

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL102721\
 Data File : VL037918.D
 Acq On : 27 Oct 2021 16:22
 Operator : SY/AP
 Sample : M4377-01DUP
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VMP-5-MANIFOLDDUP

Quant Time: Oct 28 05:18:28 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL100421AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Oct 04 17:43:54 2021
 QLast Update : Mon Oct 04 17:43:54 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1285361	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.19	114	3691341	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.10	117	3201646	10.00	ppbv	0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2152785	9.62	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.20%

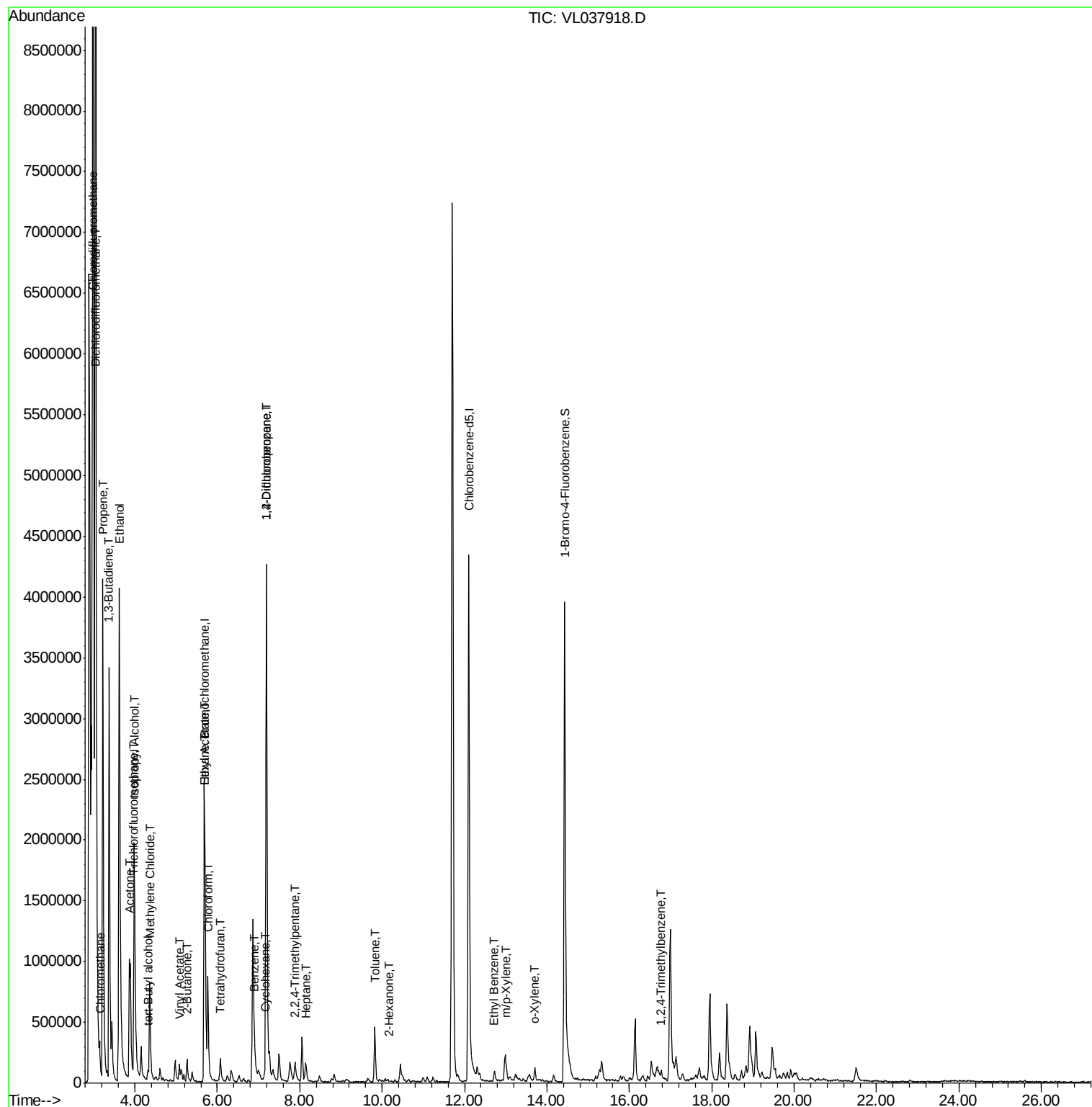
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.07	85	29615	0.144	ppbv	98
3) Chlorodifluoromethane	2.98	51	13114316	53.100	ppbv #	61
4) Chloromethane	3.16	50	10880	0.120	ppbv	90
9) Propene	3.22	41	1537355	16.917	ppbv	98
10) Heptane	8.14	43	45584	0.221	ppbv	92
11) Trichlorofluoromethane	3.96	101	53860	0.294	ppbv	84
13) Ethanol	3.62	45	5786171	778.585	ppbv	81
15) Acetone	3.86	43	1469691	12.737	ppbv	93
16) 1,3-Butadiene	3.38	39	473794	5.643	ppbv #	13
17) tert-Butyl alcohol	4.31	59	56010	0.471	ppbv	96
19) Isopropyl Alcohol	3.99	45	2553857	35.576	ppbv #	97
20) Methylene Chloride	4.36	84	319194	5.475	ppbv	98
23) Vinyl Acetate	5.08	43	105712	0.611	ppbv #	72
25) Ethyl Acetate	5.71	43	261996	0.809	ppbv #	86
26) Hexane	5.71	57	305489	1.916	ppbv #	47
29) Chloroform	5.77	83	646824	2.838	ppbv	99
30) Cyclohexane	7.15	84	6531	0.048	ppbv #	1
34) 2-Butanone	5.26	43	217770	1.461	ppbv	94
36) Benzene	6.91	78	39312	0.125	ppbv #	94
39) 1,2-Dichloropropane	7.19	63	863945	7.285	ppbv #	28
41) Tetrahydrofuran	6.07	42	60210	0.825	ppbv #	36
44) 2,2,4-Trimethylpentane	7.89	57	70687	0.133	ppbv #	2
51) 2-Hexanone	10.16	43	2912	0.034	ppbv #	9
53) Toluene	9.83	91	331532	0.949	ppbv	98
58) Ethyl Benzene	12.73	91	61836	0.144	ppbv	93
59) m/p-Xylene	13.01	91	56053	0.152	ppbv #	30
60) o-Xylene	13.71	91	43394	0.123	ppbv #	30
74) 1,2,4-Trimethylbenzene	16.78	105	16041	0.042	ppbv #	78

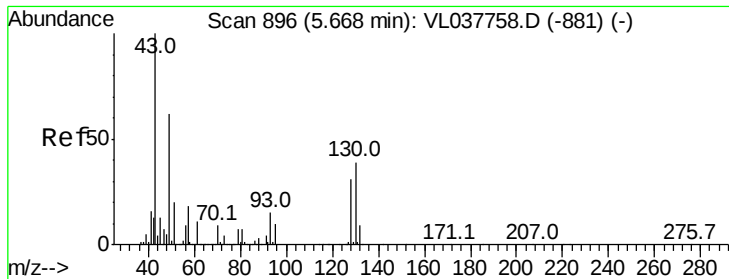
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Mon Oct 04 17:43:54 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId: VMP-5-MANIFOLD

Acq: 27 Oct 2021 10:22

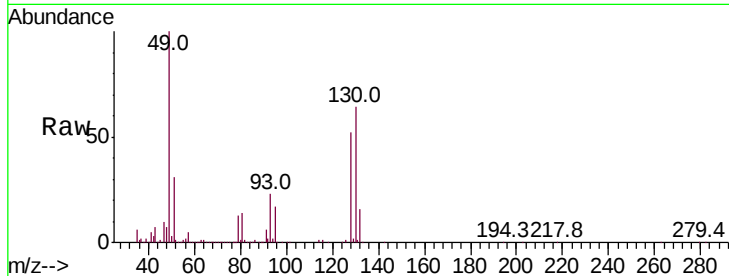
Tot Ion: 49 Resp: 1285361

Ion Ratio Lower Upper

49 100

128 52.9 27.1 81.3

130 66.4 33.2 99.6



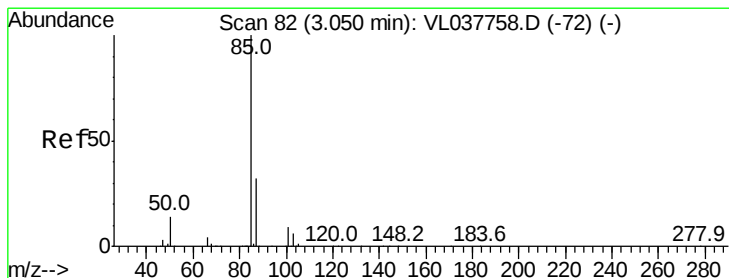
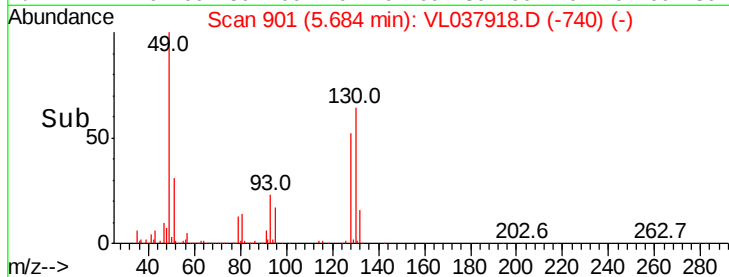
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

5.68

Time-->



#2

Dichlorodifluoromethane

Concen: 0.144 ppbv

RT: 3.07 min Scan# 87

Delta R.T. 0.02 min

Lab File: VL037918.D

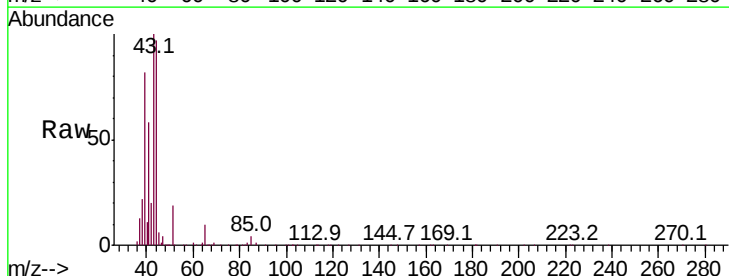
Acq: 27 Oct 2021 16:22

Tgt Ion: 85 Resp: 29615

Ion Ratio Lower Upper

85 100

87 31.0 25.7 38.5

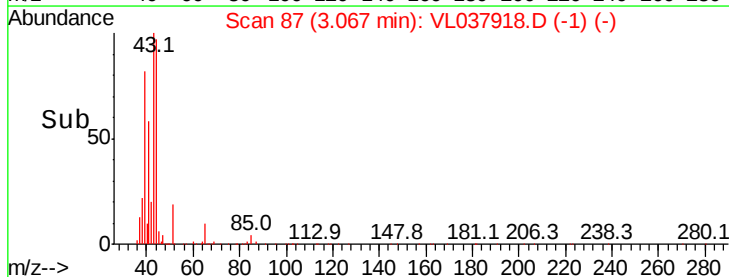


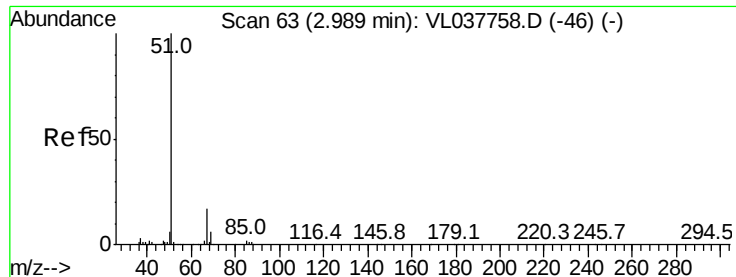
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.07

Time-->





#3

Chlorodifluoromethane

Concen: 53.100 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

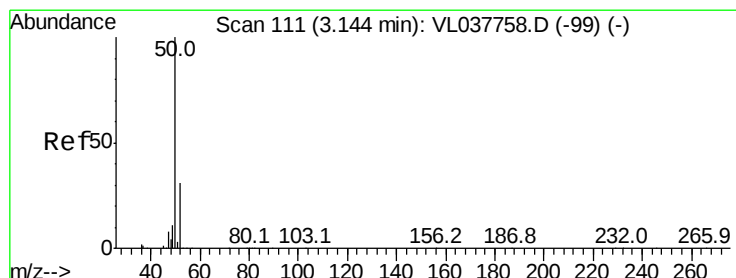
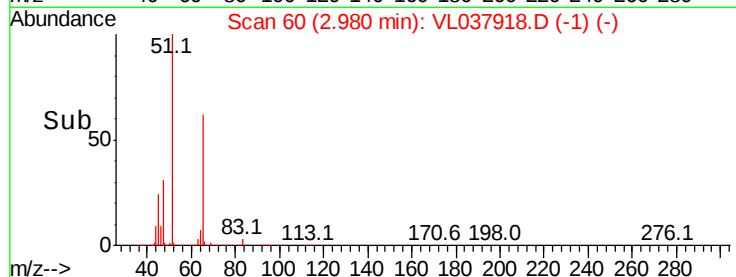
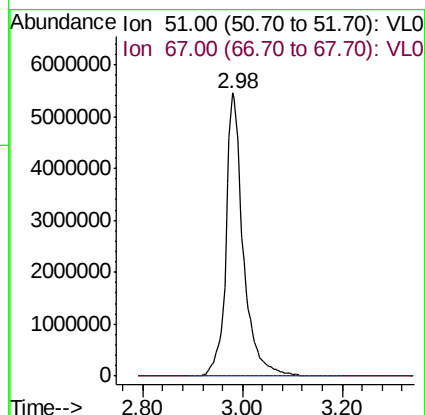
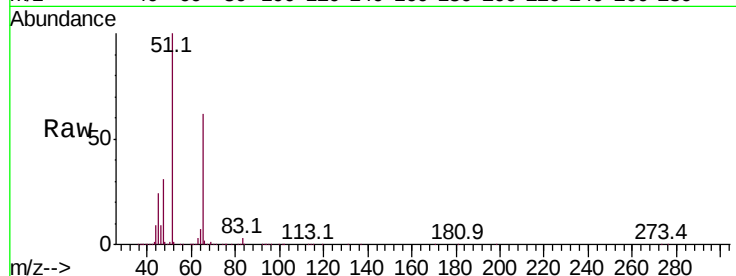
Acq: 27 Oct 2021 16:22

Tot Ion: 51 Resp: 13114316

Ion Ratio Lower Upper

51 100

67 0.1 13.5 20.3#



#4

Chloromethane

Concen: 0.120 ppbv

RT: 3.16 min Scan# 117

Delta R.T. 0.02 min

Lab File: VL037918.D

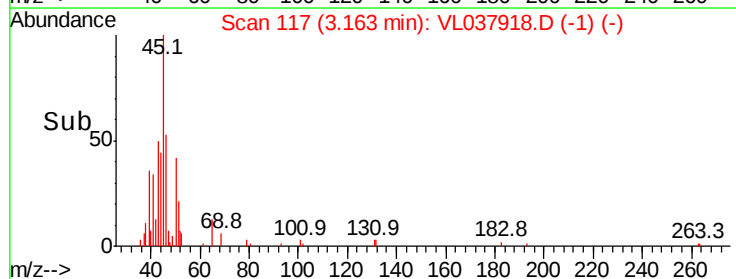
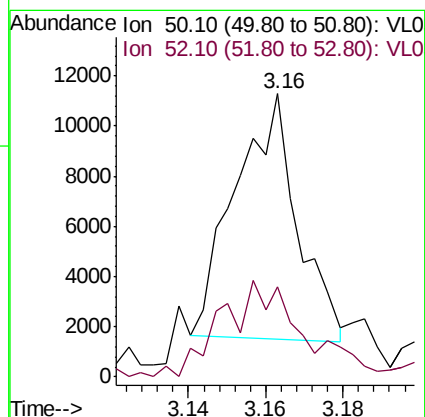
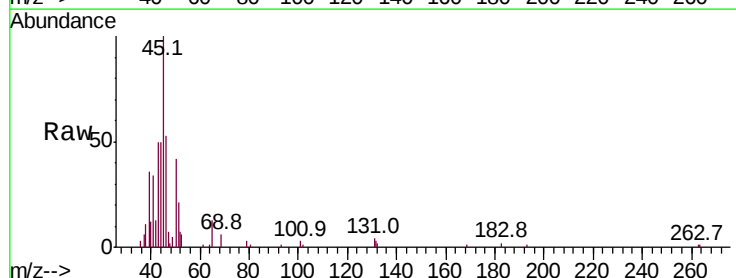
Acq: 27 Oct 2021 16:22

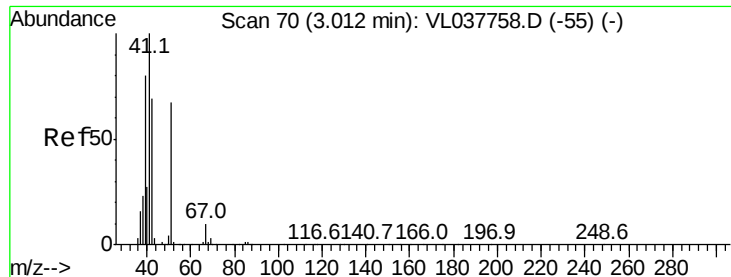
Tgt Ion: 50 Resp: 10880

Ion Ratio Lower Upper

50 100

52 25.2 24.4 36.6





#9

Propene

Concen: 16.917 ppbv

RT: 3.22 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: VMP-5-MANIFOLD

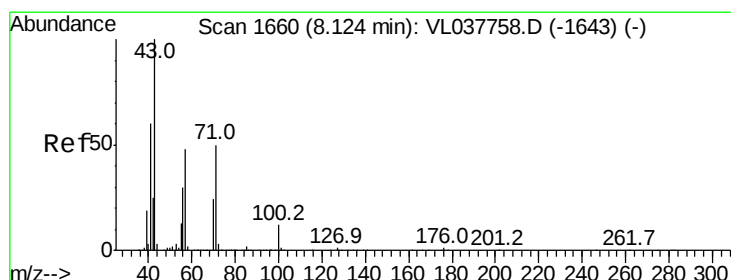
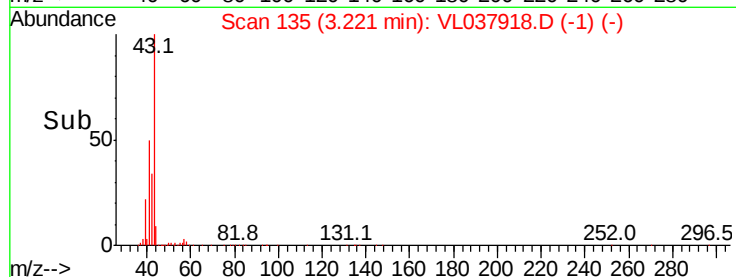
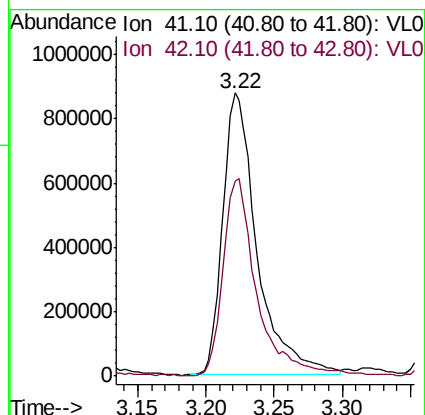
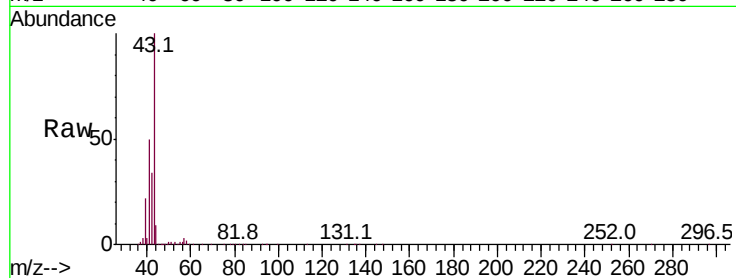
Acq: 27 Oct 2021 16:22

Tot Ion: 41 Resp: 1537355

Ion Ratio Lower Upper

41 100

42 69.0 54.2 81.2



#10

Heptane

Concen: 0.221 ppbv

RT: 8.14 min Scan# 1665

Delta R.T. 0.02 min

Lab File: VL037918.D

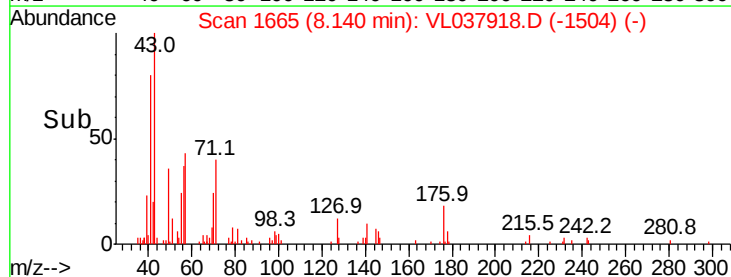
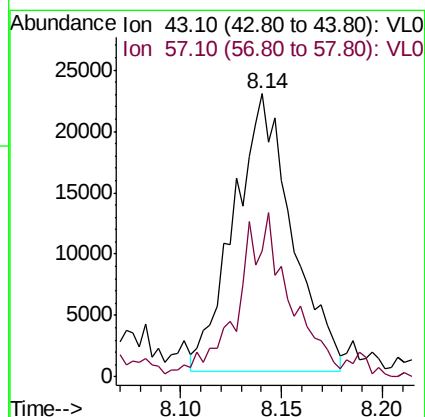
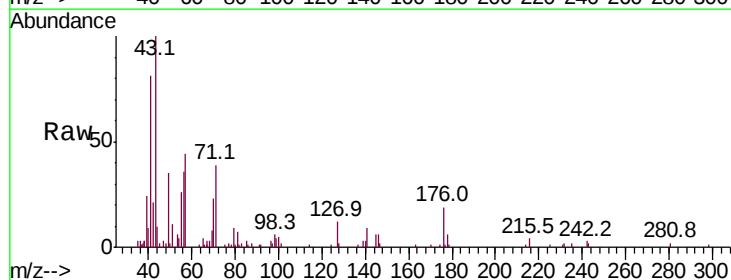
Acq: 27 Oct 2021 16:22

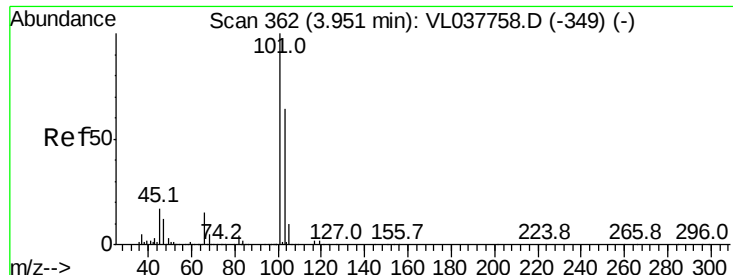
Tgt Ion: 43 Resp: 45584

Ion Ratio Lower Upper

43 100

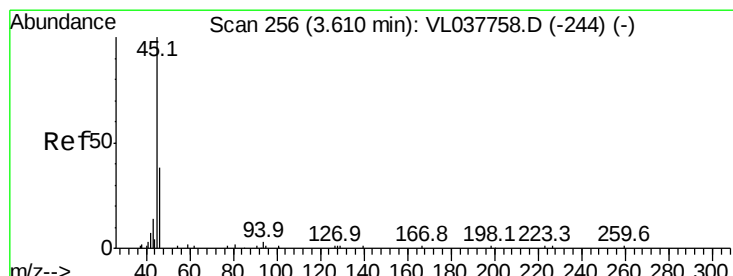
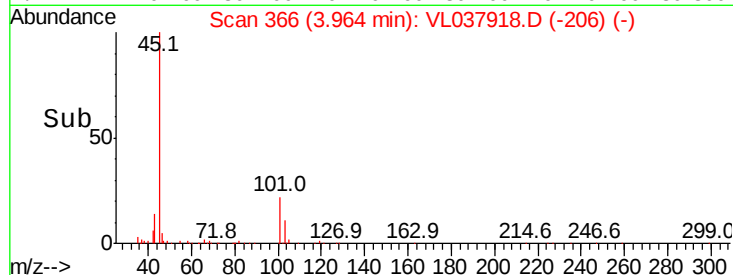
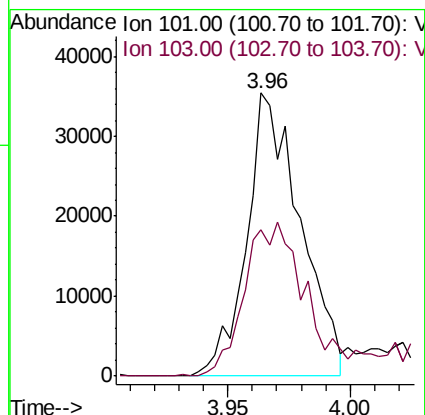
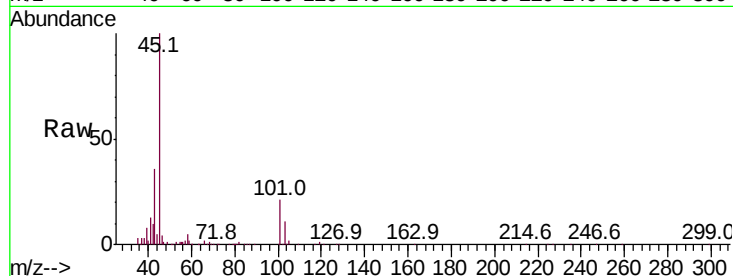
57 55.4 40.0 60.0





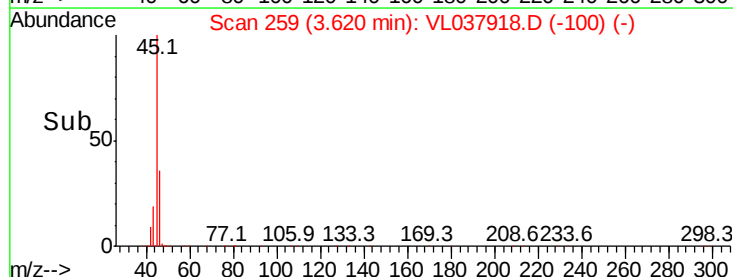
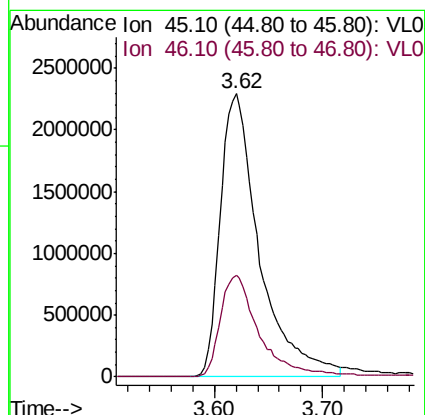
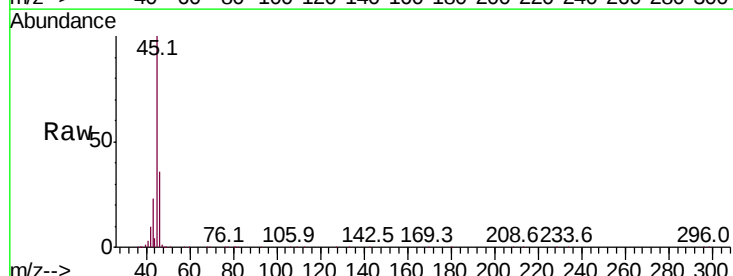
#11
 Trichlorofluoromethane
 Concen: 0.294 ppbv
 RT: 3.96
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 VMP-5-MANIFOLD
 Acq: 27 Oct 2021 16:22

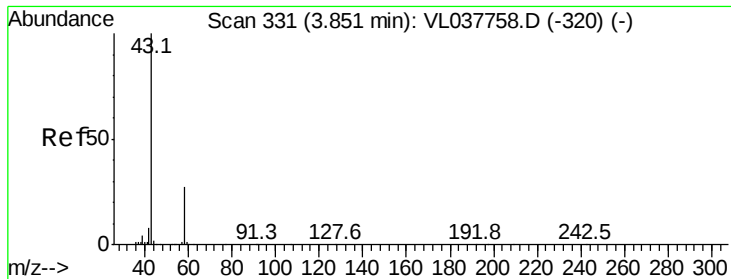
Tot Ion: 101 Resp: 53860
 Ion Ratio Lower Upper
 101 100
 103 51.5 51.5 77.3



#13
 Ethanol
 Concen: 778.585 ppbv
 RT: 3.62 min Scan# 259
 Delta R.T. 0.01 min
 Lab File: VL037918.D
 Acq: 27 Oct 2021 16:22

Tgt Ion: 45 Resp: 5786171
 Ion Ratio Lower Upper
 45 100
 46 37.3 20.2 81.0





#15

Acetone

Concen: 12.737 ppbv

RT: 3.86

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

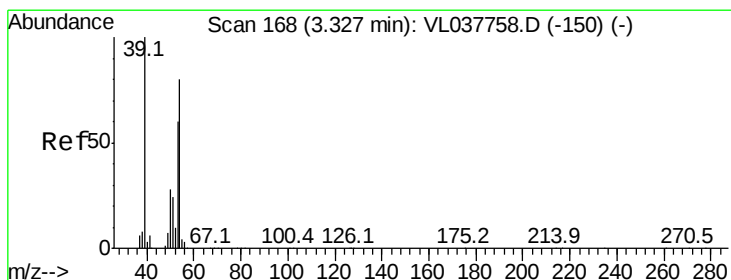
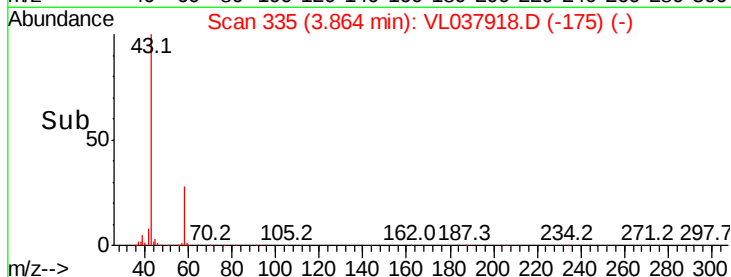
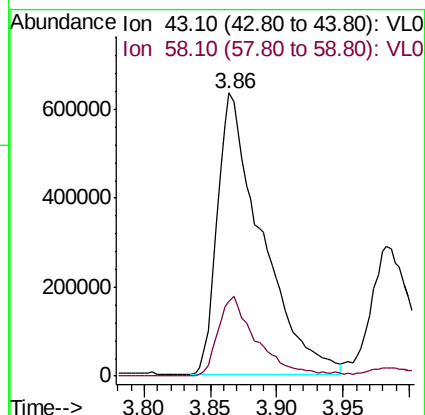
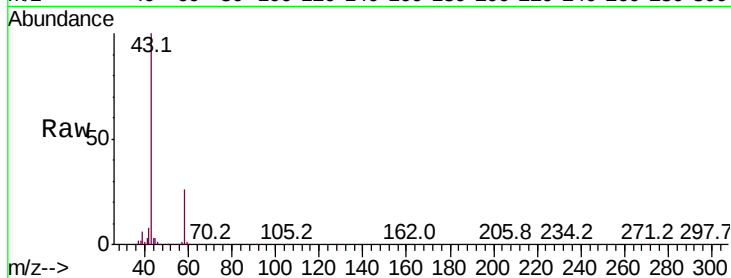
Acq: 27 Oct 2021 16:22

Tot Ion: 43 Resp: 1469691

Ion Ratio Lower Upper

43 100

58 25.1 23.0 34.6



#16

1,3-Butadiene

Concen: 5.643 ppbv

RT: 3.38 min Scan# 183

Delta R.T. 0.05 min

Lab File: VL037918.D

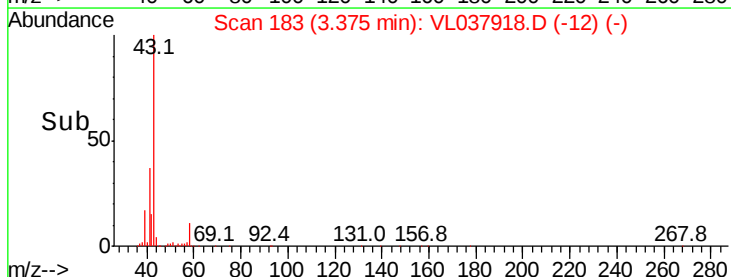
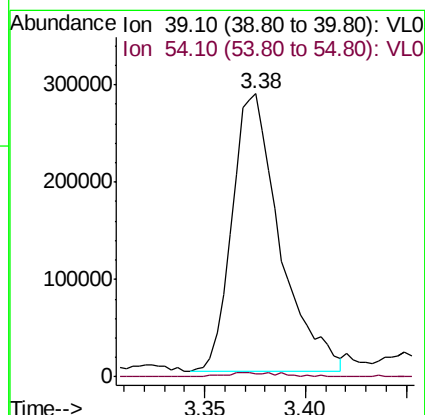
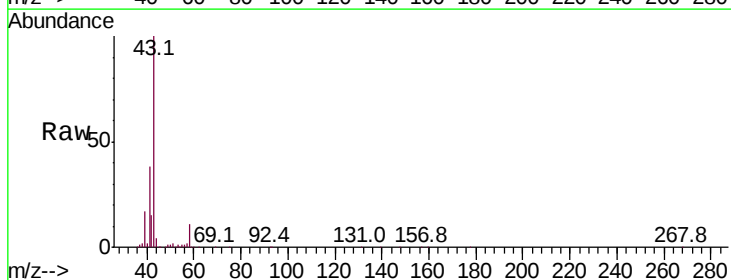
Acq: 27 Oct 2021 16:22

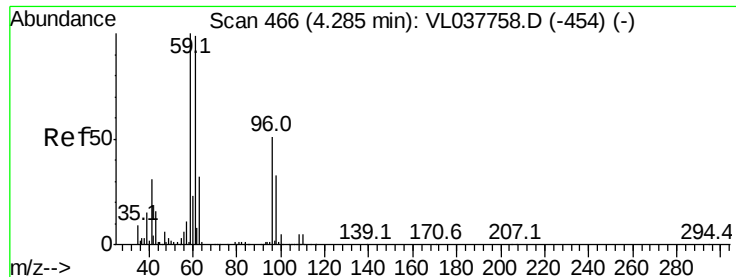
Tgt Ion: 39 Resp: 473794

Ion Ratio Lower Upper

39 100

54 2.1 61.7 92.5#





#17

tert-Butyl alcohol

Concen: 0.471 ppbv

RT: 4.31 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

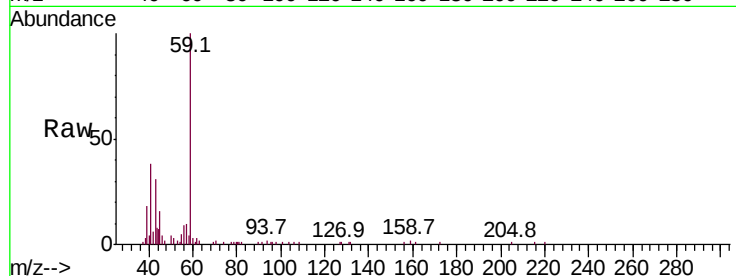
Acq: 27 Oct 2021 16:22 VMP-5-MANIFOLD.DUP

Tot Ion: 59 Resp: 56010

Ion Ratio Lower Upper

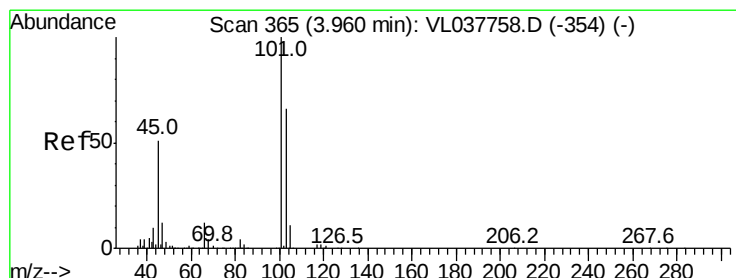
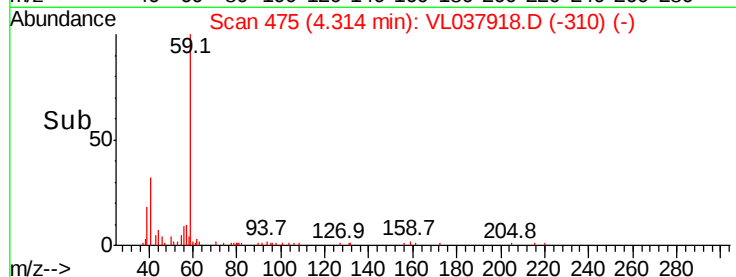
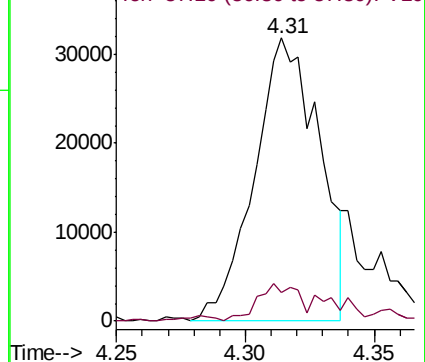
59 100

57 12.3 8.6 13.0



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#19

Isopropyl Alcohol

Concen: 35.576 ppbv

RT: 3.99 min Scan# 373

Delta R.T. 0.03 min

Lab File: VL037918.D

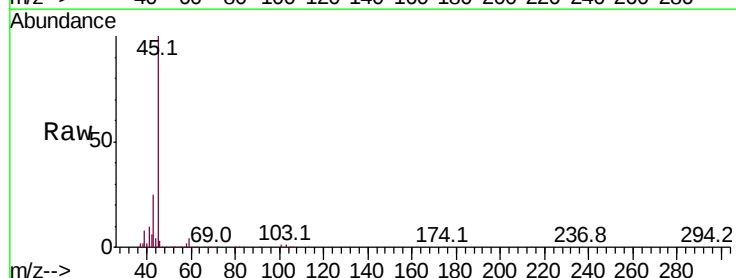
Acq: 27 Oct 2021 16:22

Tgt Ion: 45 Resp: 2553857

Ion Ratio Lower Upper

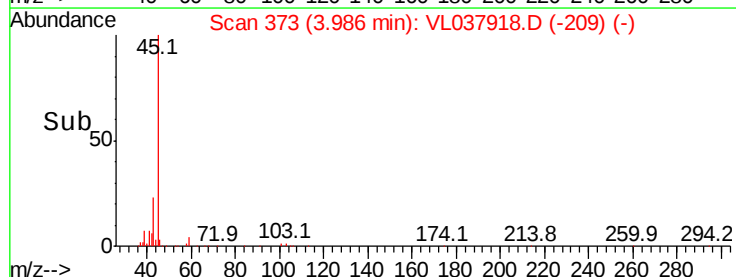
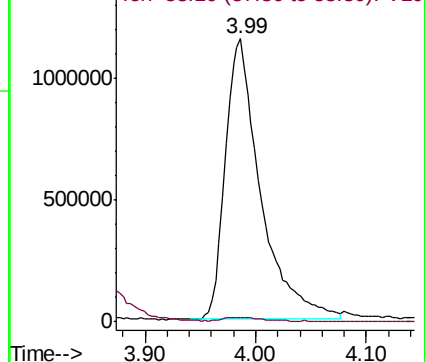
45 100

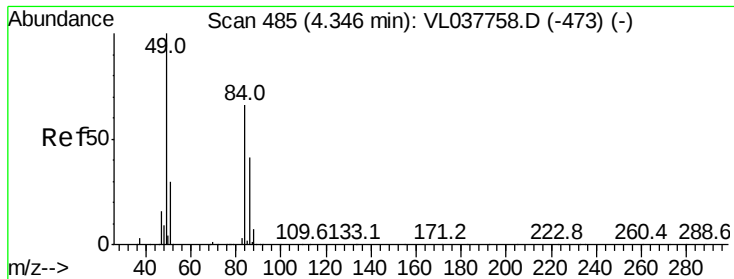
58 2.4 1.1 1.7#



Abundance Ion 45.10 (44.80 to 45.80): VL0

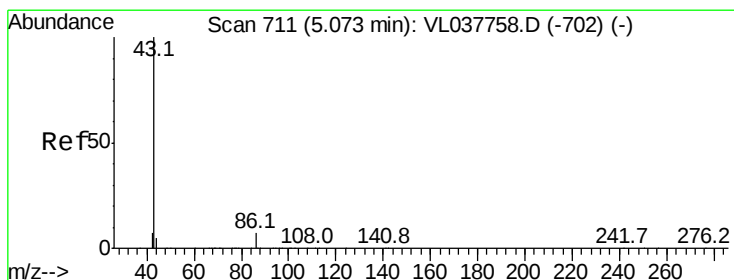
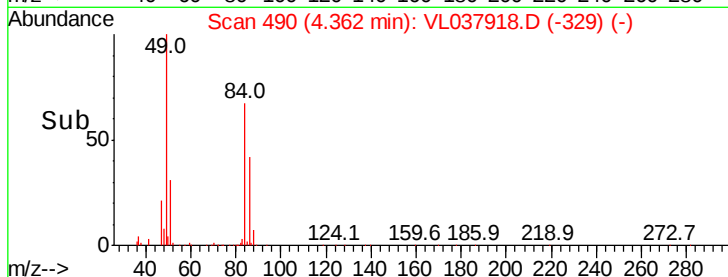
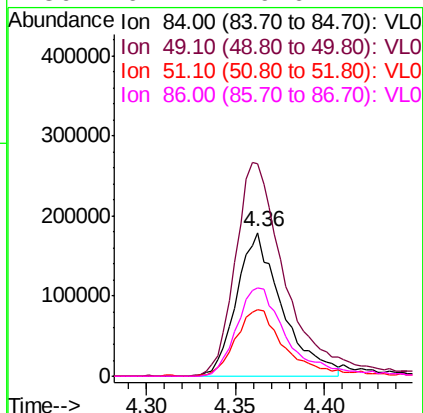
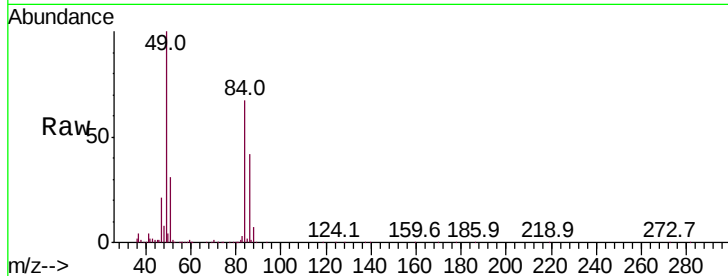
Ion 58.10 (57.80 to 58.80): VL0





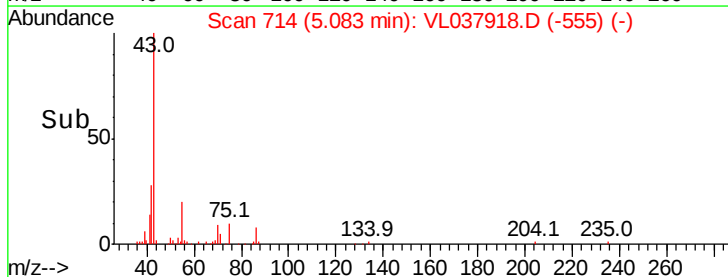
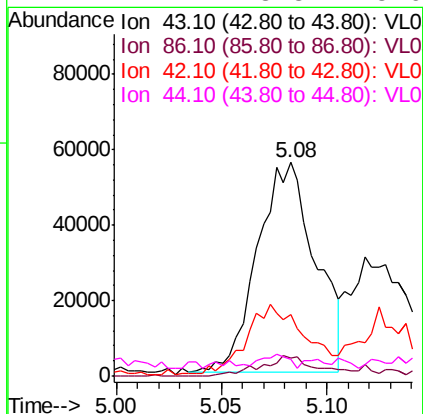
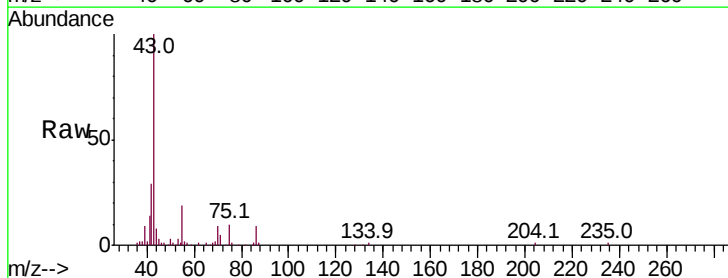
#20
Methvlene Chloride
Concen: 5.475 ppbv
RT: 4.36
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 27 Oct 2021 16:22

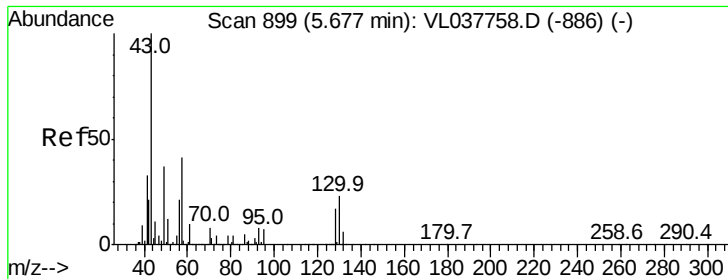
Tot Ion:	84	Resp:	319194
Ion	Ratio	Lower	Upper
84	100		
49	148.2	120.7	181.1
51	46.1	36.2	54.4
86	61.7	49.6	74.4



#23
Vinyl Acetate
Concen: 0.611 ppbv
RT: 5.08 min Scan# 714
Delta R.T. 0.01 min
Lab File: VL037918.D
Acq: 27 Oct 2021 16:22

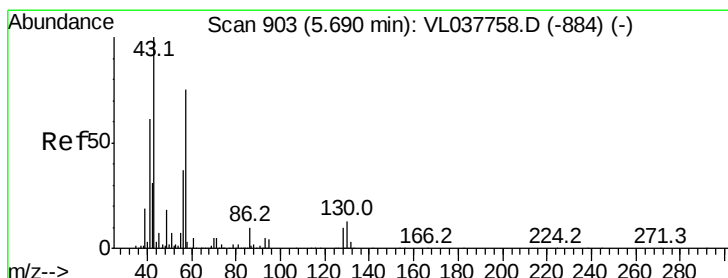
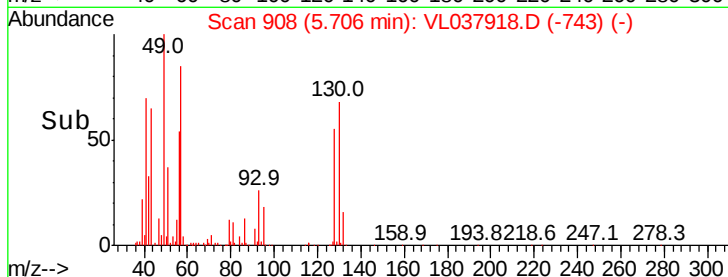
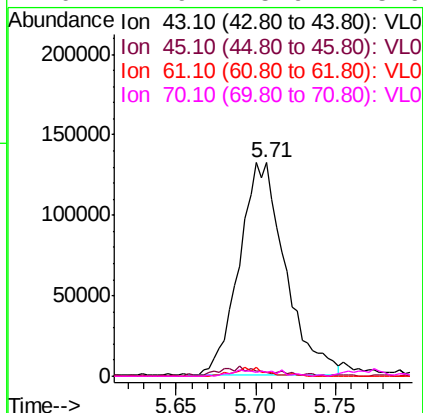
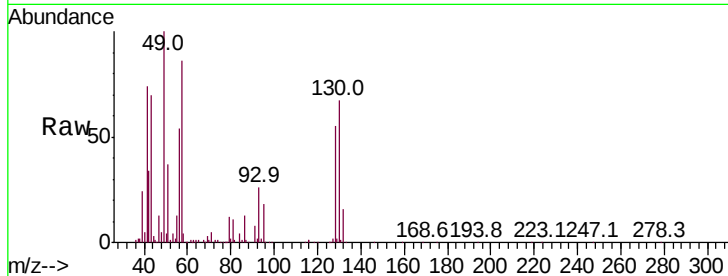
Tgt Ion:	43	Resp:	105712
Ion	Ratio	Lower	Upper
43	100		
86	8.8	5.0	7.4#
42	28.1	7.4	11.0#
44	1.7	3.8	5.6#





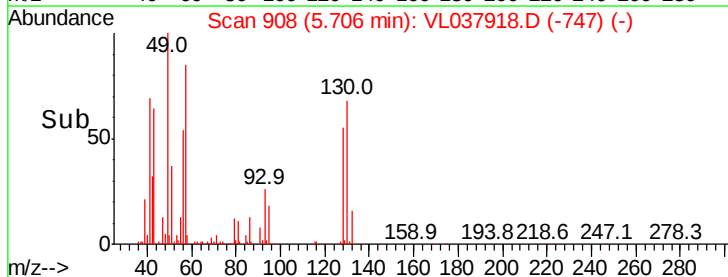
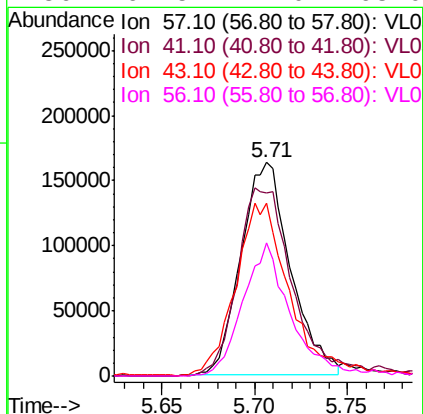
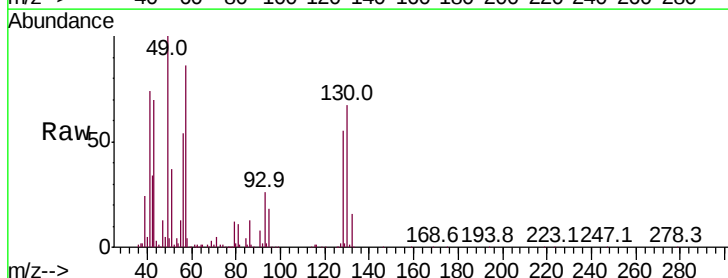
#25
Ethyl Acetate
Concen: 0.809 ppbv
RT: 5.71 min
Delta R.T.: 0.02 min
Lab File: VL037758.D
Acq: 27 Oct 2021 16:22

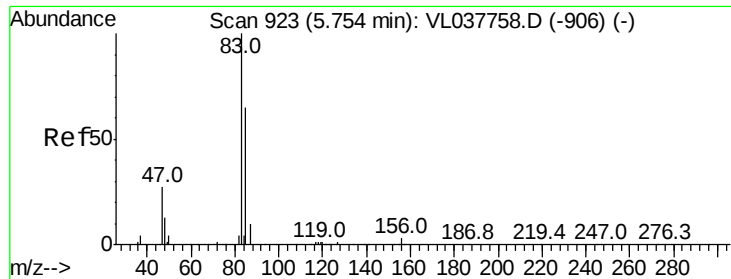
Tot Ion	Ratio	Lower	Upper
43	100		
45	5.5	8.1	12.1#
61	2.9	7.5	11.3#
70	2.9	5.9	8.9#



#26
Hexane
Concen: 1.916 ppbv
RT: 5.71 min Scan# 908
Delta R.T.: 0.02 min
Lab File: VL037918.D
Acq: 27 Oct 2021 16:22

Tgt Ion	Ratio	Lower	Upper
57	100		
41	99.9	69.6	104.4
43	88.4	171.4	257.0#
56	61.5	42.0	63.0





#29

Chloroform

Concen: 2.838 ppbv

RT: 5.77 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

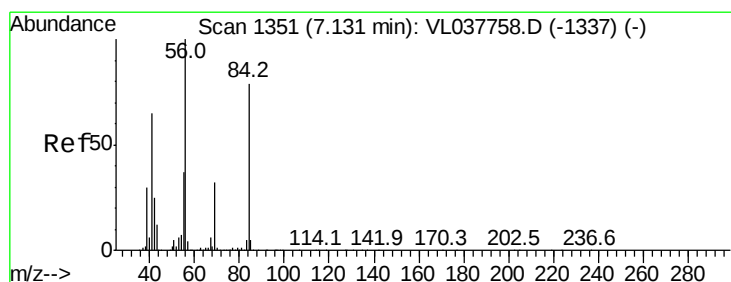
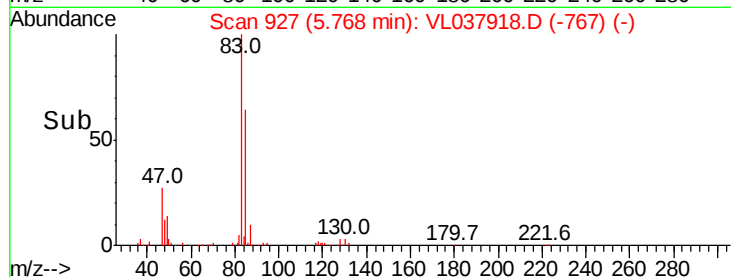
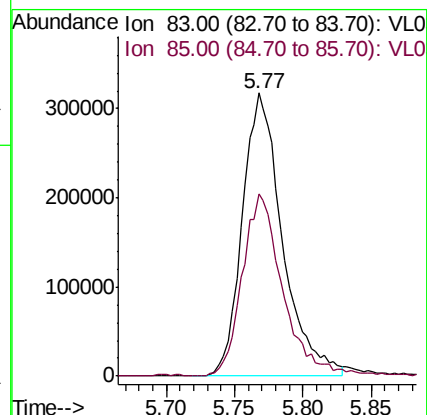
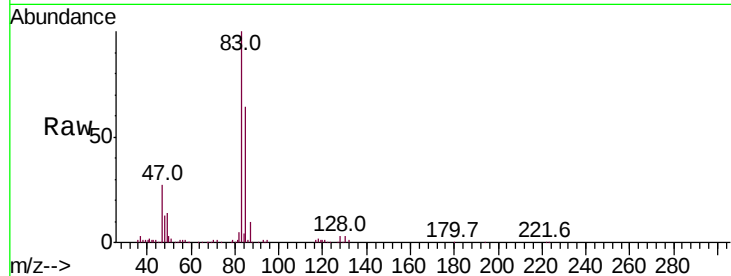
Acq: 27 Oct 2021 16:22 VMP-5-MANIFOLD.DUP

Tot Ion: 83 Resp: 646824

Ion Ratio Lower Upper

83 100

85 64.1 51.8 77.8



#30

Cyclohexane

Concen: 0.048 ppbv

RT: 7.15 min Scan# 1357

Delta R.T. 0.02 min

Lab File: VL037918.D

Acq: 27 Oct 2021 16:22

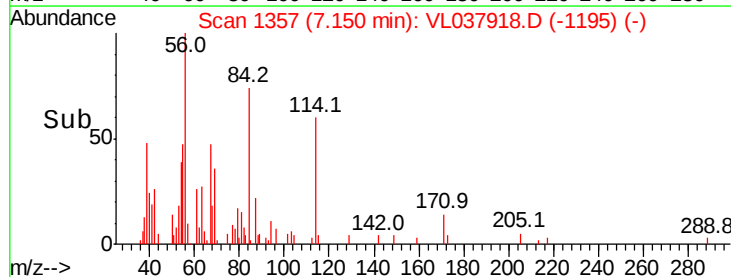
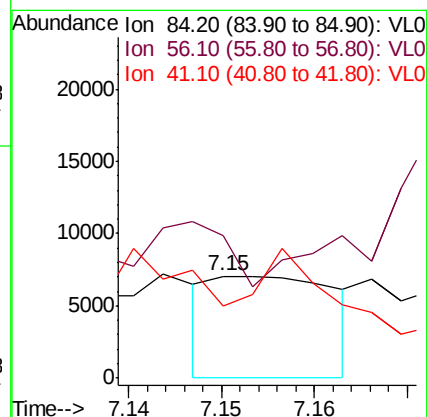
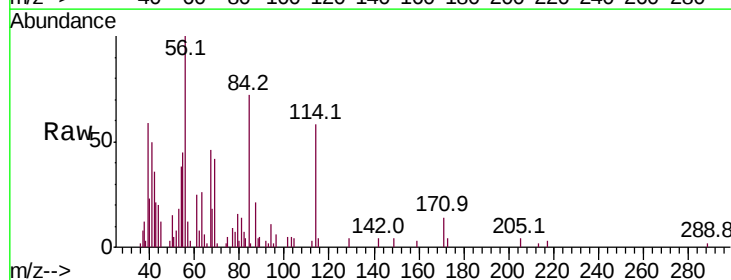
Tgt Ion: 84 Resp: 6531

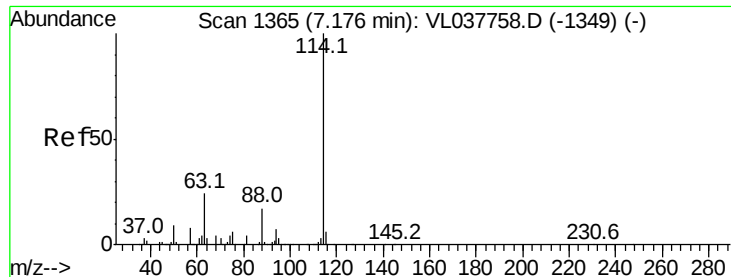
Ion Ratio Lower Upper

84 100

56 0.0 113.0 169.4#

41 0.0 69.1 103.7#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19

Instrument: MSVOA_1

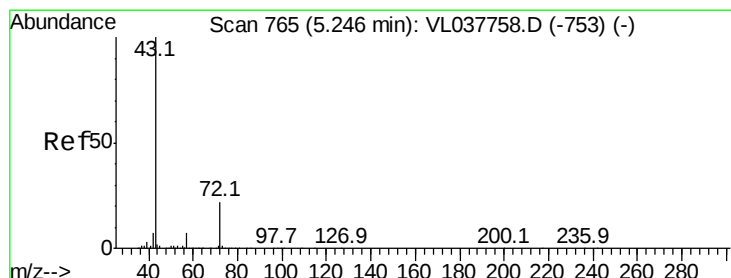
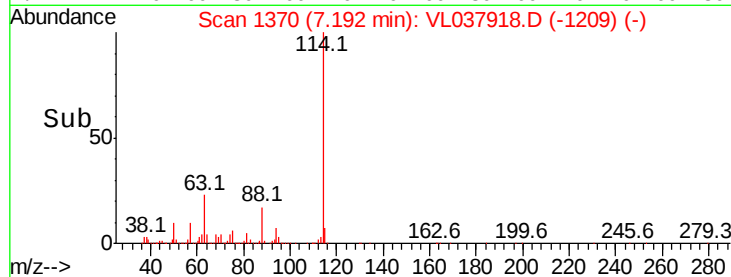
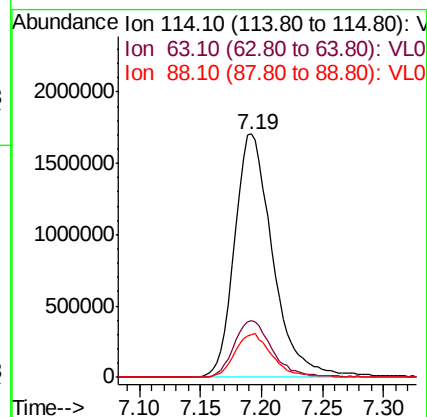
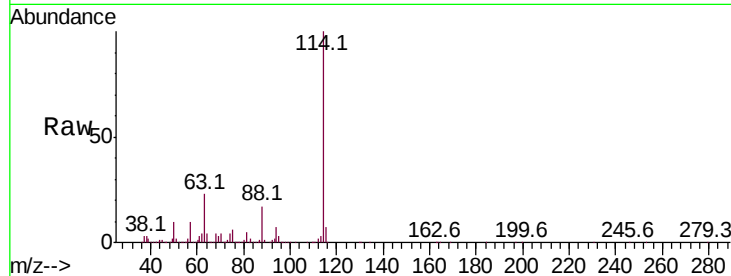
Delta R.T. ClientSampleId:

Lab File: VMP-5-MANIFOLD

Acq: 27 Oct 2021 16:22

Tot Ion: 114 Resp: 3691341

Ion	Ratio	Lower	Upper
114	100		
63	23.9	19.4	29.2
88	17.8	14.4	21.6



#34

2-Butanone

Concen: 1.461 ppbv

RT: 5.26 min Scan# 770

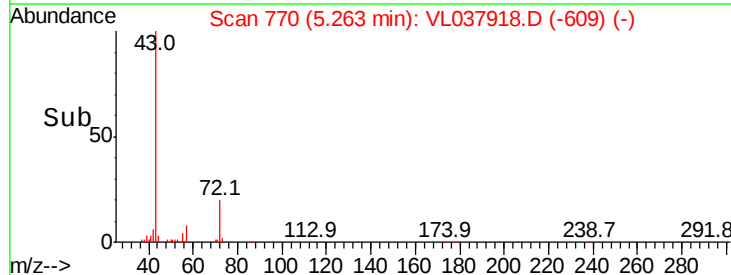
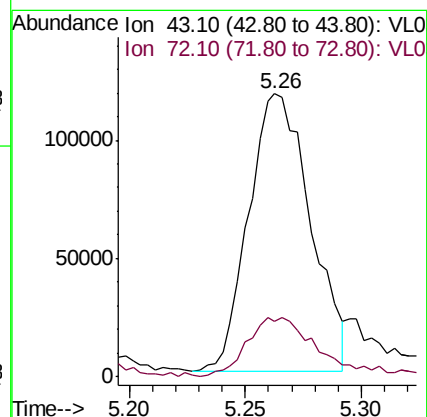
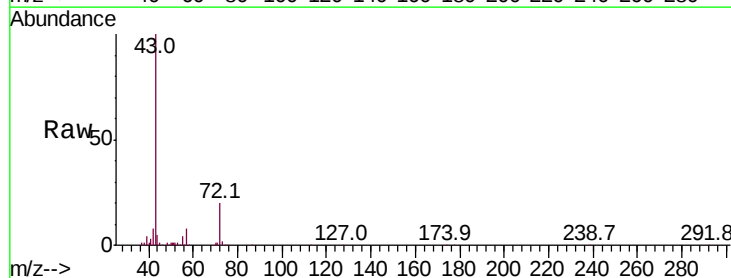
Delta R.T. 0.02 min

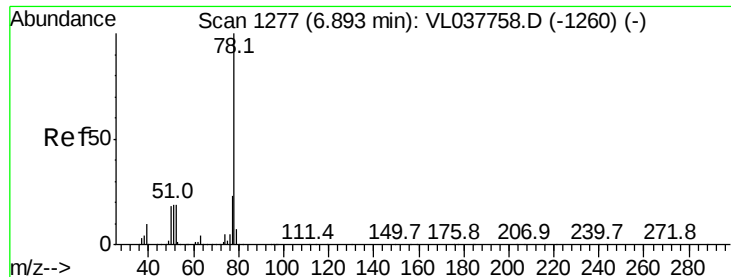
Lab File: VL037918.D

Acq: 27 Oct 2021 16:22

Tgt Ion: 43 Resp: 217770

Ion	Ratio	Lower	Upper
43	100		
72	25.6	18.2	27.2





#36

Benzene

Concen: 0.125 ppbv

RT: 6.91 Instrument:

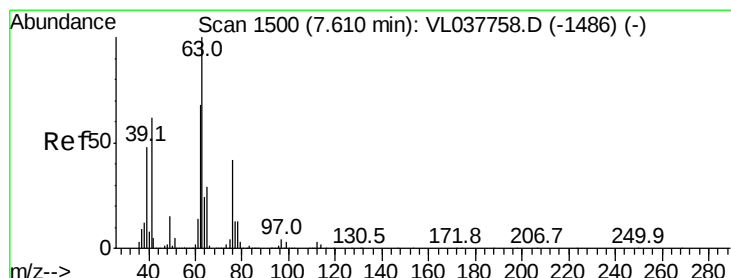
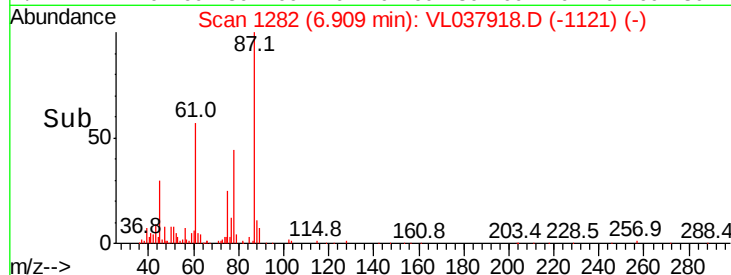
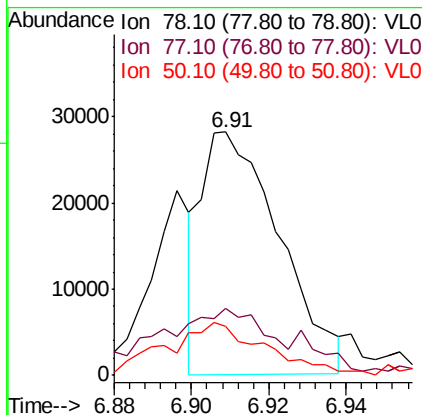
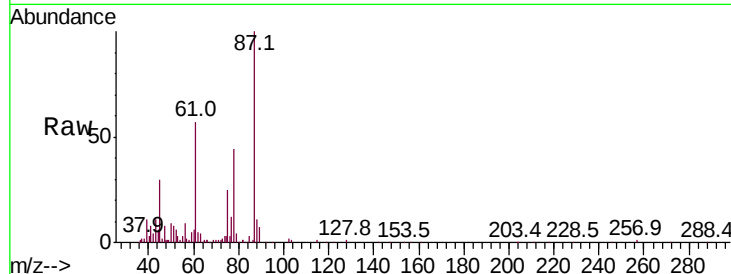
Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 27 Oct 2021 16:22 VMP-5-MANIFOLD.DUP

Tot Ion: 78 Resp: 39312

Ion	Ratio	Lower	Upper
78	100		
77	21.9	18.8	28.2
50	22.2	14.7	22.1#



#39

1,2-Dichloropropane

Concen: 7.285 ppbv

RT: 7.19 min Scan# 1370

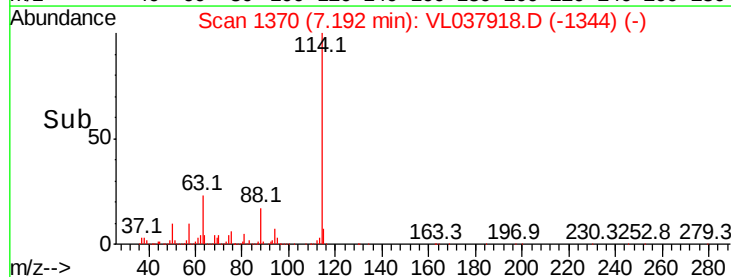
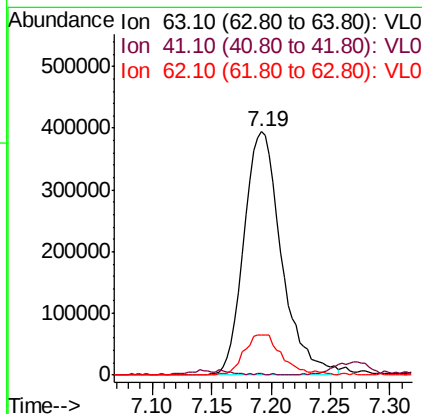
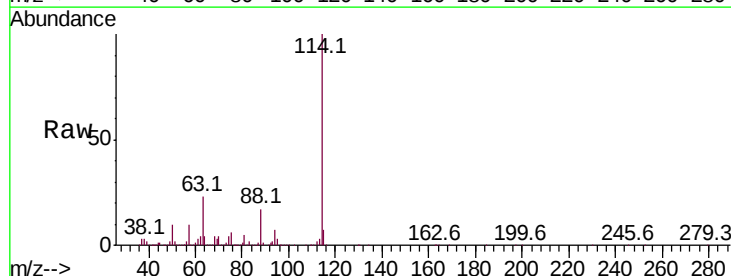
Delta R.T. -0.42 min

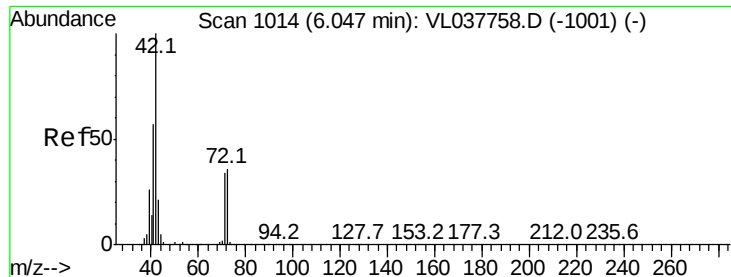
Lab File: VL037918.D

Acq: 27 Oct 2021 16:22

Tgt Ion: 63 Resp: 863945

Ion	Ratio	Lower	Upper
63	100		
41	0.0	49.8	74.6#
62	16.5	54.6	82.0#





#41

Tetrahydrofuran

Concen: 0.825 ppbv

RT: 6.07 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId: VMP-5-MANIFOLD.DUP

Acq: 27 Oct 2021 16:22

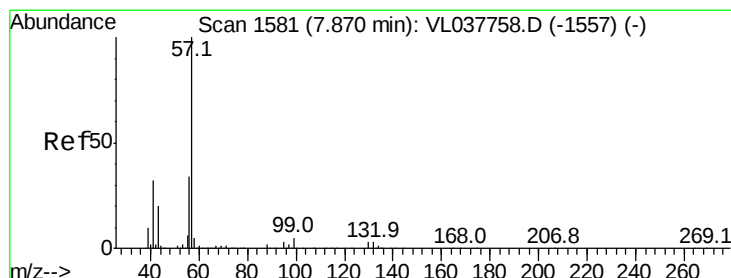
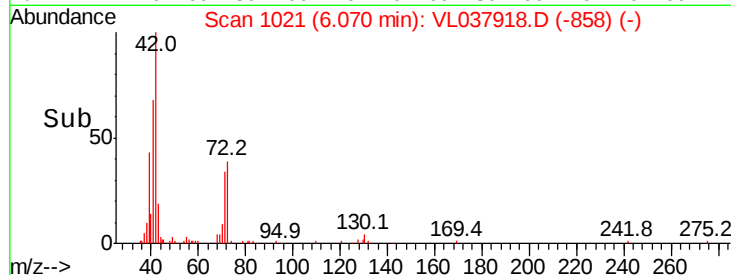
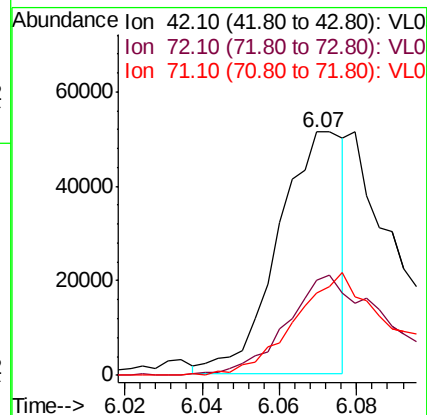
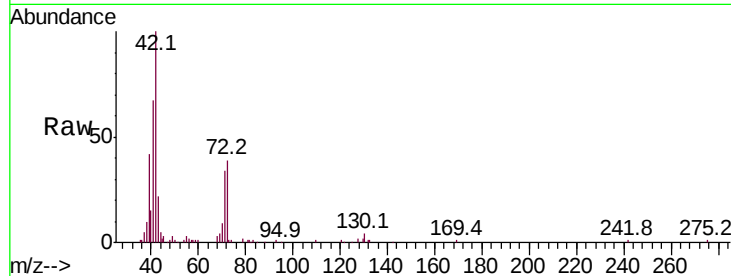
Tot Ion: 42 Resp: 60210

Ion Ratio Lower Upper

42 100

72 0.0 31.9 47.9#

71 0.0 30.3 45.5#



#44

2,2,4-Trimethylpentane

Concen: 0.133 ppbv

RT: 7.89 min Scan# 1586

Delta R.T. 0.02 min

Lab File: VL037918.D

Acq: 27 Oct 2021 16:22

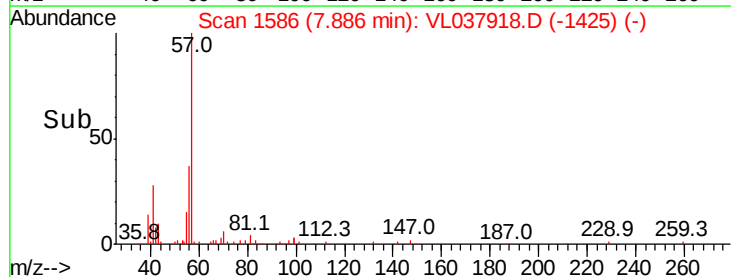
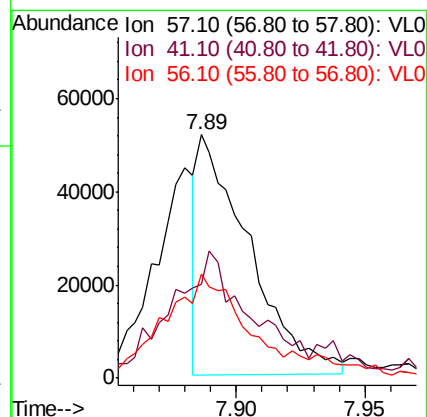
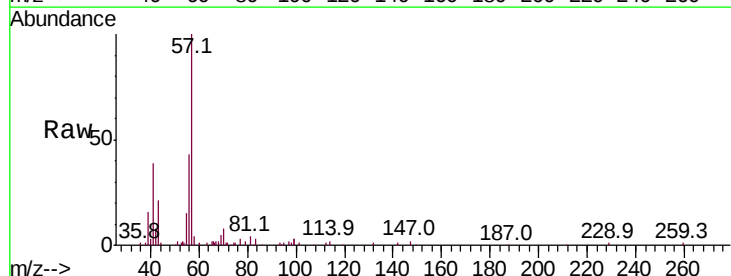
Tgt Ion: 57 Resp: 70687

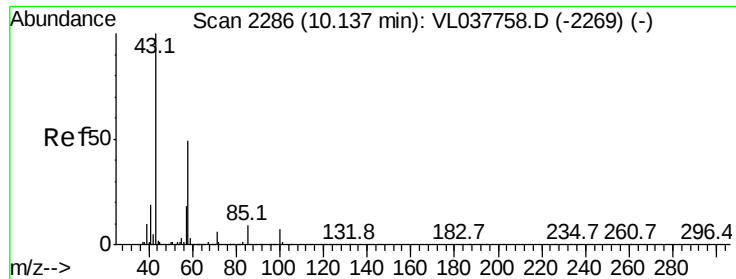
Ion Ratio Lower Upper

57 100

41 90.5 25.6 38.4#

56 82.1 25.5 38.3#





#51

2-Hexanone

Concen: 0.034 ppbv

RT: 10.16

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Oct 2021 10:22

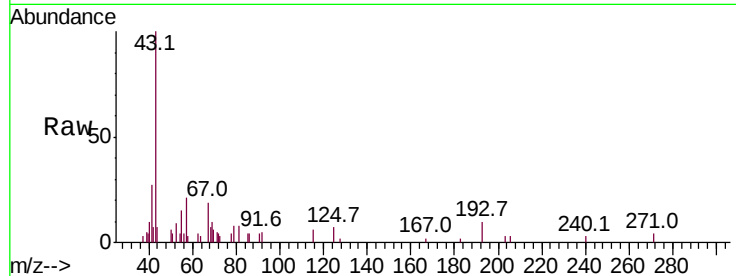
Tot Ion: 43 Resp: 2912

Ion Ratio Lower Upper

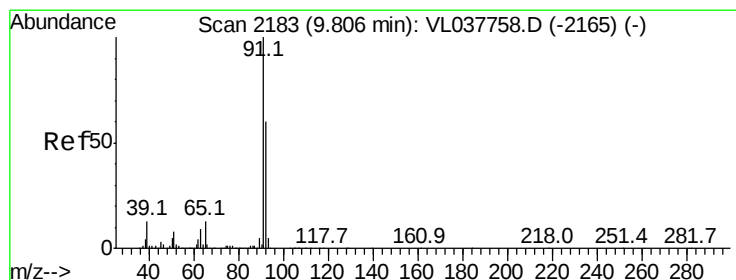
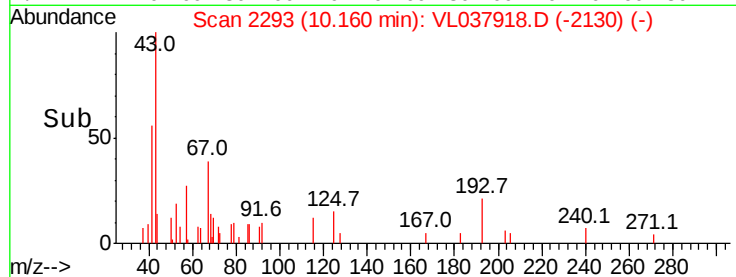
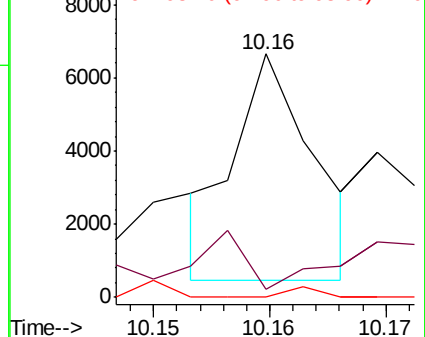
43 100

58 112.0 39.4 59.0#

98 0.0 0.3 0.5#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 58.10 (57.80 to 58.80): VL0
Ion 98.20 (97.90 to 98.90): VL0



#53

Toluene

Concen: 0.949 ppbv

RT: 9.83 min Scan# 2189

Delta R.T. 0.02 min

Lab File: VL037918.D

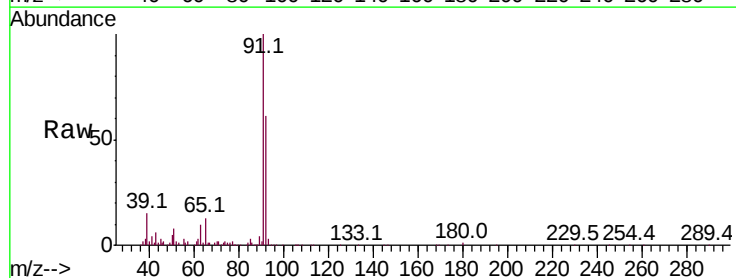
Acq: 27 Oct 2021 16:22

Tgt Ion: 91 Resp: 331532

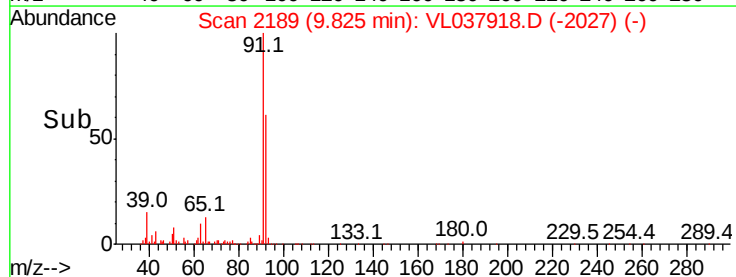
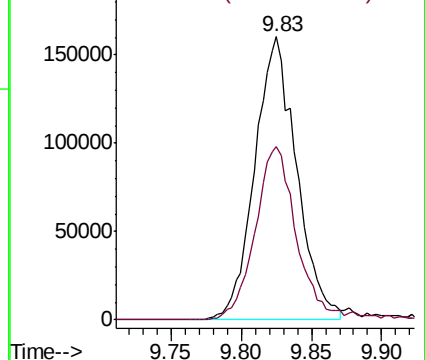
Ion Ratio Lower Upper

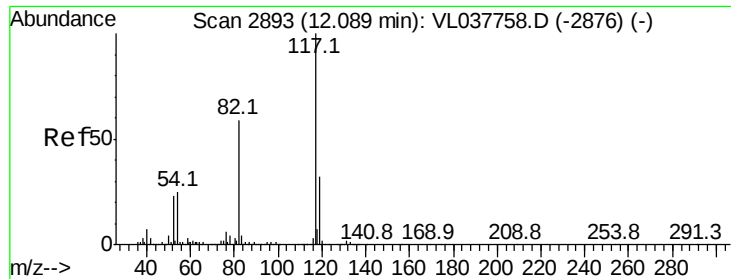
91 100

92 62.3 48.4 72.6



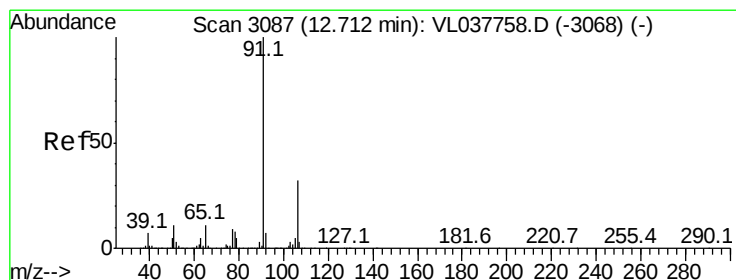
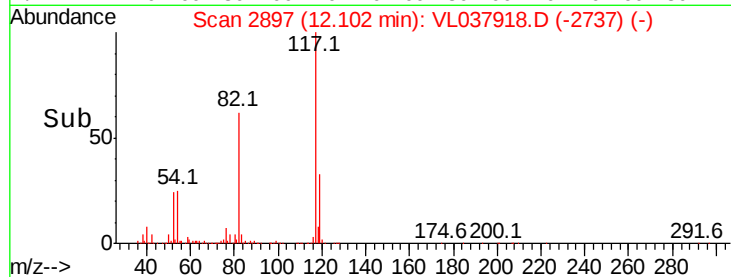
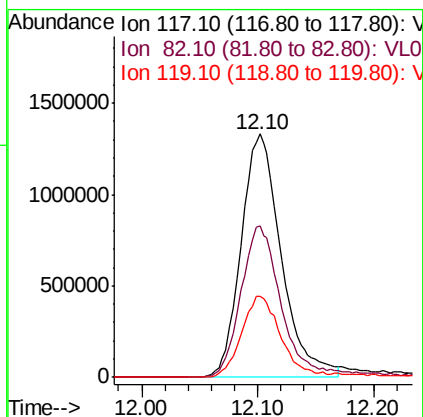
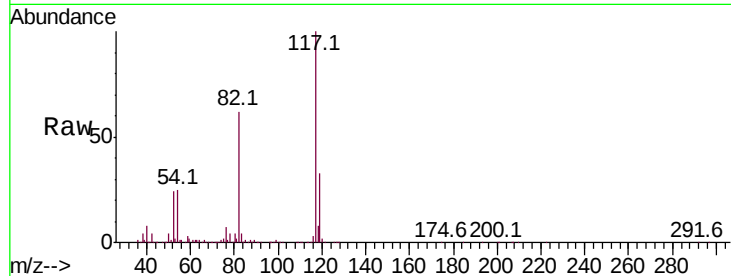
Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0





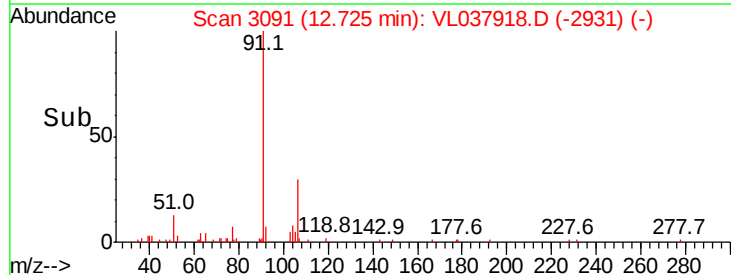
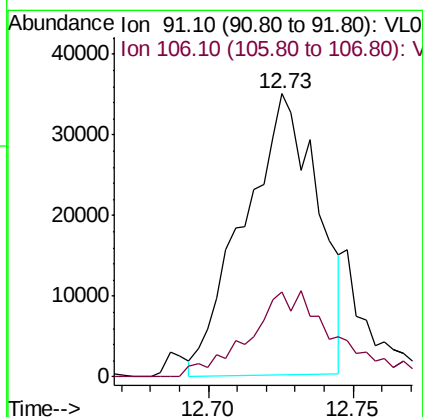
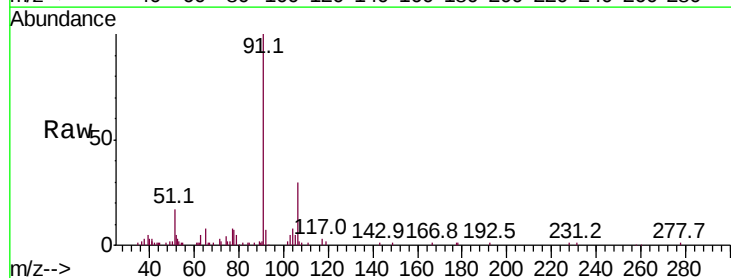
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min
Instrument: MSVOA_1
Delta R.T.: 0.01 min
Lab File: ClientSampleId : VMP-5-MANIFOLD
Acq: 27 Oct 2021 10:22

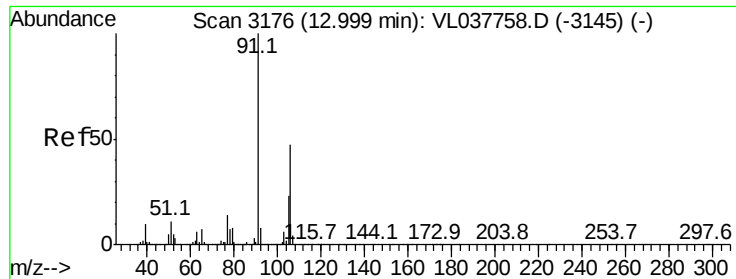
Tot Ion: 117 Resp: 3201646
Ion Ratio Lower Upper
117 100
82 66.0 52.2 78.2
119 34.9 26.0 39.0



#58
Ethyl Benzene
Concen: 0.144 ppbv
RT: 12.73 min Scan# 3091
Delta R.T.: 0.01 min
Lab File: VL037918.D
Acq: 27 Oct 2021 16:22

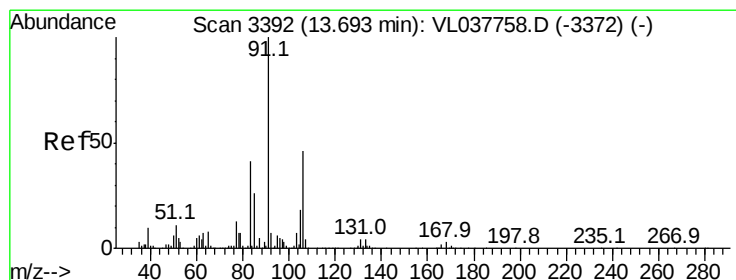
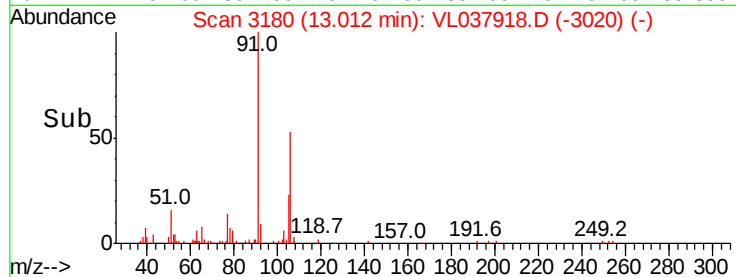
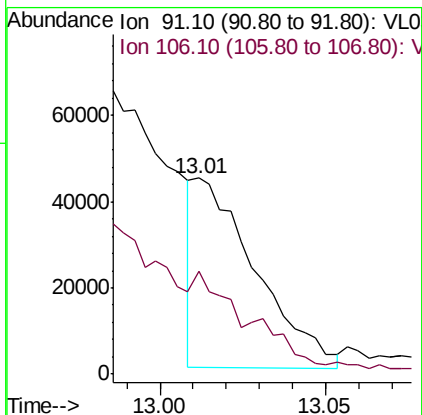
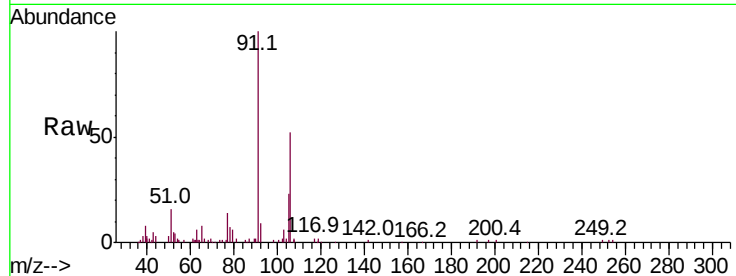
Tgt Ion: 91 Resp: 61836
Ion Ratio Lower Upper
91 100
106 27.6 25.3 37.9





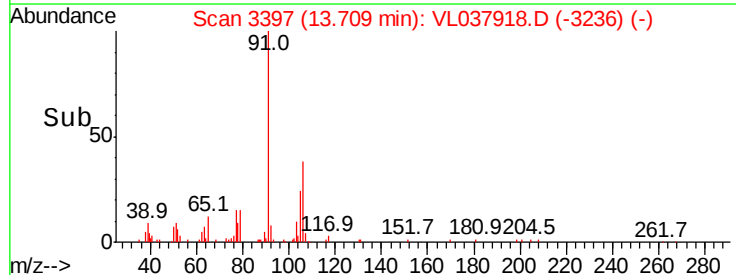
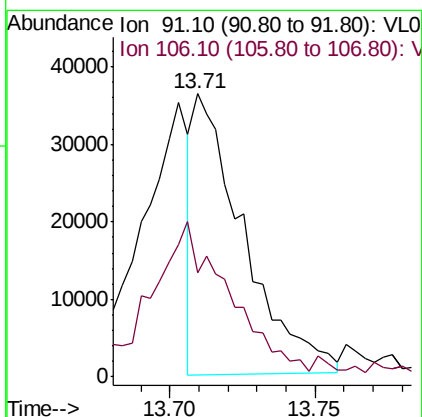
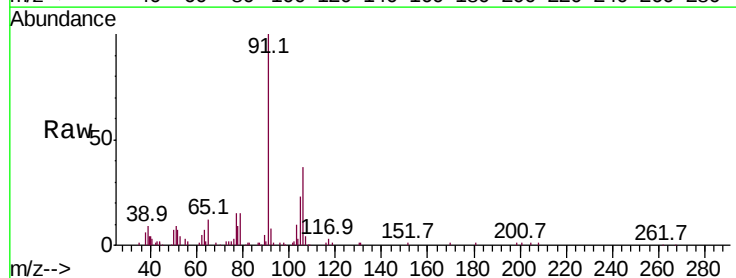
#59
m/p-Xylene
Concen: 0.152 ppbv
RT: 13.01 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId : VMP-5-MANIFOLD
Acq: 27 Oct 2021 16:22

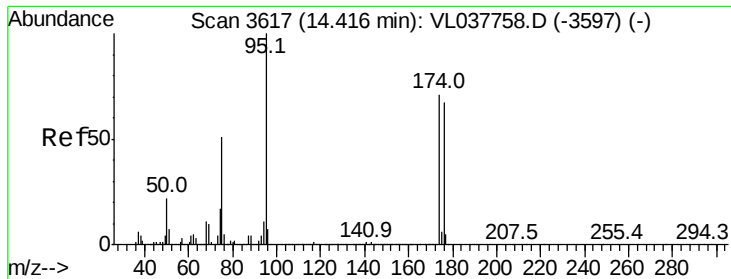
Tot Ion	91	Resp	56053
Ion Ratio	Lower	Upper	
91	100		
106	0.0	36.7	55.1#



#60
o-Xylene
Concen: 0.123 ppbv
RT: 13.71 min Scan# 3397
Delta R.T. 0.02 min
Lab File: VL037918.D
Acq: 27 Oct 2021 16:22

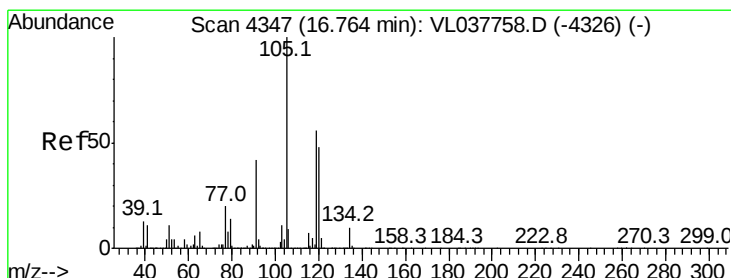
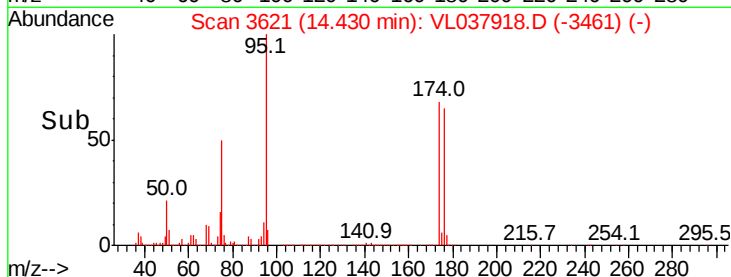
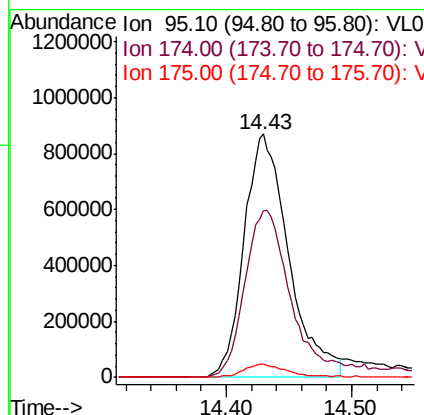
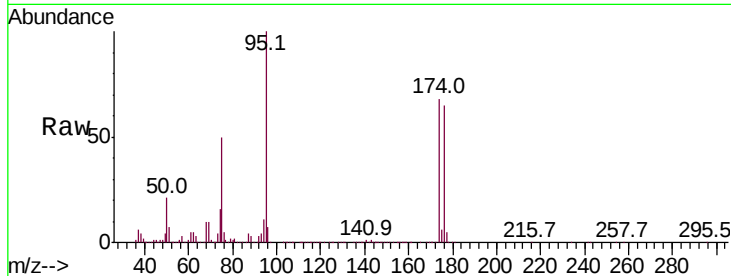
Tgt Ion	91	Resp	43394
Ion Ratio	Lower	Upper	
91	100		
106	93.8	23.5	70.5#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.615 ppbv
 RT: 14.43 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId:
 VMP-5-MANIFOLD
 Acq: 27 Oct 2021 16:22

Tot Ion: 95 Resp: 2152785
 Ion Ratio Lower Upper
 95 100
 174 78.5 57.8 86.6
 175 5.6 4.7 7.1



#74
 1,2,4-Trimethylbenzene
 Concen: 0.042 ppbv
 RT: 16.78 min Scan# 4353
 Delta R.T. 0.02 min
 Lab File: VL037918.D
 Acq: 27 Oct 2021 16:22

Tgt Ion: 105 Resp: 16041
 Ion Ratio Lower Upper
 105 100
 120 54.3 38.4 57.6
 91 17.9 34.2 51.2#
 77 12.3 15.8 23.8#

