

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL121824\
 Data File : VL041802.D
 Acq On : 18 Dec 2024 19:58
 Operator : SY/MD
 Sample : P5294-01
 Misc : 400mL/MSVOA_L
 ALS Vial : 10 Sample Multiplier: 1

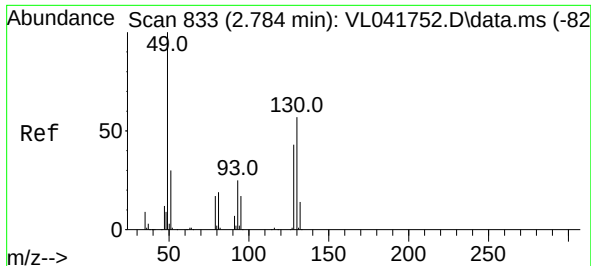
Instrument :
 MSVOA_L
 ClientSampleId :
 C0AB6

Quant Time: Dec 19 07:58:37 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL121624AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Dec 19 07:32:09 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.797	49	77034	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	3.971	114	192884	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.894	117	185181	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.390	95	150031	9.722	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.200%
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.502	85	4687	0.342	ppbv	96
3) Chlorodifluoromethane	1.538	51	571	0.045	ppbv	99
4) Chloromethane	1.534	50	2543	0.474	ppbv	96
9) Propene	1.777	41	841	0.154	ppbv	92
10) Heptane	5.001	43	1896	0.136	ppbv #	39
11) Trichlorofluoromethane	1.884	101	2709	0.186	ppbv	96
12) 1,1,2-Trichlorotrifluo...	2.146	101	598	0.054	ppbv	94
13) Ethanol	1.725	45	8754	19.416	ppbv	94
15) Acetone	1.842	43	46647	3.112	ppbv	93
16) 1,3-Butadiene	1.606	39	5842	0.990	ppbv #	29
17) tert-Butyl alcohol	2.049	59	7709	0.518	ppbv	96
19) Isopropyl Alcohol	1.890	45	11560	1.285	ppbv #	30
20) Methylene Chloride	2.068	84	1379	0.323	ppbv #	76
21) Allyl Chloride	2.085	41	413	0.051	ppbv #	25
23) Vinyl Acetate	2.457	43	6394	0.919	ppbv #	88
25) Ethyl Acetate	2.852	43	11451	0.411	ppbv #	92
26) Hexane	2.839	57	2712	0.256	ppbv #	29
27) Carbon Disulfide	2.159	76	616	0.065	ppbv #	1
29) Chloroform	2.855	83	796	0.049	ppbv #	73
30) Cyclohexane	3.878	84	1001	0.111	ppbv #	1
31) cis-1,2-Dichloroethene	2.848	61	1221	0.112	ppbv #	28
34) 2-Butanone	2.570	43	10728	0.691	ppbv	96
36) Benzene	3.670	78	4321	0.217	ppbv	93
39) 1,2-Dichloropropane	3.975	63	53145	7.365	ppbv #	18
41) Tetrahydrofuran	3.075	42	5402	0.621	ppbv	97
44) 2,2,4-Trimethylpentane	4.661	57	1670	0.049	ppbv #	1
53) Toluene	6.956	91	82132	3.631	ppbv	99
57) Chlorobenzene	8.937	112	1507	0.080	ppbv	88
58) Ethyl Benzene	9.367	91	11534	0.346	ppbv	95
59) m/p-Xylene	9.564	91	8373	0.312	ppbv #	100
60) o-Xylene	9.979	91	13407	0.499	ppbv	96
61) Styrene	9.882	104	3334	0.287	ppbv	99
74) 1,2,4-Trimethylbenzene	11.548	105	1962	0.069	ppbv #	70

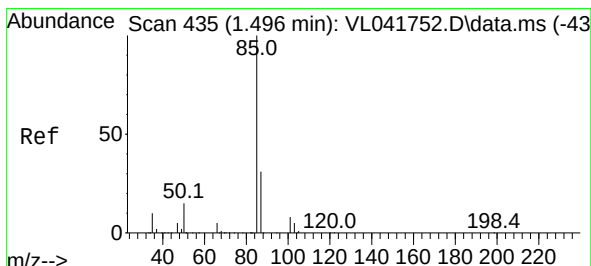
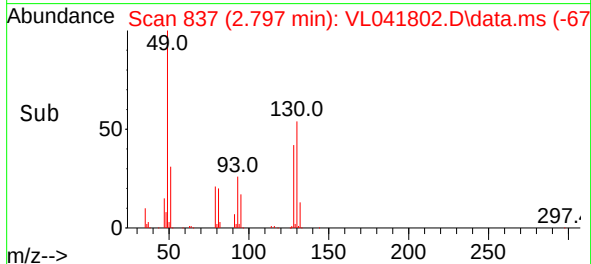
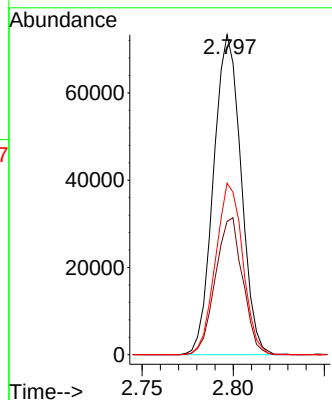
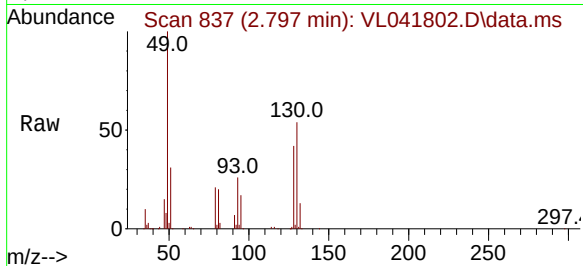
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.797 min Scan# 841
Delta R.T. 0.013 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

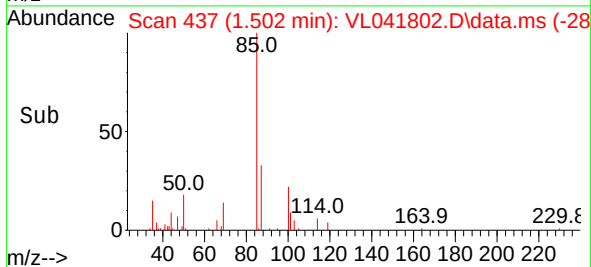
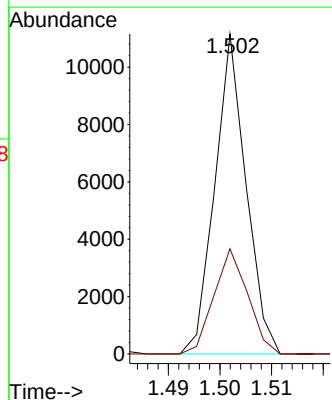
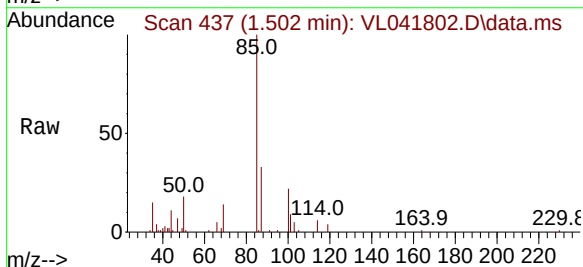
Instrument :
MSVOA_L
ClientSampleId :
C0AB6

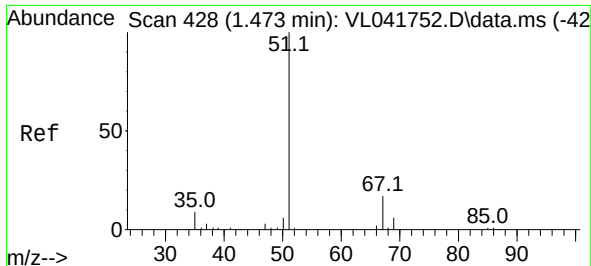
Tgt Ion: 49 Resp: 77034
Ion Ratio Lower Upper
49 100
128 42.5 21.6 64.6
130 53.1 28.3 85.0



#2
Dichlorodifluoromethane
Concen: 0.342 ppbv
RT: 1.502 min Scan# 437
Delta R.T. 0.006 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

Tgt Ion: 85 Resp: 4687
Ion Ratio Lower Upper
85 100
87 32.8 24.5 36.7

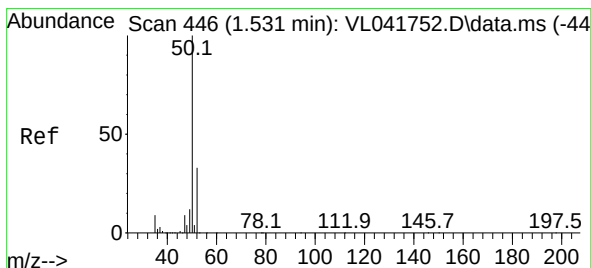
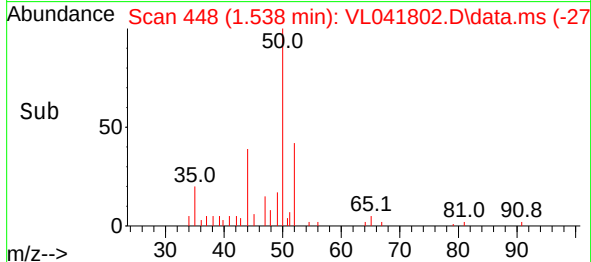
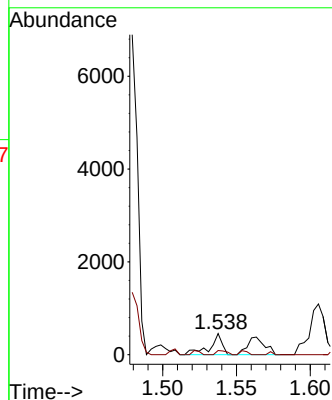
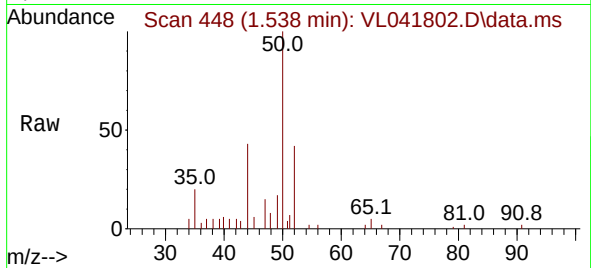




#3
Chlorodifluoromethane
Concen: 0.045 ppbv
RT: 1.538 min Scan# 446
Delta R.T. 0.064 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

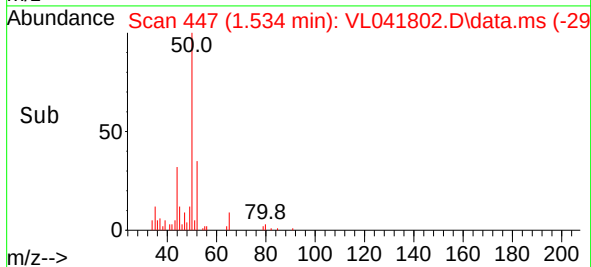
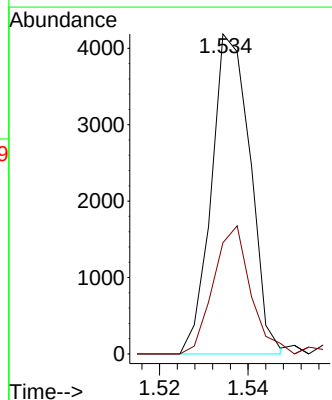
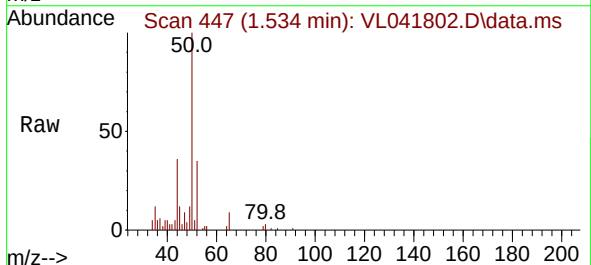
Instrument :
MSVOA_L
ClientSampleId :
C0AB6

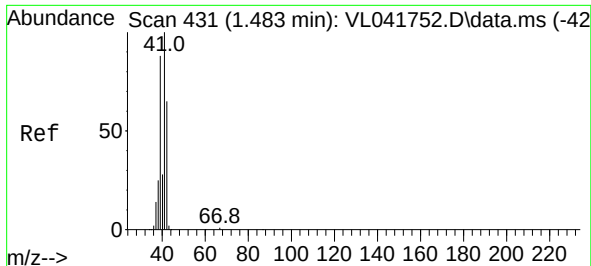
Tgt Ion: 51 Resp: 571
Ion Ratio Lower Upper
51 100
67 18.2 15.0 22.4



#4
Chloromethane
Concen: 0.474 ppbv
RT: 1.534 min Scan# 447
Delta R.T. 0.003 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

Tgt Ion: 50 Resp: 2543
Ion Ratio Lower Upper
50 100
52 34.8 26.2 39.2





#9

Propene

Concen: 0.154 ppbv

RT: 1.777 min Scan# 51

Delta R.T. 0.294 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

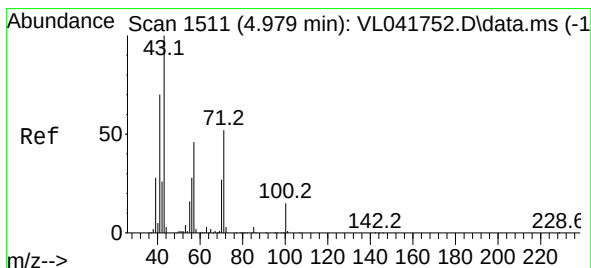
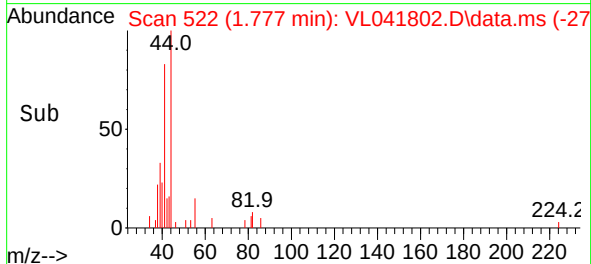
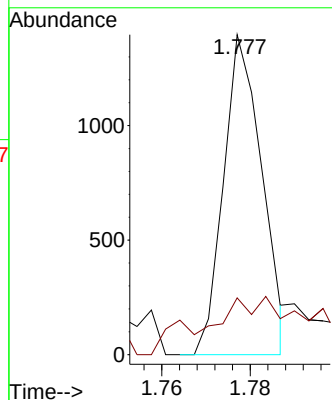
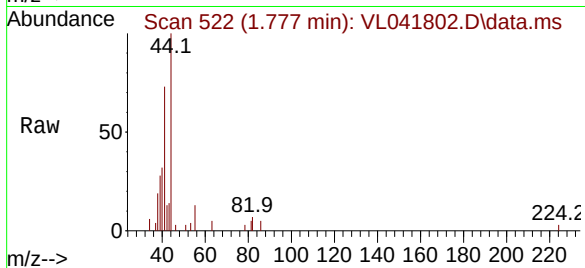
C0AB6

Tgt Ion: 41 Resp: 841

Ion Ratio Lower Upper

41 100

42 59.3 52.4 78.6



#10

Heptane

Concen: 0.136 ppbv

RT: 5.001 min Scan# 1518

Delta R.T. 0.022 min

Lab File: VL041802.D

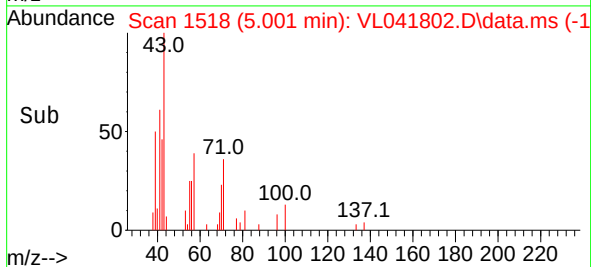
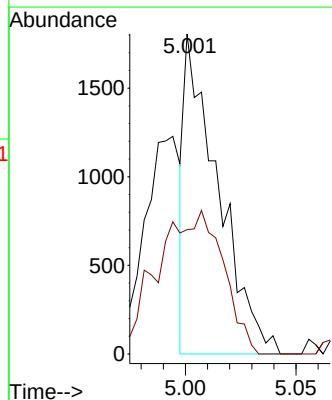
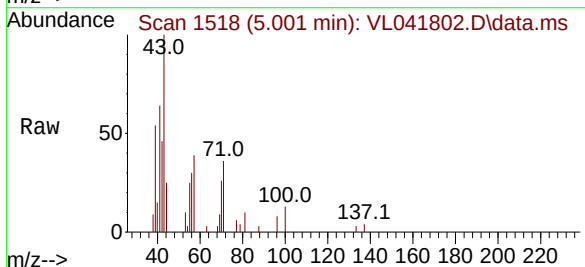
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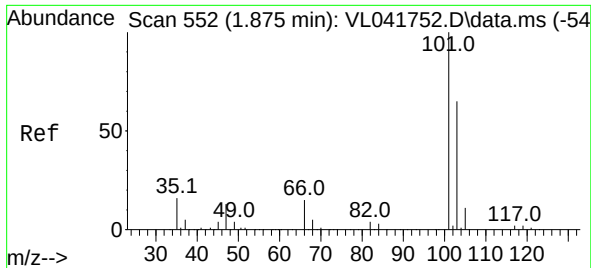
Tgt Ion: 43 Resp: 1896

Ion Ratio Lower Upper

43 100

57 89.5 38.5 57.7#





#11

Trichlorofluoromethane

Concen: 0.186 ppbv

RT: 1.884 min Scan# 51

Delta R.T. 0.009 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

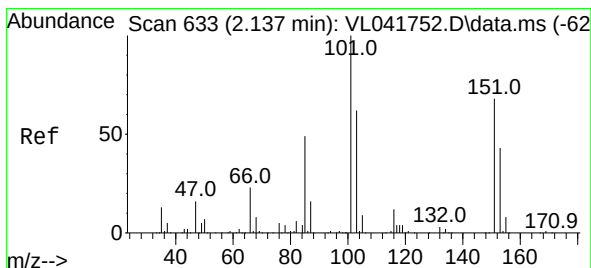
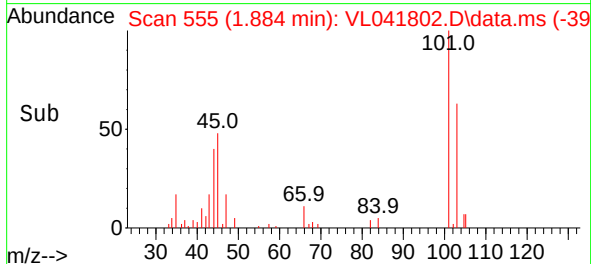
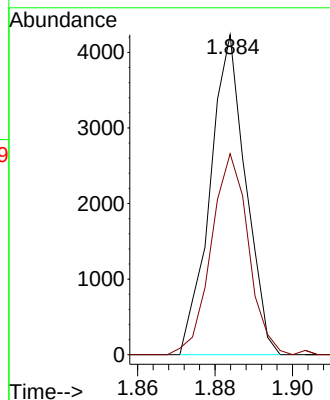
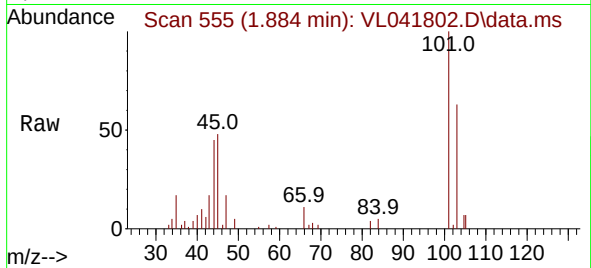
C0AB6

Tgt Ion:101 Resp: 2709

Ion Ratio Lower Upper

101 100

103 61.5 51.8 77.8



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.054 ppbv

RT: 2.146 min Scan# 636

Delta R.T. 0.009 min

Lab File: VL041802.D

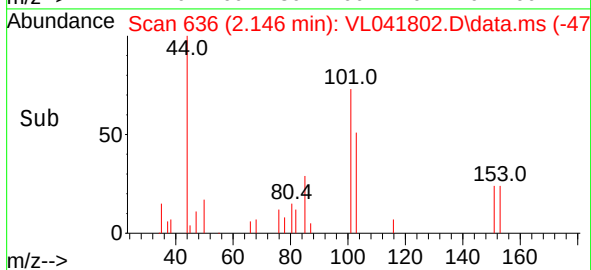
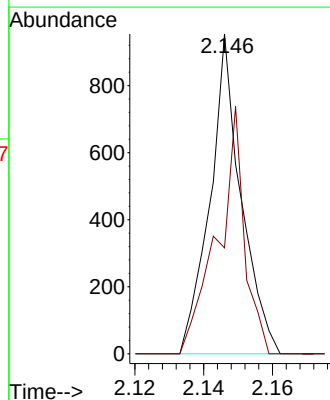
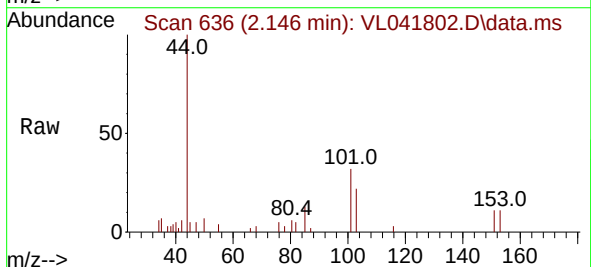
Acq: 18 Dec 2024 19:58

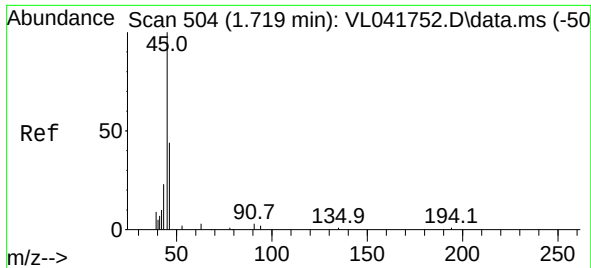
Tgt Ion:101 Resp: 598

Ion Ratio Lower Upper

101 100

151 66.4 56.8 85.2

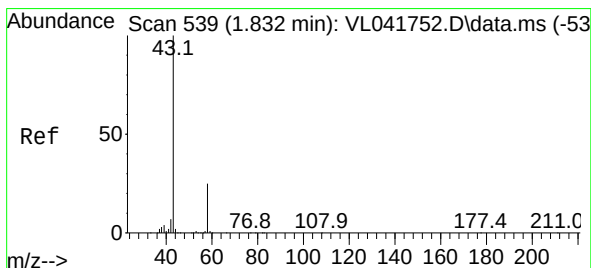
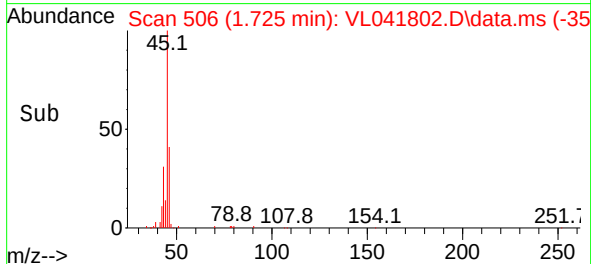
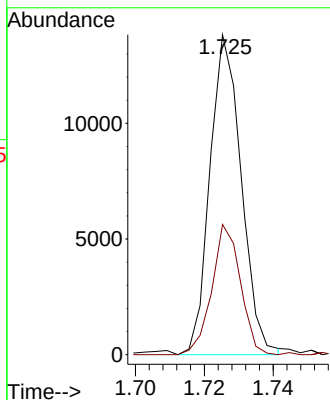
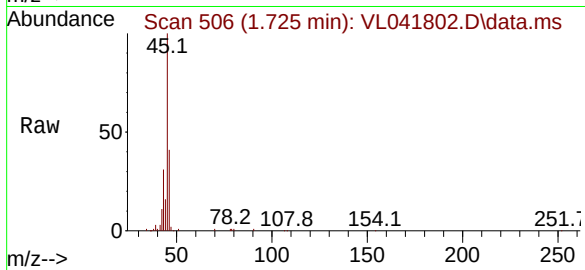




#13
Ethanol
Concen: 19.416 ppbv
RT: 1.725 min Scan# 504
Delta R.T. 0.006 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

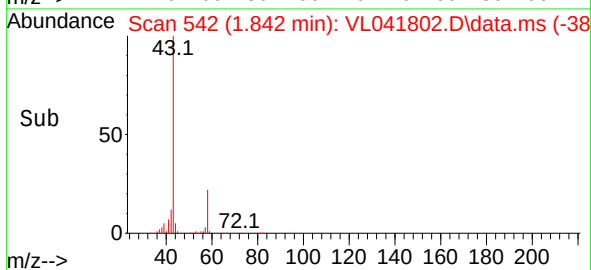
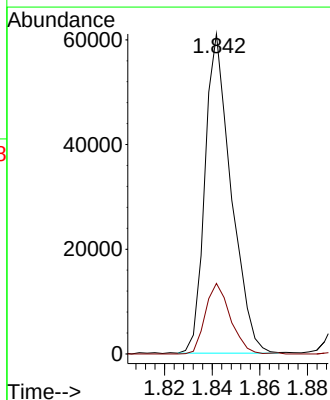
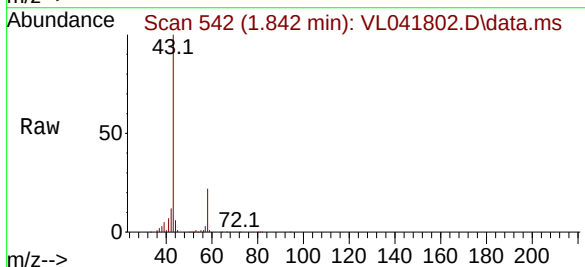
Instrument :
MSVOA_L
ClientSampleId :
C0AB6

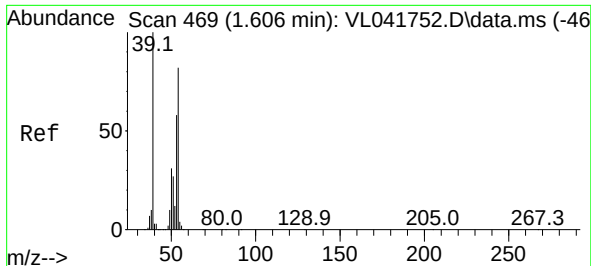
Tgt Ion: 45 Resp: 8754
Ion Ratio Lower Upper
45 100
46 37.5 16.4 65.8



#15
Acetone
Concen: 3.112 ppbv
RT: 1.842 min Scan# 542
Delta R.T. 0.009 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

Tgt Ion: 43 Resp: 46647
Ion Ratio Lower Upper
43 100
58 21.2 19.7 29.5





#16

1,3-Butadiene

Concen: 0.990 ppbv

RT: 1.606 min Scan# 4

Delta R.T. -0.000 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

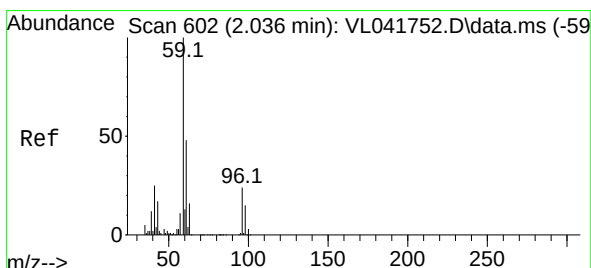
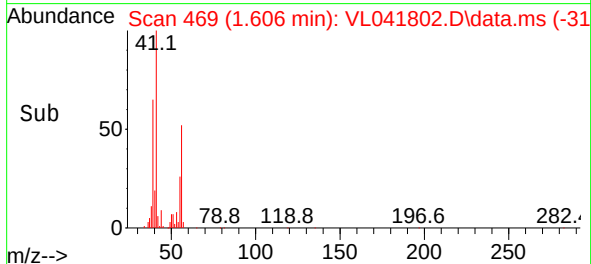
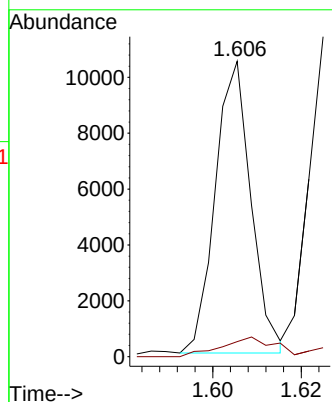
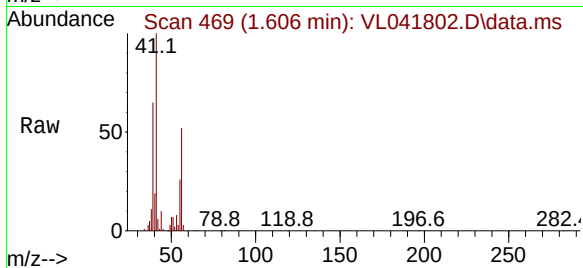
C0AB6

Tgt Ion: 39 Resp: 5842

Ion Ratio Lower Upper

39 100

54 13.5 58.4 87.6#



#17

tert-Butyl alcohol

Concen: 0.518 ppbv

RT: 2.049 min Scan# 606

Delta R.T. 0.013 min

Lab File: VL041802.D

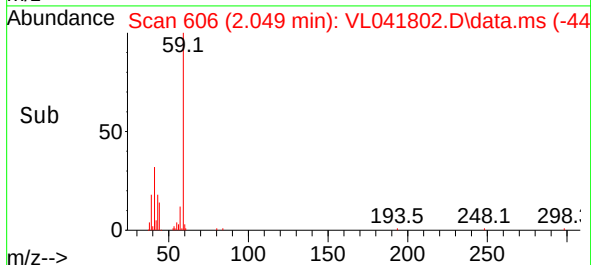
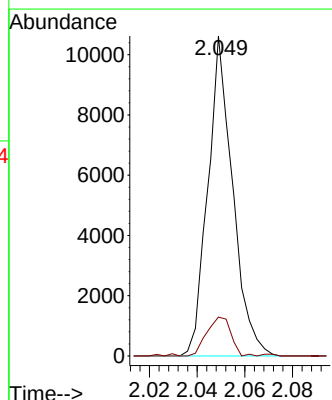
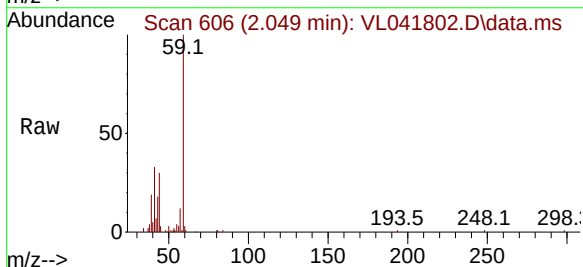
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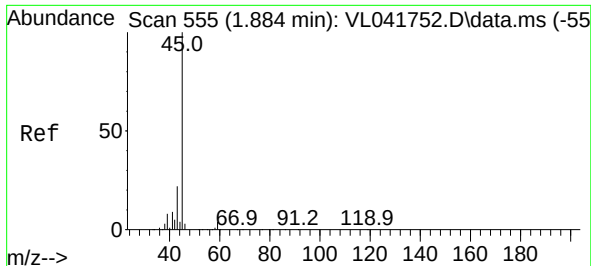
Tgt Ion: 59 Resp: 7709

Ion Ratio Lower Upper

59 100

57 12.4 8.6 13.0





#19

Isopropyl Alcohol

Concen: 1.285 ppbv

RT: 1.890 min Scan# 51

Delta R.T. 0.006 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

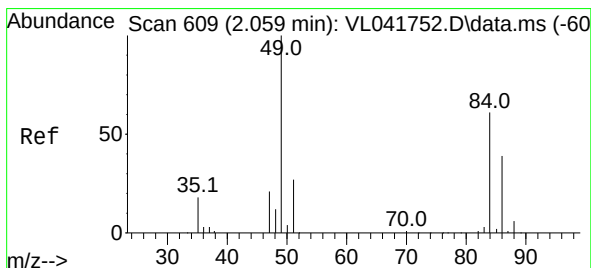
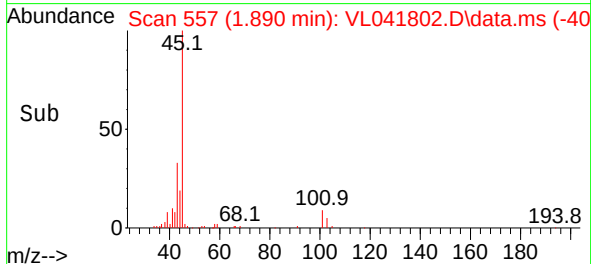
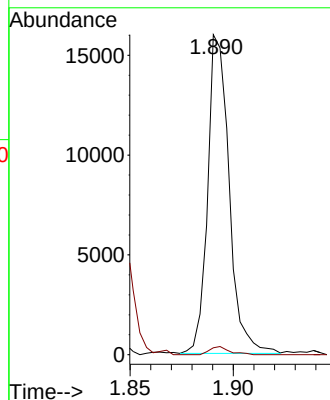
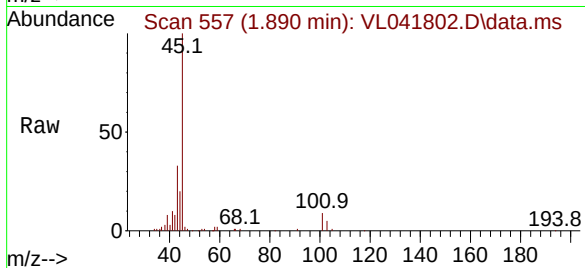
C0AB6

Tgt Ion: 45 Resp: 11560

Ion Ratio Lower Upper

45 100

58 85.6 33.3 49.9#



#20

Methylene Chloride

Concen: 0.323 ppbv

RT: 2.068 min Scan# 612

Delta R.T. 0.009 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Tgt Ion: 84 Resp: 1379

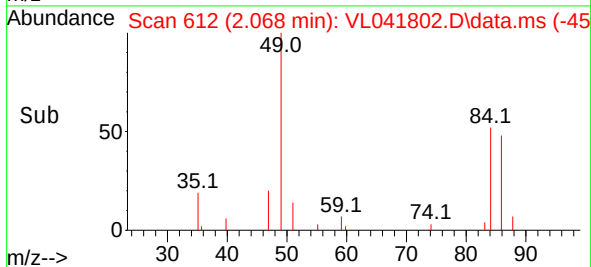
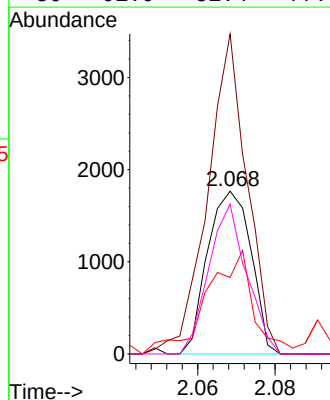
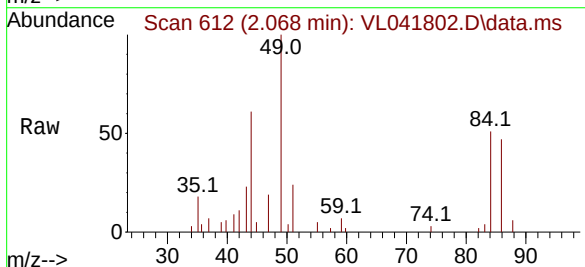
Ion Ratio Lower Upper

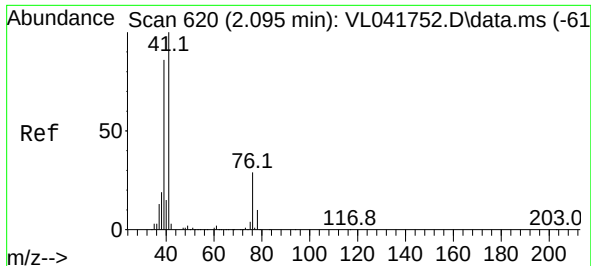
84 100

49 196.6 132.6 198.8

51 38.9 37.6 56.4

86 91.9 51.4 77.0#





#21

Allyl Chloride

Concen: 0.051 ppbv

RT: 2.085 min Scan# 61

Delta R.T. -0.010 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

C0AB6

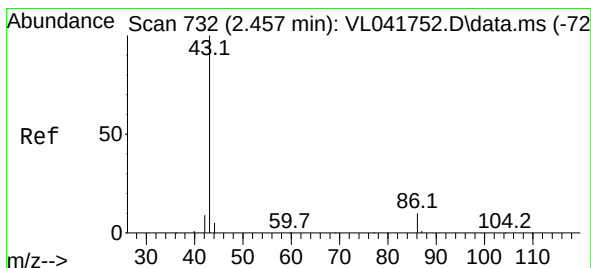
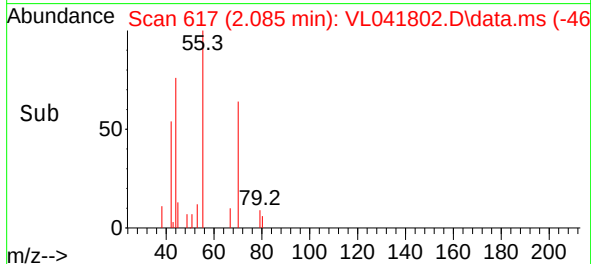
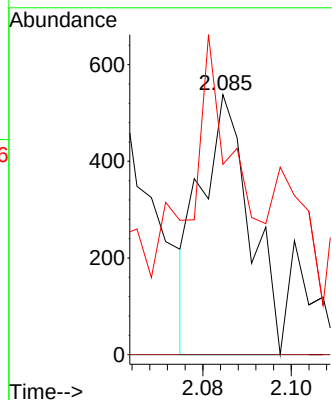
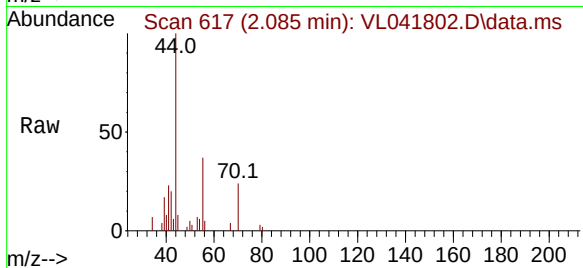
Tgt Ion: 41 Resp: 413

Ion Ratio Lower Upper

41 100

76 0.0 22.3 33.5#

39 162.7 69.2 103.8#



#23

Vinyl Acetate

Concen: 0.919 ppbv

RT: 2.457 min Scan# 732

Delta R.T. -0.000 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Tgt Ion: 43 Resp: 6394

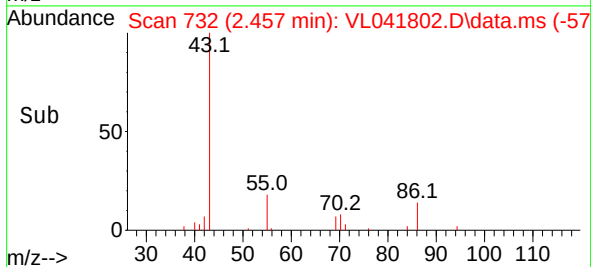
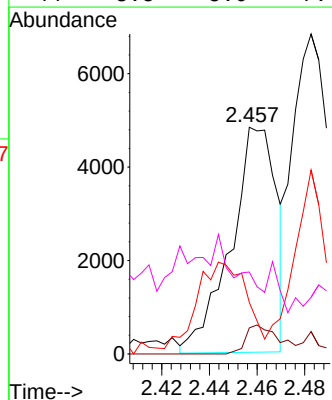
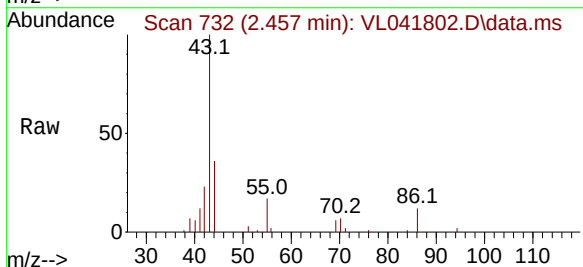
Ion Ratio Lower Upper

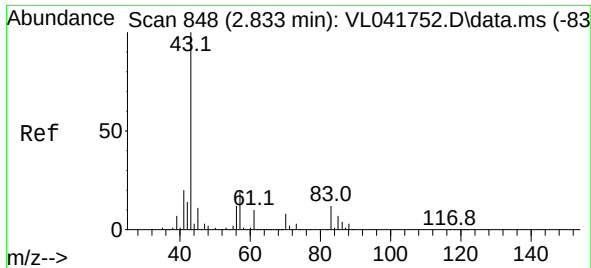
43 100

86 11.9 6.6 10.0#

42 16.0 8.2 12.2#

44 8.5 5.0 7.4#





#25

Ethyl Acetate

Concen: 0.411 ppbv

RT: 2.852 min Scan# 849

Delta R.T. 0.019 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

C0AB6

Tgt Ion: 43 Resp: 11451

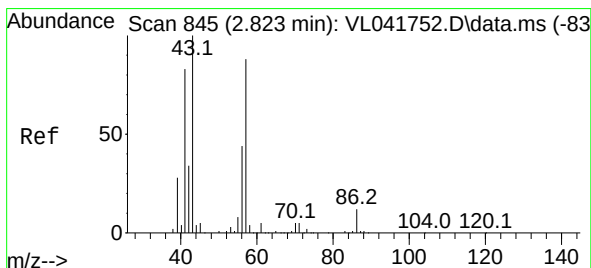
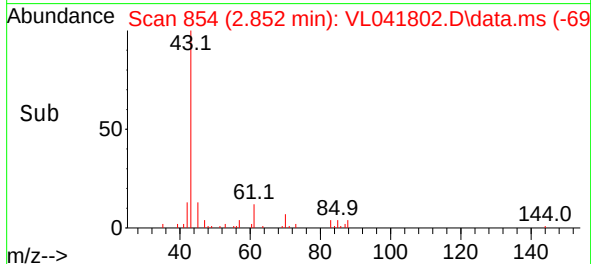
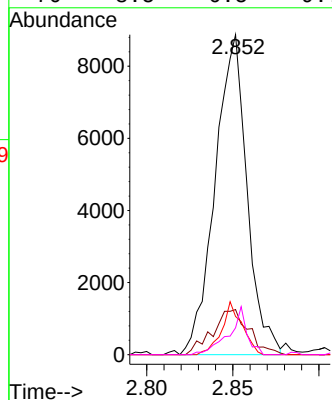
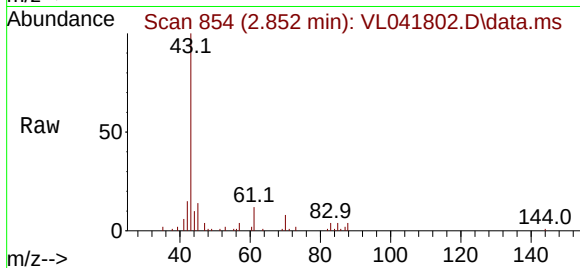
Ion Ratio Lower Upper

43 100

45 16.1 8.1 12.1#

61 10.7 7.0 10.6#

70 8.5 6.5 9.7



#26

Hexane

Concen: 0.256 ppbv

RT: 2.839 min Scan# 850

Delta R.T. 0.016 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Tgt Ion: 57 Resp: 2712

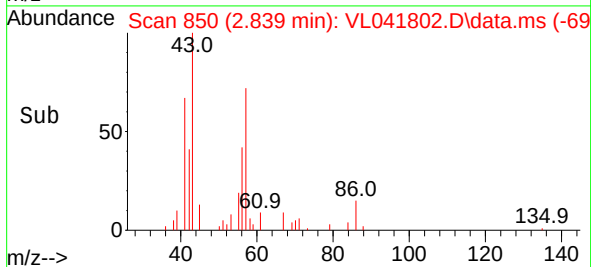
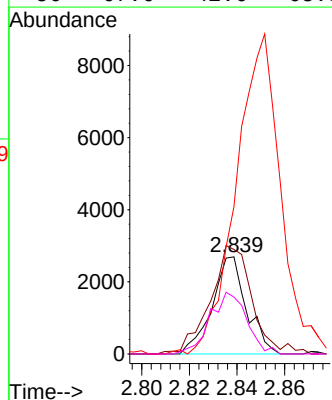
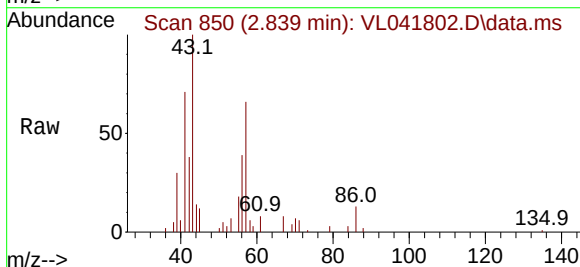
Ion Ratio Lower Upper

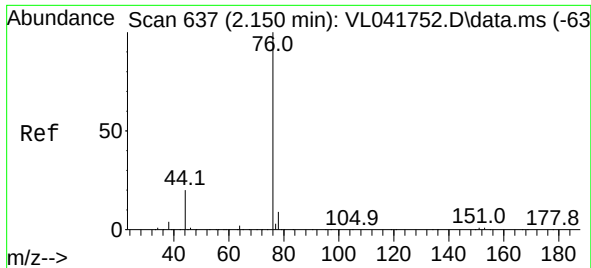
57 100

41 135.1 79.6 119.4#

43 435.5 211.0 316.6#

56 67.6 42.6 63.8#





#27

Carbon Disulfide

Concen: 0.065 ppbv

RT: 2.159 min Scan# 64

Delta R.T. 0.009 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

C0AB6

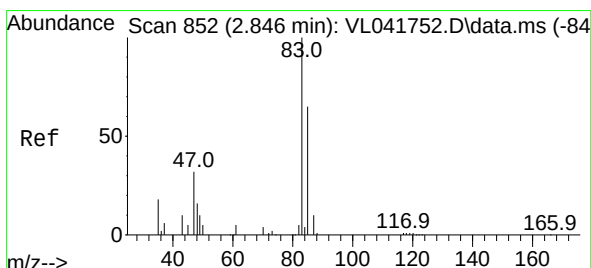
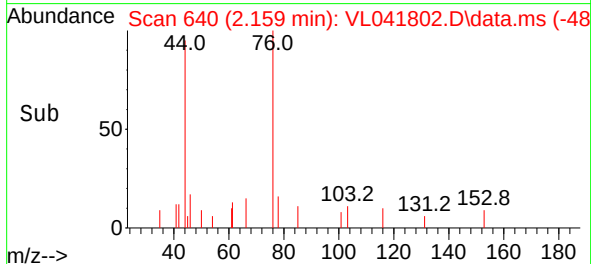
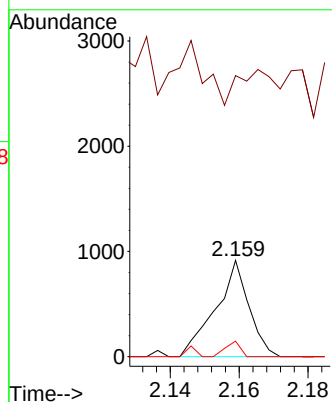
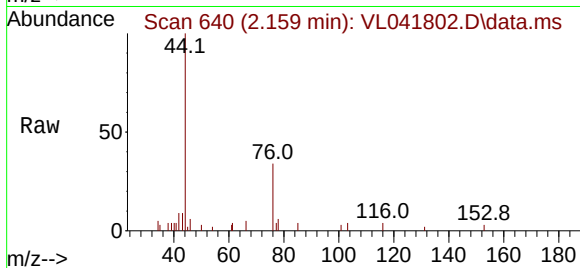
Tgt Ion: 76 Resp: 616

Ion Ratio Lower Upper

76 100

44 936.0 17.6 26.4#

78 26.1 10.2 15.4#



#29

Chloroform

Concen: 0.049 ppbv

RT: 2.855 min Scan# 855

Delta R.T. 0.009 min

Lab File: VL041802.D

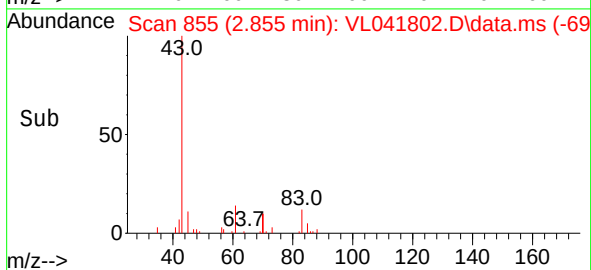
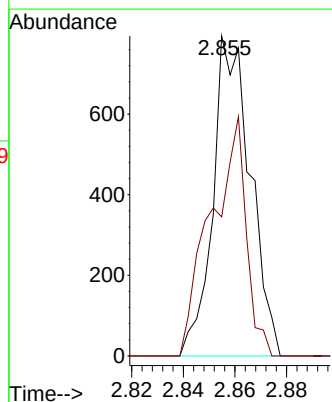
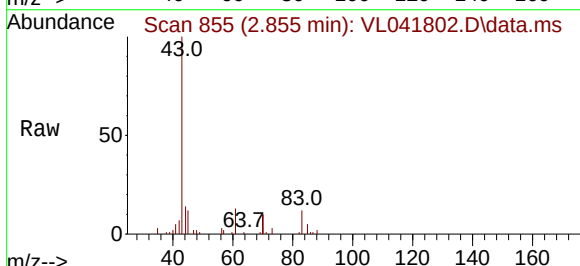
Acq: 18 Dec 2024 19:58

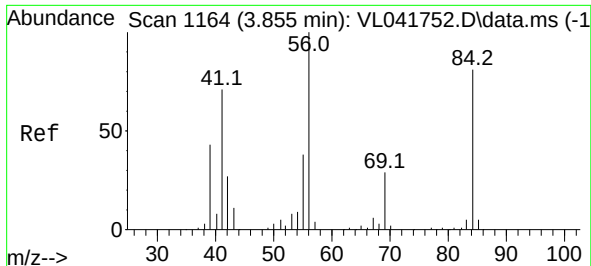
Tgt Ion: 83 Resp: 796

Ion Ratio Lower Upper

83 100

85 43.5 51.8 77.6#





#30

Cyclohexane

Concen: 0.111 ppbv

RT: 3.878 min Scan# 1164

Delta R.T. 0.022 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

C0AB6

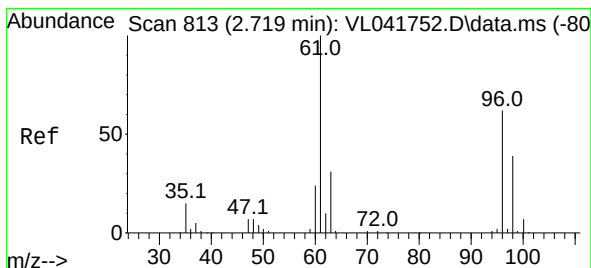
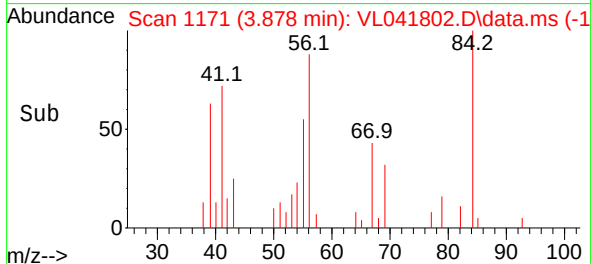
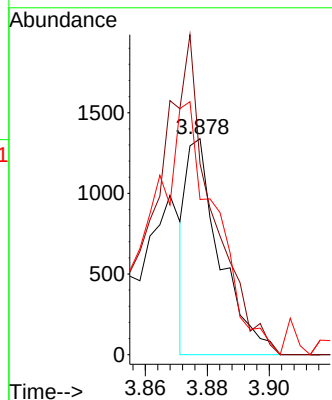
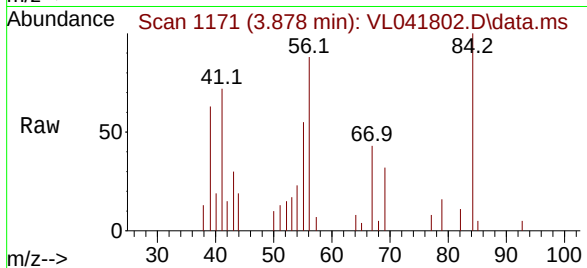
Tgt Ion: 84 Resp: 1001

Ion Ratio Lower Upper

84 100

56 254.3 102.3 153.5#

41 246.5 74.0 111.0#



#31

cis-1,2-Dichloroethene

Concen: 0.112 ppbv

RT: 2.848 min Scan# 853

Delta R.T. 0.129 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

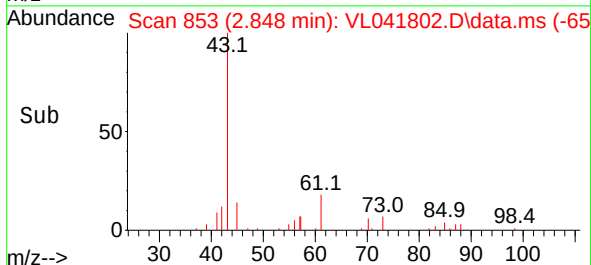
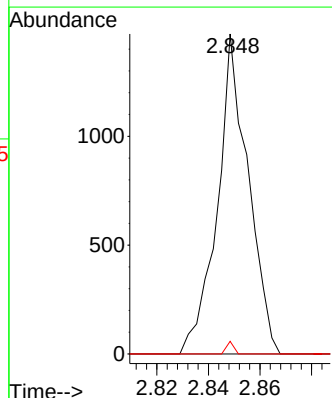
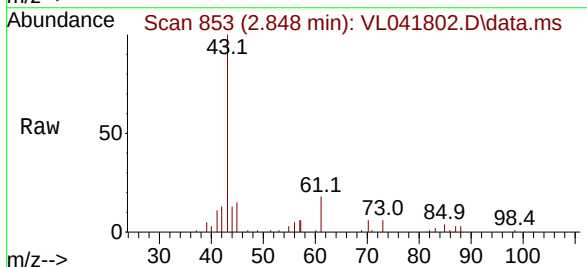
Tgt Ion: 61 Resp: 1221

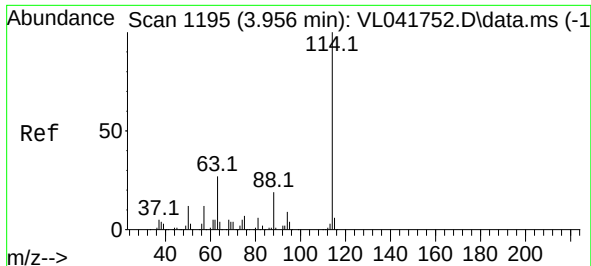
Ion Ratio Lower Upper

61 100

96 0.0 49.7 74.5#

98 3.9 30.8 46.2#

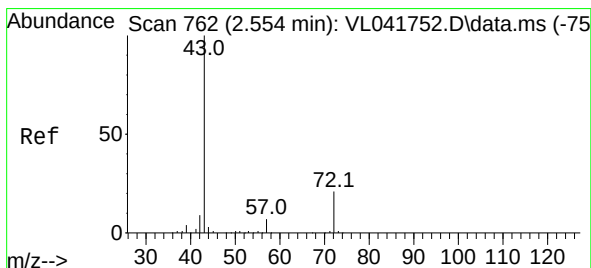
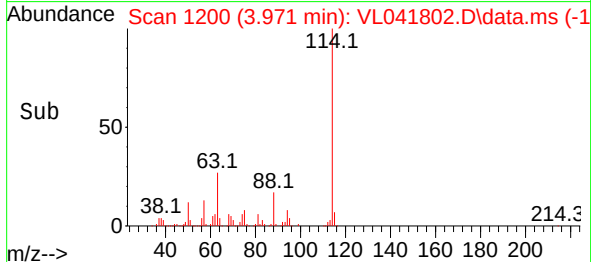
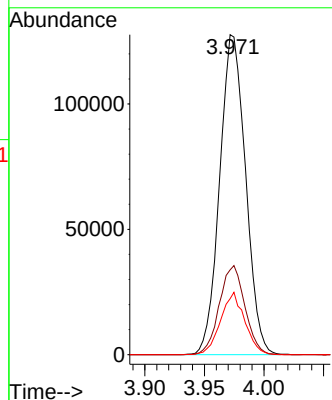
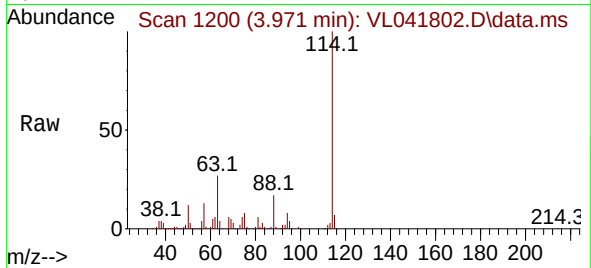




#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.971 min Scan# 1195
Delta R.T. 0.016 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

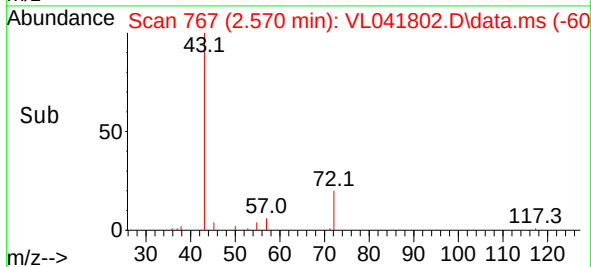
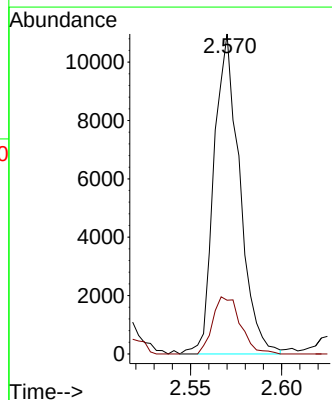
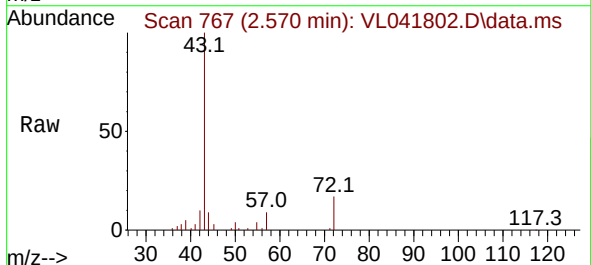
Instrument :
MSVOA_L
ClientSampleId :
C0AB6

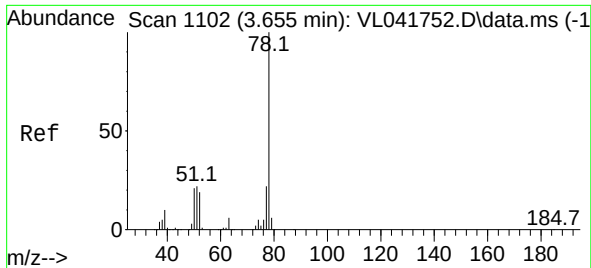
Tgt Ion:114 Resp: 192884
Ion Ratio Lower Upper
114 100
63 27.6 21.8 32.8
88 18.2 14.8 22.2



#34
2-Butanone
Concen: 0.691 ppbv
RT: 2.570 min Scan# 767
Delta R.T. 0.016 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

Tgt Ion: 43 Resp: 10728
Ion Ratio Lower Upper
43 100
72 19.2 16.8 25.2

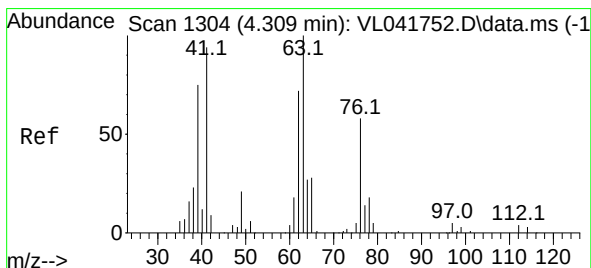
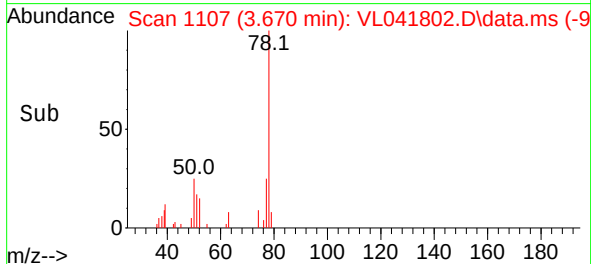
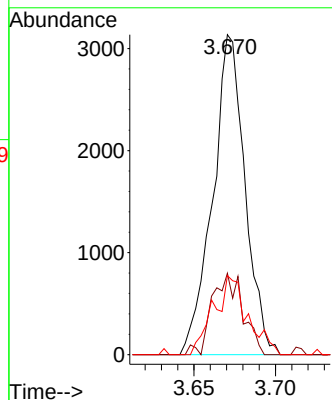
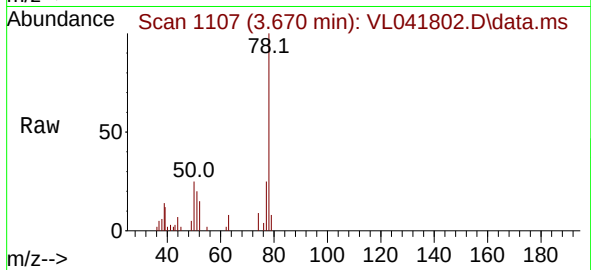




#36
Benzene
Concen: 0.217 ppbv
RT: 3.670 min Scan# 1107
Delta R.T. 0.016 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

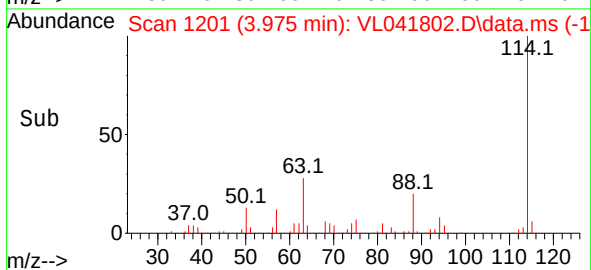
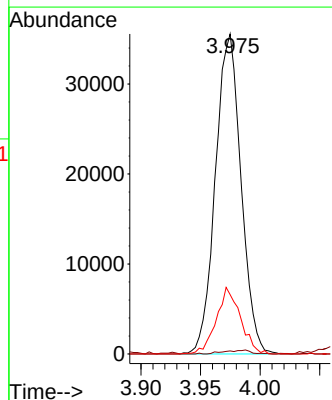
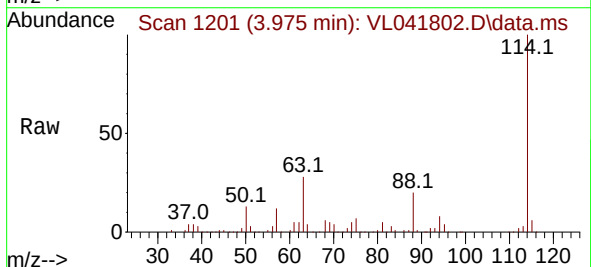
Instrument :
MSVOA_L
ClientSampleId :
C0AB6

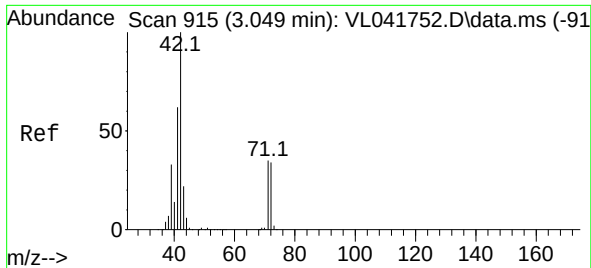
Tgt Ion: 78 Resp: 4321
Ion Ratio Lower Upper
78 100
77 25.4 17.8 26.6
50 24.7 17.2 25.8



#39
1,2-Dichloropropane
Concen: 7.365 ppbv
RT: 3.975 min Scan# 1201
Delta R.T. -0.334 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

Tgt Ion: 63 Resp: 53145
Ion Ratio Lower Upper
63 100
41 0.8 75.3 112.9#
62 18.6 57.3 85.9#





#41

Tetrahydrofuran

Concen: 0.621 ppbv

RT: 3.075 min Scan# 91

Delta R.T. 0.025 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

C0AB6

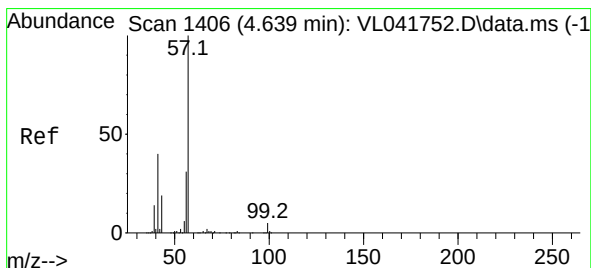
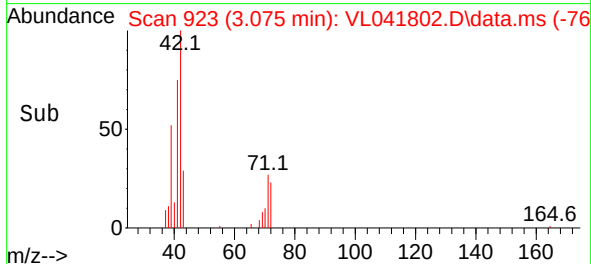
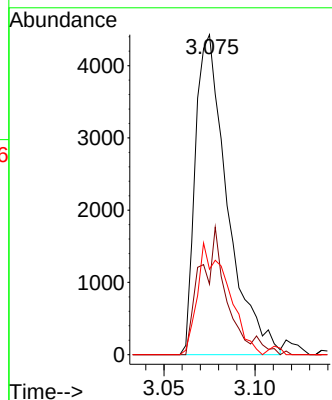
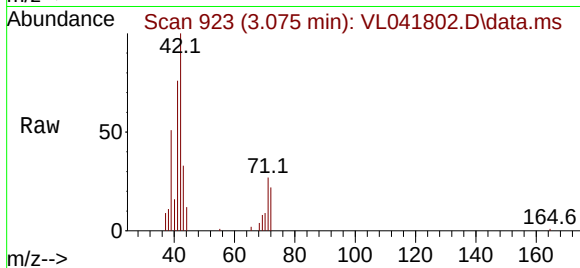
Tgt Ion: 42 Resp: 5402

Ion Ratio Lower Upper

42 100

72 33.8 29.1 43.7

71 34.3 28.4 42.6



#44

2,2,4-Trimethylpentane

Concen: 0.049 ppbv

RT: 4.661 min Scan# 1413

Delta R.T. 0.022 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

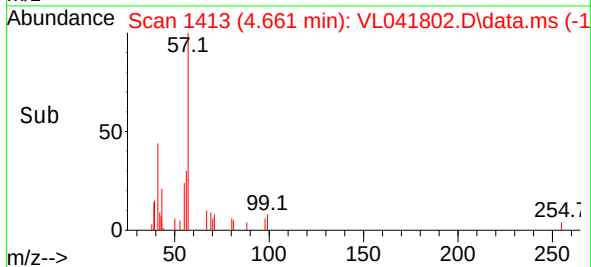
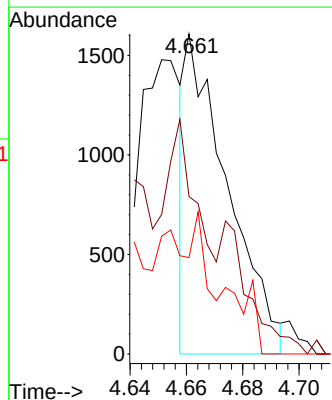
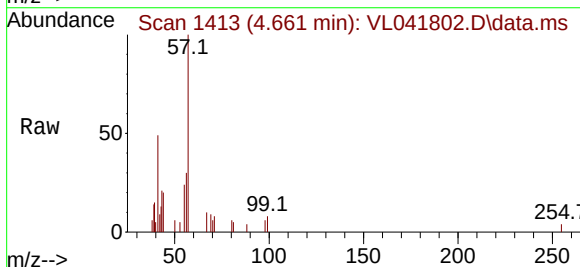
Tgt Ion: 57 Resp: 1670

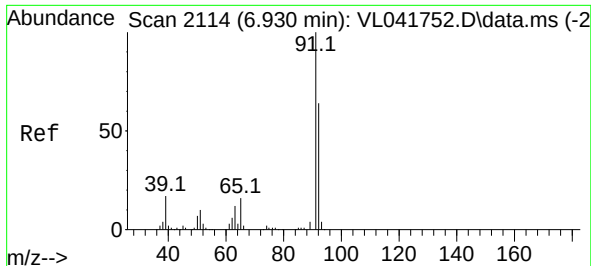
Ion Ratio Lower Upper

57 100

41 172.5 30.7 46.1#

56 119.9 25.4 38.0#





#53

Toluene

Concen: 3.631 ppbv

RT: 6.956 min Scan# 2114

Delta R.T. 0.025 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

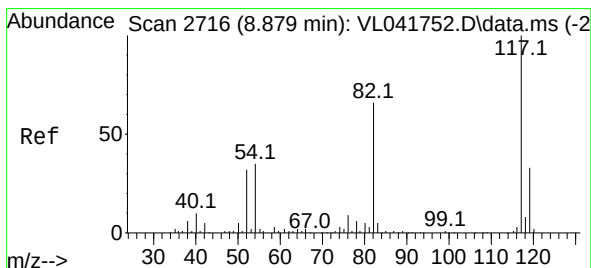
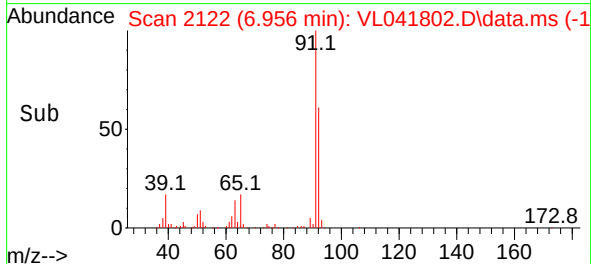
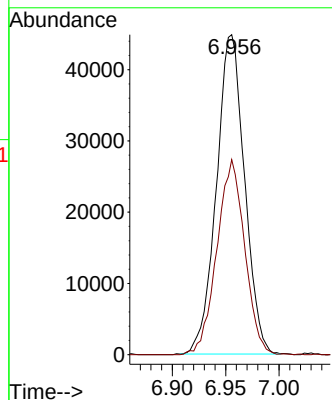
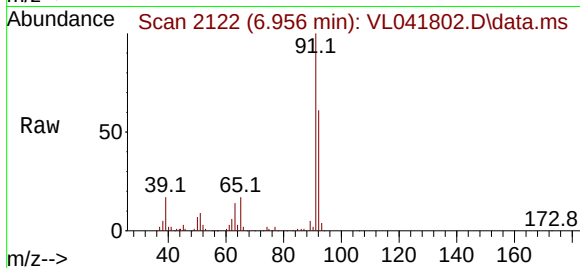
C0AB6

Tgt Ion: 91 Resp: 82132

Ion Ratio Lower Upper

91 100

92 60.6 47.9 71.9



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.894 min Scan# 2721

Delta R.T. 0.016 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

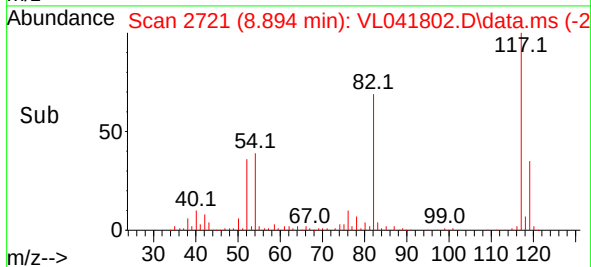
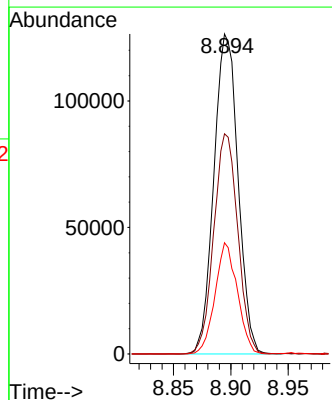
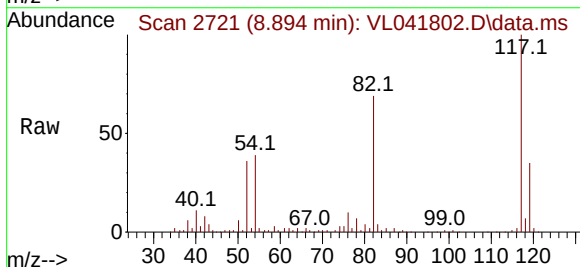
Tgt Ion: 117 Resp: 185181

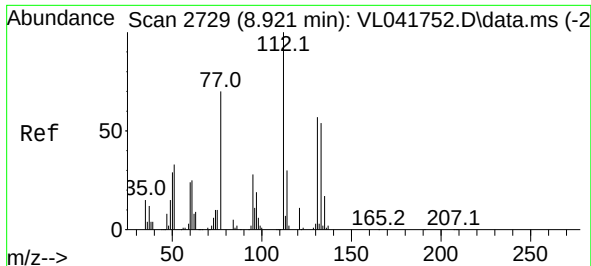
Ion Ratio Lower Upper

117 100

82 68.5 53.8 80.8

119 32.1 26.7 40.1

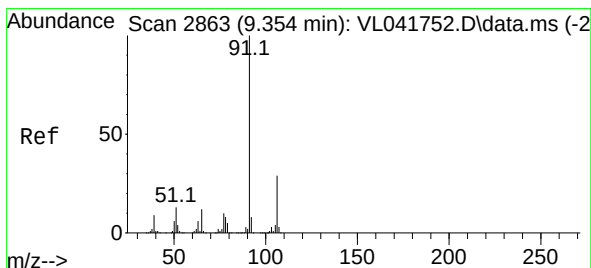
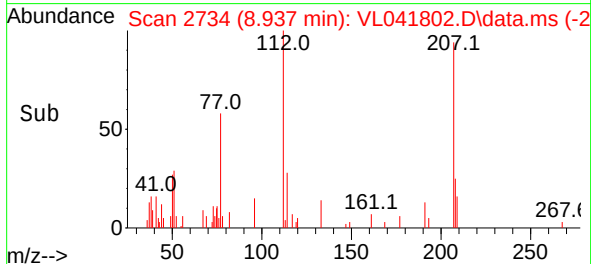
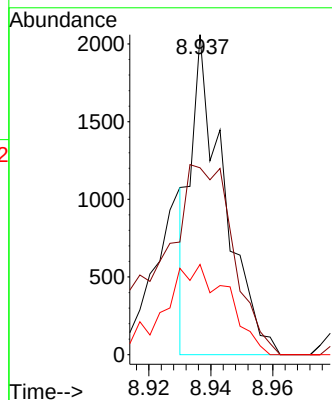
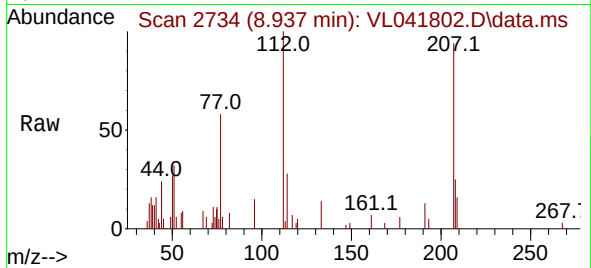




#57
Chlorobenzene
Concen: 0.080 ppbv
RT: 8.937 min Scan# 21
Delta R.T. 0.016 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

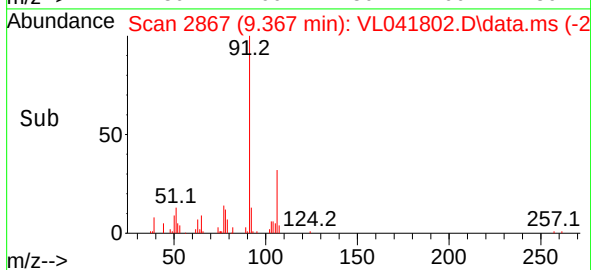
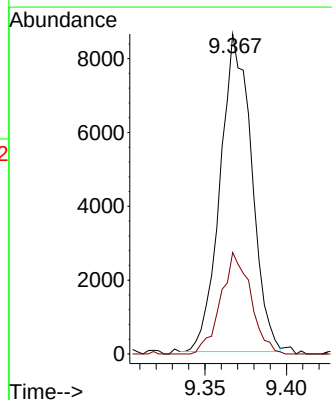
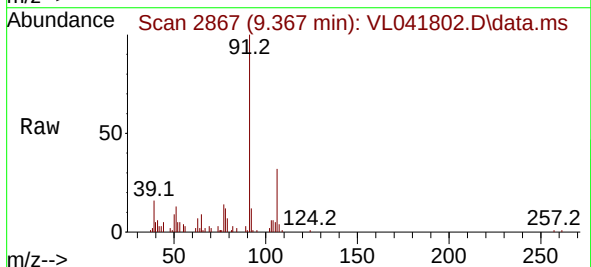
Instrument :
MSVOA_L
ClientSampleId :
C0AB6

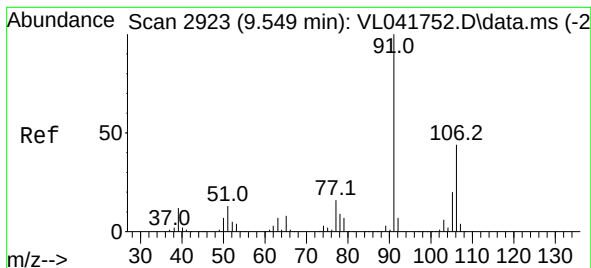
Tgt Ion:112 Resp: 1507
Ion Ratio Lower Upper
112 100
77 58.4 57.4 86.0
114 28.2 27.4 33.4



#58
Ethyl Benzene
Concen: 0.346 ppbv
RT: 9.367 min Scan# 2867
Delta R.T. 0.013 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

Tgt Ion: 91 Resp: 11534
Ion Ratio Lower Upper
91 100
106 31.9 23.5 35.3





#59

m/p-Xylene

Concen: 0.312 ppbv

RT: 9.564 min Scan# 2923

Delta R.T. 0.016 min

Lab File: VL041802.D

Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

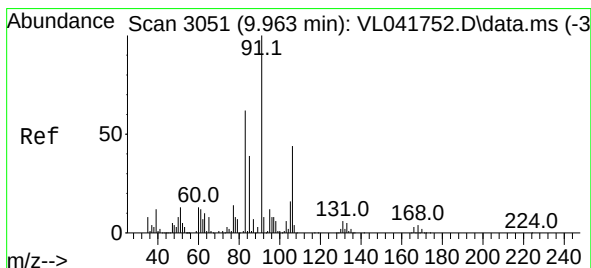
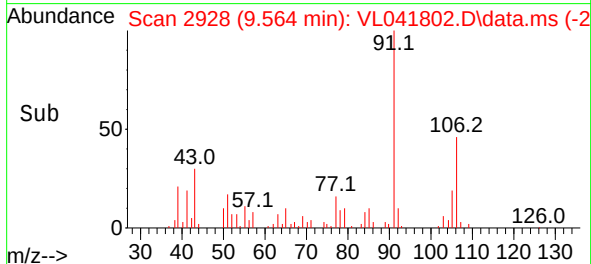
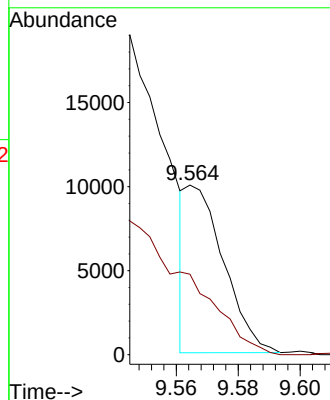
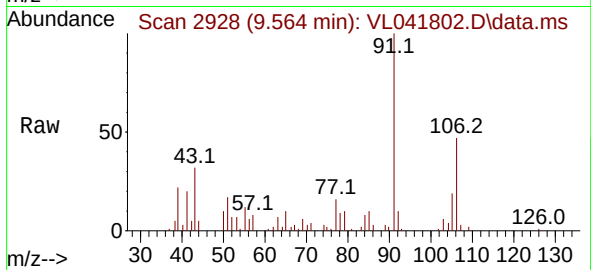
C0AB6

Tgt Ion: 91 Resp: 8373

Ion Ratio Lower Upper

91 100

106 0.0 0.0 0.0



#60

o-Xylene

Concen: 0.499 ppbv

RT: 9.979 min Scan# 3056

Delta R.T. 0.016 min

Lab File: VL041802.D

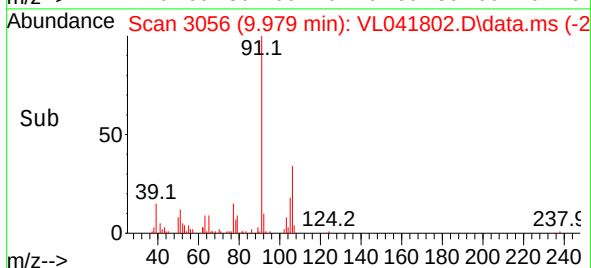
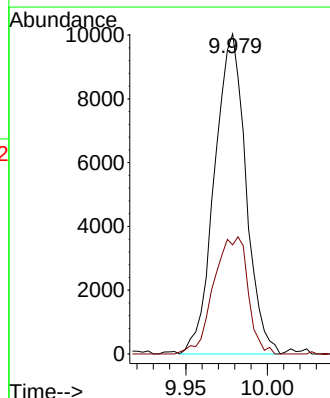
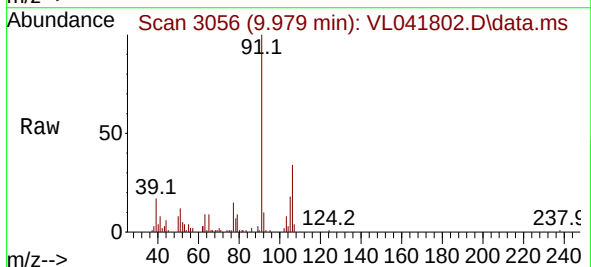
Acq: 18 Dec 2024 19:58

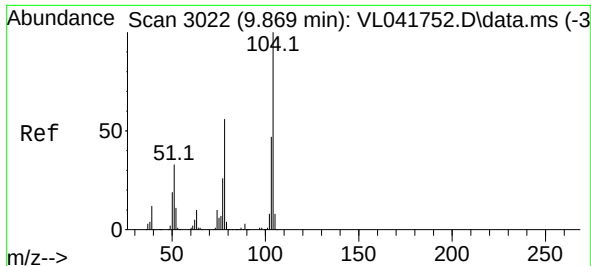
Tgt Ion: 91 Resp: 13407

Ion Ratio Lower Upper

91 100

106 39.9 21.1 63.4

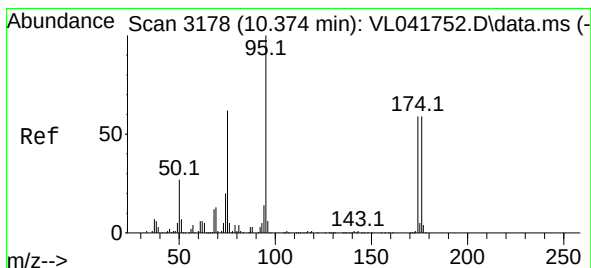
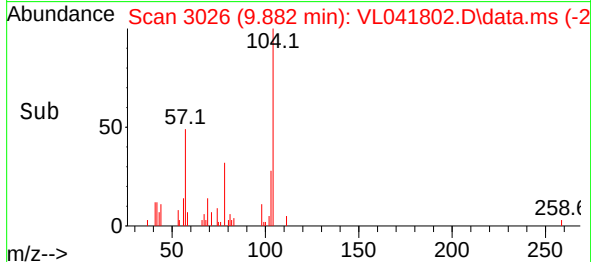
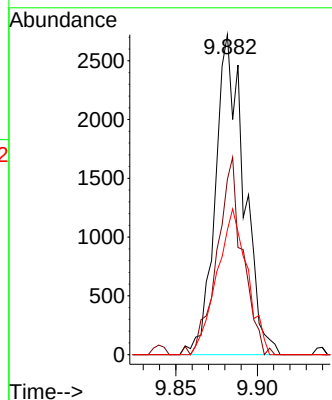
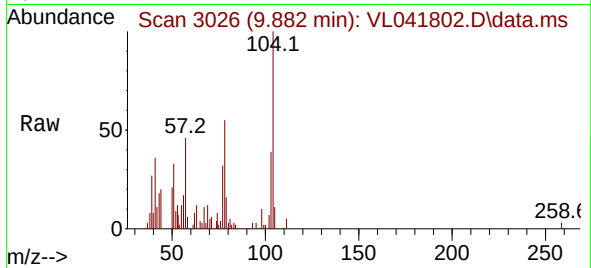




#61
Styrene
Concen: 0.287 ppbv
RT: 9.882 min Scan# 3022
Delta R.T. 0.013 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

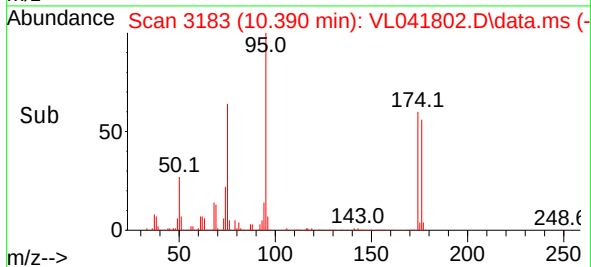
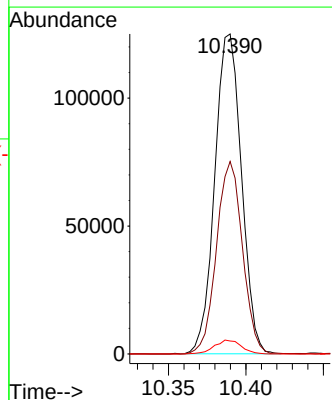
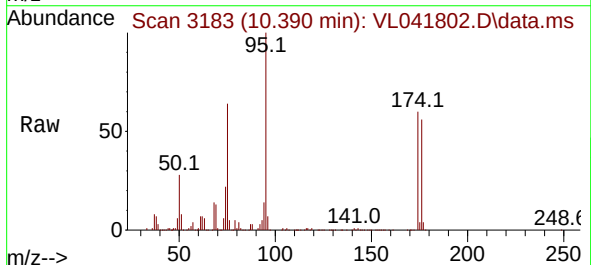
Instrument :
MSVOA_L
ClientSampleId :
C0AB6

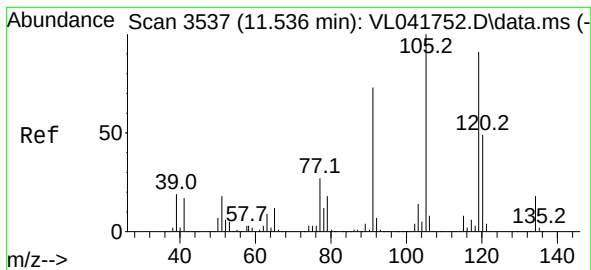
Tgt Ion:104 Resp: 3334
Ion Ratio Lower Upper
104 100
78 55.8 43.8 65.6
103 48.0 37.8 56.6



#68
1-Bromo-4-Fluorobenzene
Concen: 9.722 ppbv
RT: 10.390 min Scan# 3183
Delta R.T. 0.016 min
Lab File: VL041802.D
Acq: 18 Dec 2024 19:58

Tgt Ion: 95 Resp: 150031
Ion Ratio Lower Upper
95 100
174 58.6 47.6 71.4
175 4.4 3.7 5.5





#74

1,2,4-Trimethylbenzene

Concen: 0.069 ppbv

RT: 11.548 min Scan# 3541

Delta R.T. 0.013 min

Lab File: VL041802.D

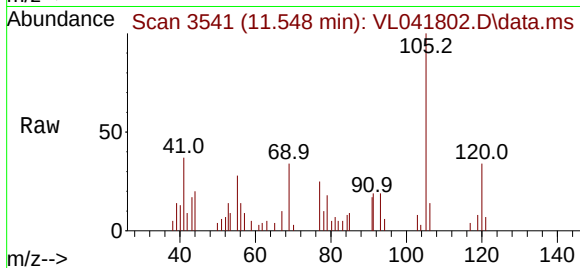
Acq: 18 Dec 2024 19:58

Instrument :

MSVOA_L

ClientSampleId :

C0AB6



Tgt Ion:105 Resp: 1962

Ion Ratio Lower Upper

105 100

120 33.9 39.0 58.4#

91 35.4 58.1 87.1#

77 25.3 21.8 32.8

