

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL092122\
 Data File : VL039653.D
 Acq On : 22 Sep 2022 2:56
 Operator : SY/AP
 Sample : N4669-07
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0PF9

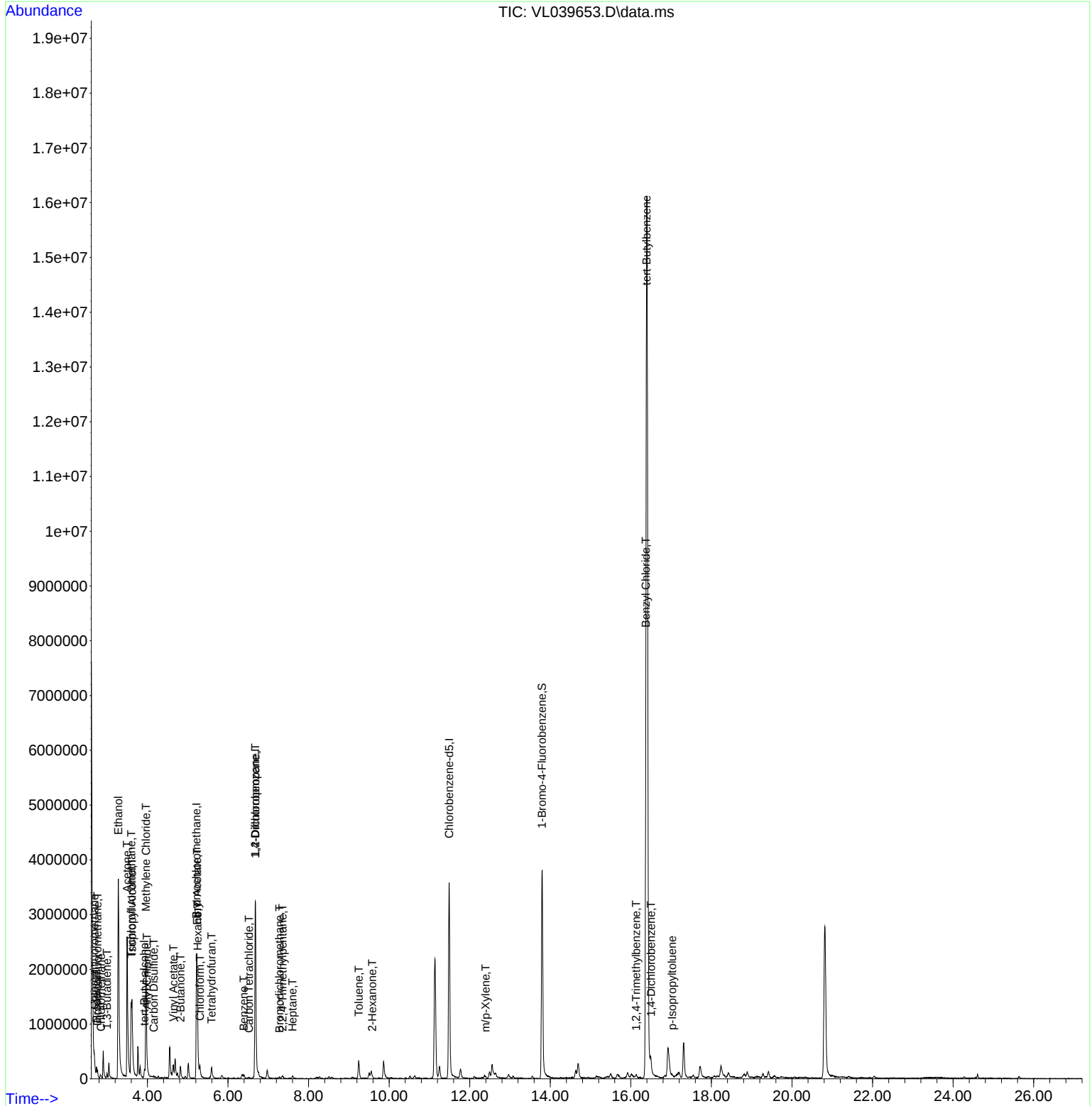
Quant Time: Sep 22 08:25:29 2022
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL091922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Mon Sep 19 14:26:28 2022
 Response via : Initial Calibration

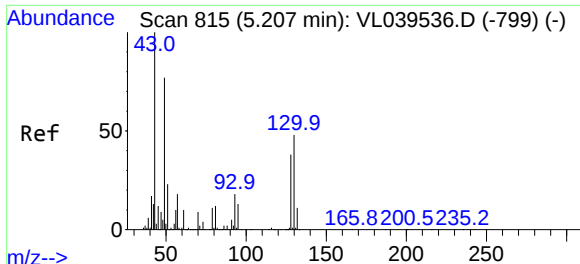
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.217	49	1025549	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	6.680	114	2555484	10.000	ppbv	0.02
55) Chlorobenzene-d5	11.491	117	2357752	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.796	95	1786567	10.151	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	= 101.500%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.761	85	76920	0.647	ppbv	97
3) Chlorodifluoromethane	2.684	51	158543	1.303	ppbv #	67
4) Chloromethane	2.848	50	32017	0.436	ppbv	96
9) Propene	2.735	41	37939	0.683	ppbv #	83
10) Heptane	7.603	43	14189	0.109	ppbv #	70
11) Trichlorofluoromethane	3.597	101	893249	6.067	ppbv	99
13) Ethanol	3.279	45	4277216	1009.929	ppbv	72
15) Acetone	3.497	43	2865360	25.109	ppbv	99
16) 1,3-Butadiene	2.999	39	22828	0.394	ppbv #	17
17) tert-Butyl alcohol	3.925	59	93302	0.911	ppbv #	93
19) Isopropyl Alcohol	3.616	45	1265156	21.749	ppbv #	96
20) Methylene Chloride	3.963	84	792435	15.019	ppbv	95
21) Allyl Chloride	3.989	41	3505	0.045	ppbv #	32
23) Vinyl Acetate	4.645	43	110469	2.141	ppbv #	37
25) Ethyl Acetate	5.234	43	442647	1.779	ppbv #	92
26) Hexane	5.243	57	353156	3.344	ppbv #	59
27) Carbon Disulfide	4.156	76	16209	0.146	ppbv #	84
29) Chloroform	5.301	83	105853	0.694	ppbv	95
34) 2-Butanone	4.819	43	245102	1.953	ppbv	98
35) Carbon Tetrachloride	6.520	117	7321	0.054	ppbv #	62
36) Benzene	6.394	78	31134	0.159	ppbv #	90
39) 1,2-Dichloropropane	6.677	63	617828	8.189	ppbv #	25
41) Tetrahydrofuran	5.590	42	95677	1.242	ppbv	95
42) Bromodichloromethane	7.278	83	7123	0.048	ppbv #	85
44) 2,2,4-Trimethylpentane	7.352	57	28048	0.083	ppbv #	49
51) 2-Hexanone	9.581	43	17402	0.119	ppbv #	96
53) Toluene	9.243	91	245747	1.131	ppbv	98
59) m/p-Xylene	12.397	91	11419	0.047	ppbv #	32
65) tert-Butylbenzene	16.394	119	302630	0.985	ppbv #	24
66) Benzyl Chloride	16.371	91	2158	0.088	ppbv #	1
69) p-Isopropyltoluene	17.024	119	12592	0.036	ppbv #	48
74) 1,2,4-Trimethylbenzene	16.133	105	21711	0.080	ppbv #	60
76) 1,4-Dichlorobenzene	16.503	146	6400	0.040	ppbv #	22

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

Quant Time: Sep 22 08:25:29 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL091922AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Mon Sep 19 14:26:28 2022
Response via : Initial Calibration

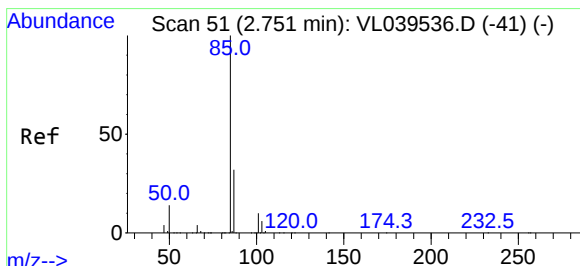
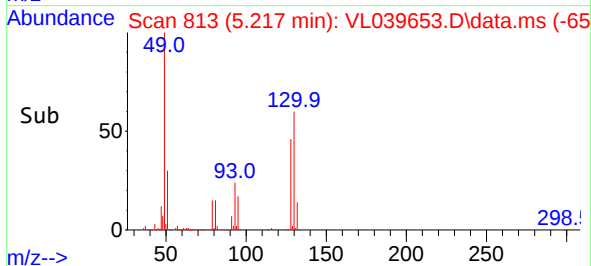
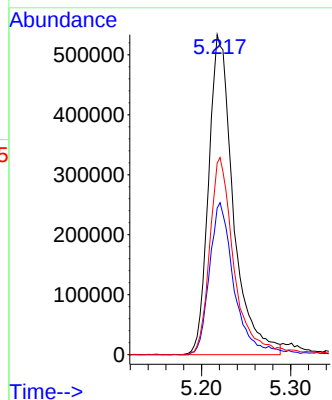
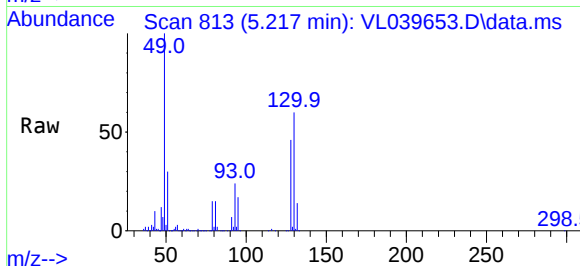




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.217 min Scan# 81
Delta R.T. 0.010 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

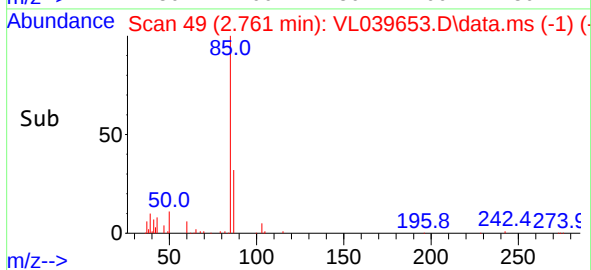
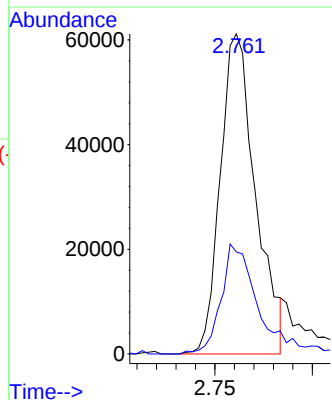
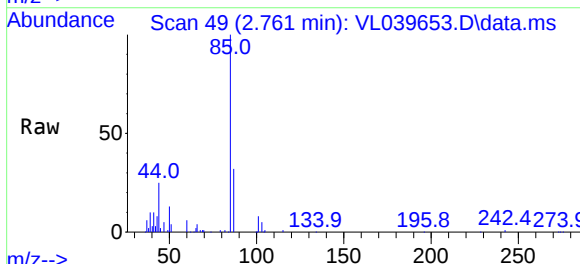
Instrument :
MSVOA_L
ClientSampleId :
COPF9

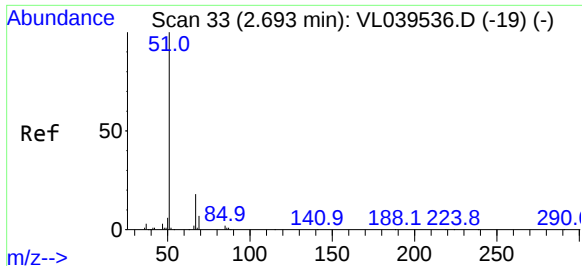
Tgt Ion: 49 Resp: 1025549
Ion Ratio Lower Upper
49 100
128 48.1 26.7 80.0
130 62.9 34.3 102.8



#2
Dichlorodifluoromethane
Concen: 0.647 ppbv
RT: 2.761 min Scan# 49
Delta R.T. 0.010 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 85 Resp: 76920
Ion Ratio Lower Upper
85 100
87 31.9 26.7 40.1

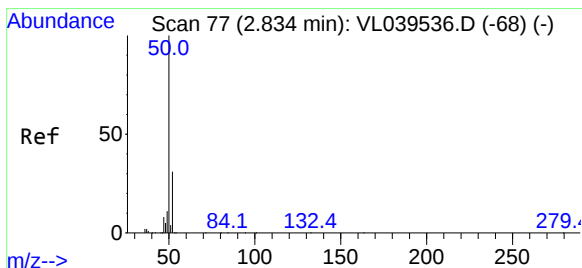
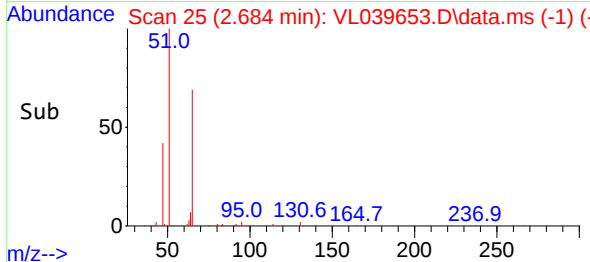
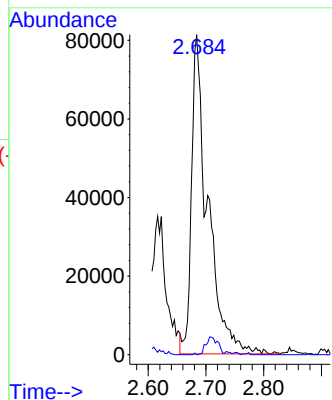
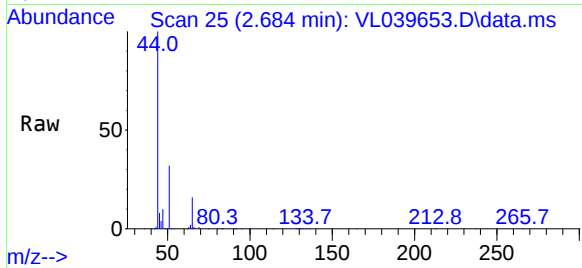




#3
Chlorodifluoromethane
Concen: 1.303 ppbv
RT: 2.684 min Scan# 21
Delta R.T. -0.009 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

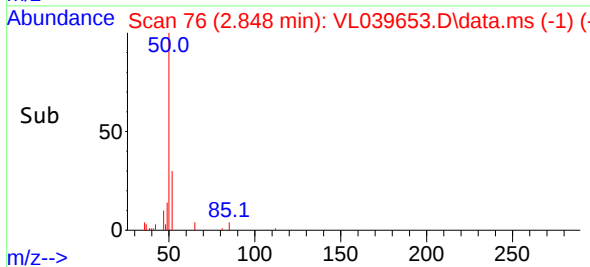
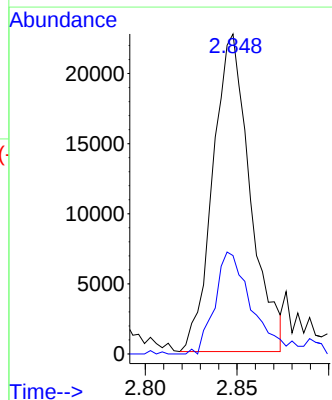
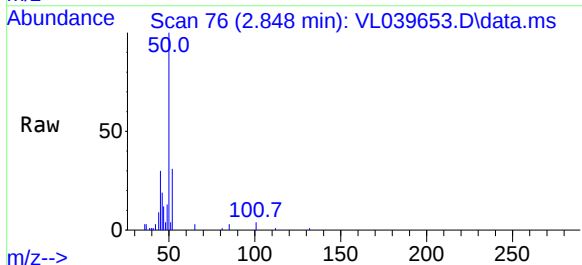
Instrument :
MSVOA_L
ClientSampleId :
COPF9

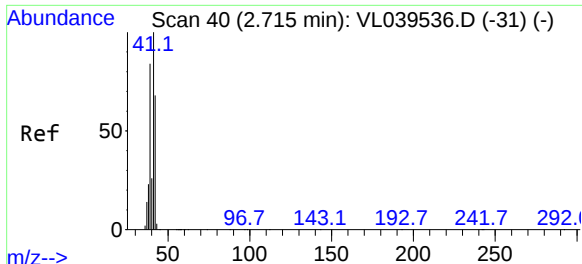
Tgt Ion: 51 Resp: 158543
Ion Ratio Lower Upper
51 100
67 4.8 15.7 23.5#



#4
Chloromethane
Concen: 0.436 ppbv
RT: 2.848 min Scan# 76
Delta R.T. 0.013 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 50 Resp: 32017
Ion Ratio Lower Upper
50 100
52 31.0 26.5 39.7

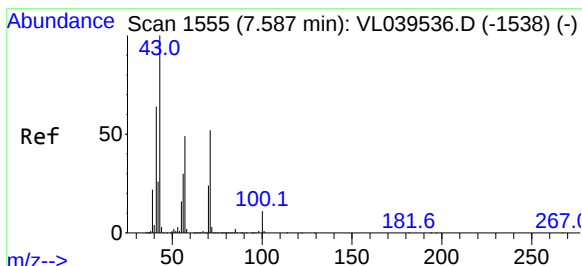
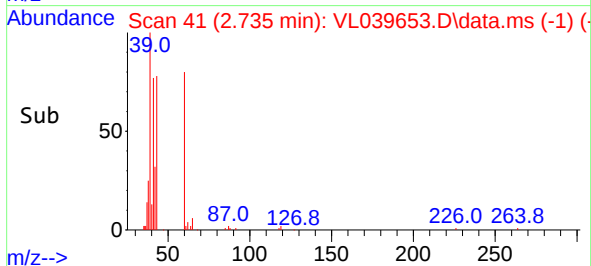
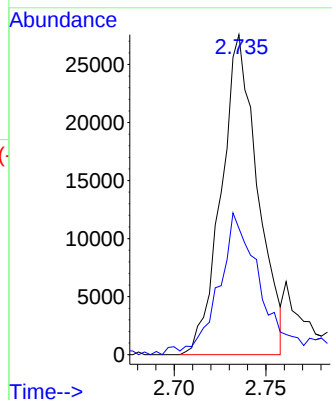
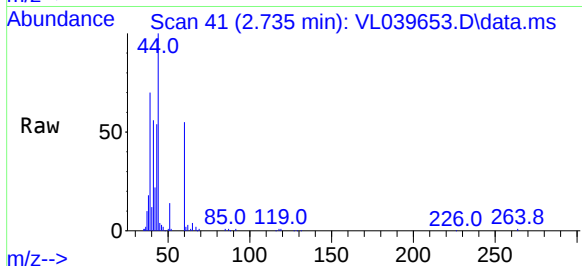




#9
Propene
Concen: 0.683 ppbv
RT: 2.735 min Scan# 41
Delta R.T. 0.020 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

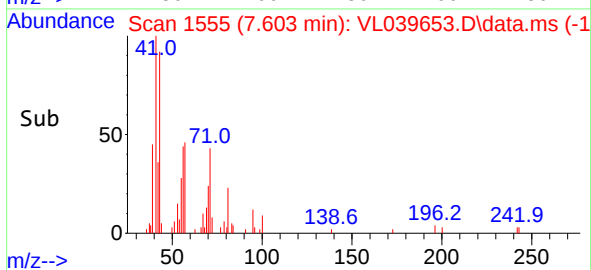
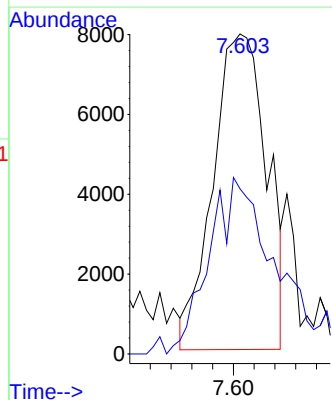
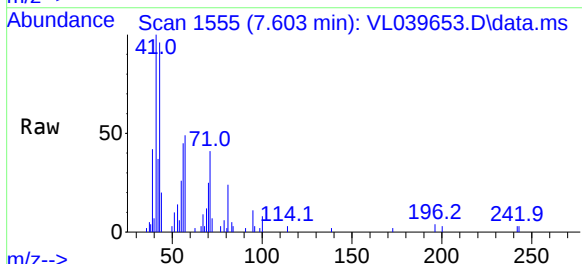
Instrument :
MSVOA_L
ClientSampleId :
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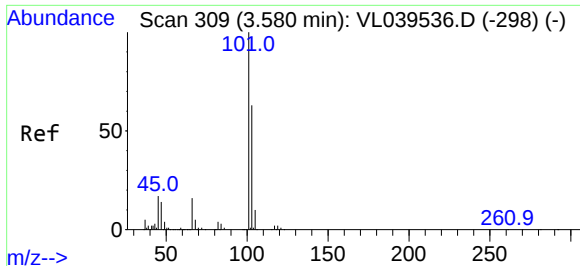
Tgt Ion: 41 Resp: 37939
Ion Ratio Lower Upper
41 100
42 55.1 55.2 82.8#



#10
Heptane
Concen: 0.109 ppbv
RT: 7.603 min Scan# 1555
Delta R.T. 0.017 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 43 Resp: 14189
Ion Ratio Lower Upper
43 100
57 71.1 40.5 60.7#

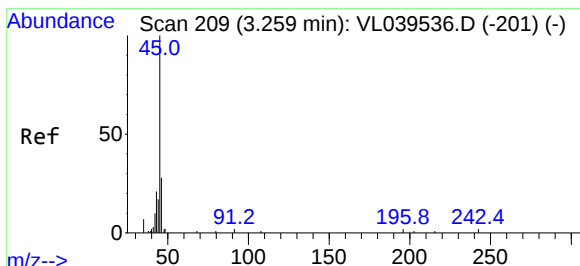
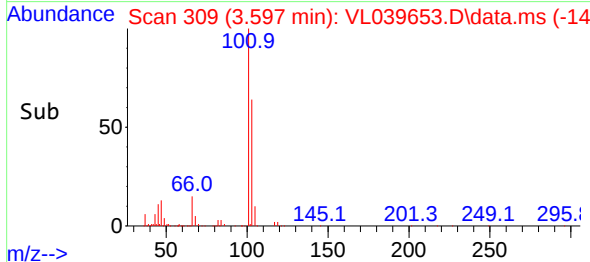
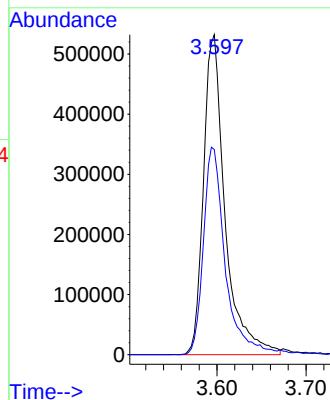
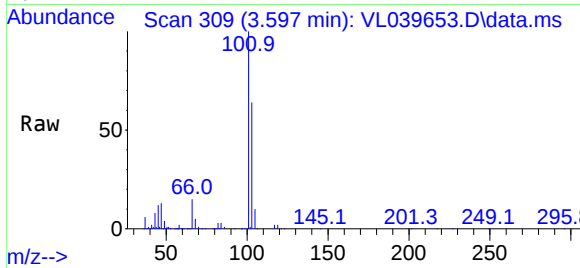




#11
 Trichlorofluoromethane
 Concen: 6.067 ppbv
 RT: 3.597 min Scan# 309
 Delta R.T. 0.017 min
 Lab File: VL039653.D
 Acq: 22 Sep 2022 2:56

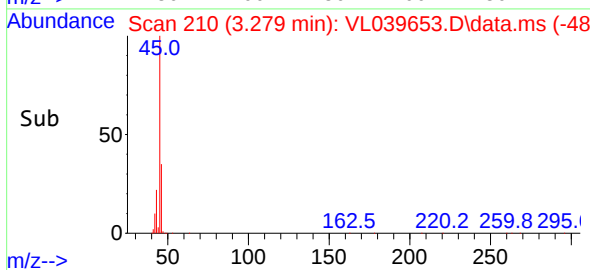
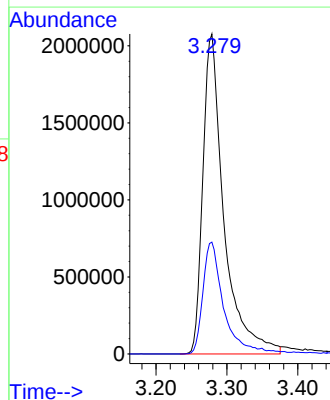
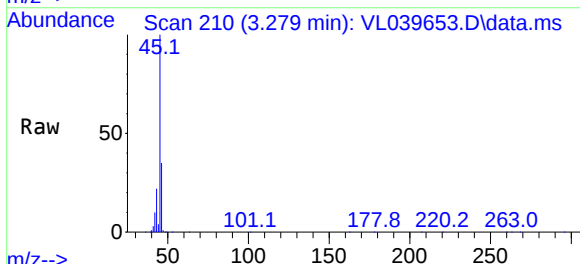
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 ClientSampleId :
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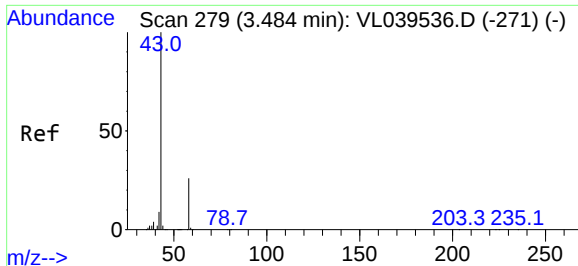
Tgt Ion:101 Resp: 893249
 Ion Ratio Lower Upper
 101 100
 103 64.1 51.8 77.8



#13
 Ethanol
 Concen: 1009.929 ppbv
 RT: 3.279 min Scan# 210
 Delta R.T. 0.020 min
 Lab File: VL039653.D
 Acq: 22 Sep 2022 2:56

Tgt Ion: 45 Resp: 4277216
 Ion Ratio Lower Upper
 45 100
 46 36.1 22.8 91.2

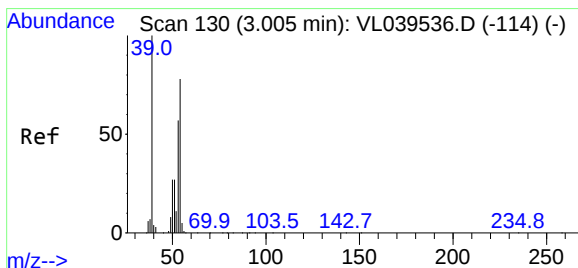
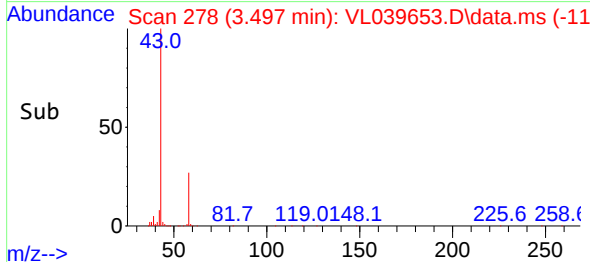
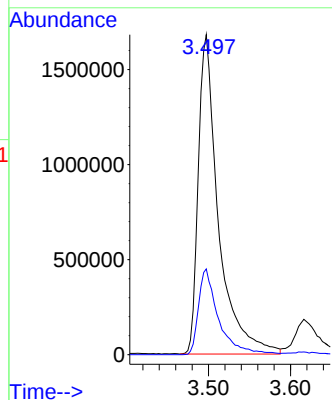
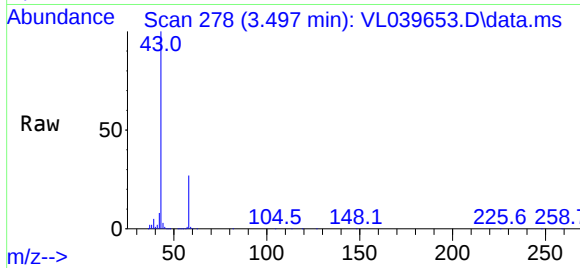




#15
Acetone
Concen: 25.109 ppbv
RT: 3.497 min Scan# 21
Delta R.T. 0.013 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

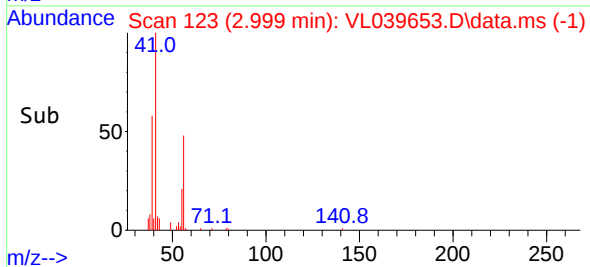
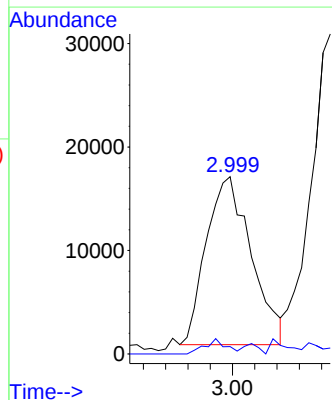
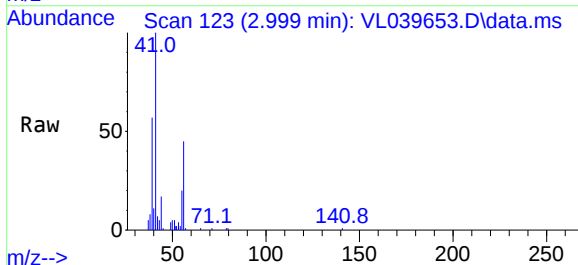
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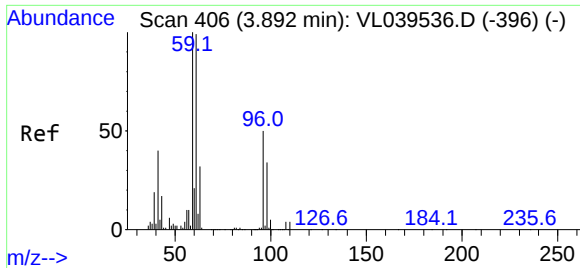
Tgt Ion: 43 Resp: 2865360
Ion Ratio Lower Upper
43 100
58 26.8 21.0 31.6



#16
1,3-Butadiene
Concen: 0.394 ppbv
RT: 2.999 min Scan# 123
Delta R.T. -0.006 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 39 Resp: 22828
Ion Ratio Lower Upper
39 100
54 6.2 63.7 95.5#

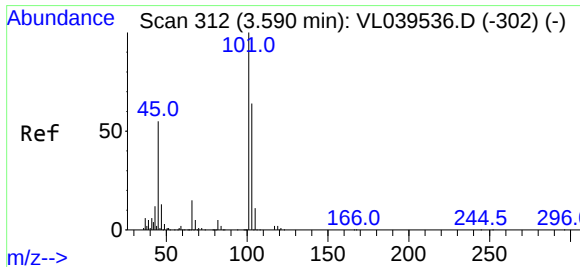
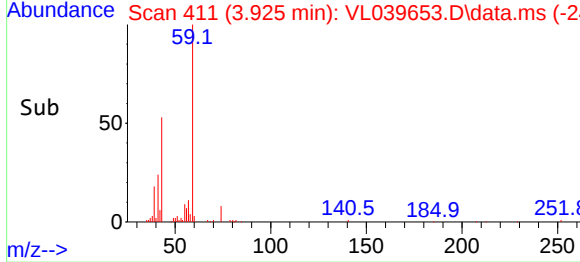
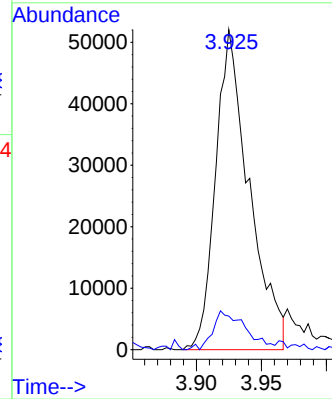
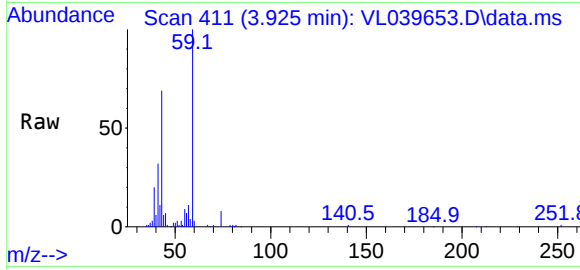




#17
tert-Butyl alcohol
Concen: 0.911 ppbv
RT: 3.925 min Scan# 411
Delta R.T. 0.033 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

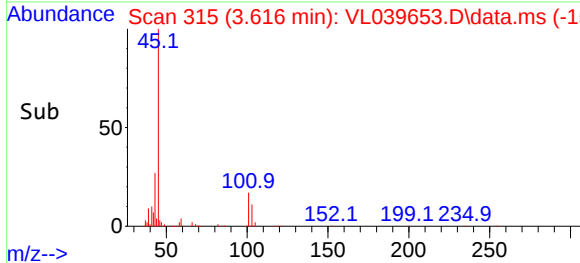
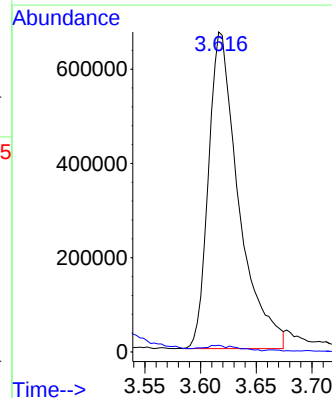
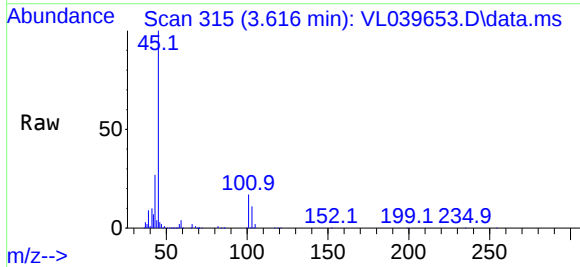
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ClientSampleId :
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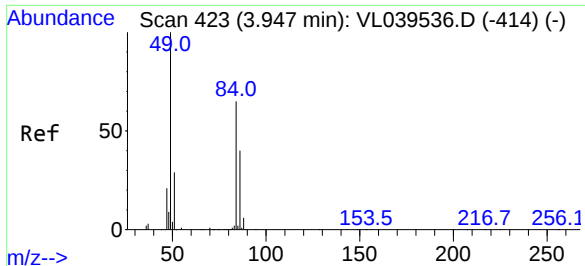
Tgt Ion: 59 Resp: 93302
Ion Ratio Lower Upper
59 100
57 13.7 8.7 13.1#



#19
Isopropyl Alcohol
Concen: 21.749 ppbv
RT: 3.616 min Scan# 315
Delta R.T. 0.026 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 45 Resp: 1265156
Ion Ratio Lower Upper
45 100
58 2.5 3.2 4.8#



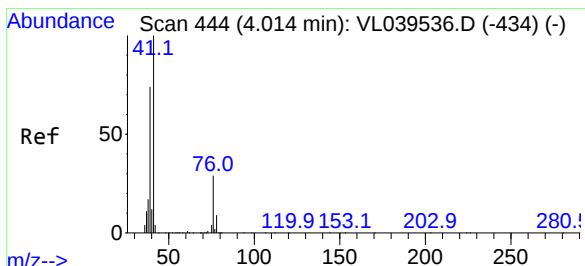
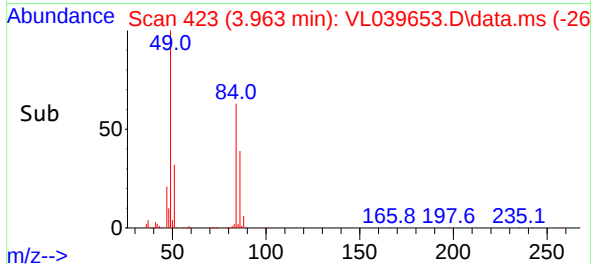
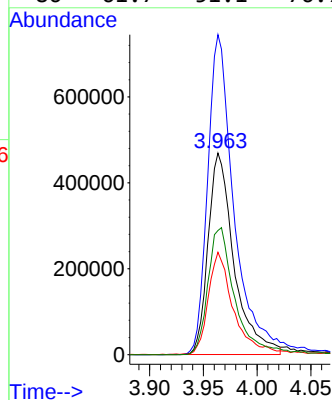
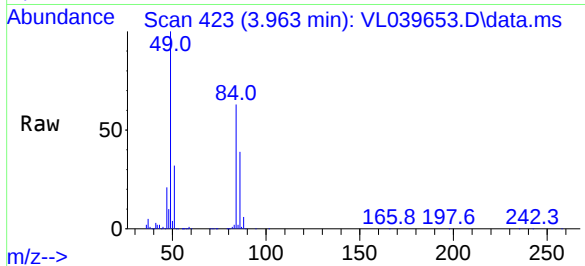


#20
Methylene Chloride
Concen: 15.019 ppbv
RT: 3.963 min Scan# 41
Delta R.T. 0.017 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Instrument :
MSVOA_L
ClientSampleId :
COPF9

Tgt Ion: 84 Resp: 792435

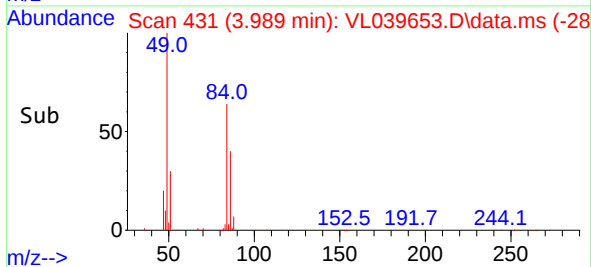
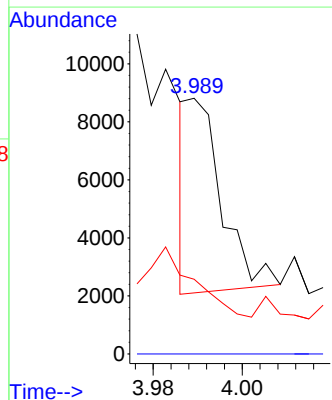
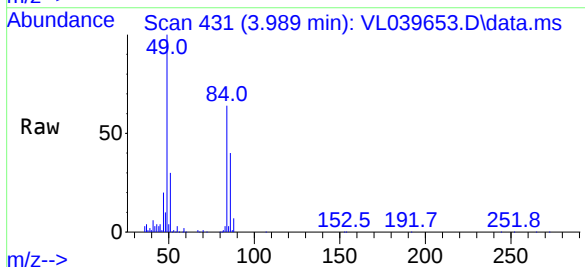
Ion	Ratio	Lower	Upper
84	100		
49	158.8	123.1	184.7
51	50.6	34.4	51.6
86	61.7	51.1	76.7

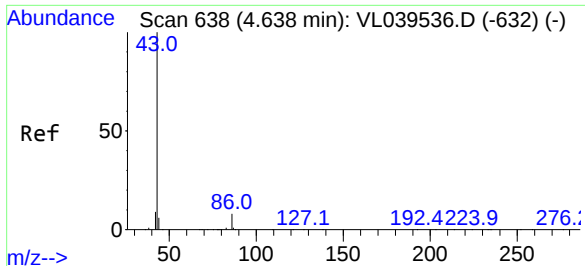


#21
Allyl Chloride
Concen: 0.045 ppbv
RT: 3.989 min Scan# 431
Delta R.T. -0.025 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 41 Resp: 3505

Ion	Ratio	Lower	Upper
41	100		
76	0.0	24.4	36.6#
39	143.3	63.5	95.3#



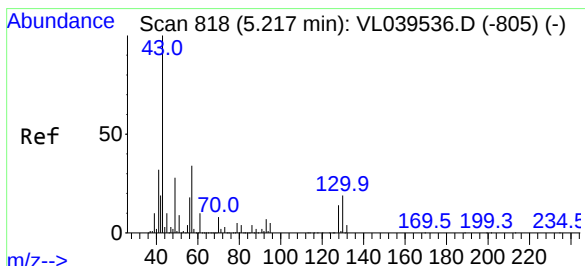
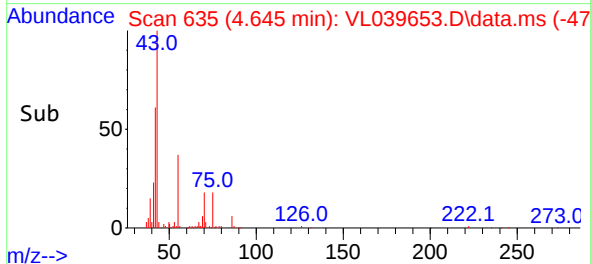
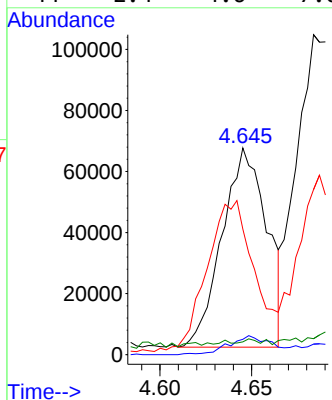
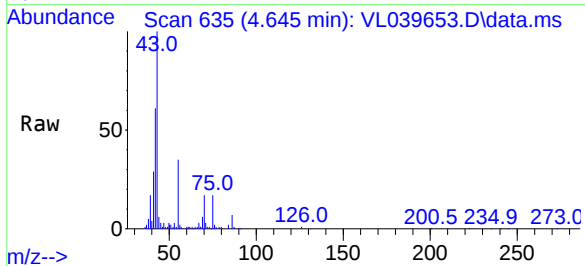


#23
 Vinyl Acetate
 Concen: 2.141 ppbv
 RT: 4.645 min Scan# 61
 Delta R.T. 0.007 min
 Lab File: VL039653.D
 Acq: 22 Sep 2022 2:56

Instrument :
 MSVOA_L
 ClientSampleId :
 C0PF9

Tgt Ion: 43 Resp: 110469

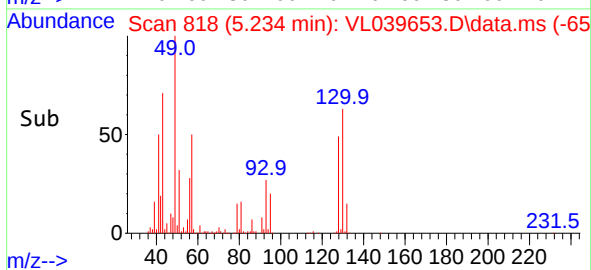
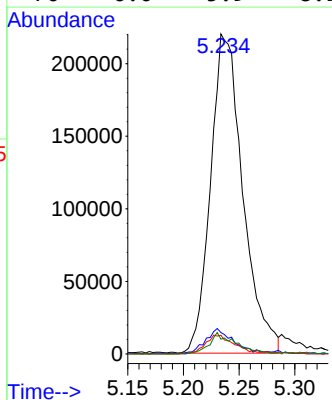
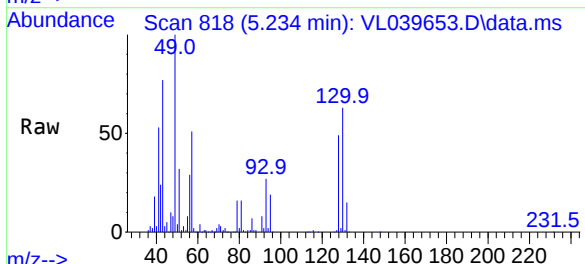
Ion	Ratio	Lower	Upper
43	100		
86	7.7	5.0	7.6#
42	58.8	7.7	11.5#
44	2.4	4.6	7.0#

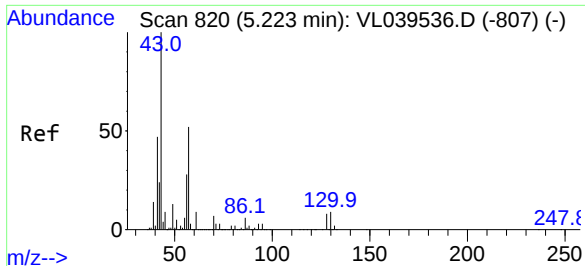


#25
 Ethyl Acetate
 Concen: 1.779 ppbv
 RT: 5.234 min Scan# 818
 Delta R.T. 0.017 min
 Lab File: VL039653.D
 Acq: 22 Sep 2022 2:56

Tgt Ion: 43 Resp: 442647

Ion	Ratio	Lower	Upper
43	100		
45	7.6	8.2	12.4#
61	5.7	8.3	12.5#
70	6.0	5.9	8.9

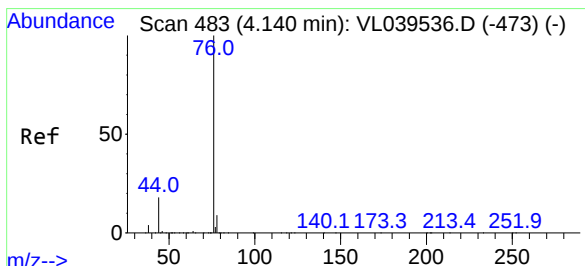
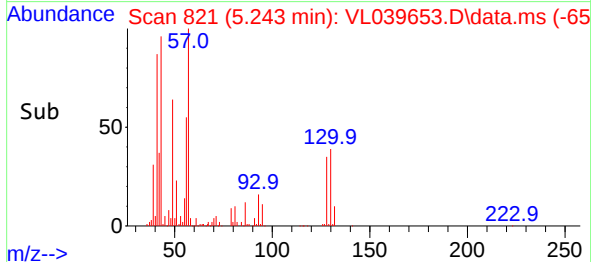
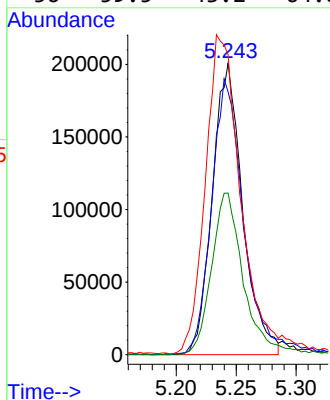
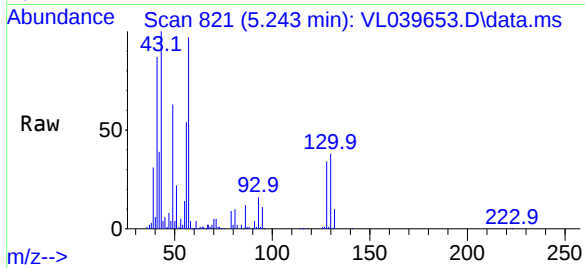




#26
Hexane
Concen: 3.344 ppbv
RT: 5.243 min Scan# 81
Delta R.T. 0.020 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

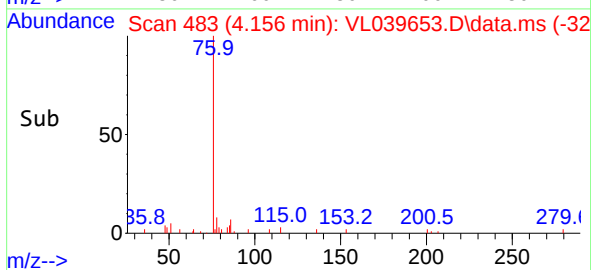
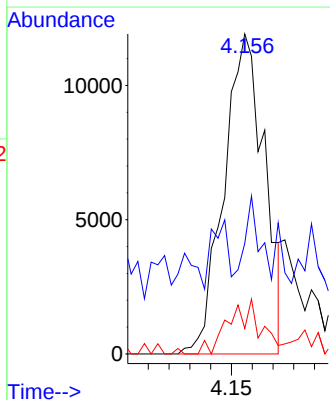
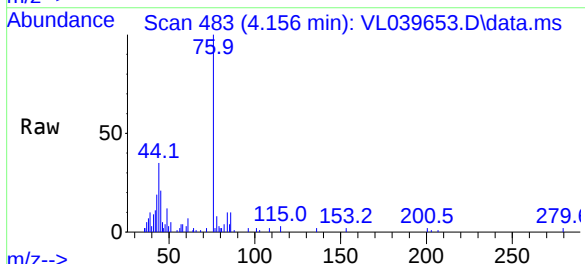
Instrument :
MSVOA_L
ClientSampleId :
COPF9

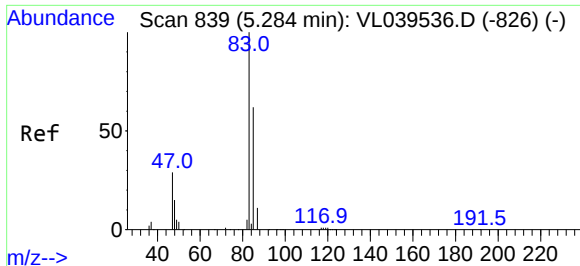
Tgt Ion: 57 Resp: 353156
Ion Ratio Lower Upper
57 100
41 102.1 76.9 115.3
43 131.6 191.0 286.6#
56 59.5 43.2 64.8



#27
Carbon Disulfide
Concen: 0.146 ppbv
RT: 4.156 min Scan# 483
Delta R.T. 0.017 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 76 Resp: 16209
Ion Ratio Lower Upper
76 100
44 12.8 14.6 21.8#
78 18.1 7.8 11.6#





#29

Chloroform

Concen: 0.694 ppbv

RT: 5.301 min Scan# 81

Delta R.T. 0.017 min

Lab File: VL039653.D

Acq: 22 Sep 2022 2:56

Instrument :

MSVOA_L

ClientSampleId :

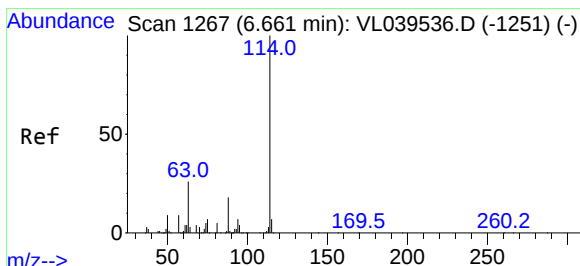
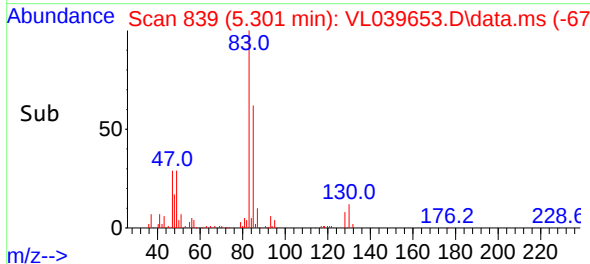
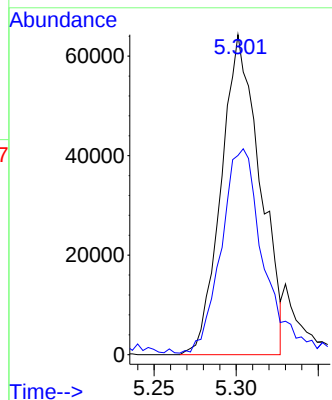
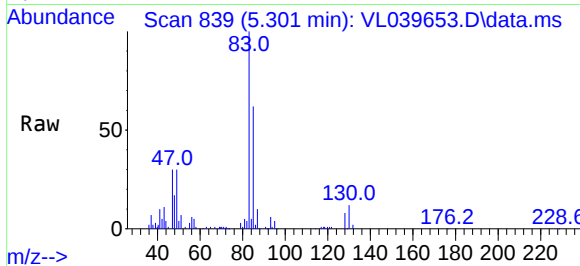
COPF9

Tgt Ion: 83 Resp: 105853

Ion Ratio Lower Upper

83 100

85 61.7 52.8 79.2



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.680 min Scan# 1268

Delta R.T. 0.020 min

Lab File: VL039653.D

Acq: 22 Sep 2022 2:56

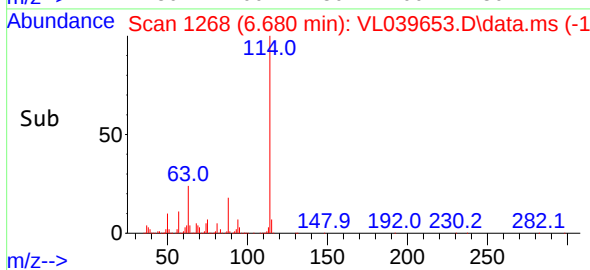
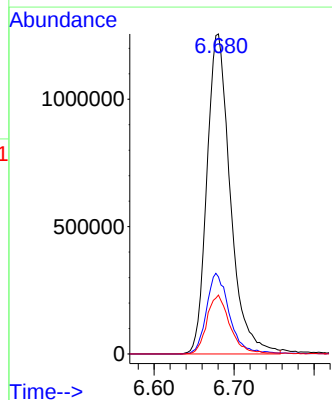
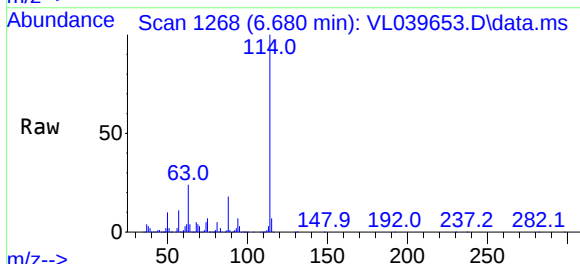
Tgt Ion: 114 Resp: 2555484

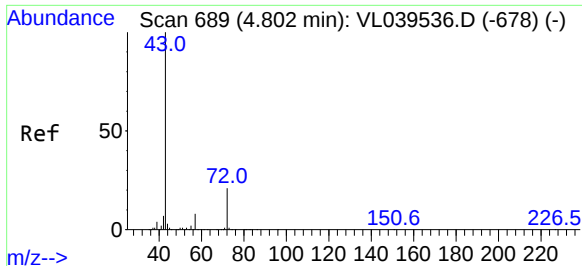
Ion Ratio Lower Upper

114 100

63 25.0 20.2 30.4

88 18.4 14.5 21.7

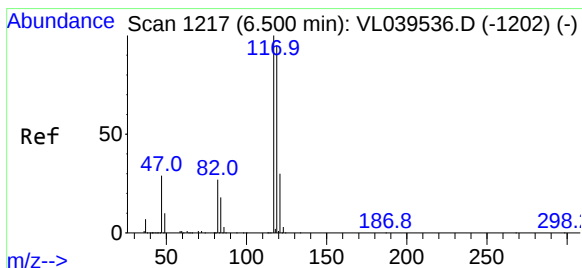
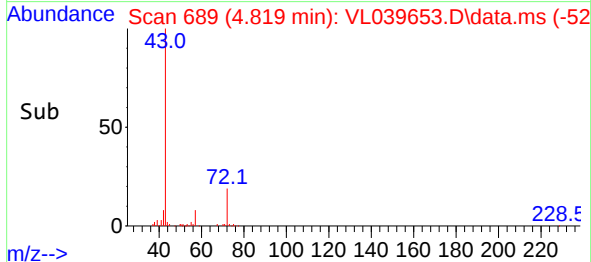
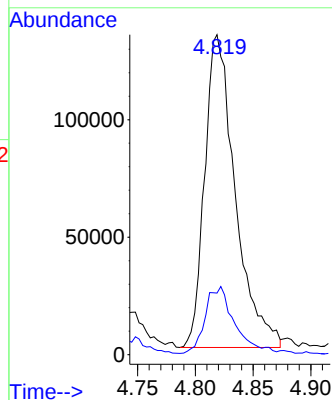
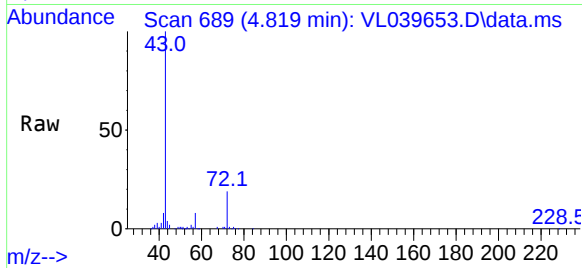




#34
2-Butanone
Concen: 1.953 ppbv
RT: 4.819 min Scan# 61
Delta R.T. 0.017 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

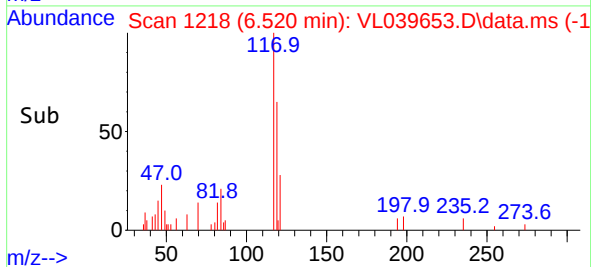
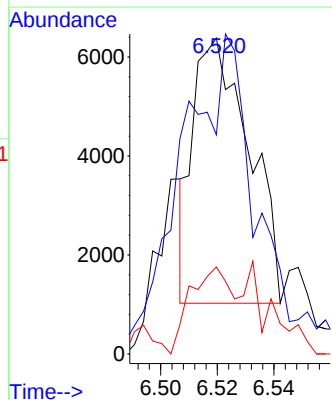
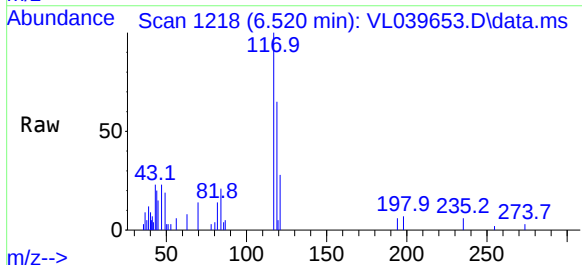
Instrument :
MSVOA_L
ClientSampleId :
COPF9

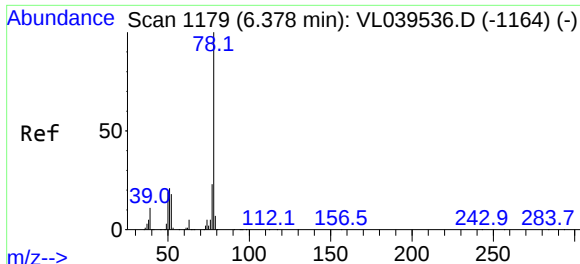
Tgt Ion: 43 Resp: 245102
Ion Ratio Lower Upper
43 100
72 21.6 17.9 26.9



#35
Carbon Tetrachloride
Concen: 0.054 ppbv
RT: 6.520 min Scan# 1218
Delta R.T. 0.020 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 117 Resp: 7321
Ion Ratio Lower Upper
117 100
119 50.9 75.4 113.2#
121 21.8 24.2 36.2#

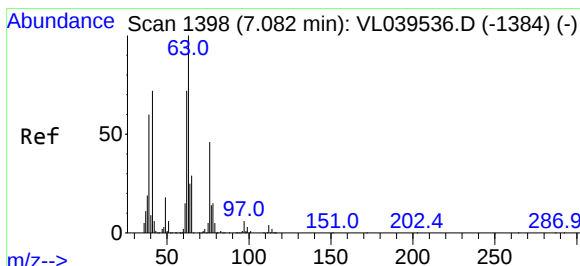
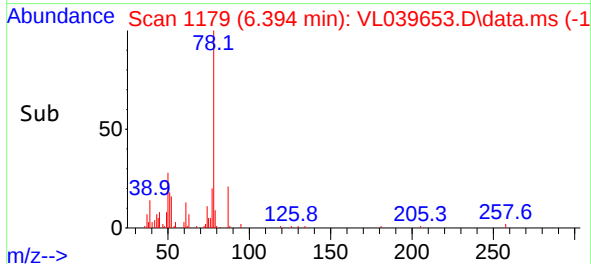
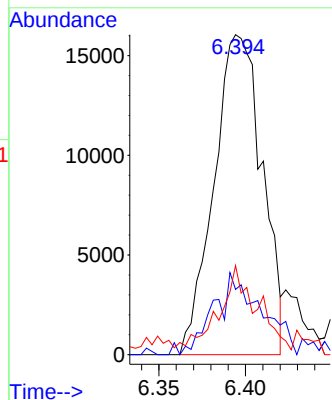
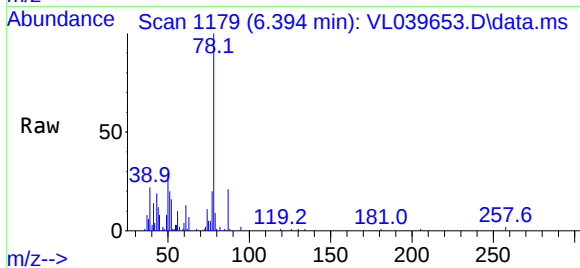




#36
Benzene
Concen: 0.159 ppbv
RT: 6.394 min Scan# 1179
Delta R.T. 0.017 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

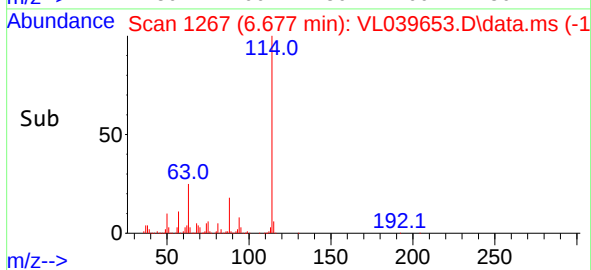
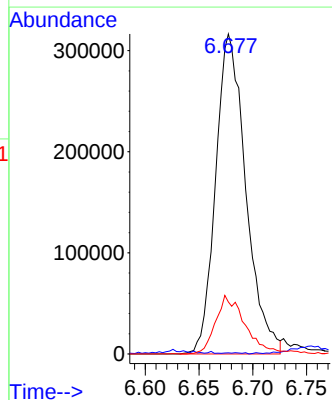
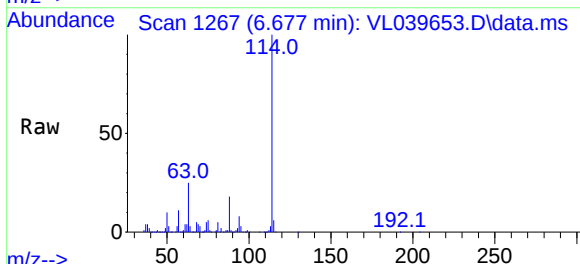
Instrument :
MSVOA_L
ClientSampleId :
COPF9

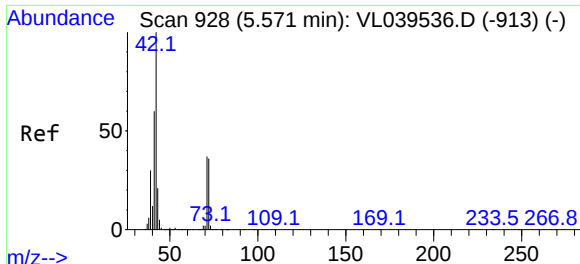
Tgt Ion: 78 Resp: 31134
Ion Ratio Lower Upper
78 100
77 20.4 20.3 30.5
50 24.1 15.5 23.3#



#39
1,2-Dichloropropane
Concen: 8.189 ppbv
RT: 6.677 min Scan# 1267
Delta R.T. -0.405 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 63 Resp: 617828
Ion Ratio Lower Upper
63 100
41 0.0 59.6 89.4#
62 16.3 51.4 77.0#

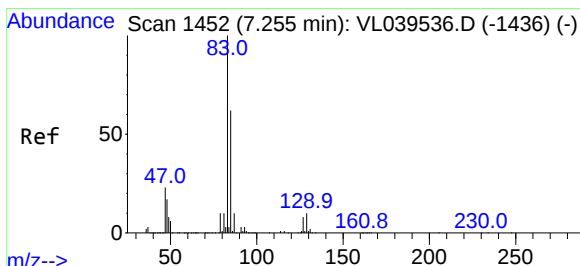
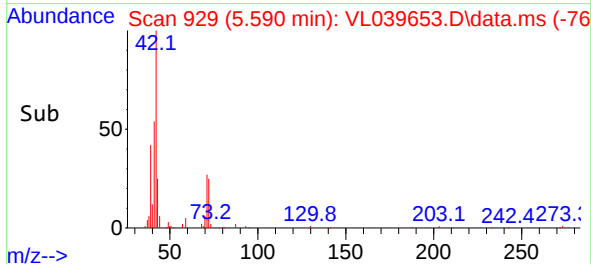
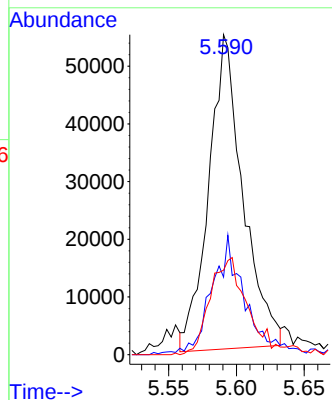
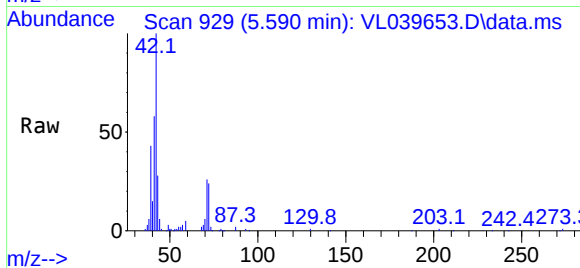




#41
Tetrahydrofuran
Concen: 1.242 ppbv
RT: 5.590 min Scan# 91
Delta R.T. 0.020 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

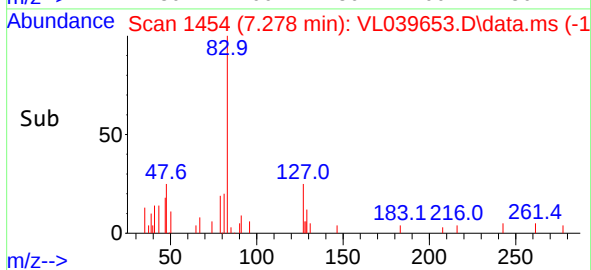
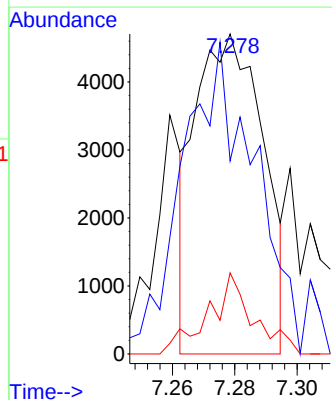
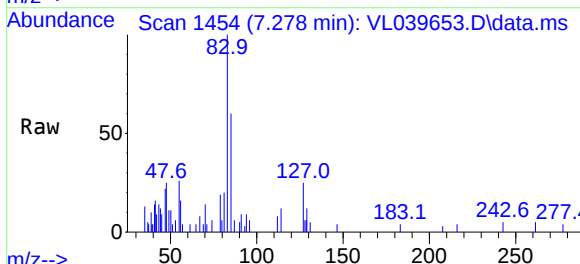
Instrument :
MSVOA_L
ClientSampleId :
C0PF9

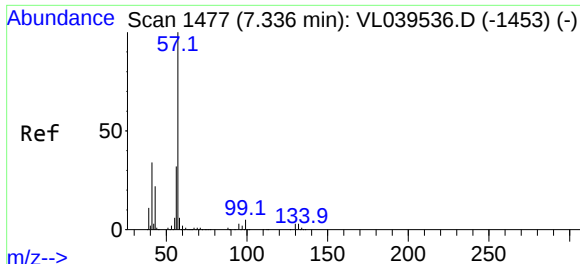
Tgt Ion:	42	Resp:	95677
Ion	Ratio	Lower	Upper
42	100		
72	38.4	31.8	47.8
71	34.9	31.8	47.8



#42
Bromodichloromethane
Concen: 0.048 ppbv
RT: 7.278 min Scan# 1454
Delta R.T. 0.023 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion:	83	Resp:	7123
Ion	Ratio	Lower	Upper
83	100		
85	56.4	50.7	76.1
127	30.0	6.6	9.8





#44

2,2,4-Trimethylpentane

Concen: 0.083 ppbv

RT: 7.352 min Scan# 14

Delta R.T. 0.017 min

Lab File: VL039653.D

Acq: 22 Sep 2022 2:56

Instrument :

MSVOA_L

ClientSampleId :

C0PF9

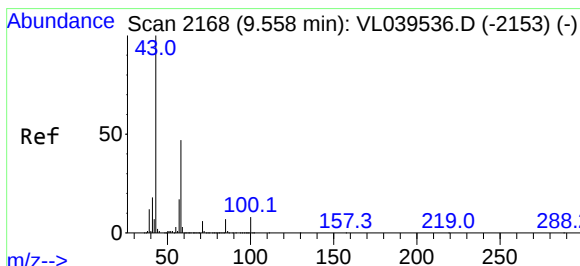
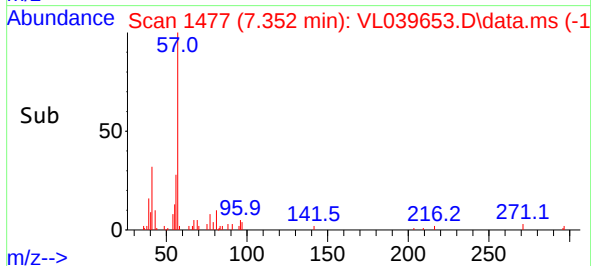
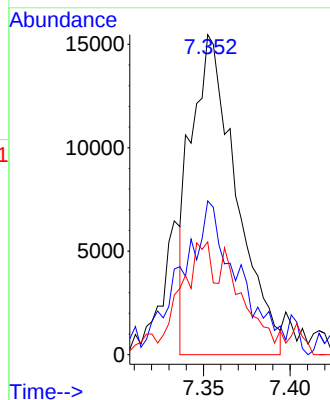
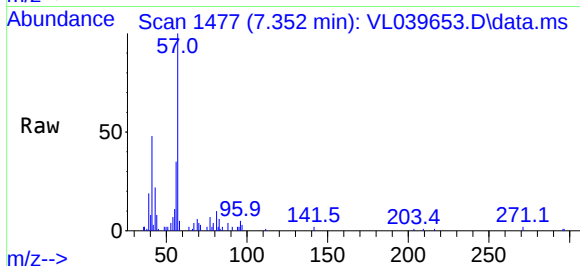
Tgt Ion: 57 Resp: 28048

Ion Ratio Lower Upper

57 100

41 69.5 27.4 41.2#

56 52.0 24.5 36.7#



#51

2-Hexanone

Concen: 0.119 ppbv

RT: 9.581 min Scan# 2170

Delta R.T. 0.023 min

Lab File: VL039653.D

Acq: 22 Sep 2022 2:56

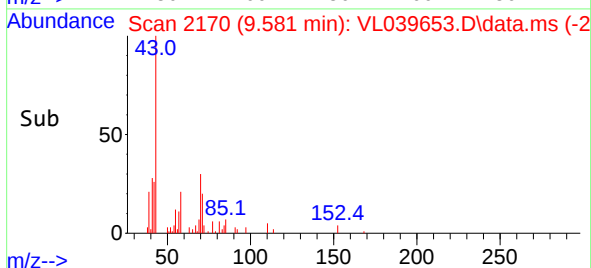
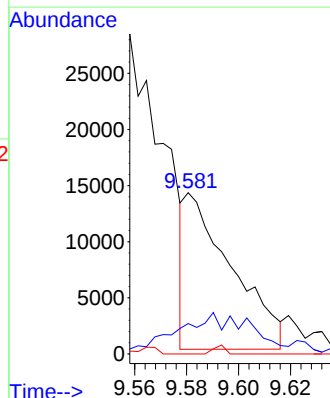
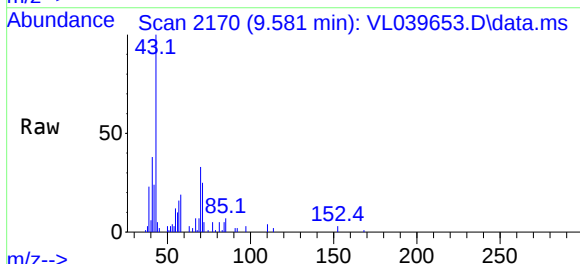
Tgt Ion: 43 Resp: 17402

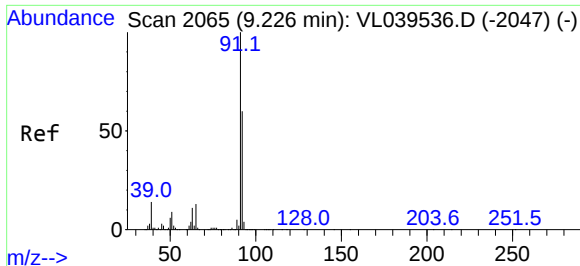
Ion Ratio Lower Upper

43 100

58 50.5 38.4 57.6

98 0.0 0.3 0.5#

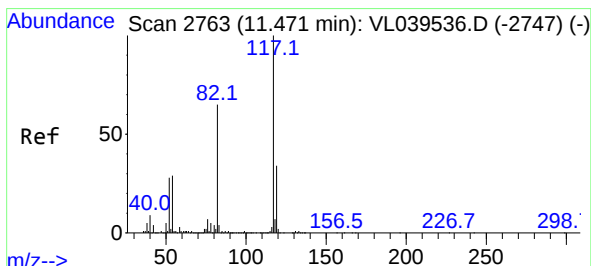
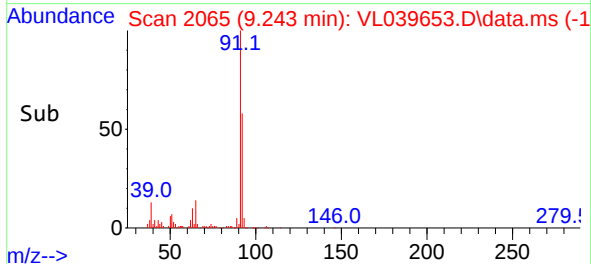
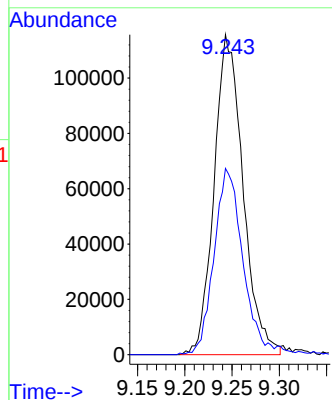
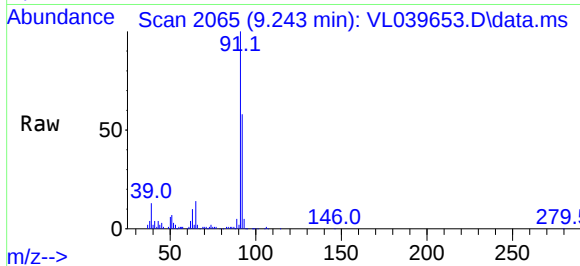




#53
Toluene
Concen: 1.131 ppbv
RT: 9.243 min Scan# 2065
Delta R.T. 0.017 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

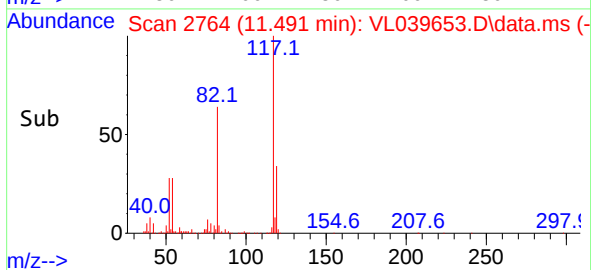
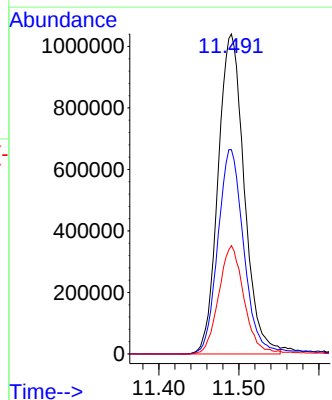
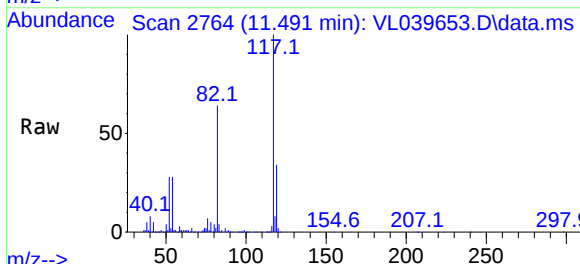
Instrument :
MSVOA_L
ClientSampleId :
C0PF9

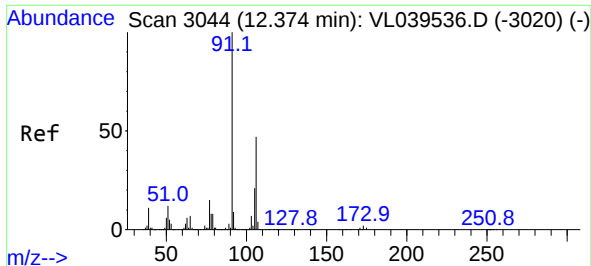
Tgt Ion: 91 Resp: 245747
Ion Ratio Lower Upper
91 100
92 59.0 48.2 72.2



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.491 min Scan# 2764
Delta R.T. 0.020 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 117 Resp: 2357752
Ion Ratio Lower Upper
117 100
82 64.5 50.8 76.2
119 33.3 24.1 36.1





#59

m/p-Xylene

Concen: 0.047 ppbv

RT: 12.397 min Scan# 3046

Delta R.T. 0.023 min

Lab File: VL039653.D

Acq: 22 Sep 2022 2:56

Instrument :

MSVOA_L

ClientSampleId :

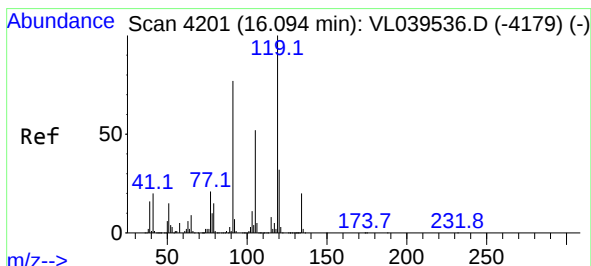
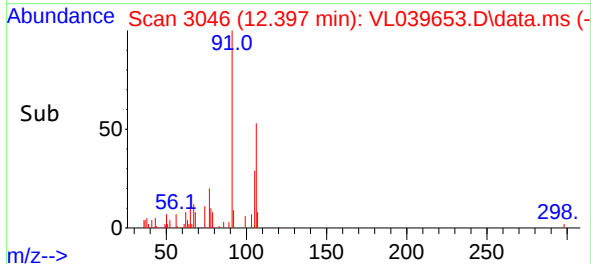
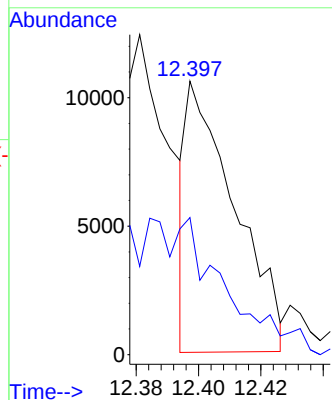
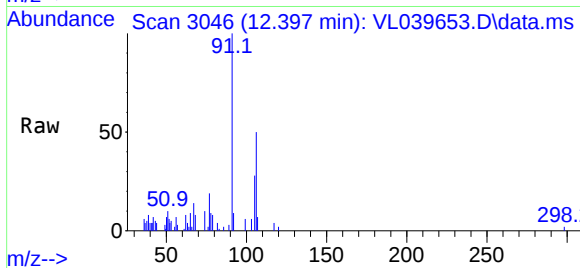
C0PF9

Tgt Ion: 91 Resp: 11419

Ion Ratio Lower Upper

91 100

106 0.0 35.4 53.2#



#65

tert-Butylbenzene

Concen: 0.985 ppbv

RT: 16.394 min Scan# 4289

Delta R.T. 0.300 min

Lab File: VL039653.D

Acq: 22 Sep 2022 2:56

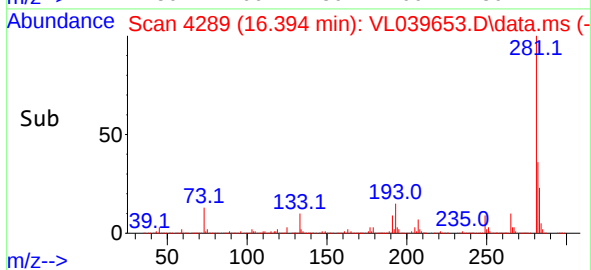
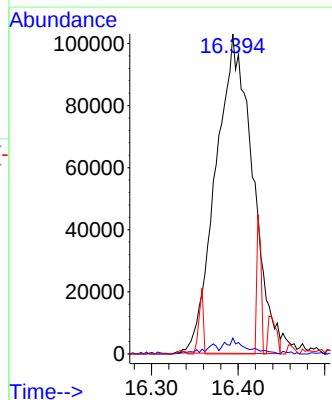
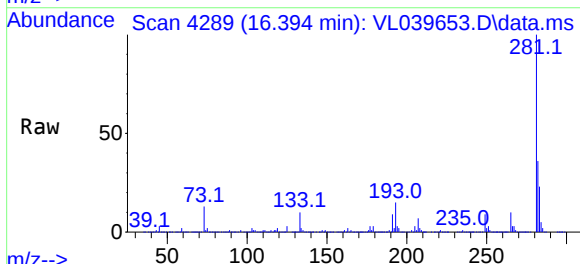
Tgt Ion: 119 Resp: 302630

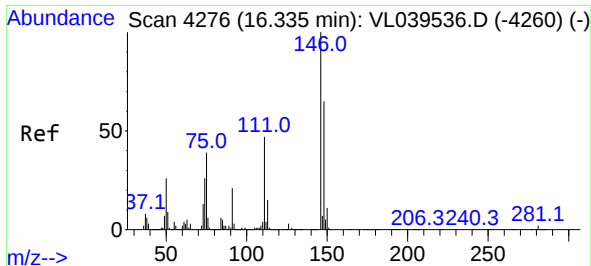
Ion Ratio Lower Upper

119 100

91 4.2 63.4 95.2#

134 2.6 15.9 23.9#

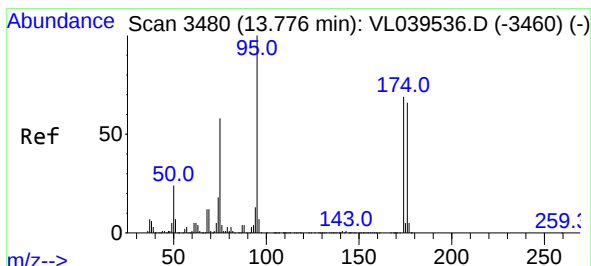
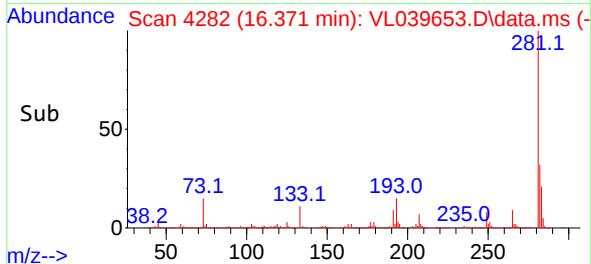
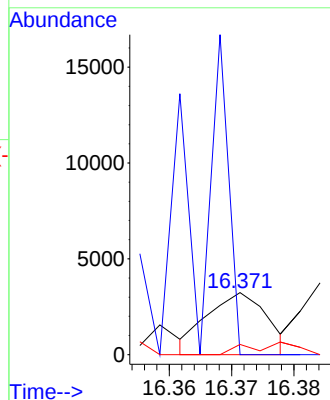
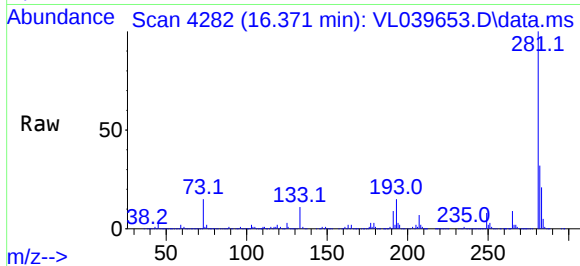




#66
Benzyl Chloride
Concen: 0.088 ppbv
RT: 16.371 min Scan# 41
Delta R.T. 0.036 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

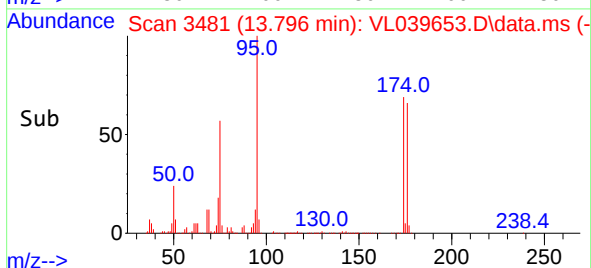
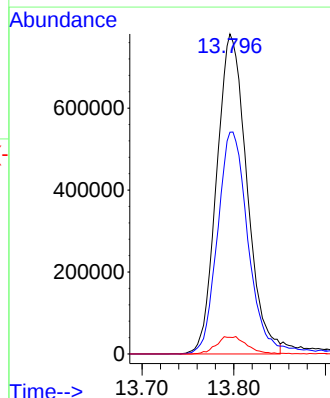
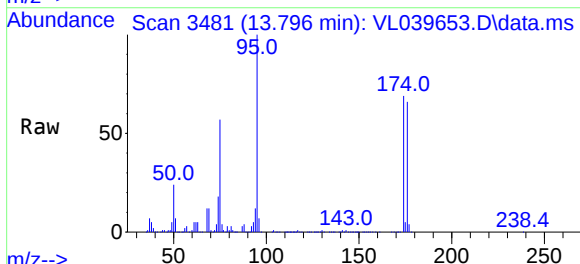
Instrument :
MSVOA_L
ClientSampleId :
COPF9

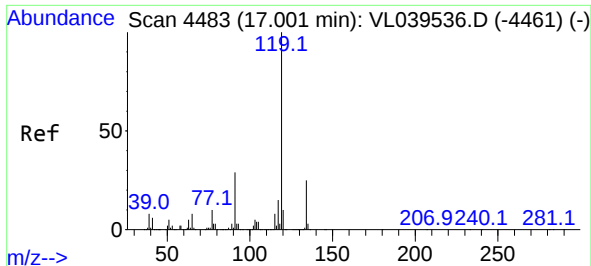
Tgt Ion: 91 Resp: 2158
Ion Ratio Lower Upper
91 100
126 386.8 13.1 19.7#
128 0.0 4.4 6.6#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.151 ppbv
RT: 13.796 min Scan# 3481
Delta R.T. 0.020 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Tgt Ion: 95 Resp: 1786567
Ion Ratio Lower Upper
95 100
174 73.1 55.9 83.9
175 5.5 4.2 6.4





#69

p-Isopropyltoluene

Concen: 0.036 ppbv

RT: 17.024 min Scan# 4485

Delta R.T. 0.023 min

Lab File: VL039653.D

Acq: 22 Sep 2022 2:56

Instrument :

MSVOA_L

ClientSampleId :

C0PF9

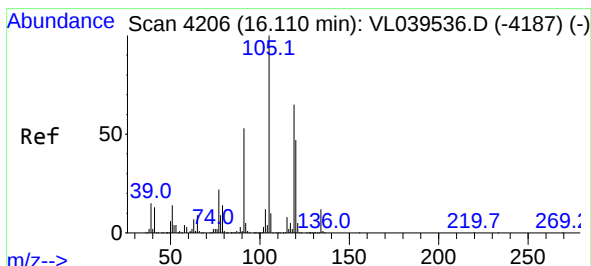
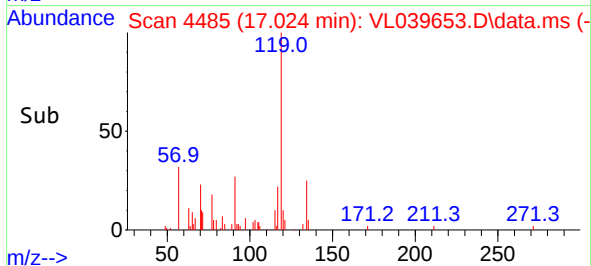
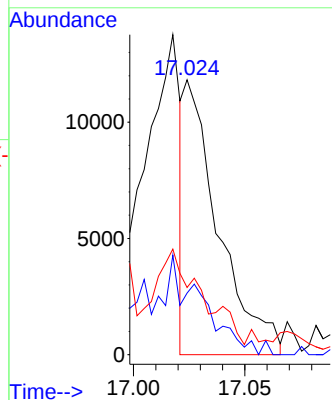
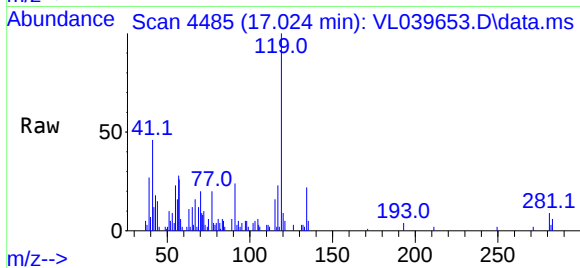
Tgt Ion:119 Resp: 12592

Ion Ratio Lower Upper

119 100

134 0.0 20.3 30.5#

91 0.0 22.9 34.3#



#74

1,2,4-Trimethylbenzene

Concen: 0.080 ppbv

RT: 16.133 min Scan# 4208

Delta R.T. 0.023 min

Lab File: VL039653.D

Acq: 22 Sep 2022 2:56

Tgt Ion:105 Resp: 21711

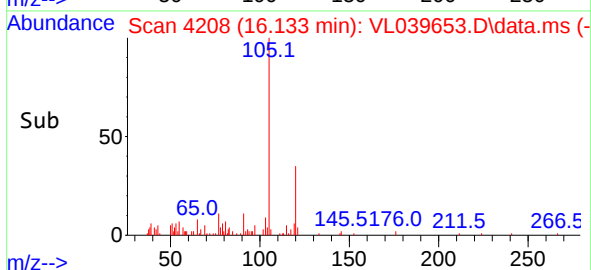
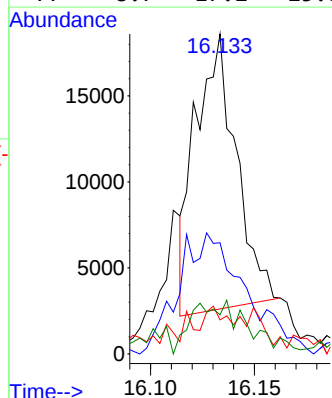
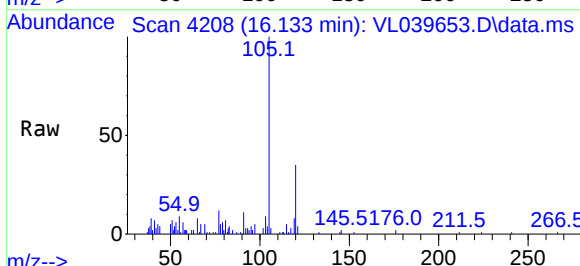
Ion Ratio Lower Upper

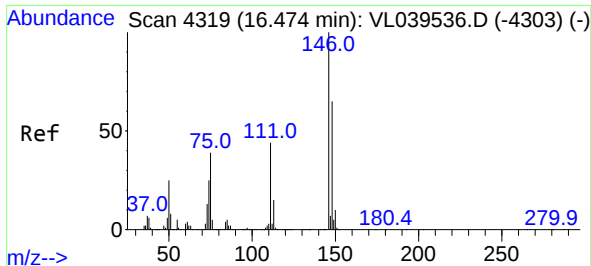
105 100

120 31.2 39.5 59.3#

91 8.3 39.2 58.8#

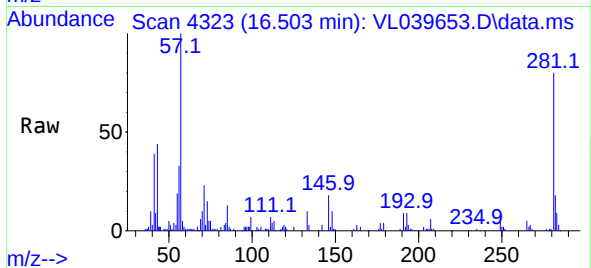
77 8.7 17.2 25.8#





#76
1,4-Dichlorobenzene
Concen: 0.040 ppbv
RT: 16.503 min Scan# 41
Delta R.T. 0.030 min
Lab File: VL039653.D
Acq: 22 Sep 2022 2:56

Instrument :
MSVOA_L
ClientSampleId :
C0PF9



Tgt Ion:146 Resp: 6400
Ion Ratio Lower Upper
146 100
111 0.0 22.9 68.8#
148 0.0 33.6 100.8#

