

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL020623\
 Data File : VL040145.D
 Acq On : 6 Feb 2023 14:25
 Operator : SY/MD
 Sample : 01438-02 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Feb 07 05:55:23 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL011623AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Jan 31 05:24:57 2023
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	5.182	49	974634	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.645	114	2584546	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.462	117	2243267	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.777	95	1747162	9.371	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.700%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.716	85	21861	0.128	ppbv	95
3) Chlorodifluoromethane	2.661	51	10197	0.087	ppbv	97
4) Chloromethane	2.800	50	7257	0.100	ppbv	90
9) Propene	2.681	41	196760	4.051	ppbv	91
10) Heptane	7.574	43	34180	0.305	ppbv	92
11) Trichlorofluoromethane	3.549	101	30942	0.181	ppbv	93
13) Ethanol	3.224	45	42615	9.533	ppbv #	31
15) Acetone	3.459	43	849320	7.266	ppbv	97
16) 1,3-Butadiene	2.951	39	64817	1.189	ppbv #	25
17) tert-Butyl alcohol	3.562	59	104551	0.961	ppbv	97
19) Isopropyl Alcohol	3.562	45	2836130	49.590	ppbv #	94
20) Methylene Chloride	3.925	84	31424	0.609	ppbv	97
21) Allyl Chloride	3.944	41	7774	0.104	ppbv #	4
23) Vinyl Acetate	4.603	43	20737	0.547	ppbv #	13
25) Ethyl Acetate	5.208	43	55495	0.269	ppbv #	77
26) Hexane	5.205	57	75529	0.838	ppbv #	37
27) Carbon Disulfide	4.118	76	21065	0.180	ppbv #	62
29) Chloroform	5.256	83	6581	0.046	ppbv	89
30) Cyclohexane	6.600	84	4146	0.058	ppbv #	1
34) 2-Butanone	4.780	43	51433	0.421	ppbv	92
36) Benzene	6.362	78	255394	1.335	ppbv	96
39) 1,2-Dichloropropane	6.645	63	630569	8.429	ppbv #	22
44) 2,2,4-Trimethylpentane	7.320	57	32253	0.101	ppbv #	42
53) Toluene	9.214	91	322129	1.579	ppbv	99
58) Ethyl Benzene	12.085	91	74979	0.300	ppbv	93
59) m/p-Xylene	12.343	91	164884	0.733	ppbv	96
60) o-Xylene	13.056	91	55033	0.258	ppbv	97
72) 4-Ethyltoluene	15.195	105	10815	0.046	ppbv #	50
74) 1,2,4-Trimethylbenzene	16.105	105	61738	0.261	ppbv #	70
79) Naphthalene	21.394	128	6421	0.047	ppbv #	85

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

Quant Time: Feb 07 05:55:23 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL011623AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Tue Jan 31 05:24:57 2023
Response via : Initial Calibration

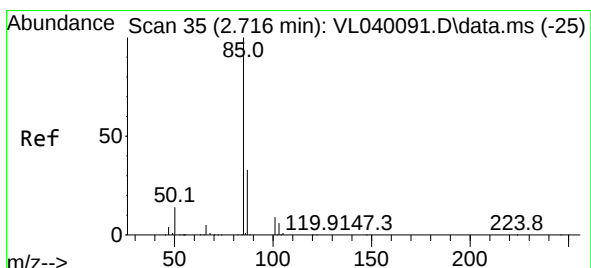
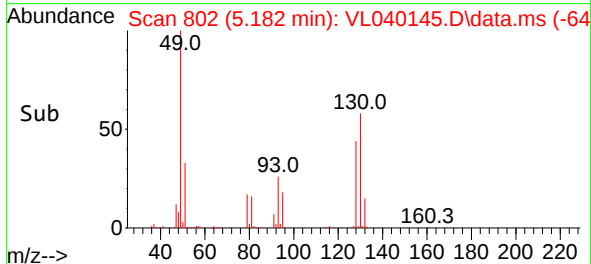
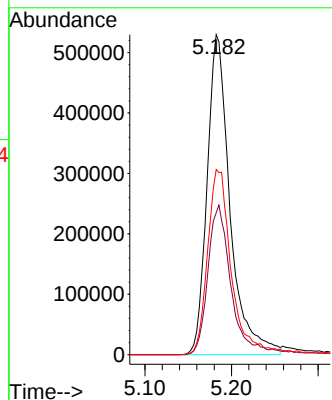
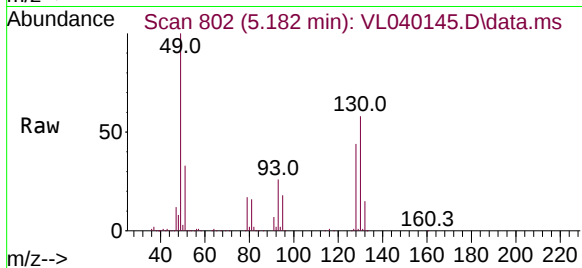




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.182 min Scan# 80
Delta R.T. 0.003 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

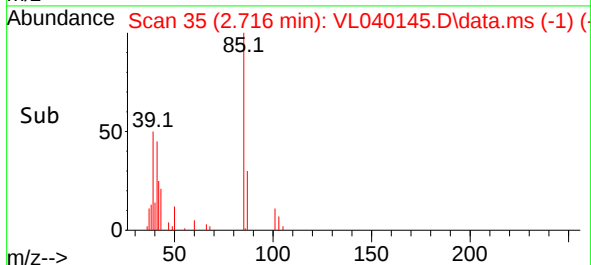
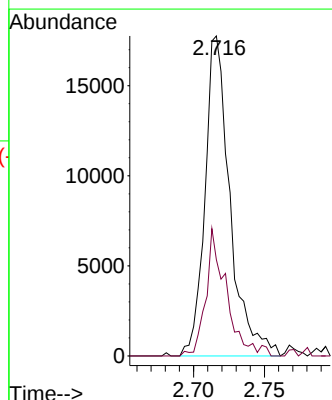
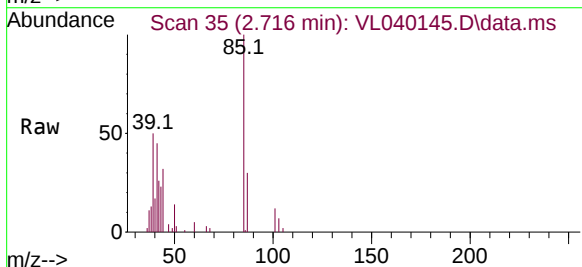
Instrument :
MSVOA_L
ClientSampleId :

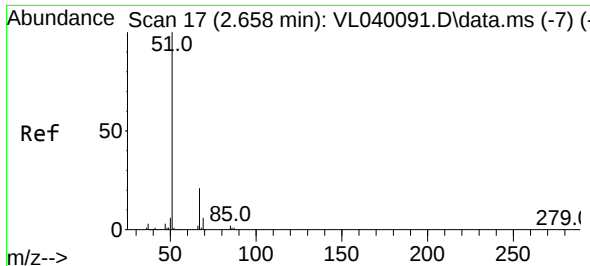
Tgt Ion: 49 Resp: 974634
Ion Ratio Lower Upper
49 100
128 48.6 23.6 71.0
130 61.2 29.8 89.3



#2
Dichlorodifluoromethane
Concen: 0.128 ppbv
RT: 2.716 min Scan# 35
Delta R.T. 0.003 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

Tgt Ion: 85 Resp: 21861
Ion Ratio Lower Upper
85 100
87 30.1 26.5 39.7

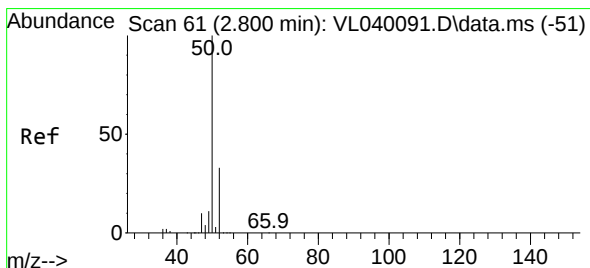
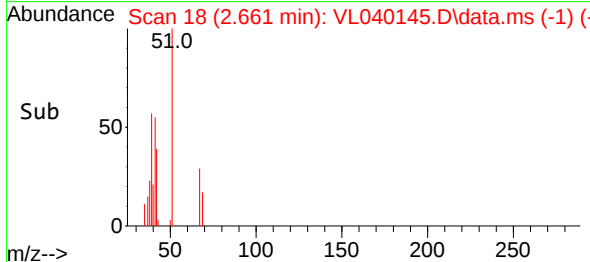
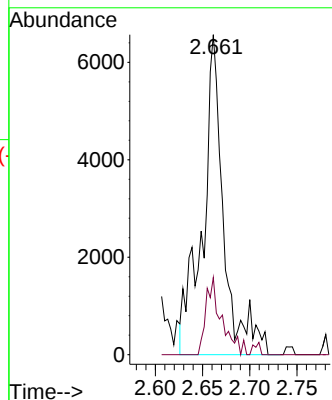
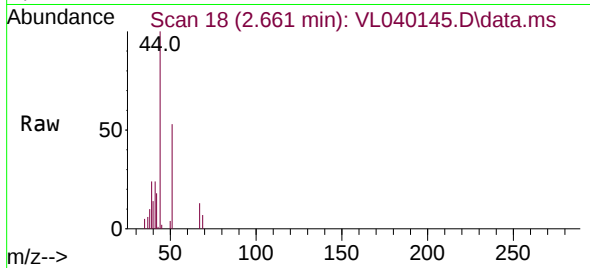




#3
Chlorodifluoromethane
Concen: 0.087 ppbv
RT: 2.661 min Scan# 17
Delta R.T. 0.007 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

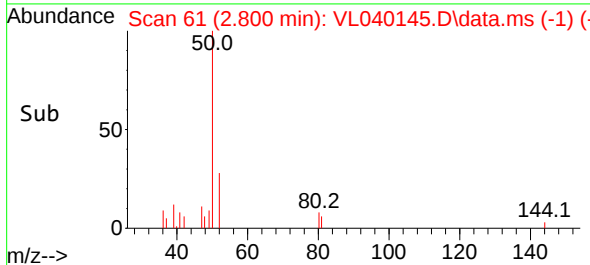
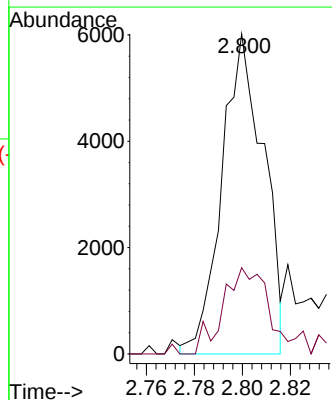
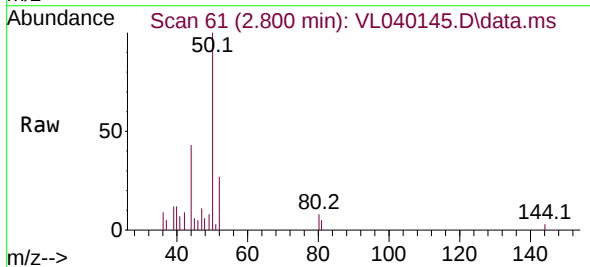
Instrument :
MSVOA_L
ClientSampleId :

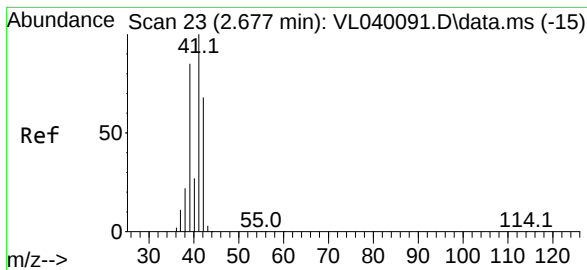
Tgt Ion: 51 Resp: 10197
Ion Ratio Lower Upper
51 100
67 19.1 16.4 24.6



#4
Chloromethane
Concen: 0.100 ppbv
RT: 2.800 min Scan# 61
Delta R.T. 0.007 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

Tgt Ion: 50 Resp: 7257
Ion Ratio Lower Upper
50 100
52 27.7 26.5 39.7





#9

Propene

Concen: 4.051 ppbv

RT: 2.681 min Scan# 24

Delta R.T. 0.007 min

Lab File: VL040145.D

Acq: 6 Feb 2023 14:25

Instrument :

MSVOA_L

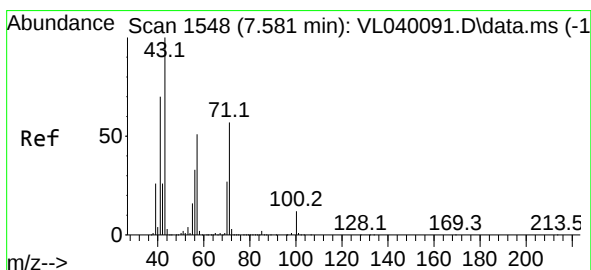
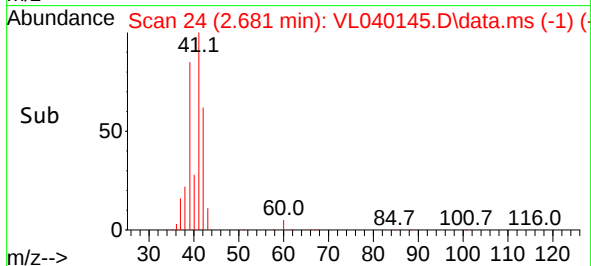
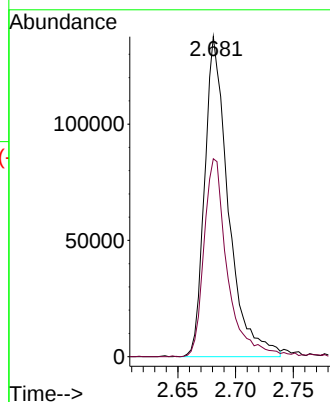
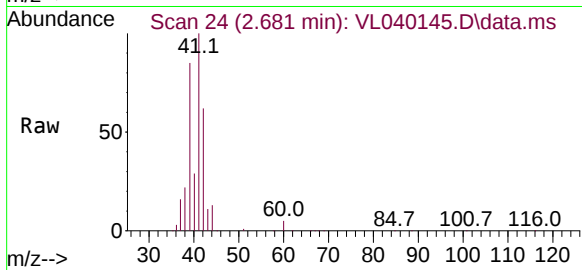
ClientSampleId :

Tgt Ion: 41 Resp: 196760

Ion Ratio Lower Upper

41 100

42 61.8 55.6 83.4



#10

Heptane

Concen: 0.305 ppbv

RT: 7.574 min Scan# 1546

Delta R.T. 0.007 min

Lab File: VL040145.D

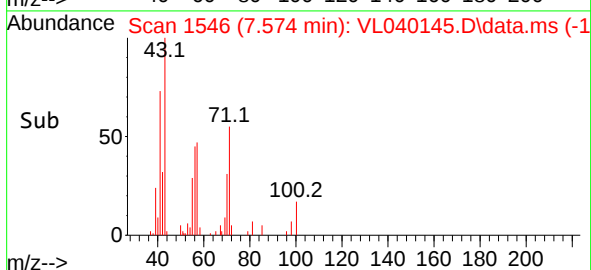
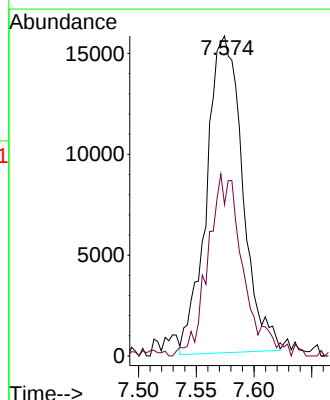
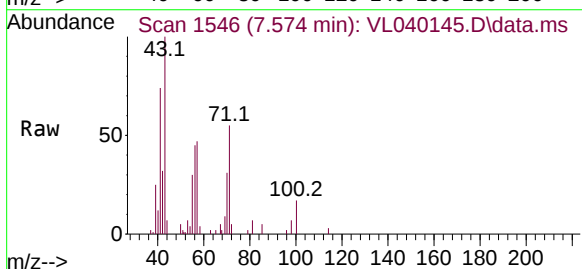
Acq: 6 Feb 2023 14:25

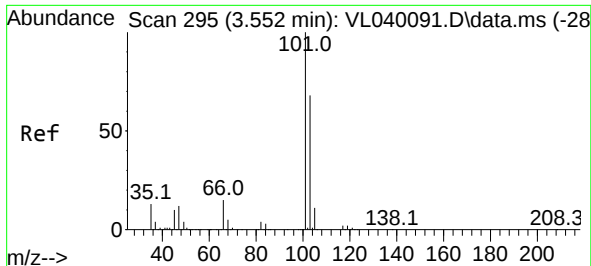
Tgt Ion: 43 Resp: 34180

Ion Ratio Lower Upper

43 100

57 56.6 40.9 61.3

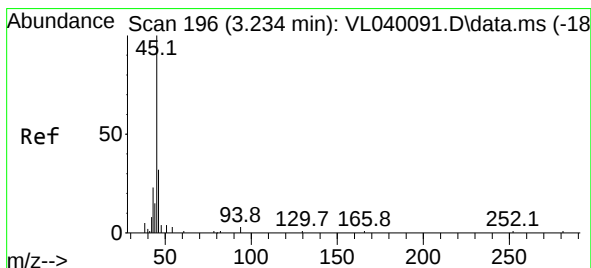
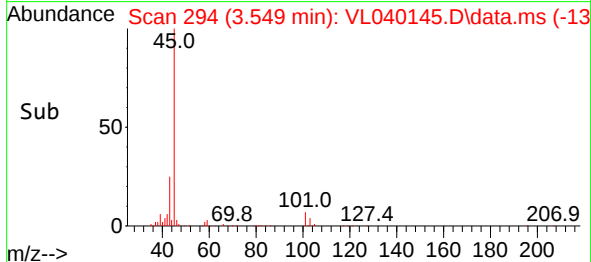
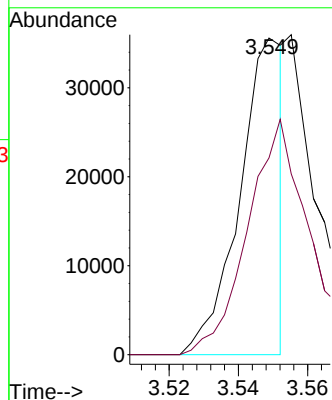
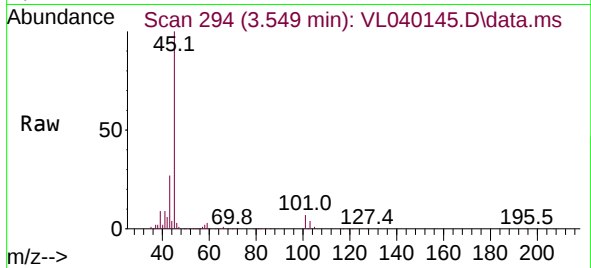




#11
Trichlorofluoromethane
Concen: 0.181 ppbv
RT: 3.549 min Scan# 295
Delta R.T. 0.003 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

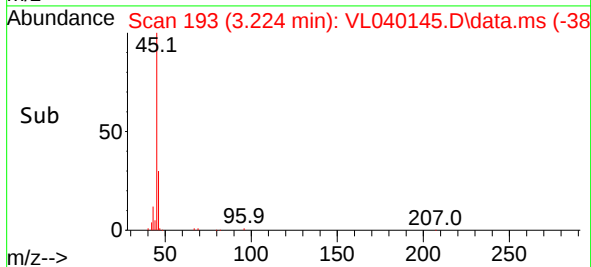
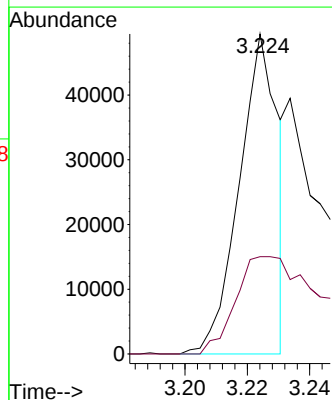
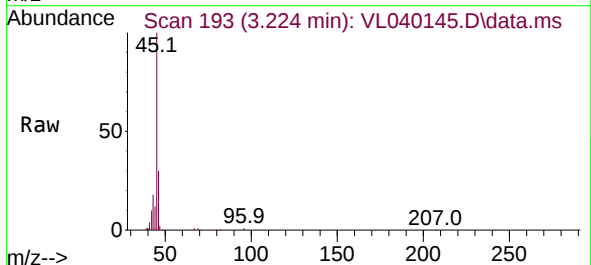
Instrument :
MSVOA_L
ClientSampleId :

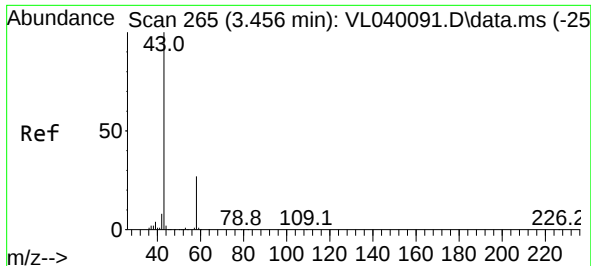
Tgt Ion:101 Resp: 30942
Ion Ratio Lower Upper
101 100
103 62.1 54.0 81.0



#13
Ethanol
Concen: 9.533 ppbv
RT: 3.224 min Scan# 193
Delta R.T. -0.003 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

Tgt Ion: 45 Resp: 42615
Ion Ratio Lower Upper
45 100
46 78.2 14.8 59.2#

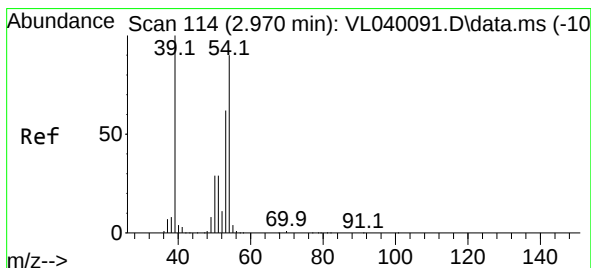
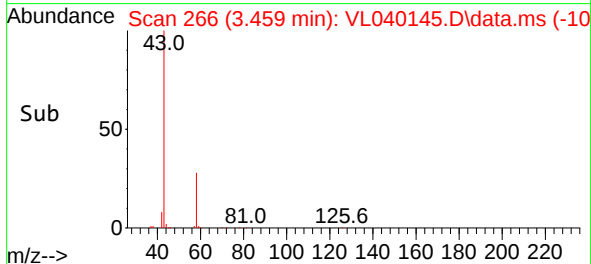
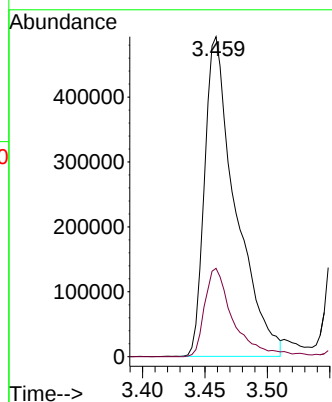
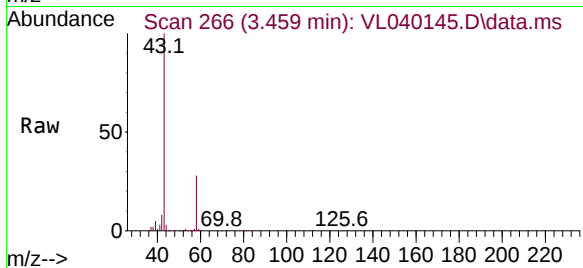




#15
Acetone
Concen: 7.266 ppbv
RT: 3.459 min Scan# 20
Delta R.T. 0.010 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

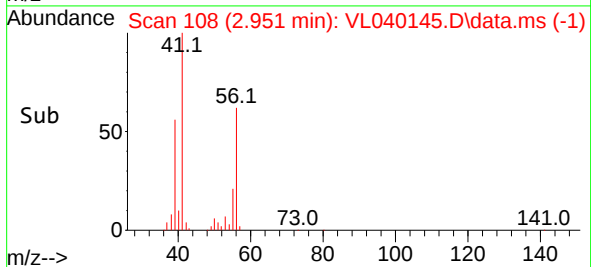
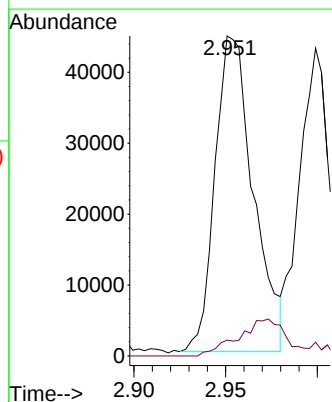
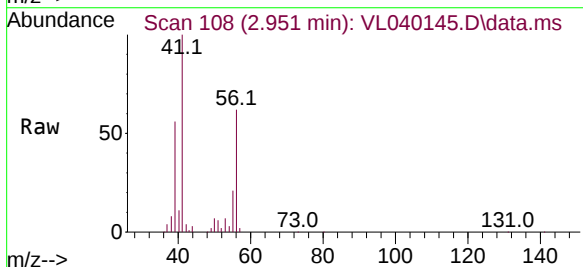
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MSVOA_L
ClientSampleId :

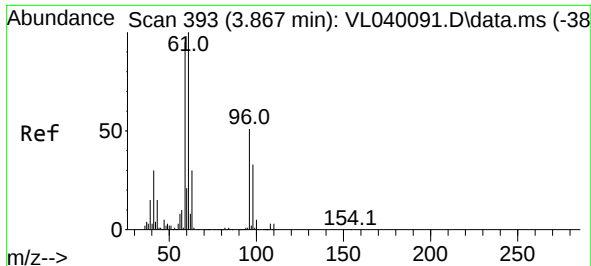
Tgt Ion: 43 Resp: 849320
Ion Ratio Lower Upper
43 100
58 25.9 21.8 32.8



#16
1,3-Butadiene
Concen: 1.189 ppbv
RT: 2.951 min Scan# 108
Delta R.T. -0.016 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

Tgt Ion: 39 Resp: 64817
Ion Ratio Lower Upper
39 100
54 16.4 67.9 101.9#





#17

tert-Butyl alcohol

Concen: 0.961 ppbv

RT: 3.562 min Scan# 298

Delta R.T. -0.299 min

Lab File: VL040145.D

Acq: 6 Feb 2023 14:25

Instrument :

MSVOA_L

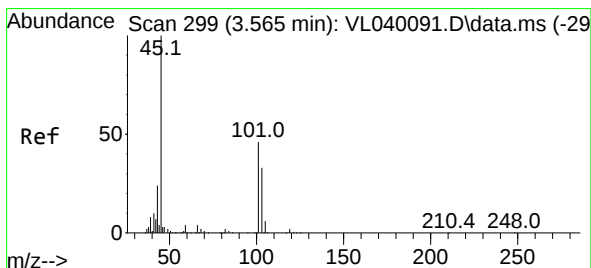
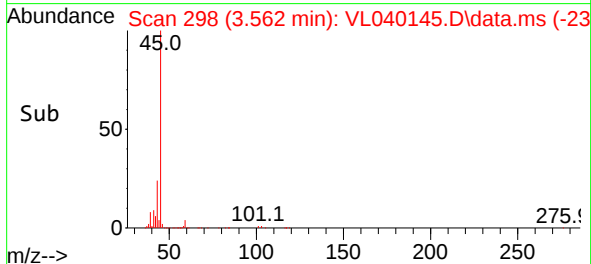
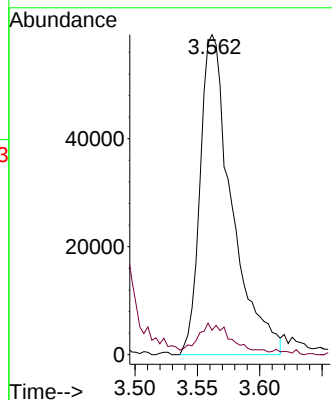
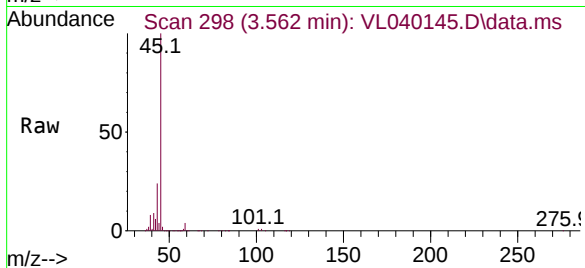
ClientSampleId :

Tgt Ion: 59 Resp: 104551

Ion Ratio Lower Upper

59 100

57 11.6 8.5 12.7



#19

Isopropyl Alcohol

Concen: 49.590 ppbv

RT: 3.562 min Scan# 298

Delta R.T. 0.003 min

Lab File: VL040145.D

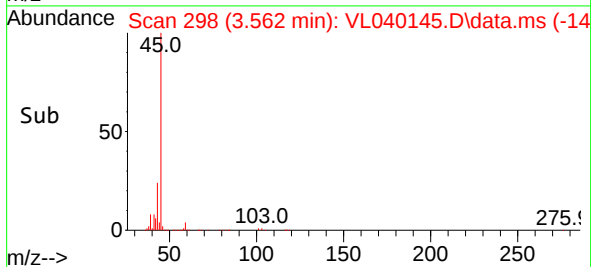
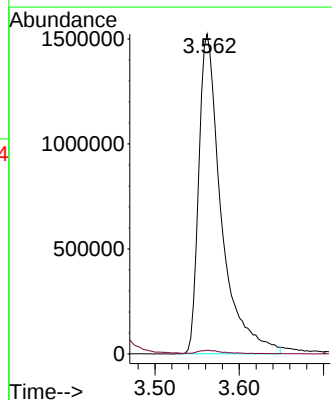
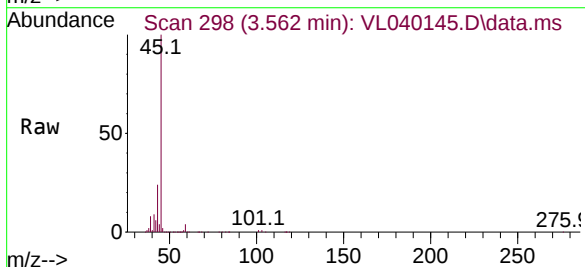
Acq: 6 Feb 2023 14:25

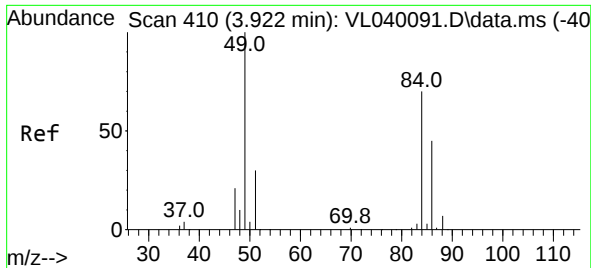
Tgt Ion: 45 Resp: 2836130

Ion Ratio Lower Upper

45 100

58 1.4 2.6 4.0#



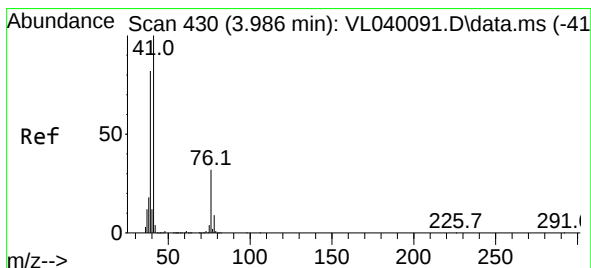
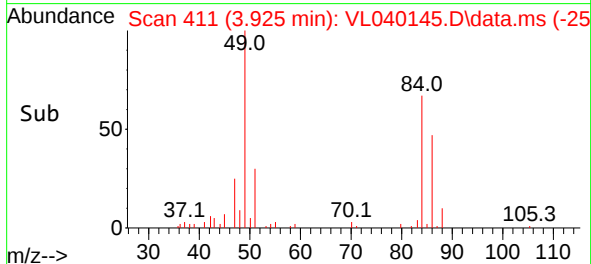
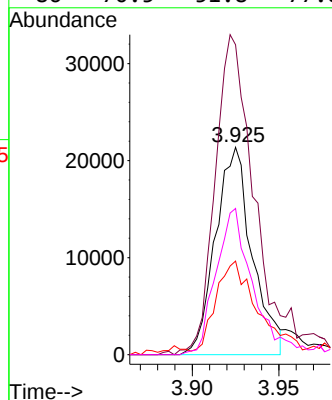
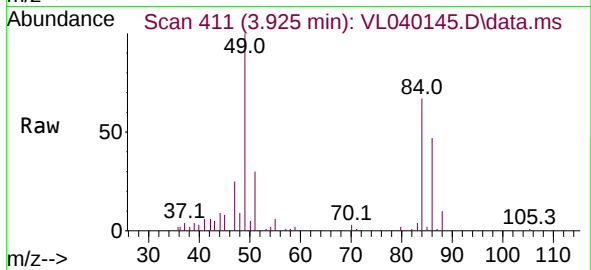


#20
Methylene Chloride
Concen: 0.609 ppbv
RT: 3.925 min Scan# 411
Delta R.T. 0.010 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

Instrument :
MSVOA_L
ClientSampleId :

Tgt Ion: 84 Resp: 31424

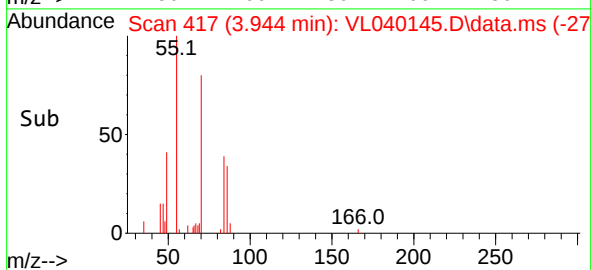
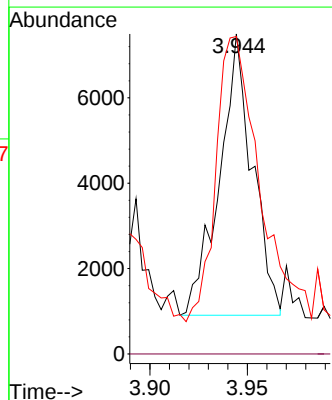
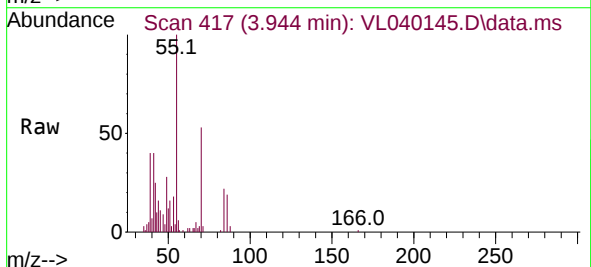
Ion	Ratio	Lower	Upper
84	100		
49	146.1	114.6	171.8
51	42.5	34.3	51.5
86	70.5	51.8	77.8

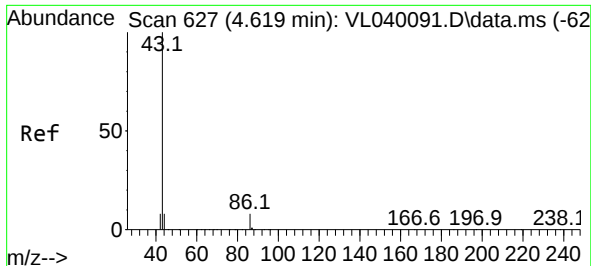


#21
Allyl Chloride
Concen: 0.104 ppbv
RT: 3.944 min Scan# 417
Delta R.T. -0.035 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

Tgt Ion: 41 Resp: 7774

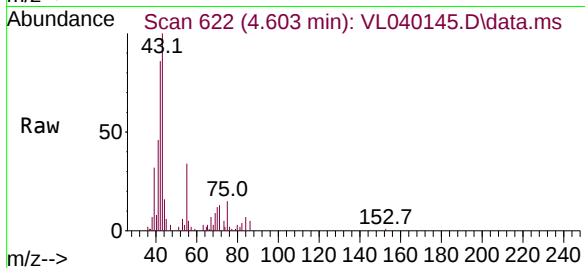
Ion	Ratio	Lower	Upper
41	100		
76	0.0	25.9	38.9#
39	183.5	66.8	100.2#



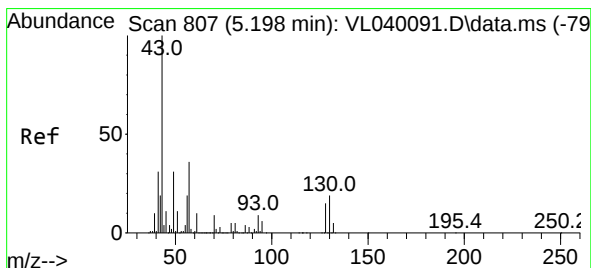
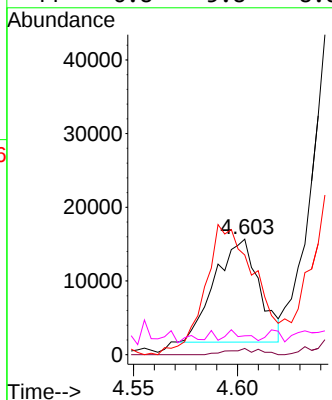
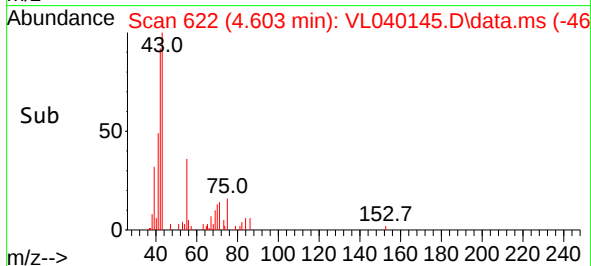


#23
 Vinyl Acetate
 Concen: 0.547 ppbv
 RT: 4.603 min Scan# 61
 Delta R.T. -0.010 min
 Lab File: VL040145.D
 Acq: 6 Feb 2023 14:25

Instrument :
 MSVOA_L
 ClientSampleId :

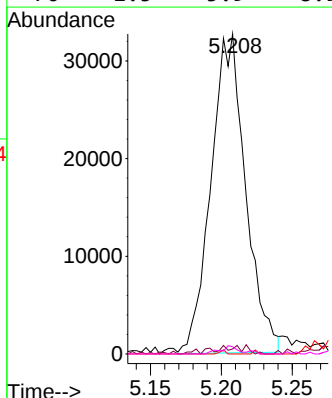
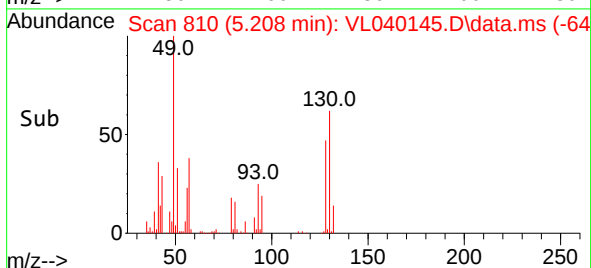
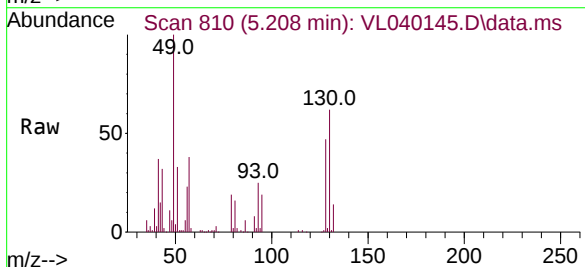


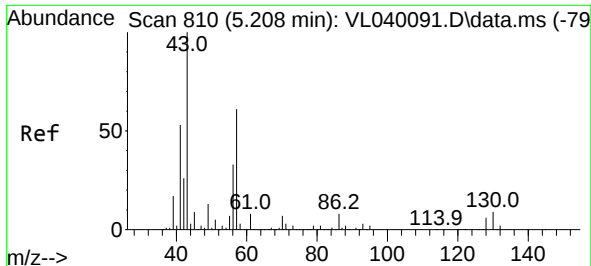
Tgt Ion:	43	Resp:	20737
Ion	Ratio	Lower	Upper
43	100		
86	6.1	5.6	8.4
42	88.4	7.7	11.5#
44	6.8	5.8	8.8



#25
 Ethyl Acetate
 Concen: 0.269 ppbv
 RT: 5.208 min Scan# 810
 Delta R.T. 0.019 min
 Lab File: VL040145.D
 Acq: 6 Feb 2023 14:25

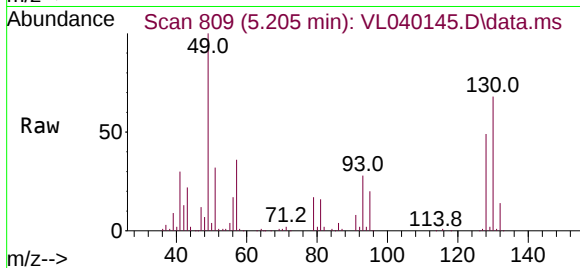
Tgt Ion:	43	Resp:	55495
Ion	Ratio	Lower	Upper
43	100		
45	2.5	8.5	12.7#
61	0.2	8.4	12.6#
70	1.5	5.9	8.9#



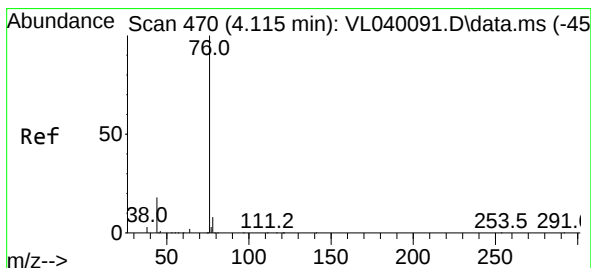
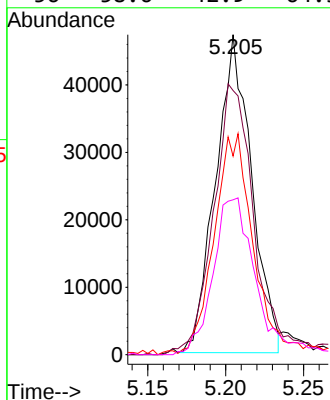
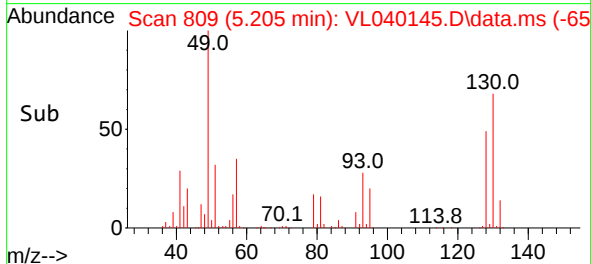


#26
Hexane
Concen: 0.838 ppbv
RT: 5.205 min Scan# 810
Delta R.T. 0.007 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

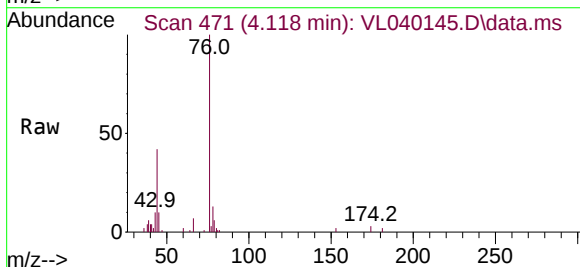
Instrument :
MSVOA_L
ClientSampleId :



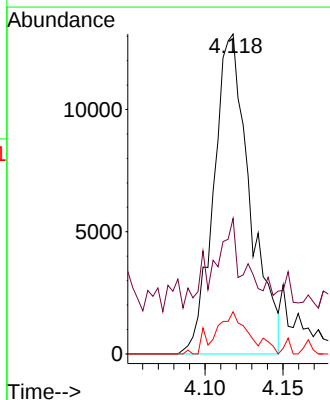
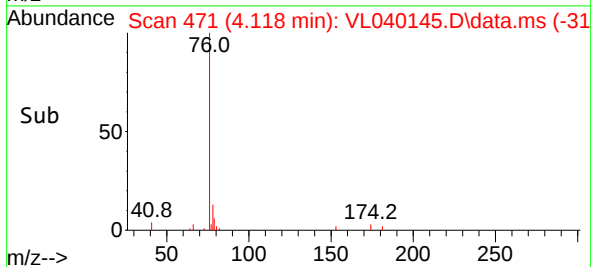
Tgt Ion	Ratio	Lower	Upper
57	100		
41	101.7	72.2	108.4
43	79.6	192.1	288.1#
56	58.6	42.9	64.3

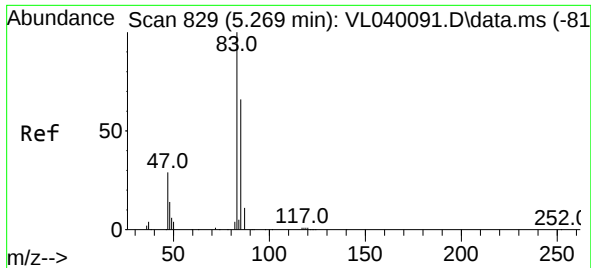


#27
Carbon Disulfide
Concen: 0.180 ppbv
RT: 4.118 min Scan# 471
Delta R.T. 0.010 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25



Tgt Ion	Ratio	Lower	Upper
76	100		
44	43.0	14.9	22.3#
78	13.1	8.2	12.2#

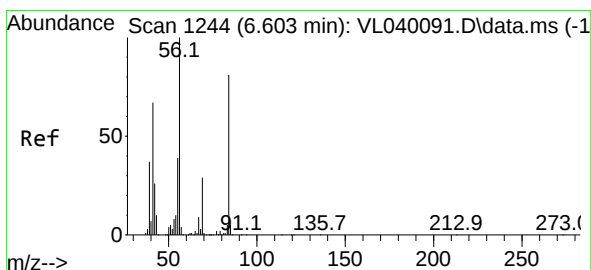
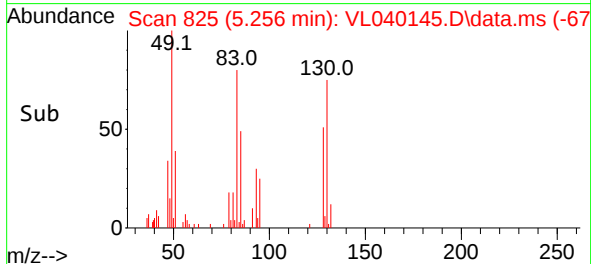
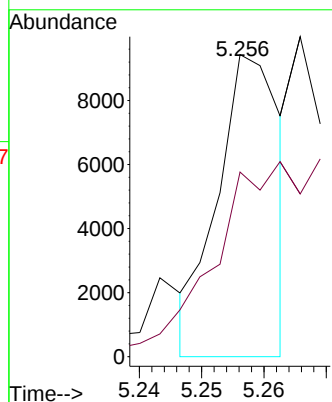
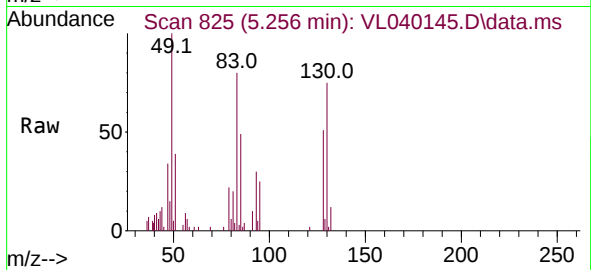




#29
Chloroform
Concen: 0.046 ppbv
RT: 5.256 min Scan# 81
Delta R.T. -0.003 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

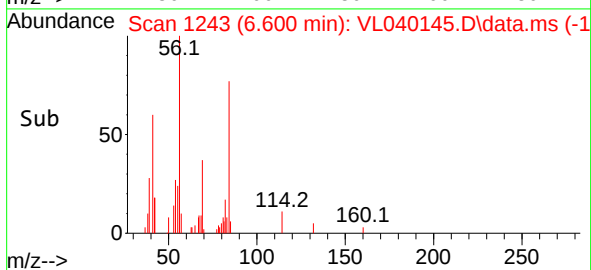
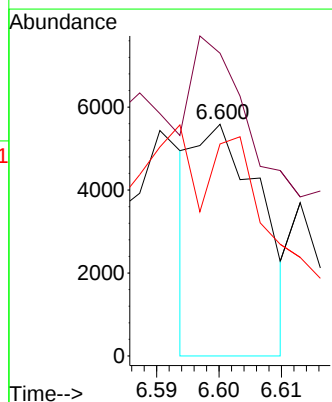
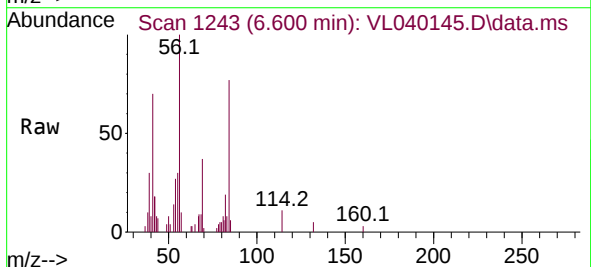
Instrument :
MSVOA_L
ClientSampleId :

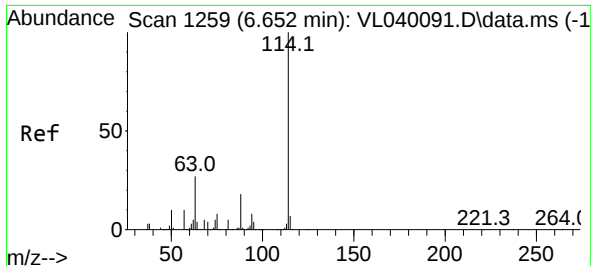
Tgt Ion: 83 Resp: 6581
Ion Ratio Lower Upper
83 100
85 57.8 53.1 79.7



#30
Cyclohexane
Concen: 0.058 ppbv
RT: 6.600 min Scan# 1243
Delta R.T. 0.010 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

Tgt Ion: 84 Resp: 4146
Ion Ratio Lower Upper
84 100
56 349.4 111.5 167.3#
41 321.5 71.4 107.0#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.645 min Scan# 11

Delta R.T. 0.003 min

Lab File: VL040145.D

Acq: 6 Feb 2023 14:25

Instrument :

MSVOA_L

ClientSampleId :

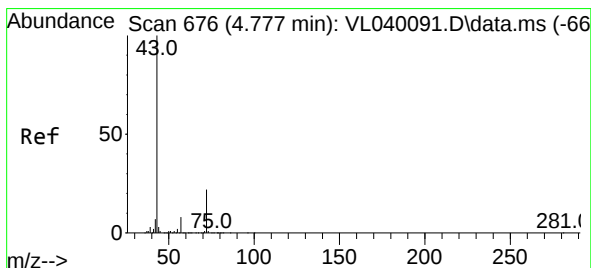
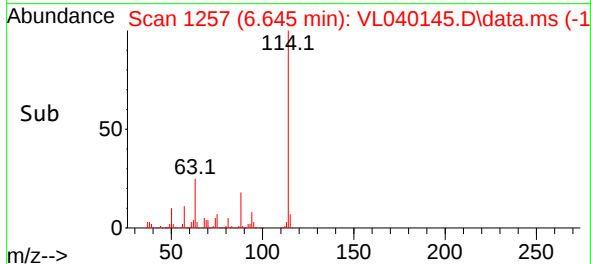
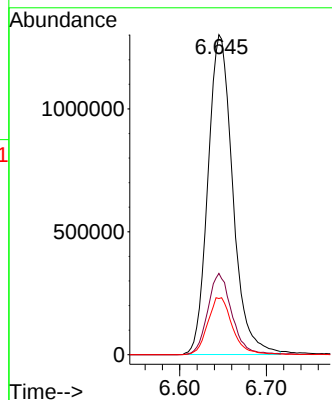
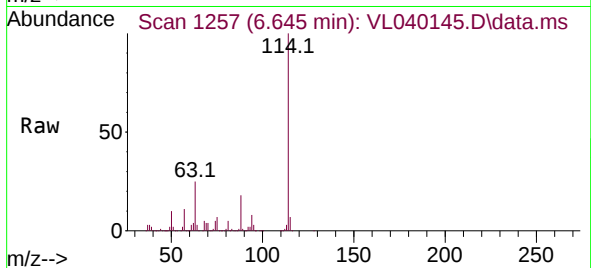
Tgt Ion:114 Resp: 2584546

Ion Ratio Lower Upper

114 100

63 25.0 21.8 32.8

88 17.9 14.8 22.2



#34

2-Butanone

Concen: 0.421 ppbv

RT: 4.780 min Scan# 677

Delta R.T. 0.010 min

Lab File: VL040145.D

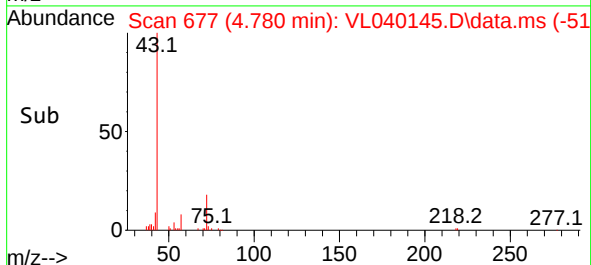
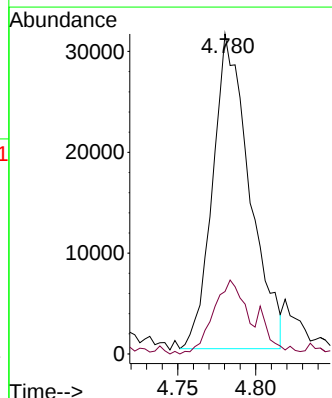
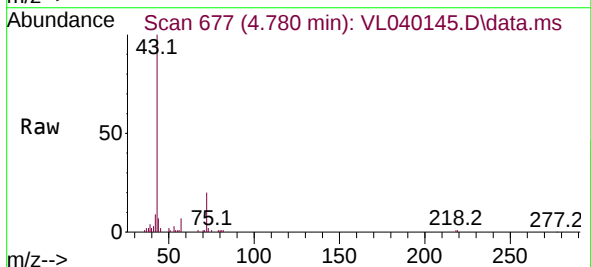
Acq: 6 Feb 2023 14:25

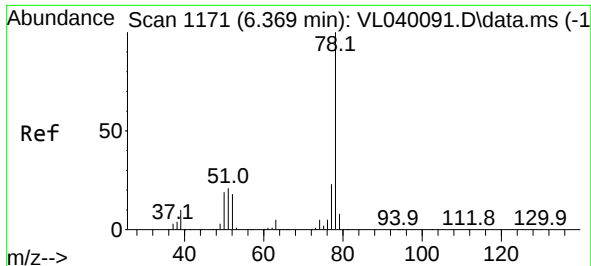
Tgt Ion: 43 Resp: 51433

Ion Ratio Lower Upper

43 100

72 26.7 18.4 27.6

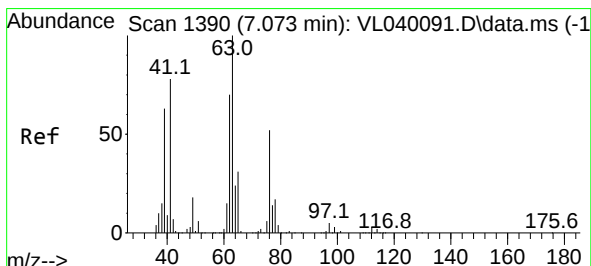
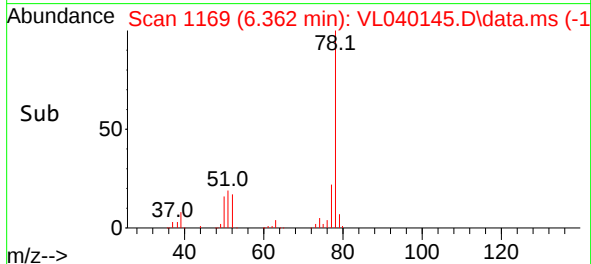
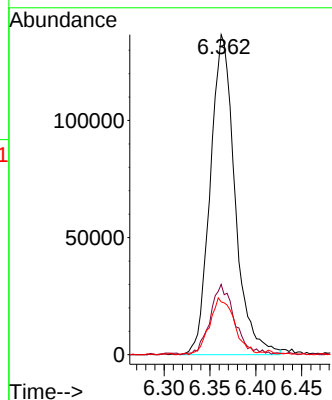
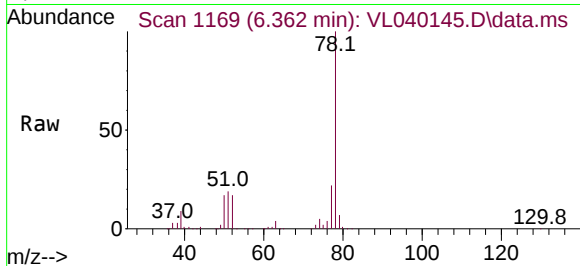




#36
Benzene
Concen: 1.335 ppbv
RT: 6.362 min Scan# 1171
Delta R.T. 0.003 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

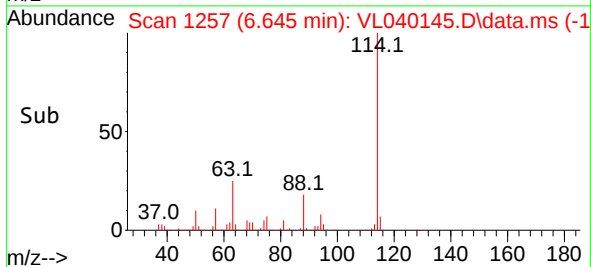
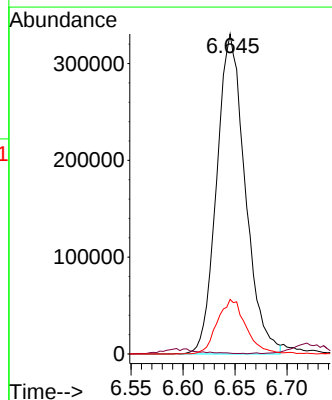
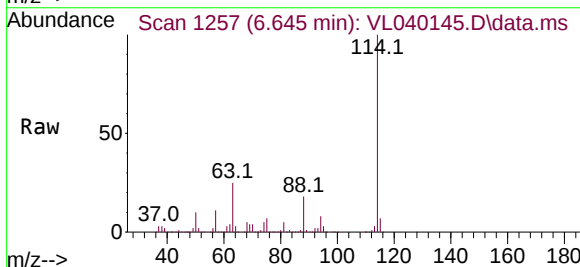
Instrument :
MSVOA_L
ClientSampleId :

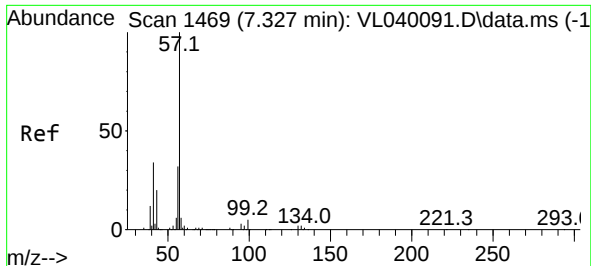
Tgt Ion: 78 Resp: 255394
Ion Ratio Lower Upper
78 100
77 22.0 18.1 27.1
50 16.3 15.6 23.4



#39
1,2-Dichloropropane
Concen: 8.429 ppbv
RT: 6.645 min Scan# 1257
Delta R.T. -0.418 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

Tgt Ion: 63 Resp: 630569
Ion Ratio Lower Upper
63 100
41 0.0 62.2 93.4#
62 17.0 55.8 83.8#





#44

2,2,4-Trimethylpentane

Concen: 0.101 ppbv

RT: 7.320 min Scan# 1467

Delta R.T. 0.007 min

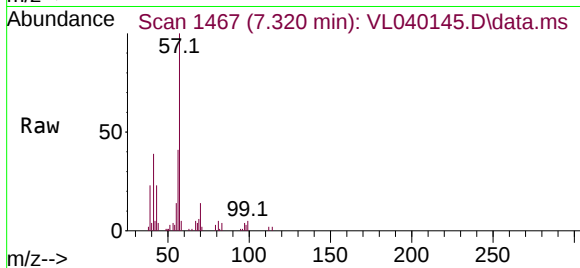
Lab File: VL040145.D

Acq: 6 Feb 2023 14:25

Instrument :

MSVOA_L

ClientSampleId :



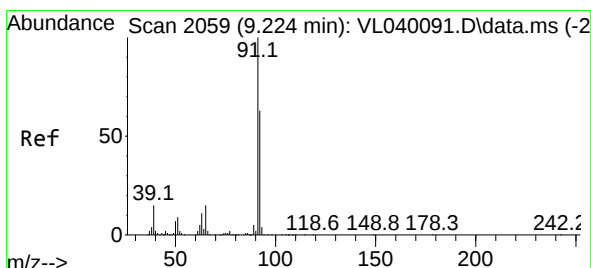
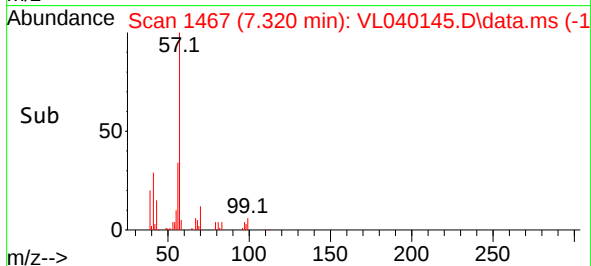
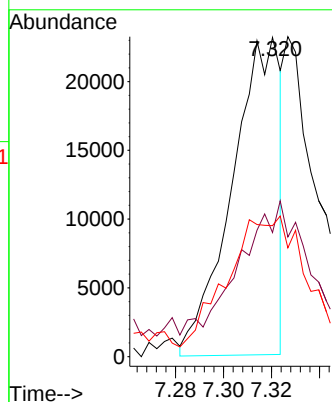
Tgt Ion: 57 Resp: 32253

Ion Ratio Lower Upper

57 100

41 0.0 27.1 40.7#

56 0.0 25.0 37.4#



#53

Toluene

Concen: 1.579 ppbv

RT: 9.214 min Scan# 2056

Delta R.T. 0.003 min

Lab File: VL040145.D

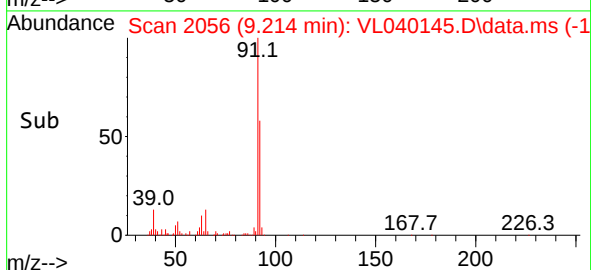
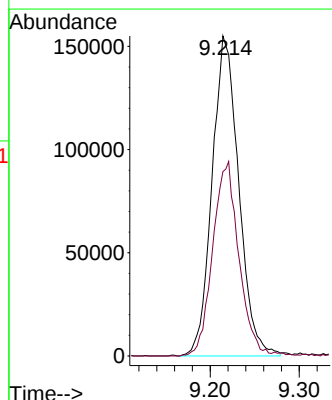
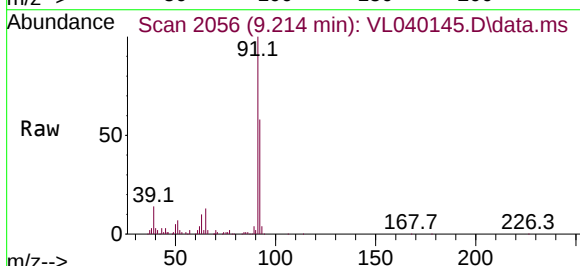
Acq: 6 Feb 2023 14:25

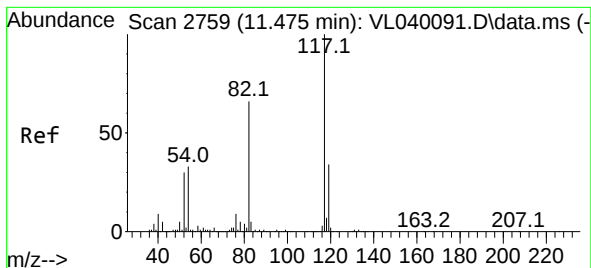
Tgt Ion: 91 Resp: 322129

Ion Ratio Lower Upper

91 100

92 59.8 48.3 72.5





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.462 min Scan# 21

Delta R.T. 0.003 min

Lab File: VL040145.D

Acq: 6 Feb 2023 14:25

Instrument :

MSVOA_L

ClientSampleId :

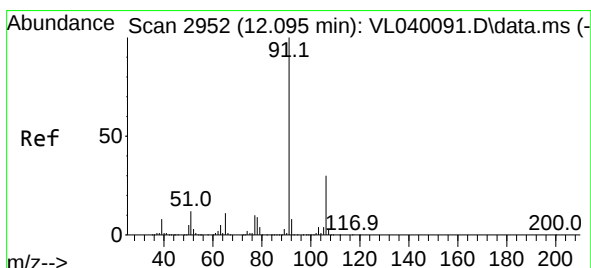
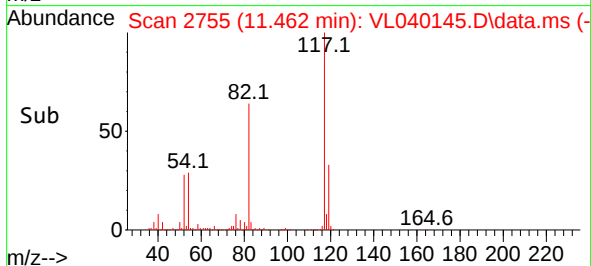
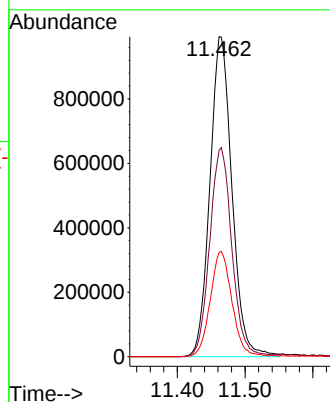
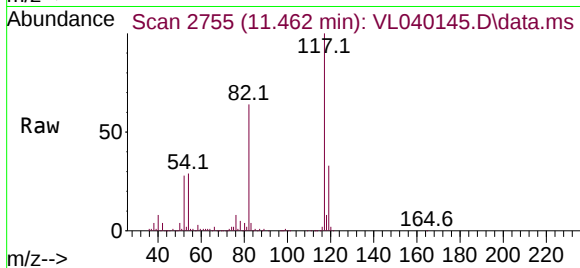
Tgt Ion:117 Resp: 2243267

Ion Ratio Lower Upper

117 100

82 67.0 54.4 81.6

119 32.7 26.8 40.2



#58

Ethyl Benzene

Concen: 0.300 ppbv

RT: 12.085 min Scan# 2949

Delta R.T. 0.003 min

Lab File: VL040145.D

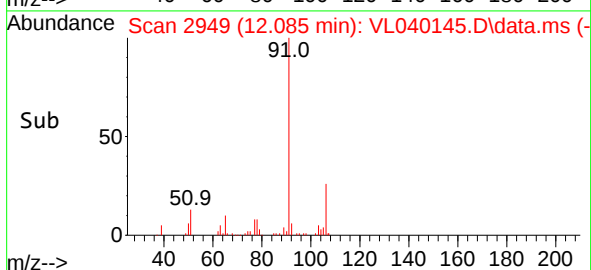
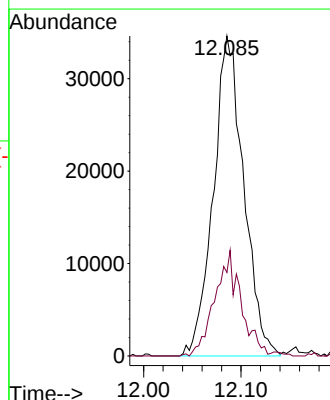
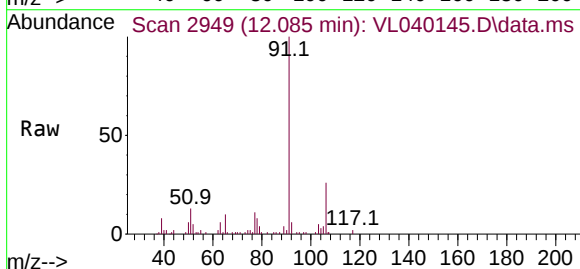
Acq: 6 Feb 2023 14:25

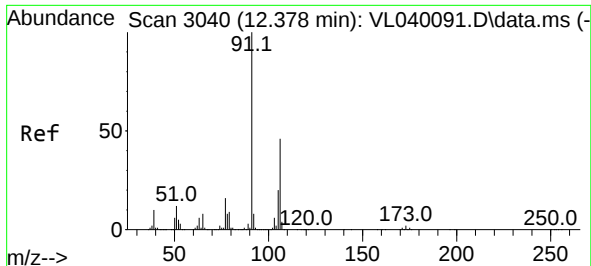
Tgt Ion: 91 Resp: 74979

Ion Ratio Lower Upper

91 100

106 26.1 23.7 35.5





#59

m/p-Xylene

Concen: 0.733 ppbv

RT: 12.343 min Scan# 3040

Delta R.T. -0.022 min

Lab File: VL040145.D

Acq: 6 Feb 2023 14:25

Instrument :

MSVOA_L

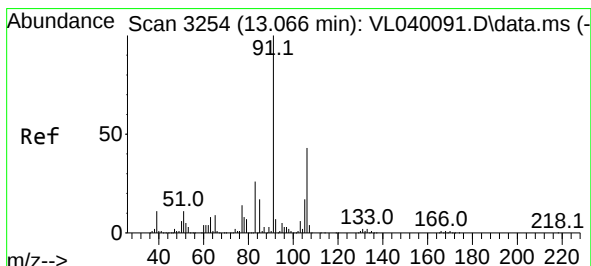
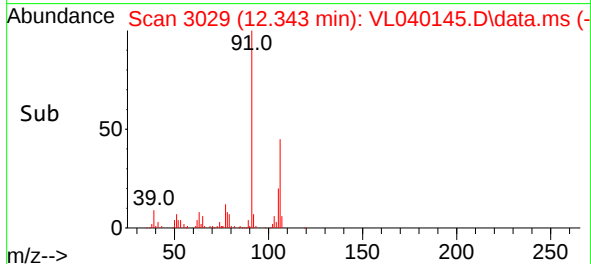
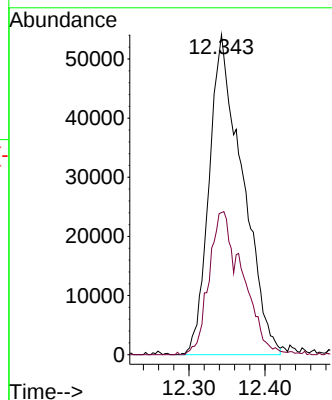
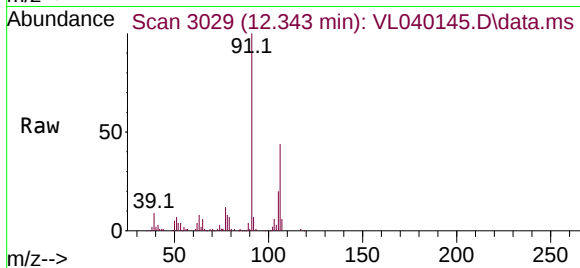
ClientSampleId :

Tgt Ion: 91 Resp: 164884

Ion Ratio Lower Upper

91 100

106 45.4 34.2 51.4



#60

o-Xylene

Concen: 0.258 ppbv

RT: 13.056 min Scan# 3251

Delta R.T. 0.007 min

Lab File: VL040145.D

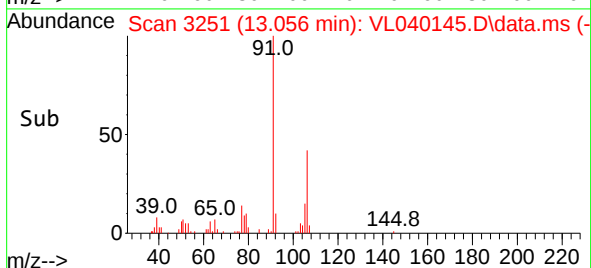
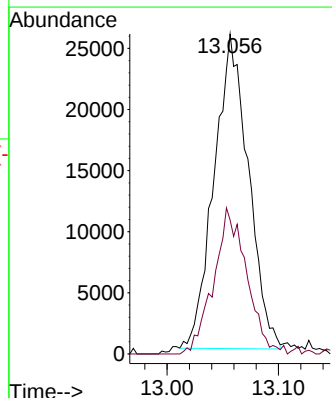
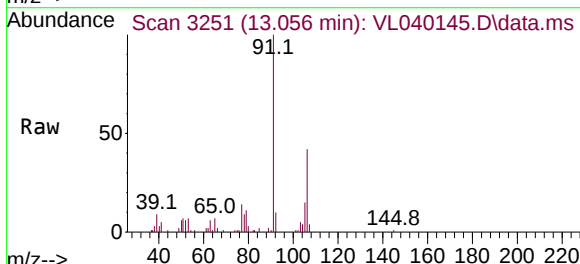
Acq: 6 Feb 2023 14:25

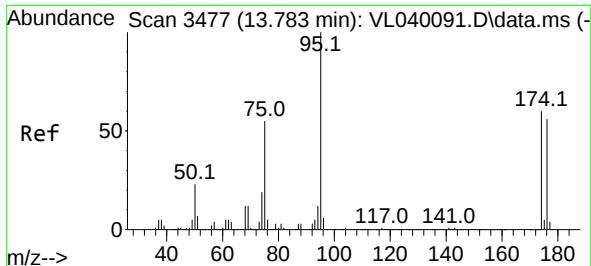
Tgt Ion: 91 Resp: 55033

Ion Ratio Lower Upper

91 100

106 45.4 21.6 64.8

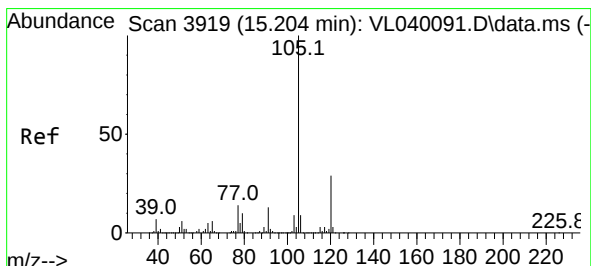
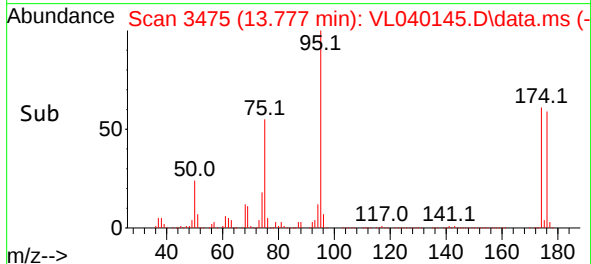
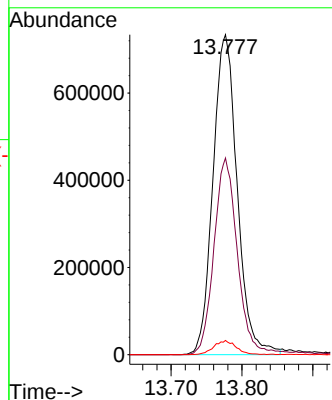
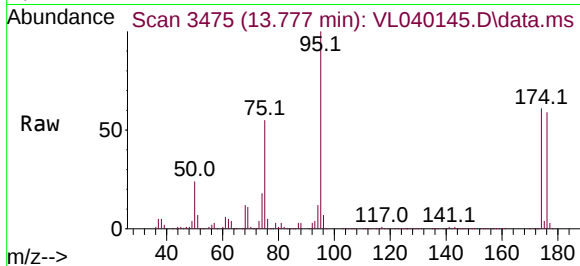




#68
1-Bromo-4-Fluorobenzene
Concen: 9.371 ppbv
RT: 13.777 min Scan# 3477
Delta R.T. 0.007 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

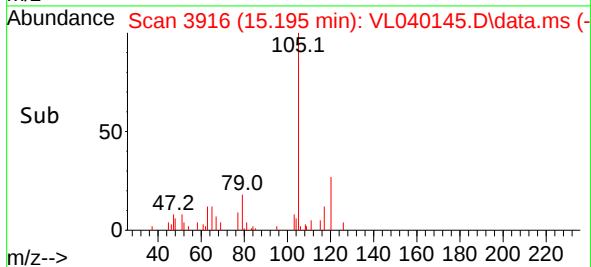
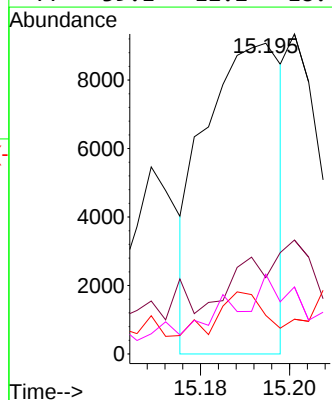
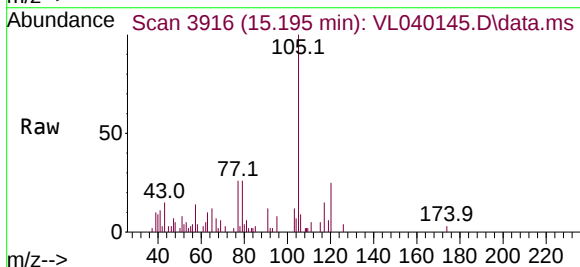
Instrument :
MSVOA_L
ClientSampleId :

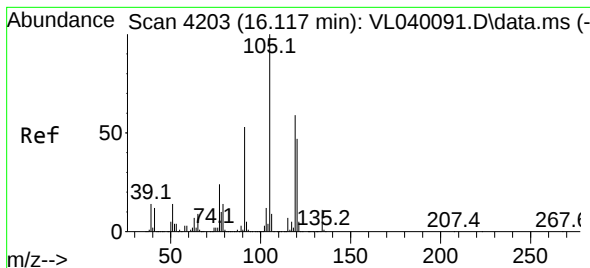
Tgt Ion: 95 Resp: 1747162
Ion Ratio Lower Upper
95 100
174 60.6 47.7 71.5
175 4.1 3.4 5.2



#72
4-Ethyltoluene
Concen: 0.046 ppbv
RT: 15.195 min Scan# 3916
Delta R.T. 0.007 min
Lab File: VL040145.D
Acq: 6 Feb 2023 14:25

Tgt Ion:105 Resp: 10815
Ion Ratio Lower Upper
105 100
120 0.0 23.1 34.7#
91 0.0 11.2 16.8#
77 39.1 12.2 18.4#





#74

1,2,4-Trimethylbenzene

Concen: 0.261 ppbv

RT: 16.105 min Scan# 4199

Delta R.T. 0.003 min

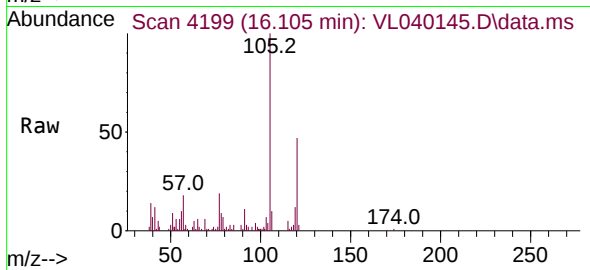
Lab File: VL040145.D

Acq: 6 Feb 2023 14:25

Instrument :

MSVOA_L

ClientSampleId :



Tgt Ion:105 Resp: 61738

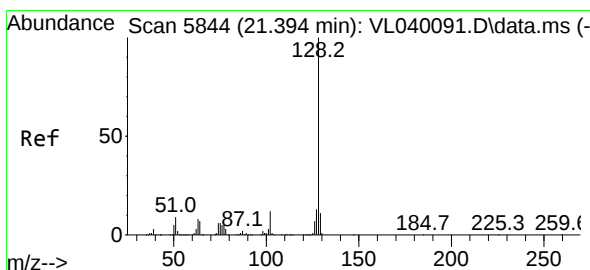
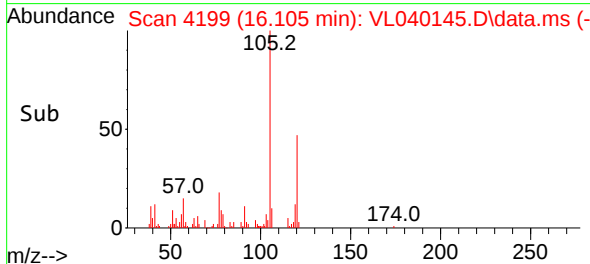
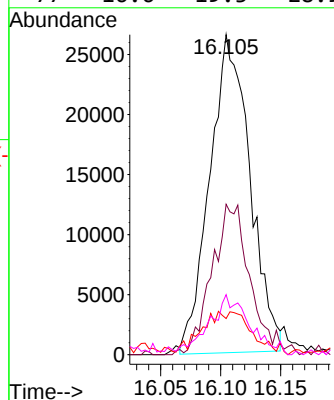
Ion Ratio Lower Upper

105 100

120 46.4 38.0 57.0

91 8.7 42.1 63.1#

77 16.6 19.3 28.9#



#79

Naphthalene

Concen: 0.047 ppbv

RT: 21.394 min Scan# 5844

Delta R.T. 0.016 min

Lab File: VL040145.D

Acq: 6 Feb 2023 14:25

Tgt Ion:128 Resp: 6421

Ion Ratio Lower Upper

128 100

127 20.3 10.3 15.5#

129 6.6 8.8 13.2#

