

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL041923\
 Data File : VL040382.D
 Acq On : 19 Apr 2023 16:34
 Operator : SY/MD
 Sample : 02368-06
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AP-2A

Quant Time: Apr 20 05:11:26 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041323AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Apr 13 14:37:02 2023
 Response via : Initial Calibration

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

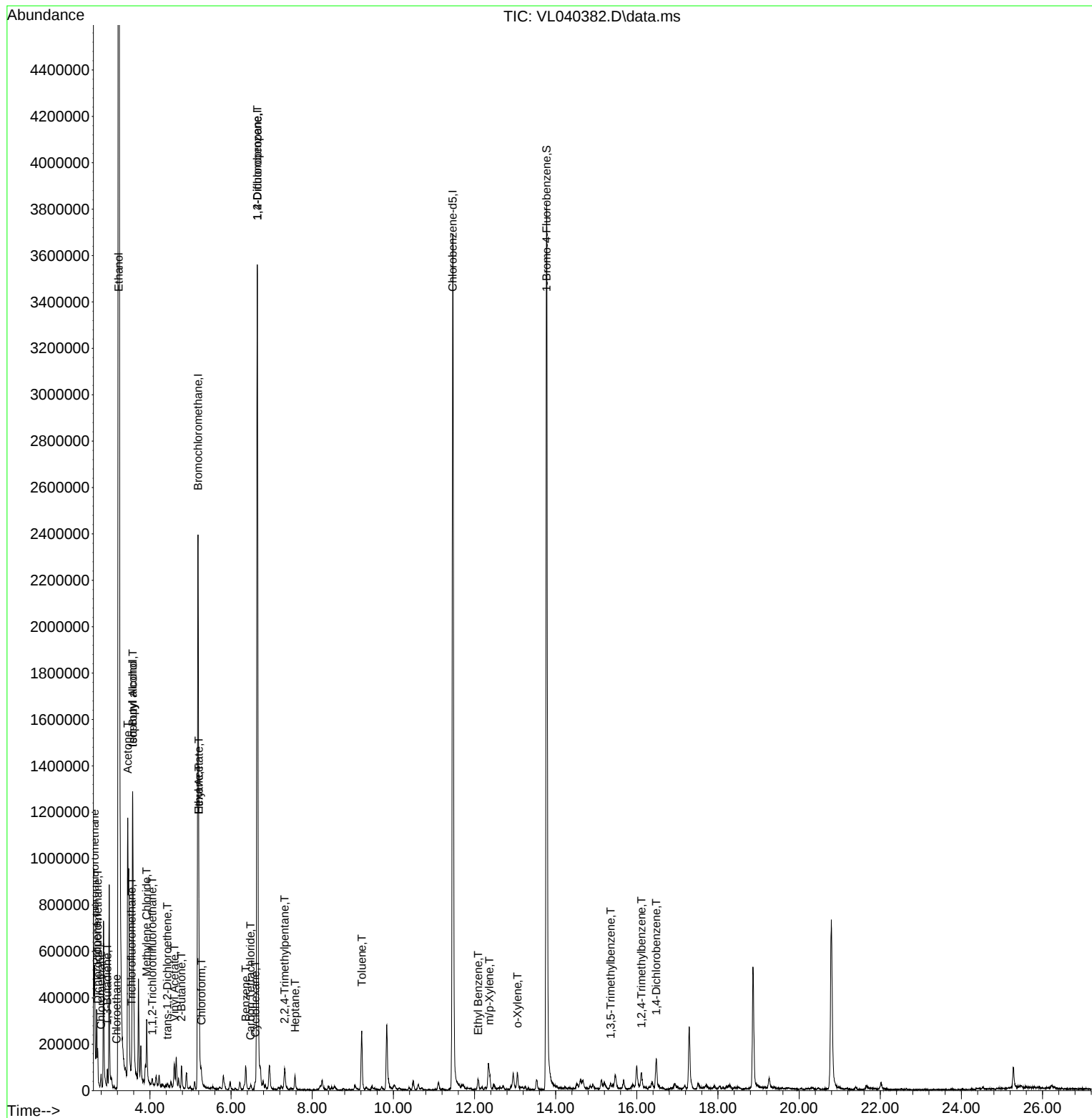
Internal Standards						
1) Bromochloromethane	5.185	49	1069389	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.645	114	2650004	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.465	117	2356144	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.780	95	1863581	9.565	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.600%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.713	85	87614	0.454	ppbv	93
3) Chlorodifluoromethane	2.636	51	241585	1.729	ppbv #	67
4) Chloromethane	2.796	50	42308	0.479	ppbv	95
7) Chloroethane	3.179	64	1266	0.046	ppbv #	71
9) Propene	2.687	41	71229	1.290	ppbv #	78
10) Heptane	7.577	43	4732	0.038	ppbv #	1
11) Trichlorofluoromethane	3.549	101	41714	0.214	ppbv	97
12) 1,1,2-Trichlorotrifluo...	4.060	101	7898	0.058	ppbv #	79
13) Ethanol	3.230	45	11345605	2461.824	ppbv	97
15) Acetone	3.452	43	1266025	8.359	ppbv	98
16) 1,3-Butadiene	2.951	39	21545	0.344	ppbv #	39
17) tert-Butyl alcohol	3.574	59	51555	0.371	ppbv	95
19) Isopropyl Alcohol	3.574	45	1397655	20.223	ppbv #	98
20) Methylene Chloride	3.922	84	91894	1.520	ppbv	93
22) trans-1,2-Dichloroethene	4.430	96	2334	0.038	ppbv #	79
23) Vinyl Acetate	4.607	43	83184	2.157	ppbv #	70
25) Ethyl Acetate	5.205	43	187386	0.735	ppbv #	94
26) Hexane	5.205	57	153317	1.427	ppbv #	57
29) Chloroform	5.269	83	30025	0.157	ppbv	96
30) Cyclohexane	6.600	84	3483	0.042	ppbv #	1
34) 2-Butanone	4.777	43	103719	0.726	ppbv	99
35) Carbon Tetrachloride	6.481	117	6131	0.033	ppbv	93
36) Benzene	6.359	78	75326	0.348	ppbv #	94
39) 1,2-Dichloropropane	6.645	63	672020	7.899	ppbv #	24
44) 2,2,4-Trimethylpentane	7.320	57	69694	0.193	ppbv #	77
53) Toluene	9.220	91	173984	0.759	ppbv	100
58) Ethyl Benzene	12.089	91	21720	0.075	ppbv	93
59) m/p-Xylene	12.362	91	39296	0.147	ppbv #	32
60) o-Xylene	13.060	91	48677	0.190	ppbv	96
73) 1,3,5-Trimethylbenzene	15.358	105	8978	0.034	ppbv	88
74) 1,2,4-Trimethylbenzene	16.114	105	42716	0.143	ppbv #	74
76) 1,4-Dichlorobenzene	16.477	146	14966	0.093	ppbv #	28

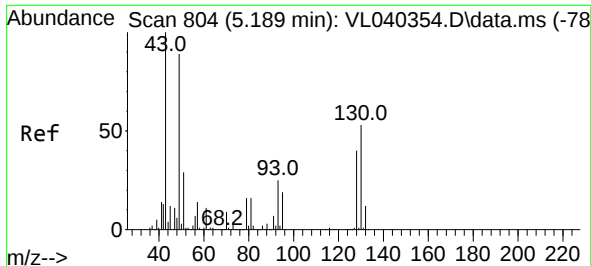
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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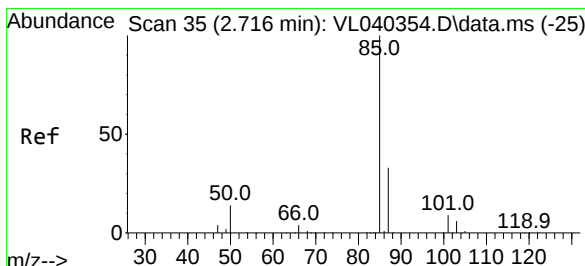
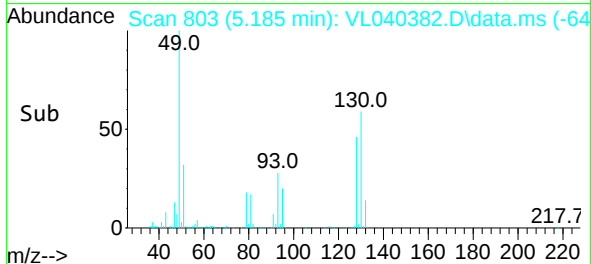
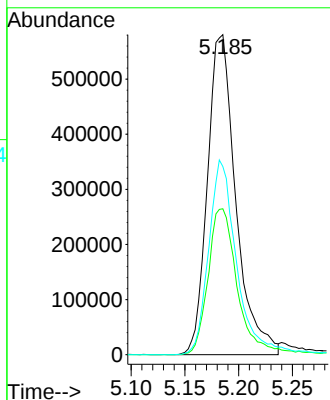
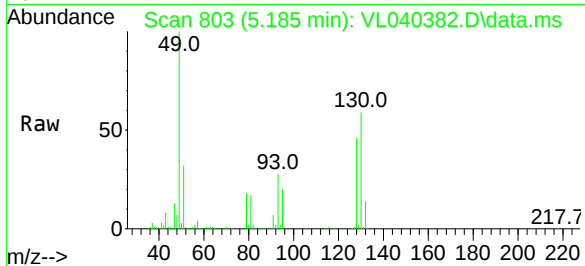




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.185 min Scan# 80
Delta R.T. -0.004 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

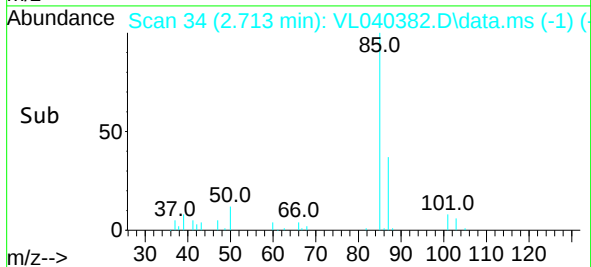
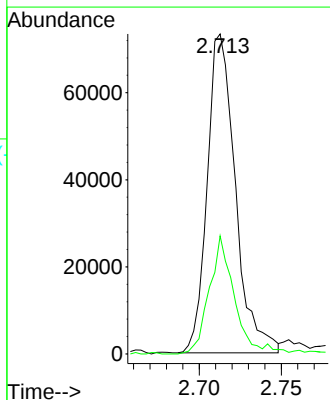
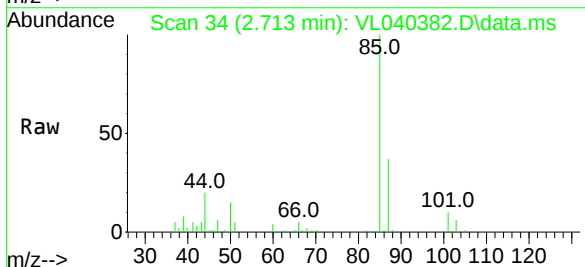
Instrument :
MSVOA_L
ClientSampleId :
AP-2A

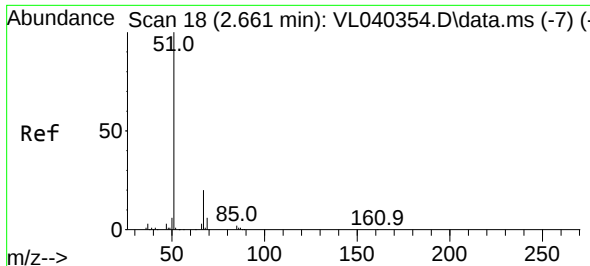
Tgt Ion: 49 Resp: 1069389
Ion Ratio Lower Upper
49 100
128 48.1 23.7 71.1
130 60.9 29.9 89.8



#2
Dichlorodifluoromethane
Concen: 0.454 ppbv
RT: 2.713 min Scan# 34
Delta R.T. -0.003 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

Tgt Ion: 85 Resp: 87614
Ion Ratio Lower Upper
85 100
87 37.0 26.6 40.0

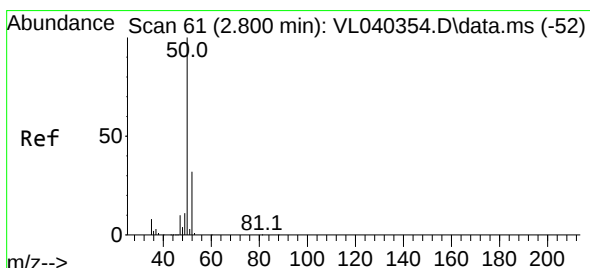
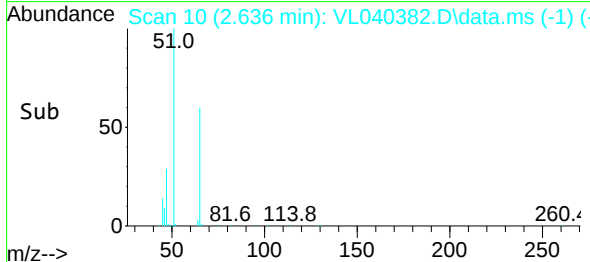
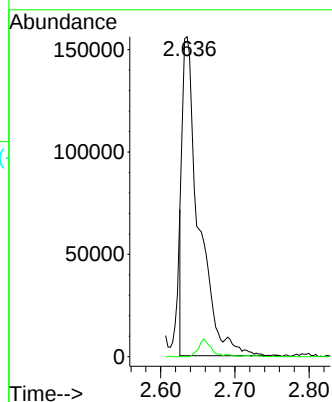
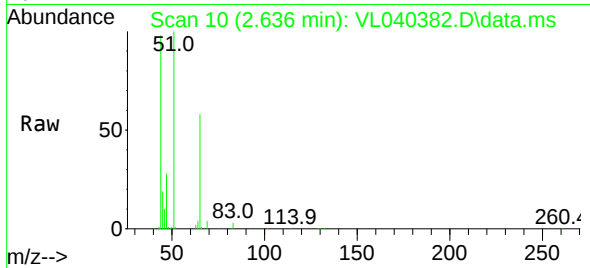




#3
Chlorodifluoromethane
Concen: 1.729 ppbv
RT: 2.636 min Scan# 10
Delta R.T. -0.025 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

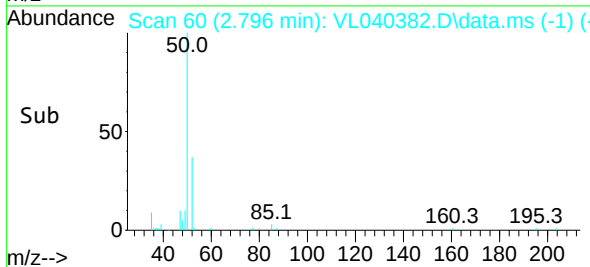
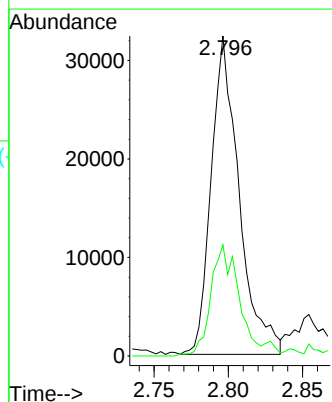
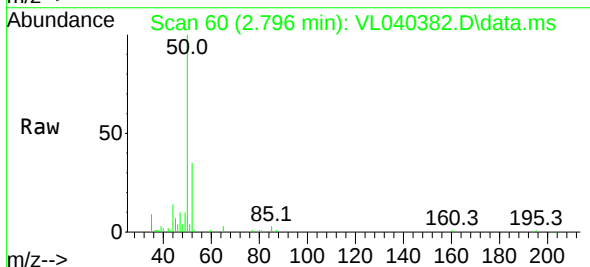
Instrument :
MSVOA_L
ClientSampleId :
AP-2A

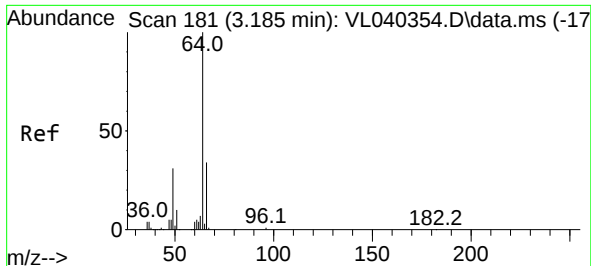
Tgt Ion: 51 Resp: 241585
Ion Ratio Lower Upper
51 100
67 4.6 15.5 23.3#



#4
Chloromethane
Concen: 0.479 ppbv
RT: 2.796 min Scan# 60
Delta R.T. -0.004 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

Tgt Ion: 50 Resp: 42308
Ion Ratio Lower Upper
50 100
52 34.3 25.3 37.9

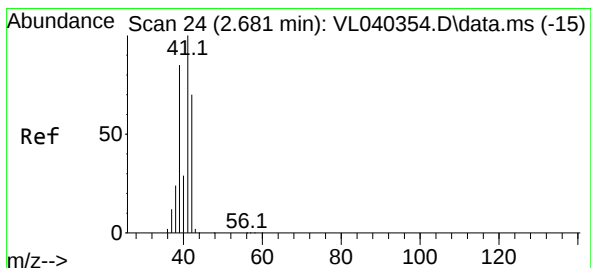
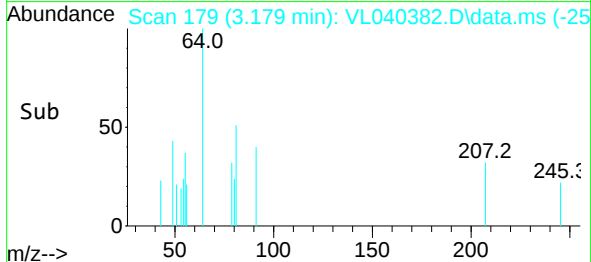
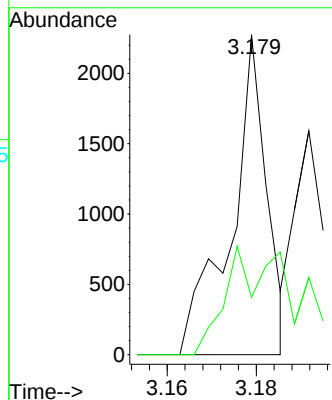
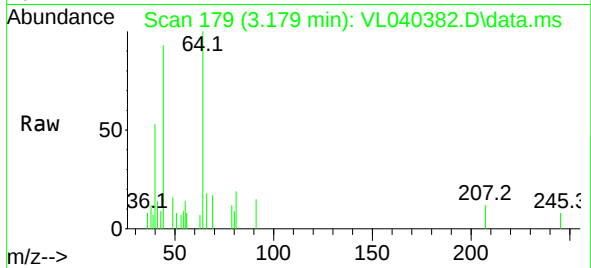




#7
Chloroethane
Concen: 0.046 ppbv
RT: 3.179 min Scan# 11
Delta R.T. -0.006 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

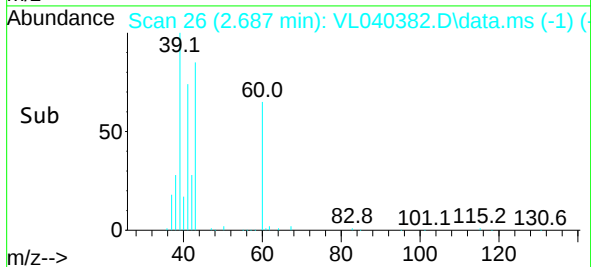
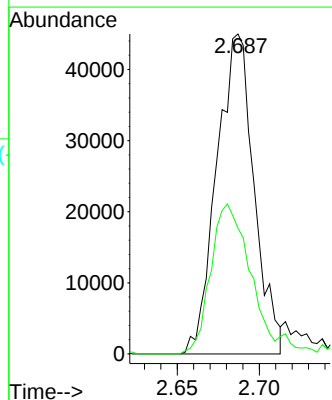
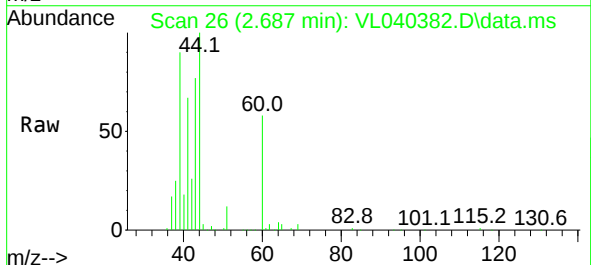
Instrument :
MSVOA_L
ClientSampleId :
AP-2A

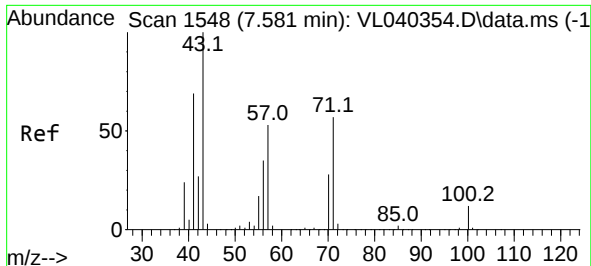
Tgt Ion: 64 Resp: 1266
Ion Ratio Lower Upper
64 100
66 17.9 27.5 41.3#



#9
Propene
Concen: 1.290 ppbv
RT: 2.687 min Scan# 26
Delta R.T. 0.006 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

Tgt Ion: 41 Resp: 71229
Ion Ratio Lower Upper
41 100
42 52.6 56.5 84.7#

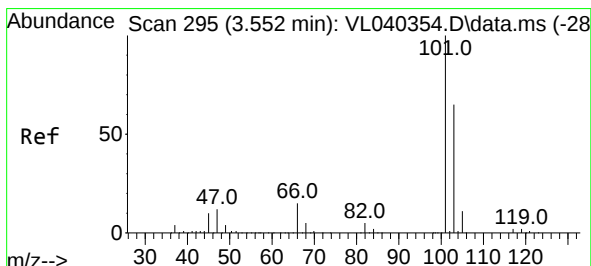
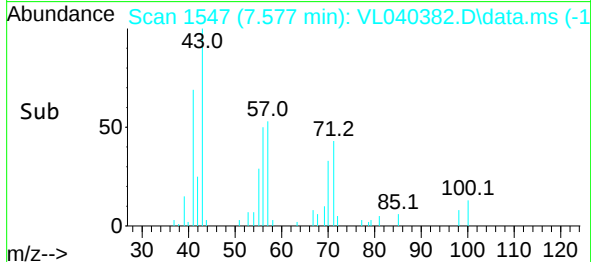
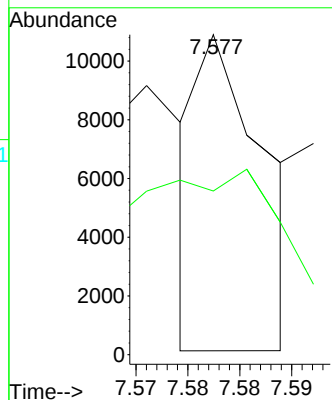
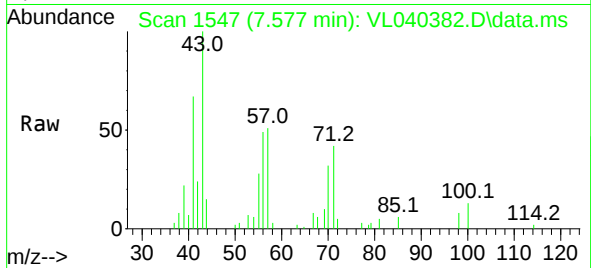




#10
Heptane
Concen: 0.038 ppbv
RT: 7.577 min Scan# 11
Delta R.T. -0.004 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

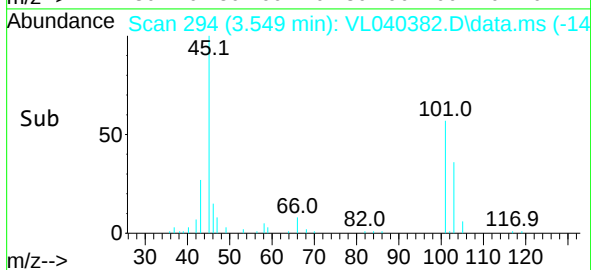
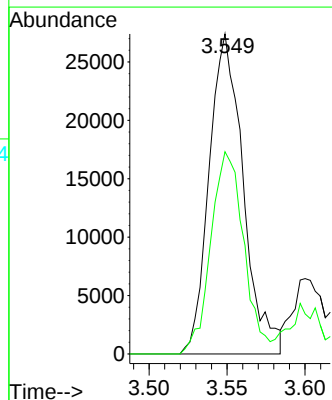
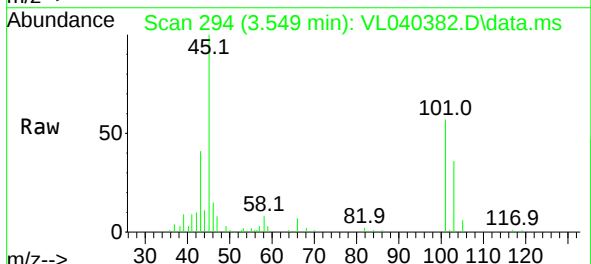
Instrument :
MSVOA_L
ClientSampleId :
AP-2A

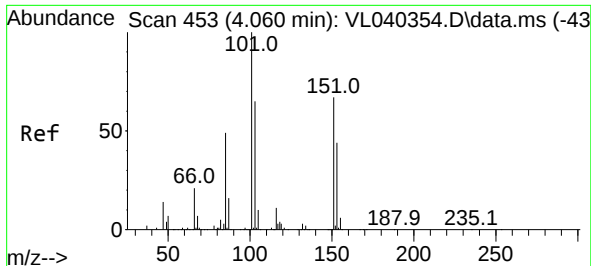
Tgt Ion: 43 Resp: 4732
Ion Ratio Lower Upper
43 100
57 256.5 42.2 63.4#



#11
Trichlorofluoromethane
Concen: 0.214 ppbv
RT: 3.549 min Scan# 294
Delta R.T. -0.003 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

Tgt Ion:101 Resp: 41714
Ion Ratio Lower Upper
101 100
103 63.2 52.2 78.4





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.058 ppbv

RT: 4.060 min Scan# 4

Delta R.T. -0.000 min

Lab File: VL040382.D

Acq: 19 Apr 2023 16:34

Instrument :

MSVOA_L

ClientSampleId :

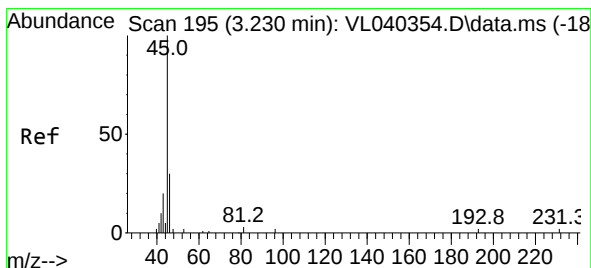
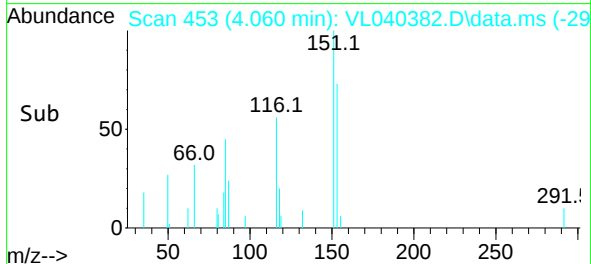
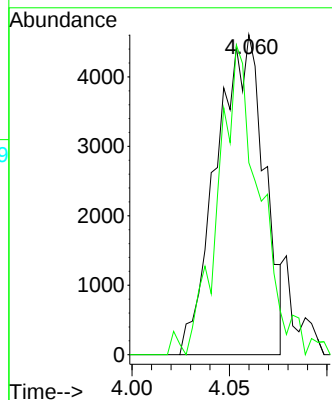
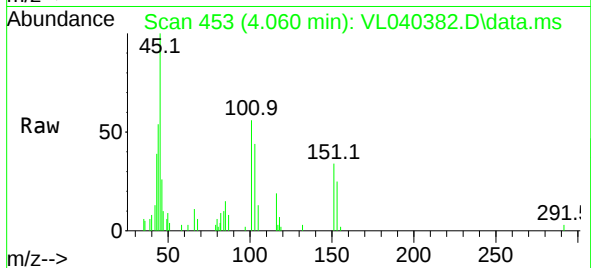
AP-2A

Tgt Ion:101 Resp: 7898

Ion Ratio Lower Upper

101 100

151 85.7 54.7 82.1#



#13

Ethanol

Concen: 2461.824 ppbv

RT: 3.230 min Scan# 195

Delta R.T. 0.000 min

Lab File: VL040382.D

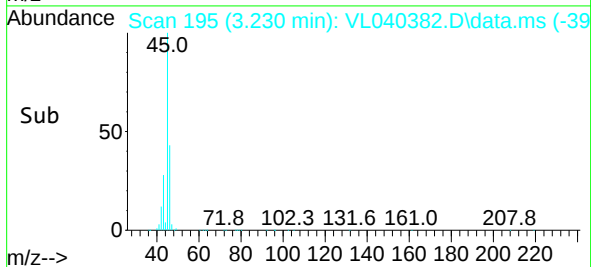
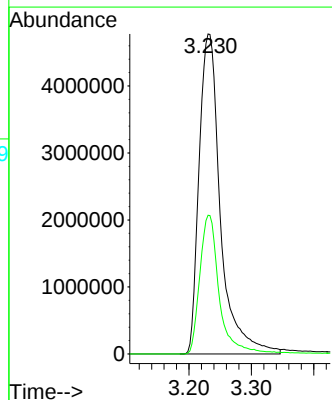
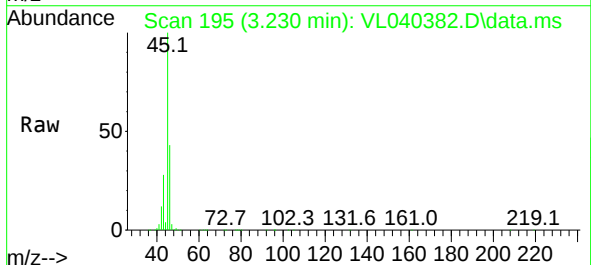
Acq: 19 Apr 2023 16:34

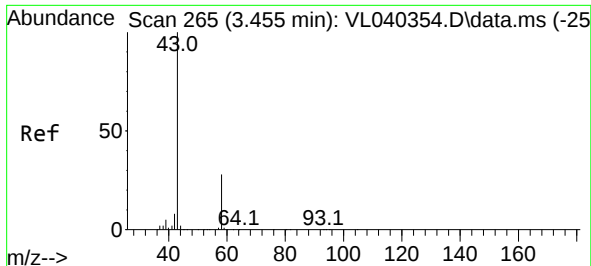
Tgt Ion: 45 Resp:11345605

Ion Ratio Lower Upper

45 100

46 40.1 15.3 61.3





#15

Acetone

Concen: 8.359 ppbv

RT: 3.452 min Scan# 2

Delta R.T. -0.003 min

Lab File: VL040382.D

Acq: 19 Apr 2023 16:34

Instrument :

MSVOA_L

ClientSampleId :

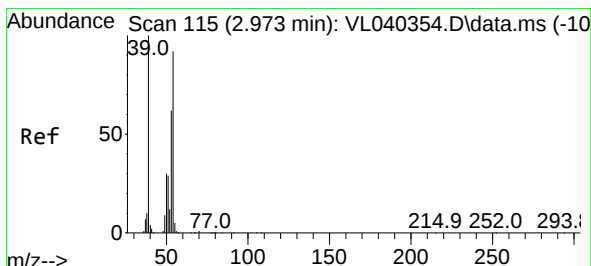
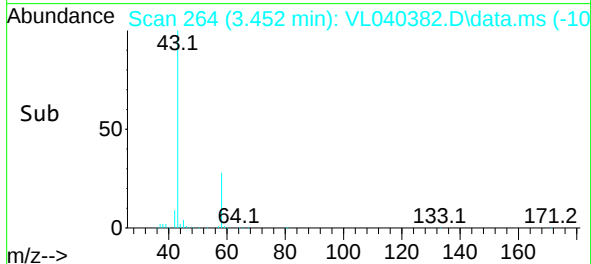
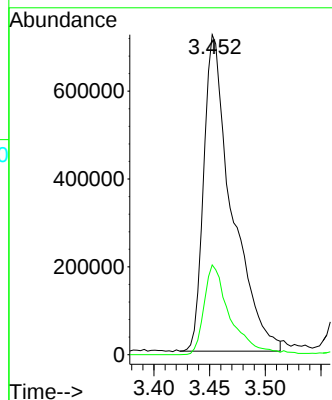
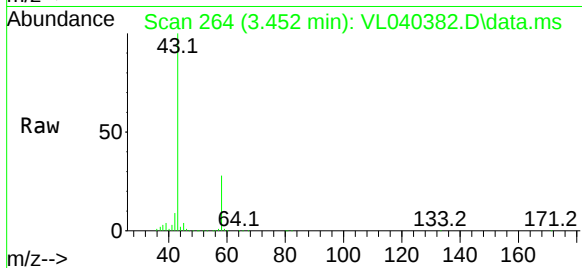
AP-2A

Tgt Ion: 43 Resp: 1266025

Ion Ratio Lower Upper

43 100

58 26.5 22.2 33.2



#16

1,3-Butadiene

Concen: 0.344 ppbv

RT: 2.951 min Scan# 108

Delta R.T. -0.022 min

Lab File: VL040382.D

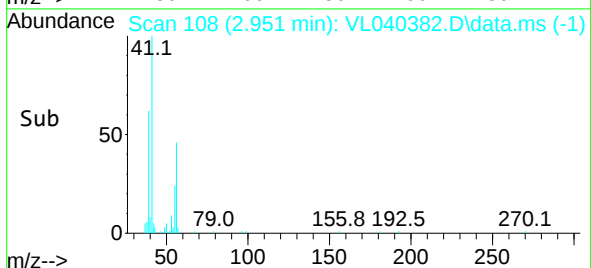
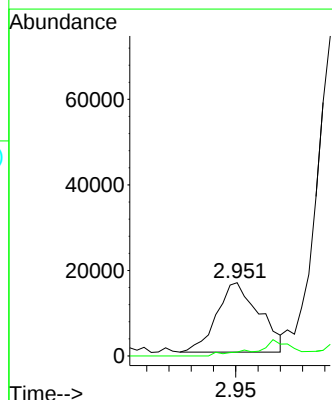
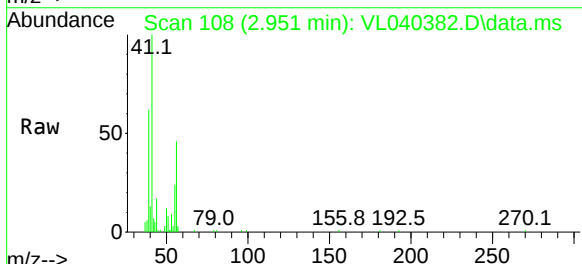
Acq: 19 Apr 2023 16:34

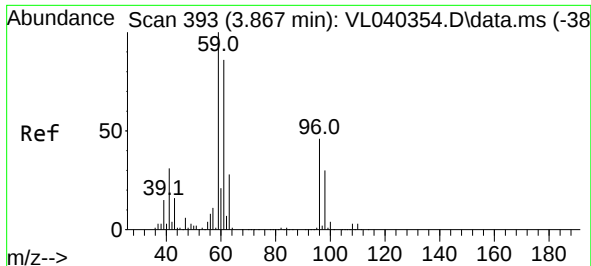
Tgt Ion: 39 Resp: 21545

Ion Ratio Lower Upper

39 100

54 29.5 68.8 103.2#





#17

tert-Butyl alcohol

Concen: 0.371 ppbv

RT: 3.574 min Scan# 302

Delta R.T. -0.293 min

Lab File: VL040382.D

Acq: 19 Apr 2023 16:34

Instrument :

MSVOA_L

ClientSampleId :

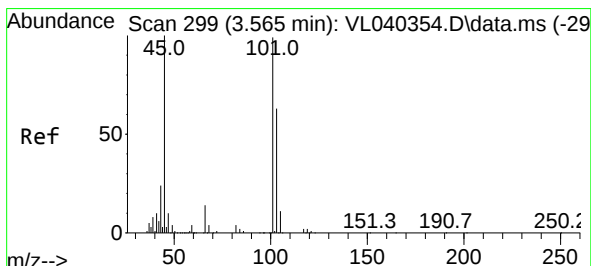
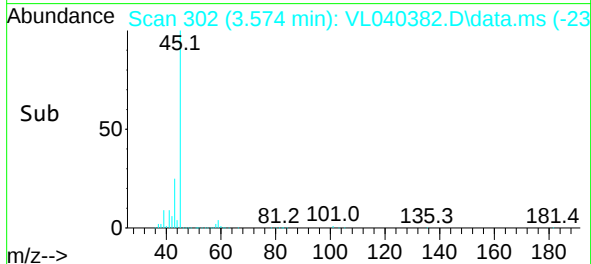
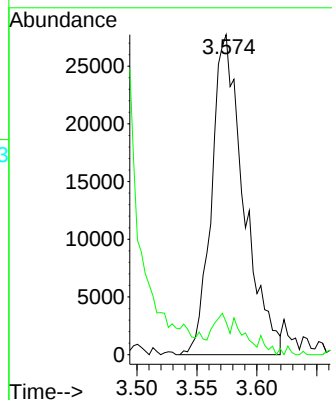
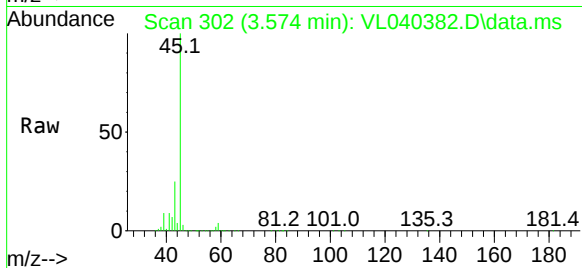
AP-2A

Tgt Ion: 59 Resp: 51555

Ion Ratio Lower Upper

59 100

57 12.6 8.5 12.7



#19

Isopropyl Alcohol

Concen: 20.223 ppbv

RT: 3.574 min Scan# 302

Delta R.T. 0.009 min

Lab File: VL040382.D

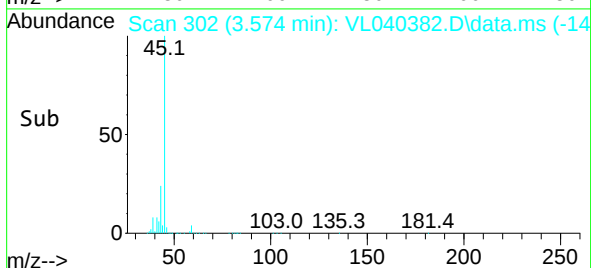
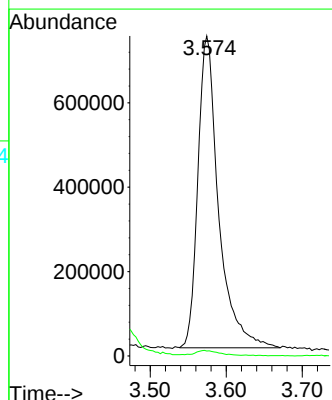
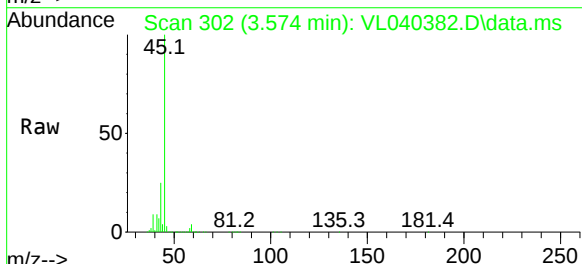
Acq: 19 Apr 2023 16:34

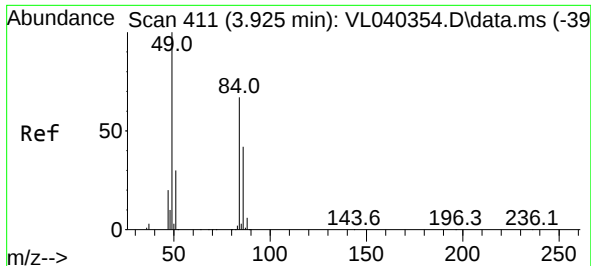
Tgt Ion: 45 Resp: 1397655

Ion Ratio Lower Upper

45 100

58 2.5 2.6 4.0#

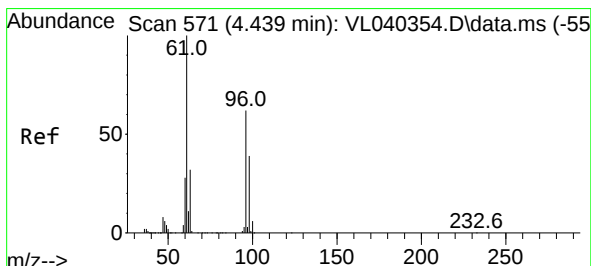
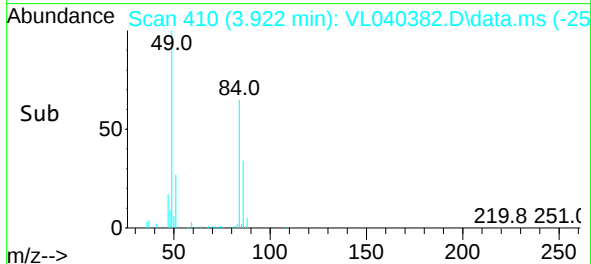
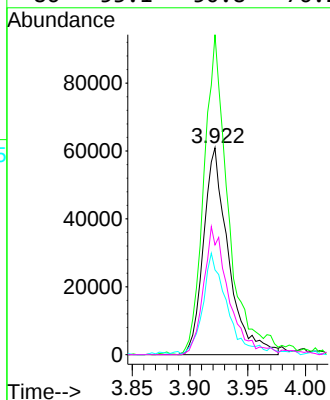
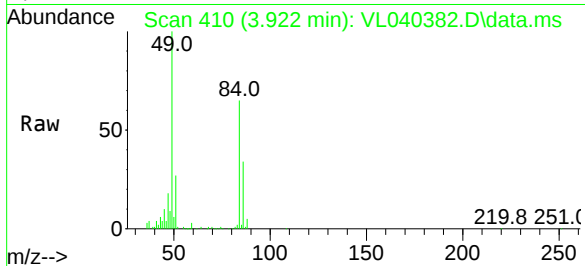




#20
Methylene Chloride
Concen: 1.520 ppbv
RT: 3.922 min Scan# 411
Delta R.T. -0.003 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

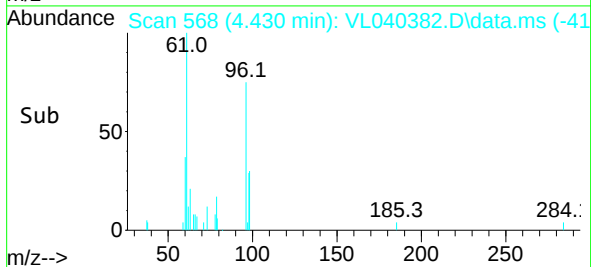
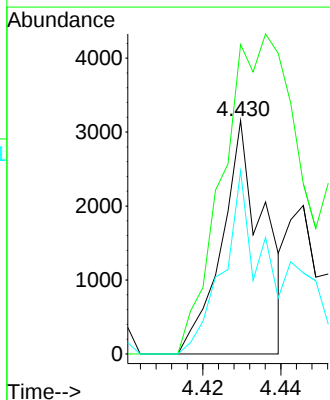
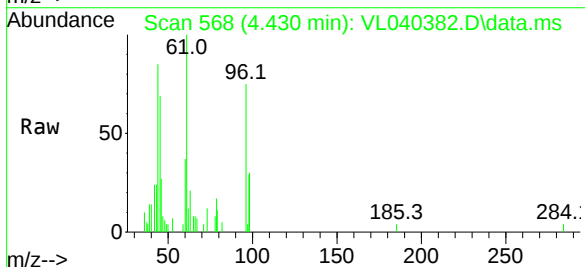
Instrument :
MSVOA_L
ClientSampleId :
AP-2A

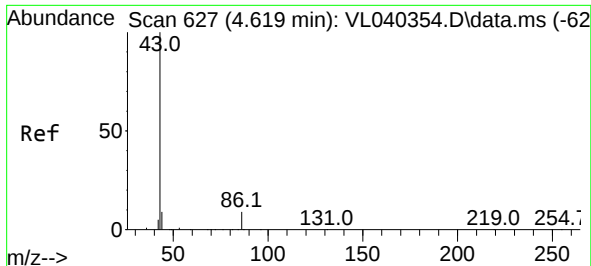
Tgt Ion: 84	Resp: 91894		
Ion	Ratio	Lower	Upper
84	100		
49	154.6	120.1	180.1
51	39.5	36.3	54.5
86	53.1	50.8	76.2



#22
trans-1,2-Dichloroethene
Concen: 0.038 ppbv
RT: 4.430 min Scan# 568
Delta R.T. -0.009 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

Tgt Ion: 96	Resp: 2334		
Ion Ratio	Lower	Upper	
96 100			
61 132.6	129.4	194.2	
98 78.5	51.0	76.4	#

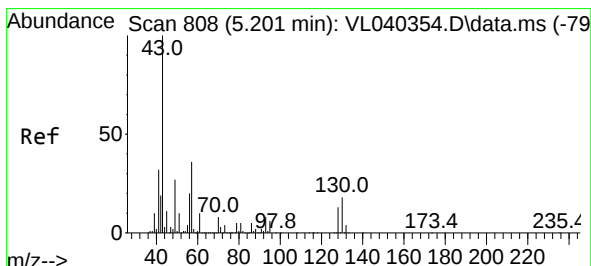
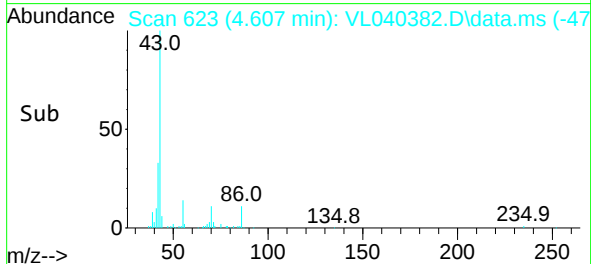
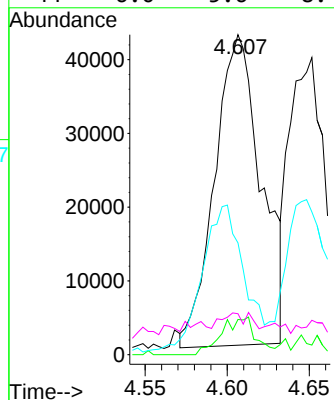
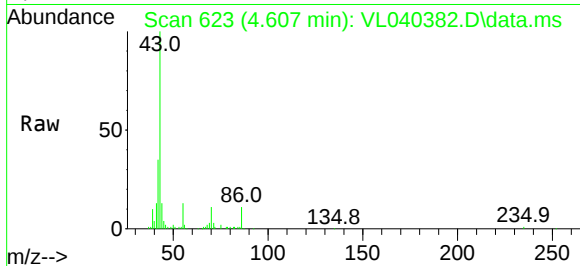




#23
 Vinyl Acetate
 Concen: 2.157 ppbv
 RT: 4.607 min Scan# 61
 Delta R.T. -0.012 min
 Lab File: VL040382.D
 Acq: 19 Apr 2023 16:34

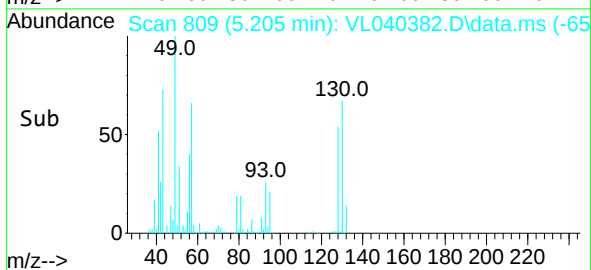
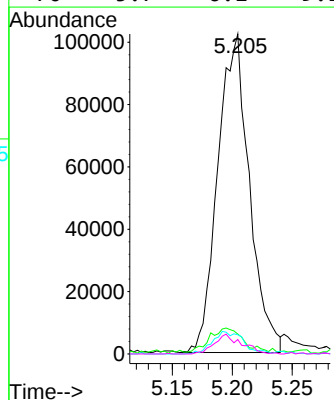
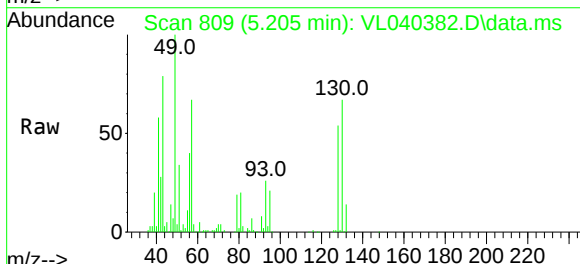
Instrument :
 MSVOA_L
 ClientSampleId :
 AP-2A

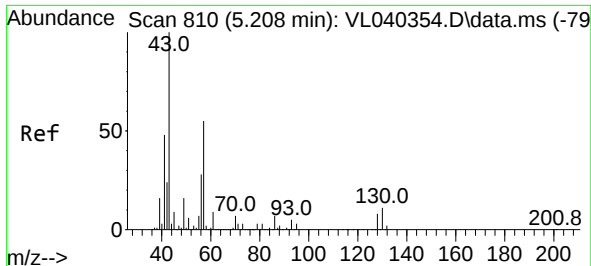
Tgt Ion:	43	Resp:	83184
Ion	Ratio	Lower	Upper
43	100		
86	11.8	6.0	9.0#
42	32.3	6.4	9.6#
44	6.0	5.6	8.4



#25
 Ethyl Acetate
 Concen: 0.735 ppbv
 RT: 5.205 min Scan# 809
 Delta R.T. 0.004 min
 Lab File: VL040382.D
 Acq: 19 Apr 2023 16:34

Tgt Ion:	43	Resp:	187386
Ion	Ratio	Lower	Upper
43	100		
45	9.4	8.5	12.7
61	7.4	8.5	12.7#
70	5.7	6.1	9.1#

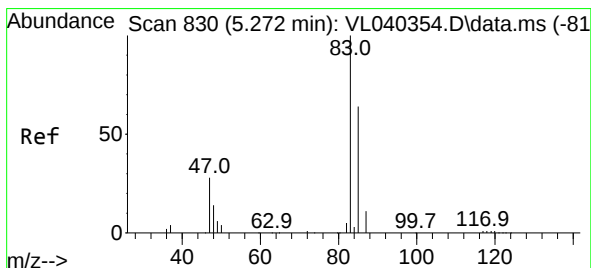
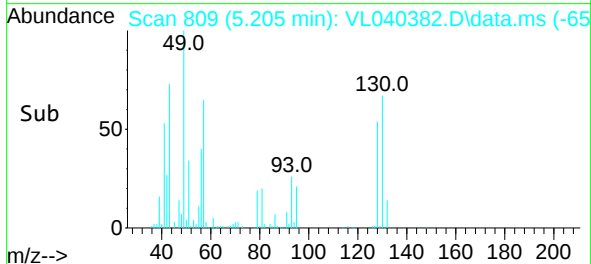
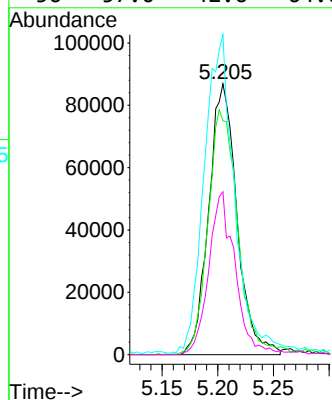
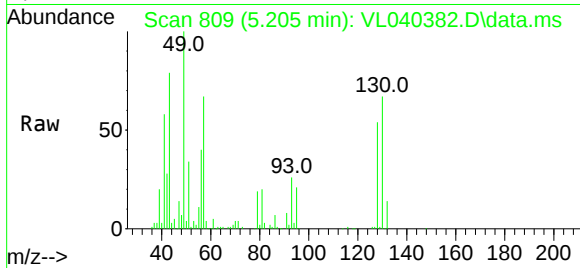




#26
Hexane
Concen: 1.427 ppbv
RT: 5.205 min Scan# 809
Delta R.T. -0.003 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

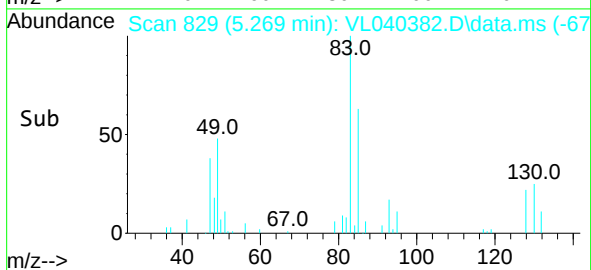
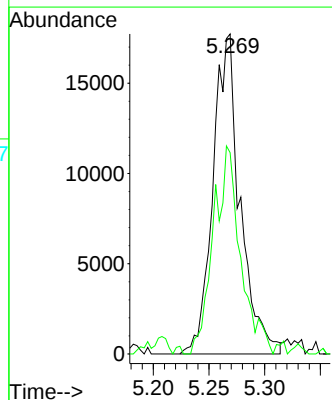
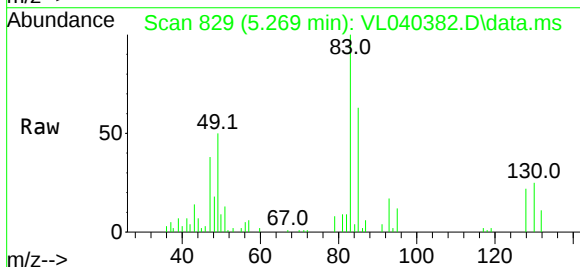
Instrument :
MSVOA_L
ClientSampleId :
AP-2A

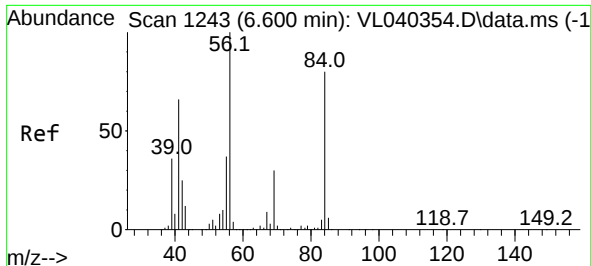
Tgt Ion: 57 Resp: 153317
Ion Ratio Lower Upper
57 100
41 95.8 74.8 112.2
43 127.9 192.7 289.1#
56 57.0 42.6 64.0



#29
Chloroform
Concen: 0.157 ppbv
RT: 5.269 min Scan# 829
Delta R.T. -0.003 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

Tgt Ion: 83 Resp: 30025
Ion Ratio Lower Upper
83 100
85 60.5 51.0 76.4

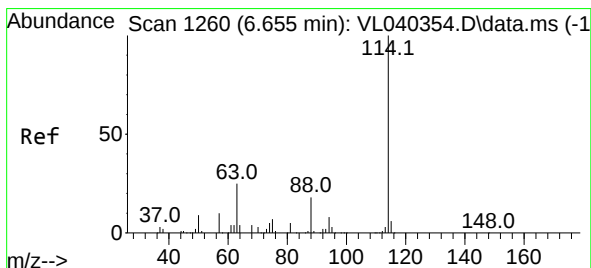
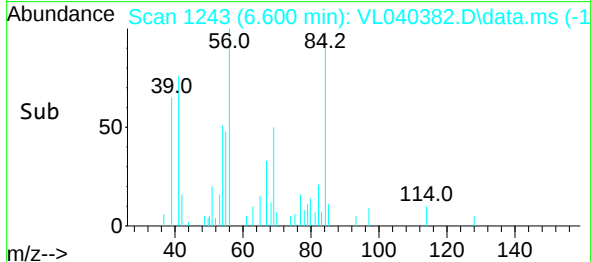
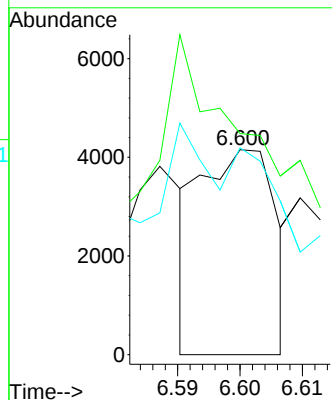
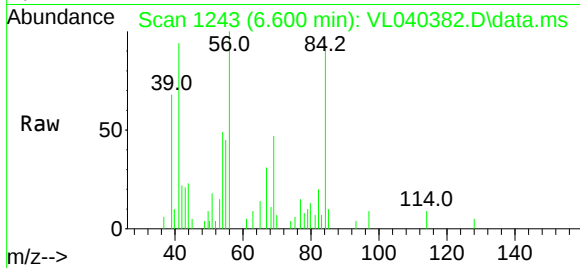




#30
Cyclohexane
Concen: 0.042 ppbv
RT: 6.600 min Scan# 11
Delta R.T. 0.000 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

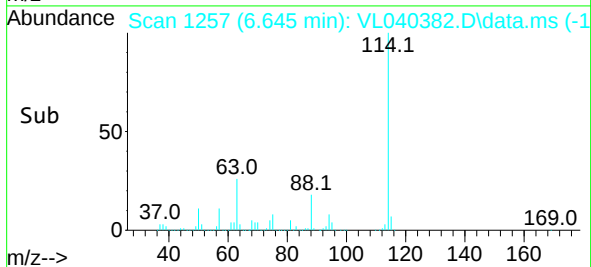
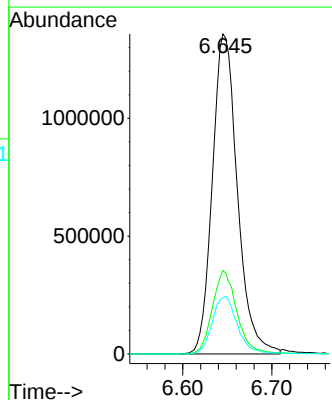
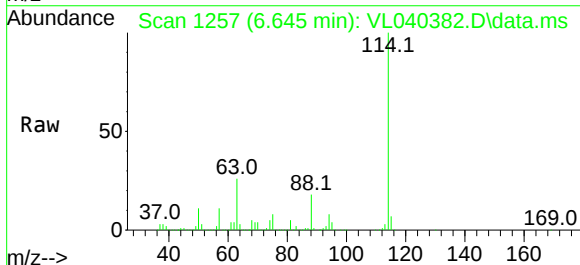
Instrument :
MSVOA_L
ClientSampleId :
AP-2A

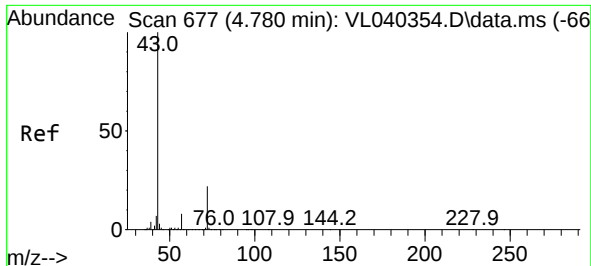
Tgt Ion: 84 Resp: 3483
Ion Ratio Lower Upper
84 100
56 0.0 107.0 160.6#
41 0.0 66.7 100.1#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.645 min Scan# 1257
Delta R.T. -0.010 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

Tgt Ion: 114 Resp: 2650004
Ion Ratio Lower Upper
114 100
63 25.7 21.4 32.0
88 18.1 14.6 22.0

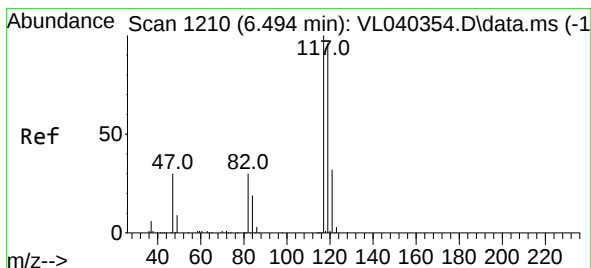
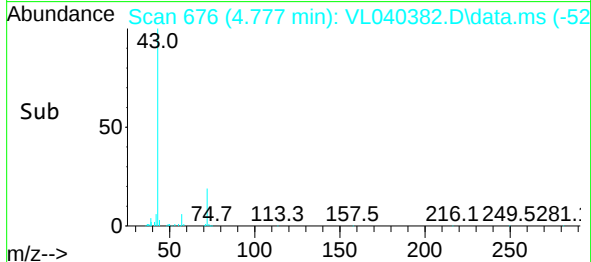
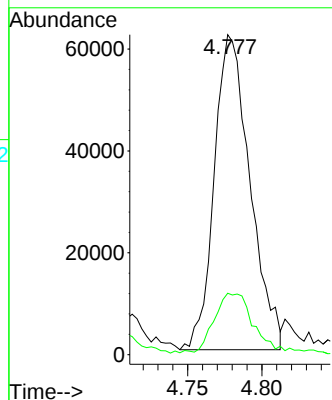
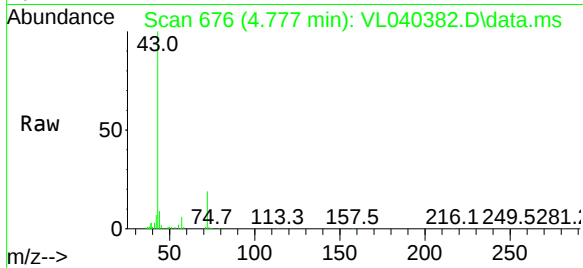




#34
2-Butanone
Concen: 0.726 ppbv
RT: 4.777 min Scan# 61
Delta R.T. -0.003 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

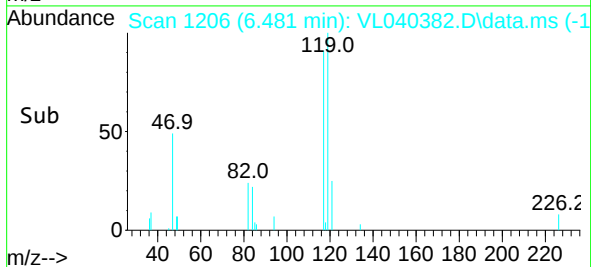
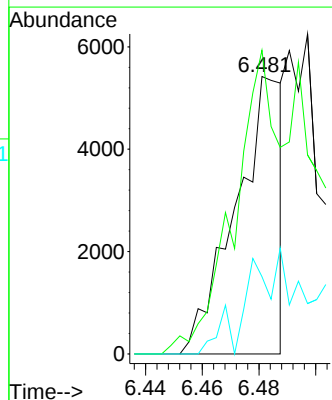
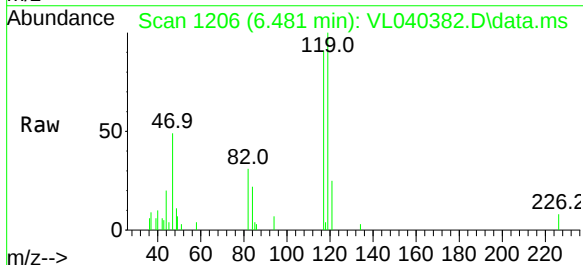
Instrument :
MSVOA_L
ClientSampleId :
AP-2A

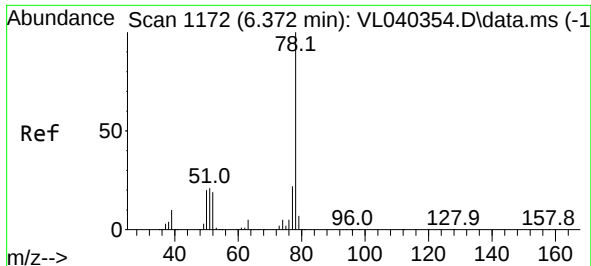
Tgt Ion: 43 Resp: 103719
Ion Ratio Lower Upper
43 100
72 23.3 18.4 27.6



#35
Carbon Tetrachloride
Concen: 0.033 ppbv
RT: 6.481 min Scan# 1206
Delta R.T. -0.013 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

Tgt Ion: 117 Resp: 6131
Ion Ratio Lower Upper
117 100
119 102.9 76.6 114.8
121 27.9 25.3 37.9

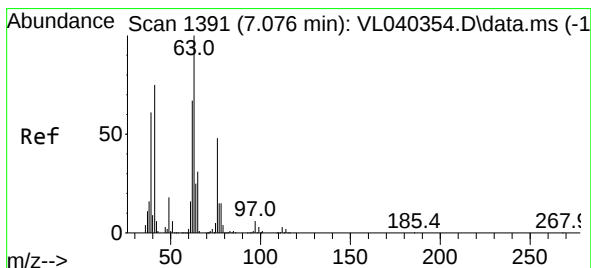
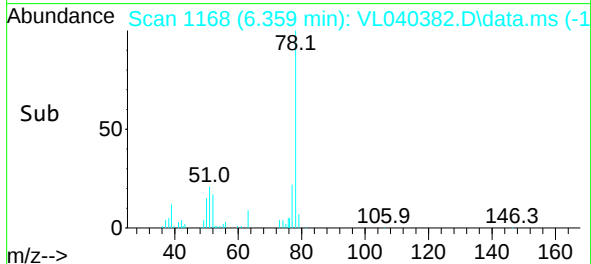
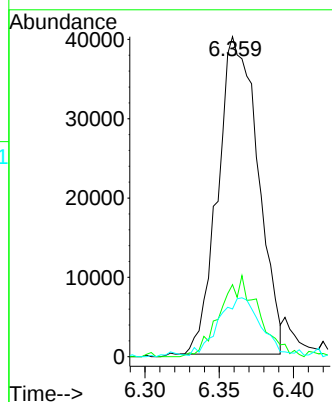
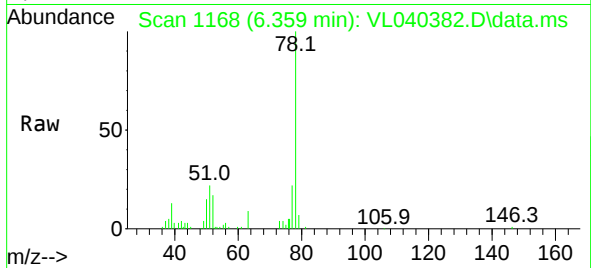




#36
Benzene
Concen: 0.348 ppbv
RT: 6.359 min Scan# 1172
Delta R.T. -0.013 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

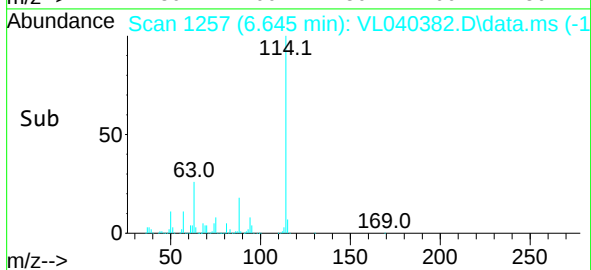
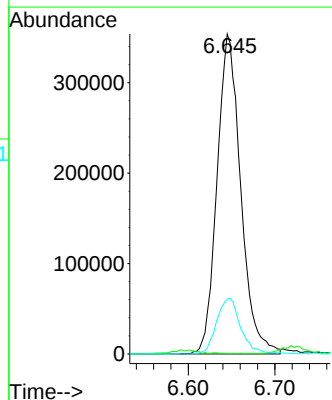
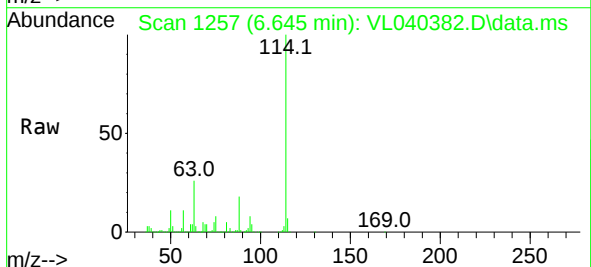
Instrument :
MSVOA_L
ClientSampleId :
AP-2A

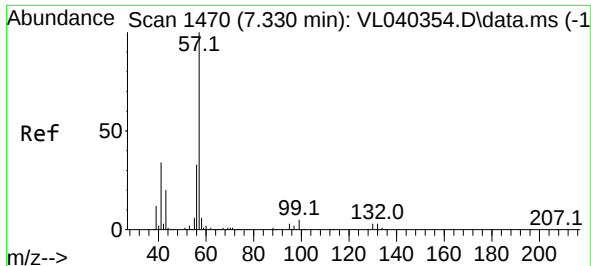
Tgt Ion: 78 Resp: 75326
Ion Ratio Lower Upper
78 100
77 22.7 17.8 26.8
50 14.3 15.6 23.4#



#39
1,2-Dichloropropane
Concen: 7.899 ppbv
RT: 6.645 min Scan# 1257
Delta R.T. -0.431 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

Tgt Ion: 63 Resp: 672020
Ion Ratio Lower Upper
63 100
41 0.0 59.6 89.4#
62 17.2 53.9 80.9#

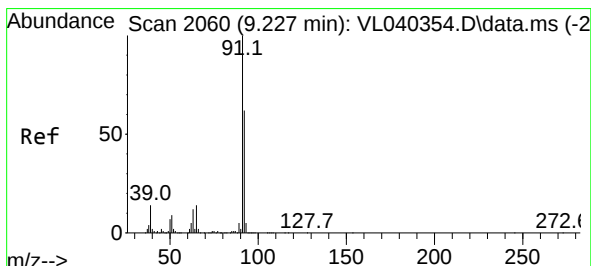
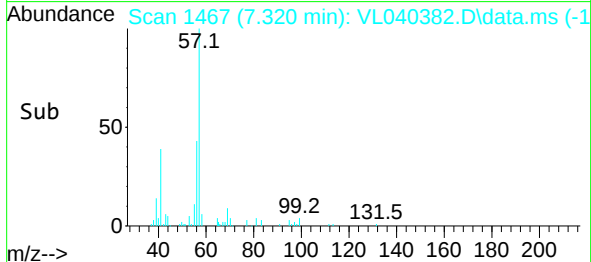
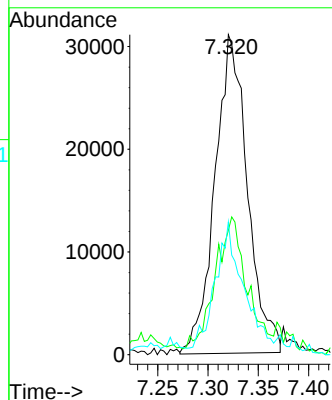
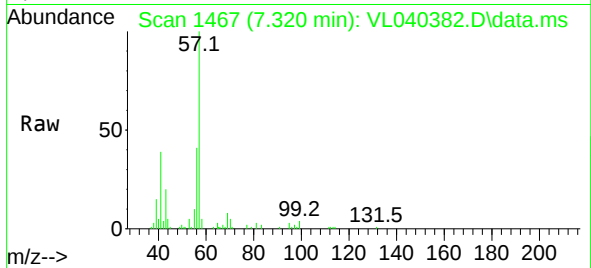




#44
 2,2,4-Trimethylpentane
 Concen: 0.193 ppbv
 RT: 7.320 min Scan# 1467
 Delta R.T. -0.010 min
 Lab File: VL040382.D
 Acq: 19 Apr 2023 16:34

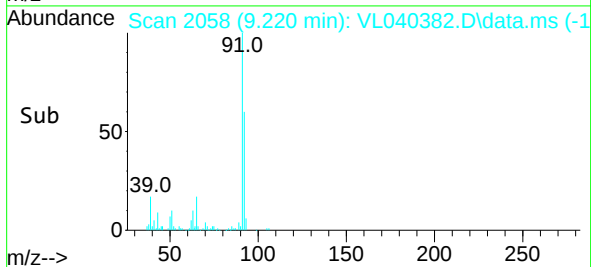
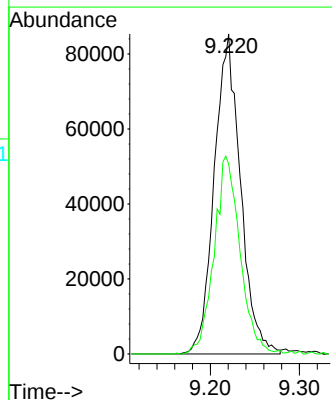
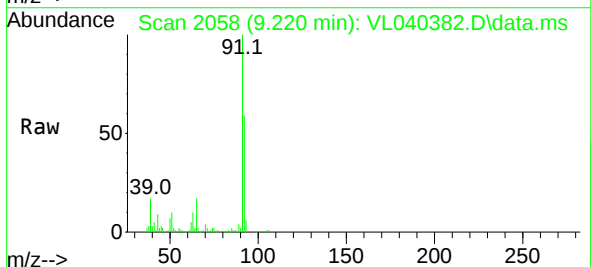
Instrument :
 MSVOA_L
 ClientSampleId :
 AP-2A

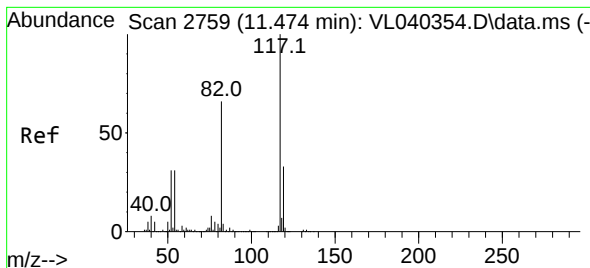
Tgt Ion: 57 Resp: 69694
 Ion Ratio Lower Upper
 57 100
 41 49.6 26.9 40.3#
 56 41.1 25.1 37.7#



#53
 Toluene
 Concen: 0.759 ppbv
 RT: 9.220 min Scan# 2058
 Delta R.T. -0.007 min
 Lab File: VL040382.D
 Acq: 19 Apr 2023 16:34

Tgt Ion: 91 Resp: 173984
 Ion Ratio Lower Upper
 91 100
 92 61.3 48.9 73.3





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.465 min Scan# 21

Delta R.T. -0.009 min

Lab File: VL040382.D

Acq: 19 Apr 2023 16:34

Instrument :

MSVOA_L

ClientSampleId :

AP-2A

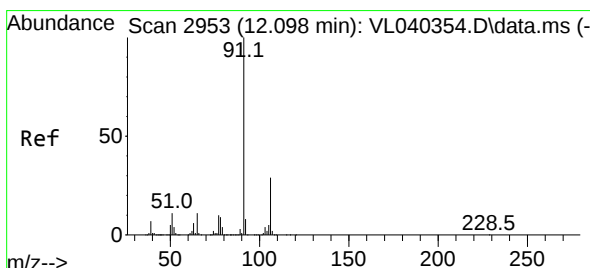
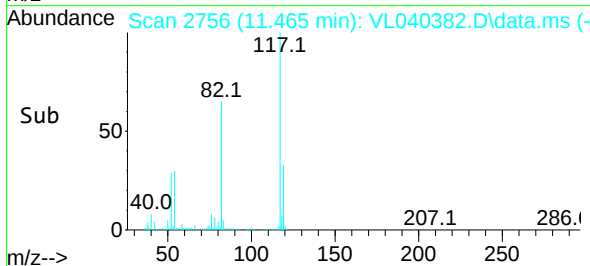
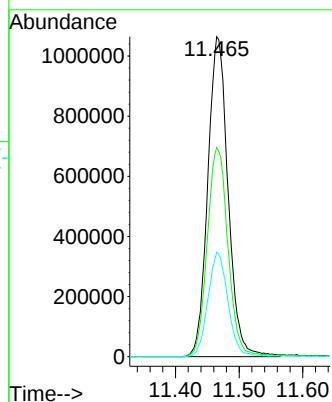
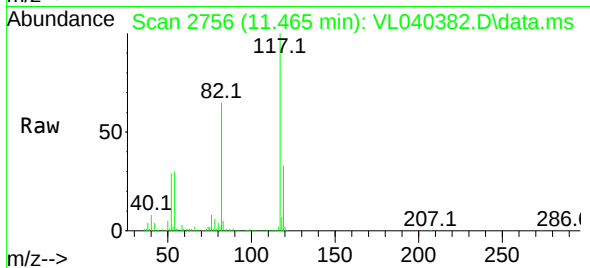
Tgt Ion:117 Resp: 2356144

Ion Ratio Lower Upper

117 100

82 67.7 52.5 78.7

119 32.5 24.3 36.5



#58

Ethyl Benzene

Concen: 0.075 ppbv

RT: 12.089 min Scan# 2950

Delta R.T. -0.009 min

Lab File: VL040382.D

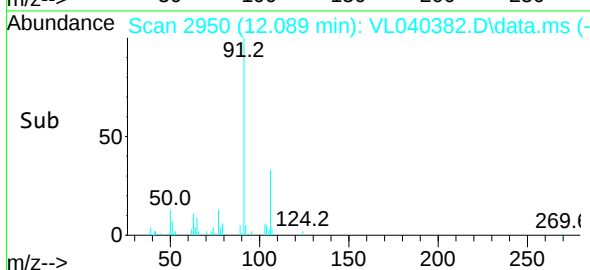
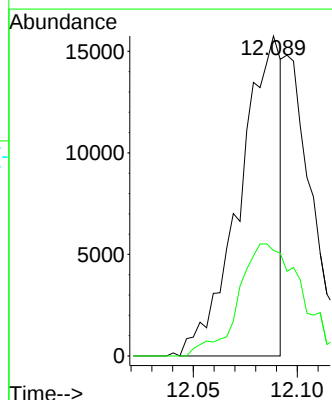
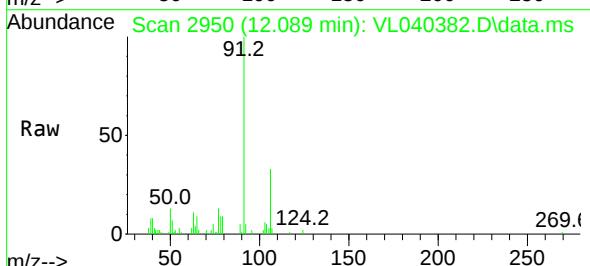
Acq: 19 Apr 2023 16:34

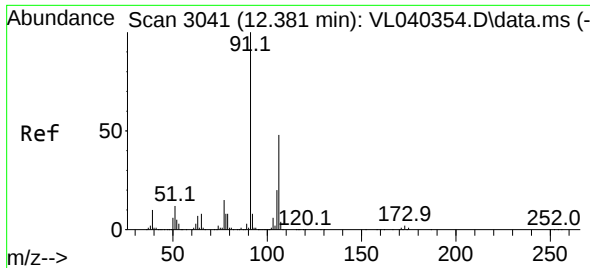
Tgt Ion: 91 Resp: 21720

Ion Ratio Lower Upper

91 100

106 33.0 23.5 35.3





#59

m/p-Xylene

Concen: 0.147 ppbv

RT: 12.362 min Scan# 3041

Delta R.T. -0.019 min

Lab File: VL040382.D

Acq: 19 Apr 2023 16:34

Instrument :

MSVOA_L

ClientSampleId :

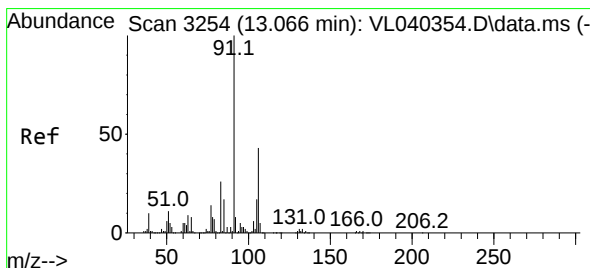
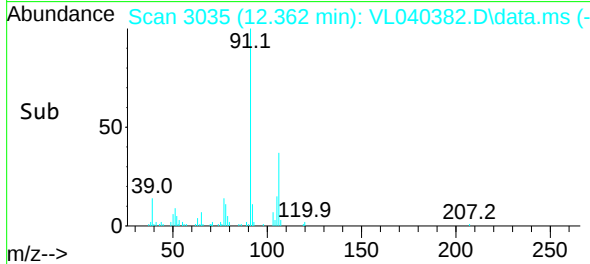
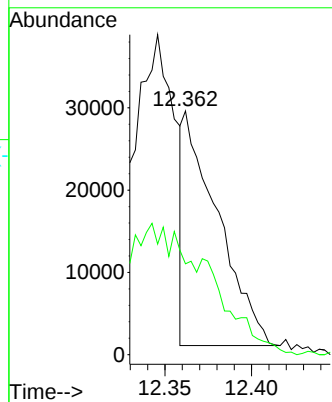
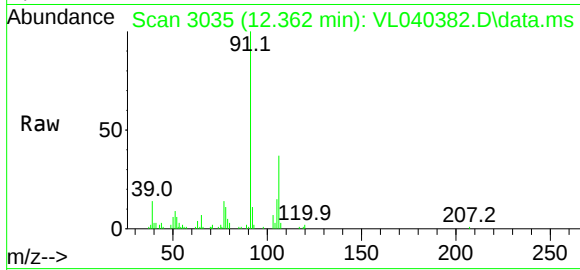
AP-2A

Tgt Ion: 91 Resp: 39296

Ion Ratio Lower Upper

91 100

106 0.0 34.7 52.1#



#60

o-Xylene

Concen: 0.190 ppbv

RT: 13.060 min Scan# 3252

Delta R.T. -0.006 min

Lab File: VL040382.D

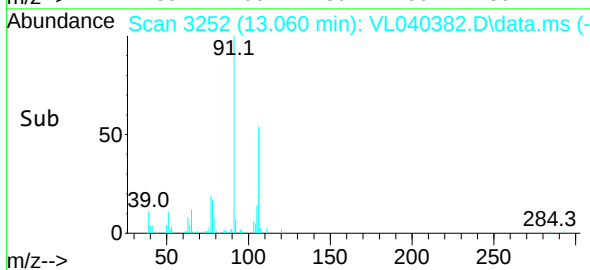
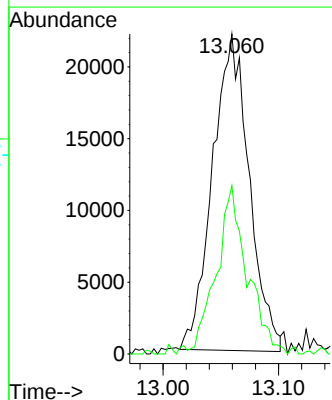
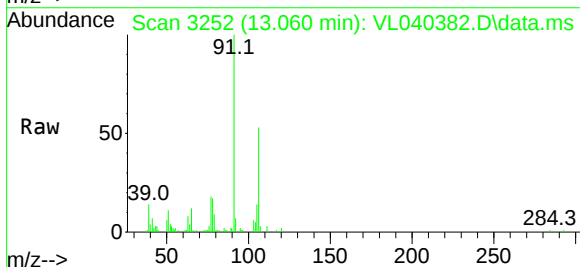
Acq: 19 Apr 2023 16:34

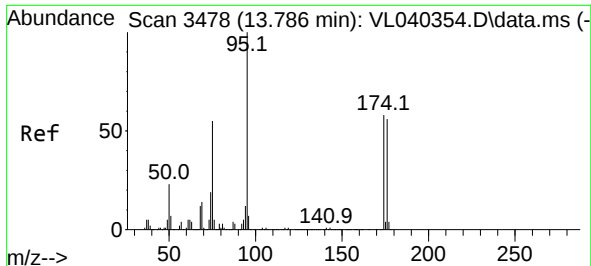
Tgt Ion: 91 Resp: 48677

Ion Ratio Lower Upper

91 100

106 46.8 21.9 65.8

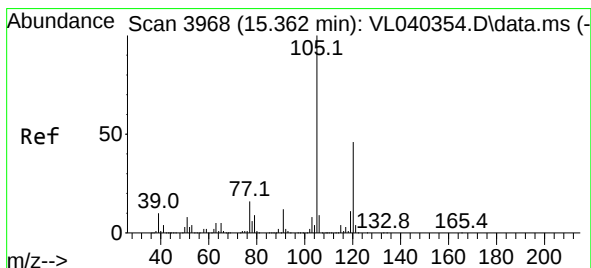
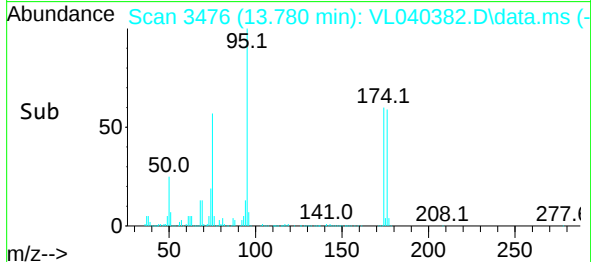
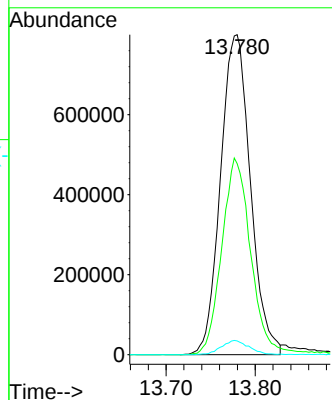
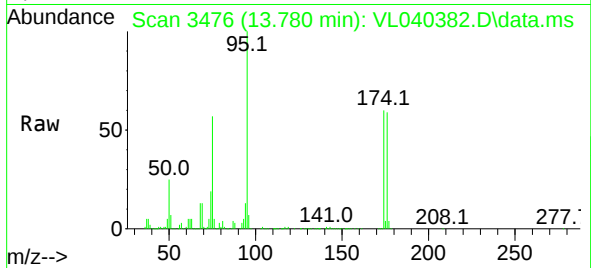




#68
1-Bromo-4-Fluorobenzene
Concen: 9.565 ppbv
RT: 13.780 min Scan# 3478
Delta R.T. -0.006 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

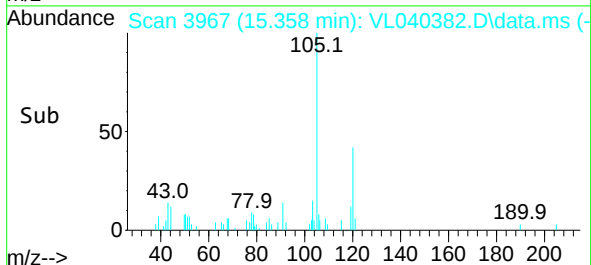
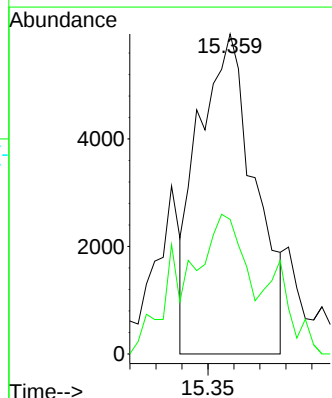
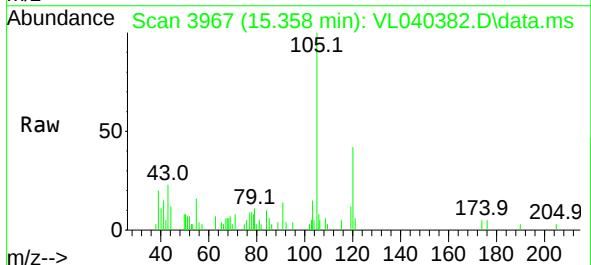
Instrument :
MSVOA_L
ClientSampleId :
AP-2A

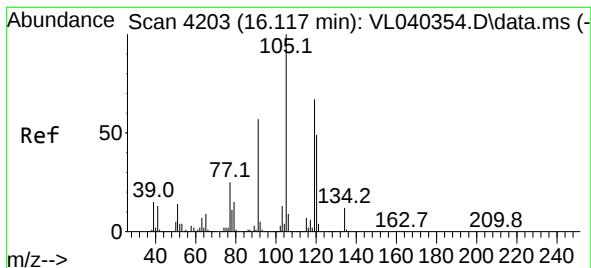
Tgt Ion: 95 Resp: 1863581
Ion Ratio Lower Upper
95 100
174 60.9 47.2 70.8
175 4.2 3.5 5.3



#73
1,3,5-Trimethylbenzene
Concen: 0.034 ppbv
RT: 15.358 min Scan# 3967
Delta R.T. -0.004 min
Lab File: VL040382.D
Acq: 19 Apr 2023 16:34

Tgt Ion: 105 Resp: 8978
Ion Ratio Lower Upper
105 100
120 37.8 36.9 55.3





#74

1,2,4-Trimethylbenzene

Concen: 0.143 ppbv

RT: 16.114 min Scan# 4315

Delta R.T. -0.003 min

Lab File: VL040382.D

Acq: 19 Apr 2023 16:34

Instrument :

MSVOA_L

ClientSampleId :

AP-2A

Tgt Ion:105 Resp: 42716

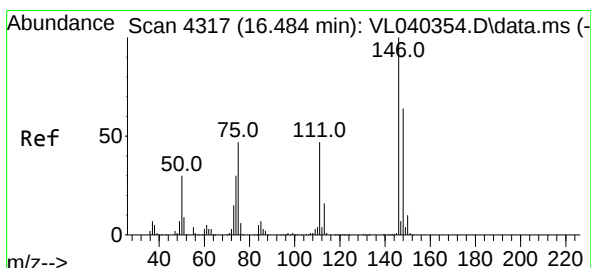
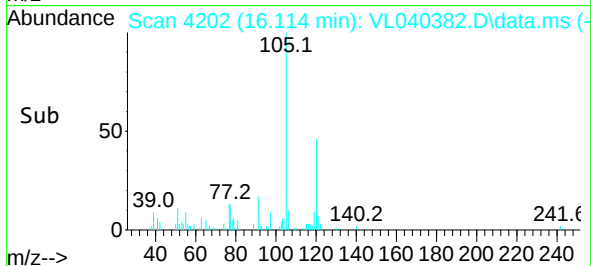
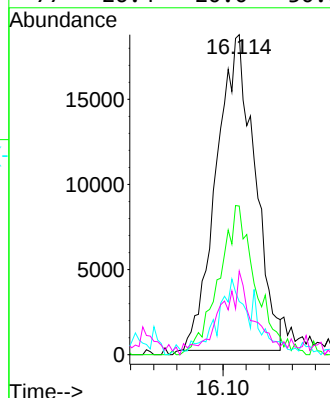
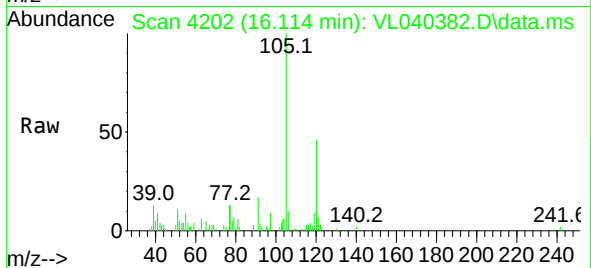
Ion Ratio Lower Upper

105 100

120 47.1 38.9 58.3

91 15.1 46.0 69.0#

77 26.4 20.0 30.0



#76

1,4-Dichlorobenzene

Concen: 0.093 ppbv

RT: 16.477 min Scan# 4315

Delta R.T. -0.007 min

Lab File: VL040382.D

Acq: 19 Apr 2023 16:34

Tgt Ion:146 Resp: 14966

Ion Ratio Lower Upper

146 100

111 86.8 23.8 71.4#

148 0.0 32.4 97.2#

