

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121718\
 Data File : VL033003.D
 Acq On : 17 Dec 2018 19:53
 Operator : SY/AP
 Sample : J6382-02DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 18 01:16:10 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 07 09:35:17 2018
 QLast Update : Fri Dec 07 09:35:17 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1271472	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3077689	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3348901	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.59	95	2449570	9.90	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.00%

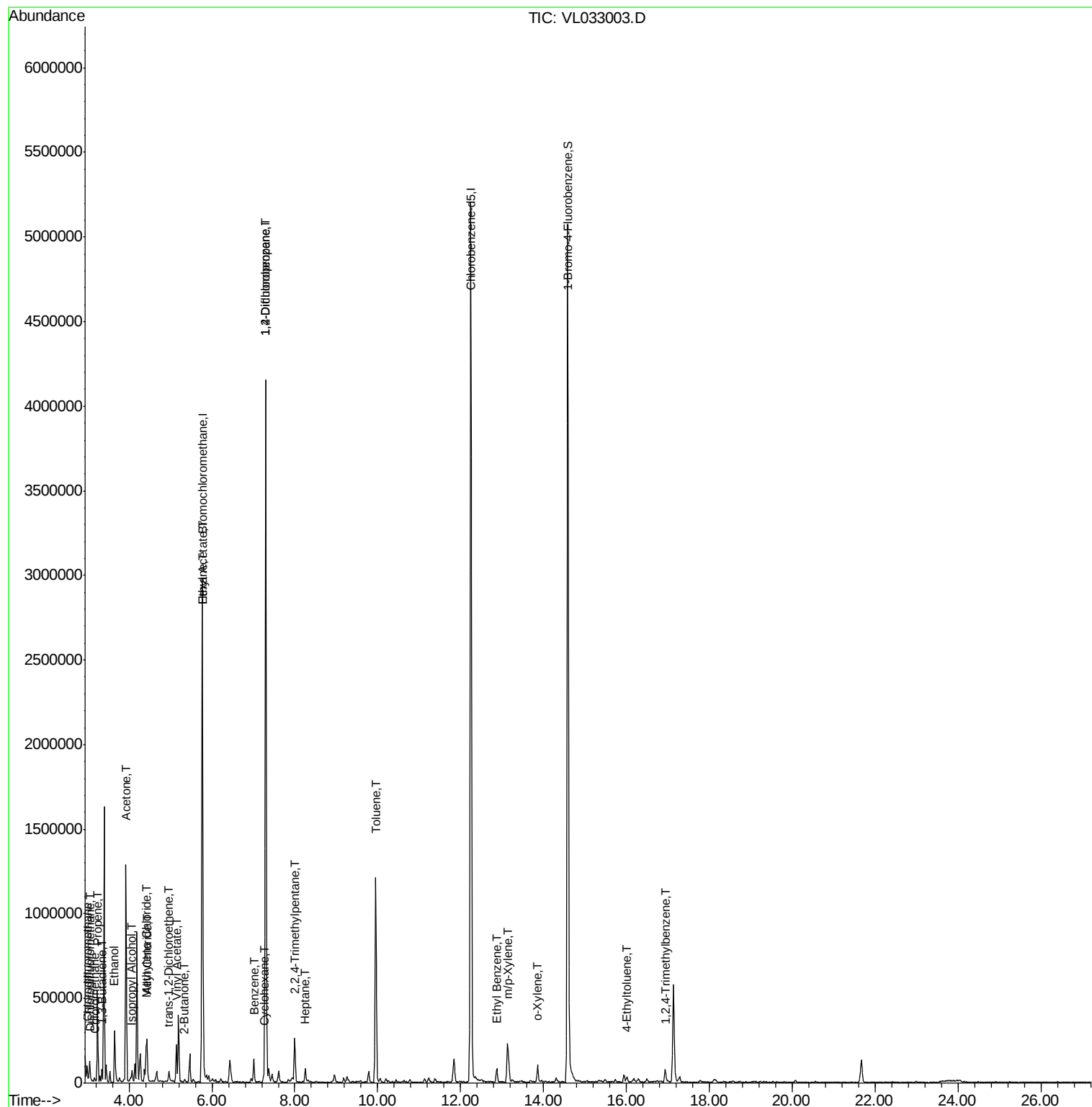
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.08	85	11456	0.067 ppbv #	74
3) Chlorodifluoromethane	2.99	51	47922	0.498 ppbv #	59
4) Chloromethane	3.17	50	14086	0.251 ppbv #	86
9) Propene	3.24	41	151561	3.981 ppbv	91
10) Heptane	8.25	43	18581	0.130 ppbv #	75
13) Ethanol	3.65	45	327117	24.952 ppbv	96
15) Acetone	3.93	43	577198	5.289 ppbv #	70
16) 1,3-Butadiene	3.35	39	20887	0.482 ppbv #	23
19) Isopropyl Alcohol	4.06	45	10720	0.156 ppbv #	42
20) Methylene Chloride	4.41	84	70513	1.322 ppbv	91
21) Allyl Chloride	4.44	41	32020	0.360 ppbv #	57
22) trans-1,2-Dichloroethene	4.97	96	13352	0.201 ppbv #	76
23) Vinyl Acetate	5.15	43	49886	0.270 ppbv #	1
25) Ethyl Acetate	5.78	43	95715	0.371 ppbv #	82
26) Hexane	5.78	57	129772	1.090 ppbv #	45
30) Cyclohexane	7.25	84	5326	0.054 ppbv #	1
34) 2-Butanone	5.35	43	10509	0.078 ppbv #	54
36) Benzene	7.01	78	104778	0.463 ppbv	99
39) 1,2-Dichloropropane	7.29	63	729779	8.501 ppbv #	20
44) 2,2,4-Trimethylpentane	7.99	57	208009	0.541 ppbv #	89
53) Toluene	9.95	91	885223	3.687 ppbv	100
58) Ethyl Benzene	12.88	91	66823	0.187 ppbv	100
59) m/p-Xylene	13.13	91	244696	0.755 ppbv #	100
60) o-Xylene	13.86	91	38099	0.116 ppbv #	38
72) 4-Ethyltoluene	16.01	105	16363	0.045 ppbv #	81
74) 1,2,4-Trimethylbenzene	16.93	105	27234	0.068 ppbv #	72

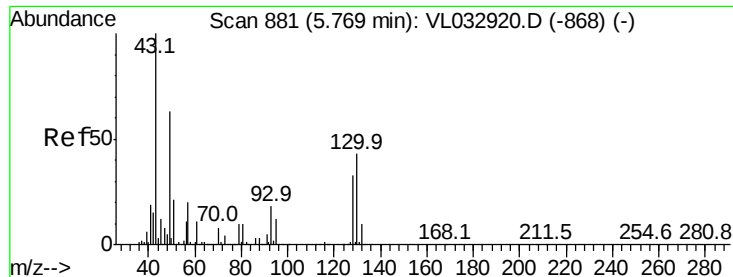
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Dec 07 09:35:17 2018
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.00 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Instrument :
MSVOA_L
ClientSampled :

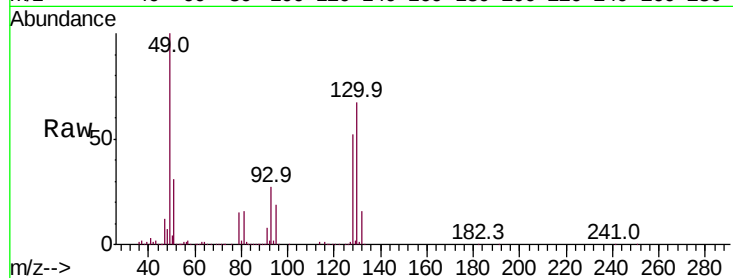
Tot Ion: 49 Resp: 1271472

Ion Ratio Lower Upper

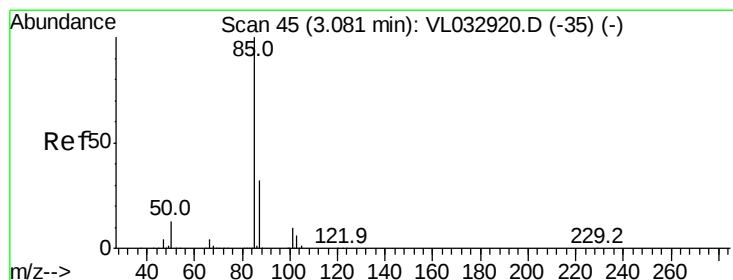
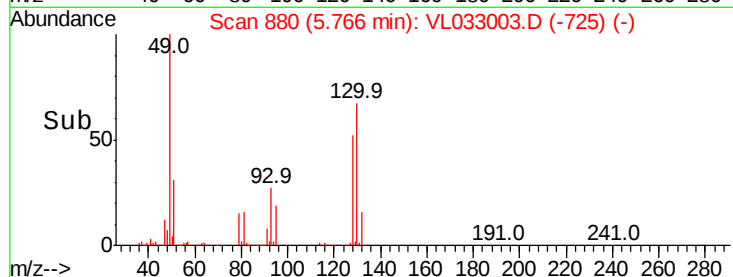
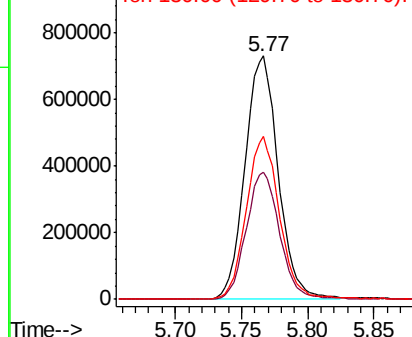
49 100

128 53.0 26.3 78.8

130 67.5 33.9 101.7



Abundance Ion 49.10 (48.80 to 49.80): VL0
Ion 128.00 (127.70 to 128.70): V
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.067 ppbv

RT: 3.08 min Scan# 44

Delta R.T. -0.00 min

Lab File: VL033003.D

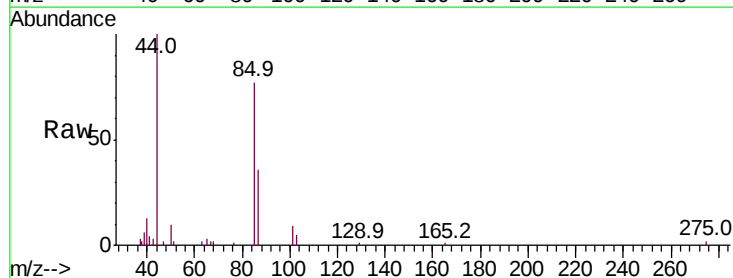
Acq: 17 Dec 2018 19:53

Tgt Ion: 85 Resp: 11456

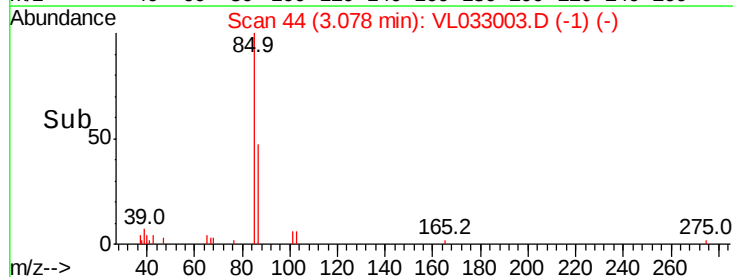
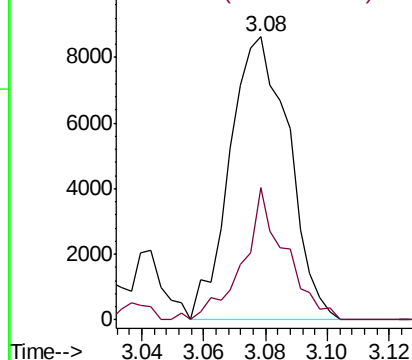
Ion Ratio Lower Upper

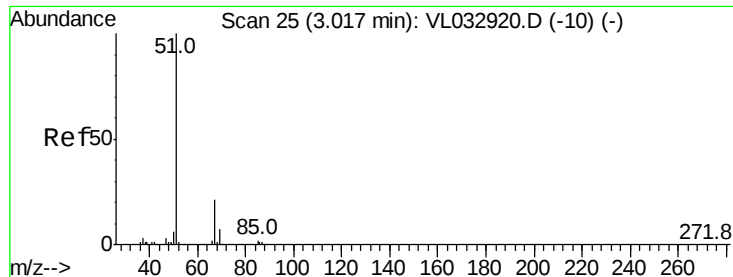
85 100

87 46.9 25.7 38.5#



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.498 ppbv

RT: 2.99 min Scan# 17

Delta R.T. -0.03 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

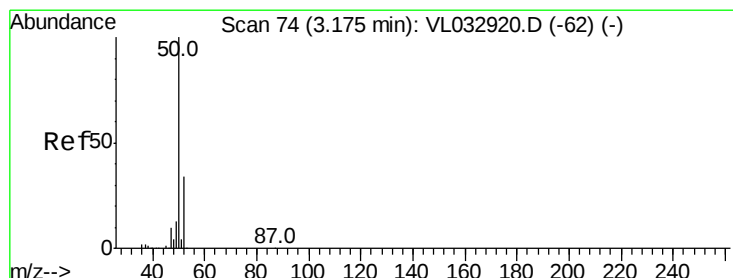
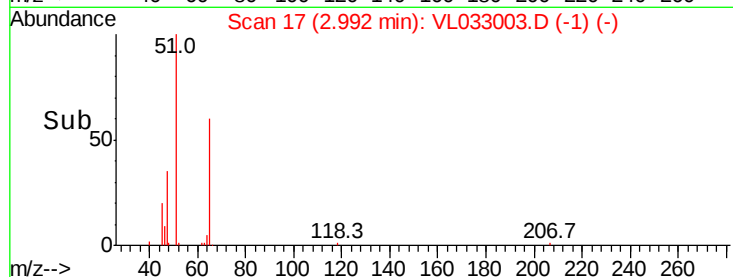
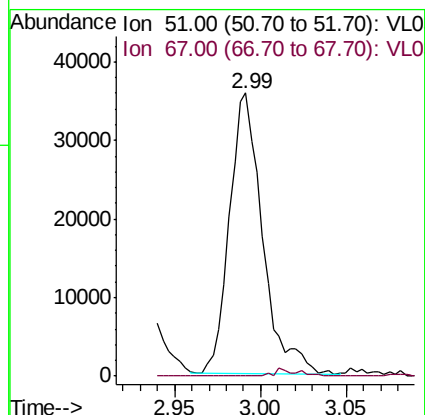
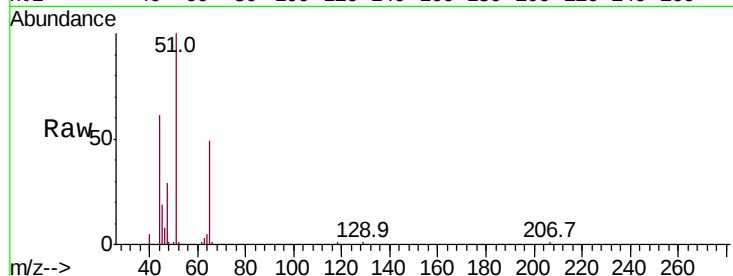
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 51 Resp: 47922

Ion Ratio Lower Upper

51 100

67 1.7 16.8 25.2#



#4

Chloromethane

Concen: 0.251 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.00 min

Lab File: VL033003.D

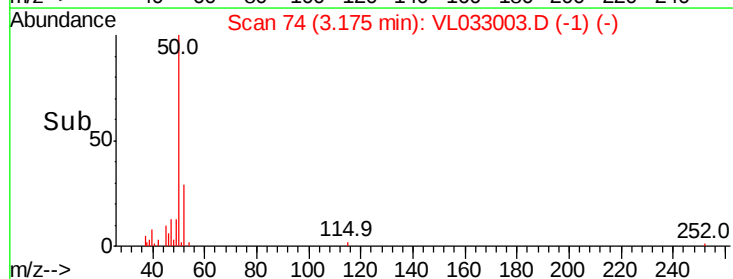
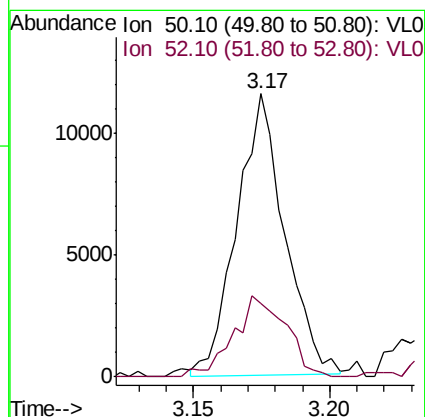
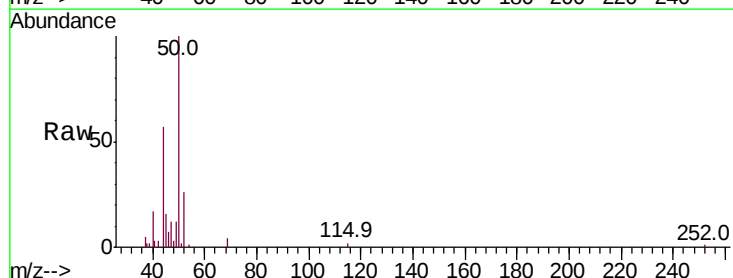
Acq: 17 Dec 2018 19:53

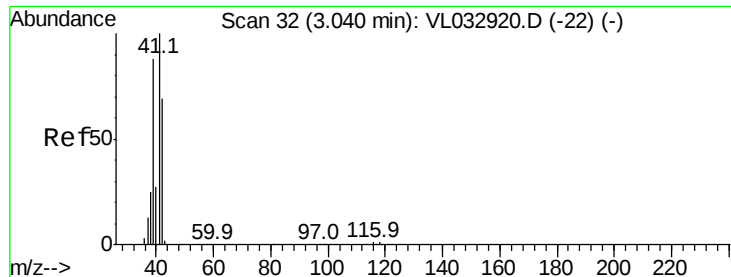
Tgt Ion: 50 Resp: 14086

Ion Ratio Lower Upper

50 100

52 25.8 27.3 40.9#





#9

Propene

Concen: 3.981 ppbv

RT: 3.24 min Scan# 94

Delta R.T. 0.20 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Instrument :

MSVOA_L

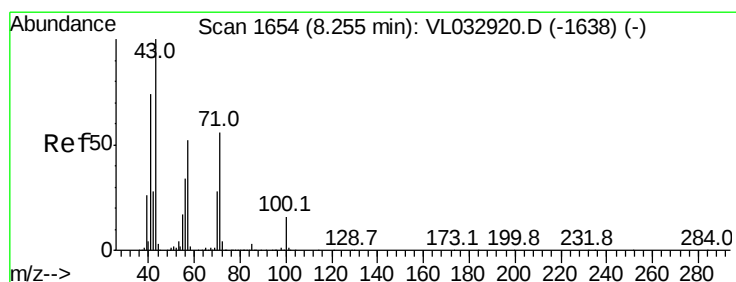
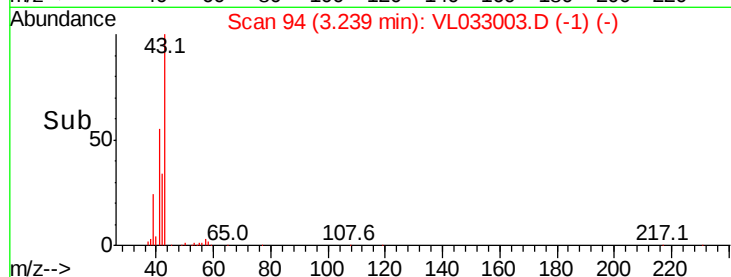
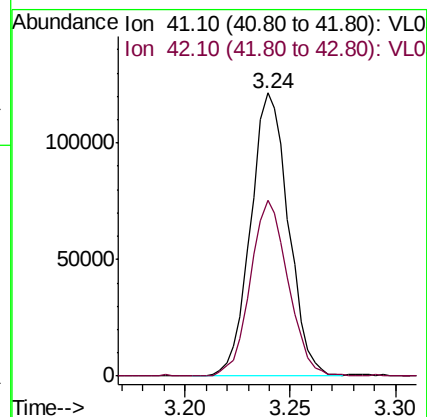
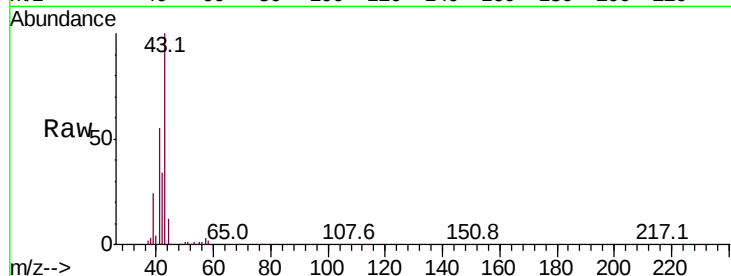
ClientSampled :

Tot Ion: 41 Resp: 151561

Ion Ratio Lower Upper

41 100

42 62.6 56.2 84.2



#10

Heptane

Concen: 0.130 ppbv

RT: 8.25 min Scan# 1653

Delta R.T. -0.00 min

Lab File: VL033003.D

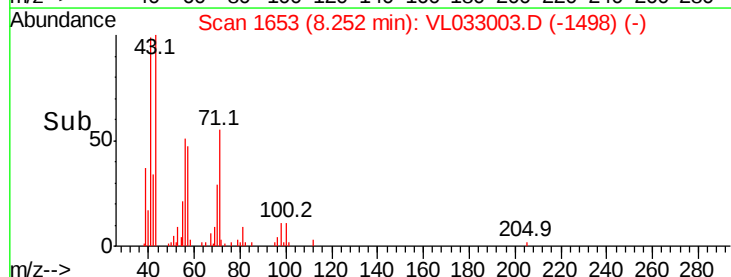
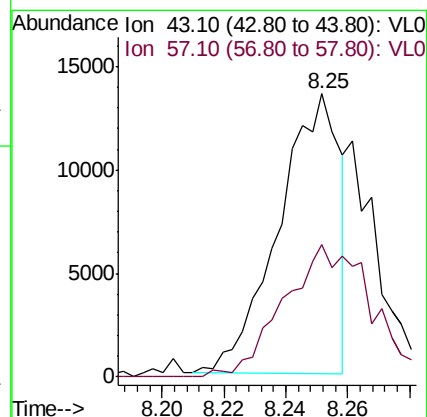
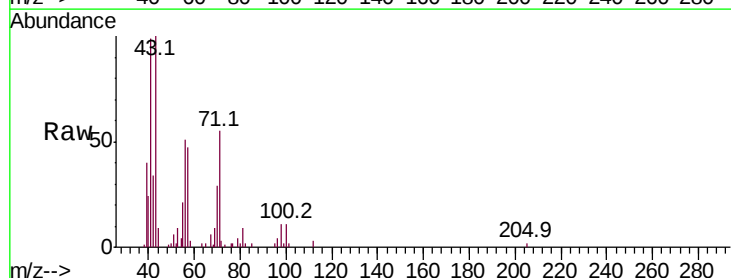
Acq: 17 Dec 2018 19:53

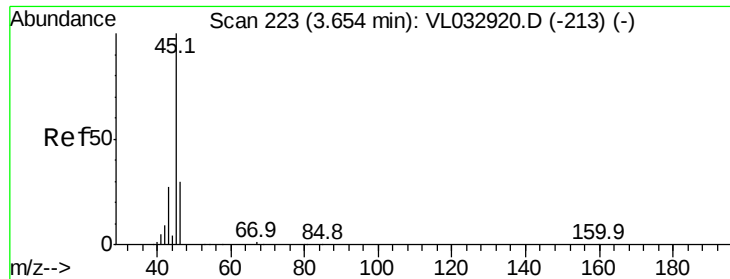
Tgt Ion: 43 Resp: 18581

Ion Ratio Lower Upper

43 100

57 69.8 41.8 62.6#





#13

Ethanol

Concen: 24.952 ppbv

RT: 3.65 min Scan# 222

Delta R.T. -0.00 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Instrument :

MSVOA_L

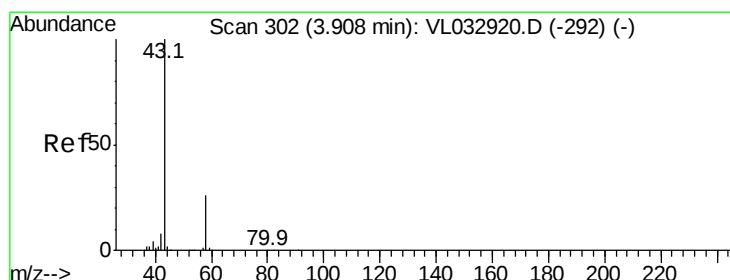
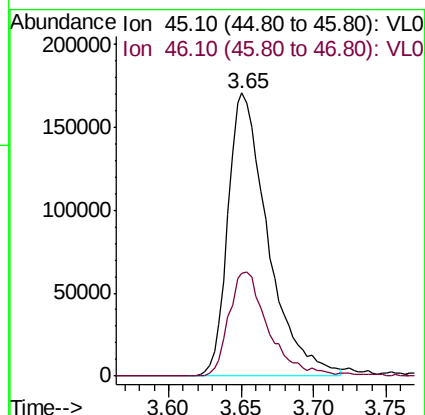
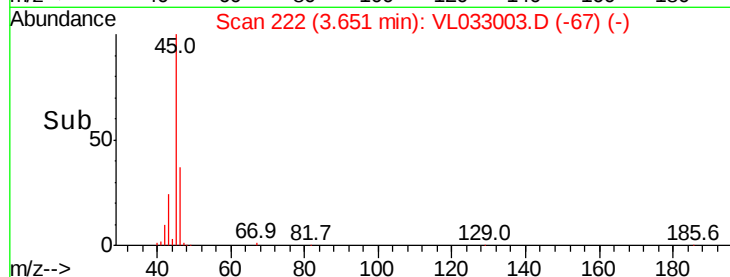
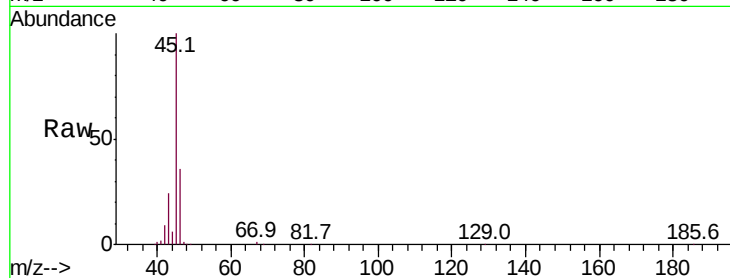
ClientSampleId :

Tot Ion: 45 Resp: 327117

Ion Ratio Lower Upper

45 100

46 37.0 13.8 55.4



#15

Acetone

Concen: 5.289 ppbv

RT: 3.93 min Scan# 308

Delta R.T. 0.02 min

Lab File: VL033003.D

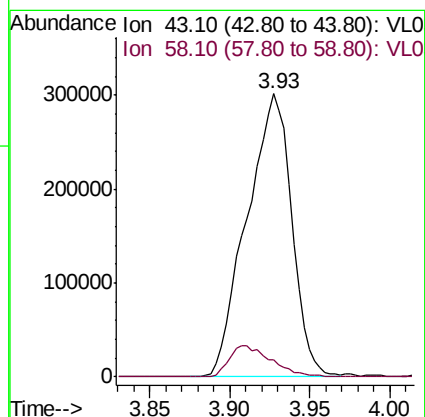
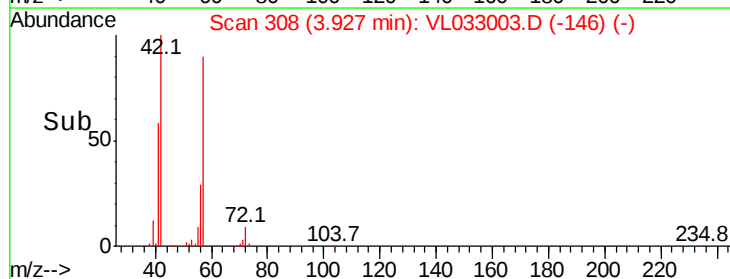
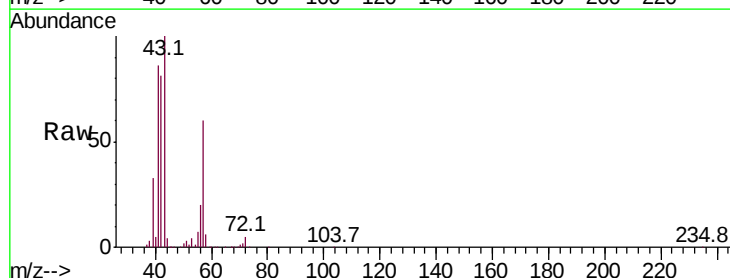
Acq: 17 Dec 2018 19:53

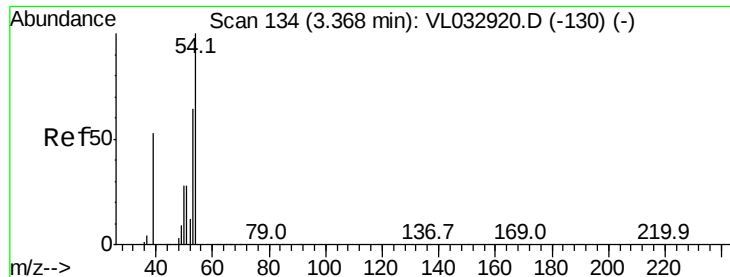
Tgt Ion: 43 Resp: 577198

Ion Ratio Lower Upper

43 100

58 10.4 20.6 30.8#





#16

1,3-Butadiene

Concen: 0.482 ppbv

RT: 3.35 min Scan# 127

Delta R.T. -0.02 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Instrument :

MSVOA_L

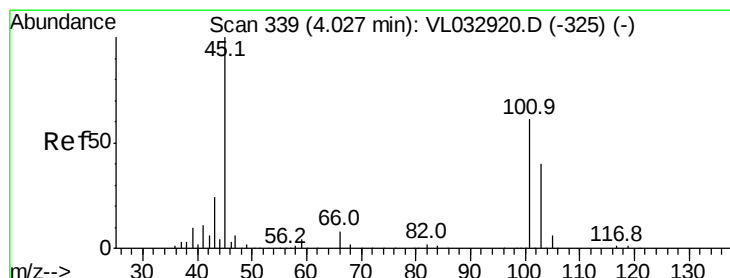
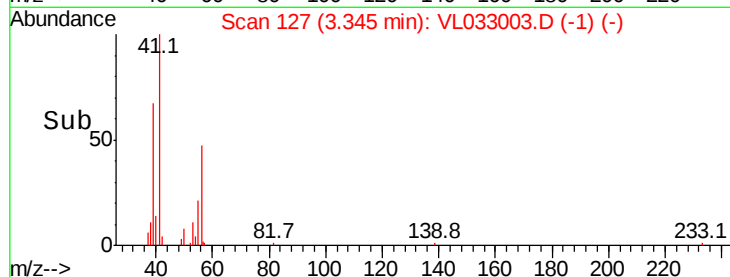
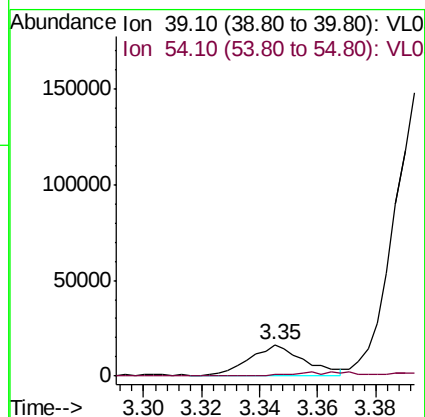
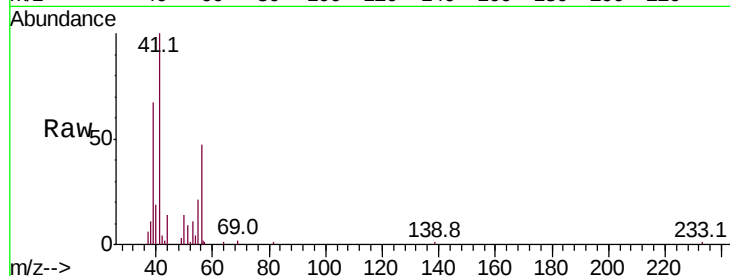
ClientSampleId :

Tot Ion: 39 Resp: 20887

Ion Ratio Lower Upper

39 100

54 18.1 72.7 109.1#



#19

Isopropyl Alcohol

Concen: 0.156 ppbv

RT: 4.06 min Scan# 348

Delta R.T. 0.03 min

Lab File: VL033003.D

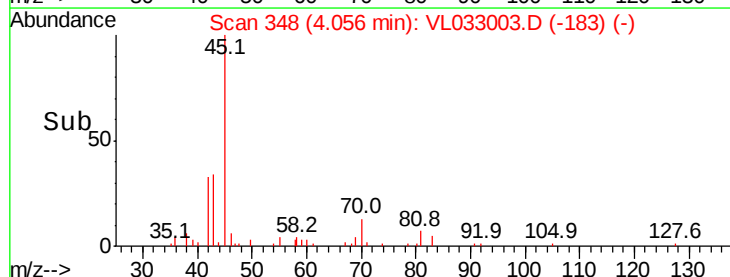
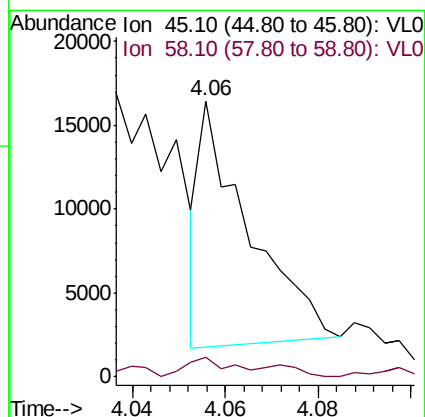
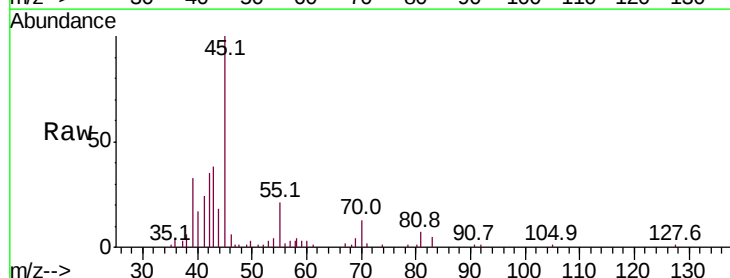
Acq: 17 Dec 2018 19:53

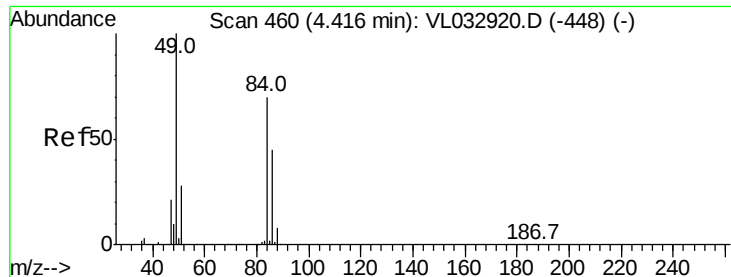
Tgt Ion: 45 Resp: 10720

Ion Ratio Lower Upper

45 100

58 22.9 1.4 2.2#

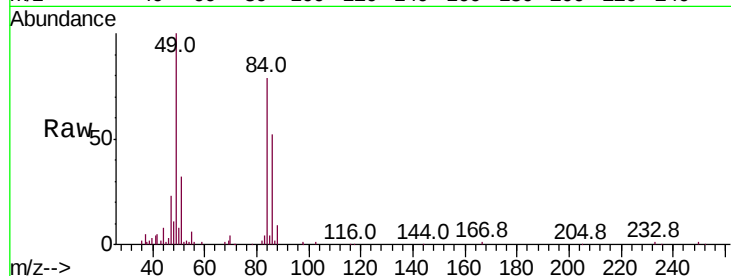




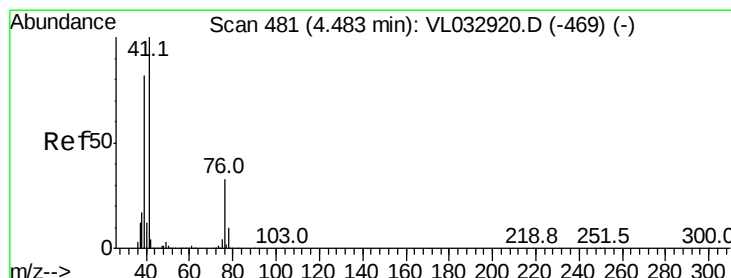
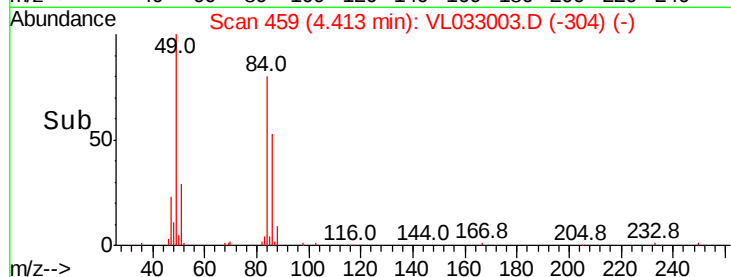
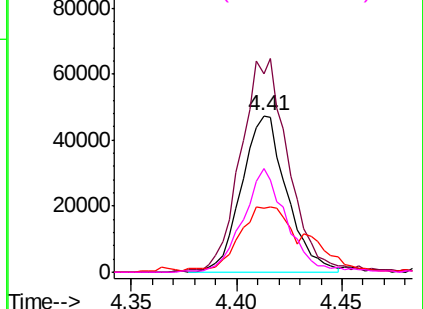
#20
Methylene Chloride
Concen: 1.322 ppbv
RT: 4.41 min Scan# 459
Delta R.T. -0.00 min
Lab File: VL033003.D
Acq: 17 Dec 2018 19:53

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 84 Resp: 70513
Ion Ratio Lower Upper
84 100
49 125.6 113.8 170.8
51 38.5 31.8 47.8
86 65.7 50.8 76.2

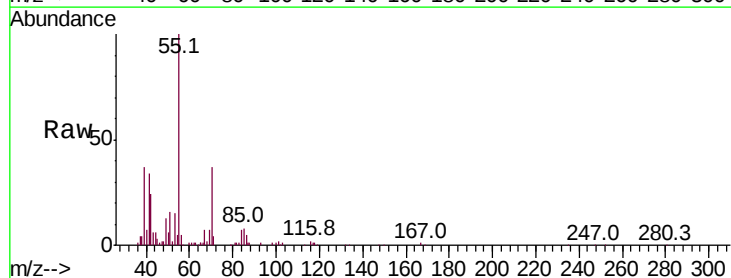


Abundance Ion 84.00 (83.70 to 84.70): VL0
100000 Ion 49.10 (48.80 to 49.80): VL0
80000 Ion 51.10 (50.80 to 51.80): VL0
60000 Ion 86.00 (85.70 to 86.70): VL0
40000
20000
0

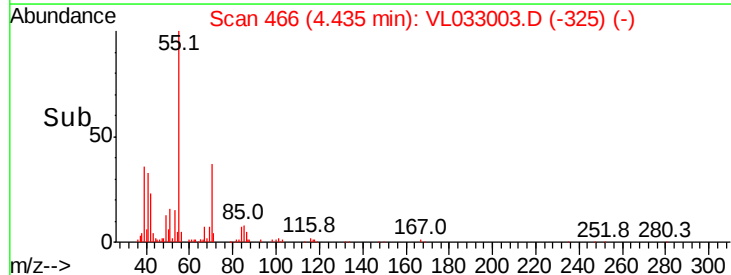
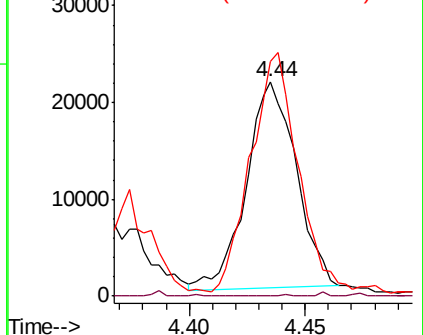


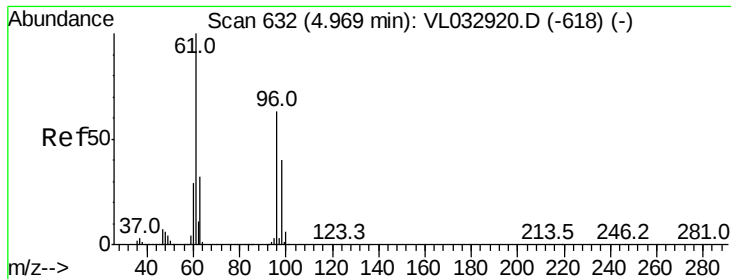
#21
Allyl Chloride
Concen: 0.360 ppbv
RT: 4.44 min Scan# 466
Delta R.T. -0.05 min
Lab File: VL033003.D
Acq: 17 Dec 2018 19:53

Tgt Ion: 41 Resp: 32020
Ion Ratio Lower Upper
41 100
76 0.5 25.2 37.8#
39 114.9 65.2 97.8#



Abundance Ion 41.10 (40.80 to 41.80): VL0
30000 Ion 76.10 (75.80 to 76.80): VL0
20000 Ion 39.10 (38.80 to 39.80): VL0
10000
0





#22

trans-1,2-Dichloroethene

Concen: 0.201 ppbv

RT: 4.97 min Scan# 633

Delta R.T. 0.00 min

Lab File: VL033003.D

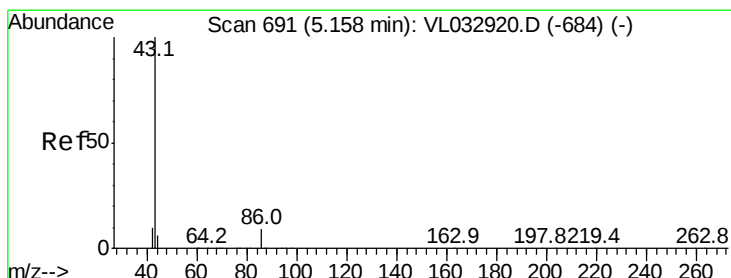
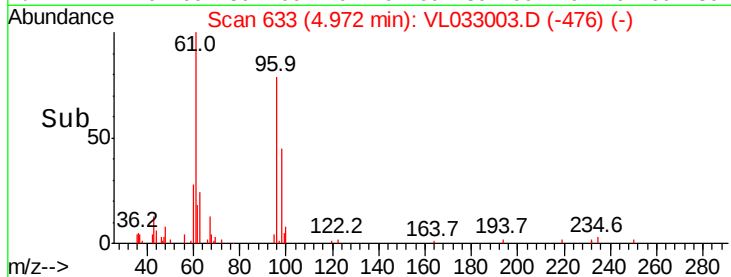
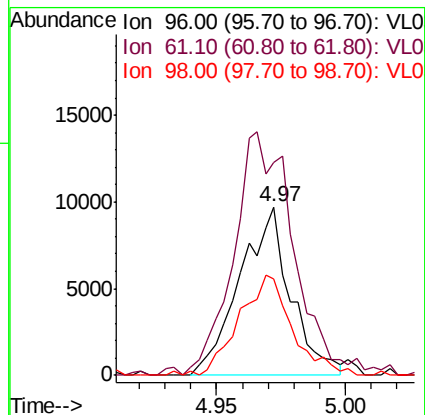
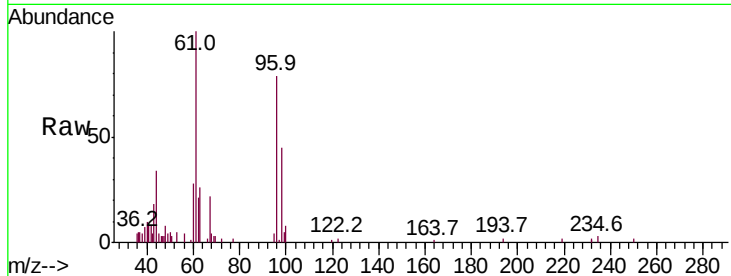
Acq: 17 Dec 2018 19:53

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion	Ratio	Lower	Upper
96	100		
61	121.5	127.1	190.7#
98	54.5	51.3	76.9



#23

Vinyl Acetate

Concen: 0.270 ppbv

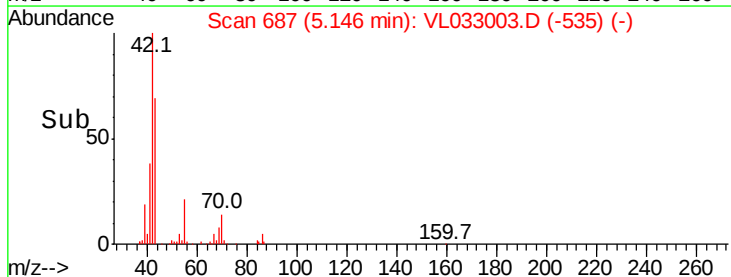
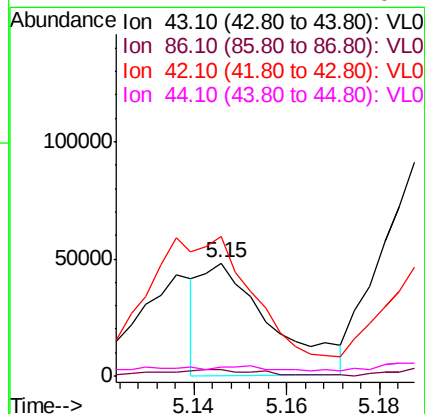
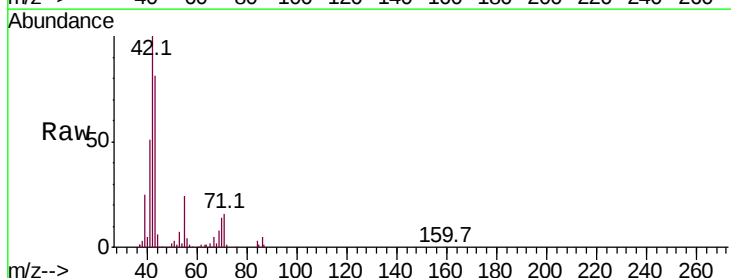
RT: 5.15 min Scan# 687

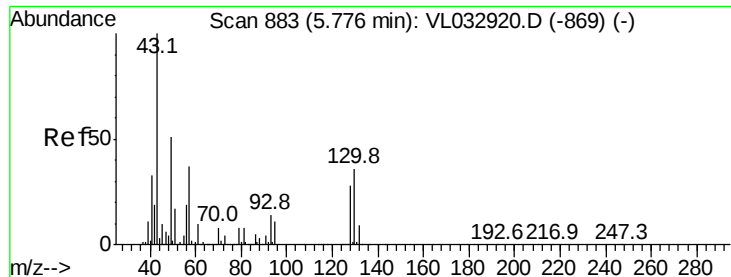
Delta R.T. -0.01 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Tgt Ion	Ratio	Lower	Upper
43	100		
86	7.0	6.6	9.8
42	147.4	8.3	12.5#
44	4.4	4.2	6.4





#25

Ethyl Acetate

Concen: 0.371 ppbv

RT: 5.78 min Scan# 885

Delta R.T. 0.01 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 43 Resp: 95715

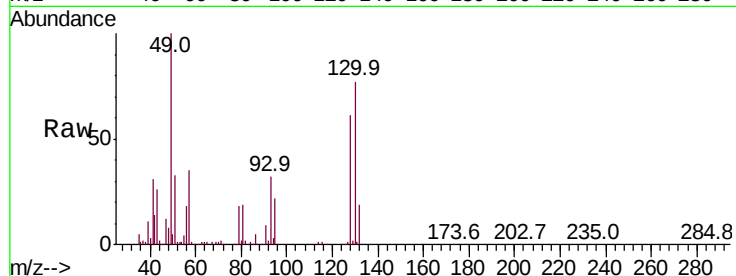
Ion Ratio Lower Upper

43 100

45 2.3 7.8 11.6#

61 1.9 7.4 11.2#

70 2.8 5.7 8.5#

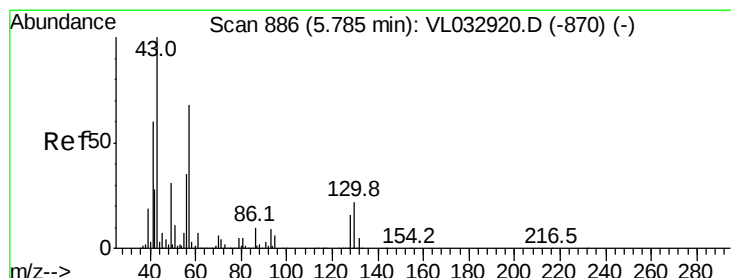
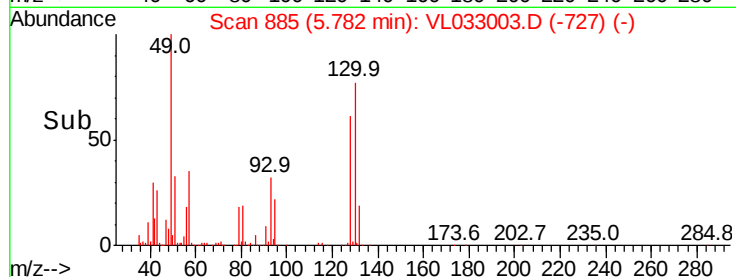
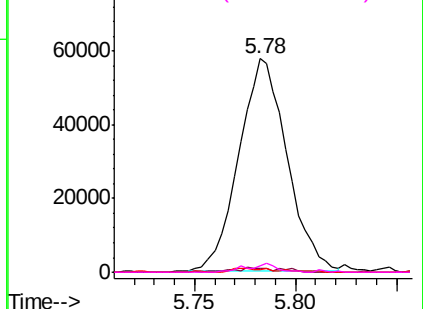


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 1.090 ppbv

RT: 5.78 min Scan# 885

Delta R.T. -0.00 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Tgt Ion: 57 Resp: 129772

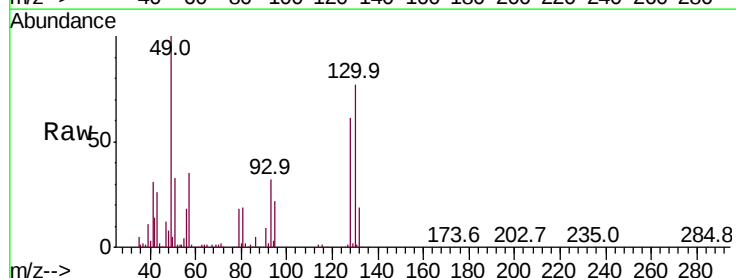
Ion Ratio Lower Upper

57 100

41 95.4 72.2 108.2

43 76.3 171.9 257.9#

56 57.6 42.2 63.2

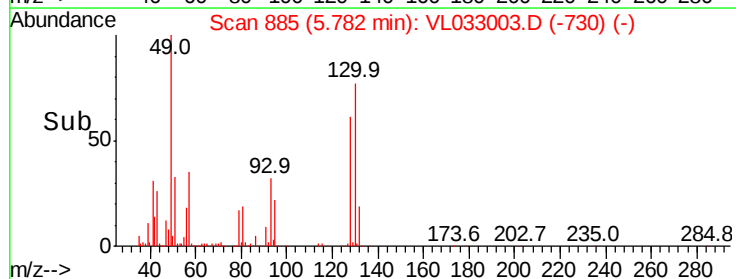
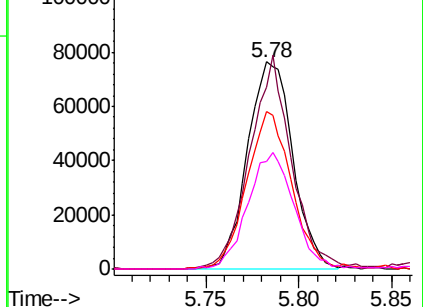


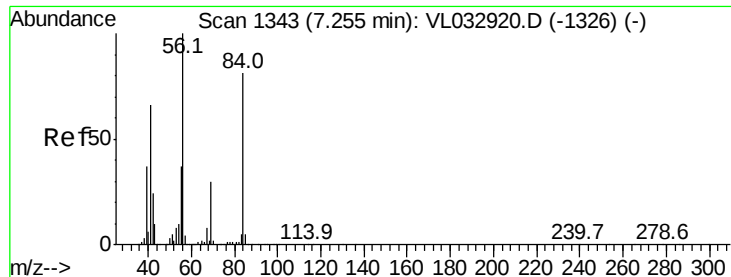
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

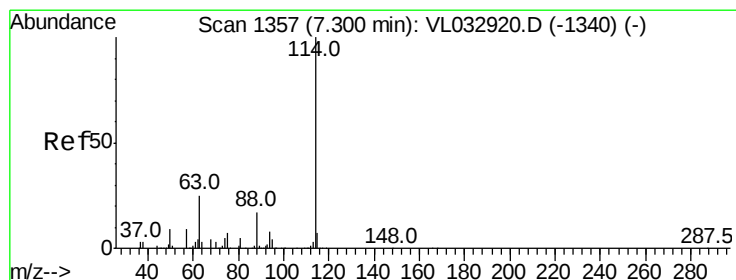
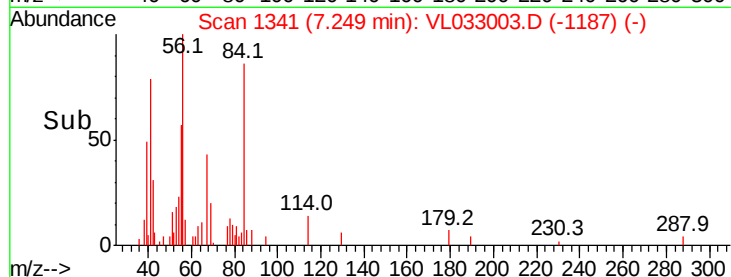
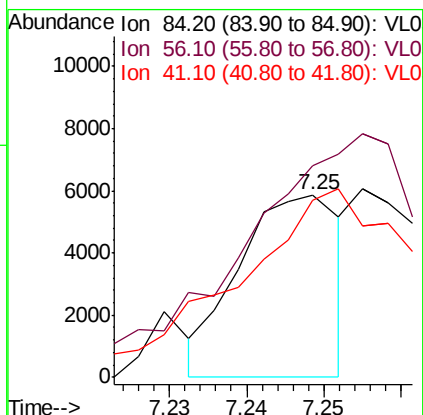
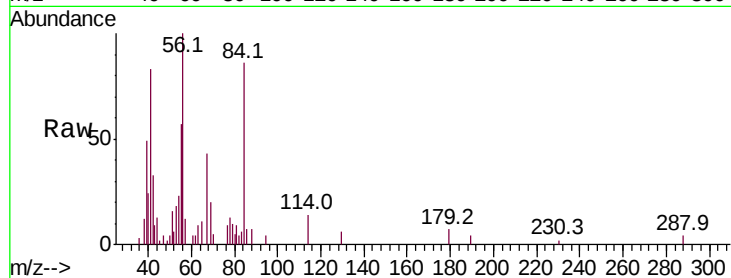




#30
Cvclohexane
Concen: 0.054 ppbv
RT: 7.25 min Scan# 1341
Delta R.T. -0.01 min
Lab File: VL033003.D
Acq: 17 Dec 2018 19:53

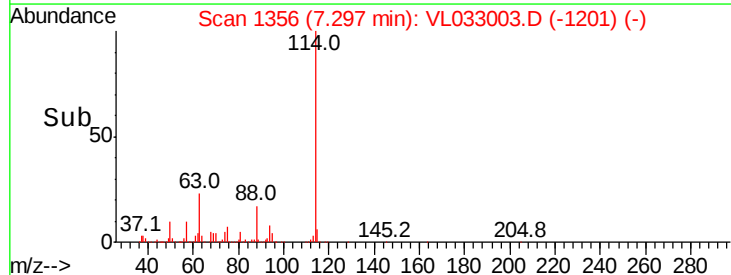
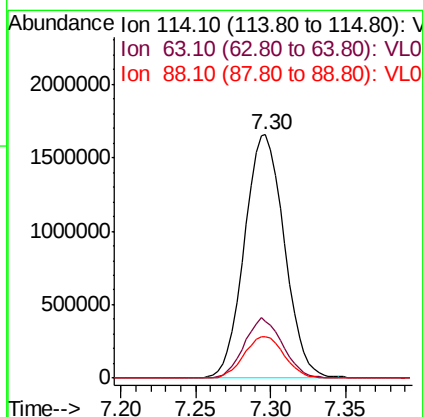
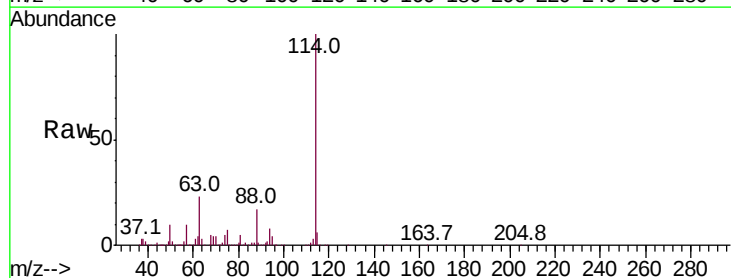
Instrument :
MSVOA_L
ClientSampled :

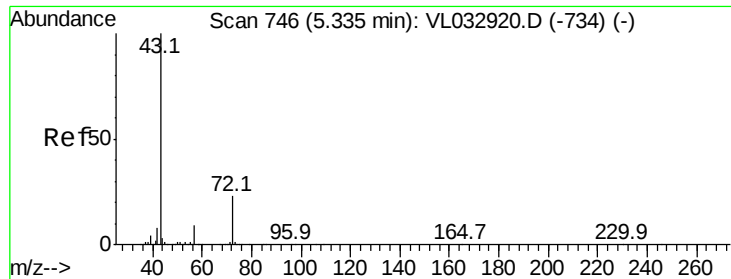
Tot Ion: 84 Resp: 5326
Ion Ratio Lower Upper
84 100
56 0.0 102.5 153.7#
41 0.0 64.1 96.1#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.30 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VL033003.D
Acq: 17 Dec 2018 19:53

Tgt Ion:114 Resp: 3077689
Ion Ratio Lower Upper
114 100
63 24.0 20.1 30.1
88 17.2 14.2 21.4

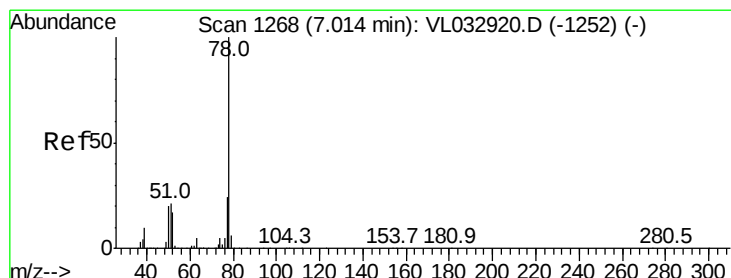
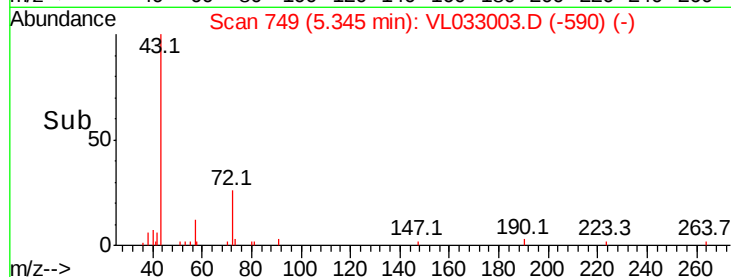
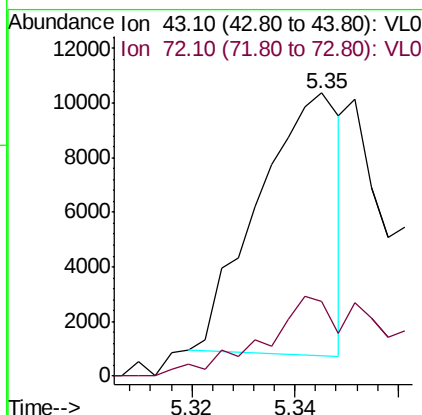
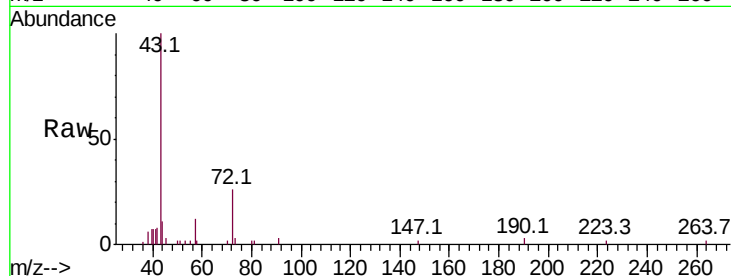




#34
2-Butanone
Concen: 0.078 ppbv
RT: 5.35 min Scan# 749
Delta R.T. 0.01 min
Lab File: VL033003.D
Acq: 17 Dec 2018 19:53

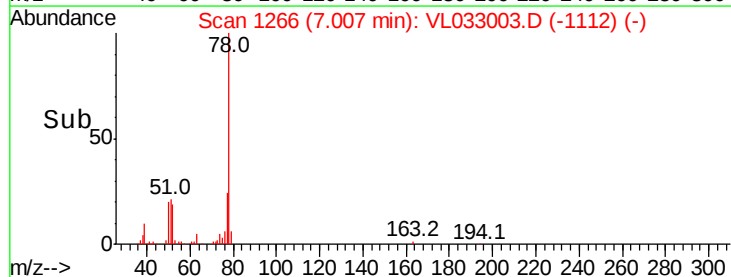
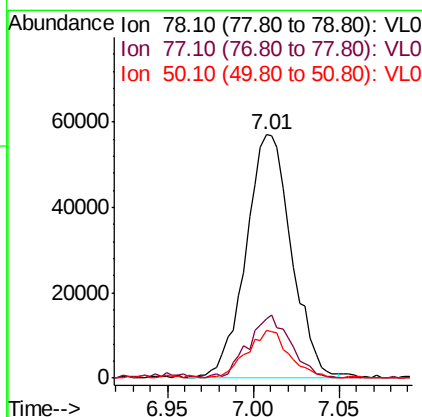
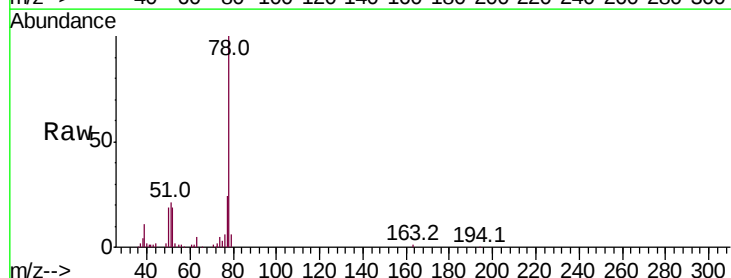
Instrument :
MSVOA_L
ClientSampleId :

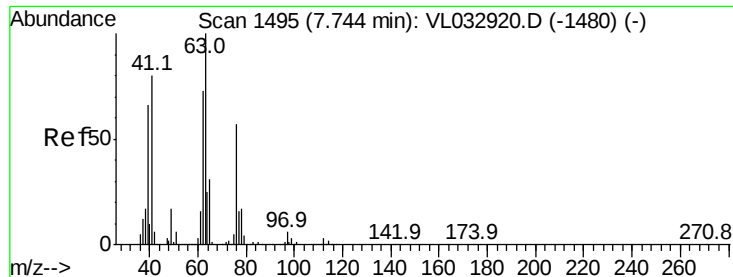
Tot Ion: 43 Resp: 10509
Ion Ratio Lower Upper
43 100
72 45.8 18.8 28.2#



#36
Benzene
Concen: 0.463 ppbv
RT: 7.01 min Scan# 1266
Delta R.T. -0.01 min
Lab File: VL033003.D
Acq: 17 Dec 2018 19:53

Tgt Ion: 78 Resp: 104778
Ion Ratio Lower Upper
78 100
77 24.3 18.9 28.3
50 19.5 16.1 24.1





#39

1,2-Dichloropropane

Concen: 8.501 ppbv

RT: 7.29 min Scan# 1355

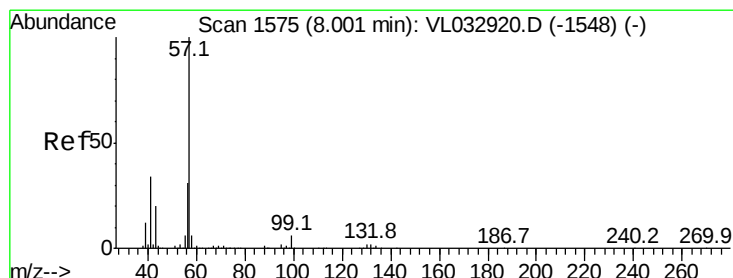
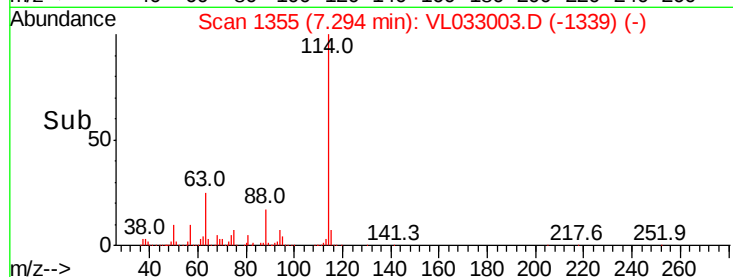
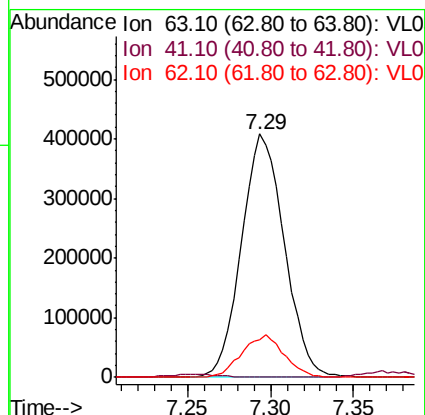
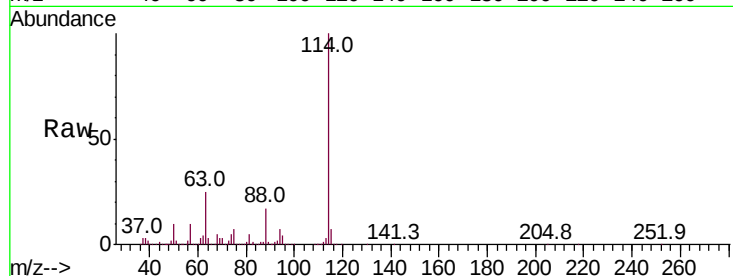
Delta R.T. -0.45 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Instrument :
MSVOA_L
ClientSampled :

Tot Ion:	63	Resp:	729779
Ion	Ratio	Lower	Upper
63	100		
41	0.0	63.9	95.9#
62	15.4	58.8	88.2#



#44

2,2,4-Trimethylpentane

Concen: 0.541 ppbv

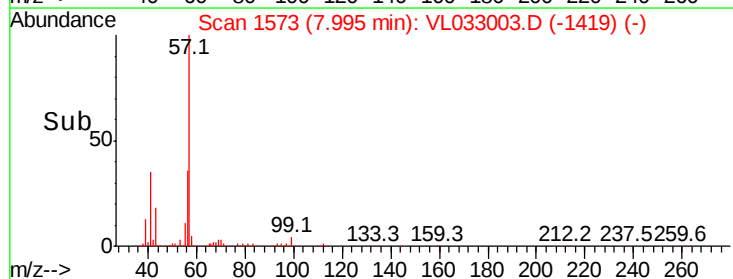
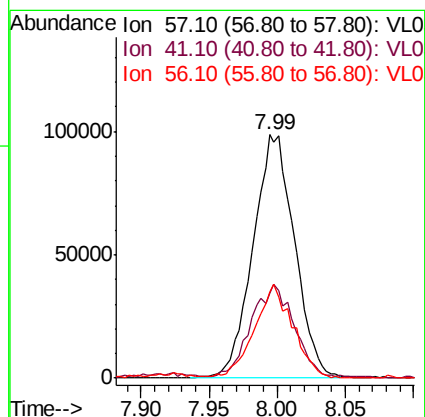
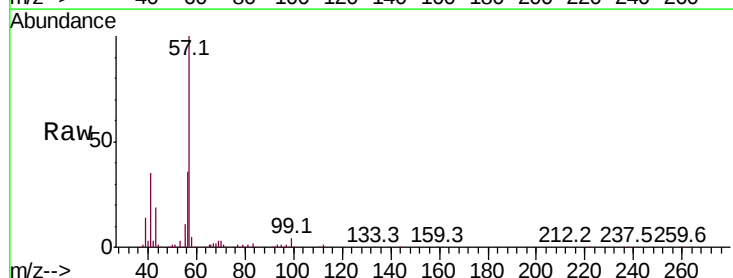
RT: 7.99 min Scan# 1573

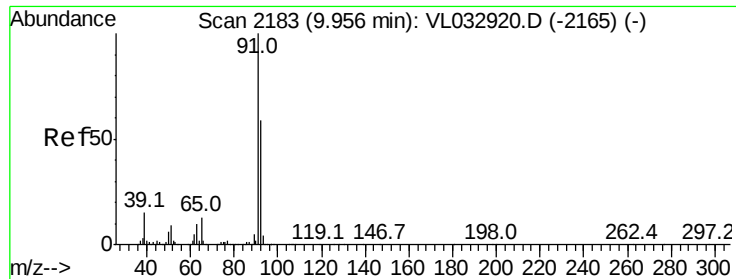
Delta R.T. -0.01 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Tgt Ion:	57	Resp:	208009
Ion	Ratio	Lower	Upper
57	100		
41	40.9	27.0	40.4#
56	36.2	24.6	37.0





#53

Toluene

Concen: 3.687 ppbv

RT: 9.95 min Scan# 2181

Delta R.T. -0.01 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Instrument :

MSVOA_L

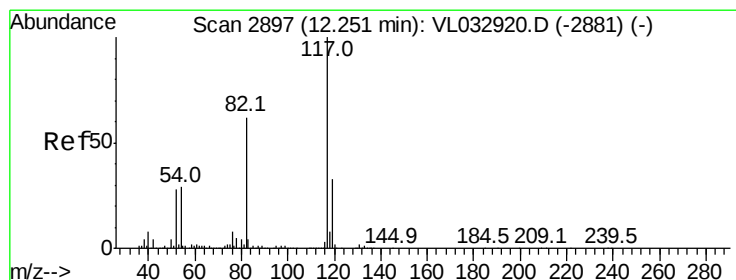
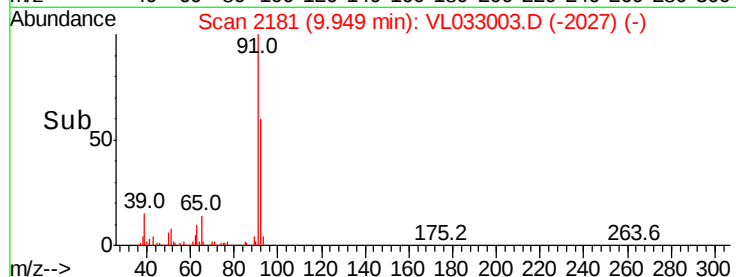
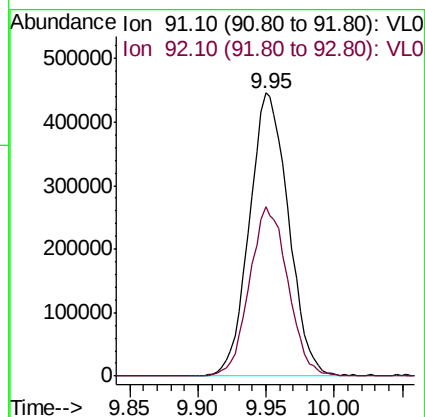
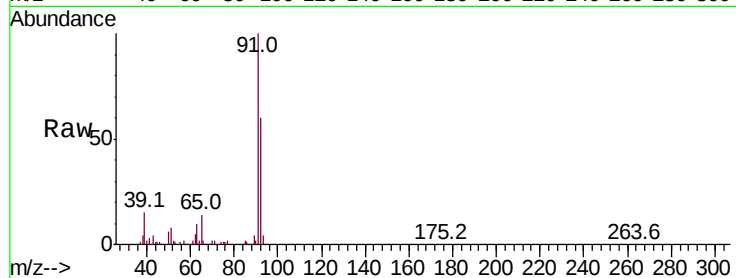
ClientSampled :

Tot Ion: 91 Resp: 885223

Ion Ratio Lower Upper

91 100

92 59.1 47.4 71.0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2895

Delta R.T. -0.01 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

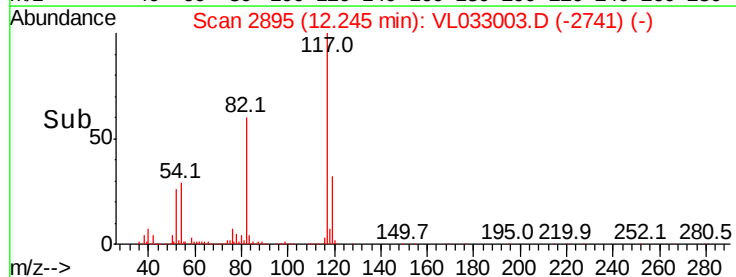
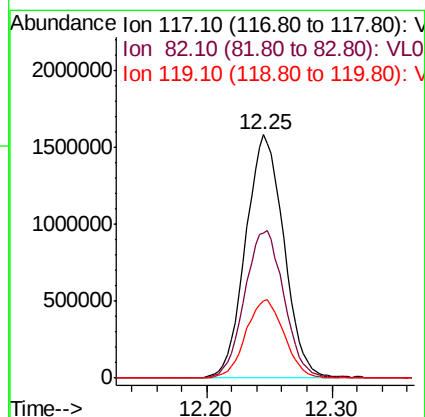
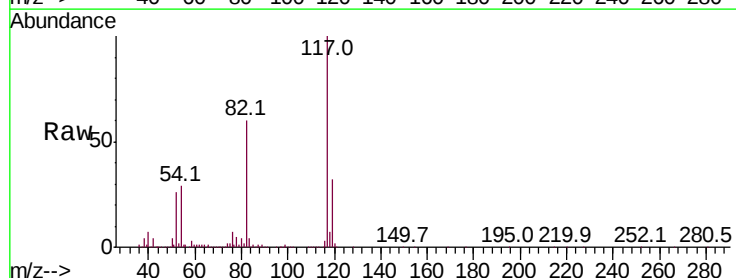
Tgt Ion: 117 Resp: 3348901

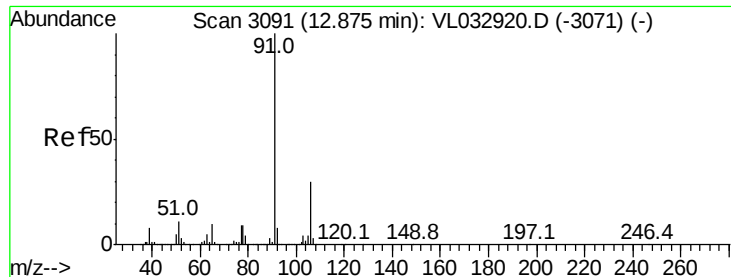
Ion Ratio Lower Upper

117 100

82 63.1 47.8 71.8

119 32.4 43.1 64.7#





#58

Ethyl Benzene

Concen: 0.187 ppbv

RT: 12.88 min Scan# 3091

Delta R.T. 0.00 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Instrument :

MSVOA_L

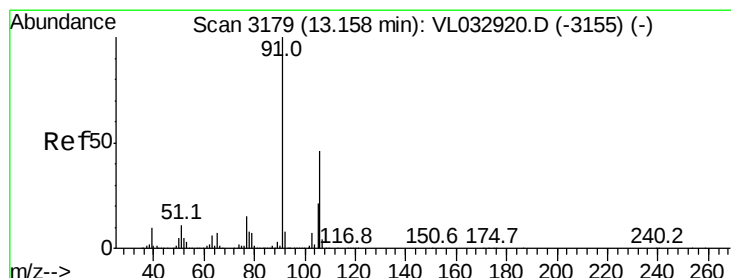
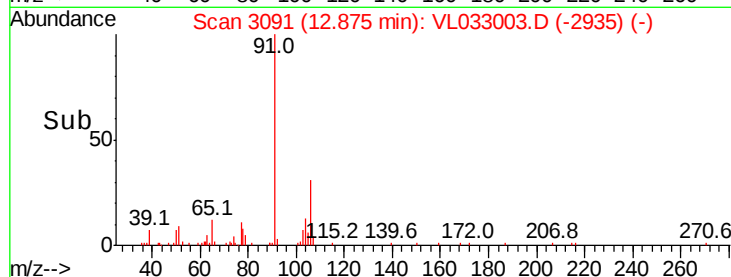
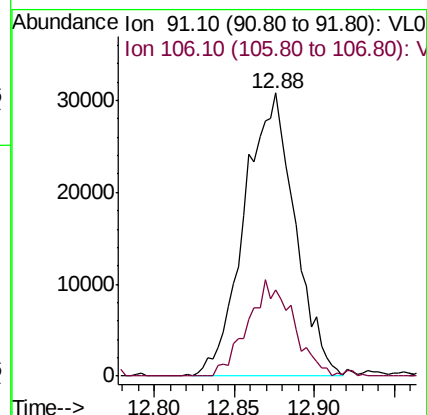
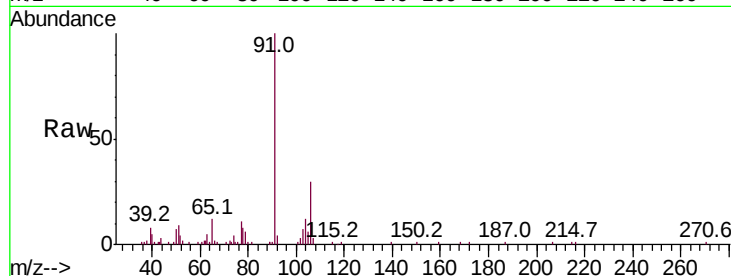
ClientSampleId :

Tot Ion: 91 Resp: 66823

Ion Ratio Lower Upper

91 100

106 29.7 23.9 35.9



#59

m/p-Xylene

Concen: 0.755 ppbv

RT: 13.13 min Scan# 3170

Delta R.T. -0.03 min

Lab File: VL033003.D

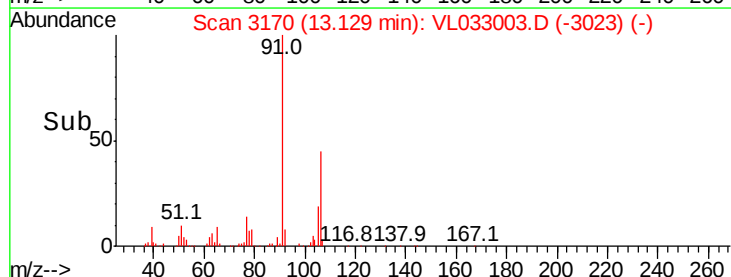
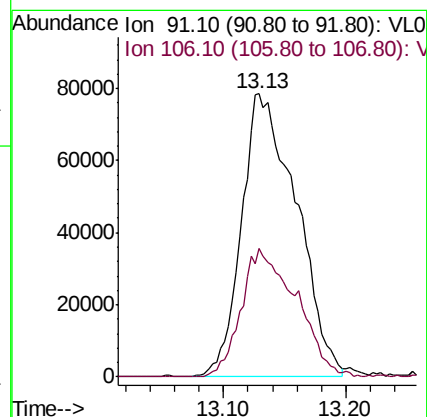
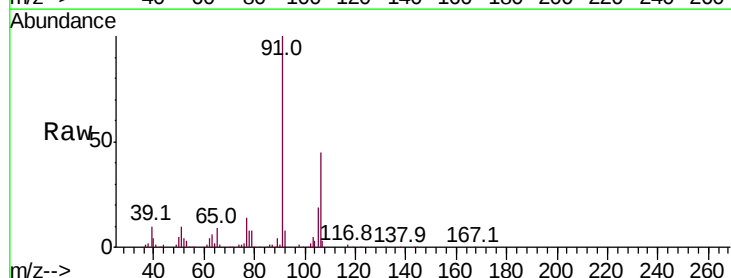
Acq: 17 Dec 2018 19:53

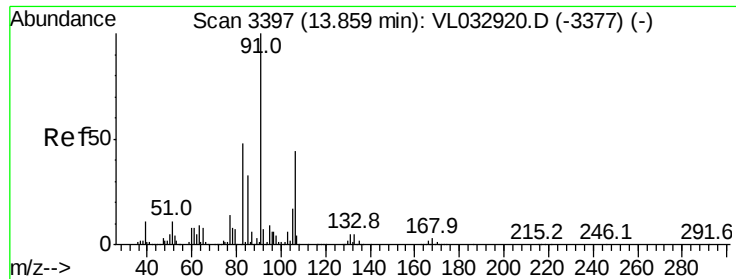
Tgt Ion: 91 Resp: 244696

Ion Ratio Lower Upper

91 100

106 45.8 0.0 0.0#





#60

o-Xylene

Concen: 0.116 ppbv

RT: 13.86 min Scan# 3396

Delta R.T. -0.00 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Instrument :

MSVOA_L

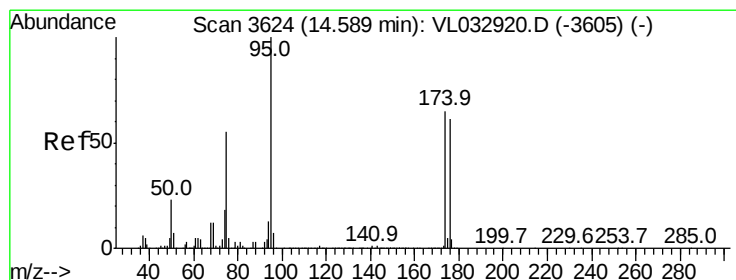
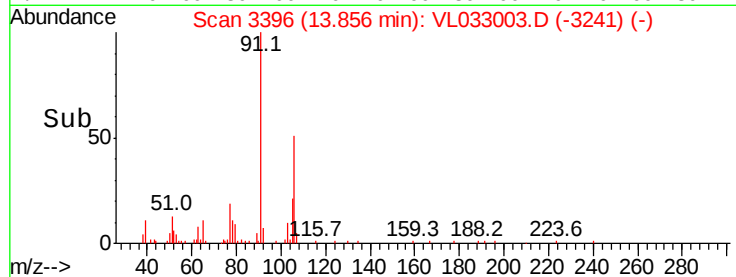
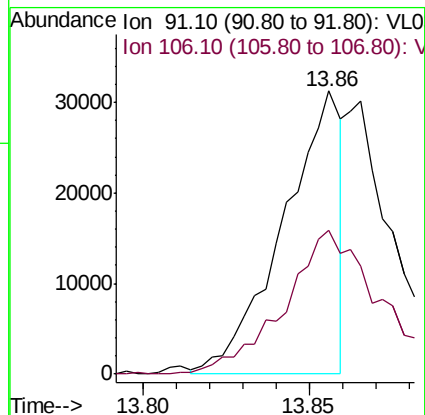
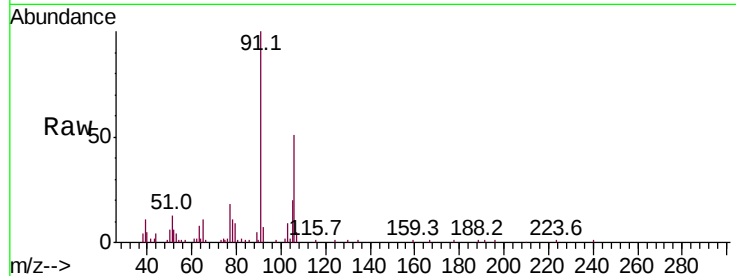
ClientSampleId :

Tot Ion: 91 Resp: 38099

Ion Ratio Lower Upper

91 100

106 84.3 21.9 65.8#



#68

1-Bromo-4-Fluorobenzene

Concen: 9.901 ppbv

RT: 14.59 min Scan# 3623

Delta R.T. -0.00 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

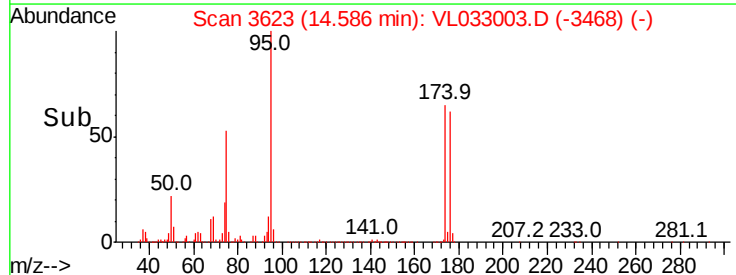
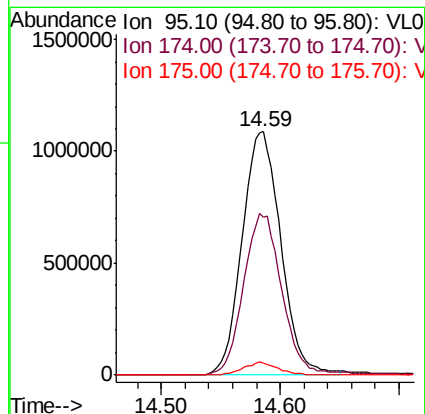
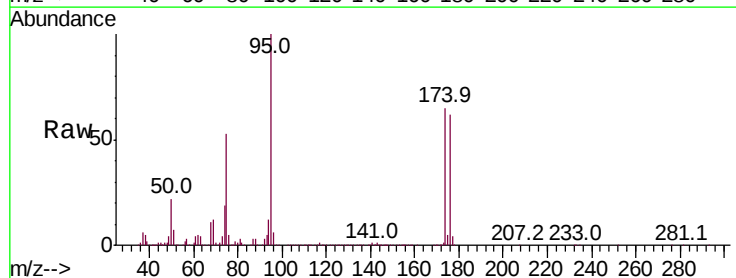
Tgt Ion: 95 Resp: 2449570

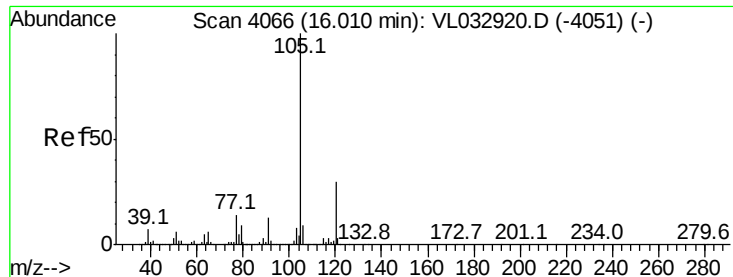
Ion Ratio Lower Upper

95 100

174 66.8 51.4 77.0

175 4.9 3.8 5.6





#72

4-Ethyltoluene

Concen: 0.045 ppbv

RT: 16.01 min Scan# 4065

Delta R.T. -0.00 min

Lab File: VL033003.D

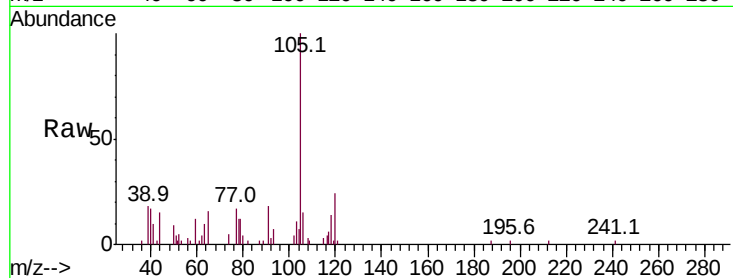
Acq: 17 Dec 2018 19:53

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:	105	Resp:	16363
Ion	Ratio	Lower	Upper
105	100		
120	35.2	23.0	34.4#
91	23.7	10.4	15.6#
77	23.6	11.0	16.4#

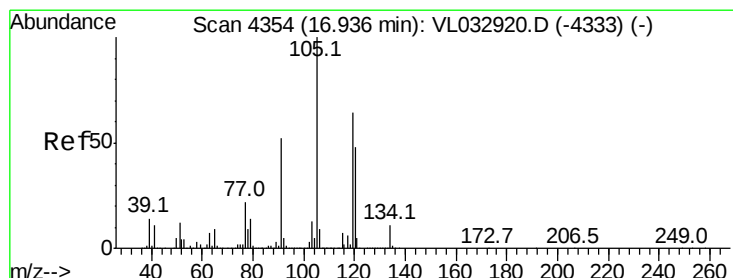
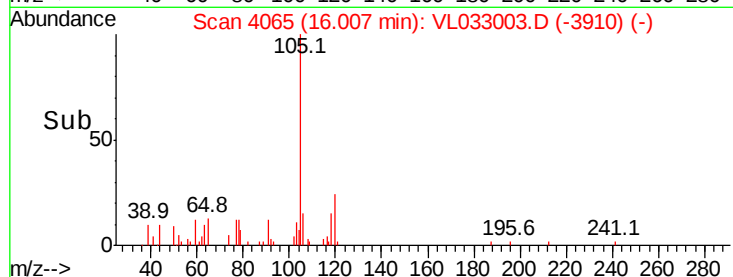
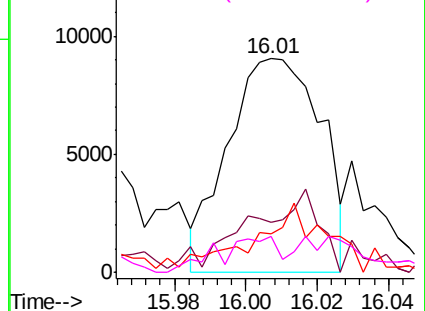


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#74

1,2,4-Trimethylbenzene

Concen: 0.068 ppbv

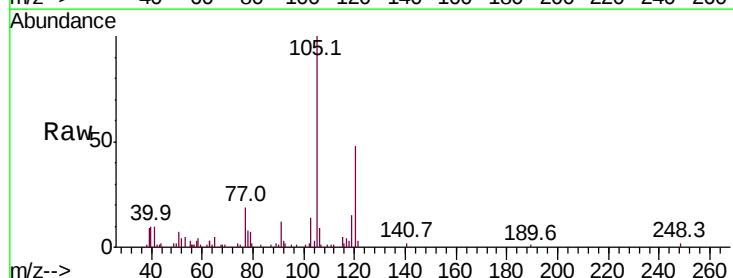
RT: 16.93 min Scan# 4353

Delta R.T. -0.00 min

Lab File: VL033003.D

Acq: 17 Dec 2018 19:53

Tgt Ion:	105	Resp:	27234
Ion	Ratio	Lower	Upper
105	100		
120	45.8	38.6	58.0
91	11.1	41.7	62.5#
77	18.0	17.4	26.2



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

