

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL111820\
 Data File : VL035982.D
 Acq On : 18 Nov 2020 20:45
 Operator : SY/AP
 Sample : L4781-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Quant Time: Nov 19 08:12:31 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 04 02:40:06 2020
 QLast Update : Wed Nov 04 02:40:06 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.63	49	1083261	10.00	ppbv	-0.04
33) 1,4-Difluorobenzene	7.13	114	3963372	10.00	ppbv	-0.05
55) Chlorobenzene-d5	12.04	117	3645905	10.00	ppbv	-0.05

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.37	95	2726218	10.52	ppbv	-0.05
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.20%

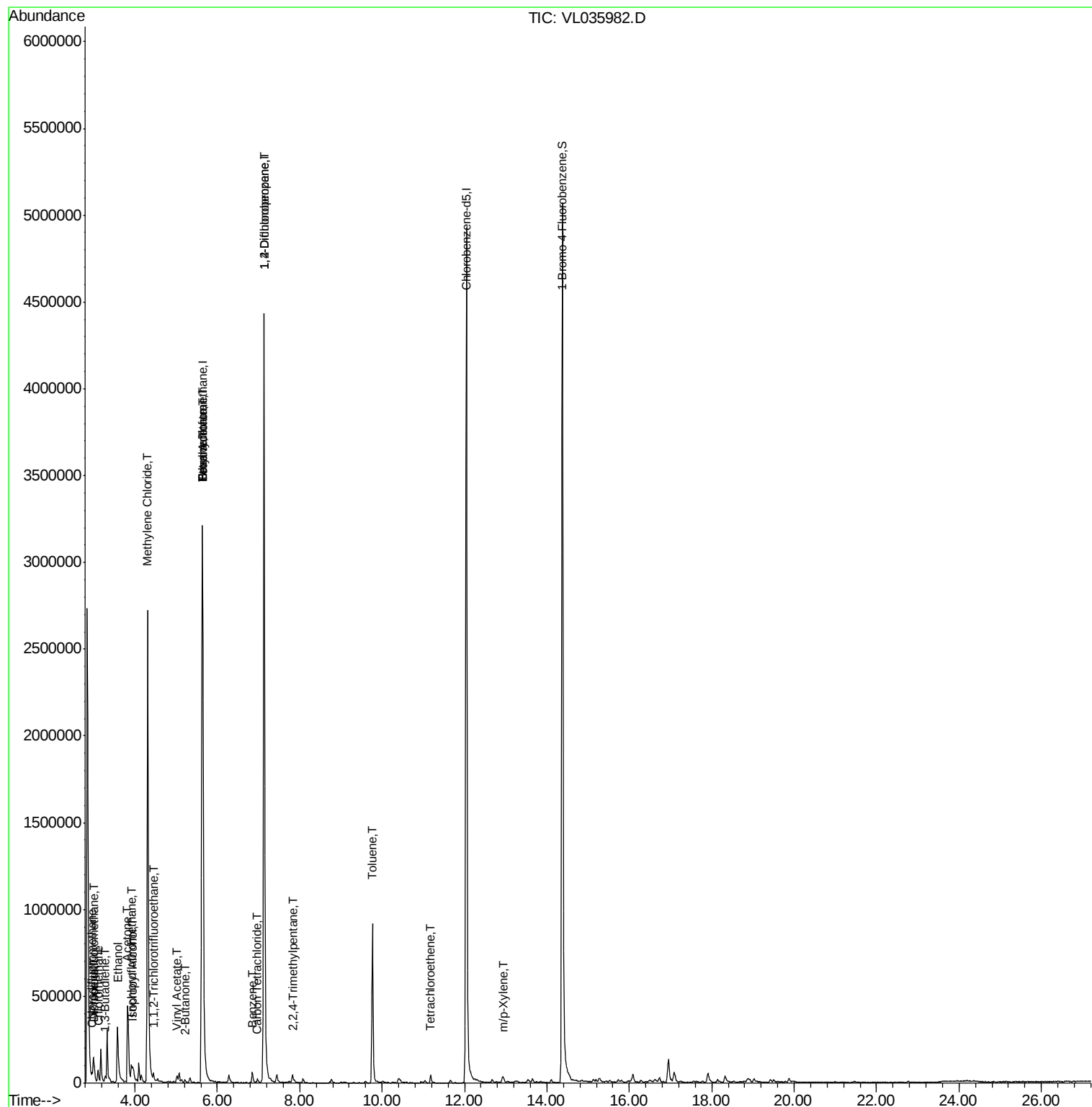
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	56249	0.276	ppbv	97
3) Chlorodifluoromethane	2.96	51	67408	0.520	ppbv #	87
4) Chloromethane	3.11	50	31899	0.506	ppbv	98
9) Propene	2.99	41	40774	0.859	ppbv	89
11) Trichlorofluoromethane	3.92	101	67392	0.263	ppbv	92
12) 1,1,2-Trichlorotrifluoroet	4.45	101	12360	0.065	ppbv #	69
13) Ethanol	3.57	45	450273	43.713	ppbv	98
15) Acetone	3.82	43	577644	4.988	ppbv	93
16) 1,3-Butadiene	3.29	39	3054	0.061	ppbv #	1
19) Isopropyl Alcohol	3.95	45	99335	1.396	ppbv #	84
20) Methylene Chloride	4.31	84	1487234	18.242	ppbv	96
23) Vinyl Acetate	5.03	43	15851	0.098	ppbv #	27
25) Ethyl Acetate	5.65	43	513214	2.249	ppbv #	73
26) Hexane	5.65	57	875481	6.958	ppbv #	46
34) 2-Butanone	5.22	43	19779	0.154	ppbv	94
35) Carbon Tetrachloride	6.98	117	8508	0.040	ppbv	100
36) Benzene	6.85	78	55556	0.189	ppbv	96
39) 1,2-Dichloropropane	7.13	63	821320	8.279	ppbv #	30
41) Tetrahydrofuran	5.65	42	289804	3.966	ppbv #	38
44) 2,2,4-Trimethylpentane	7.83	57	15865	0.041	ppbv #	46
52) Tetrachloroethene	11.18	164	6548	0.047	ppbv	92
53) Toluene	9.76	91	774693	2.179	ppbv	97
59) m/p-Xylene	12.94	91	13317	0.035	ppbv #	28

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

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
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QLast Update : Wed Nov 04 02:40:06 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.63 min Scan# 883

Delta R.T. -0.04 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Instrument :
MSVOA_L
ClientSampleId :
IA2

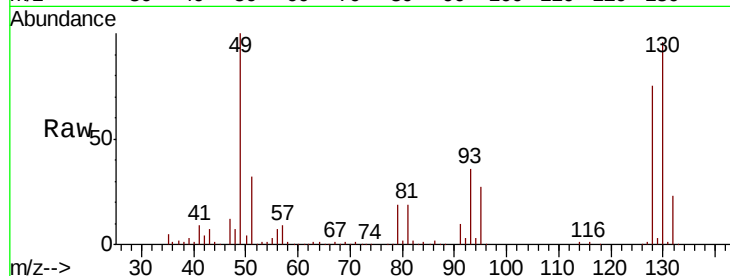
Tot Ion: 49 Resp: 1083261

Ion Ratio Lower Upper

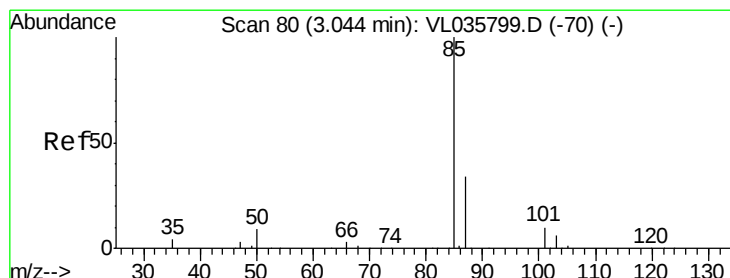
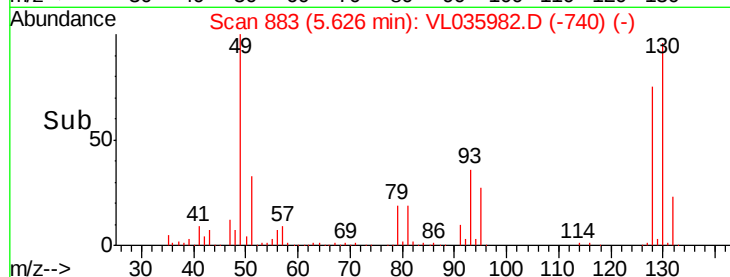
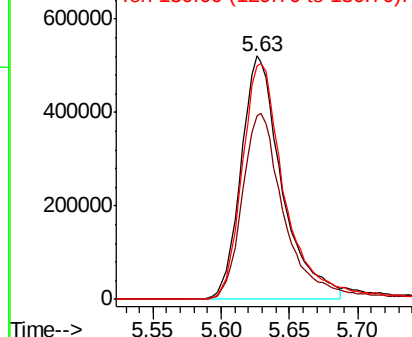
49 100

128 81.5 41.5 124.6

130 105.0 53.7 161.1



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: 0.276 ppbv

RT: 3.02 min Scan# 72

Delta R.T. -0.03 min

Lab File: VL035982.D

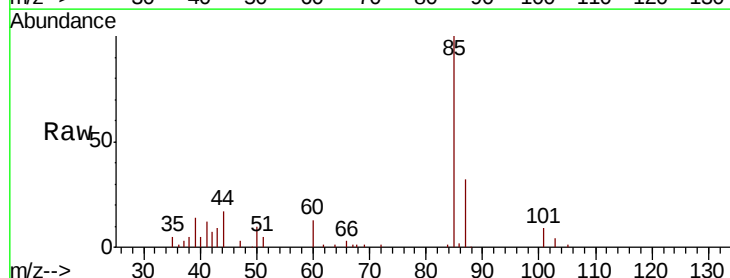
Acq: 18 Nov 2020 20:45

Tgt Ion: 85 Resp: 56249

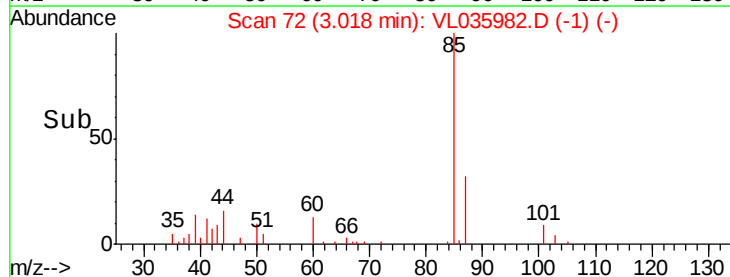
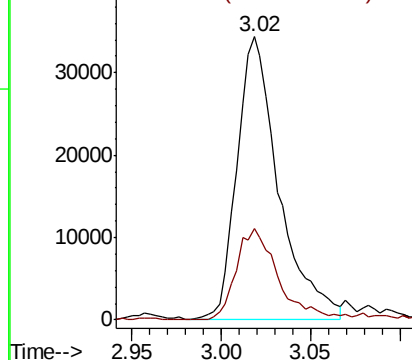
Ion Ratio Lower Upper

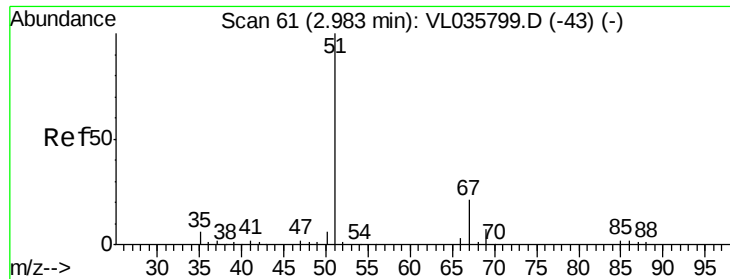
85 100

87 32.3 27.1 40.7



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





#3

Chlorodifluoromethane

Concen: 0.520 ppbv

RT: 2.96 min Scan# 53

Delta R.T. -0.03 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Instrument :

MSVOA_L

ClientSampleId :

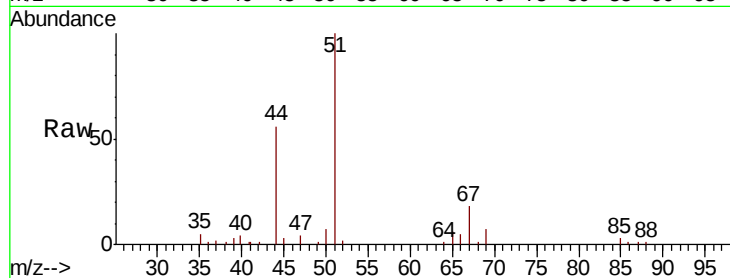
IA2

Tot Ion: 51 Resp: 67408

Ion Ratio Lower Upper

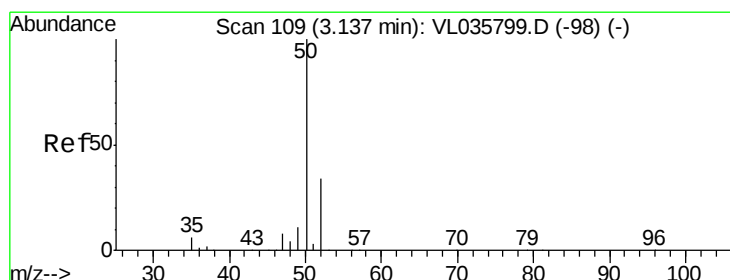
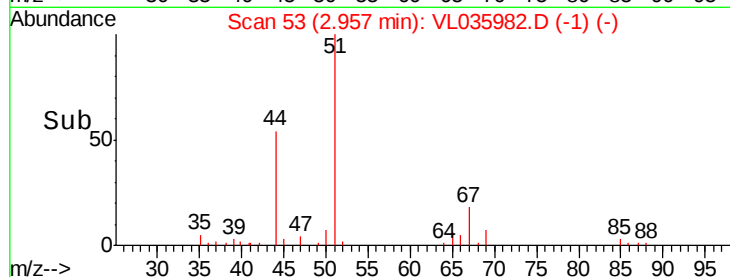
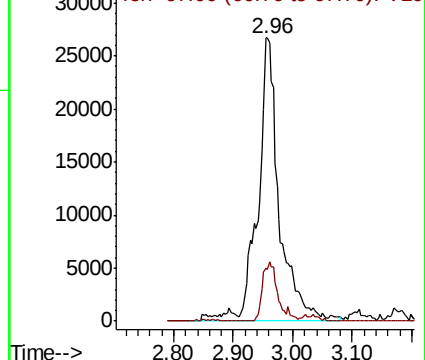
51 100

67 15.0 17.0 25.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.506 ppbv

RT: 3.11 min Scan# 102

Delta R.T. -0.02 min

Lab File: VL035982.D

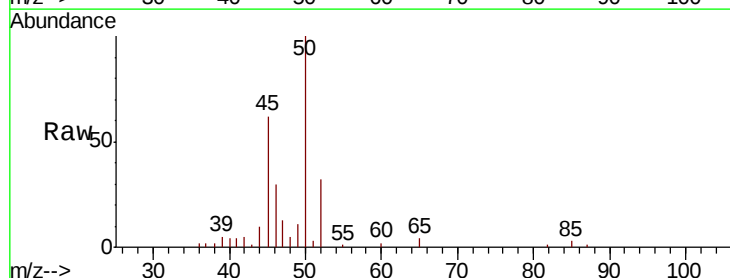
Acq: 18 Nov 2020 20:45

Tgt Ion: 50 Resp: 31899

Ion Ratio Lower Upper

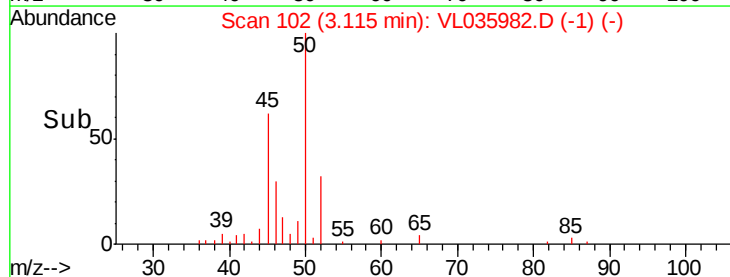
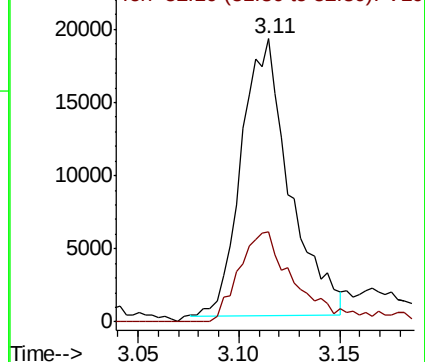
50 100

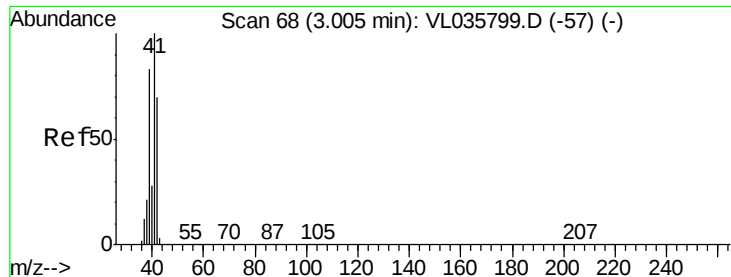
52 32.6 27.1 40.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.859 ppbv

RT: 2.99 min Scan# 64

Delta R.T. -0.01 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Instrument :

MSVOA_L

ClientSampleId :

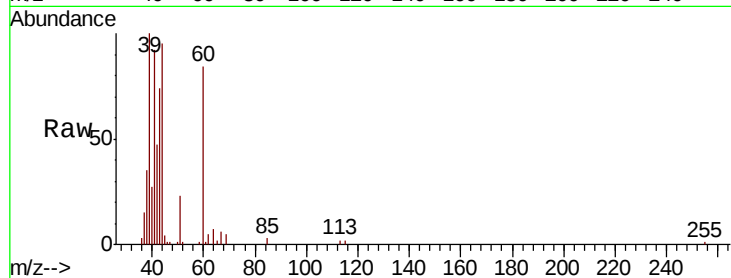
IA2

Tot Ion: 41 Resp: 40774

Ion Ratio Lower Upper

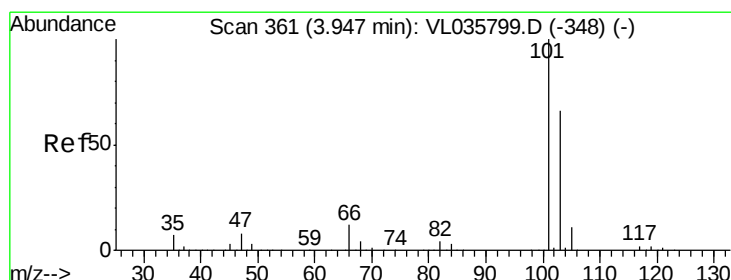
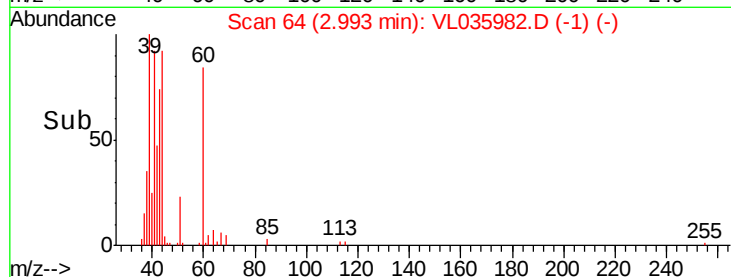
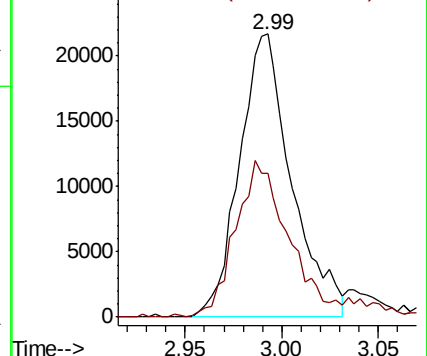
41 100

42 61.5 56.2 84.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.263 ppbv

RT: 3.92 min Scan# 351

Delta R.T. -0.03 min

Lab File: VL035982.D

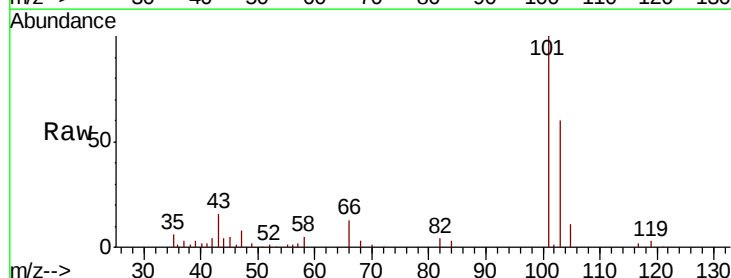
Acq: 18 Nov 2020 20:45

Tgt Ion: 101 Resp: 67392

Ion Ratio Lower Upper

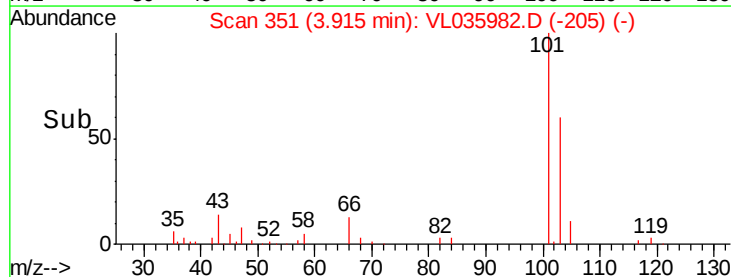
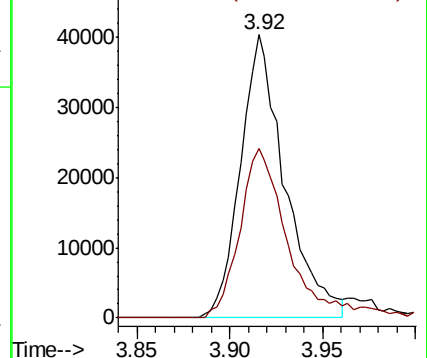
101 100

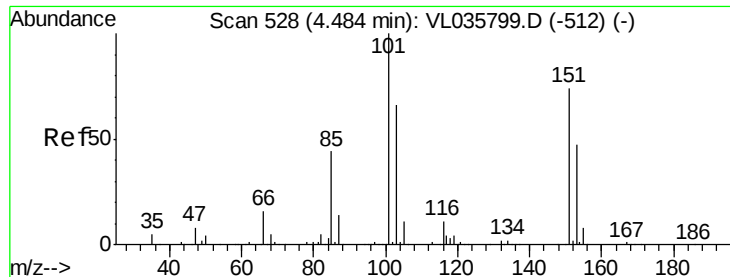
103 59.9 53.0 79.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.065 ppbv

RT: 4.45 min Scan# 516

Delta R.T. -0.04 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Instrument :

MSVOA_L

ClientSampleId :

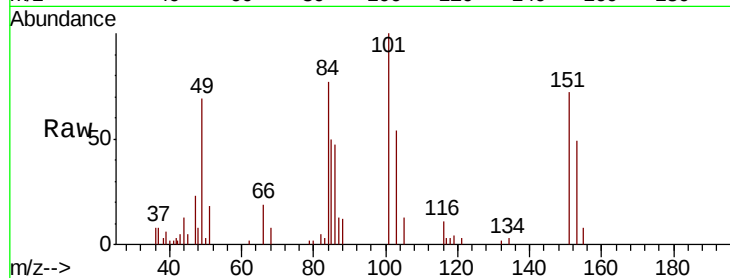
IA2

Tot Ion:101 Resp: 12360

Ion Ratio Lower Upper

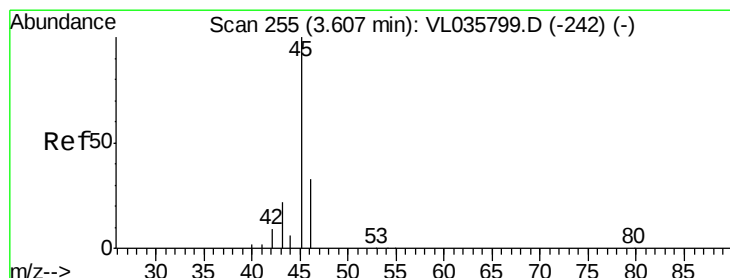
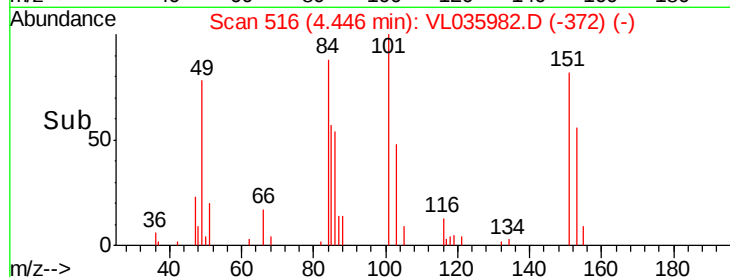
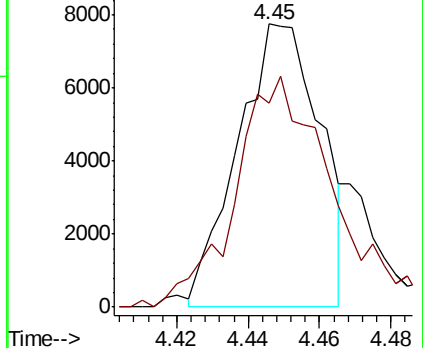
101 100

151 99.6 58.9 88.3#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 43.713 ppbv

RT: 3.57 min Scan# 245

Delta R.T. -0.03 min

Lab File: VL035982.D

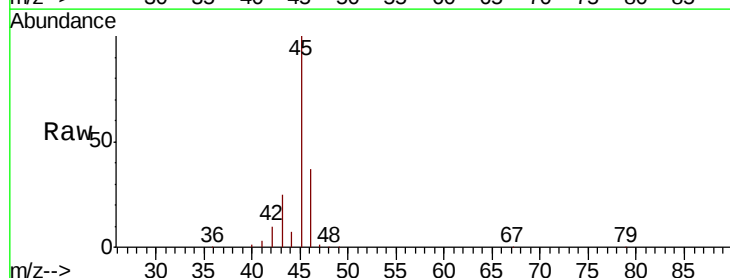
Acq: 18 Nov 2020 20:45

Tgt Ion: 45 Resp: 450273

Ion Ratio Lower Upper

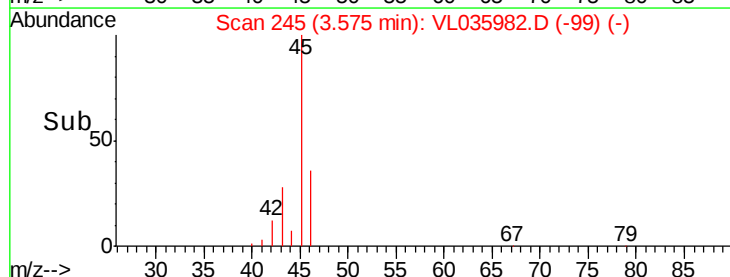
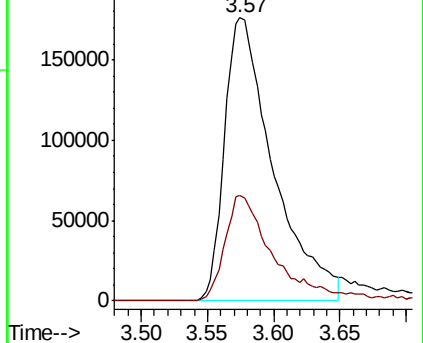
45 100

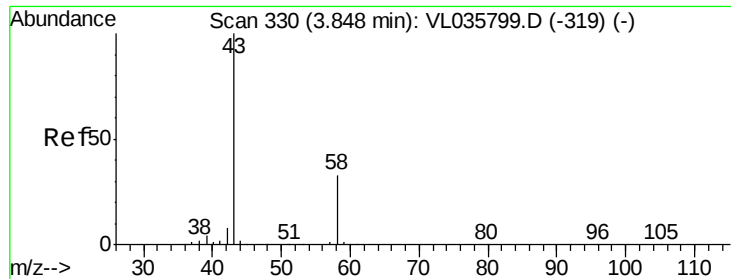
46 38.9 16.1 64.5



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 4.988 ppbv

RT: 3.82 min Scan# 321

Delta R.T. -0.03 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Instrument :

MSVOA_L

ClientSampleId :

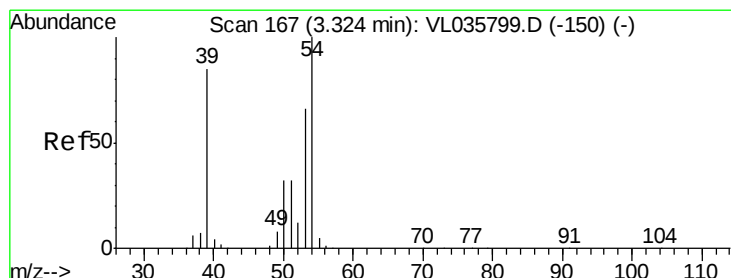
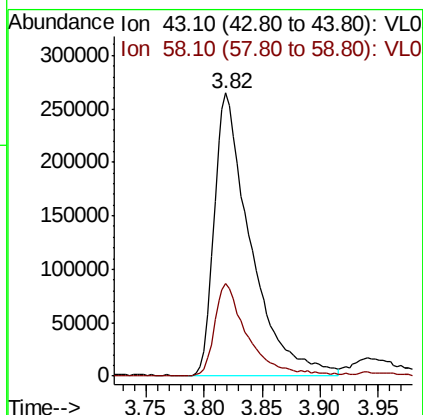
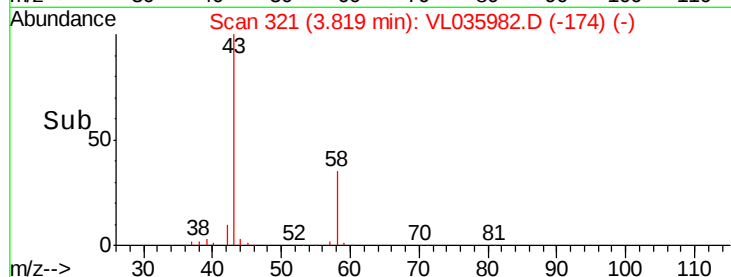
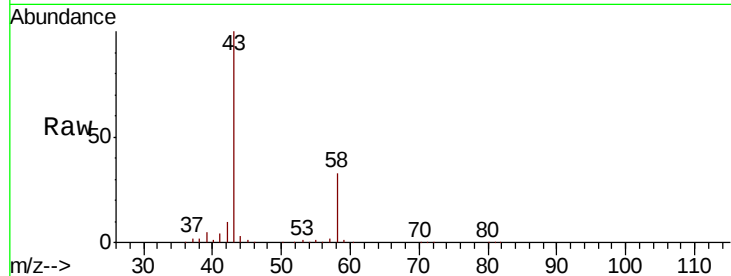
IA2

Tot Ion: 43 Resp: 577644

Ion Ratio Lower Upper

43 100

58 30.4 27.5 41.3



#16

1,3-Butadiene

Concen: 0.061 ppbv

RT: 3.29 min Scan# 157

Delta R.T. -0.03 min

Lab File: VL035982.D

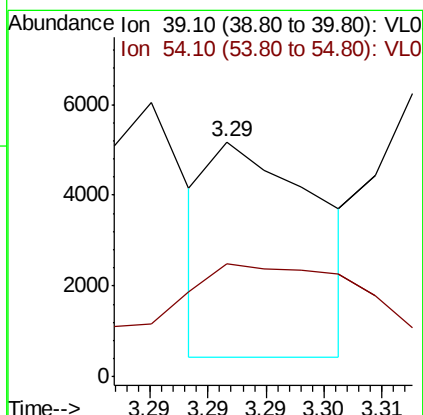
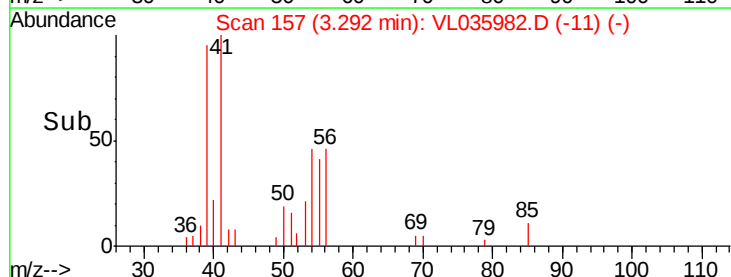
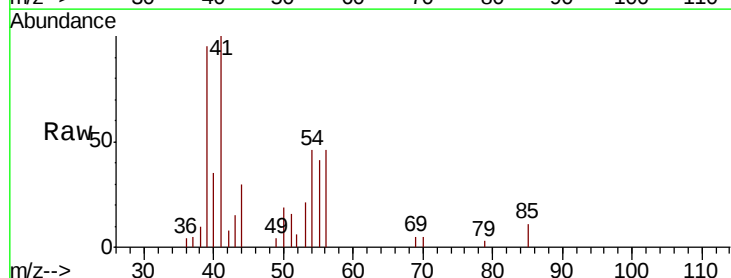
Acq: 18 Nov 2020 20:45

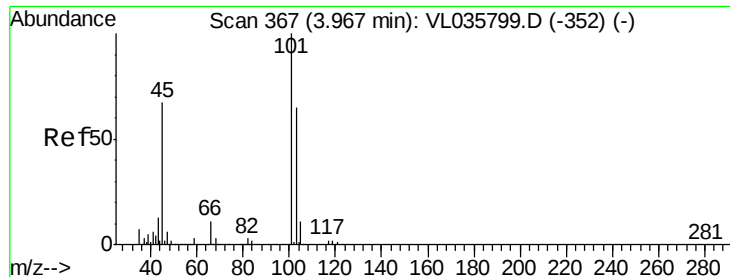
Tgt Ion: 39 Resp: 3054

Ion Ratio Lower Upper

39 100

54 213.5 87.1 130.7#





#19

Isopropyl Alcohol

Concen: 1.396 ppbv

RT: 3.95 min Scan# 361

Delta R.T. -0.02 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Instrument :

MSVOA_L

ClientSampleId :

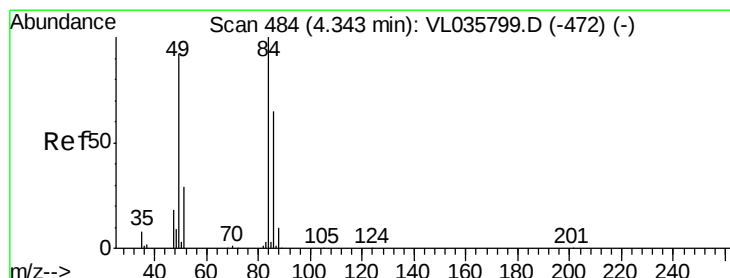
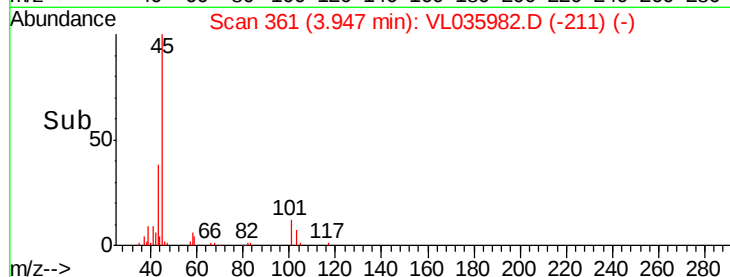
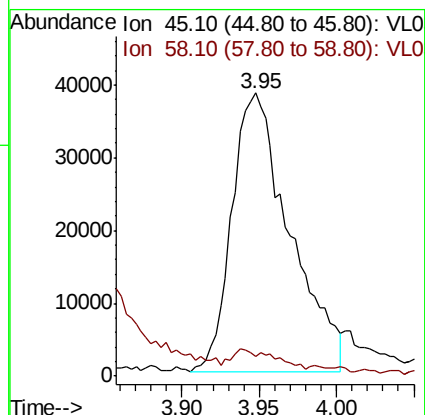
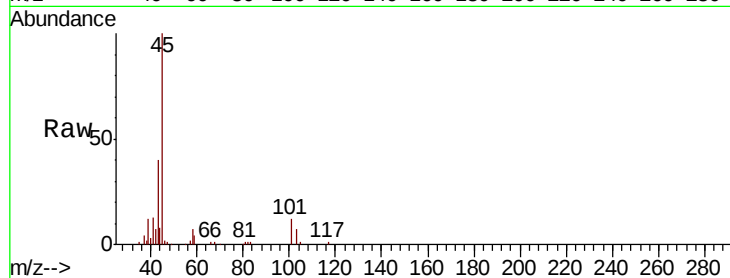
IA2

Tot Ion: 45 Resp: 99335

Ion Ratio Lower Upper

45 100

58 8.5 2.6 3.8#



#20

Methylene Chloride

Concen: 18.242 ppbv

RT: 4.31 min Scan# 473

Delta R.T. -0.04 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Tgt Ion: 84 Resp: 1487234

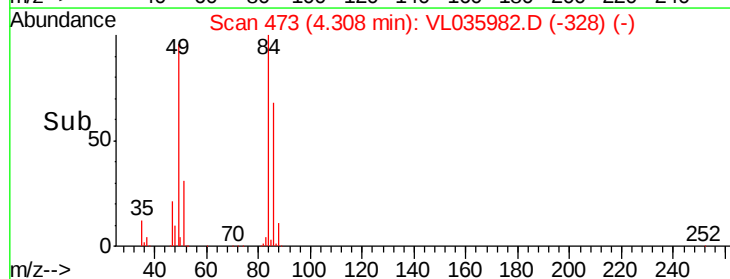
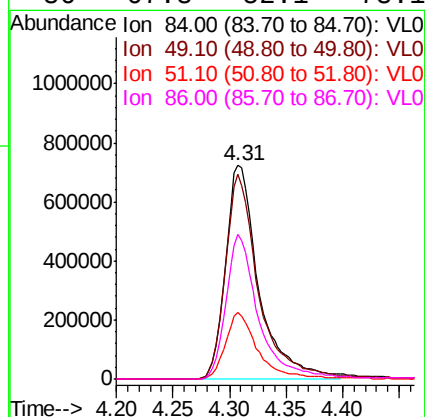
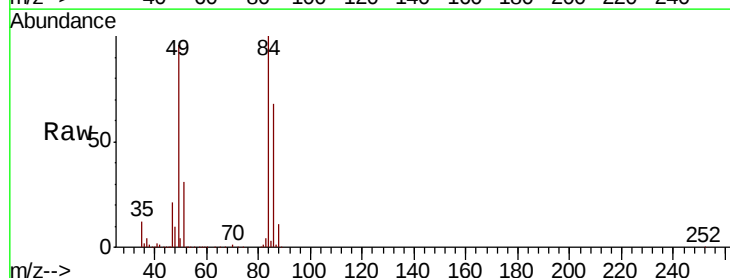
Ion Ratio Lower Upper

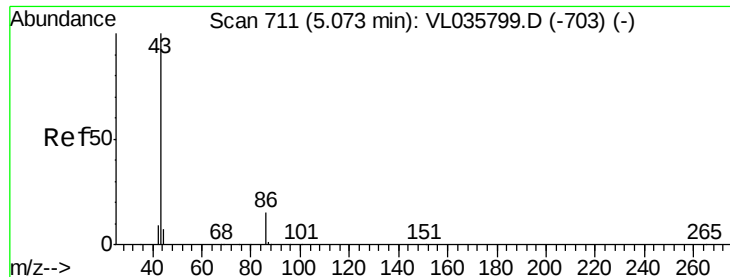
84 100

49 96.0 73.8 110.8

51 31.1 23.0 34.4

86 67.8 52.1 78.1





#23

Vinyl Acetate

Concen: 0.098 ppbv

RT: 5.03 min Scan# 697

Delta R.T. -0.05 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Instrument :

MSVOA_L

ClientSampled :

IA2

Tot Ion: 43 Resp: 15851

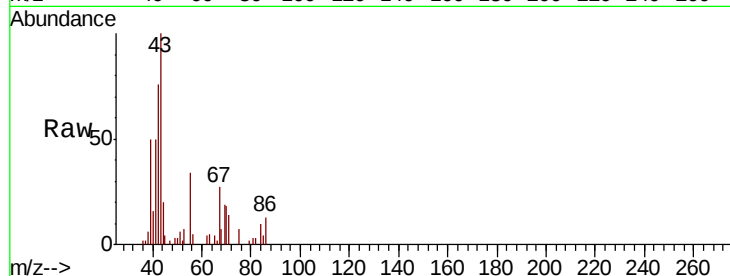
Ion Ratio Lower Upper

43 100

86 9.0 9.8 14.6#

42 77.3 8.1 12.1#

44 10.0 4.2 6.4#

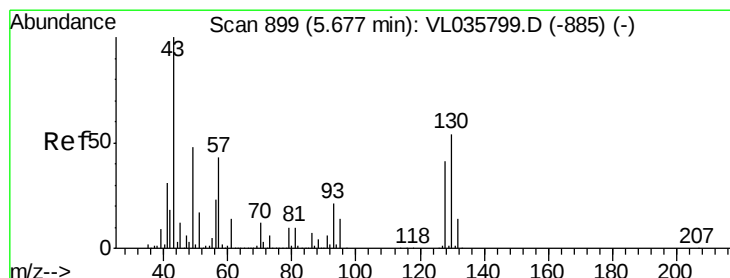
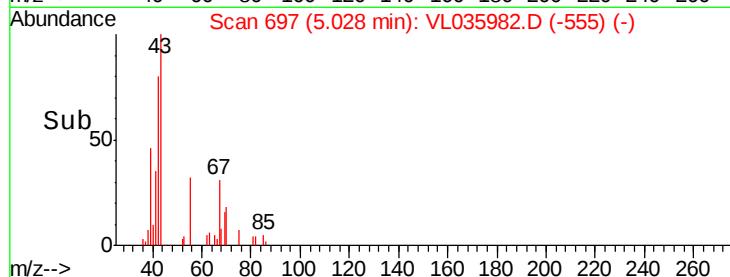
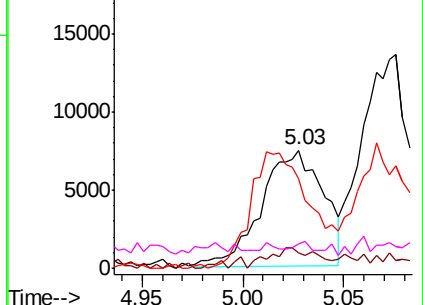


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 2.249 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.03 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Tgt Ion: 43 Resp: 513214

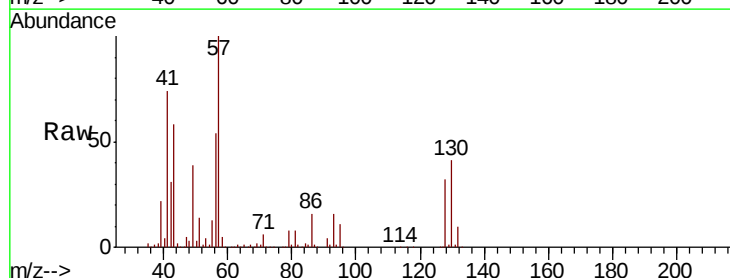
Ion Ratio Lower Upper

43 100

45 0.8 8.5 12.7#

61 0.6 10.7 16.1#

70 2.4 8.6 12.8#

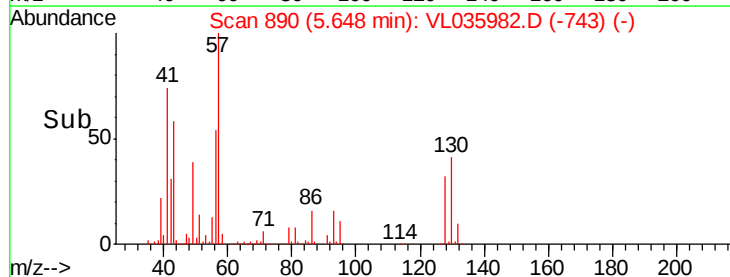
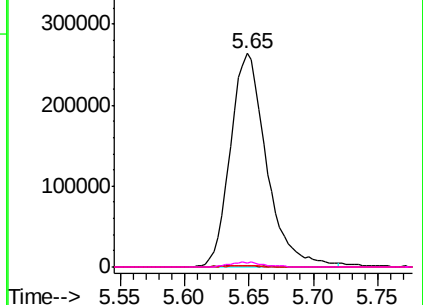


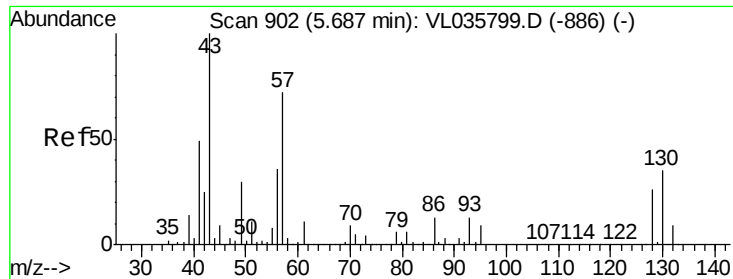
Abundance Ion 43.10 (42.80 to 43.80): VL0

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

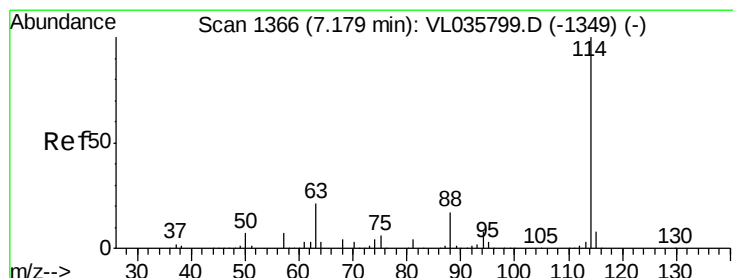
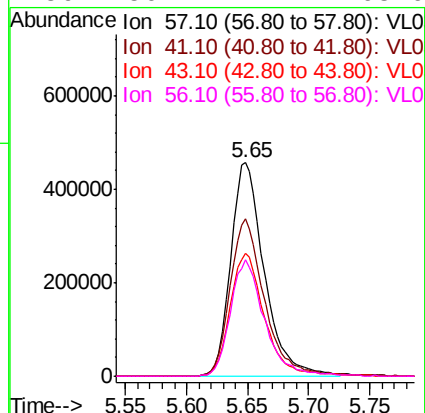
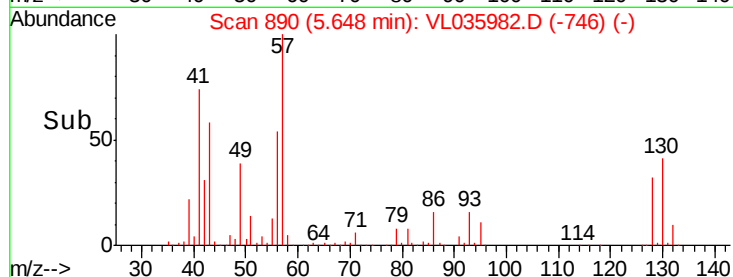
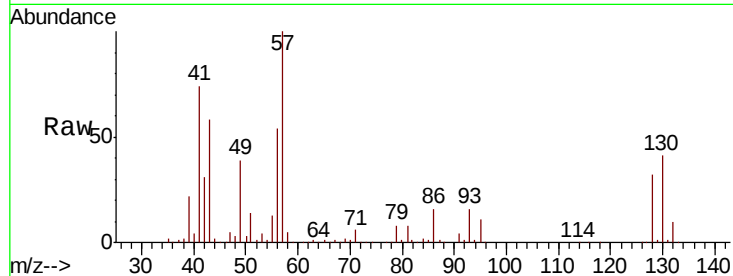




#26
Hexane
Concen: 6.958 ppbv
RT: 5.65 min Scan# 890
Delta R.T. -0.04 min
Lab File: VL035982.D
Acq: 18 Nov 2020 20:45

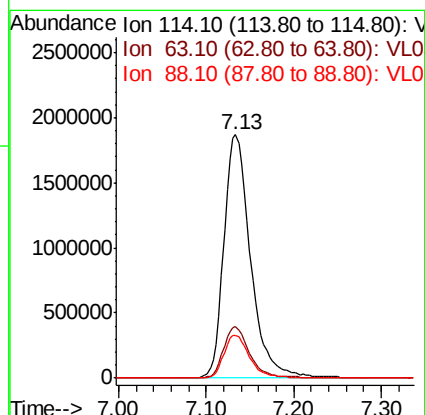
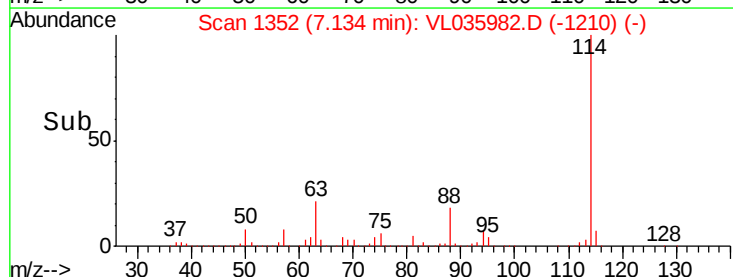
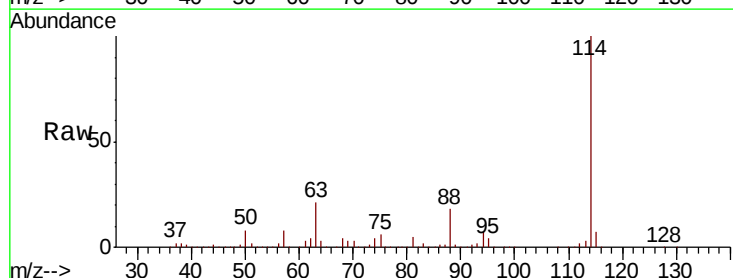
Instrument :
MSVOA_L
ClientSampleId :
IA2

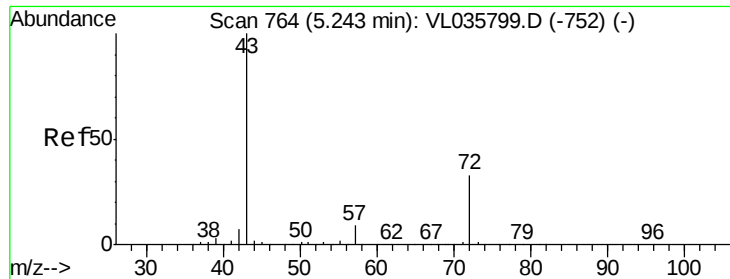
Tot Ion: 57 Resp: 875481
Ion Ratio Lower Upper
57 100
41 76.4 58.9 88.3
43 59.9 150.2 225.2#
56 56.1 42.4 63.6



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.13 min Scan# 1352
Delta R.T. -0.05 min
Lab File: VL035982.D
Acq: 18 Nov 2020 20:45

Tgt Ion: 114 Resp: 3963372
Ion Ratio Lower Upper
114 100
63 20.9 16.1 24.1
88 17.4 13.7 20.5

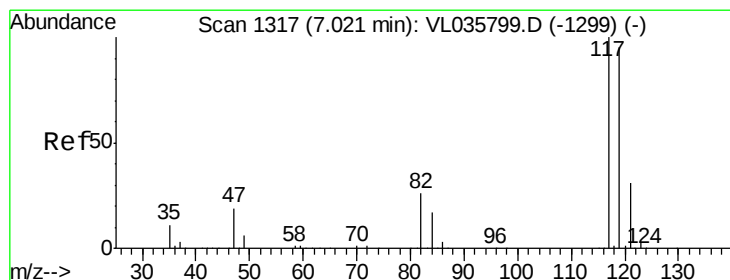
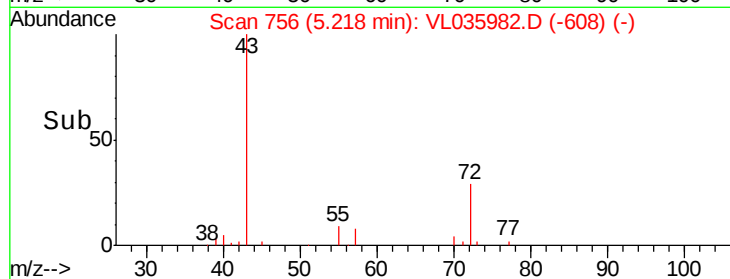
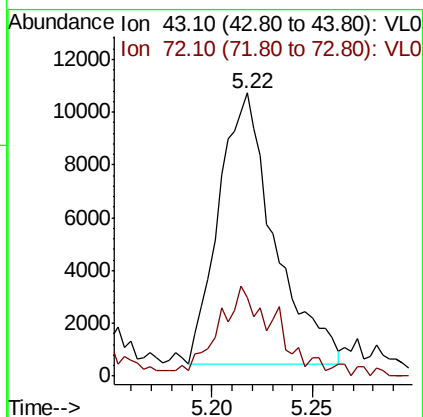
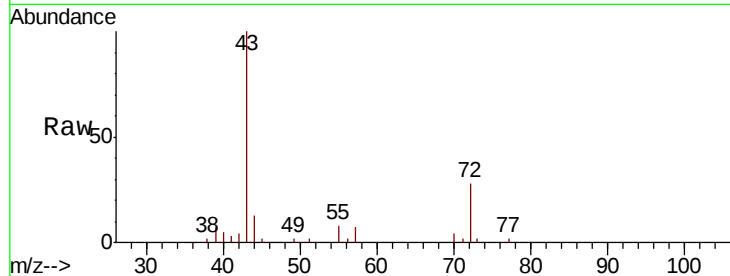




#34
2-Butanone
Concen: 0.154 ppbv
RT: 5.22 min Scan# 756
Delta R.T. -0.03 min
Lab File: VL035982.D
Acq: 18 Nov 2020 20:45

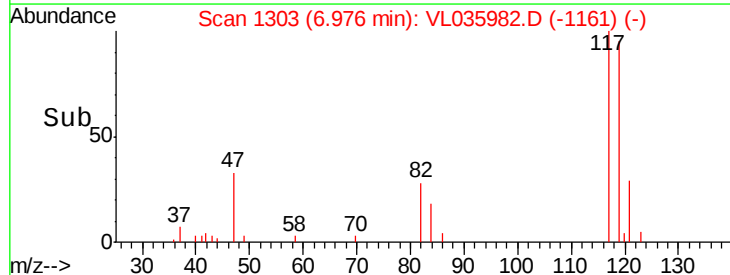
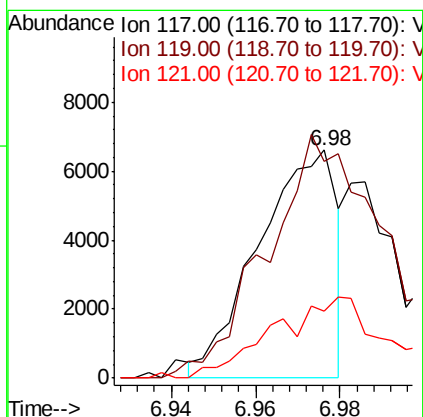
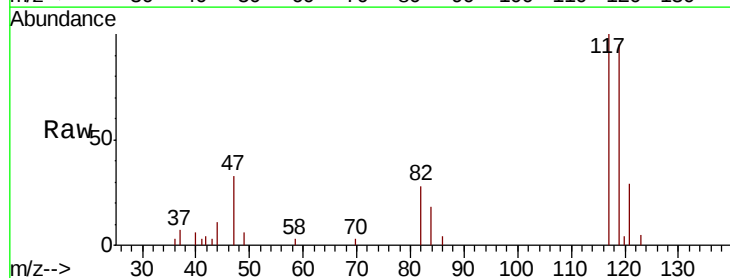
Instrument :
MSVOA_L
ClientSampleId :
IA2

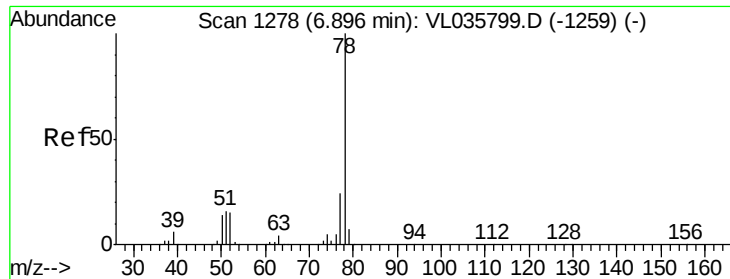
Tot Ion: 43 Resp: 19779
Ion Ratio Lower Upper
43 100
72 36.6 26.5 39.7



#35
Carbon Tetrachloride
Concen: 0.040 ppbv
RT: 6.98 min Scan# 1303
Delta R.T. -0.05 min
Lab File: VL035982.D
Acq: 18 Nov 2020 20:45

Tgt Ion: 117 Resp: 8508
Ion Ratio Lower Upper
117 100
119 94.2 75.6 113.4
121 31.4 25.1 37.7





#36

Benzene

Concen: 0.189 ppbv

RT: 6.85 min Scan# 1264

Delta R.T. -0.05 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Instrument :

MSVOA_L

ClientSampleId :

IA2

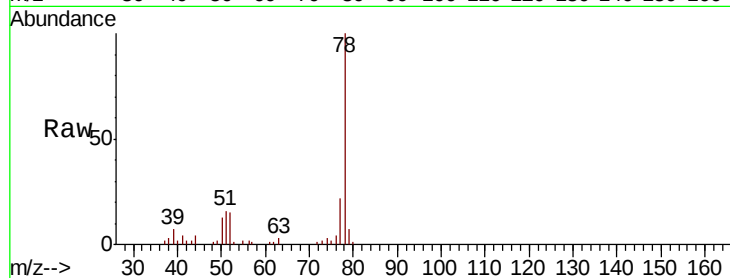
Tot Ion: 78 Resp: 55556

Ion Ratio Lower Upper

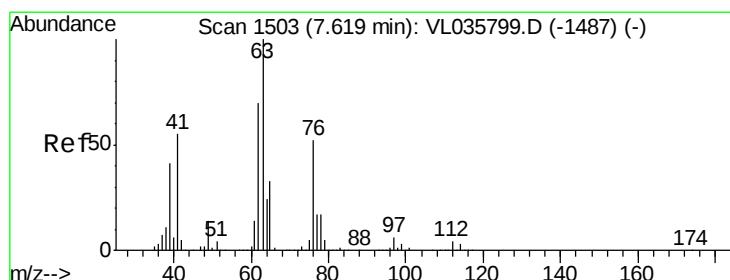
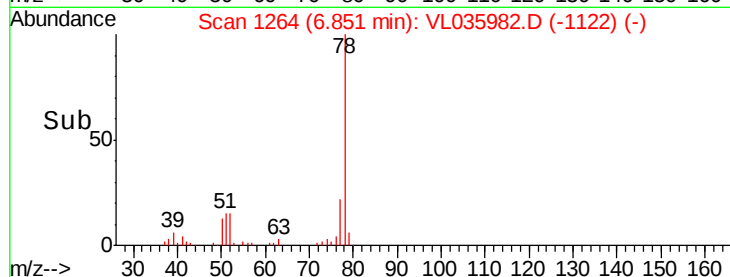
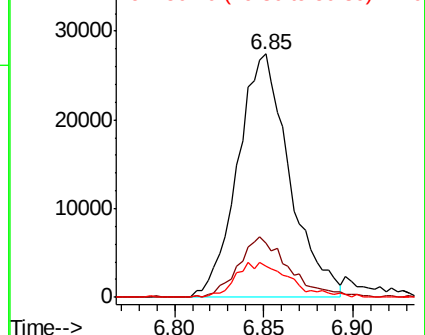
78 100

77 22.2 19.3 28.9

50 12.6 11.4 17.2



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 8.279 ppbv

RT: 7.13 min Scan# 1352

Delta R.T. -0.49 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

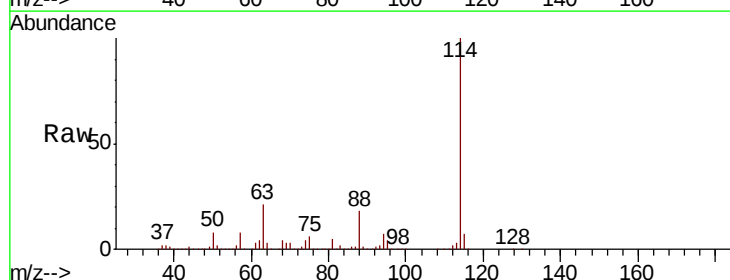
Tgt Ion: 63 Resp: 821320

Ion Ratio Lower Upper

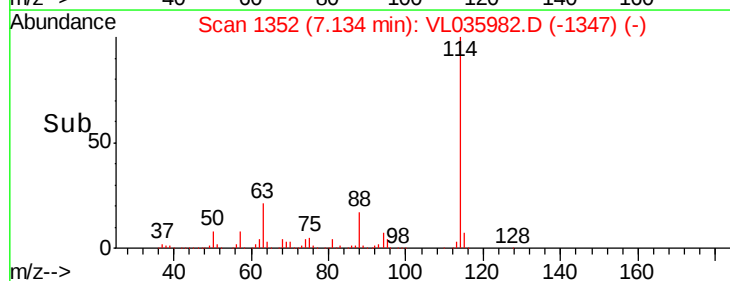
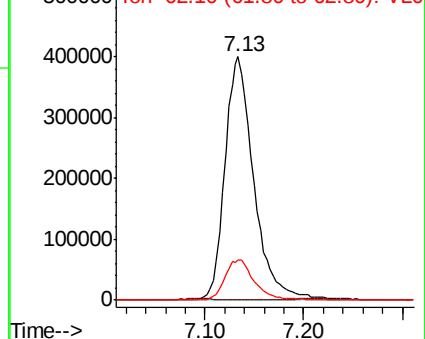
63 100

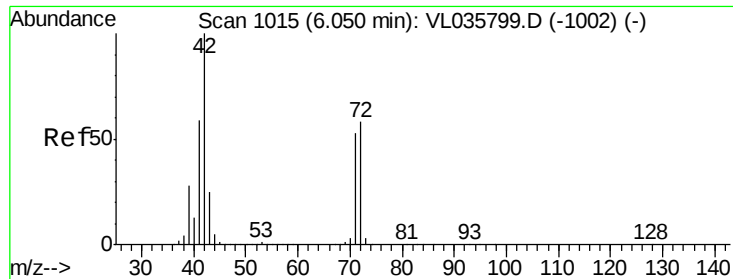
41 0.0 43.8 65.6#

62 16.5 56.2 84.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 62.10 (61.80 to 62.80): VL0

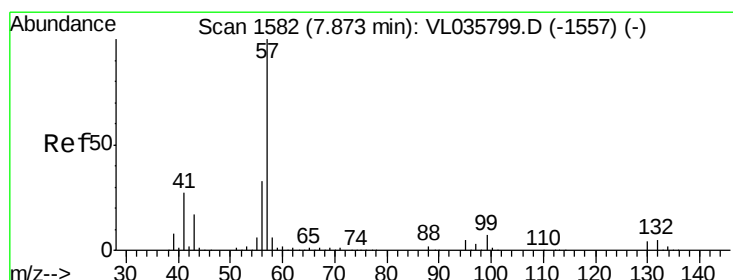
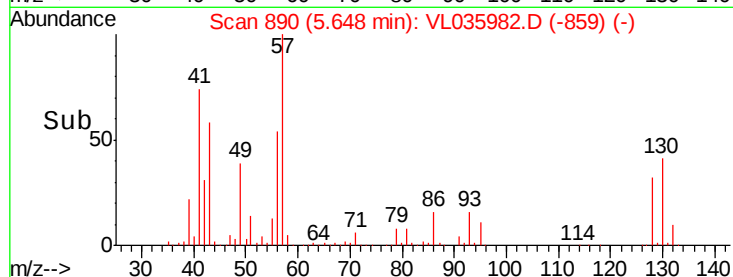
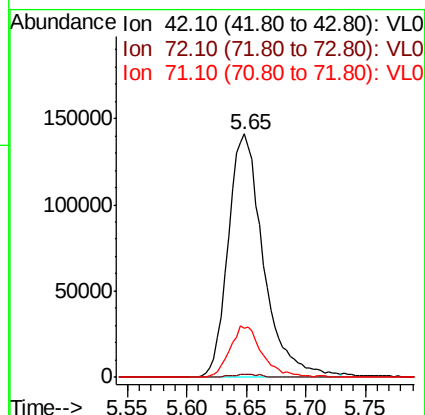
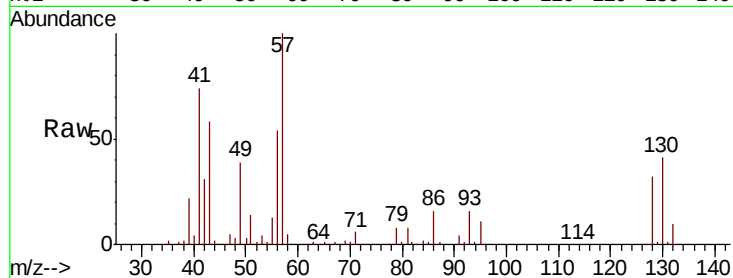




#41
Tetrahydrofuran
Concen: 3.966 ppbv
RT: 5.65 min Scan# 890
Delta R.T. -0.40 min
Lab File: VL035982.D
Acq: 18 Nov 2020 20:45

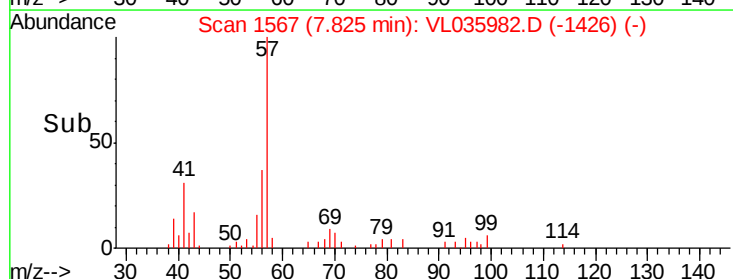
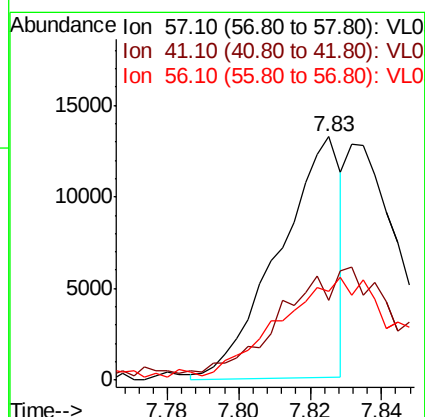
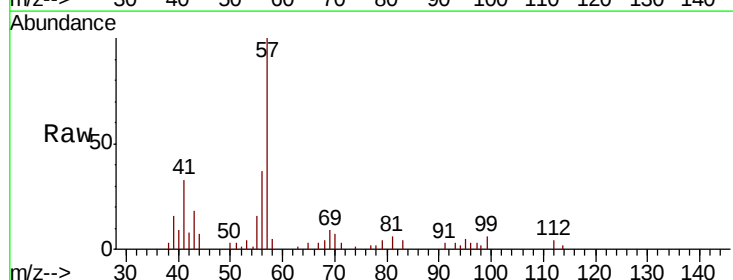
Instrument :
MSVOA_L
ClientSampled :
IA2

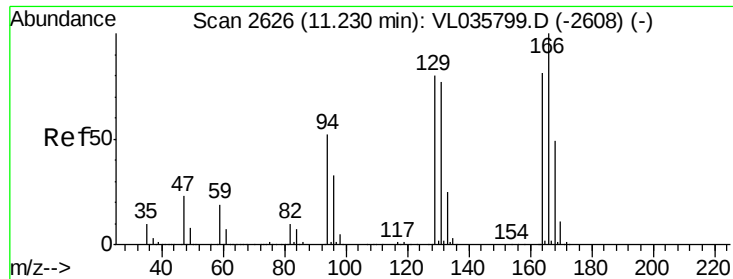
Tot Ion: 42 Resp: 289804
Ion Ratio Lower Upper
42 100
72 1.2 45.4 68.0#
71 19.5 43.4 65.2#



#44
2,2,4-Trimethylpentane
Concen: 0.041 ppbv
RT: 7.83 min Scan# 1567
Delta R.T. -0.05 min
Lab File: VL035982.D
Acq: 18 Nov 2020 20:45

Tgt Ion: 57 Resp: 15865
Ion Ratio Lower Upper
57 100
41 0.0 21.0 31.4#
56 0.0 25.4 38.0#





#52

Tetrachloroethene

Concen: 0.047 ppbv

RT: 11.18 min Scan# 2610

Delta R.T. -0.05 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tot Ion:164 Resp: 6548

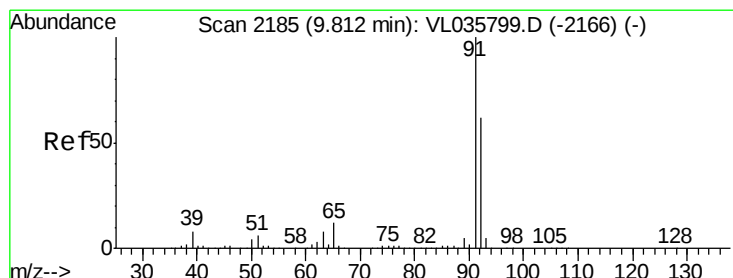
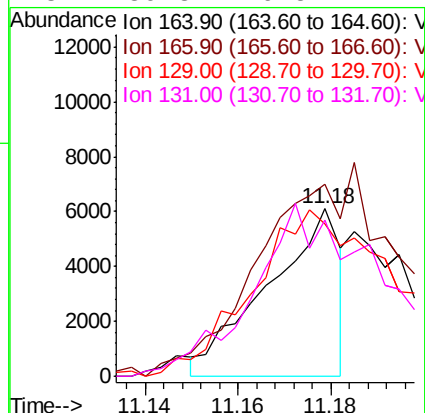
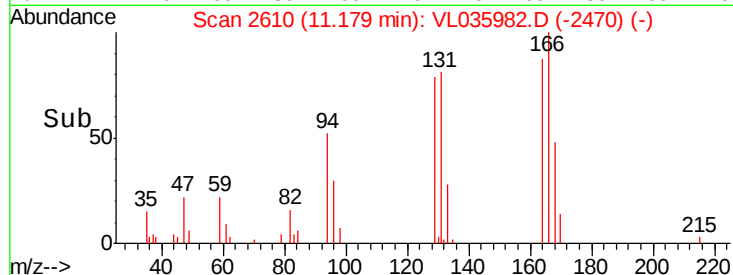
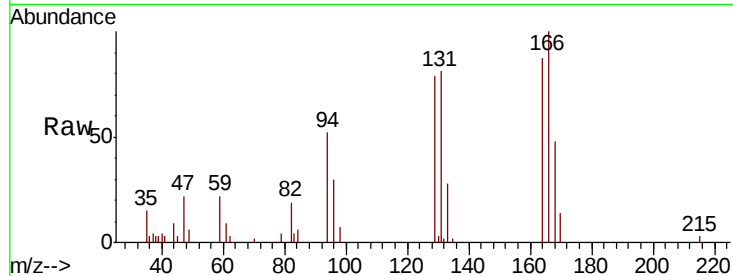
Ion Ratio Lower Upper

164 100

166 114.6 99.3 148.9

129 91.7 79.3 118.9

131 89.3 76.5 114.7



#53

Toluene

Concen: 2.179 ppbv

RT: 9.76 min Scan# 2170

Delta R.T. -0.05 min

Lab File: VL035982.D

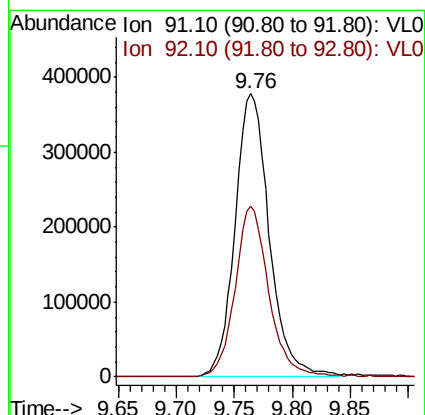
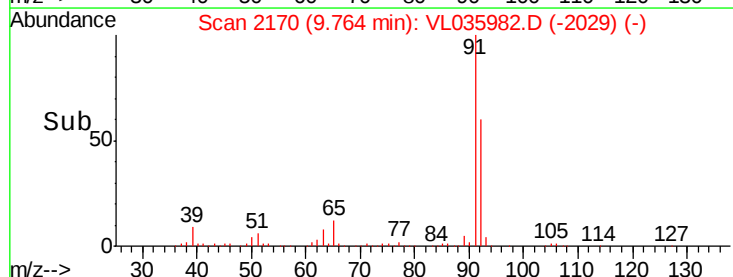
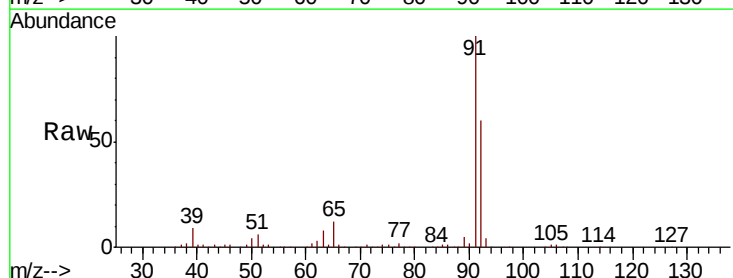
Acq: 18 Nov 2020 20:45

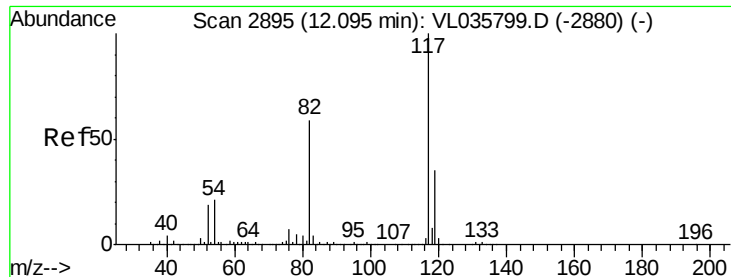
Tgt Ion: 91 Resp: 774693

Ion Ratio Lower Upper

91 100

92 59.8 49.8 74.6

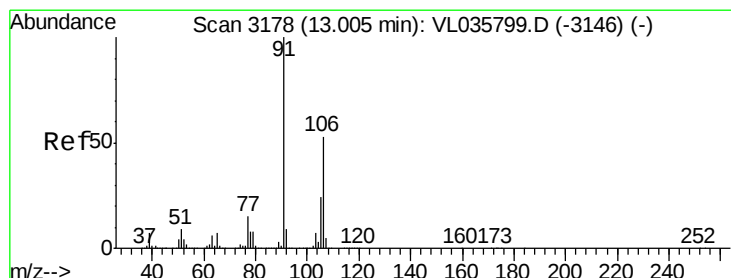
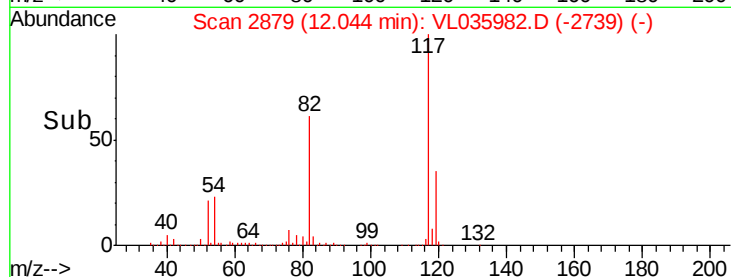
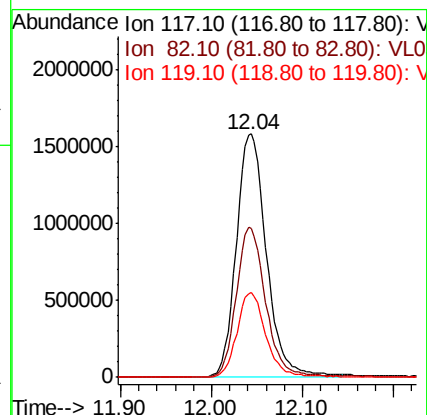
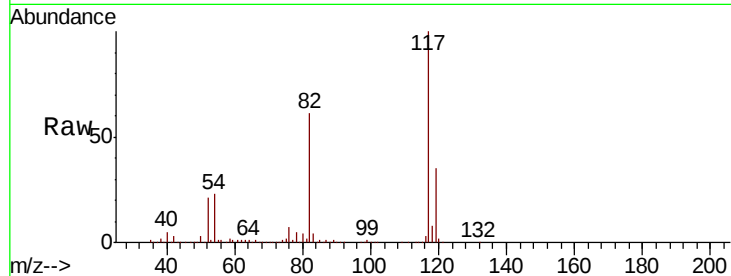




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.04 min Scan# 2879
Delta R.T. -0.05 min
Lab File: VL035982.D
Acq: 18 Nov 2020 20:45

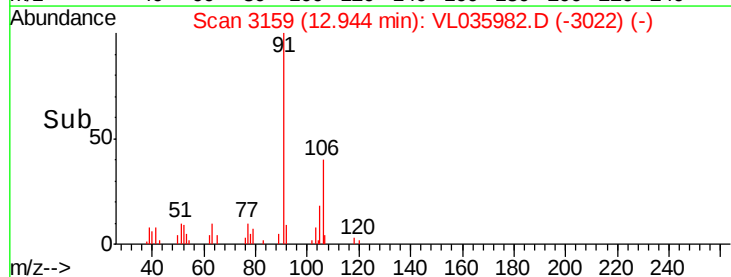
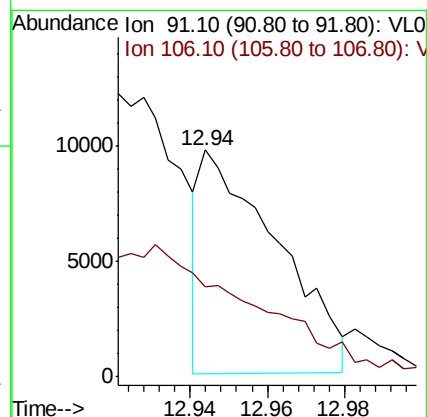
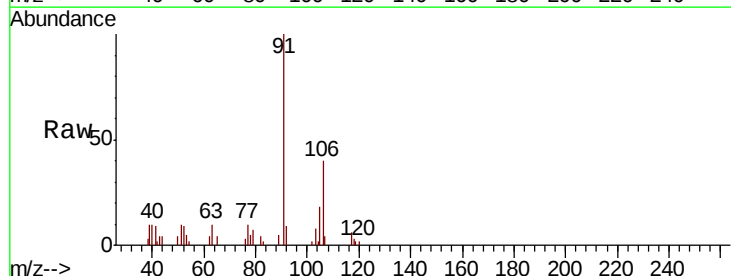
Instrument :
MSVOA_L
ClientSampleId :
IA2

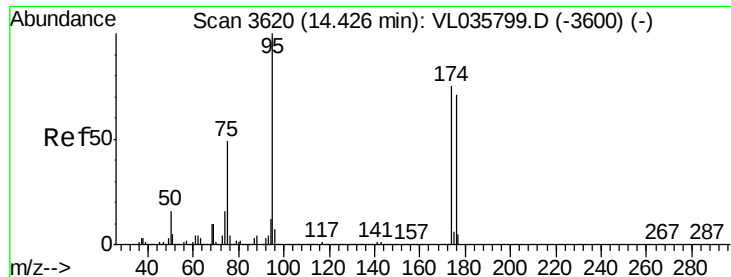
Tot Ion:117 Resp: 3645905
Ion Ratio Lower Upper
117 100
82 61.4 50.6 76.0
119 33.9 52.6 78.8#



#59
m/p-Xylene
Concen: 0.035 ppbv
RT: 12.94 min Scan# 3159
Delta R.T. -0.06 min
Lab File: VL035982.D
Acq: 18 Nov 2020 20:45

Tgt Ion: 91 Resp: 13317
Ion Ratio Lower Upper
91 100
106 0.0 39.5 59.3#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.525 ppbv

RT: 14.37 min Scan# 3604

Delta R.T. -0.05 min

Lab File: VL035982.D

Acq: 18 Nov 2020 20:45

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tot Ion: 95 Resp: 2726218

Ion Ratio Lower Upper

95 100

174 71.0 59.8 89.6

175 5.0 4.3 6.5

