

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL071023\
 Data File : VL040522.D
 Acq On : 11 Jul 2023 1:21
 Operator : SY/MD
 Sample : 03535-02 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

Quant Time: Jul 11 02:11:53 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL071023AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Mon Jul 10 16:32:00 2023
 Response via : Initial Calibration

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

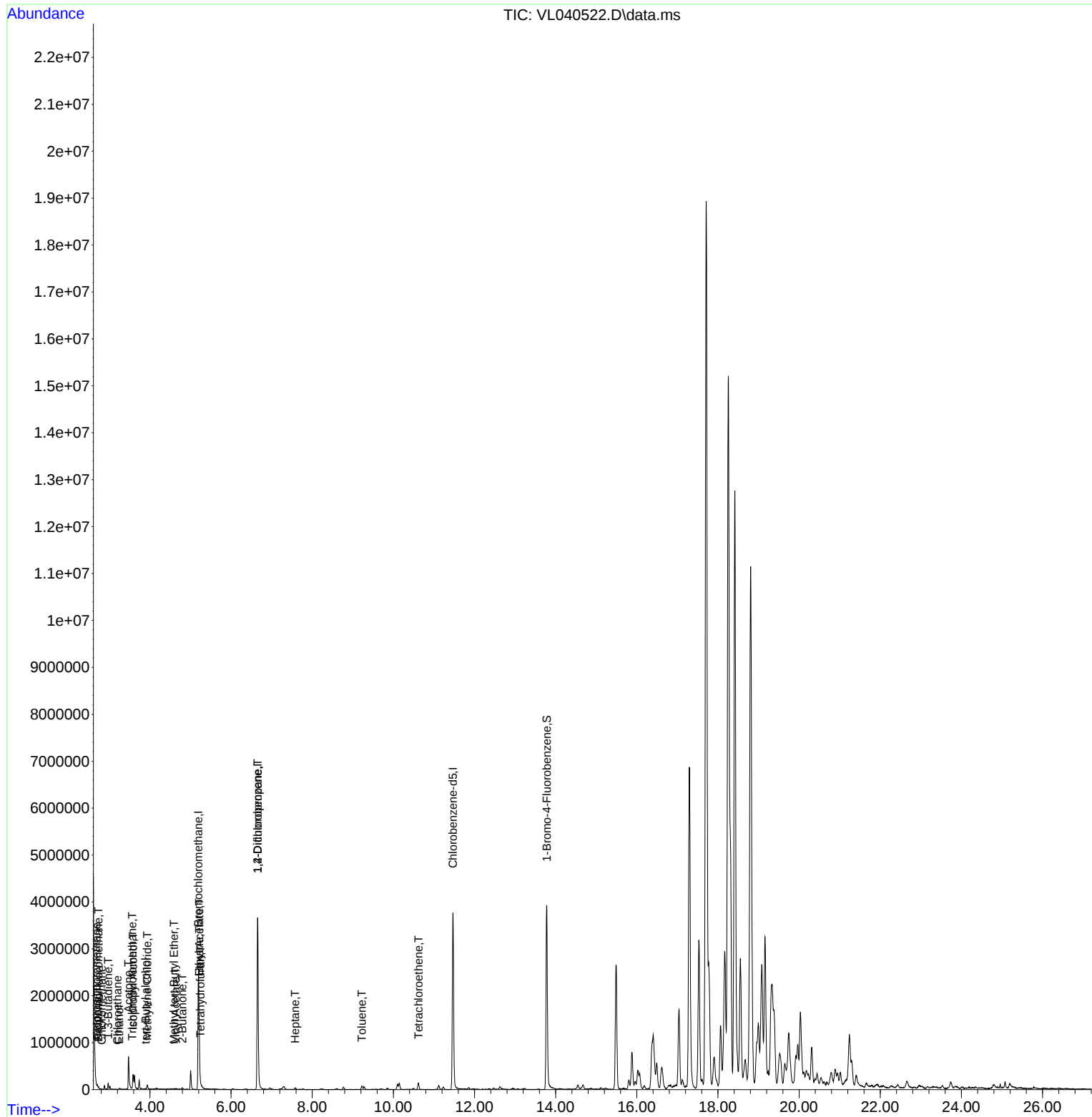
Internal Standards						
1) Bromochloromethane	5.195	49	1084153	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.655	114	2823722	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.468	117	2507173	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.780	95	1969948	9.928	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.300%
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	2.732	85	23474	0.108	ppbv	100
3) Chlorodifluoromethane	2.681	51	13587	0.079	ppbv	97
4) Chloromethane	2.816	50	2065	0.030	ppbv #	78
7) Chloroethane	3.202	64	857	0.034	ppbv	93
9) Propene	2.703	41	19666	0.334	ppbv	87
10) Heptane	7.581	43	5835	0.045	ppbv #	4
11) Trichlorofluoromethane	3.568	101	9574	0.055	ppbv	84
13) Ethanol	3.240	45	5965	0.466	ppbv #	37
15) Acetone	3.472	43	748687	5.999	ppbv	97
16) 1,3-Butadiene	2.973	39	32083	0.510	ppbv #	19
17) tert-Butyl alcohol	3.896	59	12196	0.094	ppbv #	86
19) Isopropyl Alcohol	3.584	45	360037	5.026	ppbv #	94
20) Methylene Chloride	3.938	84	16684	0.314	ppbv	96
23) Vinyl Acetate	4.632	43	7935	0.067	ppbv #	60
25) Ethyl Acetate	5.214	43	208348	0.877	ppbv #	77
26) Hexane	5.214	57	307727	2.788	ppbv #	37
28) Methyl tert-Butyl Ether	4.594	73	3440	0.039	ppbv #	68
34) 2-Butanone	4.800	43	40884	0.293	ppbv	96
39) 1,2-Dichloropropane	6.655	63	675282	7.721	ppbv #	27
41) Tetrahydrofuran	5.250	42	4605	0.057	ppbv #	34
52) Tetrachloroethene	10.622	164	12897	0.175	ppbv	88
53) Toluene	9.224	91	52098	0.211	ppbv	92

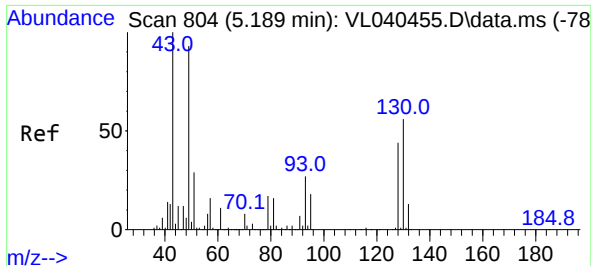
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
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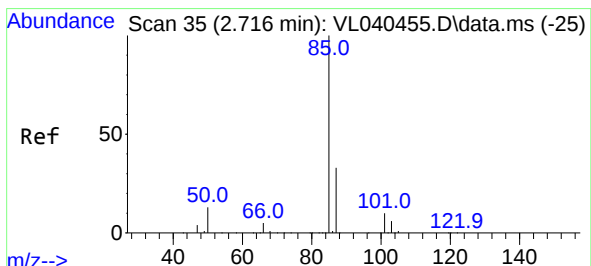
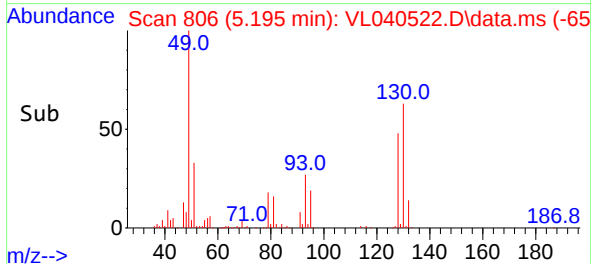
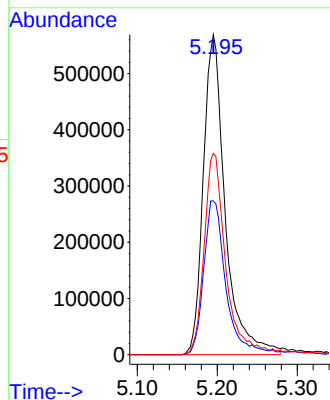
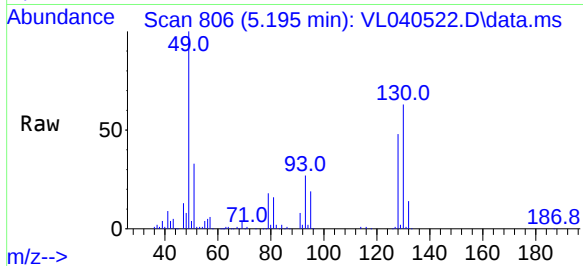




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.195 min Scan# 80
Delta R.T. -0.007 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

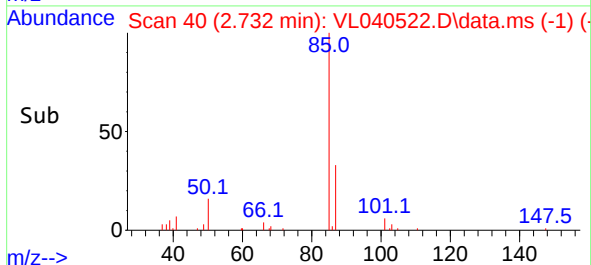
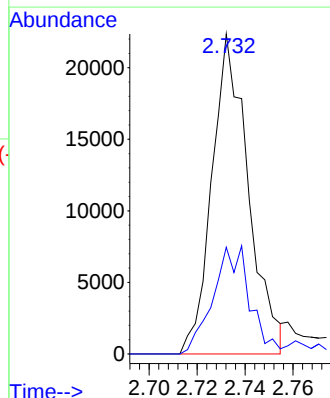
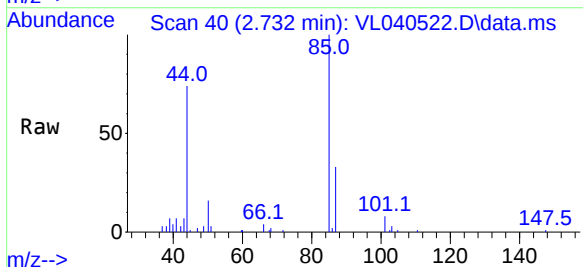
Instrument :
MSVOA_L
ClientSampleId :
SV2

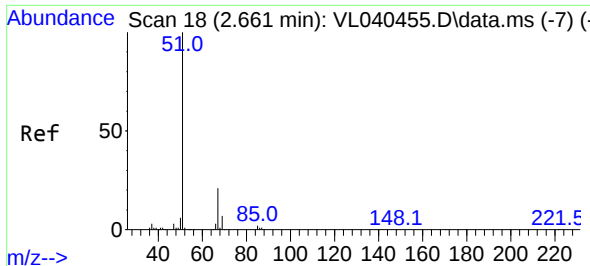
Tgt Ion: 49 Resp: 1084153
Ion Ratio Lower Upper
49 100
128 49.9 25.1 75.4
130 63.7 31.6 94.7



#2
Dichlorodifluoromethane
Concen: 0.108 ppbv
RT: 2.732 min Scan# 40
Delta R.T. -0.006 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

Tgt Ion: 85 Resp: 23474
Ion Ratio Lower Upper
85 100
87 33.3 26.8 40.2

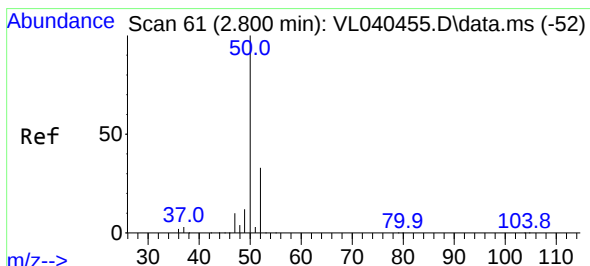
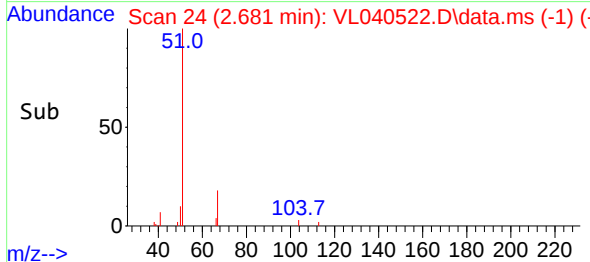
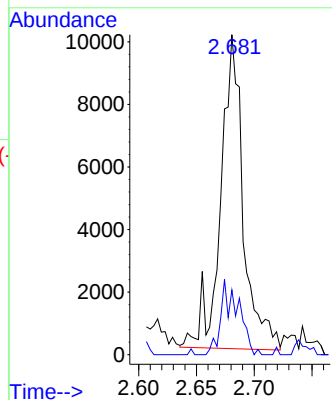
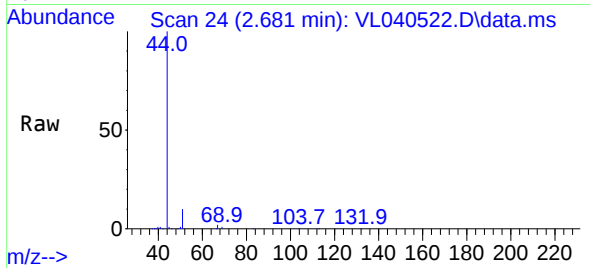




#3
Chlorodifluoromethane
Concen: 0.079 ppbv
RT: 2.681 min Scan# 24
Delta R.T. -0.003 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

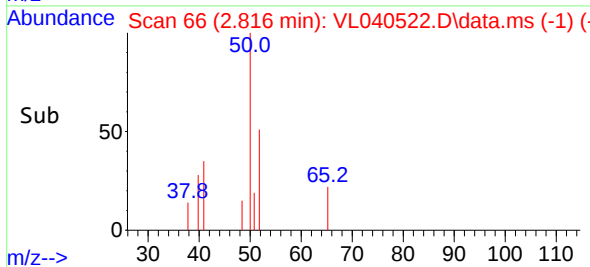
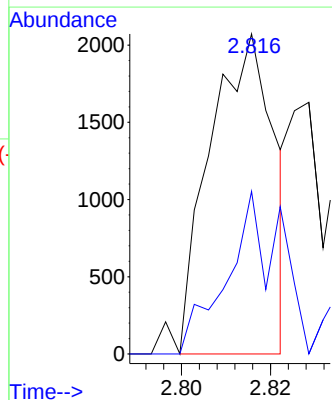
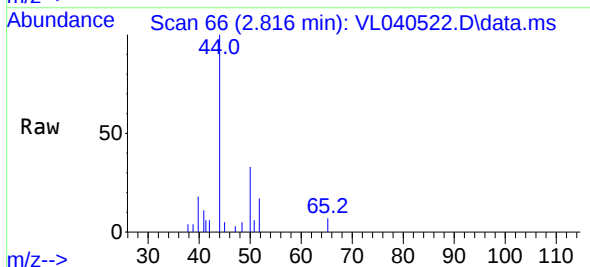
Instrument :
MSVOA_L
ClientSampleId :
SV2

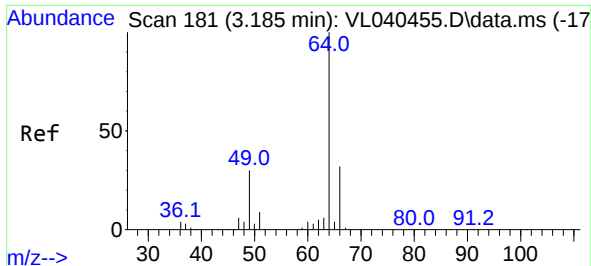
Tgt Ion: 51 Resp: 13587
Ion Ratio Lower Upper
51 100
67 19.4 14.6 21.8



#4
Chloromethane
Concen: 0.030 ppbv
RT: 2.816 min Scan# 66
Delta R.T. -0.006 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

Tgt Ion: 50 Resp: 2065
Ion Ratio Lower Upper
50 100
52 42.7 24.4 36.6#

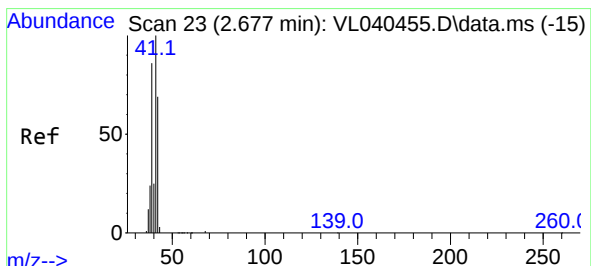
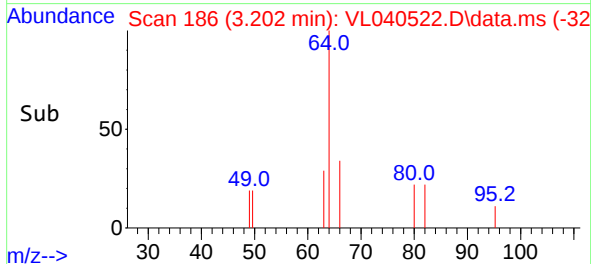
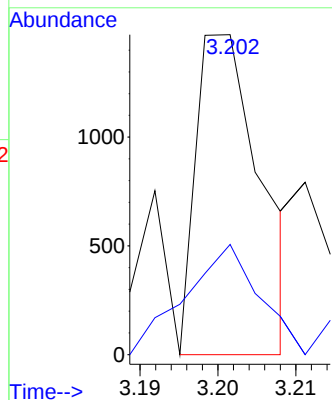
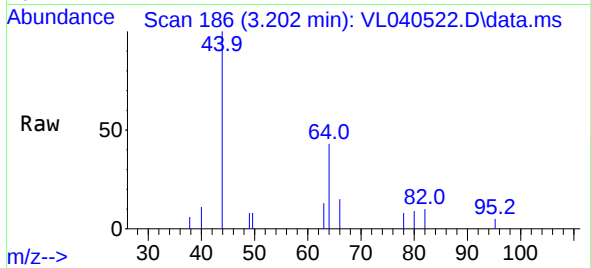




#7
Chloroethane
Concen: 0.034 ppbv
RT: 3.202 min Scan# 11
Delta R.T. -0.003 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

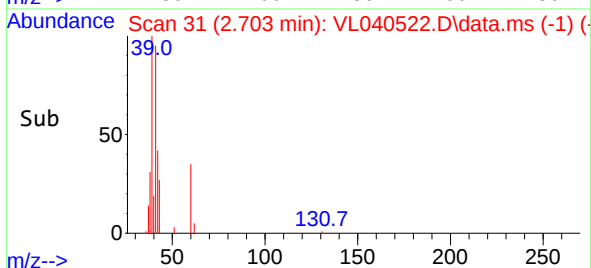
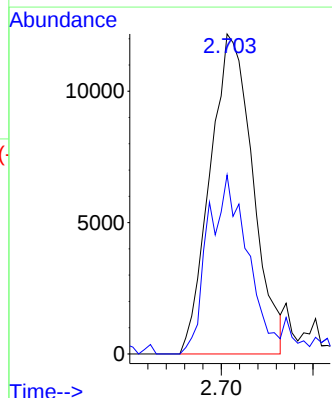
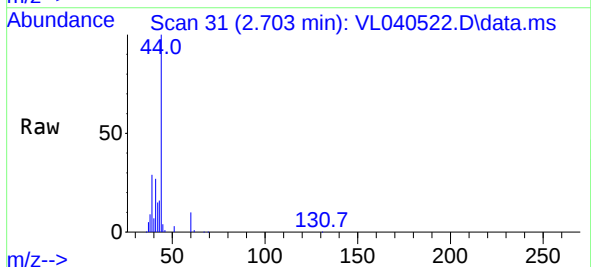
Instrument :
MSVOA_L
ClientSampleId :
SV2

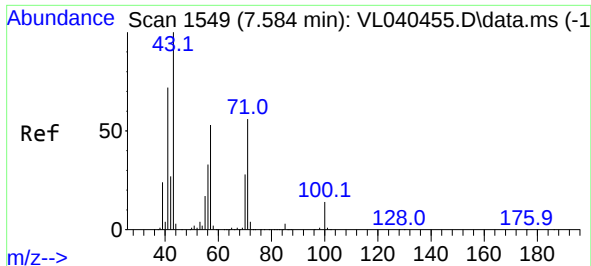
Tgt Ion: 64 Resp: 857
Ion Ratio Lower Upper
64 100
66 34.5 24.4 36.6



#9
Propene
Concen: 0.334 ppbv
RT: 2.703 min Scan# 31
Delta R.T. -0.000 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

Tgt Ion: 41 Resp: 19666
Ion Ratio Lower Upper
41 100
42 58.1 55.0 82.6

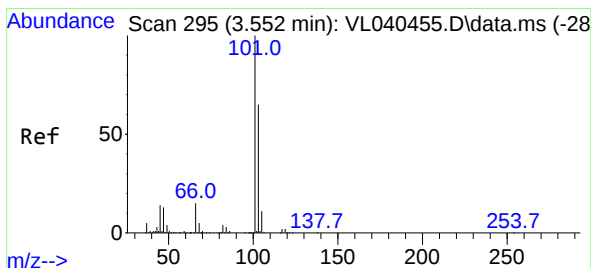
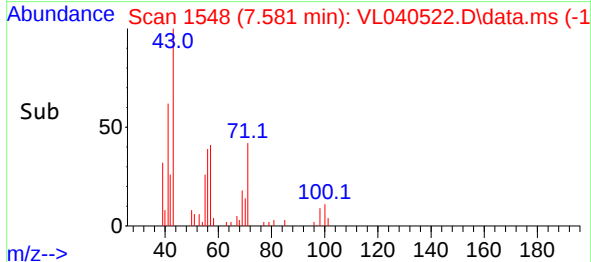
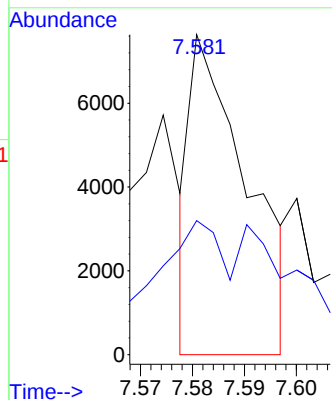
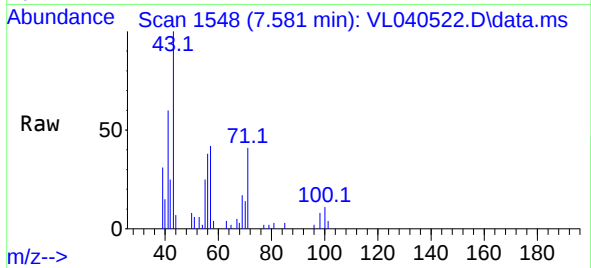




#10
Heptane
Concen: 0.045 ppbv
RT: 7.581 min Scan# 11
Delta R.T. -0.010 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

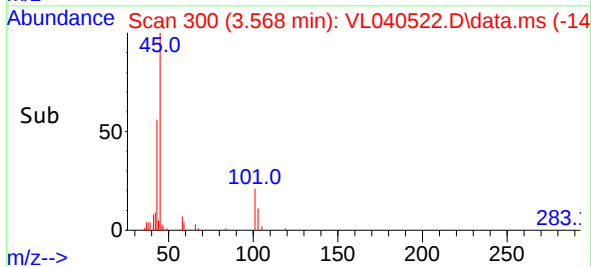
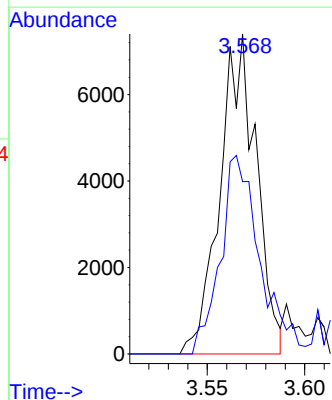
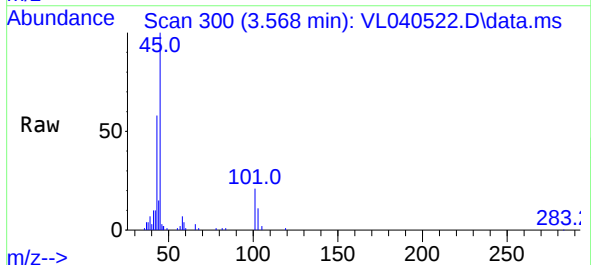
Instrument :
MSVOA_L
ClientSampleId :
SV2

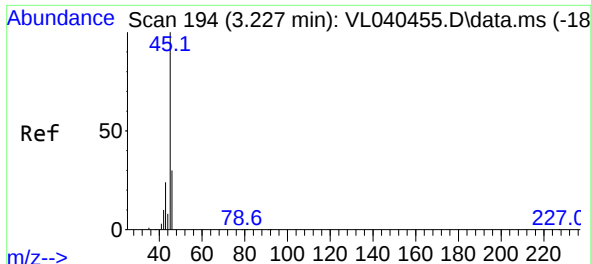
Tgt Ion: 43 Resp: 5835
Ion Ratio Lower Upper
43 100
57 121.3 42.5 63.7#



#11
Trichlorofluoromethane
Concen: 0.055 ppbv
RT: 3.568 min Scan# 300
Delta R.T. -0.003 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

Tgt Ion:101 Resp: 9574
Ion Ratio Lower Upper
101 100
103 53.9 53.4 80.0

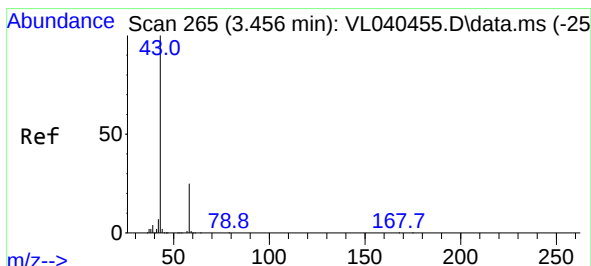
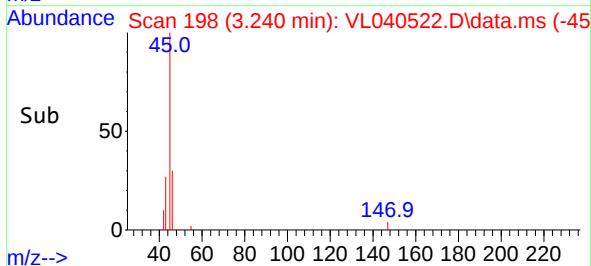
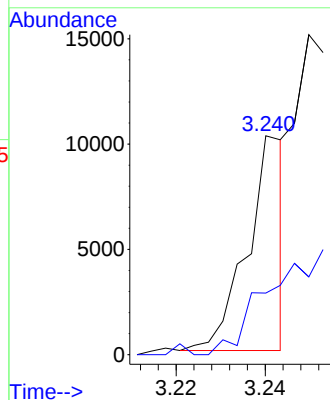
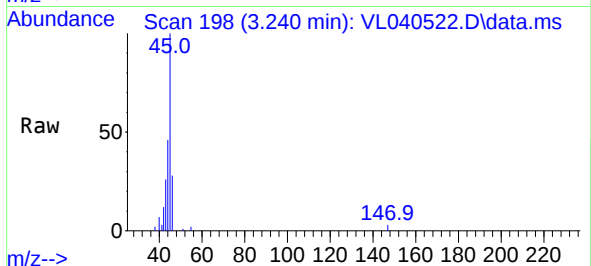




#13
Ethanol
Concen: 0.466 ppbv
RT: 3.240 min Scan# 194
Delta R.T. -0.006 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

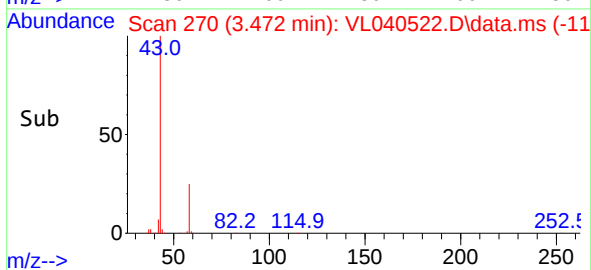
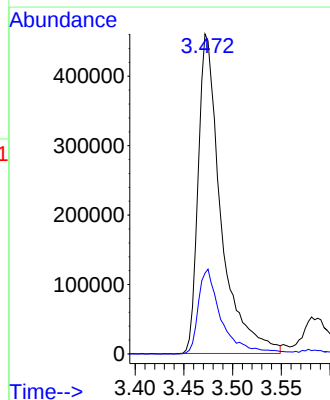
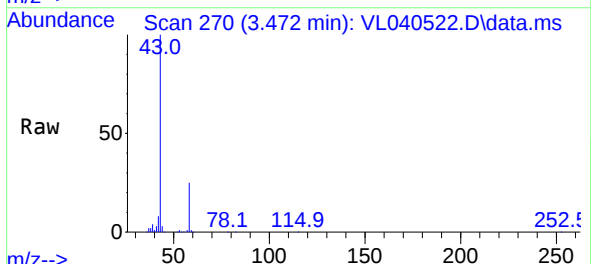
Instrument :
MSVOA_L
ClientSampleId :
SV2

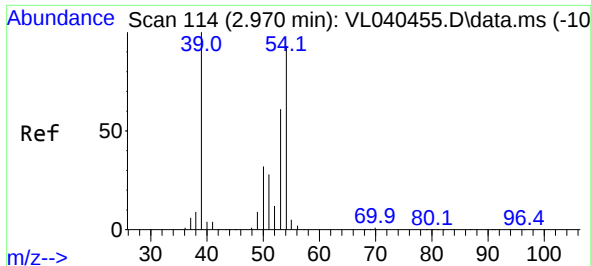
Tgt Ion: 45 Resp: 5965
Ion Ratio Lower Upper
45 100
46 0.0 15.3 61.1#



#15
Acetone
Concen: 5.999 ppbv
RT: 3.472 min Scan# 270
Delta R.T. -0.003 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

Tgt Ion: 43 Resp: 748687
Ion Ratio Lower Upper
43 100
58 27.2 22.9 34.3





#16

1,3-Butadiene

Concen: 0.510 ppbv

RT: 2.973 min Scan# 114

Delta R.T. -0.019 min

Lab File: VL040522.D

Acq: 11 Jul 2023 1:21

Instrument :

MSVOA_L

ClientSampleId :

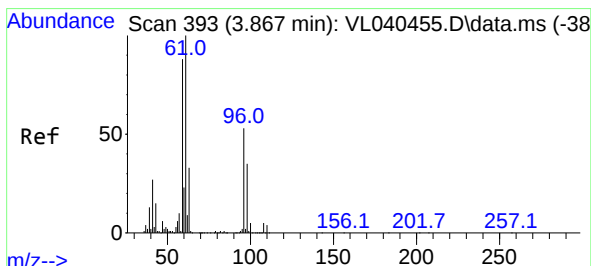
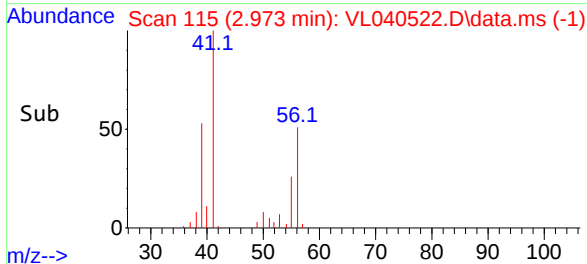
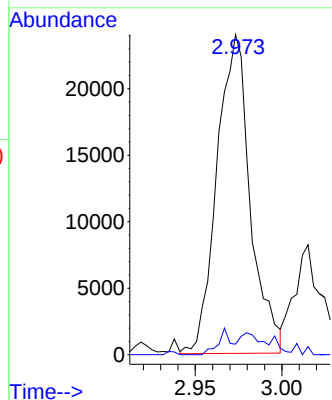
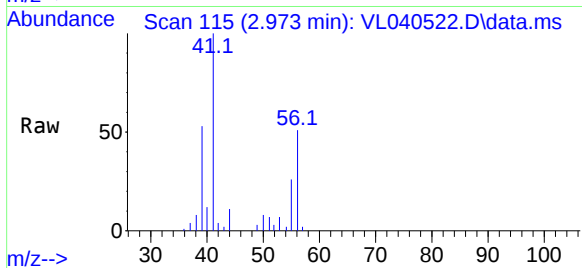
SV2

Tgt Ion: 39 Resp: 32083

Ion Ratio Lower Upper

39 100

54 10.1 66.6 100.0#



#17

tert-Butyl alcohol

Concen: 0.094 ppbv

RT: 3.896 min Scan# 402

Delta R.T. 0.013 min

Lab File: VL040522.D

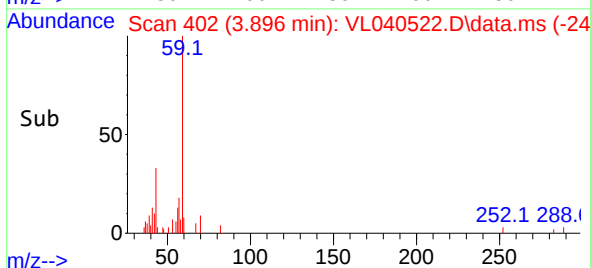
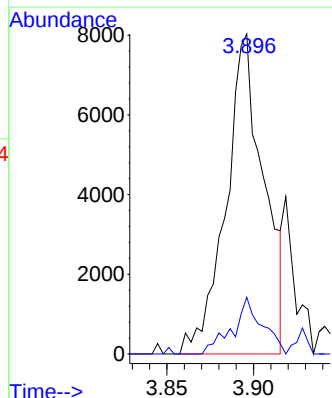
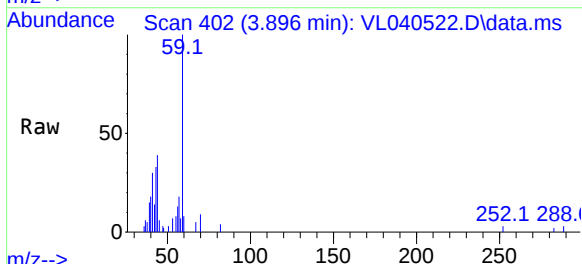
Acq: 11 Jul 2023 1:21

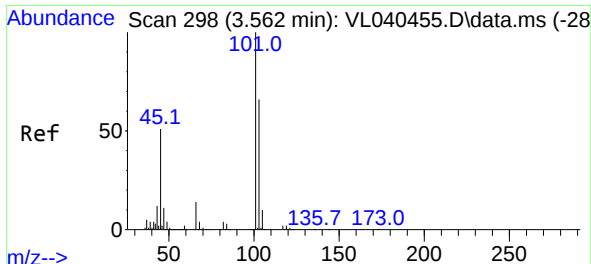
Tgt Ion: 59 Resp: 12196

Ion Ratio Lower Upper

59 100

57 16.4 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 5.026 ppbv

RT: 3.584 min Scan# 305

Delta R.T. 0.003 min

Lab File: VL040522.D

Acq: 11 Jul 2023 1:21

Instrument :

MSVOA_L

ClientSampleId :

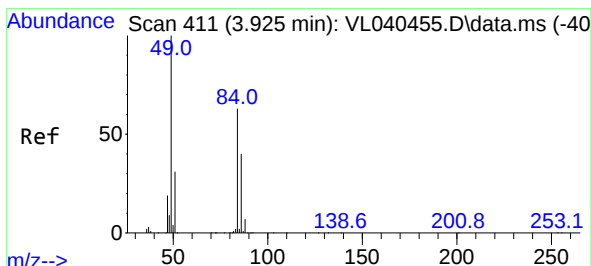
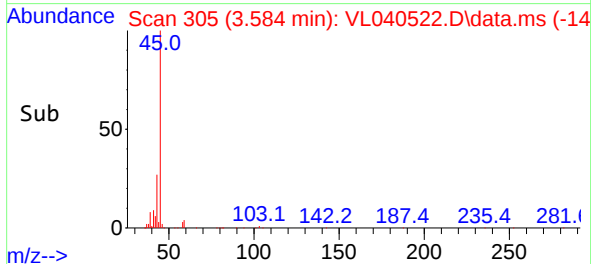
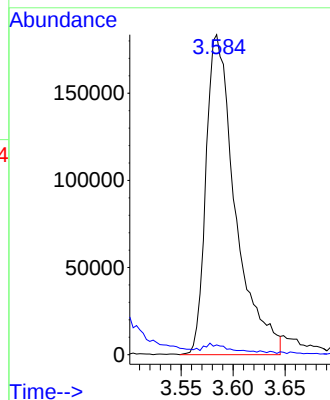
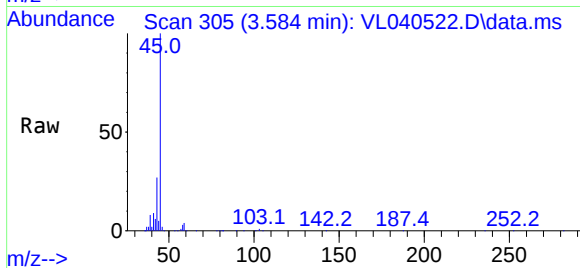
SV2

Tgt Ion: 45 Resp: 360037

Ion Ratio Lower Upper

45 100

58 3.8 1.1 1.7#



#20

Methylene Chloride

Concen: 0.314 ppbv

RT: 3.938 min Scan# 415

Delta R.T. -0.003 min

Lab File: VL040522.D

Acq: 11 Jul 2023 1:21

Tgt Ion: 84 Resp: 16684

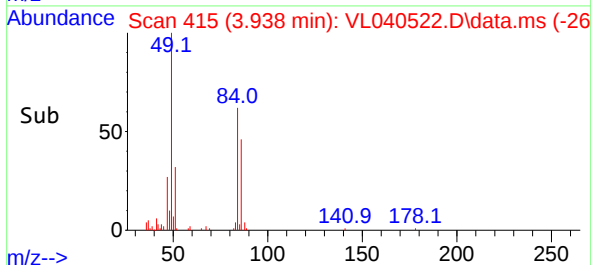
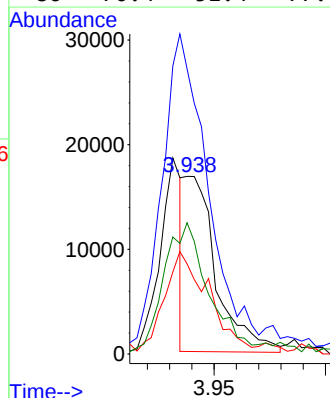
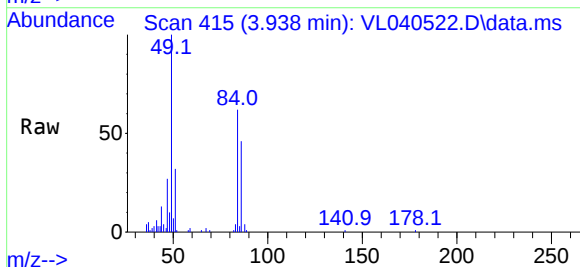
Ion Ratio Lower Upper

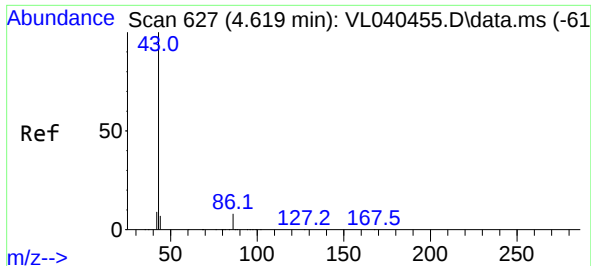
84 100

49 158.6 123.4 185.2

51 49.1 38.3 57.5

86 70.4 51.4 77.0



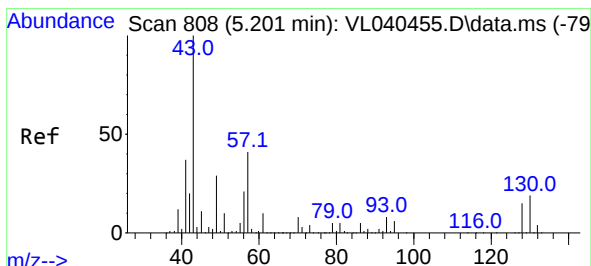
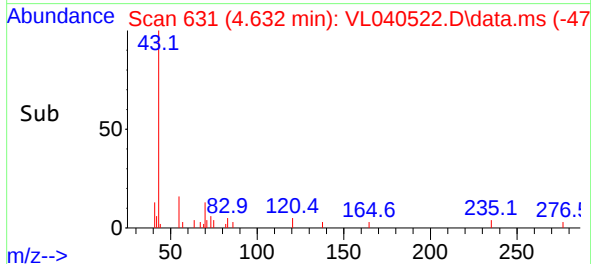
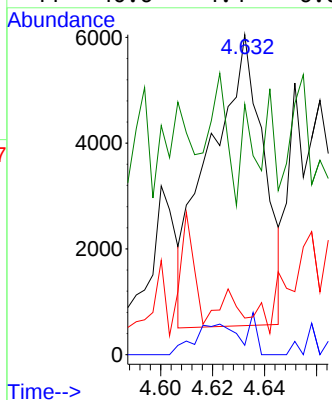
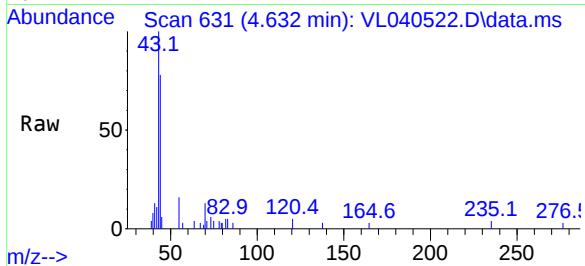


#23
Vinyl Acetate
Concen: 0.067 ppbv
RT: 4.632 min Scan# 61
Delta R.T. -0.003 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

Instrument :
MSVOA_L
ClientSampleId :
SV2

Tgt Ion: 43 Resp: 7935

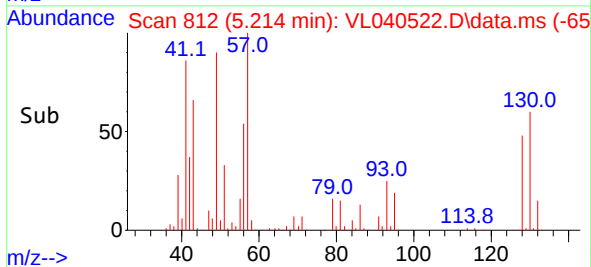
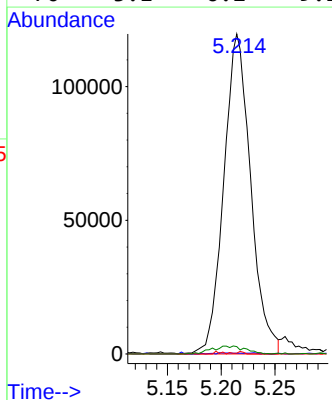
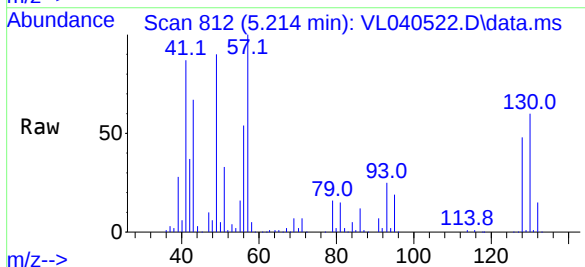
Ion	Ratio	Lower	Upper
43	100		
86	4.4	5.6	8.4#
42	0.0	7.4	11.2#
44	40.6	4.4	6.6#

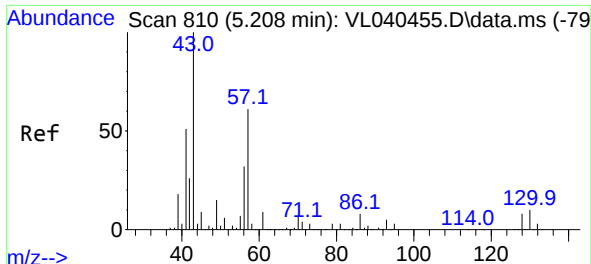


#25
Ethyl Acetate
Concen: 0.877 ppbv
RT: 5.214 min Scan# 812
Delta R.T. 0.003 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

Tgt Ion: 43 Resp: 208348

Ion	Ratio	Lower	Upper
43	100		
45	0.4	8.2	12.4#
61	0.4	8.3	12.5#
70	3.1	6.2	9.2#

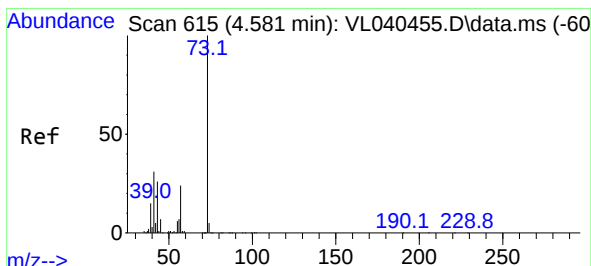
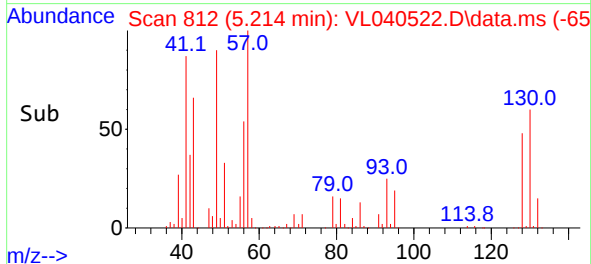
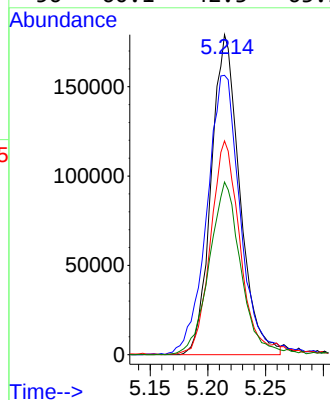
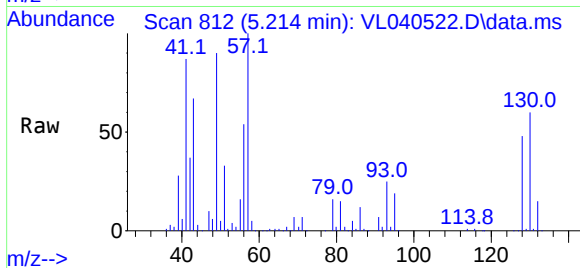




#26
Hexane
Concen: 2.788 ppbv
RT: 5.214 min Scan# 810
Delta R.T. -0.006 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

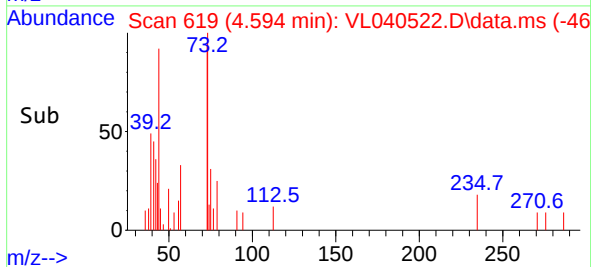
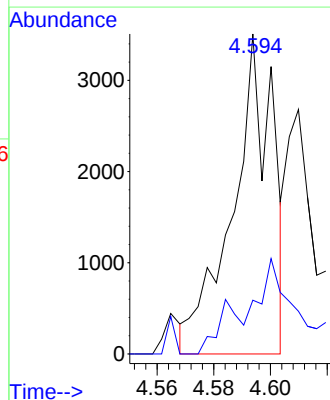
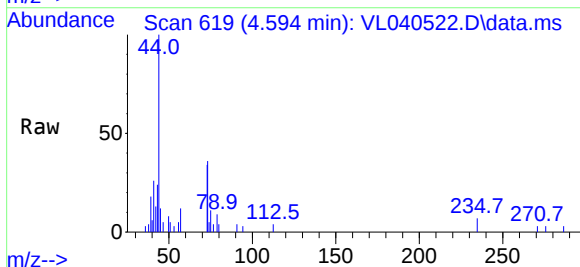
Instrument :
MSVOA_L
ClientSampleId :
SV2

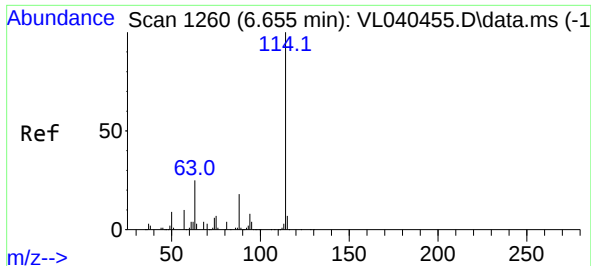
Tgt Ion: 57 Resp: 307727
Ion Ratio Lower Upper
57 100
41 103.9 69.5 104.3
43 70.6 177.1 265.7#
56 60.1 42.3 63.5



#28
Methyl tert-Butyl Ether
Concen: 0.039 ppbv
RT: 4.594 min Scan# 619
Delta R.T. -0.000 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

Tgt Ion: 73 Resp: 3440
Ion Ratio Lower Upper
73 100
57 39.0 18.8 28.2#

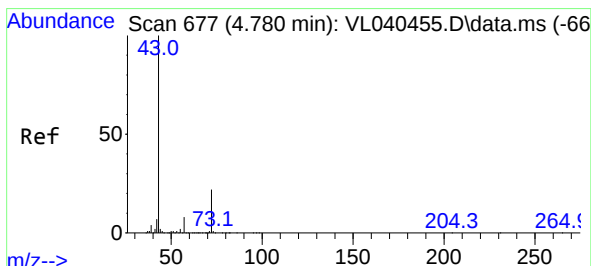
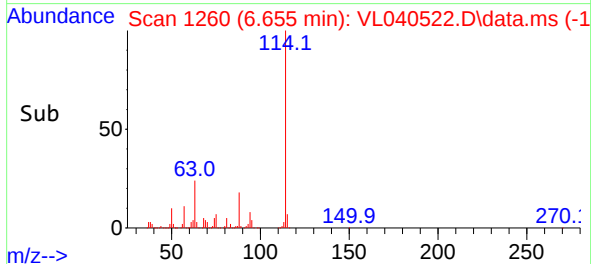
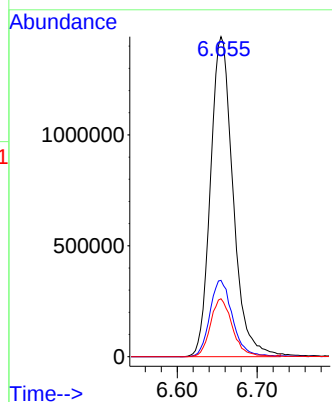
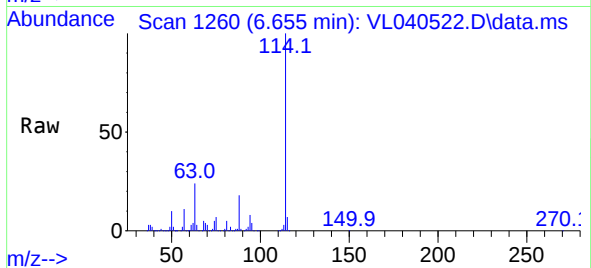




#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.655 min Scan# 114
Delta R.T. -0.010 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

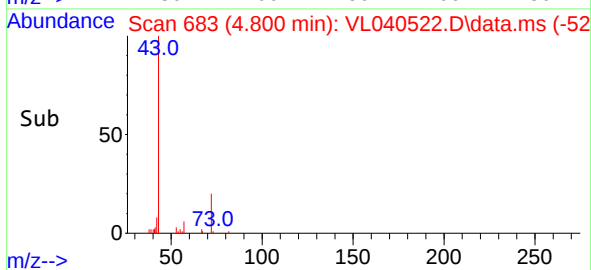
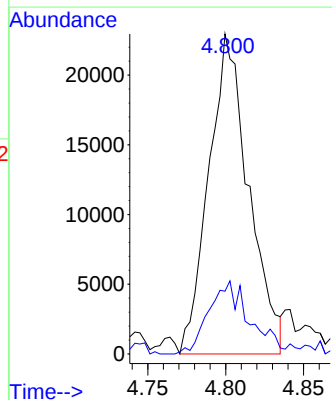
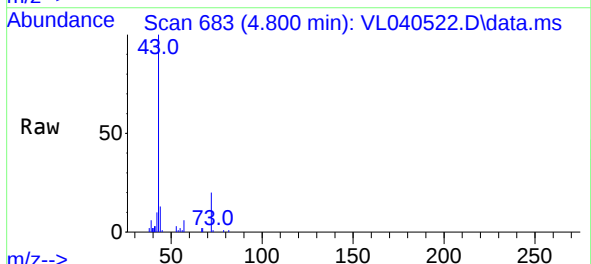
Instrument :
MSVOA_L
ClientSampleId :
SV2

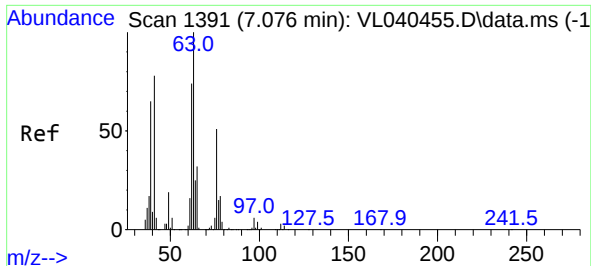
Tgt Ion:114 Resp: 2823722
Ion Ratio Lower Upper
114 100
63 24.3 19.6 29.4
88 17.9 14.2 21.2



#34
2-Butanone
Concen: 0.293 ppbv
RT: 4.800 min Scan# 683
Delta R.T. 0.006 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

Tgt Ion: 43 Resp: 40884
Ion Ratio Lower Upper
43 100
72 25.9 19.1 28.7





#39

1,2-Dichloropropane

Concen: 7.721 ppbv

RT: 6.655 min Scan# 11

Delta R.T. -0.428 min

Lab File: VL040522.D

Acq: 11 Jul 2023 1:21

Instrument :

MSVOA_L

ClientSampleId :

SV2

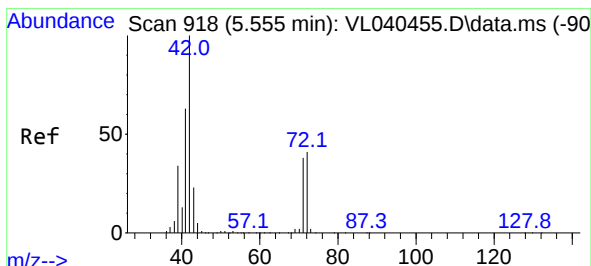
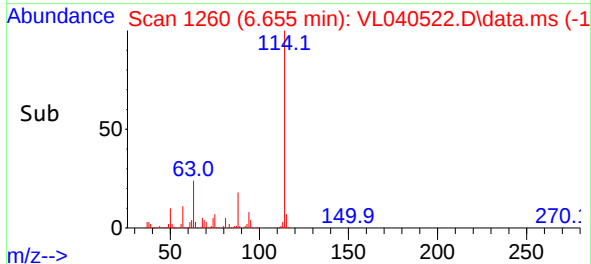
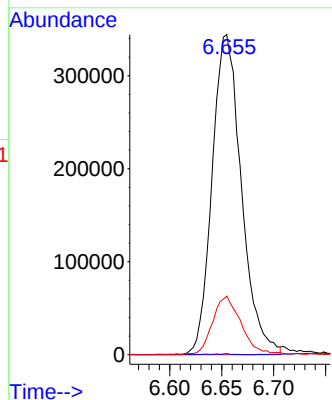
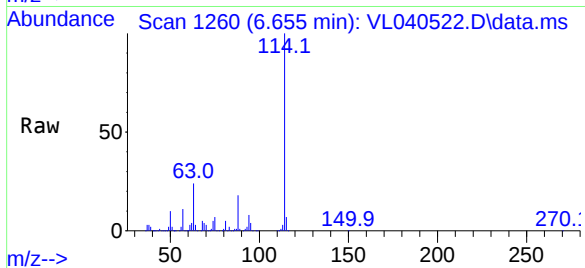
Tgt Ion: 63 Resp: 675282

Ion Ratio Lower Upper

63 100

41 0.3 54.3 81.5#

62 18.3 55.6 83.4#



#41

Tetrahydrofuran

Concen: 0.057 ppbv

RT: 5.250 min Scan# 823

Delta R.T. -0.315 min

Lab File: VL040522.D

Acq: 11 Jul 2023 1:21

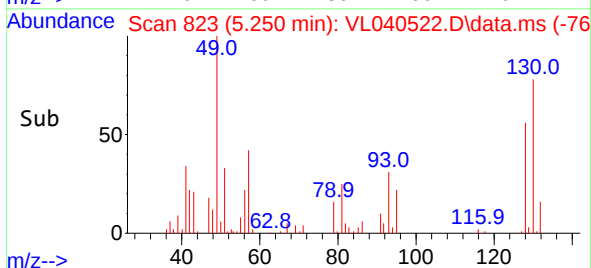
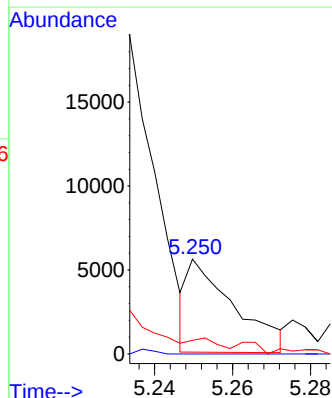
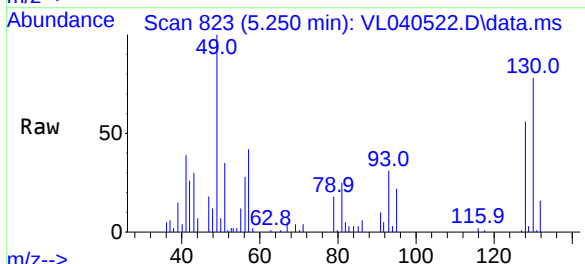
Tgt Ion: 42 Resp: 4605

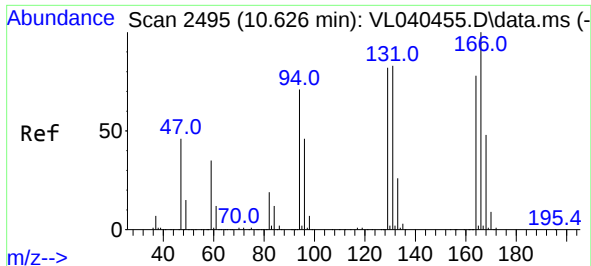
Ion Ratio Lower Upper

42 100

72 0.0 33.8 50.8#

71 0.0 33.0 49.6#

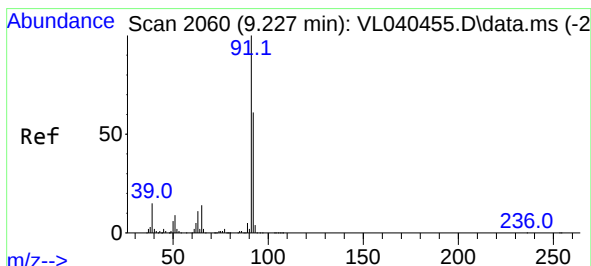
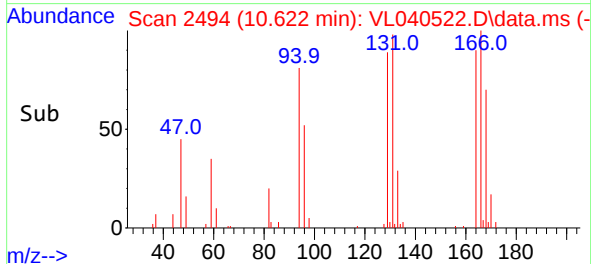
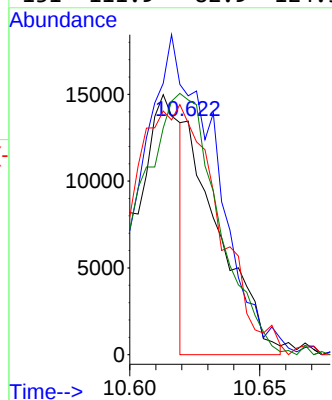
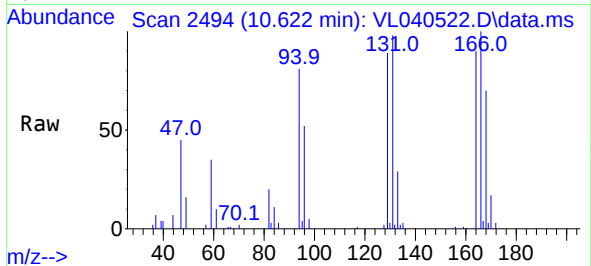




#52
Tetrachloroethene
Concen: 0.175 ppbv
RT: 10.622 min Scan# 2495
Delta R.T. -0.003 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

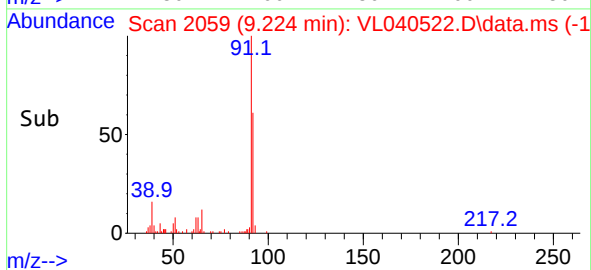
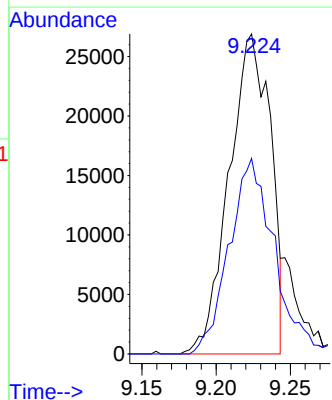
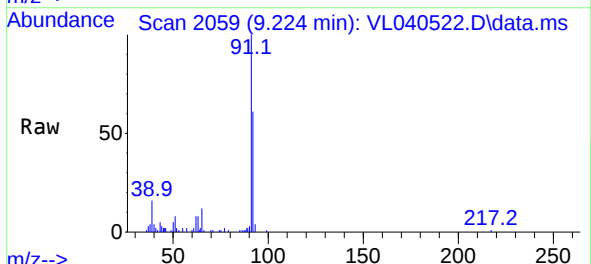
Instrument :
MSVOA_L
ClientSampleId :
SV2

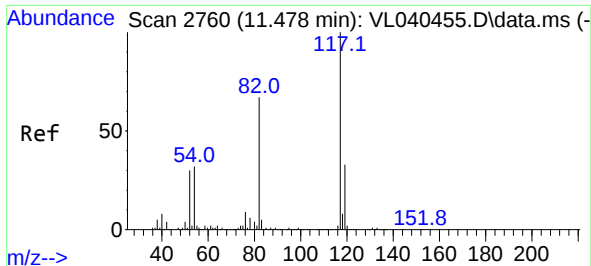
Tgt Ion:164 Resp: 12897
Ion Ratio Lower Upper
164 100
166 107.8 103.9 155.9
129 98.6 84.6 126.8
131 111.9 82.9 124.3



#53
Toluene
Concen: 0.211 ppbv
RT: 9.224 min Scan# 2059
Delta R.T. -0.006 min
Lab File: VL040522.D
Acq: 11 Jul 2023 1:21

Tgt Ion: 91 Resp: 52098
Ion Ratio Lower Upper
91 100
92 67.4 49.1 73.7





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.468 min Scan# 21

Delta R.T. -0.010 min

Lab File: VL040522.D

Acq: 11 Jul 2023 1:21

Instrument :

MSVOA_L

ClientSampleId :

SV2

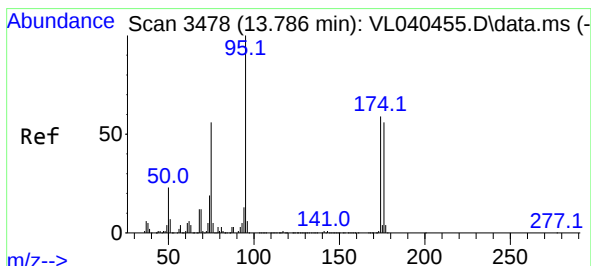
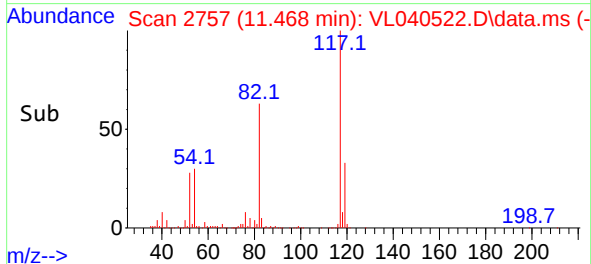
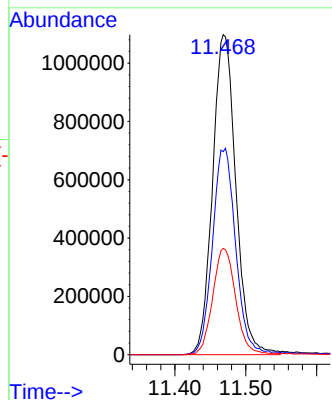
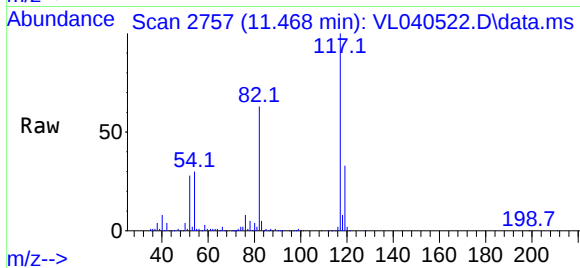
Tgt Ion:117 Resp: 2507173

Ion Ratio Lower Upper

117 100

82 65.2 50.2 75.4

119 33.2 26.9 40.3



#68

1-Bromo-4-Fluorobenzene

Concen: 9.928 ppbv

RT: 13.780 min Scan# 3476

Delta R.T. -0.003 min

Lab File: VL040522.D

Acq: 11 Jul 2023 1:21

Tgt Ion: 95 Resp: 1969948

Ion Ratio Lower Upper

95 100

174 62.0 50.6 75.8

175 4.4 3.7 5.5

