89
21.4	4.67	7.05
21.5	4.73	7.13
21.6	4.79	7.22
21.8	4.90	7.39
22.0	5.03	7.58
22.4	5.29	7.98

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
22.5	5.36	8.08
22.6	5.43	8.19
22.8	5.58	8.42
23.0	5.74	8.66
23.2	5.91	8.91
23.4	6.09	9.18
23.5	6.19	9.32
23.6	6.28	9.47
23.8	6.48	9.78
24.0	6.70	10.10
24.2	6.93	10.45
24.4	7.18	10.82
24.5	7.31	11.02
24.6	7.45	11.22
24.8	7.73	11.66
25.0	8.04	12.12
25.2	8.38	12.63
25.4	8.74	13.18
25.5	8.93	13.47
25.6	9.14	13.78
25.8	9.57	14.43
26.0	10.05	15.15
26.2	10.58	15.95
26.4	11.17	16.84
26.5	11.49	17.32
26.6	11.82	17.83
26.8	12.56	18.94
27.0	13.40	20.20
27.2	14.36	21.65
27.4	15.46	23.31
27.5	16.08	24.24
27.6	16.75	25.26
27.8	18.27	27.55
28.0	20.10	30.31
28.2	22.34	33.67
28.4	25.13	37.88
28.5	26.80	40.41
28.6	28.72	43.29
28.8	33.50	50.51
29.0	40.20	60.61

Compound List

Modified TO-15-LL + Naph

CAS Number	Compound	Detection Limit ppbv	Type
75-71-8	Freon 12	0.10	
76-14-2	Freon 114	0.10	
75-35-4	1,1-Dichloroethene	0.10	
67-64-1	Acetone	0.50	
67-63-0	2-Propanol	0.50	
75-15-0	Carbon Disulfide	0.50	
75-09-2	Methylene Chloride	0.20	
1634-04-4	Methyl tert-butyl ether	0.10	
156-60-5	trans-1,2-Dichloroethene	0.10	
110-54-3	Hexane	0.10	
75-34-3	1,1-Dichloroethane	0.10	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	0.50	
156-59-2	cis-1,2-Dichloroethene	0.10	
109-99-9	Tetrahydrofuran	0.50	
67-66-3	Chloroform	0.10	
71-55-6	1,1,1-Trichloroethane	0.10	
110-82-7	Cyclohexane	0.10	
56-23-5	Carbon Tetrachloride	0.10	
71-43-2	Benzene	0.10	
107-06-2	1,2-Dichloroethane	0.10	
142-82-5	Heptane	0.10	
79-01-6	Trichloroethene	0.10	
78-87-5	1,2-Dichloropropane	0.10	
123-91-1	1,4-Dioxane	0.10	
75-27-4	Bromodichloromethane	0.10	
10061-01-5	cis-1,3-Dichloropropene	0.10	
108-10-1	4-Methyl-2-pentanone	0.10	
108-88-3	Toluene	0.10	
10061-02-6	trans-1,3-Dichloropropene	0.10	
79-00-5	1,1,2-Trichloroethane	0.10	
127-18-4	Tetrachloroethene	0.10	
591-78-6	2-Hexanone	0.50	
124-48-1	Dibromochloromethane	0.10	
106-93-4	1,2-Dibromoethane (EDB)	0.10	
108-90-7	Chlorobenzene	0.10	
100-41-4	Ethyl Benzene	0.10	
108-38-3	m,p-Xylene	0.10	
95-47-6	o-Xylene	0.10	
100-42-5	Styrene	0.10	
75-25-2	Bromoform	0.10	
98-82-8	Cumene	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	0.10	
103-65-1	Propylbenzene	0.10	
622-96-8	4-Ethyltoluene	0.10	
108-67-8	1,3,5-Trimethylbenzene	0.10	
95-63-6	1,2,4-Trimethylbenzene	0.10	

Compound List

Modified TO-15-LL + Naph

CAS Number	Compound	Detection Limit ppbv	Type
541-73-1	1,3-Dichlorobenzene	0.10	
106-46-7	1,4-Dichlorobenzene	0.10	
100-44-7	alpha-Chlorotoluene	0.10	
95-50-1	1,2-Dichlorobenzene	0.10	
120-82-1	1,2,4-Trichlorobenzene	0.50	
87-68-3	Hexachlorobutadiene	0.50	
91-20-3	Naphthalene	0.50	
17060-07-0	1,2-Dichloroethane-d4		
2037-26-5	Toluene-d8		
460-00-4	4-Bromofluorobenzene		
107-05-1	3-Chloropropene	0.50	
540-84-1	2,2,4-Trimethylpentane	0.50	
74-87-3	Chloromethane	0.50	
75-01-4	Vinyl Chloride	0.10	
106-99-0	1,3-Butadiene	0.10	
74-83-9	Bromomethane	0.50	
75-00-3	Chloroethane	0.50	
75-69-4	Freon 11	0.10	
64-17-5	Ethanol	0.50	
76-13-1	Freon 113	0.10	

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Media Certification Report

Canister Number: 6L# 33321
Can#: 107536-33321
Date : 05/19/16 19:55
Data File: d051912.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
2-Propanol	67-63-0	0.250	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		98.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	98.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	94.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	94.00	% Recovery
Toluene-d8	2037-26-5	0.050	99.00	% Recovery
Toluene-d8	2037-26-5	0.250	99.00	% Recovery

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Media Certification Report

Canister Number: 6L# 35258
Can#: 107536-35258
Date : 05/21/16 13:28
Data File: d052037.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
2-Propanol	67-63-0	0.250	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		101.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	101.00	% Recovery
Toluene-d8	2037-26-5	0.050	99.00	% Recovery
Toluene-d8	2037-26-5	0.250	99.00	% Recovery

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Media Certification Report

Canister Number: 6L# 14038
Can#: 107536-14038
Date : 05/21/16 5:38
Data File: d052024.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
2-Propanol	67-63-0	0.250	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		103.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	103.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	103.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	103.00	% Recovery
Toluene-d8	2037-26-5	0.050	98.00	% Recovery
Toluene-d8	2037-26-5	0.250	98.00	% Recovery

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Media Certification Report

Canister Number: 6L# 33586
Can#: 107536-33586
Date : 05/21/16 12:15
Data File: d052035.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
2-Propanol	67-63-0	0.250	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		102.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	102.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	101.00	% Recovery
Toluene-d8	2037-26-5	0.050	95.00	% Recovery
Toluene-d8	2037-26-5	0.250	95.00	% Recovery

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Media Certification Report

Canister Number: 6L# 33926
Can#: 107536-33926
Date : 05/20/16 23:02
Data File: d052013.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
2-Propanol	67-63-0	0.250	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		100.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	100.00	% Recovery
Toluene-d8	2037-26-5	0.050	99.00	% Recovery
Toluene-d8	2037-26-5	0.250	99.00	% Recovery

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Media Certification Report

Canister Number: 6L# 0337
Can#: 107536-0337
Date : 05/20/16 0:52
Data File: d051920.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
2-Propanol	67-63-0	0.250	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		100.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	98.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	98.00	% Recovery
Toluene-d8	2037-26-5	0.050	100.00	% Recovery
Toluene-d8	2037-26-5	0.250	100.00	% Recovery

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Media Certification Report

Canister Number: 6L# 6L1279
Can#: 107536-6L1279
Date : 05/20/16 21:12
Data File: d052010.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
2-Propanol	67-63-0	0.250	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		99.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	99.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	96.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	96.00	% Recovery
Toluene-d8	2037-26-5	0.050	102.00	% Recovery
Toluene-d8	2037-26-5	0.250	102.00	% Recovery

Eurofins Air Toxics, Inc.	Data Review Checklist			Release Date: 02/23/16
Workorder # N606028 0	Form F1.27	Revision #13	Revision Date: 02/23/16	Page 1 of 2

S1	S2	S3	S4	D	Section 1 – Spec Out				
					Initials/Instrument/Date	S1: SS MSE 6/3/16	S2: SS 6/8/16	S3:	S4:
✓	✓				Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria				
✓	✓				Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder				
NA	NA				Manual Integrations included and approved				
✓	✓				Chain of Custody verified for special comments (add comments below)				
✓	✓				Non-standard Target sublist verified (MDL, LOD, RL, control limits, etc.)				

Profile, analyses, reporting, special notes and unusual circumstances:

S1: Fuel-70 MN, 2 out in cal, 2 out in VS.
S2: 2 out in cal, 2 out in VS.

A1	A2	A3	A4	D	Section 2 – Sample Analysis				
					Initials/Date	A1: ED 6/3/16	A2: gd 6/8/16	A3:	A4:
✓	✓				IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, and Canister #s Verified				
NA	NA			NA	a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument				
NA	✓			✓	Manual Integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply)				
✓	✓				12/24 Hr clock time & Hold Time met for all samples				
✓	✓			✓	Re-analysis of sample(s) has been evaluated for comparability and/or sample(s) has/have been checked for trends (Inf/Eff), field dups/trip blanks, samples following bad loads on CIAAs have been verified (system blks, confirmation runs).				
				✓	All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)				

Analytical and special notes: 01A-03A, 05A - IAB Full loads 06A-08A - needs confirmation
1MA-see email to PM
03A confirmed - see RPD report. Samples PM - EF 6/6/16 A2: 04A OK, Passed leak Test

D1	D2	D3	D4	T	3T	Section 3 – Target Data Reduction	Technical Review Needed? Circle one: Yes/No		T:	
						Initials/Instrument/Date MSD-E	D1: HAB 6/14/16	D2:	D3:	D4:
NA						CAR # (if applicable)				
✓						Spectra Verified (documentation of spectral defense included if applicable)				
NA						TICs resemble reference spectra/ TICs between sample dups. are consistent (if applicable)				
✓						Lab Narrative is correct				
NA						TPH/NMOC calculations complete and included in folder				

Special notes:
Chloromethane → manual integration all full loads
Carbon tetrachloride → manual int on 04A

A	3T	Section 4- Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
		Initials/Date: HAB 6/14/16	3rd Tier: (needed only for DOD or per client request)	
✓		Sample Discrepancy Report (SDR) complete and approved (if applicable)		
NA	✓	Manually entered results are checked		
✓	✓	At least one result per sample is verified against Target quant sheets		
✓	✓	Appropriate data qualifier flags are applied		
✓		Final invoice is correct/ Final PDF report, COC and EDD reviewed and correct		

Special Notes:

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Workorder # :				**Reason for Reissue:**
W	T	3T	Q	
				Reissue Request form Present
				Client or QA or Lab contact present with reason for reissue
				Review all affected data
				Report header has correct R1, R2 etc
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)
				Date for Reissue in Report Header matches date in Lab Narrative
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)
				Corrective Action issued - #
				The reissued workorder has been approved by QA Manager or a Technical Director

Additional Comments:

Write Up (Initials/Date)	**Tech Review** (Initials/Date)	***3rd Tier Review** ** 3rd Tier Report Review is for DoD & Client Specific projects only* (Initials/Date)	**QA Review** (Initials/Date)

Workorder # :				**Reason for Reissue:**
W	T	3T	Q	
				Reissue Request form Present
				Client or QA or Lab contact present with reason for reissue
				Review all affected data
				Report header has correct R1, R2 etc
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)
				Date for Reissue in Report Header matches date in Lab Narrative
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)
				Corrective Action issued - #
				The reissued workorder has been approved by QA Manager or a Technical Director

Additional Comments:

Write Up (Initials/Date)	**Tech Review** (Initials/Date)	***3rd Tier Review** ** 3rd Tier Report Review is for DoD & Client Specific projects only* (Initials/Date)	**QA Review** (Initials/Date)

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Not Applicable