

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL051623\
 Data File : VL040450.D
 Acq On : 16 May 2023 23:15
 Operator : SY/MD
 Sample : 02793-04DL 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4DL

Quant Time: May 17 05:18:51 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL051623AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed May 17 05:12:40 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	5.208	49	931734	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.674	114	2306342	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.494	117	2120700	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.802	95	1777782	10.426	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.300%

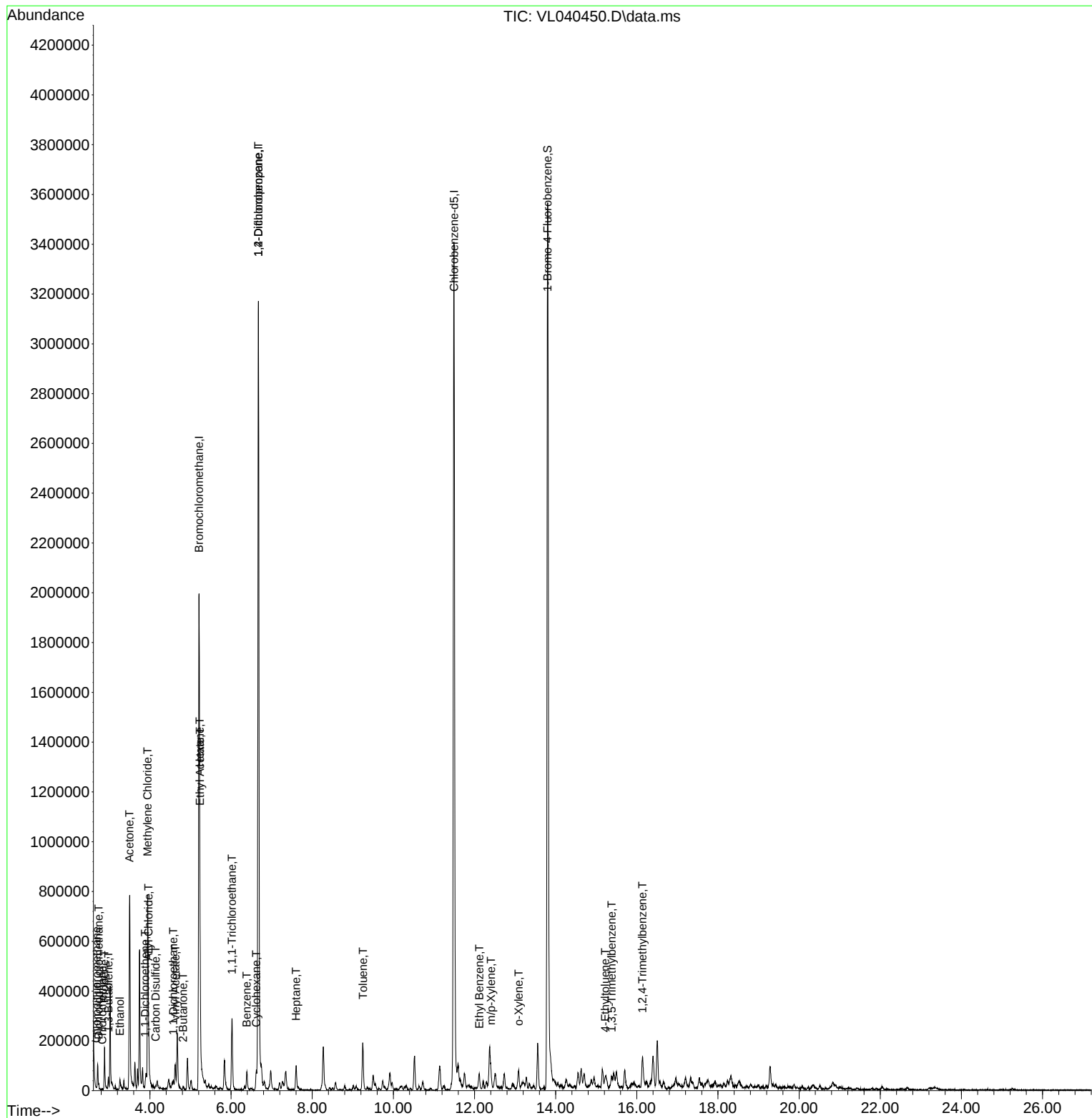
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.739	85	7980	0.044	ppbv	96
3) Chlorodifluoromethane	2.681	51	5715	0.047	ppbv	98
4) Chloromethane	2.822	50	2975	0.040	ppbv #	67
9) Propene	2.880	41	43824	0.936	ppbv	93
10) Heptane	7.603	43	30401	0.281	ppbv	100
13) Ethanol	3.259	45	34958	9.854	ppbv	71
15) Acetone	3.497	43	424059	3.598	ppbv #	78
16) 1,3-Butadiene	2.977	39	12957	0.239	ppbv #	22
18) 1,1-Dichloroethene	3.883	96	4928	0.092	ppbv #	64
20) Methylene Chloride	3.944	84	267738	5.099	ppbv	94
21) Allyl Chloride	3.964	41	22940	0.304	ppbv #	59
23) Vinyl Acetate	4.626	43	11000	0.338	ppbv #	1
24) 1,1-Dichloroethane	4.578	63	22602	0.203	ppbv #	97
25) Ethyl Acetate	5.230	43	111772	0.504	ppbv #	77
26) Hexane	5.227	57	154392	1.678	ppbv #	37
27) Carbon Disulfide	4.144	76	4669	0.039	ppbv #	1
30) Cyclohexane	6.619	84	14731	0.197	ppbv #	62
32) 1,1,1-Trichloroethane	6.021	97	176273	1.011	ppbv	98
34) 2-Butanone	4.816	43	6729	0.055	ppbv #	53
36) Benzene	6.388	78	31551	0.168	ppbv	92
39) 1,2-Dichloropropane	6.674	63	605533	8.253	ppbv #	23
53) Toluene	9.250	91	138971	0.702	ppbv	98
58) Ethyl Benzene	12.118	91	28211	0.105	ppbv	91
59) m/p-Xylene	12.407	91	20225	0.083	ppbv #	32
60) o-Xylene	13.089	91	56940	0.244	ppbv	100
72) 4-Ethyltoluene	15.224	105	23327	0.088	ppbv #	73
73) 1,3,5-Trimethylbenzene	15.378	105	14647	0.060	ppbv	97
74) 1,2,4-Trimethylbenzene	16.137	105	43890	0.157	ppbv #	72

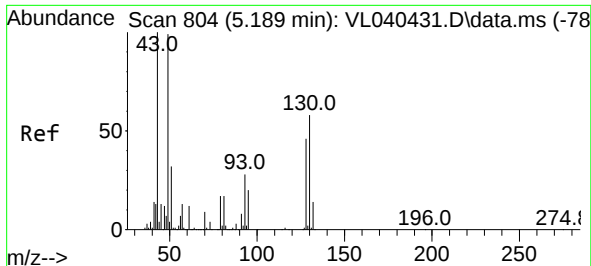
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: May 17 05:18:51 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL051623AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Wed May 17 05:12:40 2023
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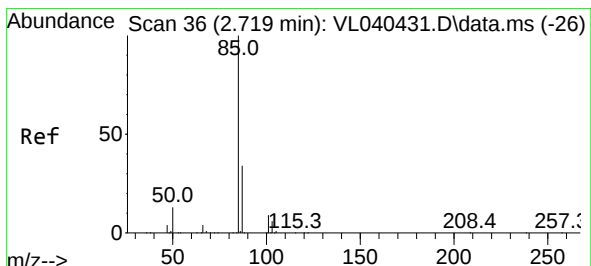
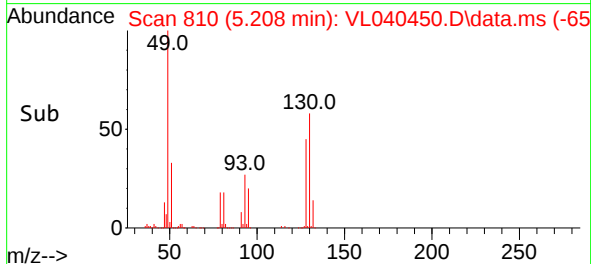
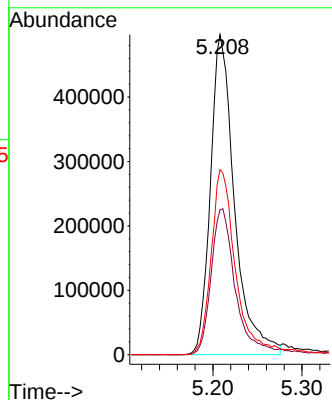
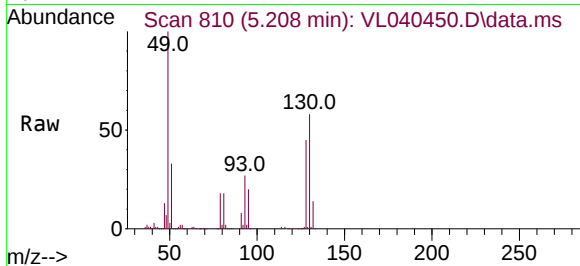




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.208 min Scan# 81
Delta R.T. 0.003 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

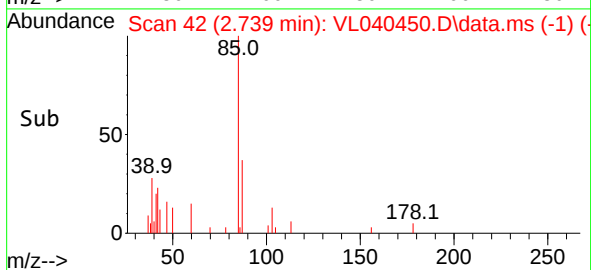
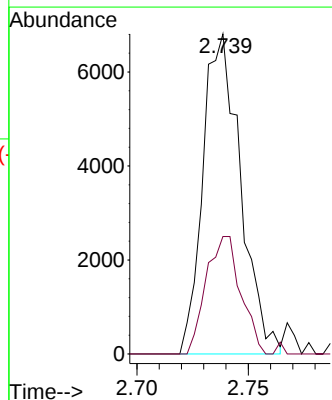
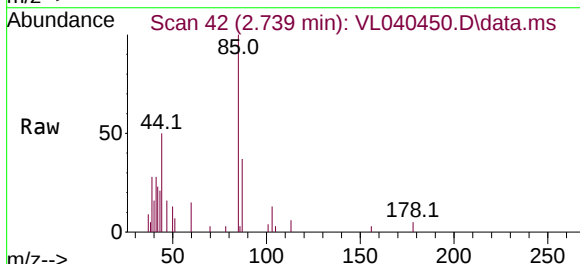
Instrument :
MSVOA_L
ClientSampleId :
SG-4DL

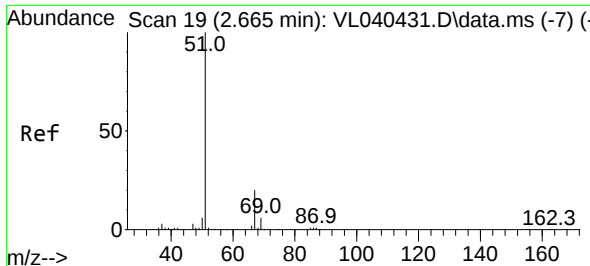
Tgt Ion: 49 Resp: 931734
Ion Ratio Lower Upper
49 100
128 48.2 24.3 72.8
130 60.7 30.2 90.6



#2
Dichlorodifluoromethane
Concen: 0.044 ppbv
RT: 2.739 min Scan# 42
Delta R.T. 0.010 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

Tgt Ion: 85 Resp: 7980
Ion Ratio Lower Upper
85 100
87 36.7 27.4 41.0

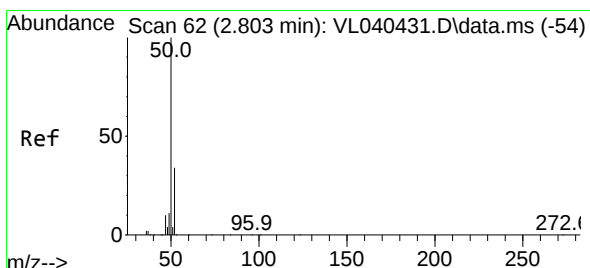
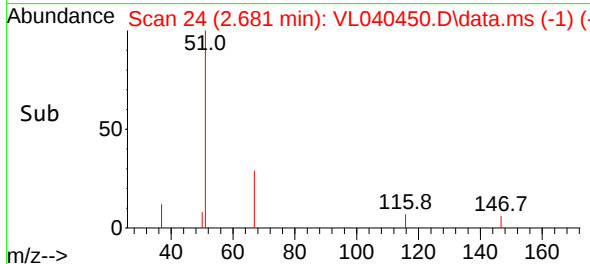
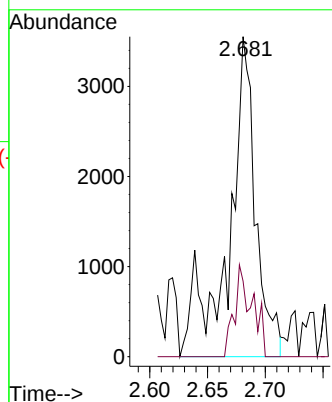
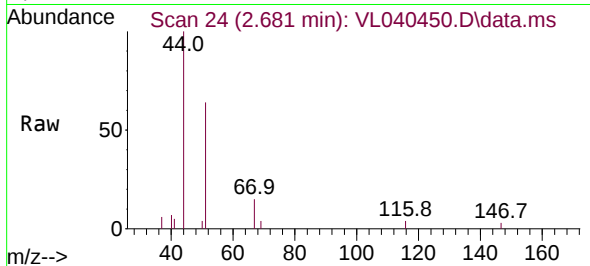




#3
Chlorodifluoromethane
Concen: 0.047 ppbv
RT: 2.681 min Scan# 24
Delta R.T. 0.007 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

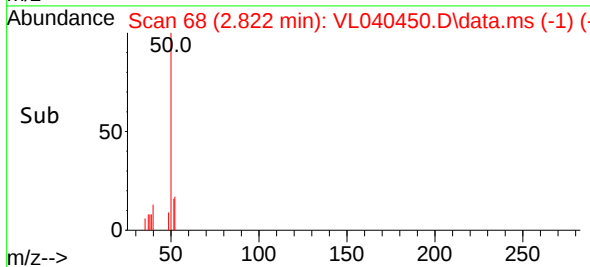
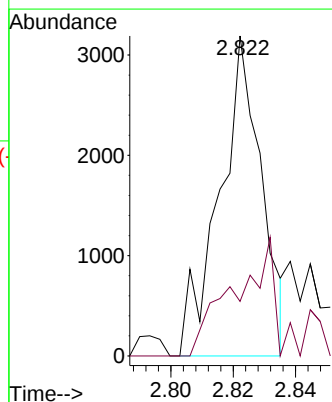
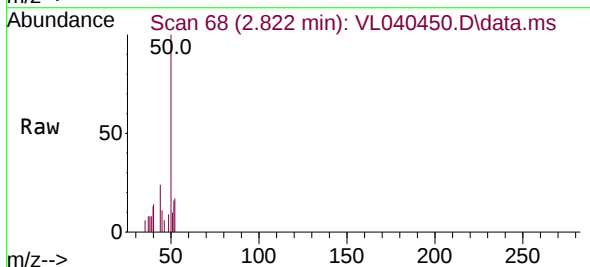
Instrument :
MSVOA_L
ClientSampleId :
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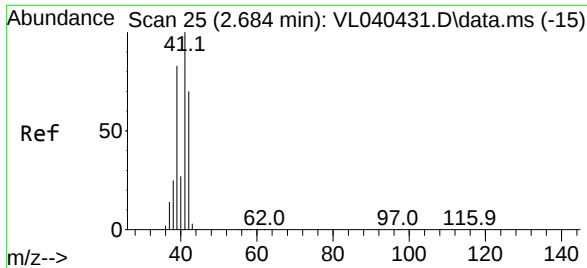
Tgt Ion: 51 Resp: 5715
Ion Ratio Lower Upper
51 100
67 19.0 15.8 23.6



#4
Chloromethane
Concen: 0.040 ppbv
RT: 2.822 min Scan# 68
Delta R.T. 0.010 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

Tgt Ion: 50 Resp: 2975
Ion Ratio Lower Upper
50 100
52 15.5 27.6 41.4#

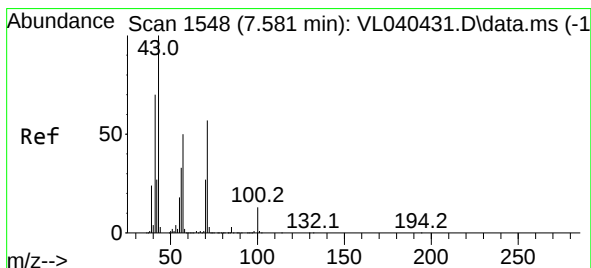
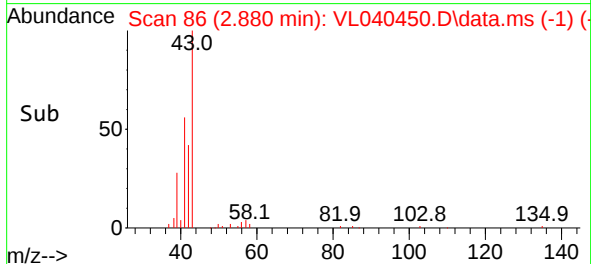
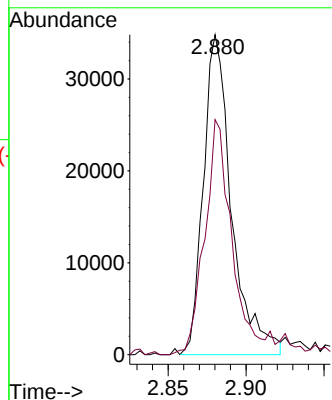
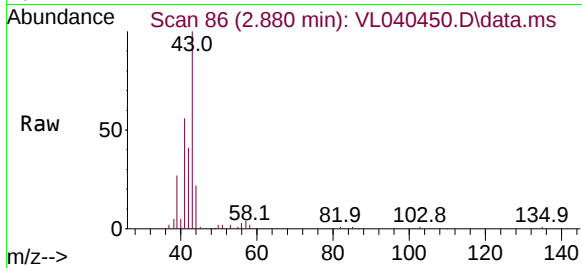




#9
Propene
Concen: 0.936 ppbv
RT: 2.880 min Scan# 80
Delta R.T. 0.187 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

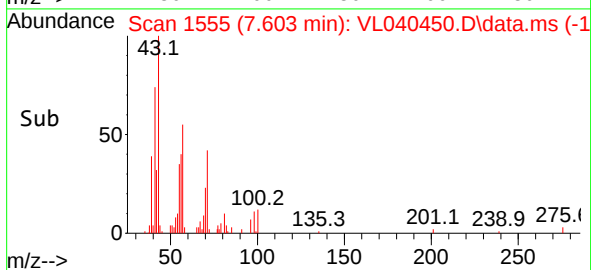
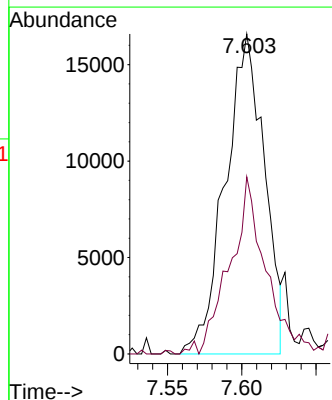
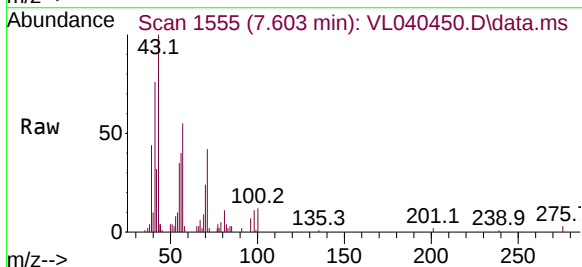
Instrument :
MSVOA_L
ClientSampleId :
SG-4DL

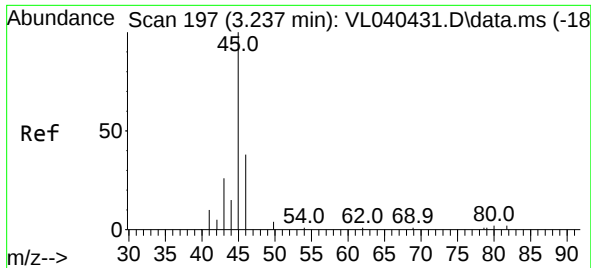
Tgt Ion: 41 Resp: 43824
Ion Ratio Lower Upper
41 100
42 76.3 56.6 84.8



#10
Heptane
Concen: 0.281 ppbv
RT: 7.603 min Scan# 1555
Delta R.T. 0.007 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

Tgt Ion: 43 Resp: 30401
Ion Ratio Lower Upper
43 100
57 52.4 42.2 63.2

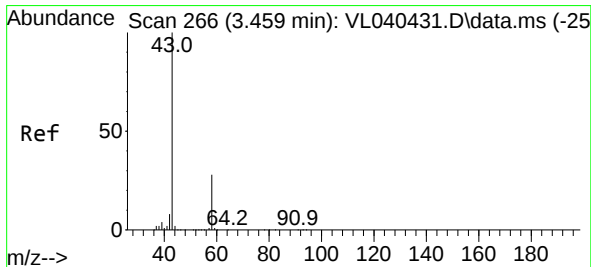
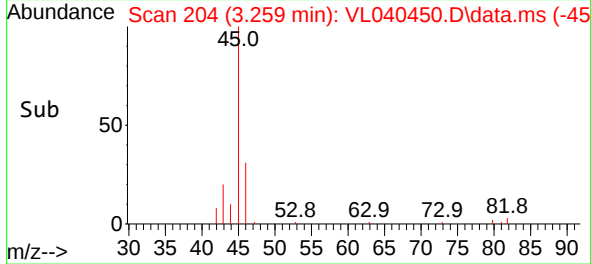
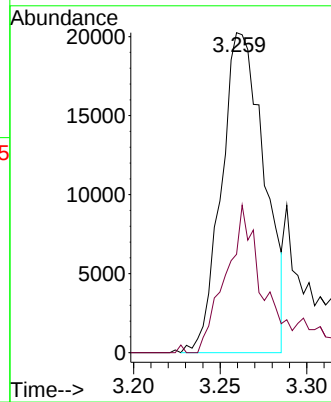
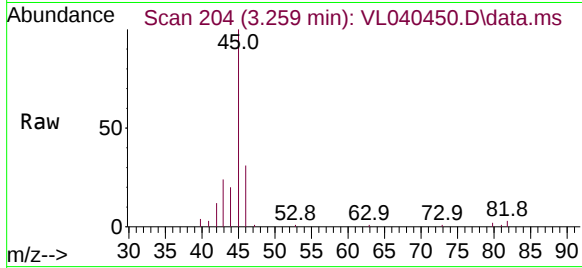




#13
Ethanol
Concen: 9.854 ppbv
RT: 3.259 min Scan# 204
Delta R.T. 0.010 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

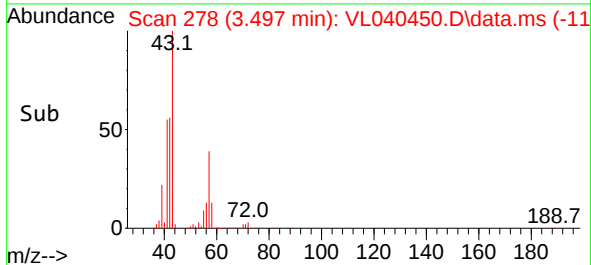
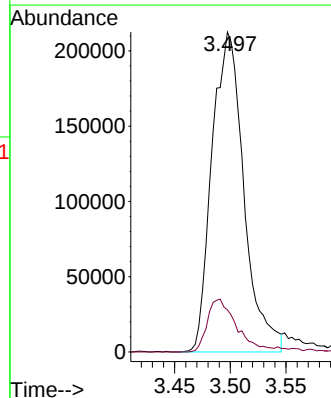
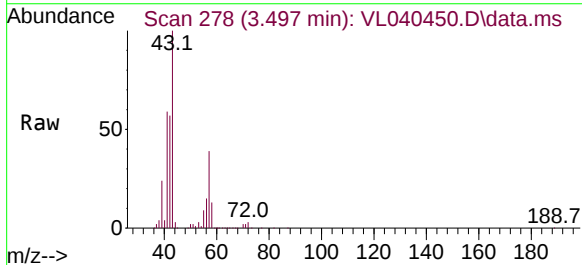
Instrument :
MSVOA_L
ClientSampleId :
SG-4DL

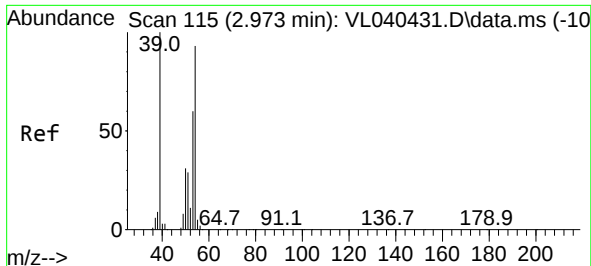
Tgt Ion: 45 Resp: 34958
Ion Ratio Lower Upper
45 100
46 49.5 13.2 52.8



#15
Acetone
Concen: 3.598 ppbv
RT: 3.497 min Scan# 278
Delta R.T. 0.029 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

Tgt Ion: 43 Resp: 424059
Ion Ratio Lower Upper
43 100
58 16.3 22.2 33.4#





#16

1,3-Butadiene

Concen: 0.239 ppbv

RT: 2.977 min Scan# 115

Delta R.T. -0.009 min

Lab File: VL040450.D

Acq: 16 May 2023 23:15

Instrument :

MSVOA_L

ClientSampleId :

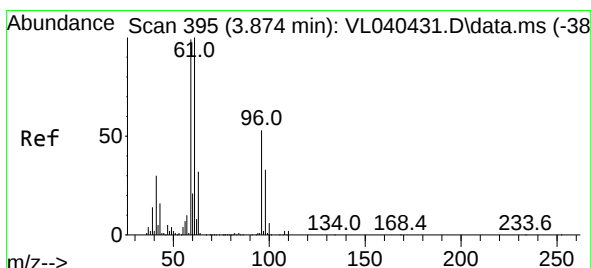
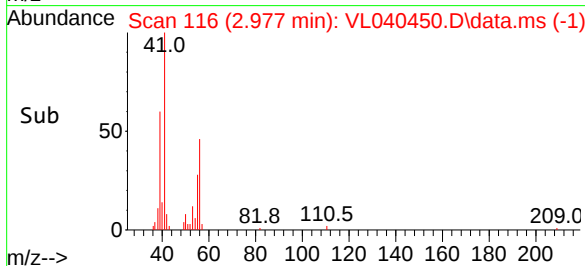
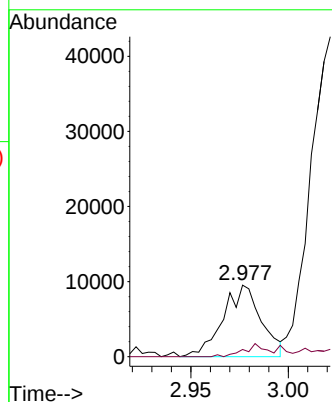
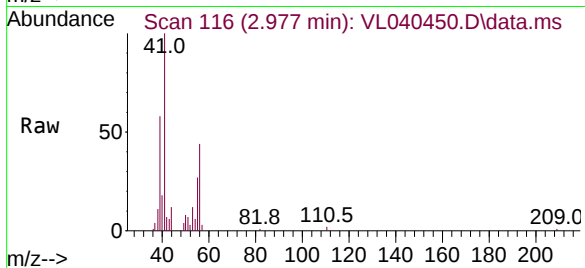
SG-4DL

Tgt Ion: 39 Resp: 12957

Ion Ratio Lower Upper

39 100

54 14.2 68.9 103.3#



#18

1,1-Dichloroethene

Concen: 0.092 ppbv

RT: 3.883 min Scan# 398

Delta R.T. -0.003 min

Lab File: VL040450.D

Acq: 16 May 2023 23:15

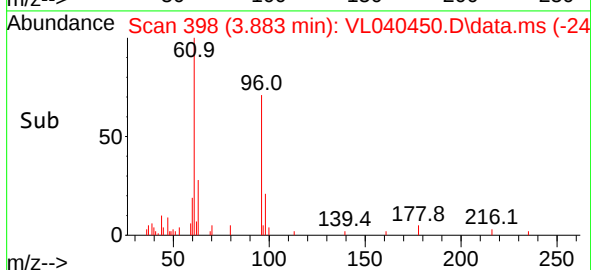
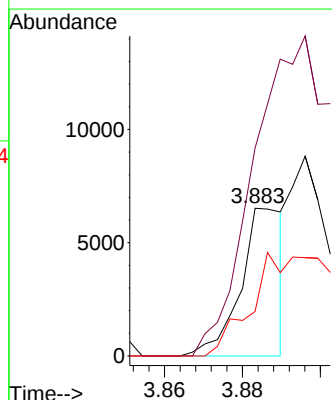
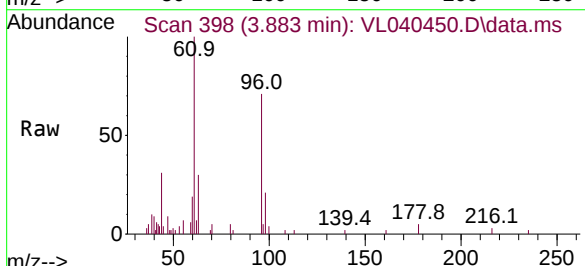
Tgt Ion: 96 Resp: 4928

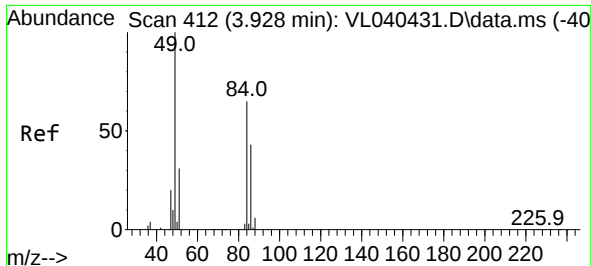
Ion Ratio Lower Upper

96 100

61 140.8 151.8 227.8#

98 30.1 50.5 75.7#





#20

Methylene Chloride

Concen: 5.099 ppbv

RT: 3.944 min Scan# 412

Delta R.T. 0.007 min

Lab File: VL040450.D

Acq: 16 May 2023 23:15

Instrument :

MSVOA_L

ClientSampleId :

SG-4DL

Tgt Ion: 84 Resp: 267738

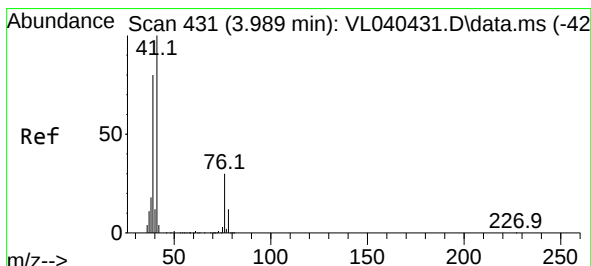
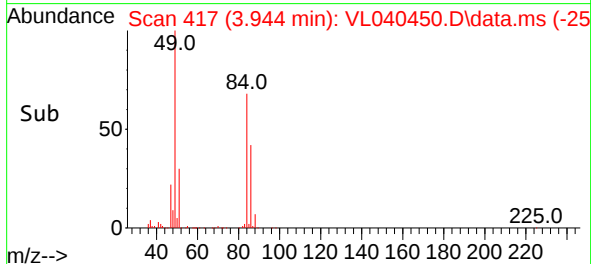
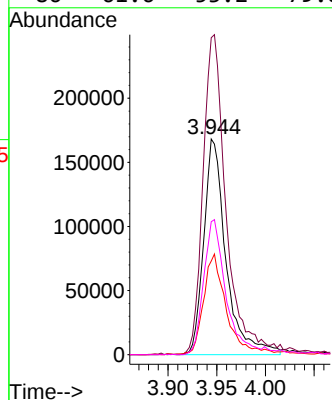
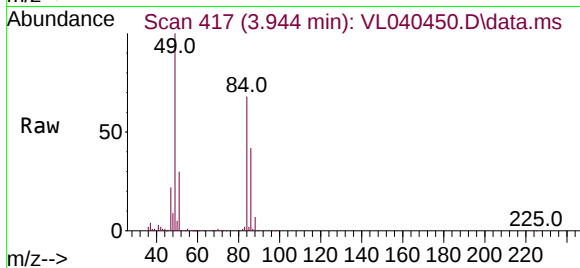
Ion Ratio Lower Upper

84 100

49 146.8 123.7 185.5

51 43.1 38.6 57.8

86 61.6 53.2 79.8



#21

Allyl Chloride

Concen: 0.304 ppbv

RT: 3.964 min Scan# 423

Delta R.T. -0.038 min

Lab File: VL040450.D

Acq: 16 May 2023 23:15

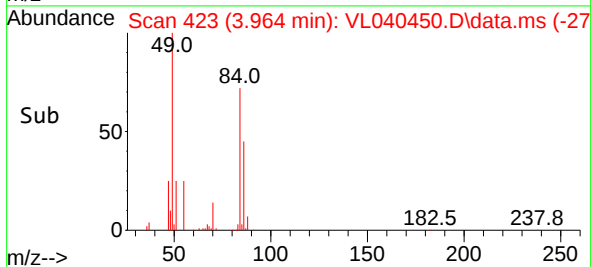
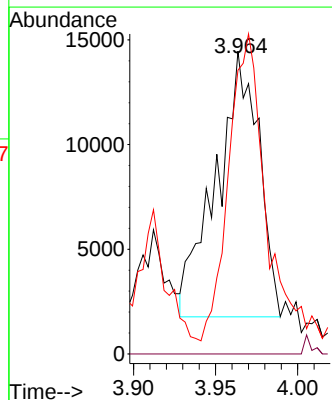
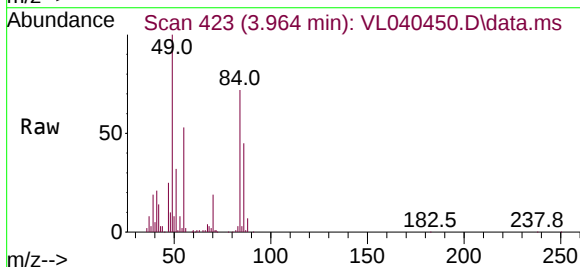
Tgt Ion: 41 Resp: 22940

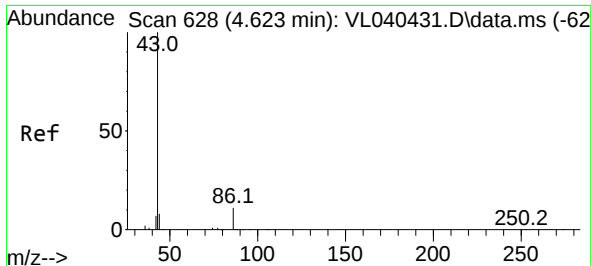
Ion Ratio Lower Upper

41 100

76 0.0 25.3 37.9#

39 109.6 63.5 95.3#

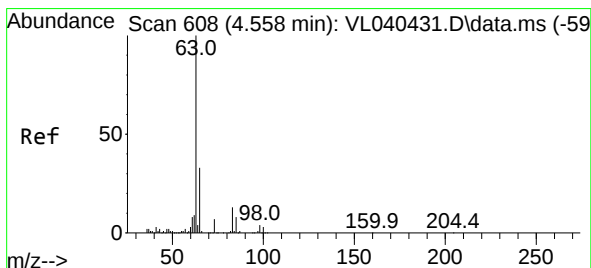
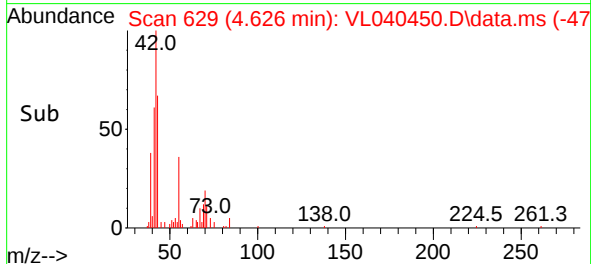
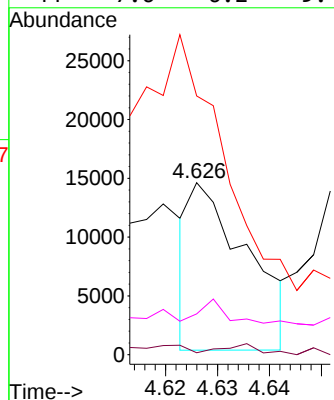
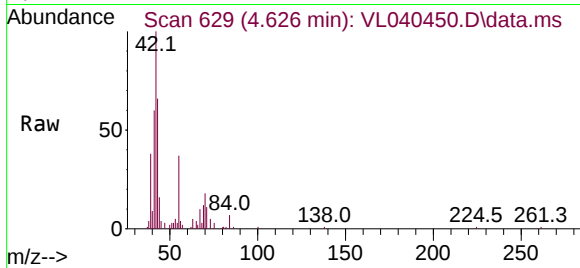




#23
 Vinyl Acetate
 Concen: 0.338 ppbv
 RT: 4.626 min Scan# 614
 Delta R.T. -0.009 min
 Lab File: VL040450.D
 Acq: 16 May 2023 23:15

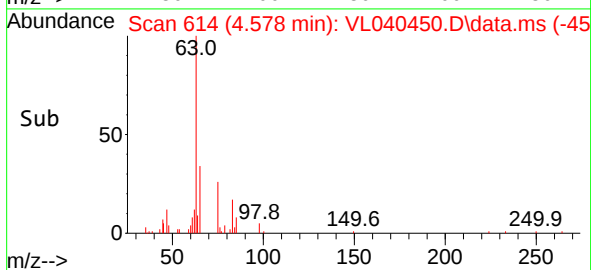
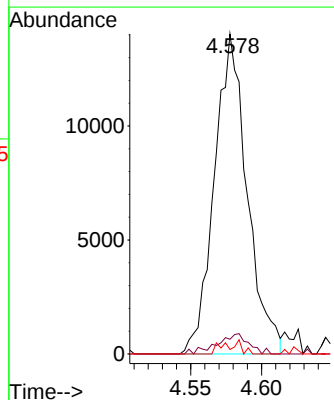
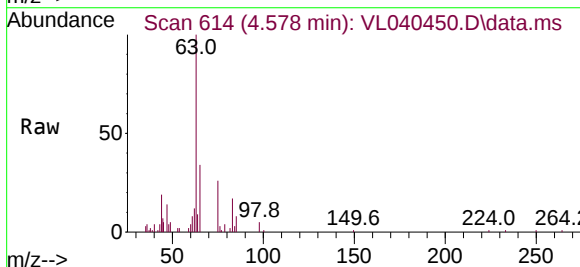
Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4DL

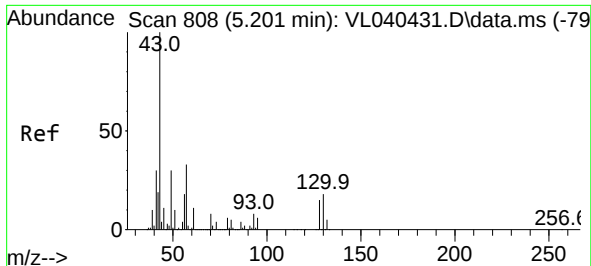
Tgt Ion: 43	Resp: 11000
Ion Ratio	Lower Upper
43	100
86	0.0 5.4 8.2#
42	166.8 7.8 11.6#
44	7.6 6.2 9.4



#24
 1,1-Dichloroethane
 Concen: 0.203 ppbv
 RT: 4.578 min Scan# 614
 Delta R.T. 0.007 min
 Lab File: VL040450.D
 Acq: 16 May 2023 23:15

Tgt Ion: 63	Resp: 22602
Ion Ratio	Lower Upper
63	100
98	4.2 2.0 5.8
100	1.3 1.4 4.2#





#25

Ethyl Acetate

Concen: 0.504 ppbv

RT: 5.230 min Scan# 817

Delta R.T. 0.016 min

Lab File: VL040450.D

Acq: 16 May 2023 23:15

Instrument :

MSVOA_L

ClientSampleId :

SG-4DL

Tgt Ion: 43 Resp: 111772

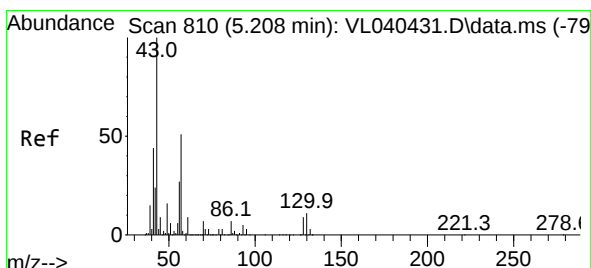
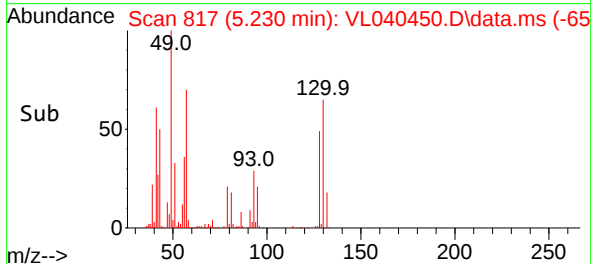
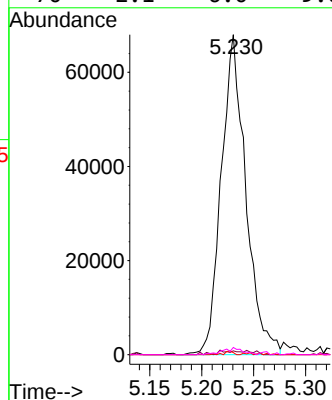
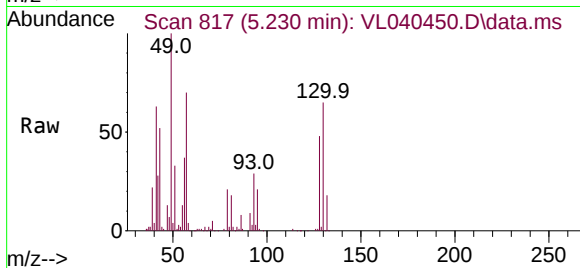
Ion Ratio Lower Upper

43 100

45 1.7 8.6 13.0#

61 0.7 8.6 12.8#

70 2.1 6.0 9.0#



#26

Hexane

Concen: 1.678 ppbv

RT: 5.227 min Scan# 816

Delta R.T. 0.003 min

Lab File: VL040450.D

Acq: 16 May 2023 23:15

Tgt Ion: 57 Resp: 154392

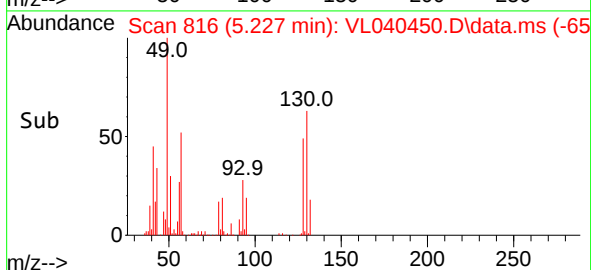
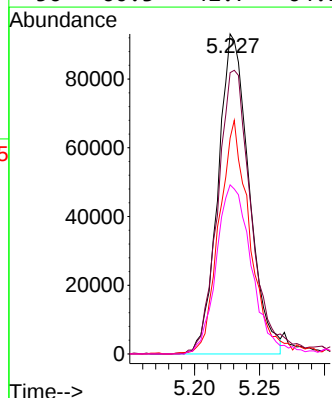
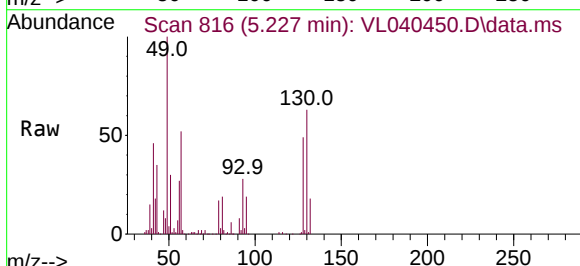
Ion Ratio Lower Upper

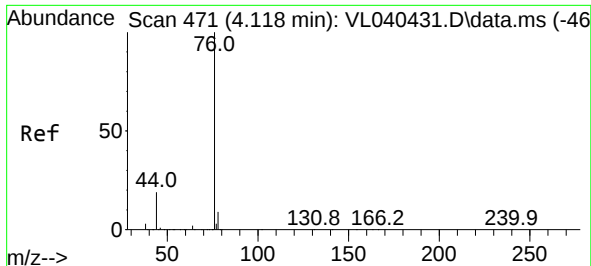
57 100

41 96.3 75.1 112.7

43 73.8 194.4 291.6#

56 60.3 42.7 64.1

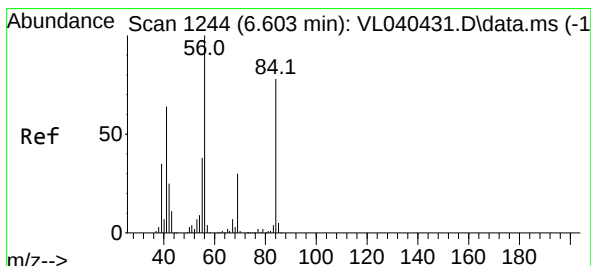
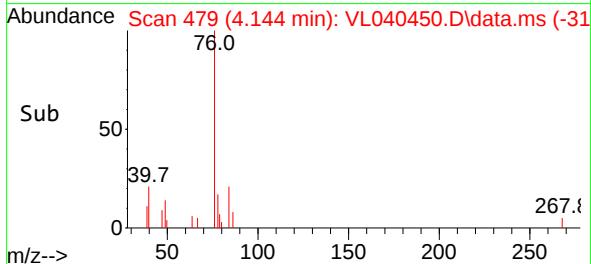
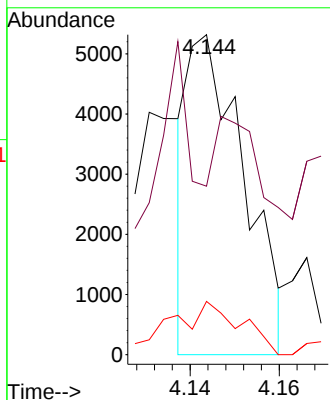
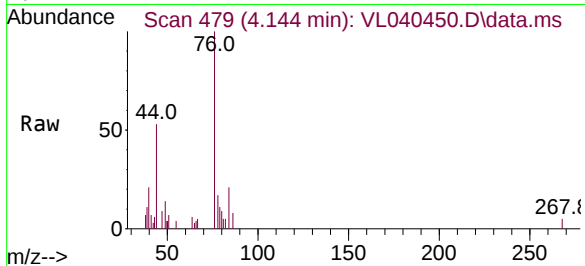




#27
Carbon Disulfide
Concen: 0.039 ppbv
RT: 4.144 min Scan# 41
Delta R.T. 0.013 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

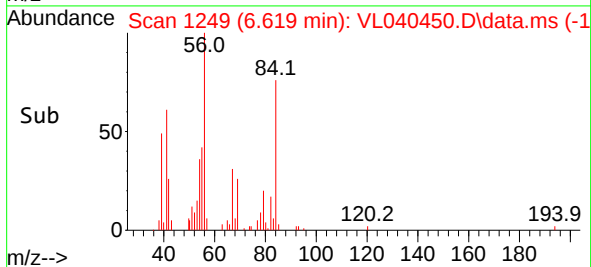
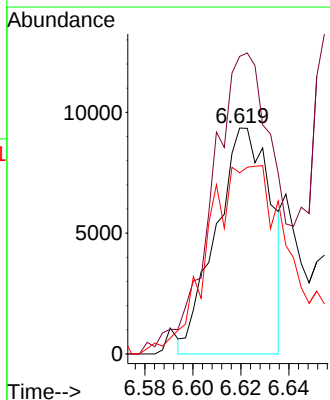
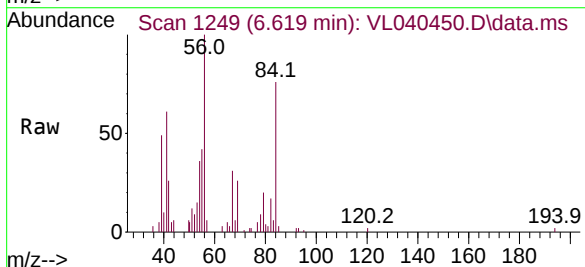
Instrument :
MSVOA_L
ClientSampleId :
SG-4DL

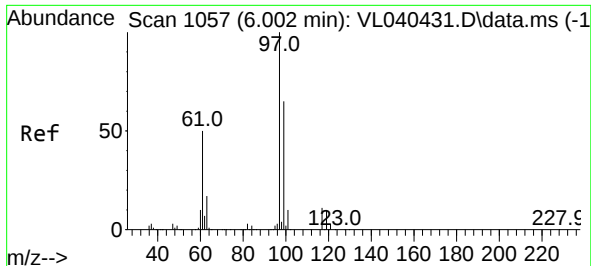
Tgt Ion: 76 Resp: 4669
Ion Ratio Lower Upper
76 100
44 115.2 15.3 22.9#
78 25.6 7.4 11.2#



#30
Cyclohexane
Concen: 0.197 ppbv
RT: 6.619 min Scan# 1249
Delta R.T. 0.003 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

Tgt Ion: 84 Resp: 14731
Ion Ratio Lower Upper
84 100
56 157.7 108.2 162.4
41 144.9 66.9 100.3#



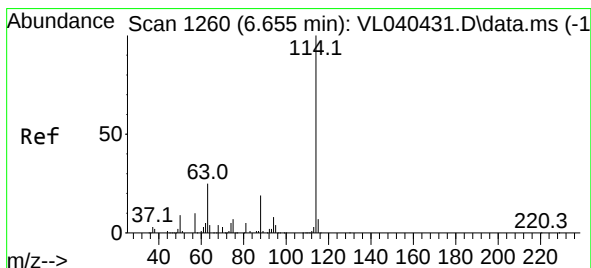
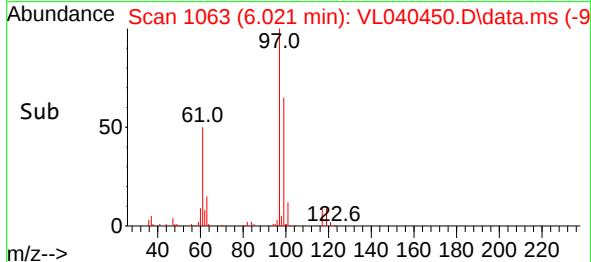
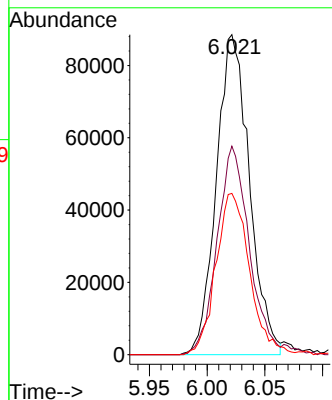
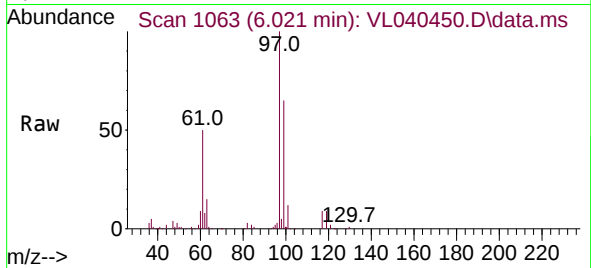


#32
 1,1,1-Trichloroethane
 Concen: 1.011 ppbv
 RT: 6.021 min Scan# 1063
 Delta R.T. 0.007 min
 Lab File: VL040450.D
 Acq: 16 May 2023 23:15

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4DL

Tgt Ion: 97 Resp: 176273

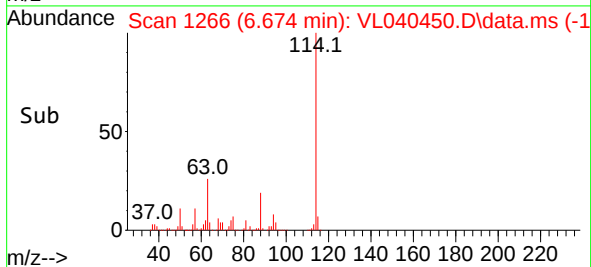
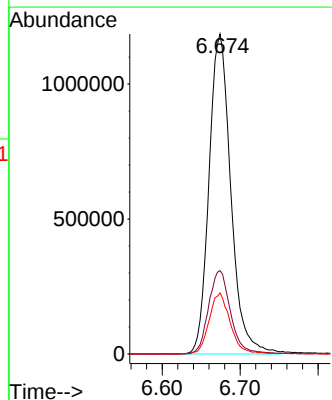
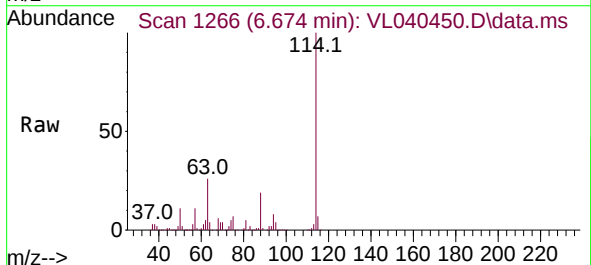
Ion	Ratio	Lower	Upper
97	100		
99	64.4	52.2	78.2
61	51.9	40.2	60.4

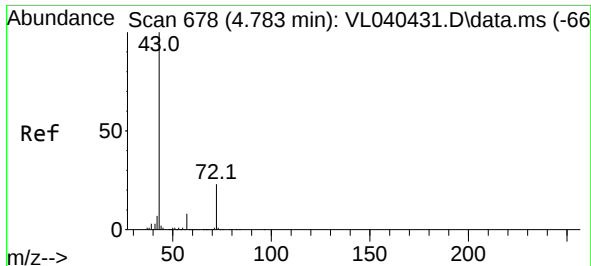


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 6.674 min Scan# 1266
 Delta R.T. 0.003 min
 Lab File: VL040450.D
 Acq: 16 May 2023 23:15

Tgt Ion: 114 Resp: 2306342

Ion	Ratio	Lower	Upper
114	100		
63	26.5	21.0	31.6
88	18.6	14.6	22.0

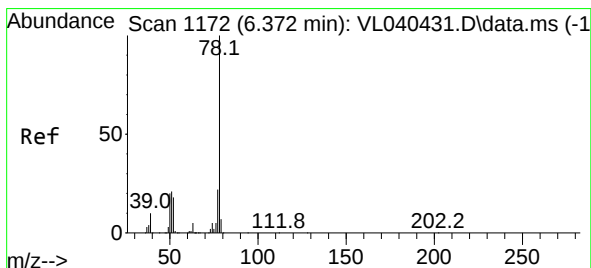
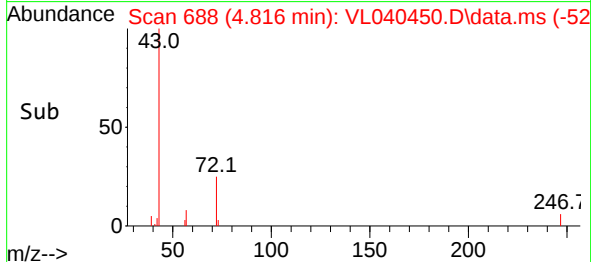
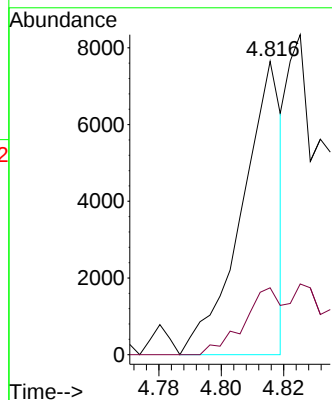
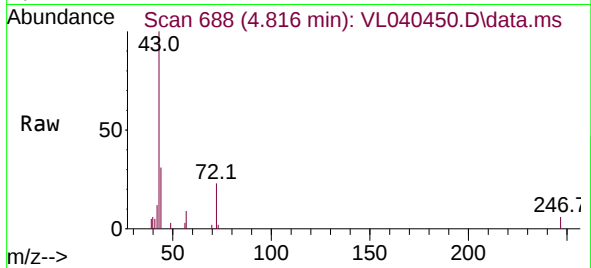




#34
2-Butanone
Concen: 0.055 ppbv
RT: 4.816 min Scan# 61
Delta R.T. 0.019 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

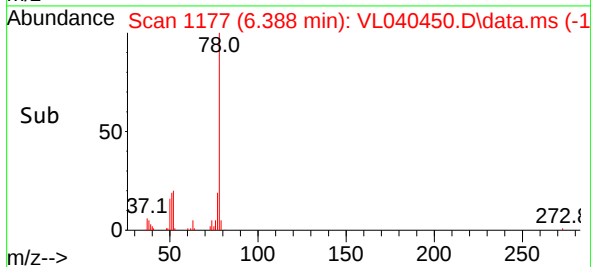
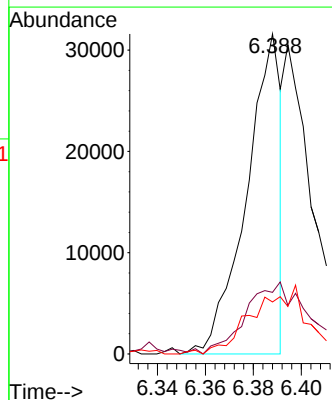
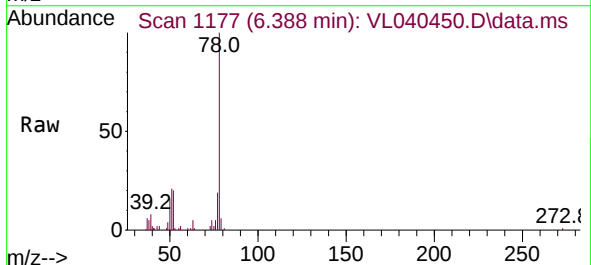
Instrument :
MSVOA_L
ClientSampleId :
SG-4DL

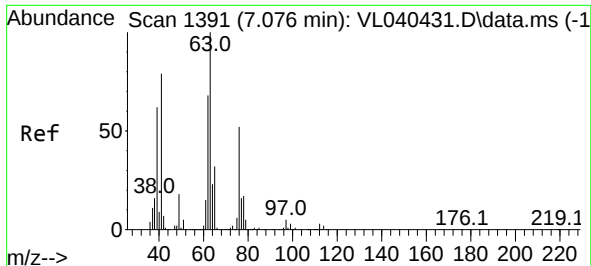
Tgt Ion: 43 Resp: 6729
Ion Ratio Lower Upper
43 100
72 0.0 18.3 27.5#



#36
Benzene
Concen: 0.168 ppbv
RT: 6.388 min Scan# 1177
Delta R.T. 0.003 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

Tgt Ion: 78 Resp: 31551
Ion Ratio Lower Upper
78 100
77 18.1 17.7 26.5
50 16.3 15.8 23.8





#39

1,2-Dichloropropane

Concen: 8.253 ppbv

RT: 6.674 min Scan# 1

Delta R.T. -0.415 min

Lab File: VL040450.D

Acq: 16 May 2023 23:15

Instrument :

MSVOA_L

ClientSampleId :

SG-4DL

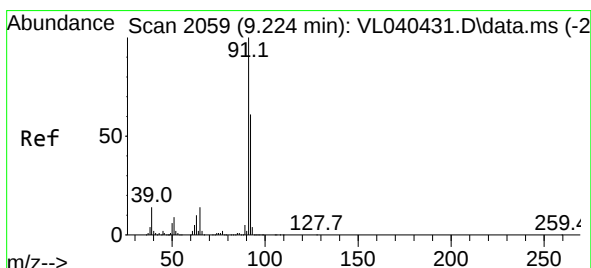
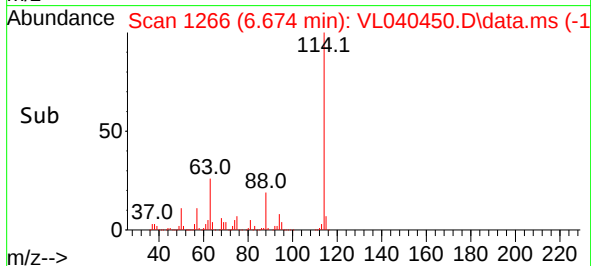
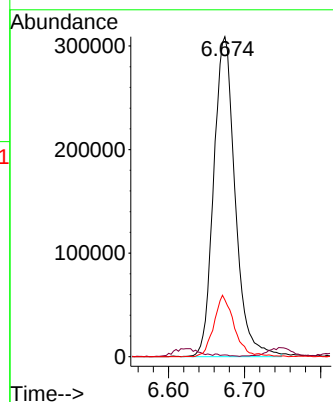
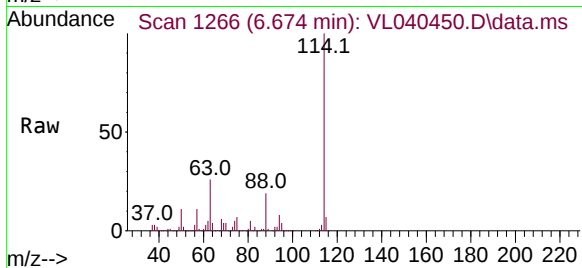
Tgt Ion: 63 Resp: 605533

Ion Ratio Lower Upper

63 100

41 0.0 63.3 94.9#

62 17.8 54.2 81.4#



#53

Toluene

Concen: 0.702 ppbv

RT: 9.250 min Scan# 2067

Delta R.T. 0.007 min

Lab File: VL040450.D

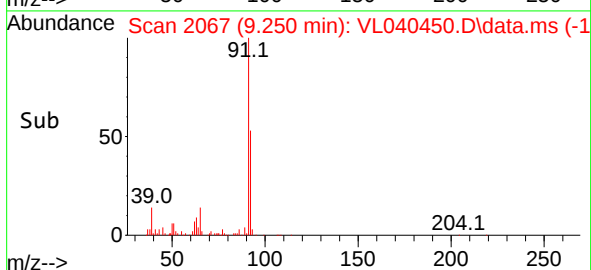
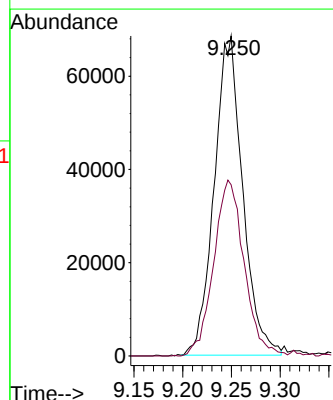
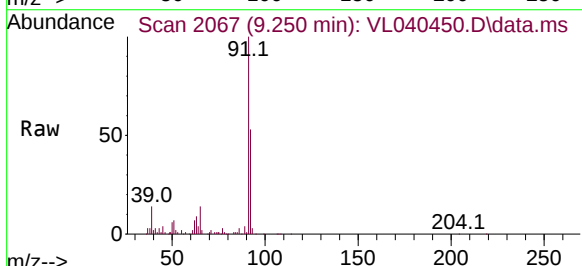
Acq: 16 May 2023 23:15

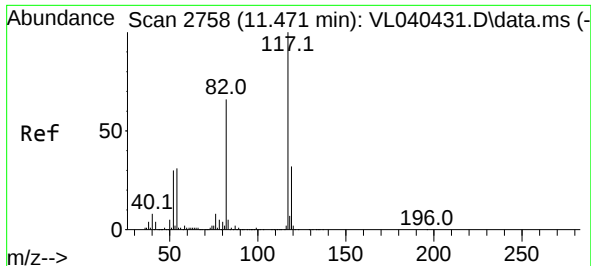
Tgt Ion: 91 Resp: 138971

Ion Ratio Lower Upper

91 100

92 59.6 49.1 73.7

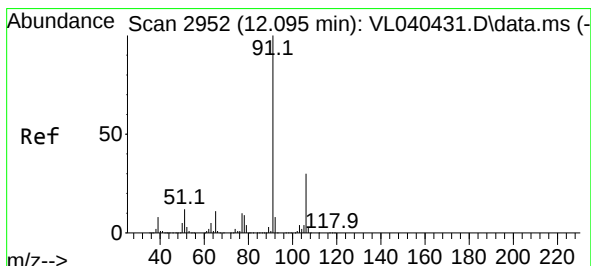
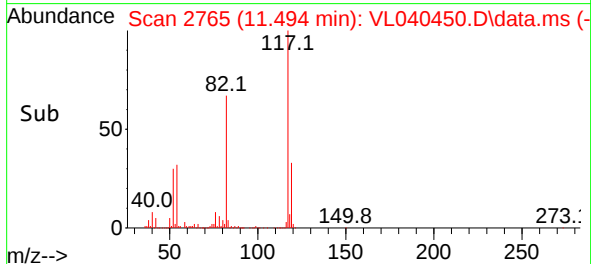
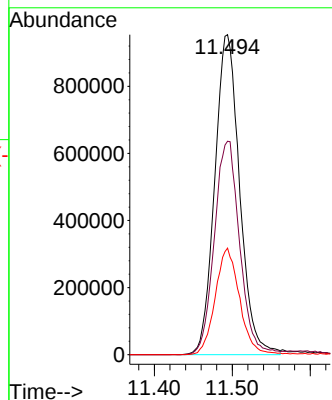
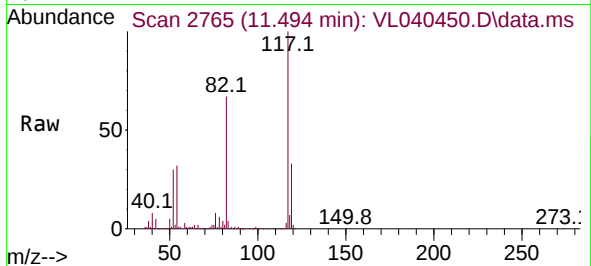




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.494 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

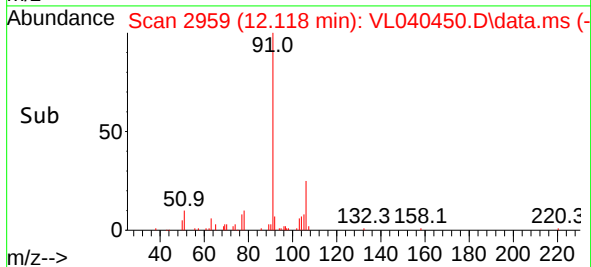
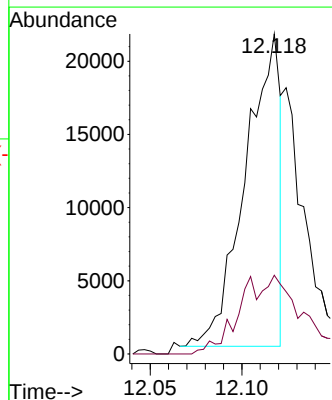
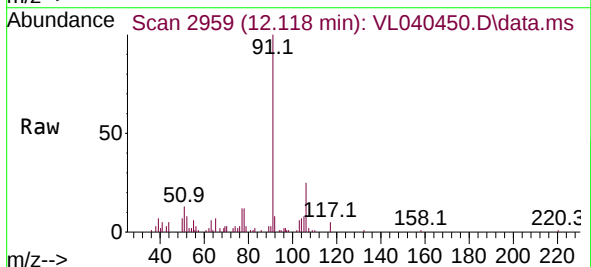
Instrument :
MSVOA_L
ClientSampleId :
SG-4DL

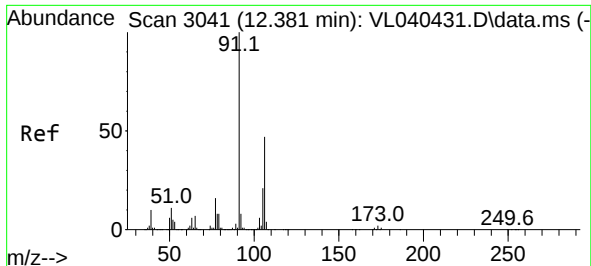
Tgt Ion:117 Resp: 2120700
Ion Ratio Lower Upper
117 100
82 67.9 52.5 78.7
119 32.6 24.0 36.0



#58
Ethyl Benzene
Concen: 0.105 ppbv
RT: 12.118 min Scan# 2959
Delta R.T. 0.007 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

Tgt Ion: 91 Resp: 28211
Ion Ratio Lower Upper
91 100
106 25.2 23.8 35.8





#59

m/p-Xylene

Concen: 0.083 ppbv

RT: 12.407 min Scan# 3041

Delta R.T. 0.010 min

Lab File: VL040450.D

Acq: 16 May 2023 23:15

Instrument :

MSVOA_L

ClientSampleId :

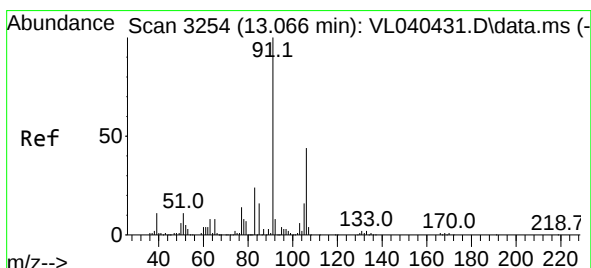
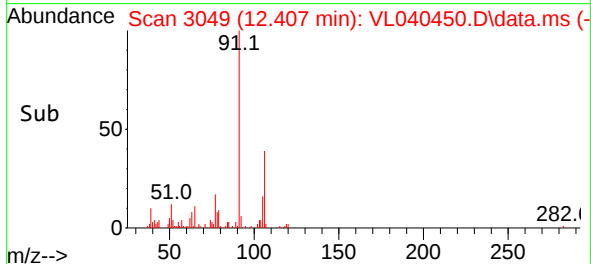
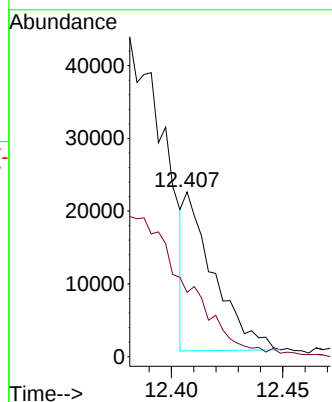
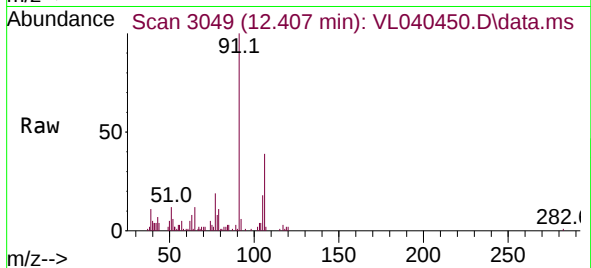
SG-4DL

Tgt Ion: 91 Resp: 20225

Ion Ratio Lower Upper

91 100

106 0.0 34.9 52.3#



#60

o-Xylene

Concen: 0.244 ppbv

RT: 13.089 min Scan# 3261

Delta R.T. 0.007 min

Lab File: VL040450.D

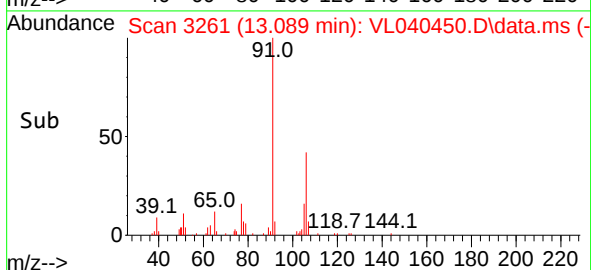
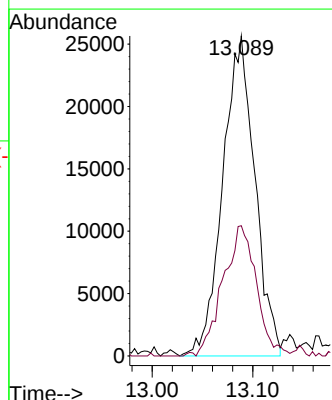
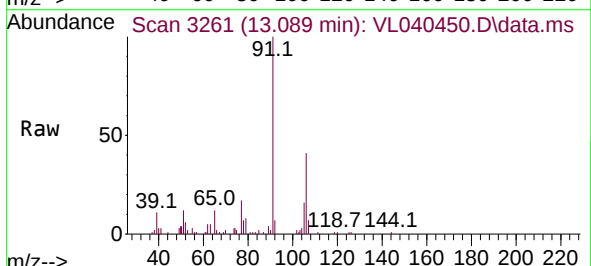
Acq: 16 May 2023 23:15

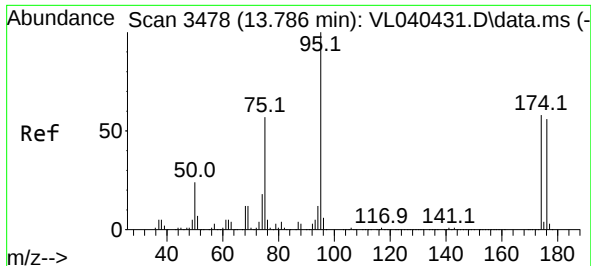
Tgt Ion: 91 Resp: 56940

Ion Ratio Lower Upper

91 100

106 43.4 21.8 65.4





#68

1-Bromo-4-Fluorobenzene

Concen: 10.426 ppbv

RT: 13.802 min Scan# 3478

Delta R.T. 0.003 min

Lab File: VL040450.D

Acq: 16 May 2023 23:15

Instrument :

MSVOA_L

ClientSampleId :

SG-4DL

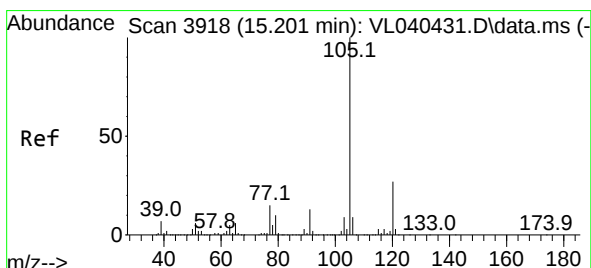
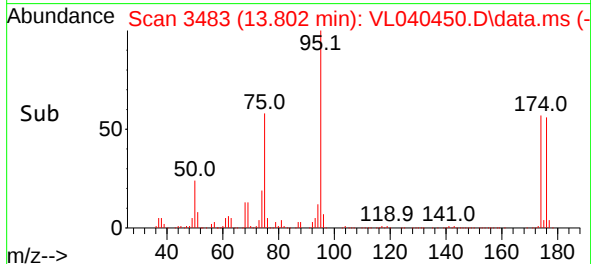
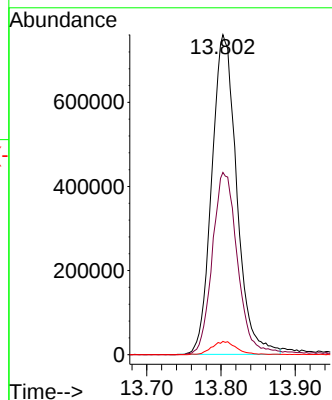
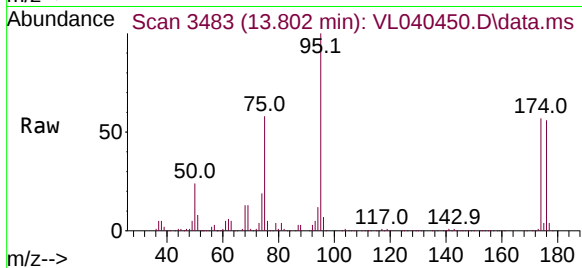
Tgt Ion: 95 Resp: 1777782

Ion Ratio Lower Upper

95 100

174 58.3 47.0 70.6

175 4.2 3.4 5.0



#72

4-Ethyltoluene

Concen: 0.088 ppbv

RT: 15.224 min Scan# 3925

Delta R.T. 0.003 min

Lab File: VL040450.D

Acq: 16 May 2023 23:15

Tgt Ion: 105 Resp: 23327

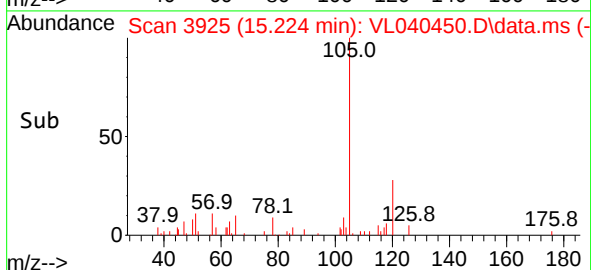
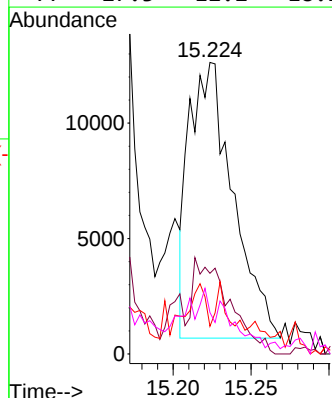
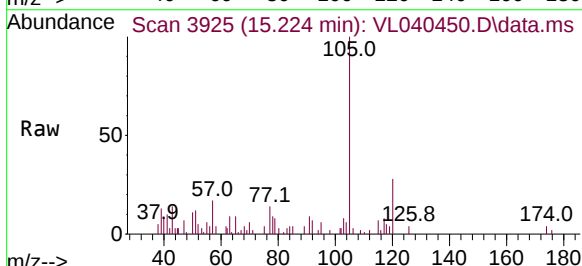
Ion Ratio Lower Upper

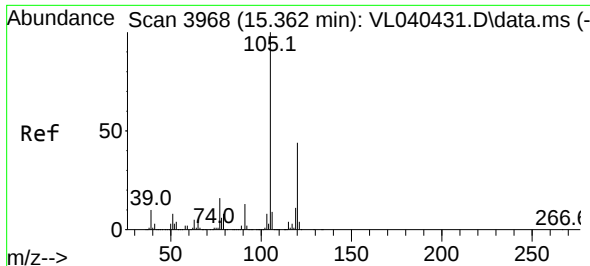
105 100

120 37.5 23.8 35.8#

91 34.9 11.0 16.4#

77 27.3 12.2 18.2#

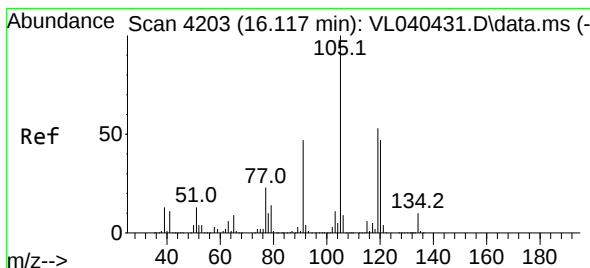
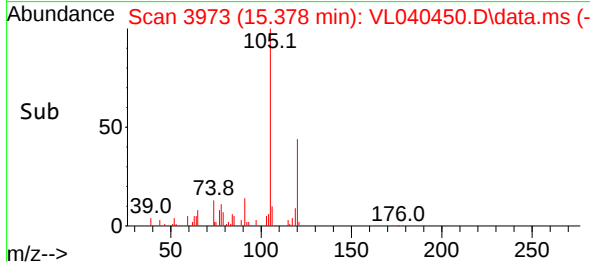
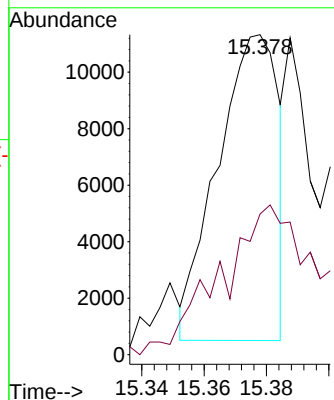
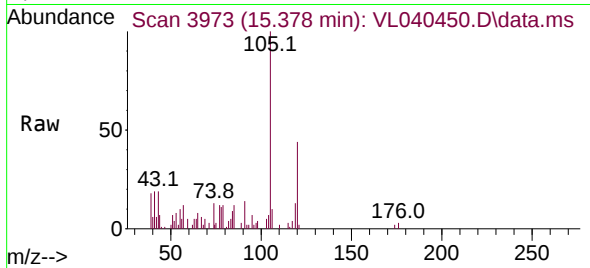




#73
1,3,5-Trimethylbenzene
Concen: 0.060 ppbv
RT: 15.378 min Scan# 3968
Delta R.T. 0.003 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

Instrument :
MSVOA_L
ClientSampleId :
SG-4DL

Tgt Ion:105 Resp: 14647
Ion Ratio Lower Upper
105 100
120 42.3 35.2 52.8



#74
1,2,4-Trimethylbenzene
Concen: 0.157 ppbv
RT: 16.137 min Scan# 4209
Delta R.T. 0.003 min
Lab File: VL040450.D
Acq: 16 May 2023 23:15

Tgt Ion:105 Resp: 43890
Ion Ratio Lower Upper
105 100
120 35.8 38.1 57.1#
91 18.7 40.2 60.2#
77 16.7 19.0 28.4#

