

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120721\
 Data File : VL038155.D
 Acq On : 7 Dec 2021 18:06
 Operator : SY/AP
 Sample : M4897-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 08 02:02:53 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Nov 18 13:16:09 2021
 QLast Update : Thu Nov 18 13:16:09 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	858240	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	2252345	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	1920590	10.00	ppbv	-0.01

System Monitoring Compounds

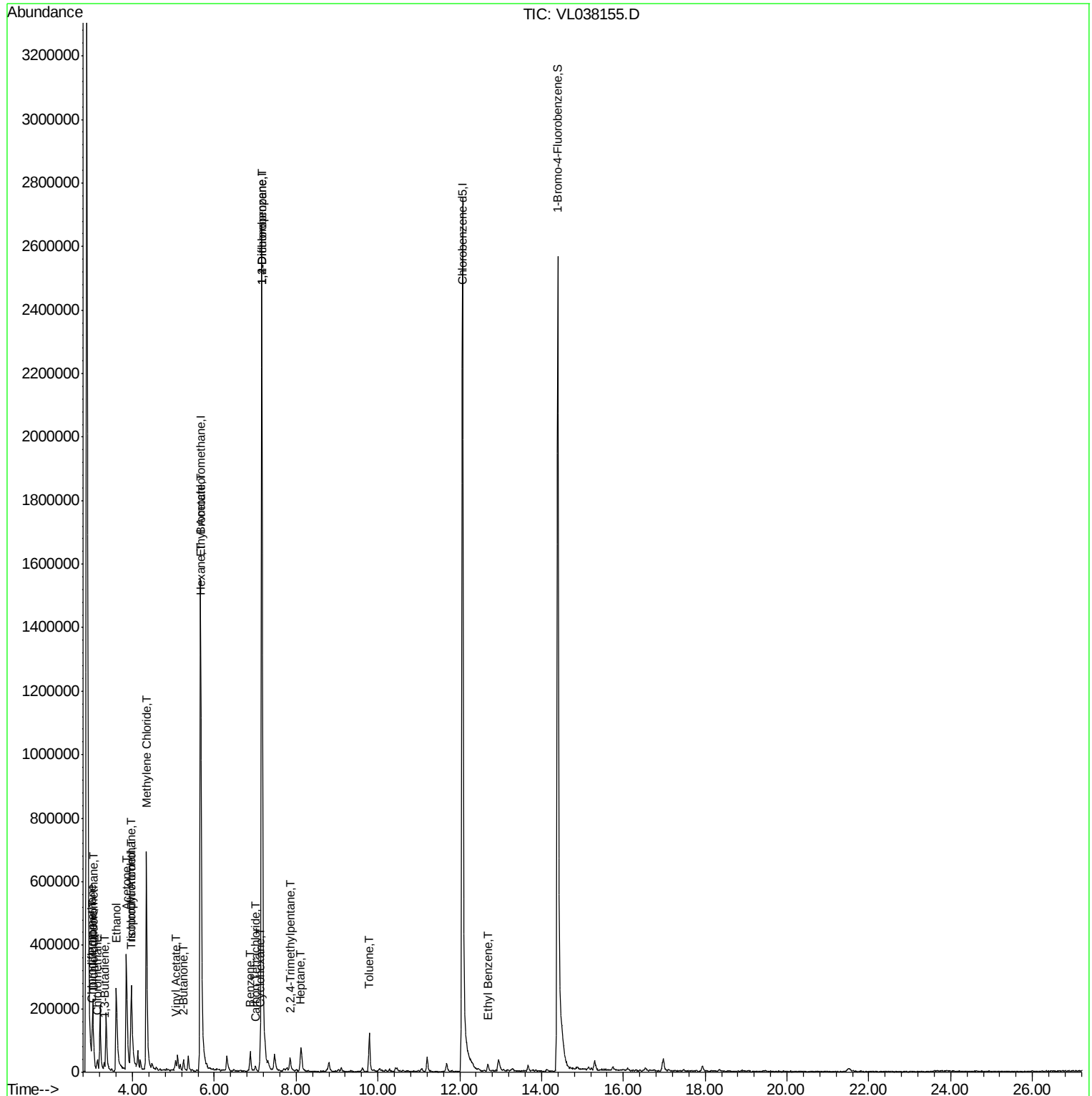
68) 1-Bromo-4-Fluorobenzene	14.40	95	1531348	11.05	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.50%

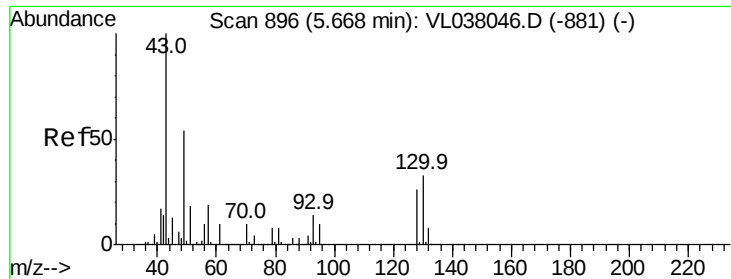
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	47672	0.336	ppbv	97
3) Chlorodifluoromethane	2.99	51	65373	0.363	ppbv #	88
4) Chloromethane	3.14	50	13572	0.221	ppbv	94
9) Propene	3.02	41	55412	0.835	ppbv	87
10) Heptane	8.11	43	5144	0.031	ppbv #	1
11) Trichlorofluoromethane	3.95	101	36612	0.272	ppbv	90
13) Ethanol	3.60	45	400877	62.495	ppbv	91
15) Acetone	3.85	43	489191	6.574	ppbv	99
16) 1,3-Butadiene	3.31	39	6223	0.107	ppbv #	9
19) Isopropyl Alcohol	3.97	45	364579	6.781	ppbv #	94
20) Methylene Chloride	4.34	84	283742	6.808	ppbv	93
23) Vinyl Acetate	5.06	43	18752	0.174	ppbv #	46
25) Ethyl Acetate	5.67	43	147227	0.595	ppbv #	86
26) Hexane	5.68	57	169466	1.422	ppbv #	51
30) Cyclohexane	7.11	84	3884	0.036	ppbv #	1
34) 2-Butanone	5.24	43	13304	0.146	ppbv #	52
35) Carbon Tetrachloride	7.00	117	4786	0.030	ppbv #	78
36) Benzene	6.88	78	48214	0.215	ppbv	96
39) 1,2-Dichloropropane	7.16	63	583209	6.767	ppbv #	27
44) 2,2,4-Trimethylpentane	7.85	57	25291	0.067	ppbv #	38
53) Toluene	9.79	91	85557	0.331	ppbv	97
58) Ethyl Benzene	12.69	91	13810	0.044	ppbv	92

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

```
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL120721\  
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Acq On    : 7 Dec 2021 18:06  
Operator  : SY/AP  
Sample    : M4897-02  
Misc      : 400mL/MSVOA L  
ALS Vial  : 1 Sample Multiplier: 1
```

Quant Time: Dec 08 02:02:53 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL111821AIR.M
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LThu Nov 18 13:16:09 2021
QLast Update : Thu Nov 18 13:16:09 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 7 Dec 2021 18:00

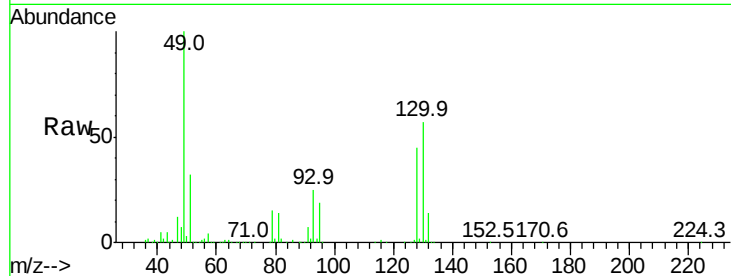
Tot Ion: 49 Resp: 858240

Ion Ratio Lower Upper

49 100

128 46.9 26.5 79.5

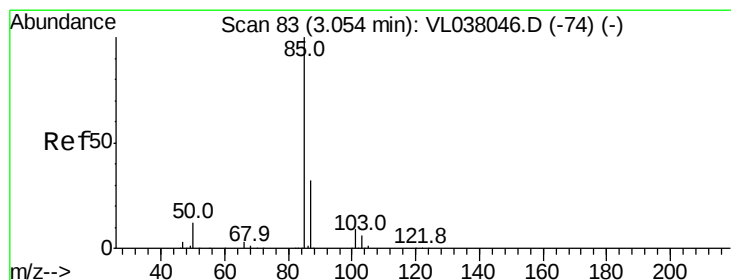
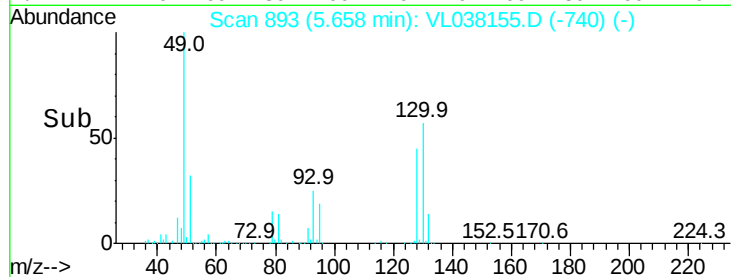
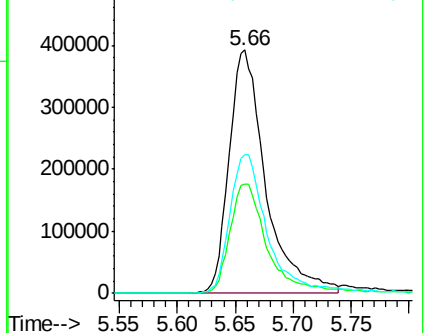
130 60.3 32.5 97.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.336 ppbv

RT: 3.05 min Scan# 82

Delta R.T. -0.00 min

Lab File: VL038155.D

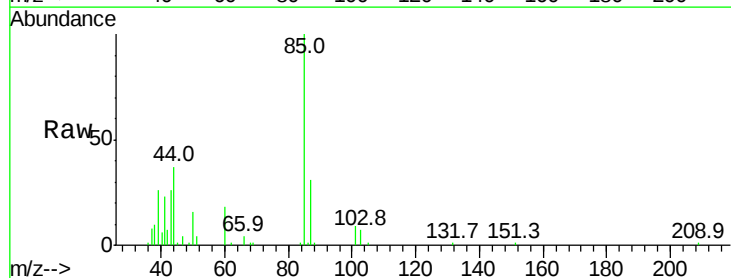
Acq: 7 Dec 2021 18:06

Tgt Ion: 85 Resp: 47672

Ion Ratio Lower Upper

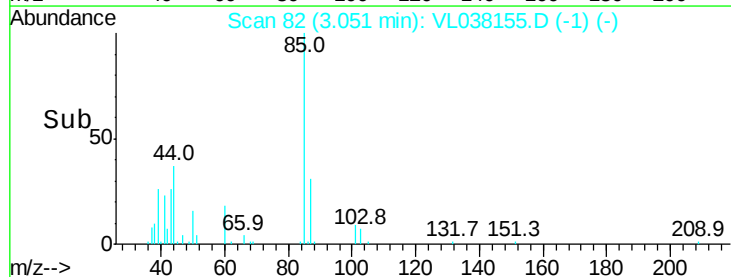
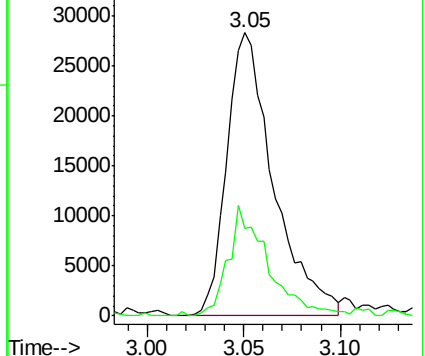
85 100

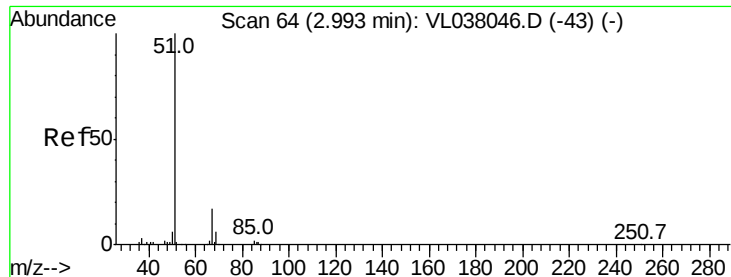
87 30.8 25.8 38.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.363 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

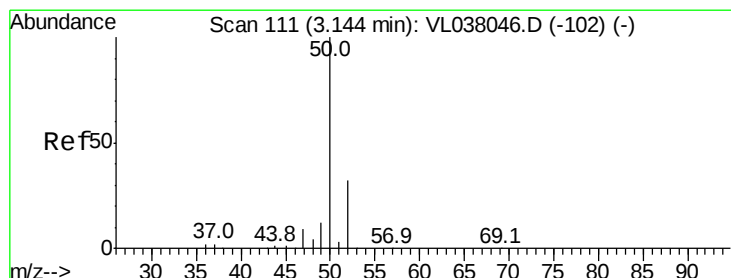
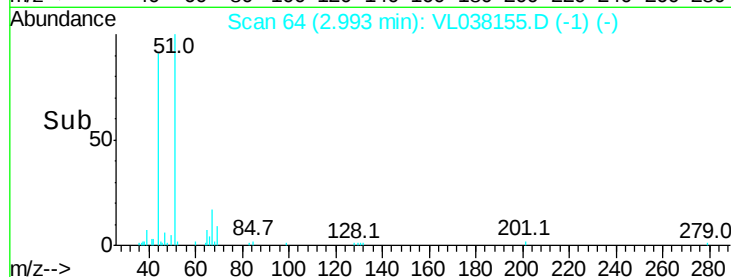
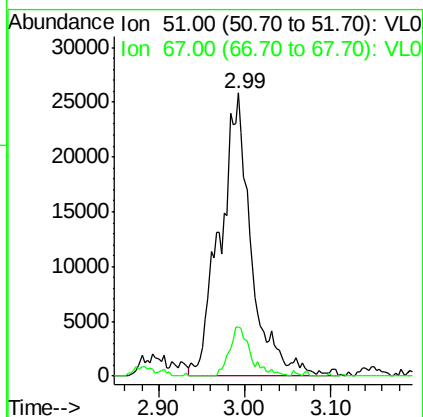
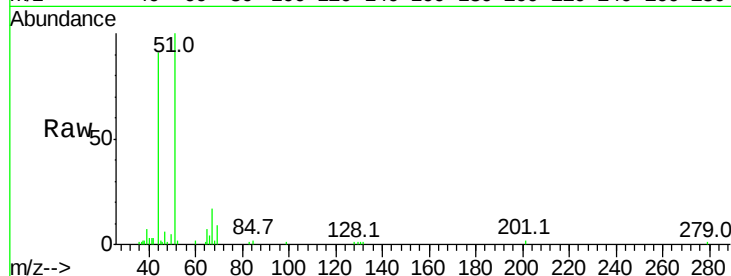
Acq: 7 Dec 2021 18:00

Tot Ion: 51 Resp: 65373

Ion Ratio Lower Upper

51 100

67 11.9 13.8 20.8#



#4

Chloromethane

Concen: 0.221 ppbv

RT: 3.14 min Scan# 109

Delta R.T. -0.01 min

Lab File: VL038155.D

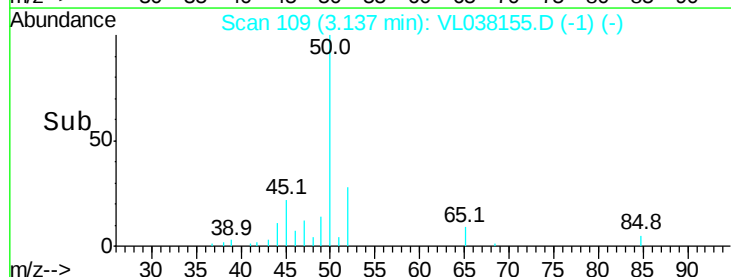
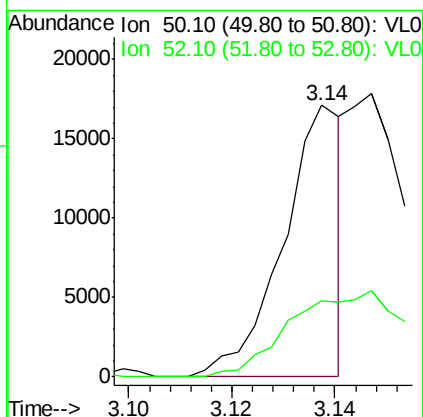
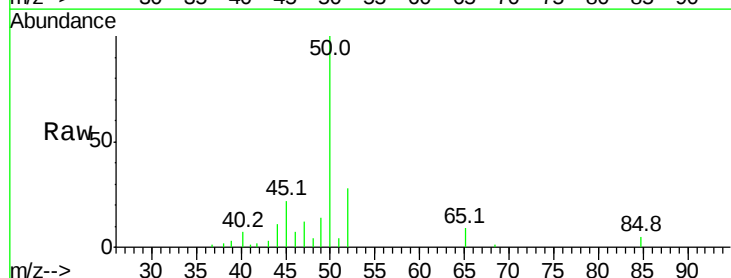
Acq: 7 Dec 2021 18:06

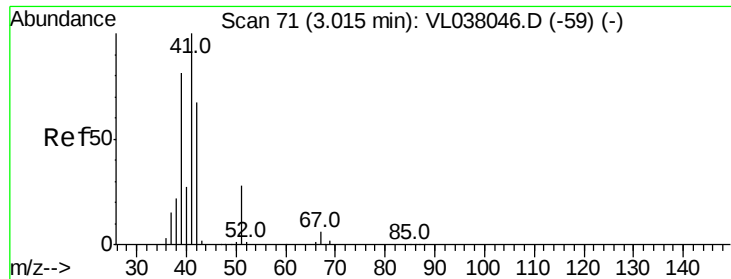
Tgt Ion: 50 Resp: 13572

Ion Ratio Lower Upper

50 100

52 28.1 25.4 38.0





#9

Propene

Concen: 0.835 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

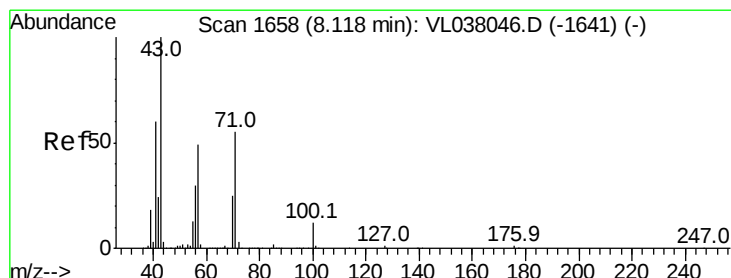
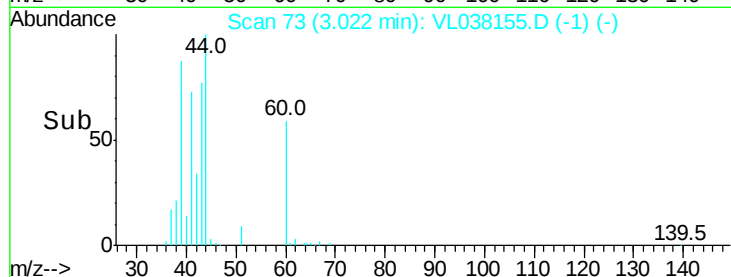
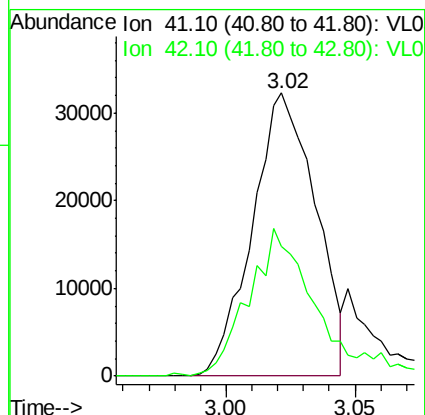
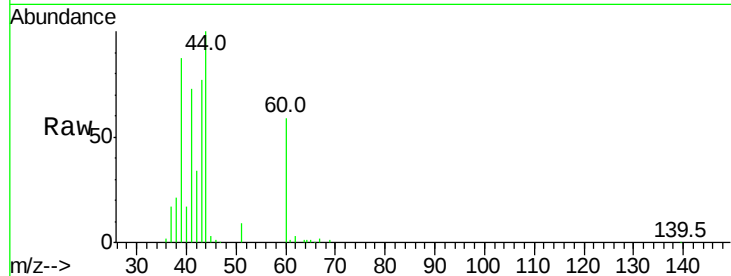
Acq: 7 Dec 2021 18:06

Tot Ion: 41 Resp: 55412

Ion Ratio Lower Upper

41 100

42 56.9 53.8 80.8



#10

Heptane

Concen: 0.031 ppbv

RT: 8.11 min Scan# 1654

Delta R.T. -0.01 min

Lab File: VL038155.D

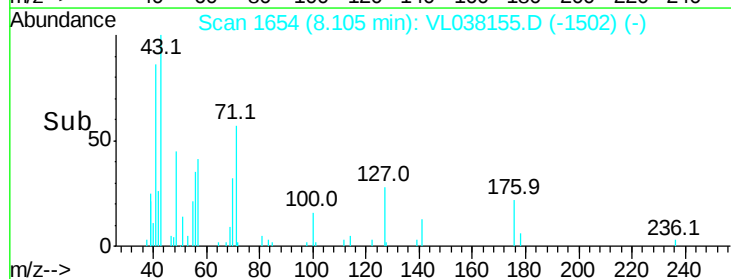
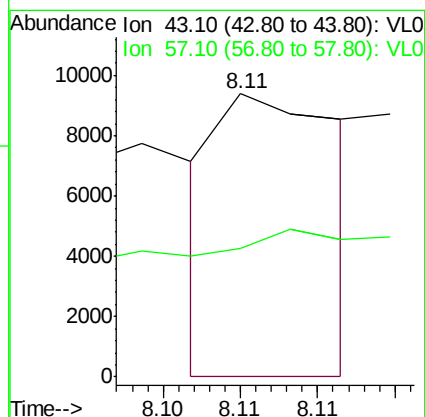
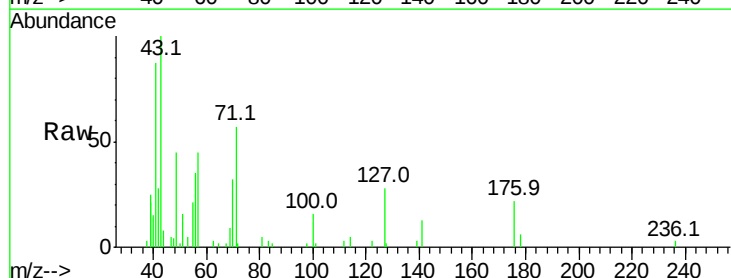
Acq: 7 Dec 2021 18:06

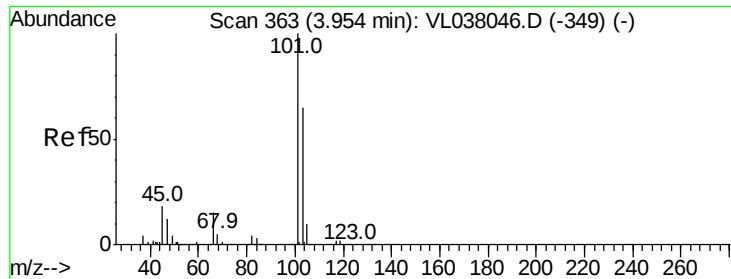
Tgt Ion: 43 Resp: 5144

Ion Ratio Lower Upper

43 100

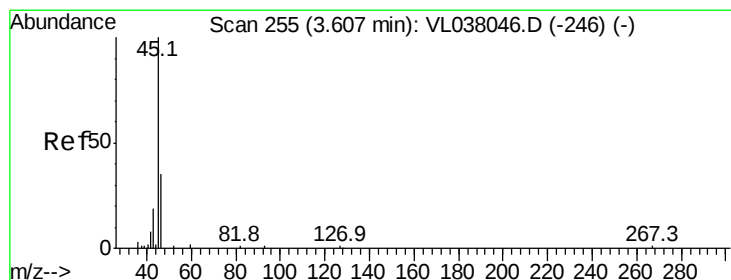
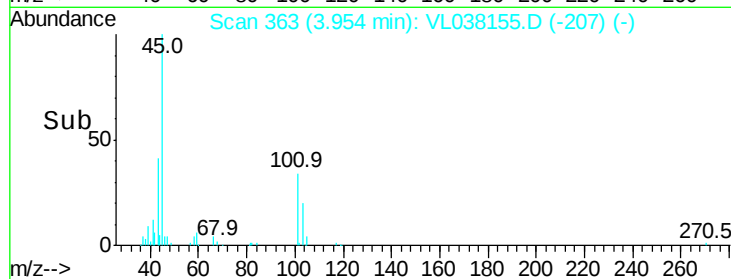
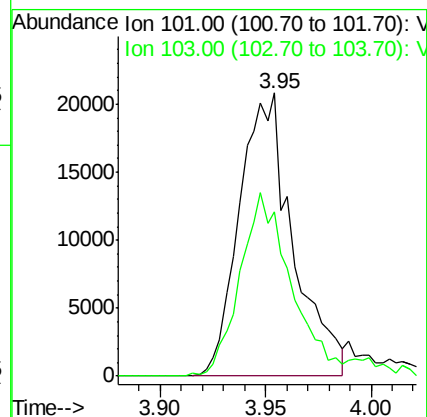
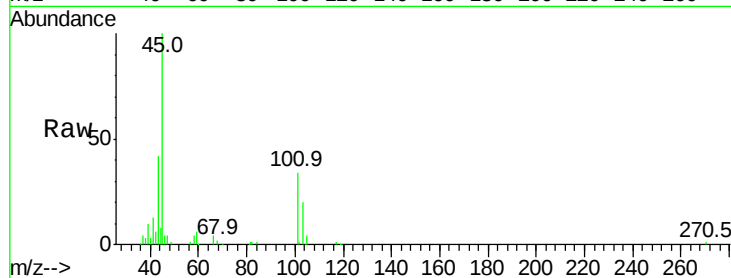
57 230.4 40.4 60.6#





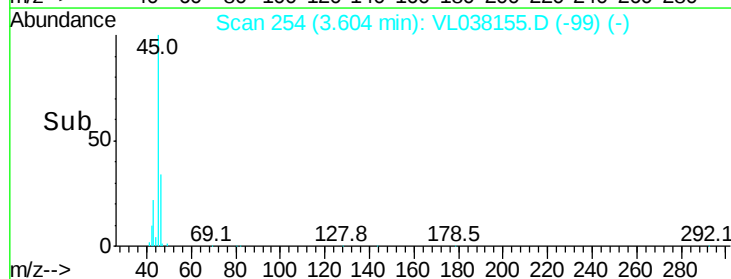
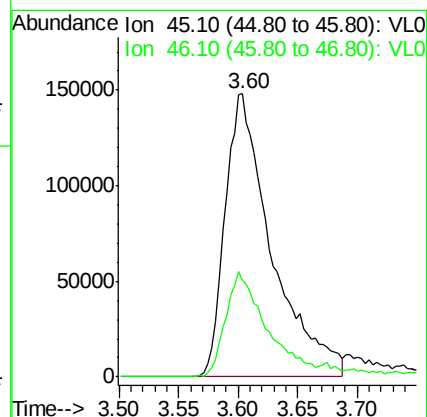
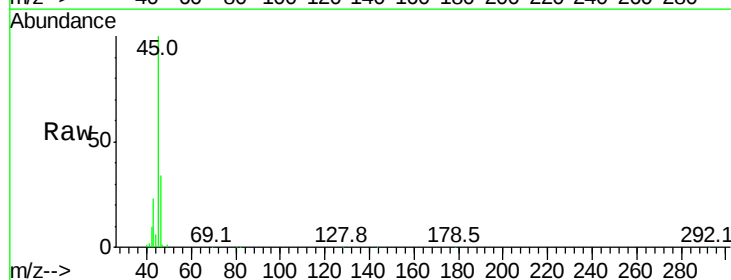
#11
 Trichlorofluoromethane
 Concen: 0.272 ppbv
 RT: 3.95 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 7 Dec 2021 18:00

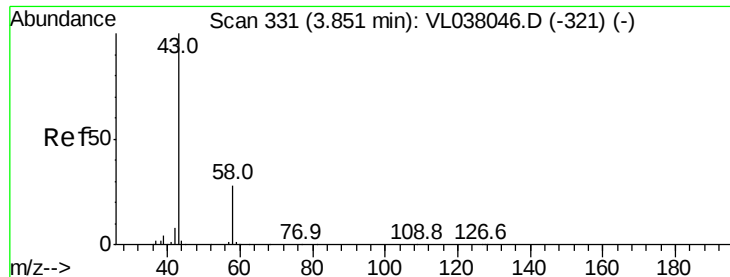
Tot Ion: 101 Resp: 36612
 Ion Ratio Lower Upper
 101 100
 103 57.0 51.8 77.6



#13
 Ethanol
 Concen: 62.495 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T.: -0.00 min
 Lab File: VL038155.D
 Acq: 7 Dec 2021 18:06

Tgt Ion: 45 Resp: 400877
 Ion Ratio Lower Upper
 45 100
 46 38.1 17.6 70.2





#15

Acetone

Concen: 6.574 ppbv

RT: 3.85 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

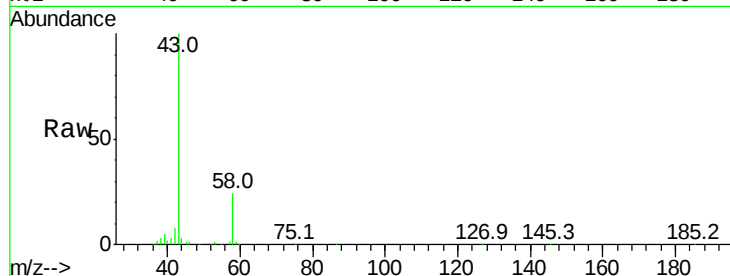
Acq: 7 Dec 2021 18:00

Tot Ion: 43 Resp: 489191

Ion Ratio Lower Upper

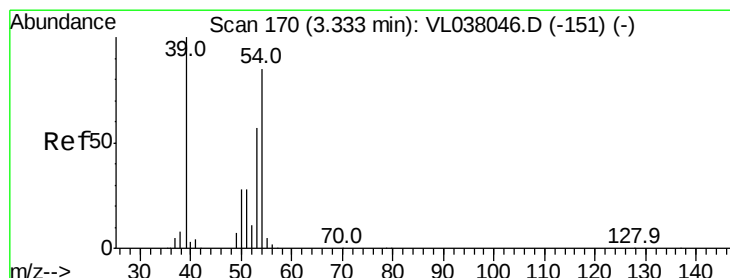
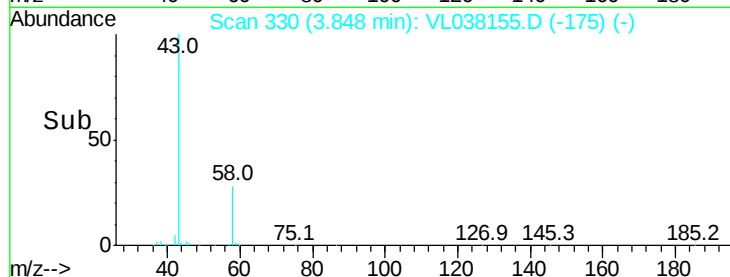
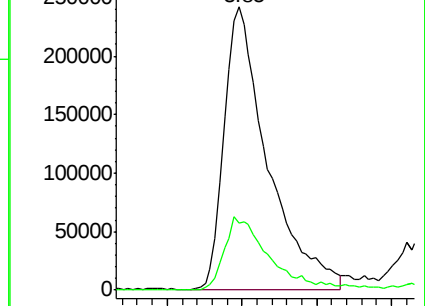
43 100

58 27.5 22.4 33.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.107 ppbv

RT: 3.31 min Scan# 162

Delta R.T. -0.03 min

Lab File: VL038155.D

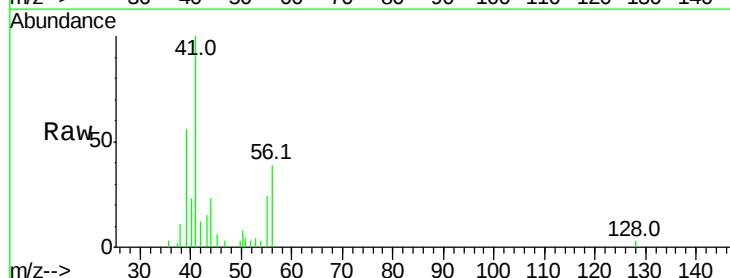
Acq: 7 Dec 2021 18:06

Tgt Ion: 39 Resp: 6223

Ion Ratio Lower Upper

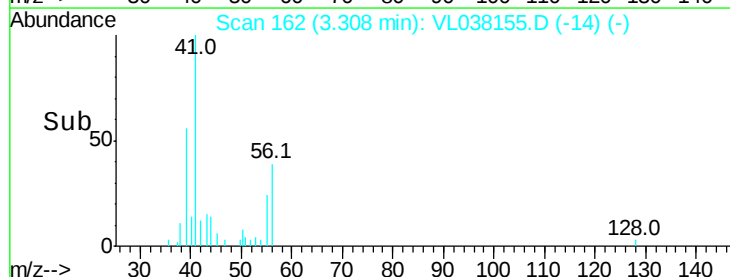
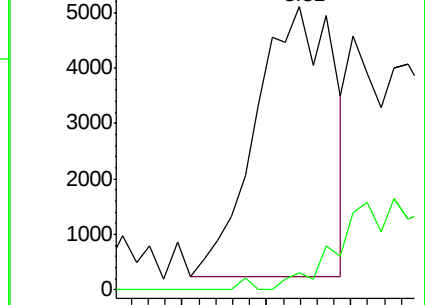
39 100

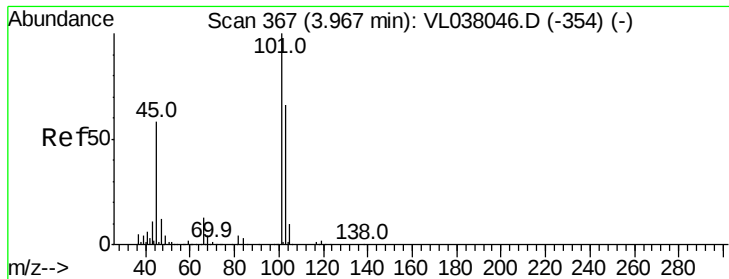
54 0.0 64.4 96.6#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#19

Isopropyl Alcohol

Concen: 6.781 ppbv

RT: 3.97 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

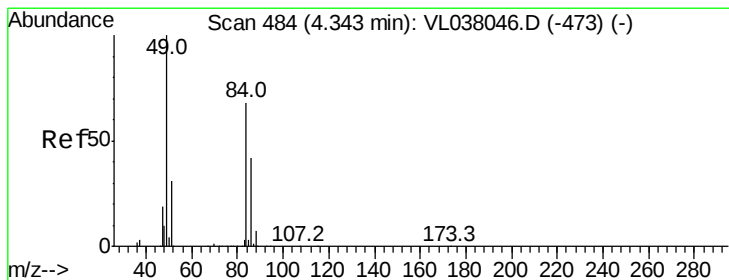
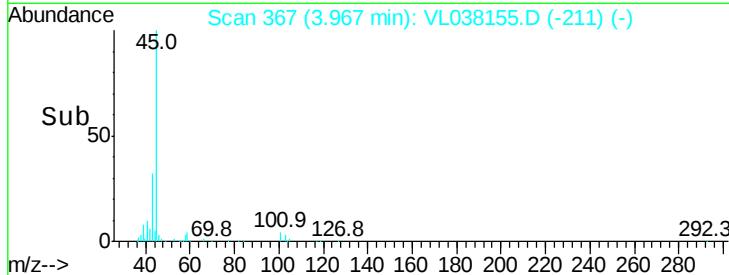
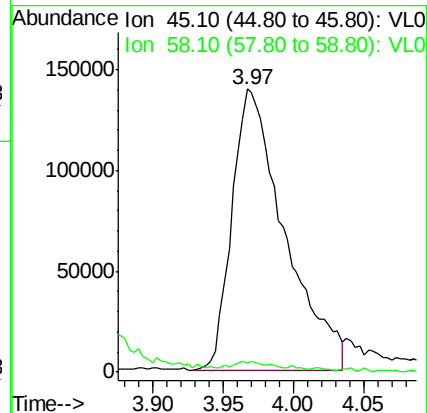
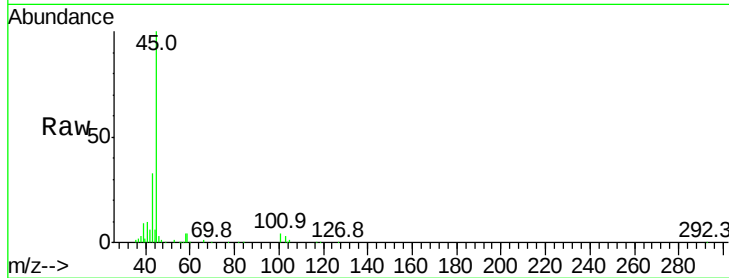
Acq: 7 Dec 2021 18:00

Tot Ion: 45 Resp: 364579

Ion Ratio Lower Upper

45 100

58 4.0 1.4 2.0#



#20

Methylene Chloride

Concen: 6.808 ppbv

RT: 4.34 min Scan# 483

Delta R.T. -0.00 min

Lab File: VL038155.D

Acq: 7 Dec 2021 18:06

Tgt Ion: 84 Resp: 283742

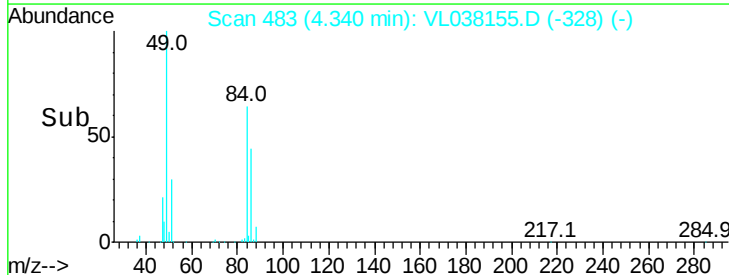
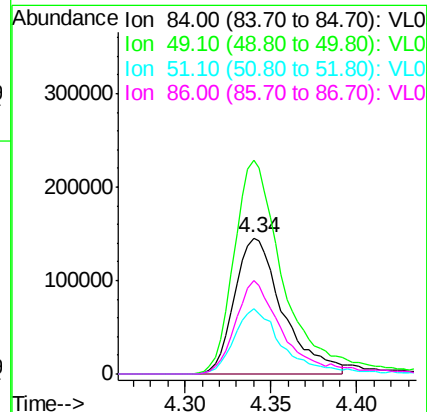
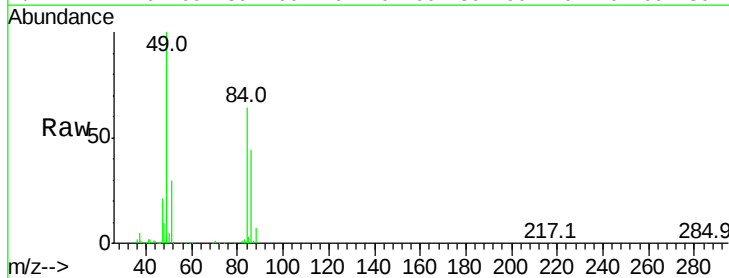
Ion Ratio Lower Upper

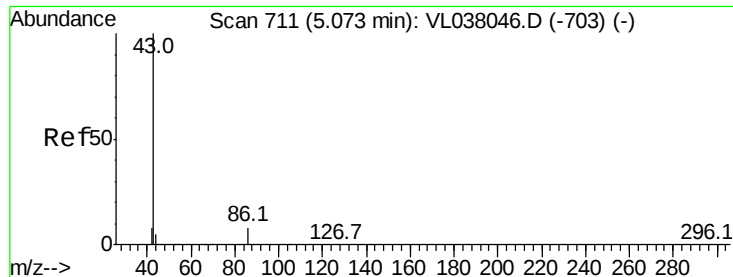
84 100

49 156.7 118.2 177.2

51 47.6 36.8 55.2

86 68.2 49.0 73.6





#23

Vinyl Acetate

Concen: 0.174 ppbv

RT: 5.06 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 7 Dec 2021 18:00

Tot Ion: 43 Resp: 18752

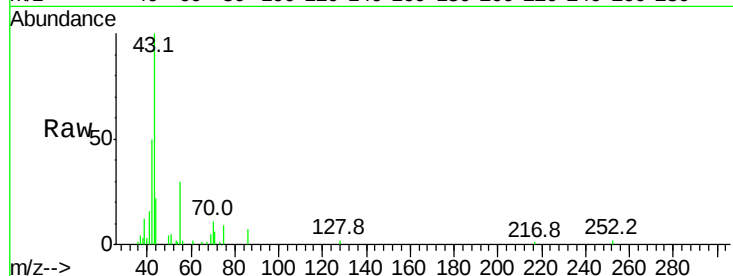
Ion Ratio Lower Upper

43 100

86 11.3 5.3 7.9#

42 48.4 7.0 10.6#

44 8.4 4.0 6.0#

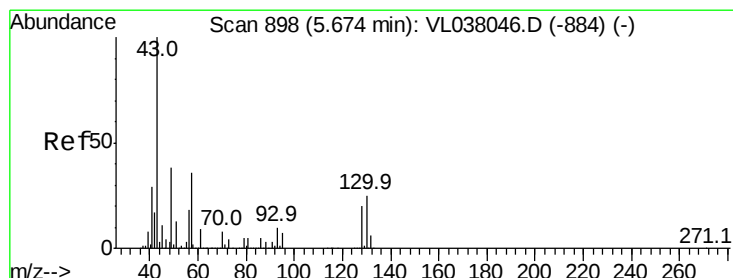
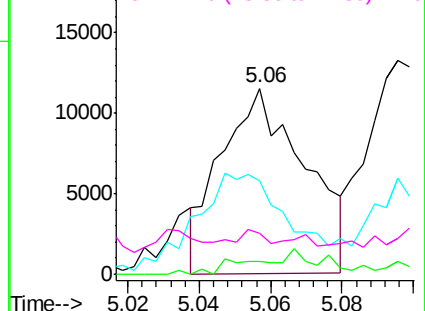
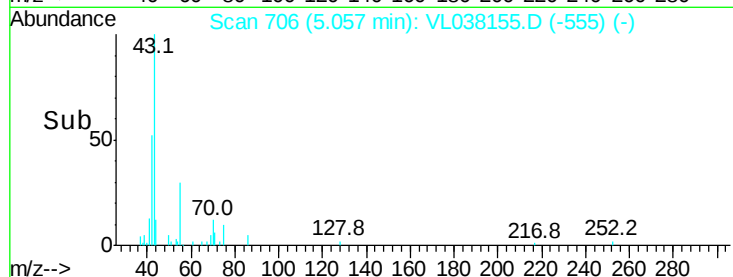


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.595 ppbv

RT: 5.67 min Scan# 898

Delta R.T. 0.00 min

Lab File: VL038155.D

Acq: 7 Dec 2021 18:06

Tgt Ion: 43 Resp: 147227

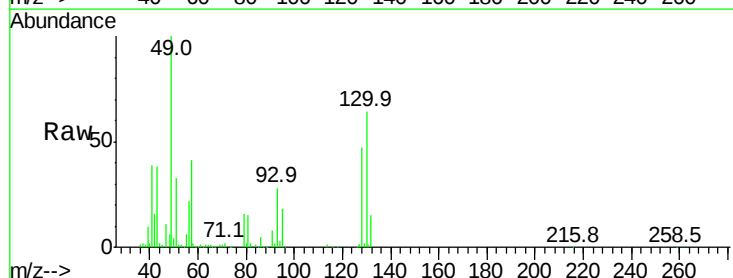
Ion Ratio Lower Upper

43 100

45 5.5 7.9 11.9#

61 3.0 7.8 11.6#

70 3.2 5.8 8.8#

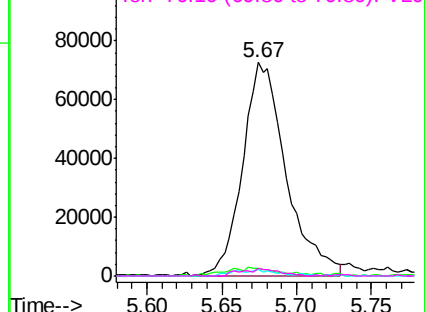
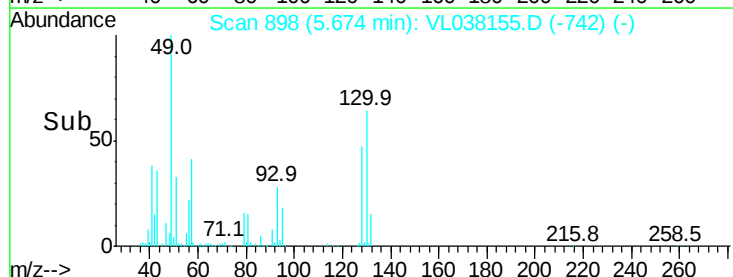


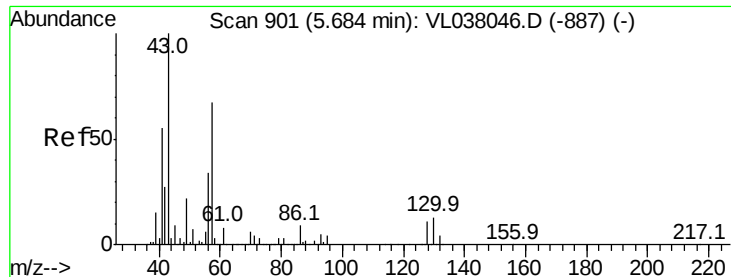
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

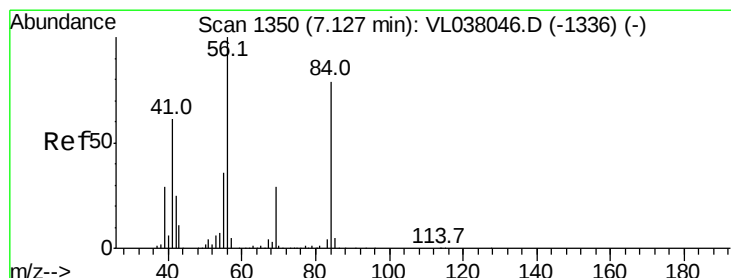
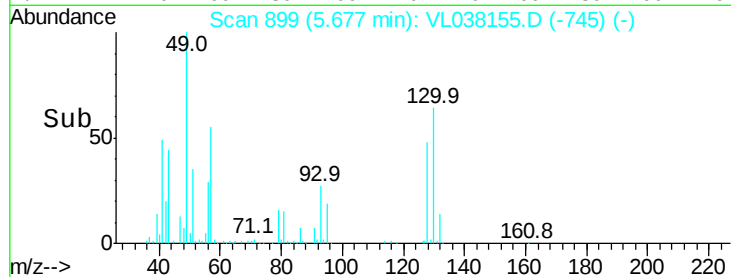
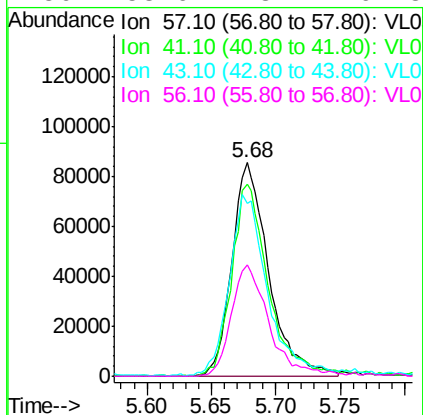
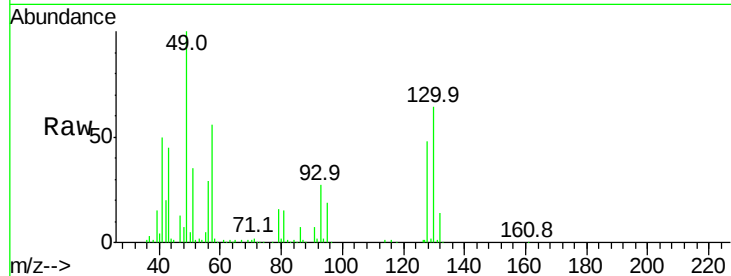
Ion 70.10 (69.80 to 70.80): VL0





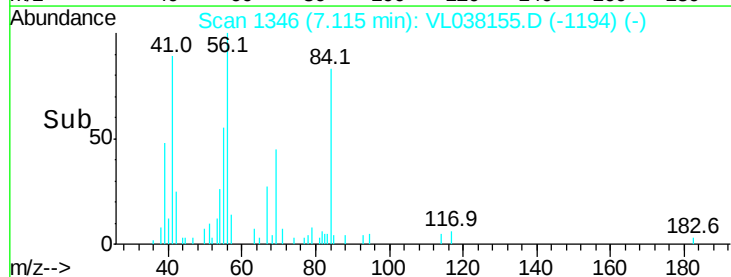
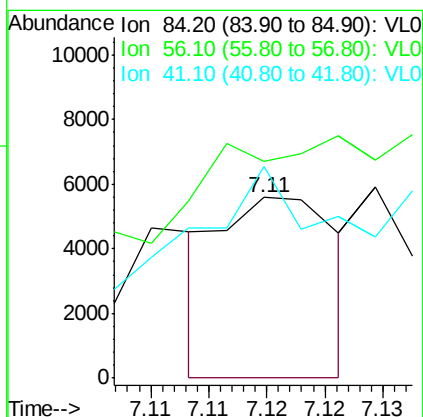
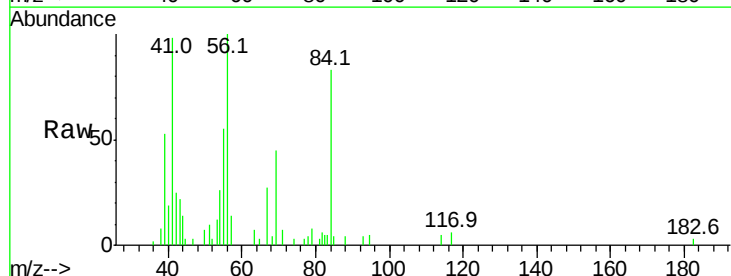
#26
Hexane
Concen: 1.422 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 7 Dec 2021 18:00

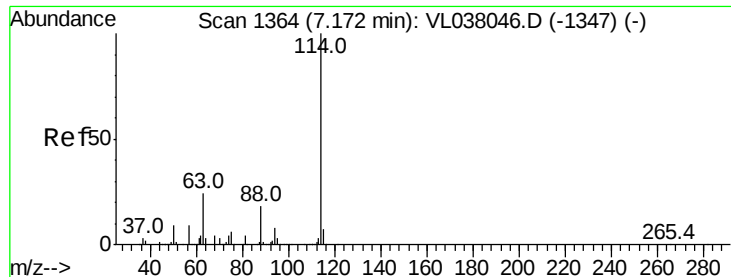
Tot Ion	57	Resp	169466
Ion Ratio	Lower	Upper	
57	100		
41	92.0	71.4	107.2
43	90.3	174.6	261.8#
56	53.6	43.2	64.8



#30
Cyclohexane
Concen: 0.036 ppbv
RT: 7.11 min Scan# 1346
Delta R.T. -0.01 min
Lab File: VL038155.D
Acq: 7 Dec 2021 18:06

Tgt Ion	84	Resp	3884
Ion Ratio	Lower	Upper	
84	100		
56	0.0	108.1	162.1#
41	375.2	64.4	96.6#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 7 Dec 2021 18:00

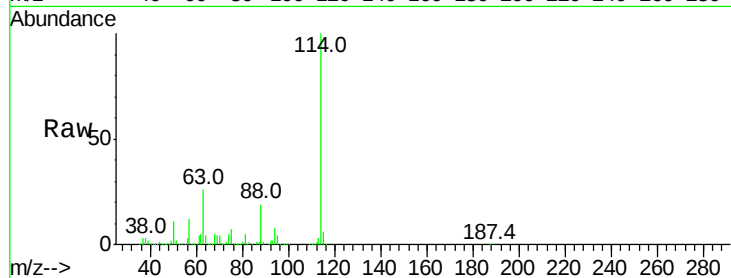
Tot Ion:114 Resp: 2252345

Ion Ratio Lower Upper

114 100

63 27.0 19.7 29.5

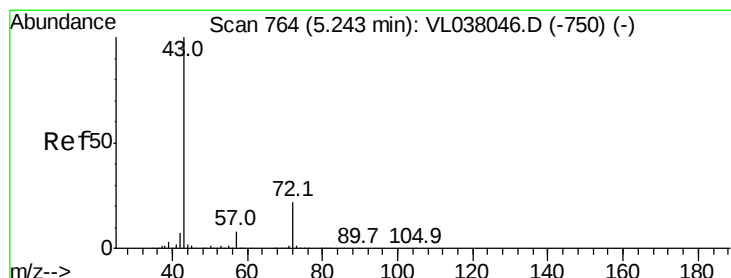
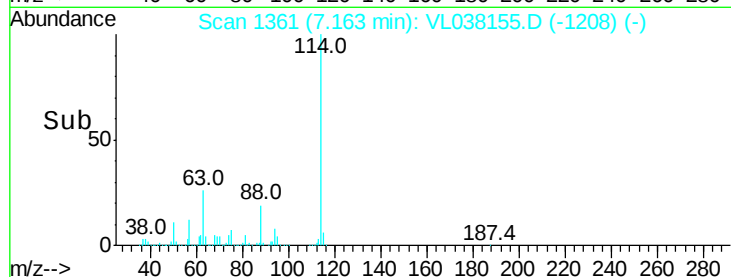
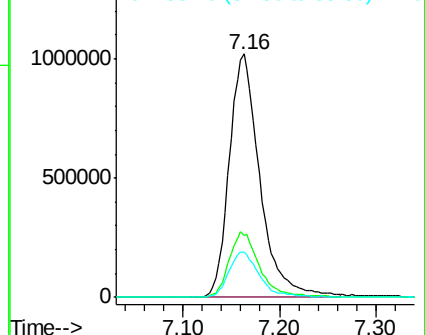
88 19.0 14.4 21.6



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.146 ppbv

RT: 5.24 min Scan# 762

Delta R.T. -0.01 min

Lab File: VL038155.D

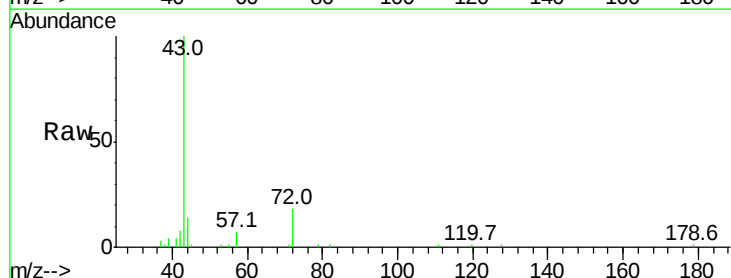
Acq: 7 Dec 2021 18:06

Tgt Ion: 43 Resp: 13304

Ion Ratio Lower Upper

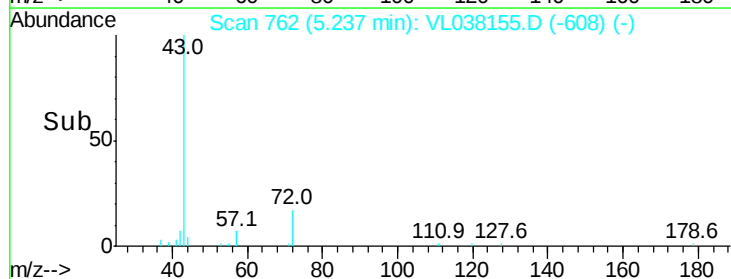
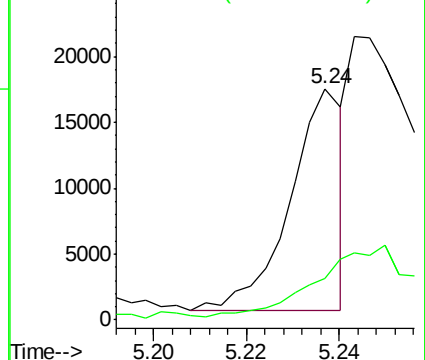
43 100

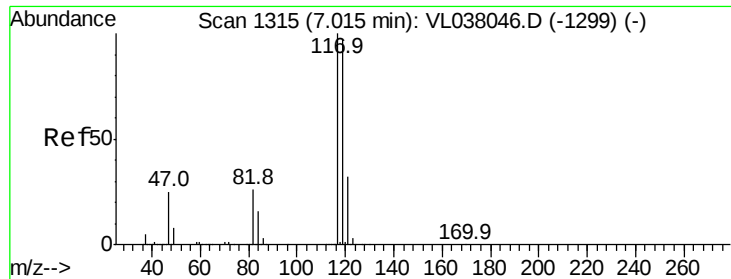
72 0.0 18.8 28.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0

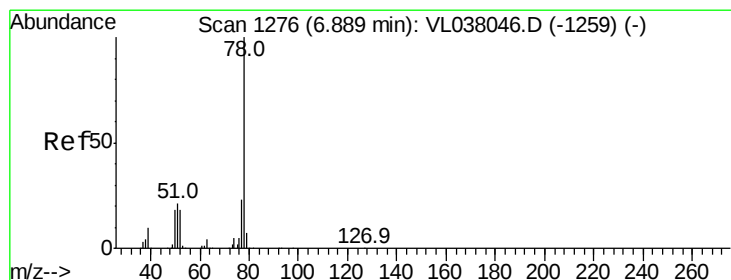
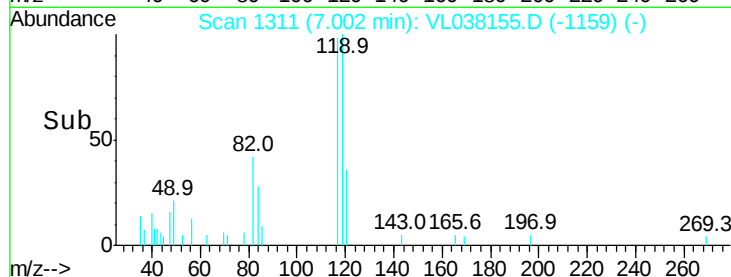
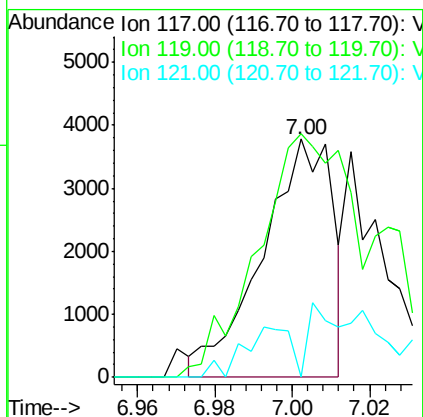
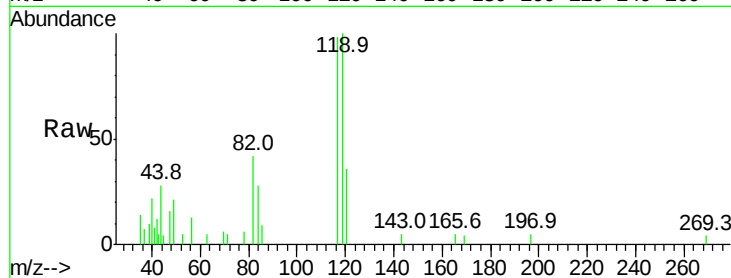
Ion 72.10 (71.80 to 72.80): VL0





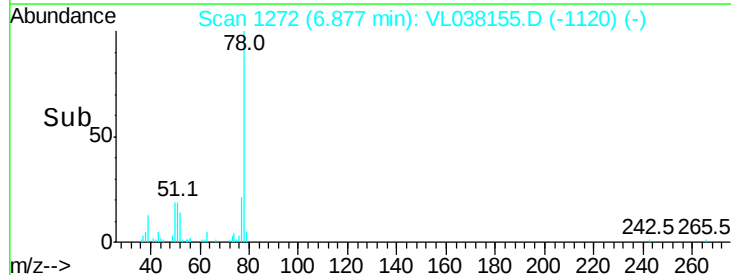
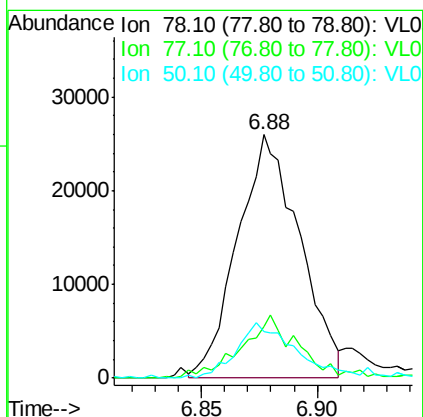
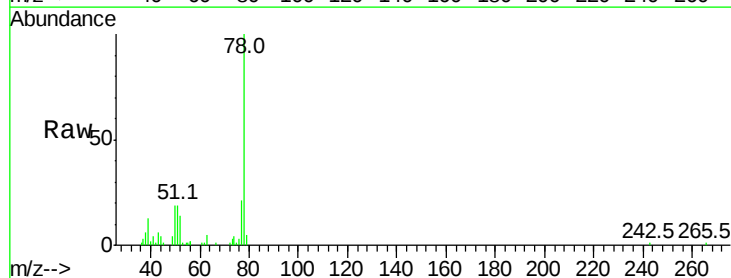
#35
Carbon Tetrachloride
Concen: 0.030 ppbv
RT: 7.00 Instrument :
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 7 Dec 2021 18:00

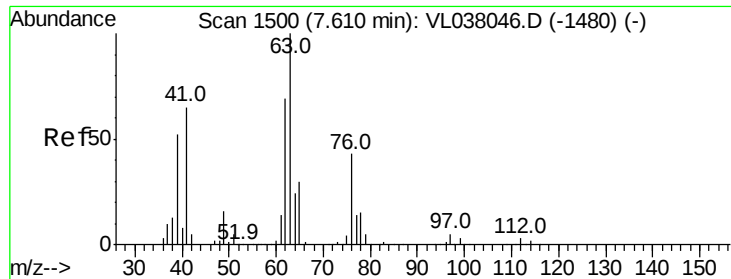
Tot Ion:117 Resp: 4786
Ion Ratio Lower Upper
117 100
119 107.1 77.7 116.5
121 0.0 25.6 38.4#



#36
Benzene
Concen: 0.215 ppbv
RT: 6.88 min Scan# 1272
Delta R.T. -0.01 min
Lab File: VL038155.D
Acq: 7 Dec 2021 18:06

Tgt Ion: 78 Resp: 48214
Ion Ratio Lower Upper
78 100
77 20.2 18.2 27.4
50 17.0 14.7 22.1





#39

1,2-Dichloropropane

Concen: 6.767 ppbv

RT: 7.16 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 7 Dec 2021 18:00

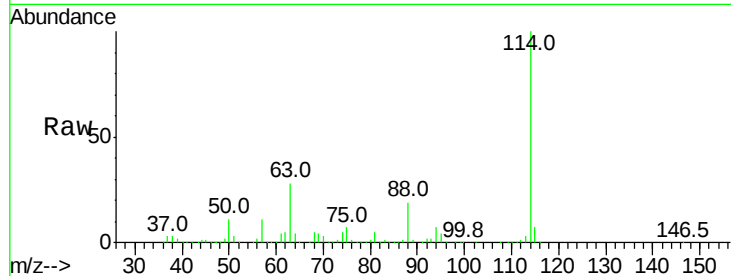
Tot Ion: 63 Resp: 583209

Ion Ratio Lower Upper

63 100

41 0.0 52.3 78.5#

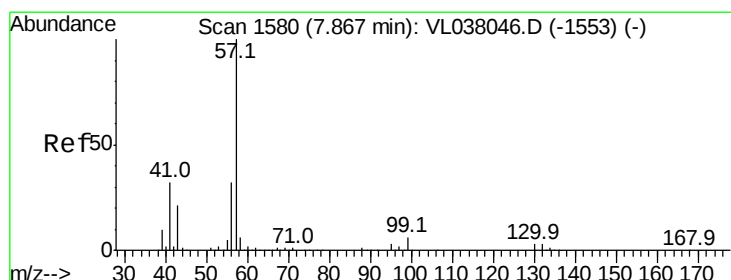
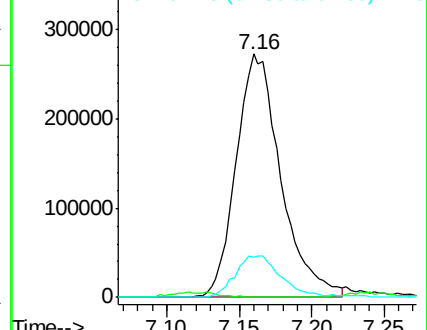
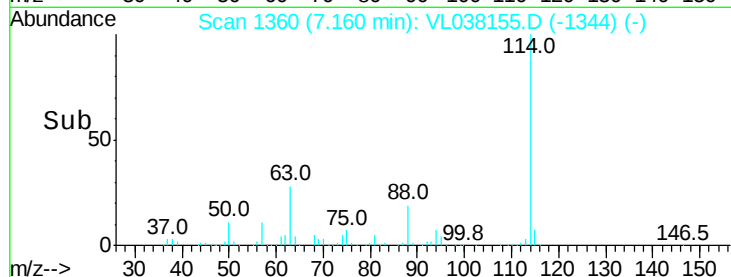
62 16.3 55.1 82.7#



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



#44

2,2,4-Trimethylpentane

Concen: 0.067 ppbv

RT: 7.85 min Scan# 1576

Delta R.T. -0.01 min

Lab File: VL038155.D

Acq: 7 Dec 2021 18:06

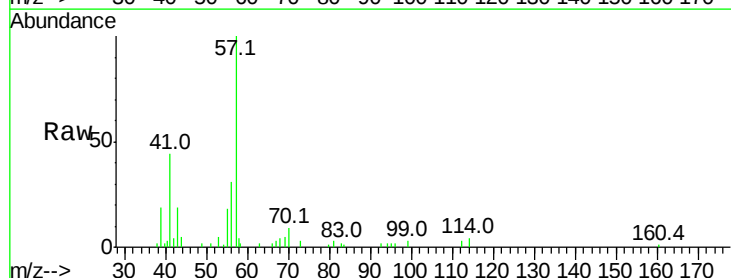
Tgt Ion: 57 Resp: 25291

Ion Ratio Lower Upper

57 100

41 69.6 25.8 38.6#

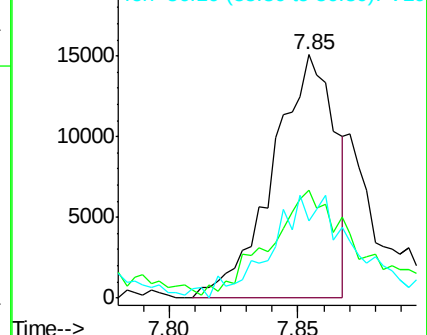
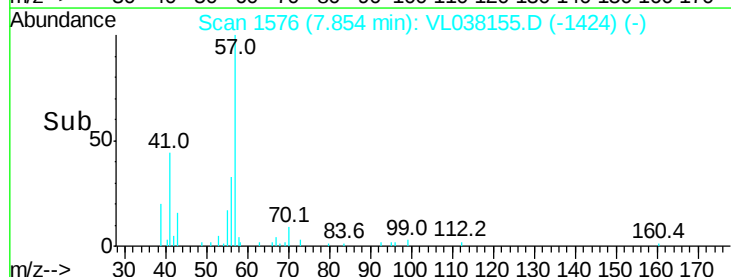
56 64.3 25.6 38.4#

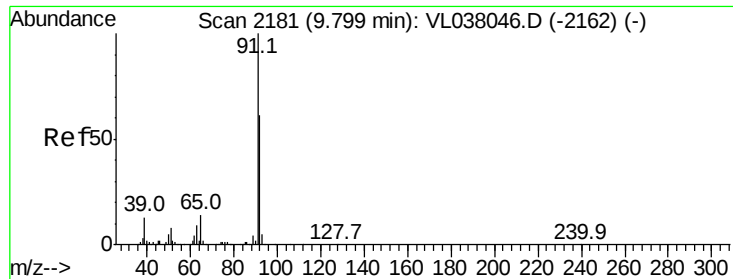


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.331 ppbv

RT: 9.79 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

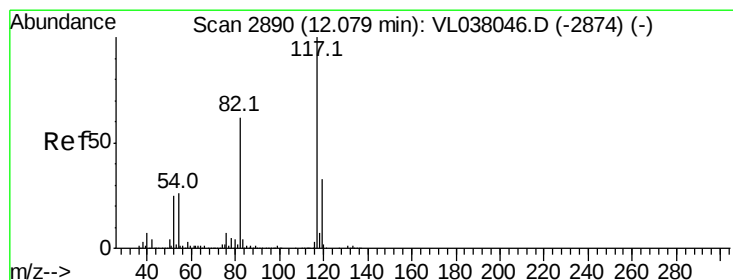
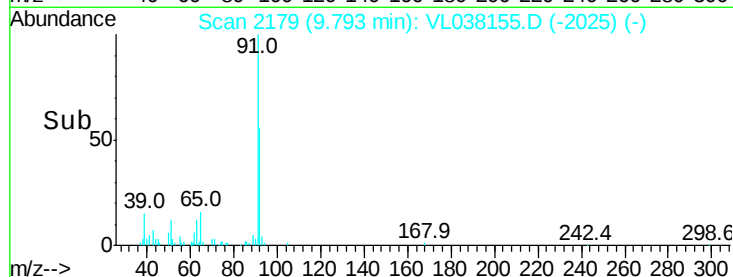
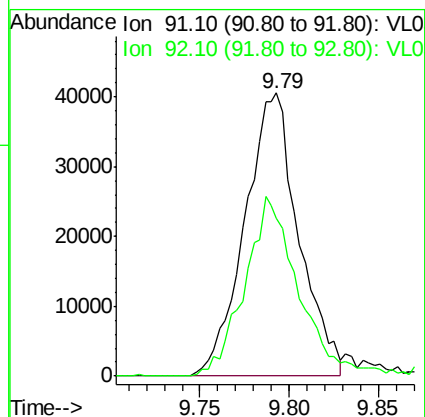
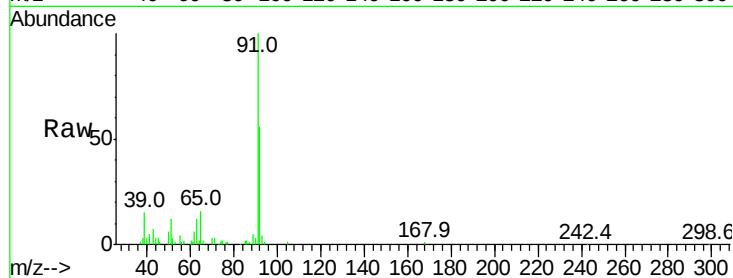
Acq: 7 Dec 2021 18:00

Tot Ion: 91 Resp: 85557

Ion Ratio Lower Upper

91 100

92 64.6 49.7 74.5



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. -0.01 min

Lab File: VL038155.D

Acq: 7 Dec 2021 18:06

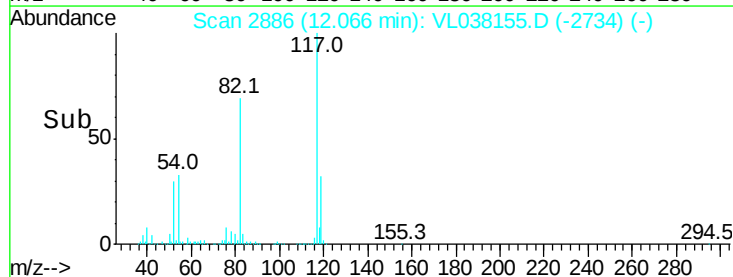
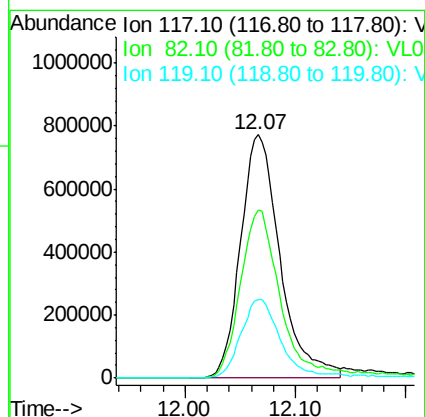
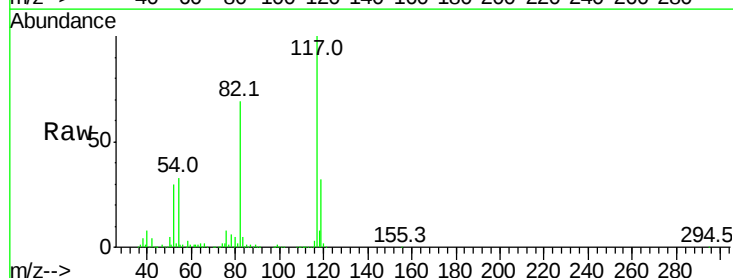
Tgt Ion: 117 Resp: 1920590

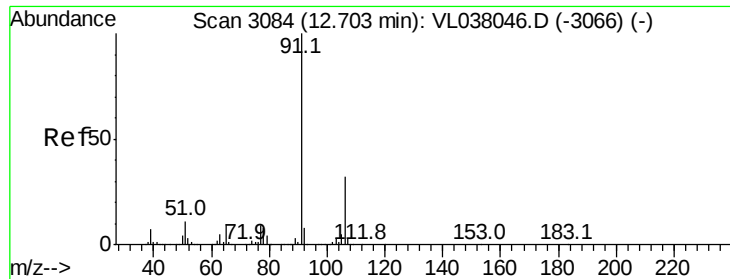
Ion Ratio Lower Upper

117 100

82 72.7 52.8 79.2

119 33.6 26.8 40.2





#58

Ethyl Benzene

Concen: 0.044 ppbv

RT: 12.69

Delta R.T. MSVOA_L

Lab File:

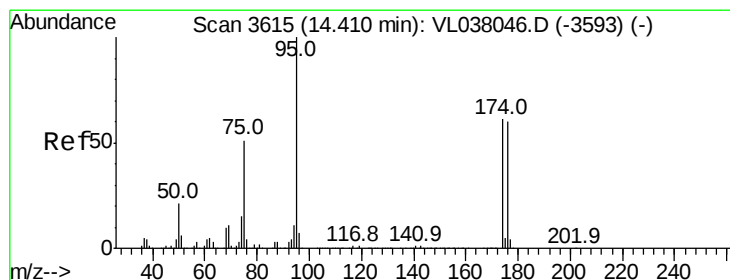
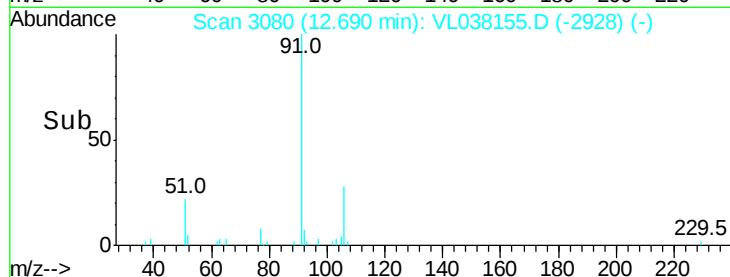
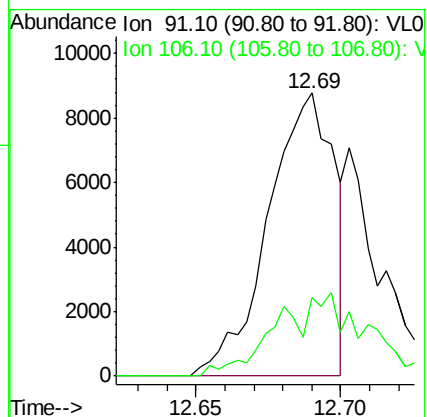
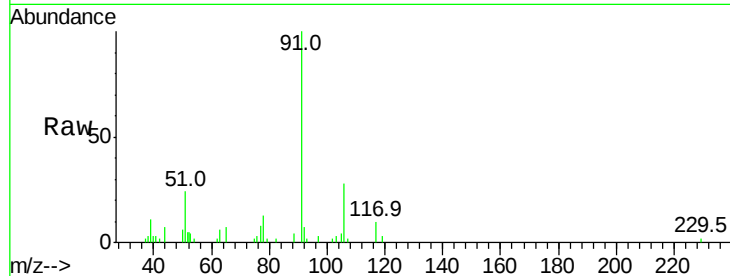
Acq: 7 Dec 2021 18:00

Tot Ion: 91 Resp: 13810

Ion Ratio Lower Upper

91 100

106 27.6 25.8 38.6



#68

1-Bromo-4-Fluorobenzene

Concen: 11.054 ppbv

RT: 14.40 min Scan# 3611

Delta R.T. -0.01 min

Lab File: VL038155.D

Acq: 7 Dec 2021 18:06

Tgt Ion: 95 Resp: 1531348

Ion Ratio Lower Upper

95 100

174 62.1 53.1 79.7

175 4.2 4.0 6.0

