

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL122222\
 Data File : VL040066.D
 Acq On : 22 Dec 2022 13:49
 Operator : SY/MD
 Sample : N6181-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 23 06:28:04 2022
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL121922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Dec 20 04:50:21 2022
 Response via : Initial Calibration

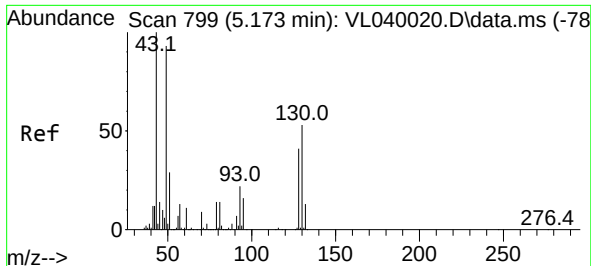
Compound	R.T. QIon		Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.169	49	901231	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.632	114	2456007	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.452	117	2113187	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.764	95	1658616	10.275	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	= 102.800%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.706	85	40690	0.241	ppbv	98
3) Chlorodifluoromethane	2.636	51	97255	0.731	ppbv #	77
4) Chloromethane	2.797	50	33405	0.401	ppbv	92
9) Propene	2.681	41	73666	1.305	ppbv	85
10) Heptane	7.562	43	18437	0.134	ppbv #	64
11) Trichlorofluoromethane	3.542	101	36677	0.200	ppbv	90
13) Ethanol	3.247	45	21094486	3971.799	ppbv	76
15) Acetone	3.446	43	1059110	7.597	ppbv	99
16) 1,3-Butadiene	2.989	39	69446	1.146	ppbv #	20
17) tert-Butyl alcohol	3.886	59	111602	0.812	ppbv	99
19) Isopropyl Alcohol	3.584	45	1492366	21.721	ppbv	99
20) Methylene Chloride	3.912	84	814498	13.744	ppbv	97
21) Allyl Chloride	3.909	41	29884	0.357	ppbv #	19
23) Vinyl Acetate	4.597	43	15726	0.356	ppbv #	1
25) Ethyl Acetate	5.195	43	363873	1.507	ppbv #	83
26) Hexane	5.192	57	431750	4.255	ppbv #	44
29) Chloroform	5.256	83	51738	0.334	ppbv	89
30) Cyclohexane	6.584	84	3271	0.036	ppbv #	1
31) cis-1,2-Dichloroethene	5.182	61	9483	0.098	ppbv #	28
34) 2-Butanone	4.771	43	32932	0.247	ppbv	99
36) Benzene	6.353	78	116167	0.530	ppbv	92
39) 1,2-Dichloropropane	6.632	63	614098	7.469	ppbv #	23
41) Tetrahydrofuran	5.533	42	4274	0.051	ppbv #	61
44) 2,2,4-Trimethylpentane	7.311	57	24927	0.069	ppbv #	23
53) Toluene	9.208	91	233988	0.963	ppbv	99
58) Ethyl Benzene	12.073	91	36930	0.123	ppbv	92
59) m/p-Xylene	12.359	91	17154	0.066	ppbv #	32
60) o-Xylene	13.044	91	44196	0.176	ppbv	95
61) Styrene	12.893	104	5719	0.043	ppbv #	31
69) p-Isopropyltoluene	17.278	119	386878	1.101	ppbv #	1
72) 4-Ethyltoluene	15.182	105	14917	0.054	ppbv #	63
74) 1,2,4-Trimethylbenzene	16.095	105	36381	0.132	ppbv #	62
76) 1,4-Dichlorobenzene	16.468	146	10264	0.069	ppbv #	21

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

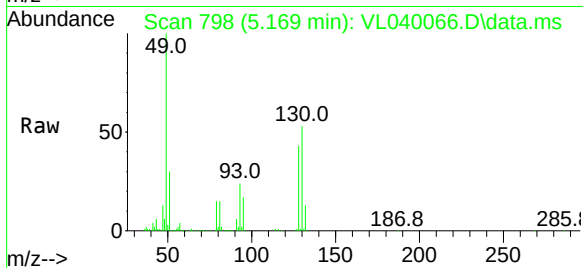
Quant Time: Dec 23 06:28:04 2022
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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Tue Dec 20 04:50:21 2022
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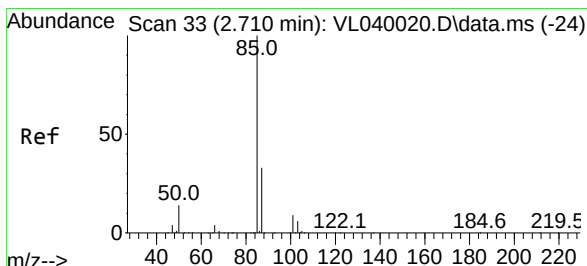
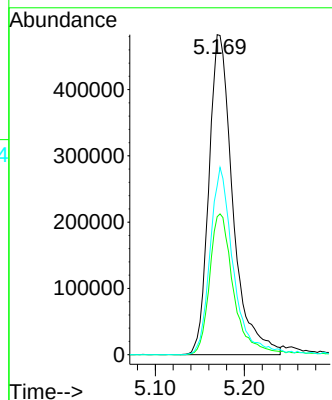
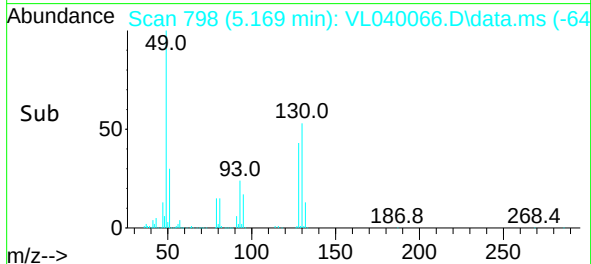


#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.169 min Scan# 799
 Delta R.T. -0.004 min
 Lab File: VL040066.D
 Acq: 22 Dec 2022 13:49

Instrument :
 MSVOA_L
 ClientSampleId :

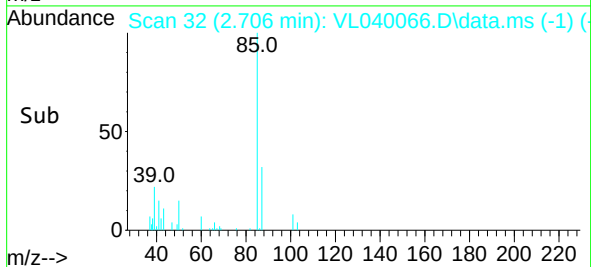
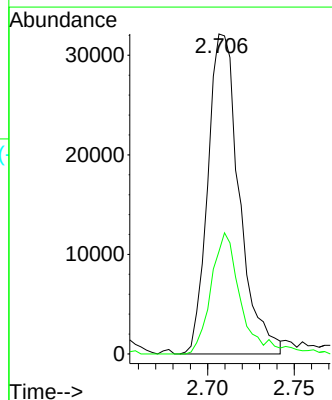
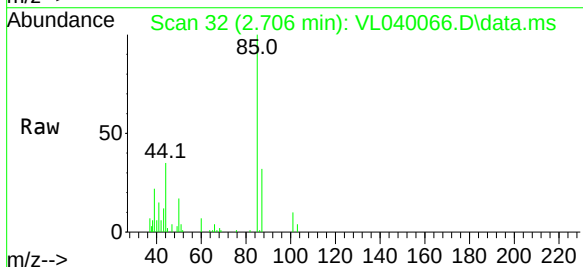


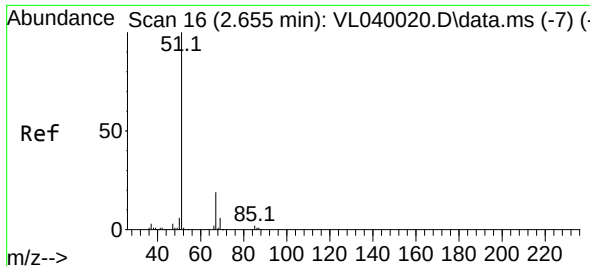
Tgt Ion: 49 Resp: 901231
 Ion Ratio Lower Upper
 49 100
 128 44.7 22.4 67.3
 130 57.9 28.9 86.8



#2
 Dichlorodifluoromethane
 Concen: 0.241 ppbv
 RT: 2.706 min Scan# 32
 Delta R.T. -0.003 min
 Lab File: VL040066.D
 Acq: 22 Dec 2022 13:49

Tgt Ion: 85 Resp: 40690
 Ion Ratio Lower Upper
 85 100
 87 32.0 26.6 40.0

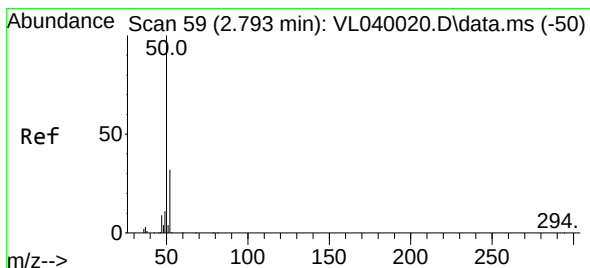
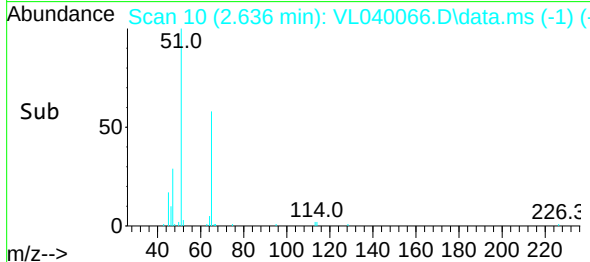
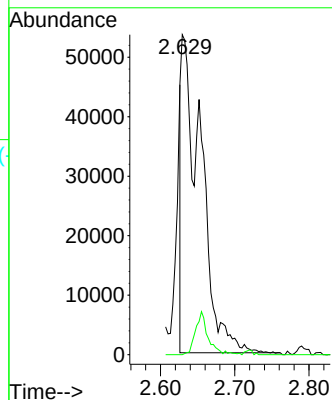
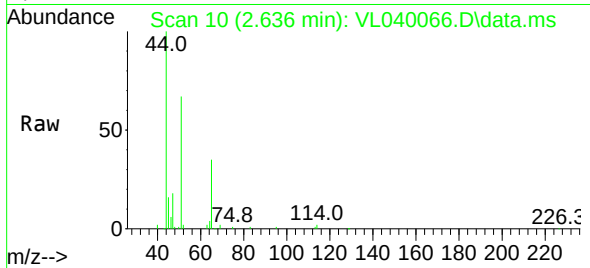




#3
Chlorodifluoromethane
Concen: 0.731 ppbv
RT: 2.636 min Scan# 10
Delta R.T. -0.019 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

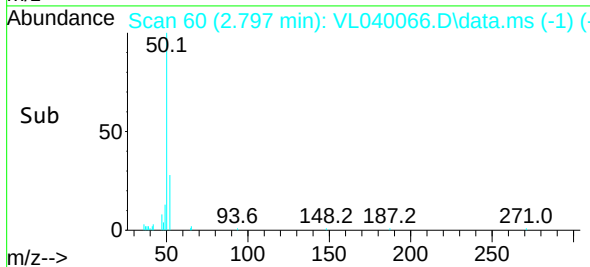
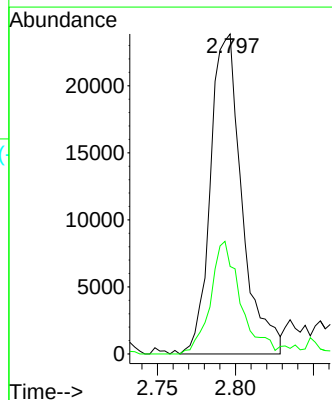
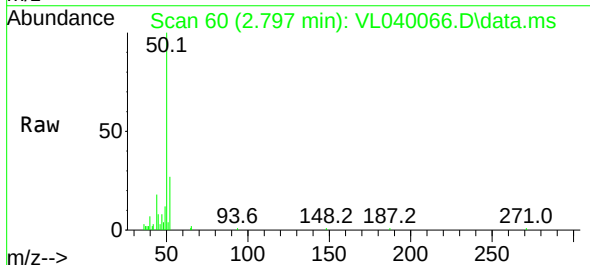
Instrument :
MSVOA_L
ClientSampleId :

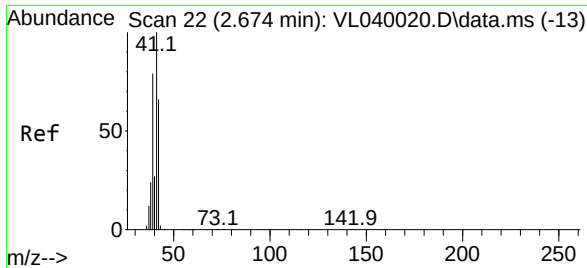
Tgt Ion: 51 Resp: 97255
Ion Ratio Lower Upper
51 100
67 8.8 15.3 22.9#



#4
Chloromethane
Concen: 0.401 ppbv
RT: 2.797 min Scan# 60
Delta R.T. 0.003 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

Tgt Ion: 50 Resp: 33405
Ion Ratio Lower Upper
50 100
52 27.4 25.5 38.3

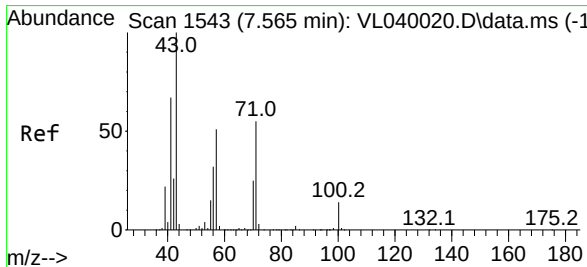
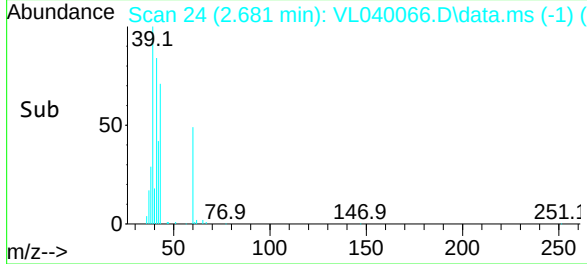
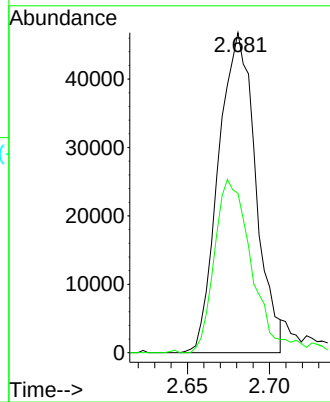
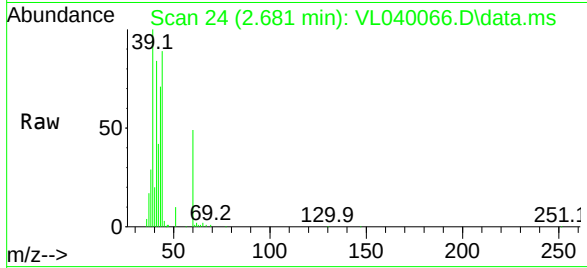




#9
 Propene
 Concen: 1.305 ppbv
 RT: 2.681 min Scan# 24
 Delta R.T. 0.007 min
 Lab File: VL040066.D
 Acq: 22 Dec 2022 13:49

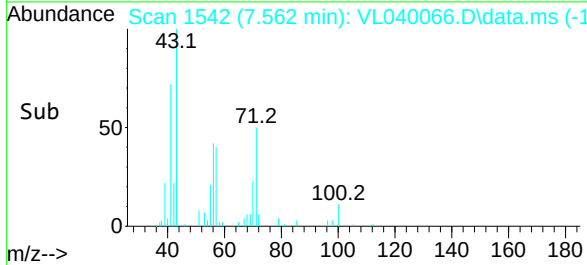
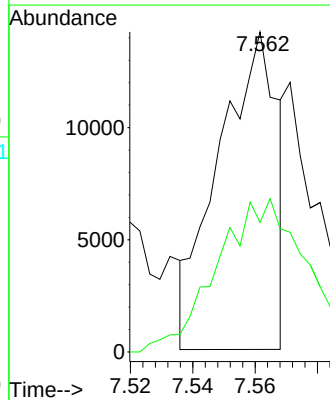
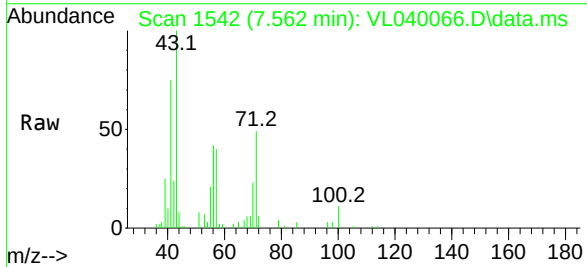
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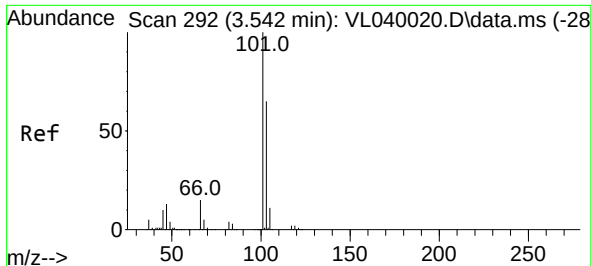
Tgt Ion: 41 Resp: 73666
 Ion Ratio Lower Upper
 41 100
 42 56.5 54.8 82.2



#10
 Heptane
 Concen: 0.134 ppbv
 RT: 7.562 min Scan# 1542
 Delta R.T. -0.003 min
 Lab File: VL040066.D
 Acq: 22 Dec 2022 13:49

Tgt Ion: 43 Resp: 18437
 Ion Ratio Lower Upper
 43 100
 57 76.6 41.2 61.8#

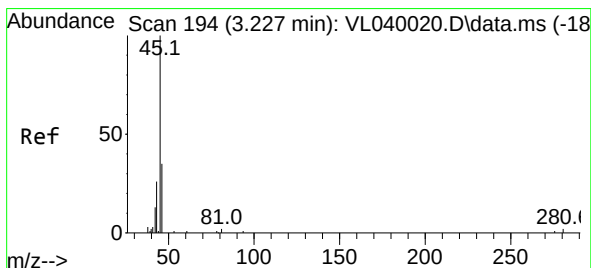
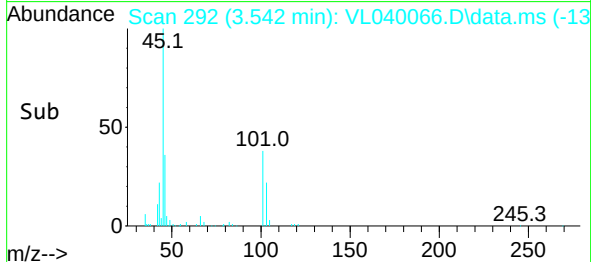
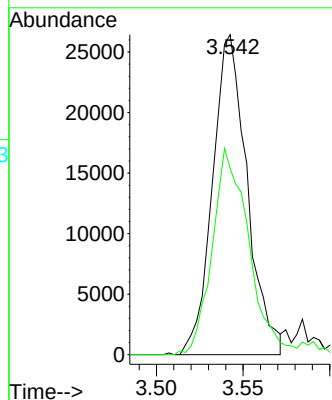
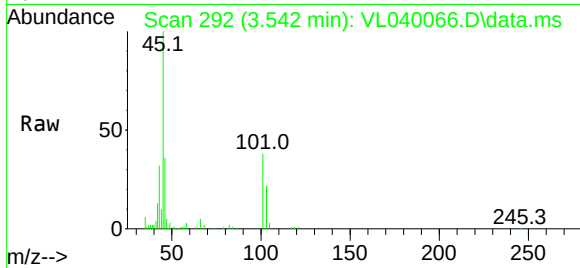




#11
 Trichlorofluoromethane
 Concen: 0.200 ppbv
 RT: 3.542 min Scan# 292
 Delta R.T. 0.000 min
 Lab File: VL040066.D
 Acq: 22 Dec 2022 13:49

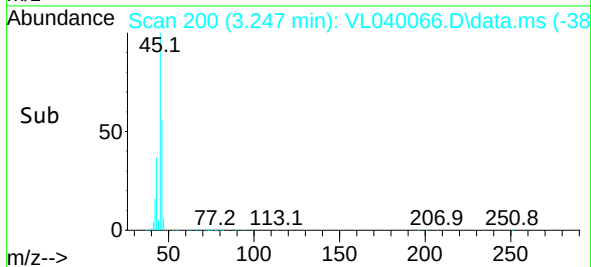
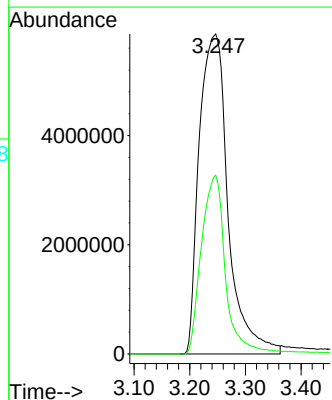
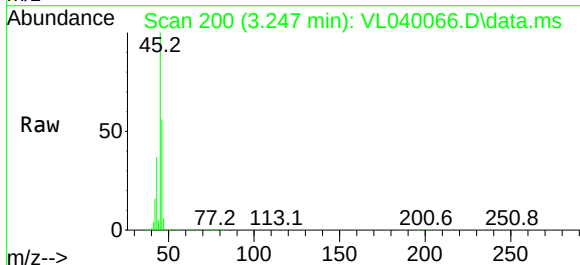
Instrument :
 MSVOA_L
 ClientSampleId :

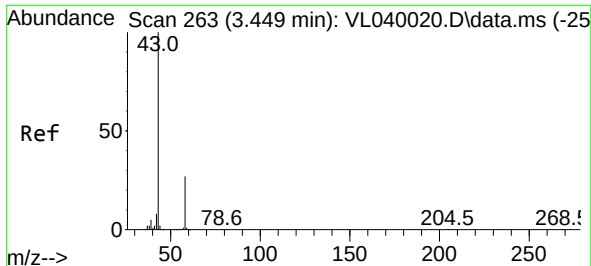
Tgt Ion:101 Resp: 36677
 Ion Ratio Lower Upper
 101 100
 103 57.1 51.7 77.5



#13
 Ethanol
 Concen: 3971.799 ppbv
 RT: 3.247 min Scan# 200
 Delta R.T. 0.019 min
 Lab File: VL040066.D
 Acq: 22 Dec 2022 13:49

Tgt Ion: 45 Resp:21094486
 Ion Ratio Lower Upper
 45 100
 46 47.7 13.7 54.7

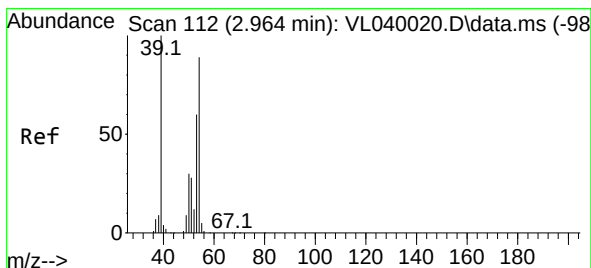
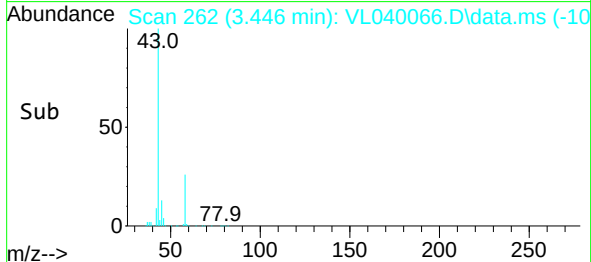
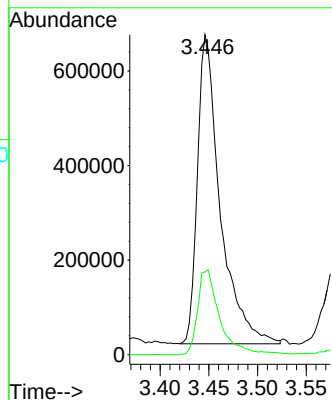
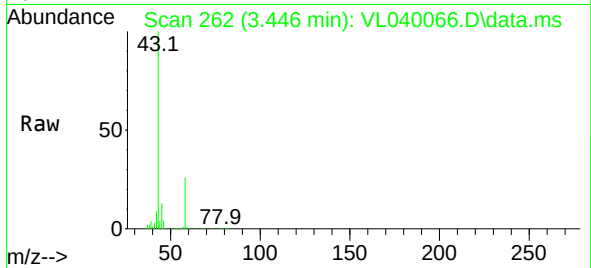




#15
Acetone
Concen: 7.597 ppbv
RT: 3.446 min Scan# 20
Delta R.T. -0.003 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

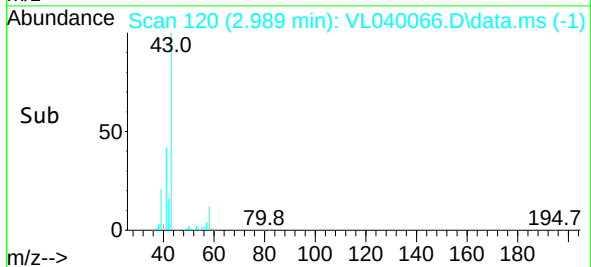
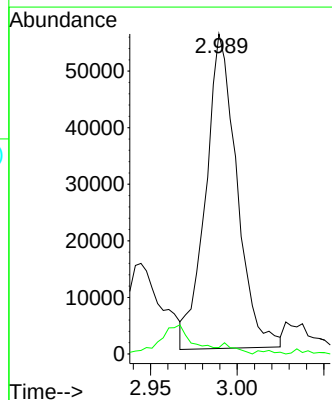
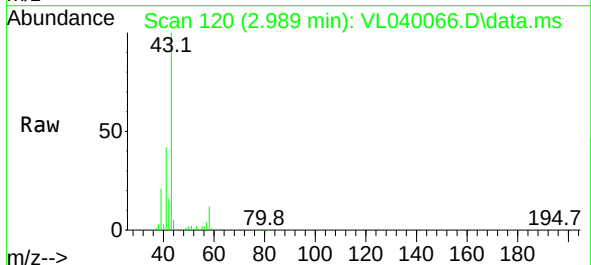
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MSVOA_L
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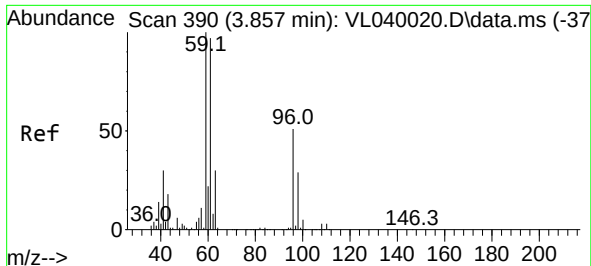
Tgt Ion: 43 Resp: 1059110
Ion Ratio Lower Upper
43 100
58 27.0 21.8 32.8



#16
1,3-Butadiene
Concen: 1.146 ppbv
RT: 2.989 min Scan# 120
Delta R.T. 0.026 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

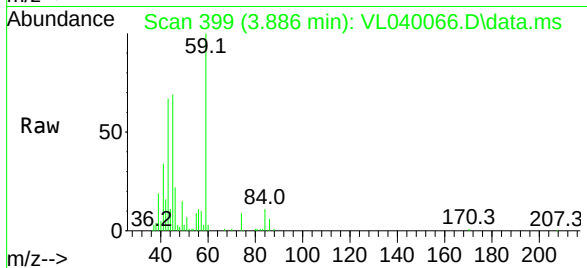
Tgt Ion: 39 Resp: 69446
Ion Ratio Lower Upper
39 100
54 11.9 68.3 102.5#



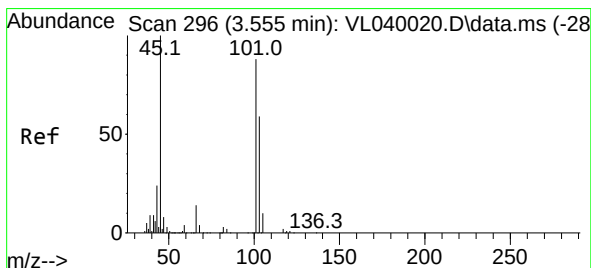
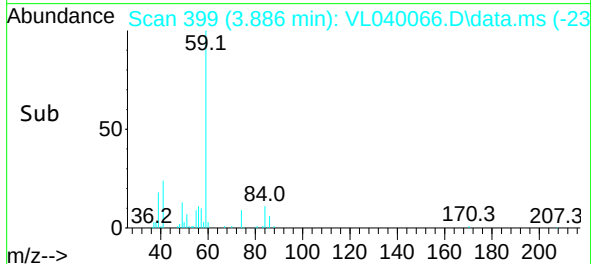
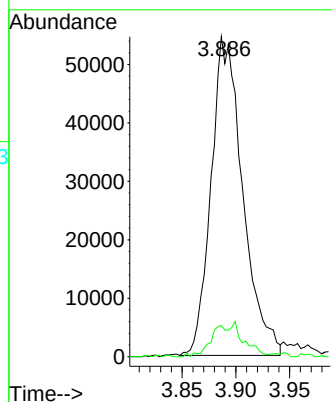


#17
tert-Butyl alcohol
Concen: 0.812 ppbv
RT: 3.886 min Scan# 305
Delta R.T. 0.029 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

Instrument :
MSVOA_L
ClientSampleId :

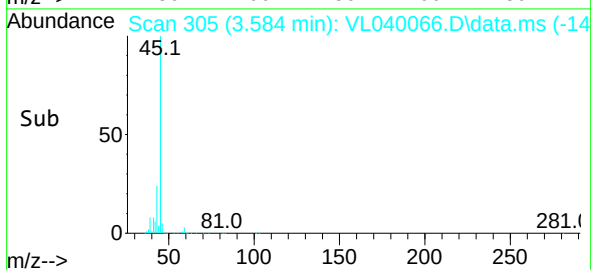
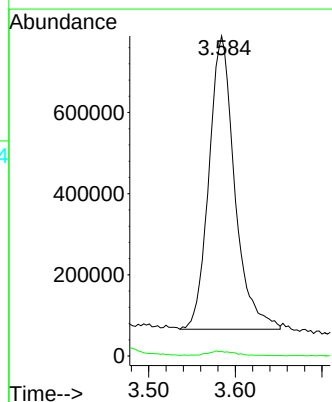
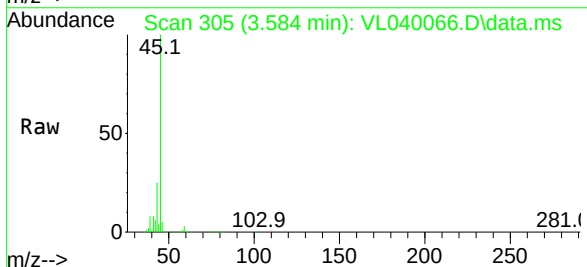


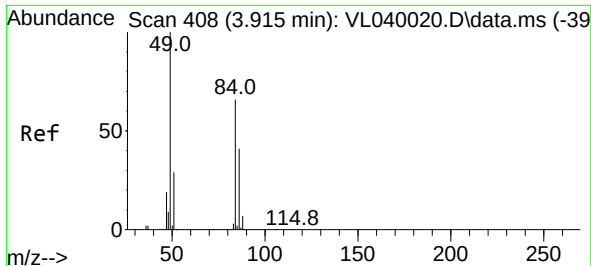
Tgt Ion: 59 Resp: 111602
Ion Ratio Lower Upper
59 100
57 11.0 8.4 12.6



#19
Isopropyl Alcohol
Concen: 21.721 ppbv
RT: 3.584 min Scan# 305
Delta R.T. 0.029 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

Tgt Ion: 45 Resp: 1492366
Ion Ratio Lower Upper
45 100
58 1.9 1.7 2.5





#20

Methylene Chloride

Concen: 13.744 ppbv

RT: 3.912 min Scan# 408

Delta R.T. -0.003 min

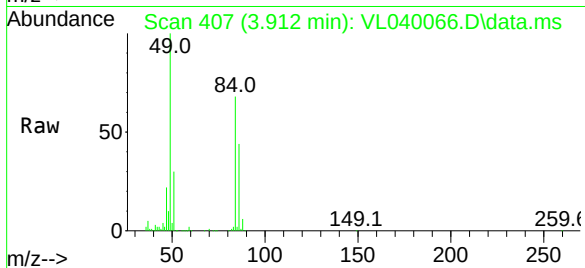
Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

Instrument :

MSVOA_L

ClientSampleId :



Tgt Ion: 84 Resp: 814498

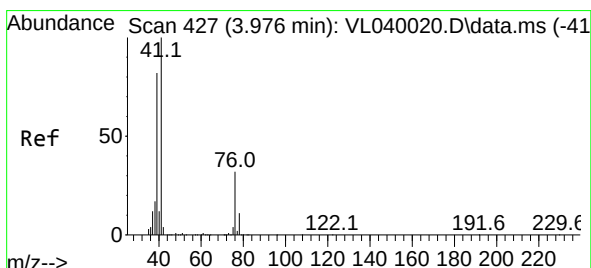
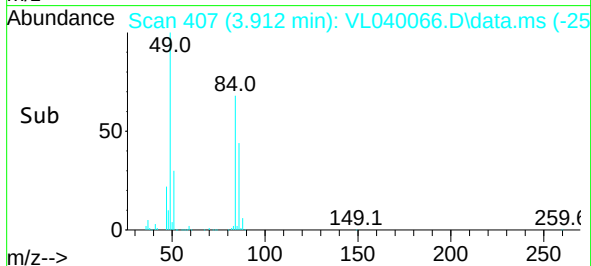
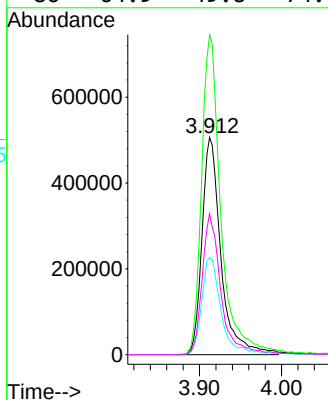
Ion Ratio Lower Upper

84 100

49 147.2 120.5 180.7

51 44.5 35.2 52.8

86 64.9 49.8 74.6



#21

Allyl Chloride

Concen: 0.357 ppbv

RT: 3.909 min Scan# 406

Delta R.T. -0.067 min

Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

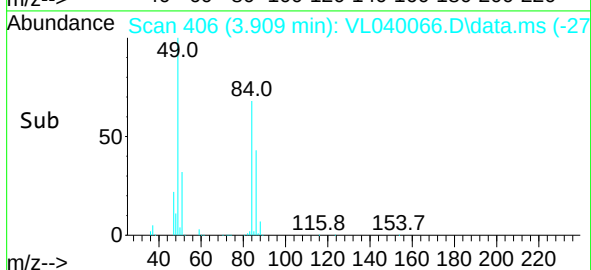
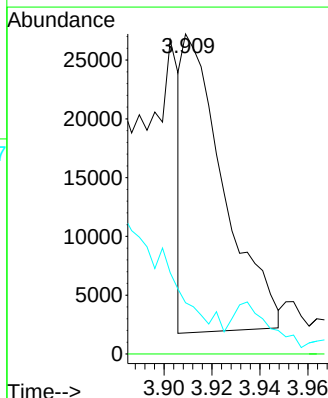
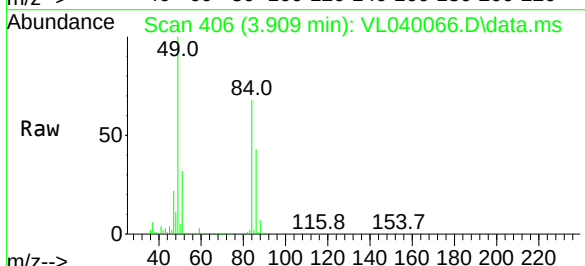
Tgt Ion: 41 Resp: 29884

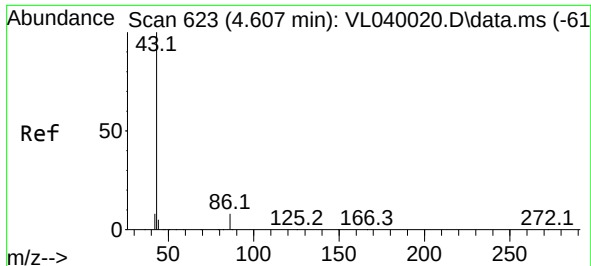
Ion Ratio Lower Upper

41 100

76 3.3 25.9 38.9#

39 0.0 66.0 99.0#

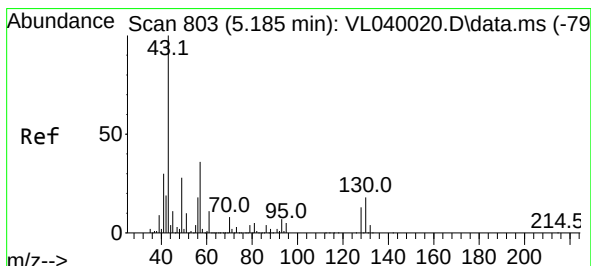
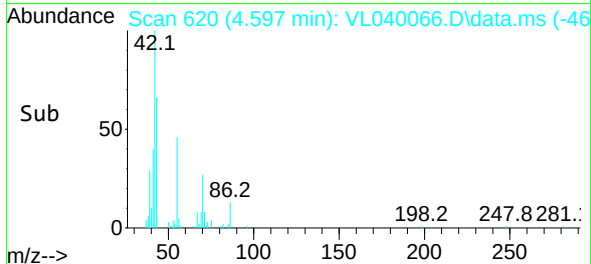
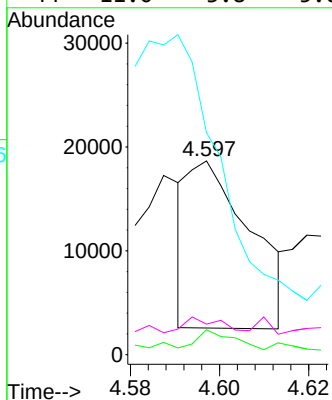
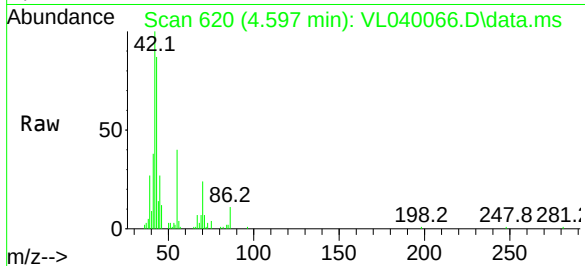




#23
 Vinyl Acetate
 Concen: 0.356 ppbv
 RT: 4.597 min Scan# 61
 Delta R.T. -0.010 min
 Lab File: VL040066.D
 Acq: 22 Dec 2022 13:49

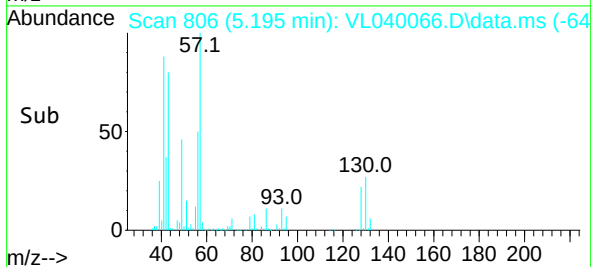
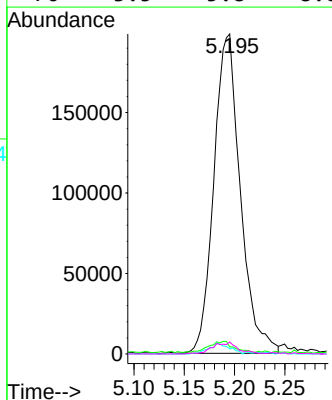
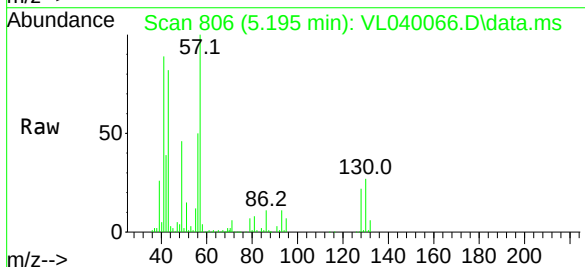
Instrument :
 MSVOA_L
 ClientSampleId :

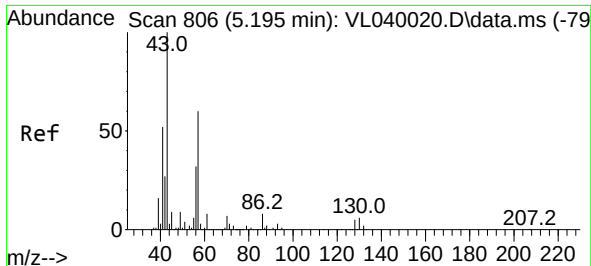
Tgt Ion: 43	Resp: 15726
Ion Ratio	Lower Upper
43 100	
86 20.0	5.3 7.9#
42 162.1	7.4 11.0#
44 11.0	3.8 5.6#



#25
 Ethyl Acetate
 Concen: 1.507 ppbv
 RT: 5.195 min Scan# 806
 Delta R.T. 0.010 min
 Lab File: VL040066.D
 Acq: 22 Dec 2022 13:49

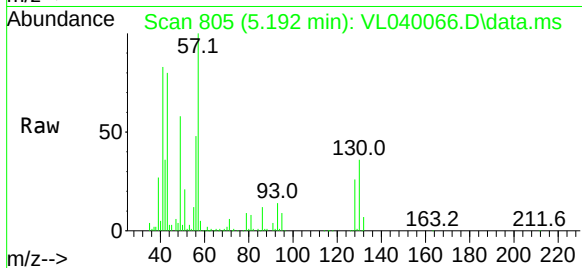
Tgt	Ion: 43	Resp:	363873
Ion	Ratio	Lower	Upper
43	100		
45	3.6	8.6	12.8#
61	3.1	8.5	12.7#
70	3.5	5.8	8.8#



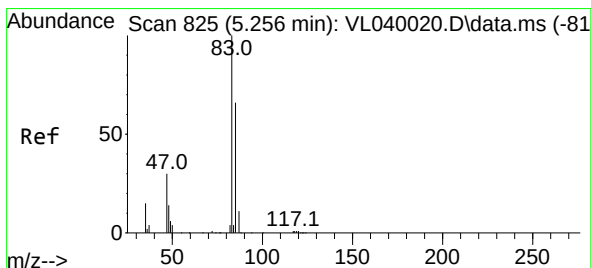
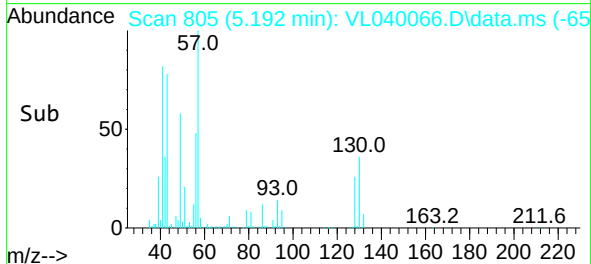
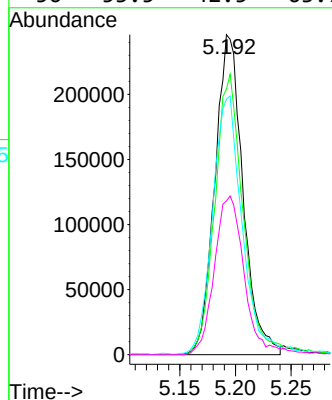


#26
Hexane
Concen: 4.255 ppbv
RT: 5.192 min Scan# 806
Delta R.T. -0.003 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

Instrument :
MSVOA_L
ClientSampleId :

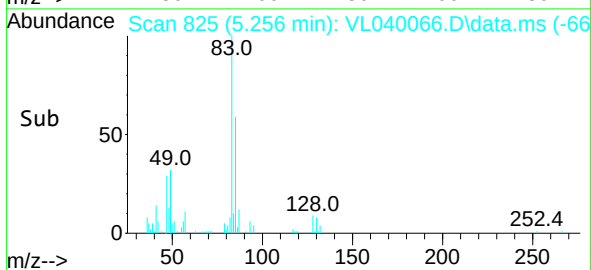
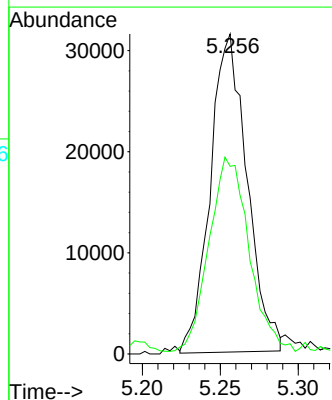
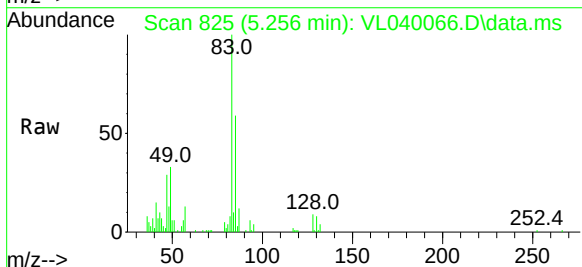


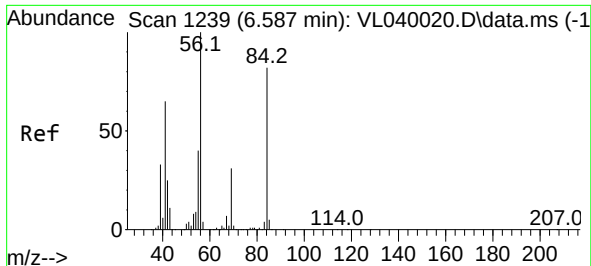
Tgt Ion: 57 Resp: 431750
Ion Ratio Lower Upper
57 100
41 89.5 72.1 108.1
43 87.5 192.1 288.1#
56 53.5 42.5 63.7



#29
Chloroform
Concen: 0.334 ppbv
RT: 5.256 min Scan# 825
Delta R.T. 0.000 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

Tgt Ion: 83 Resp: 51738
Ion Ratio Lower Upper
83 100
85 57.0 52.4 78.6





#30

Cyclohexane

Concen: 0.036 ppbv

RT: 6.584 min Scan# 1

Delta R.T. -0.003 min

Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

Instrument :

MSVOA_L

ClientSampleId :

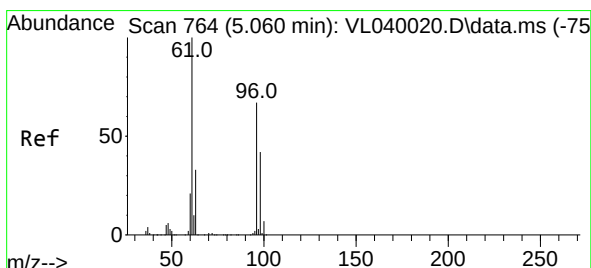
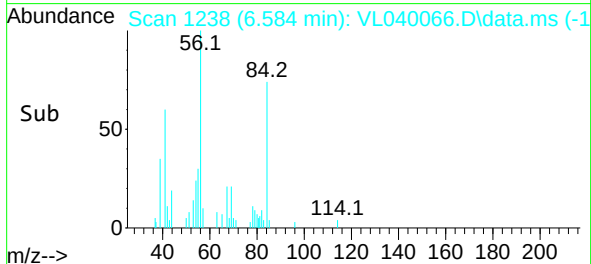
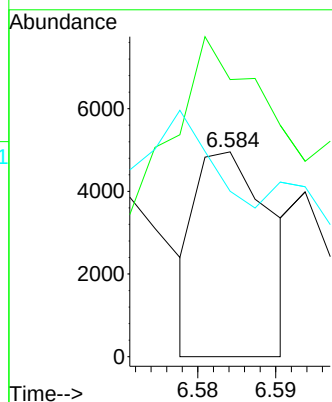
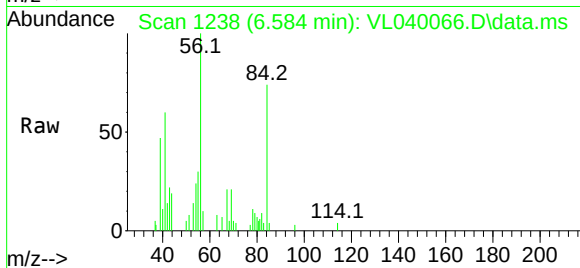
Tgt Ion: 84 Resp: 3271

Ion Ratio Lower Upper

84 100

56 395.6 110.2 165.4#

41 308.2 67.8 101.8#



#31

cis-1,2-Dichloroethene

Concen: 0.098 ppbv

RT: 5.182 min Scan# 802

Delta R.T. 0.122 min

Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

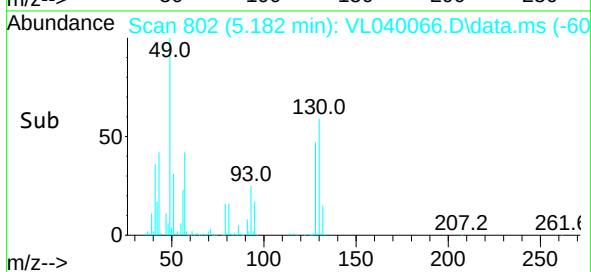
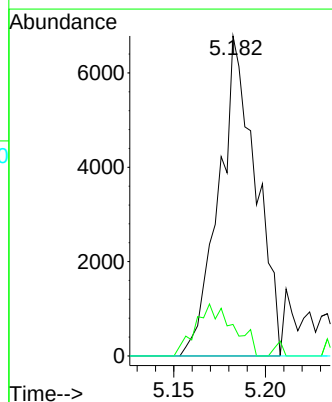
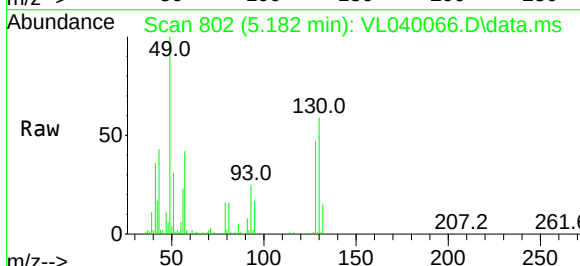
Tgt Ion: 61 Resp: 9483

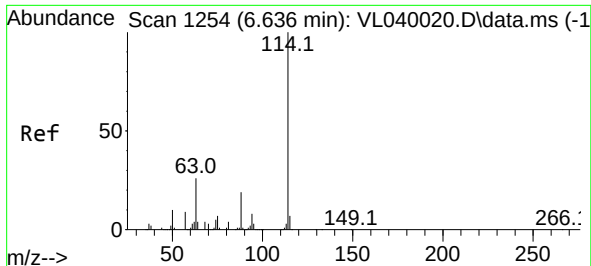
Ion Ratio Lower Upper

61 100

96 6.8 53.4 80.2#

98 0.0 33.4 50.0#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.632 min Scan# 1

Delta R.T. -0.003 min

Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

Instrument :

MSVOA_L

ClientSampleId :

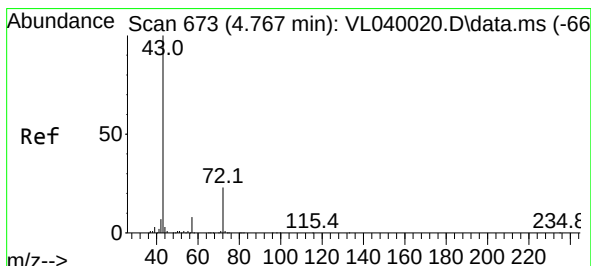
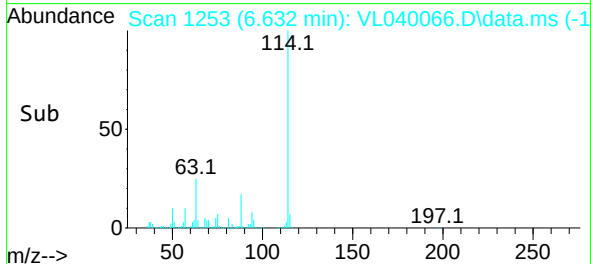
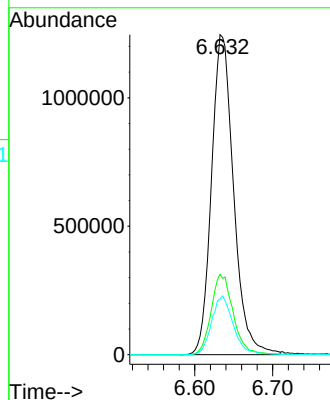
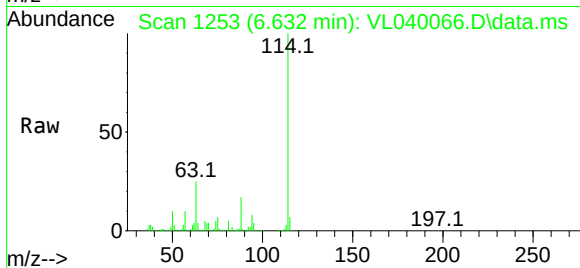
Tgt Ion:114 Resp: 2456007

Ion Ratio Lower Upper

114 100

63 25.3 20.2 30.2

88 18.1 14.6 21.8



#34

2-Butanone

Concen: 0.247 ppbv

RT: 4.771 min Scan# 674

Delta R.T. 0.003 min

Lab File: VL040066.D

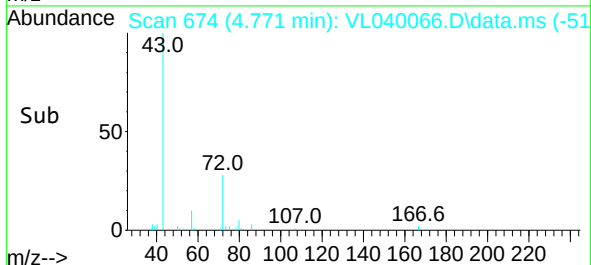
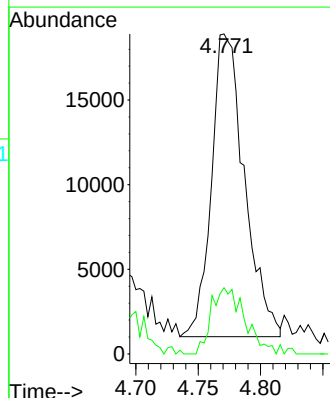
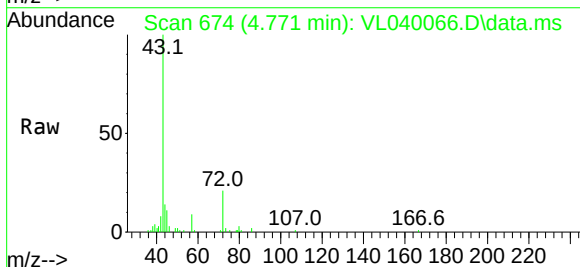
Acq: 22 Dec 2022 13:49

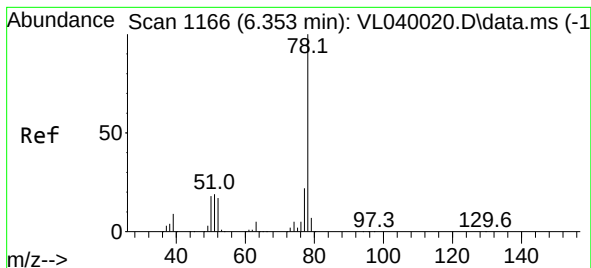
Tgt Ion: 43 Resp: 32932

Ion Ratio Lower Upper

43 100

72 22.8 18.0 27.0





#36

Benzene

Concen: 0.530 ppbv

RT: 6.353 min Scan# 1166

Delta R.T. 0.000 min

Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

Instrument :

MSVOA_L

ClientSampleId :

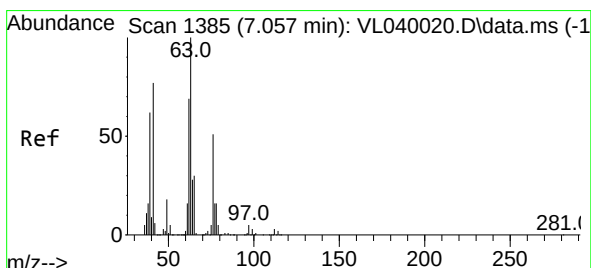
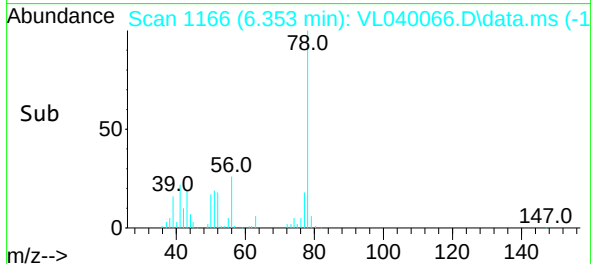
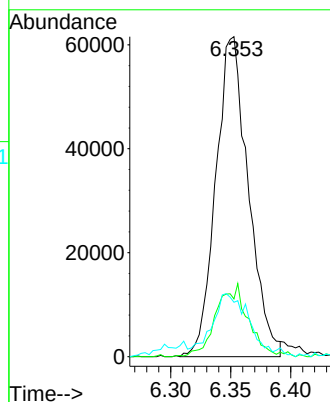
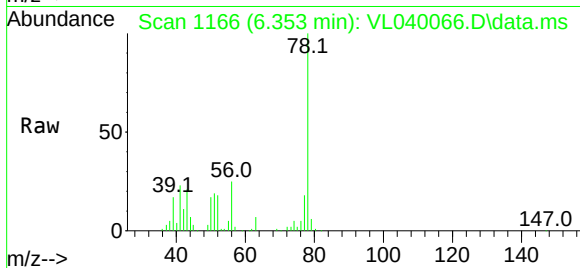
Tgt Ion: 78 Resp: 116167

Ion Ratio Lower Upper

78 100

77 17.7 17.5 26.3

50 14.3 14.2 21.2



#39

1,2-Dichloropropane

Concen: 7.469 ppbv

RT: 6.632 min Scan# 1253

Delta R.T. -0.424 min

Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

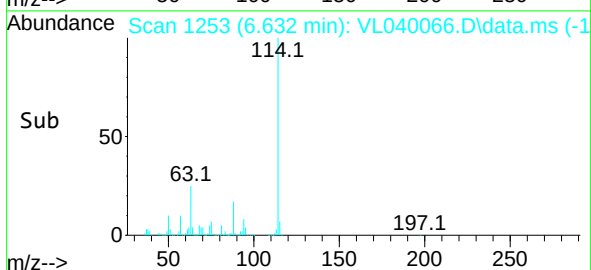
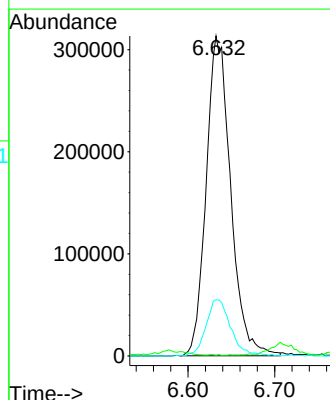
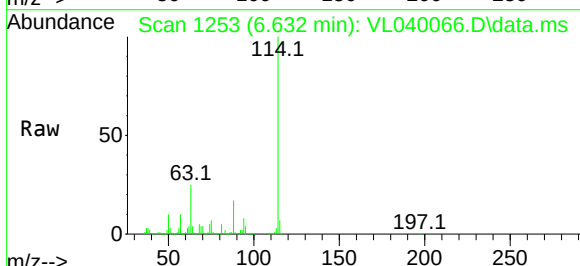
Tgt Ion: 63 Resp: 614098

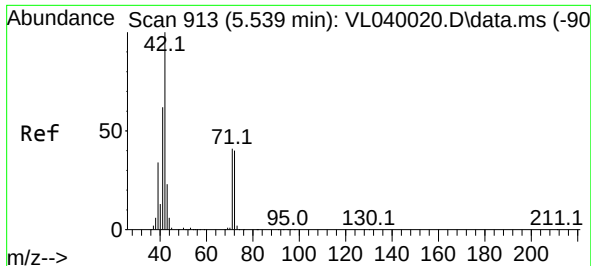
Ion Ratio Lower Upper

63 100

41 0.0 61.4 92.0#

62 17.5 55.4 83.2#





#41

Tetrahydrofuran

Concen: 0.051 ppbv

RT: 5.533 min Scan# 913

Delta R.T. -0.006 min

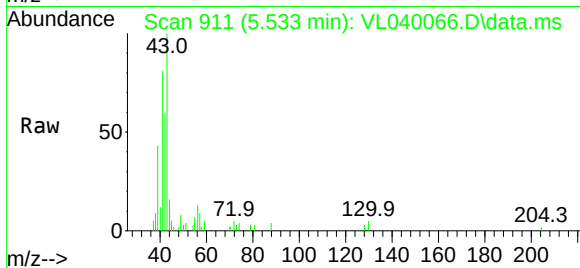
Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

Instrument :

MSVOA_L

ClientSampleId :



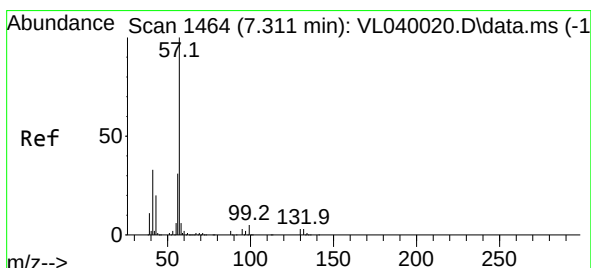
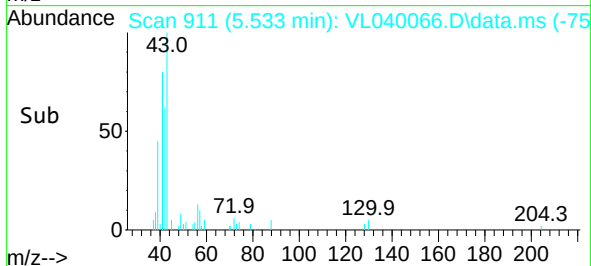
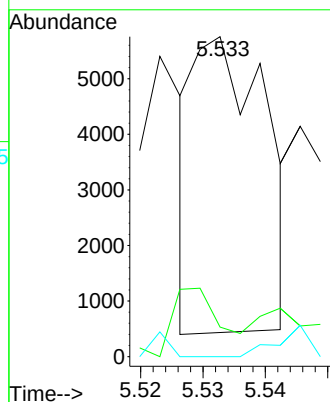
Tgt Ion: 42 Resp: 4274

Ion Ratio Lower Upper

42 100

72 49.6 32.9 49.3#

71 0.0 32.2 48.2#



#44

2,2,4-Trimethylpentane

Concen: 0.069 ppbv

RT: 7.311 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

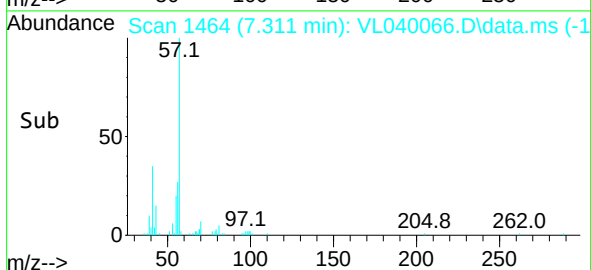
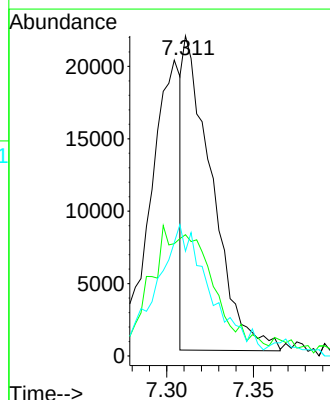
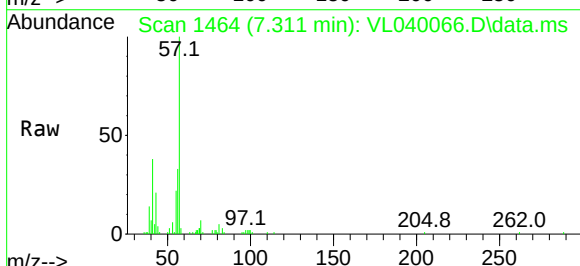
Tgt Ion: 57 Resp: 24927

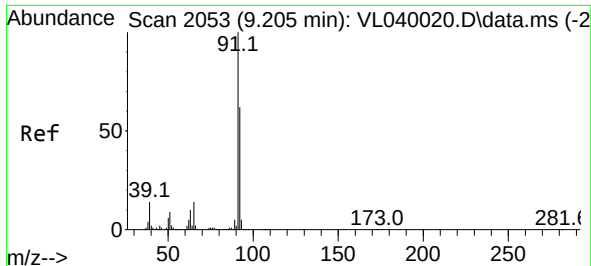
Ion Ratio Lower Upper

57 100

41 0.0 26.2 39.4#

56 84.5 25.1 37.7#

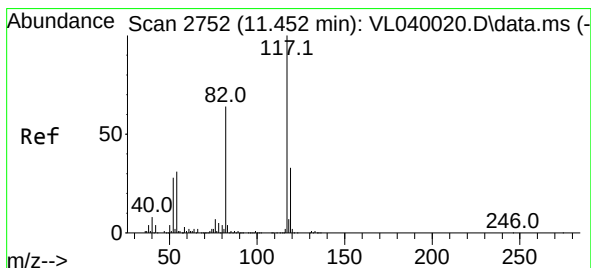
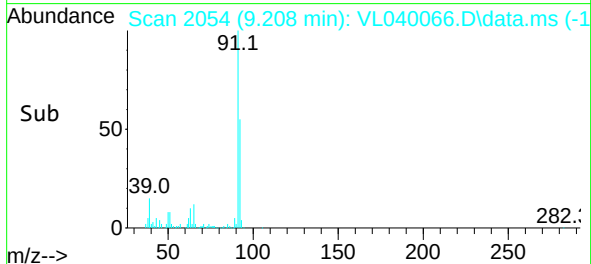
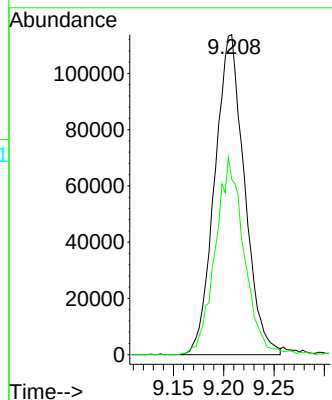
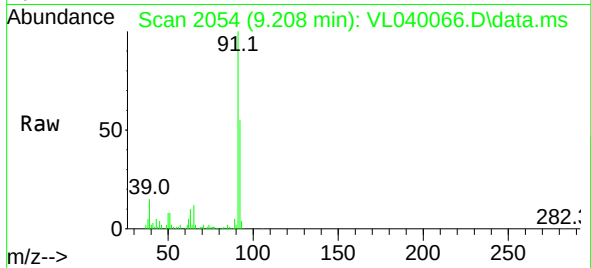




#53
Toluene
Concen: 0.963 ppbv
RT: 9.208 min Scan# 2053
Delta R.T. 0.003 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

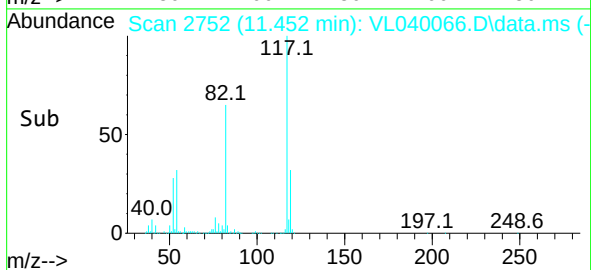
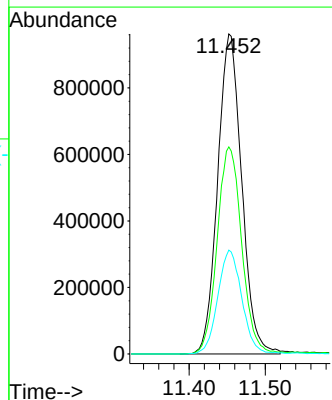
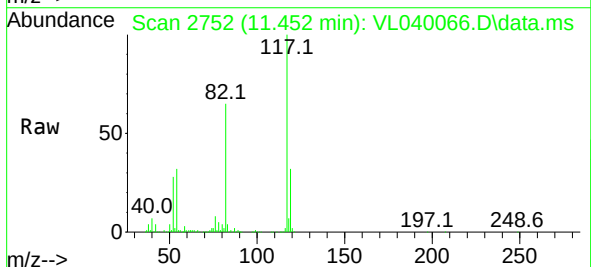
Instrument :
MSVOA_L
ClientSampleId :

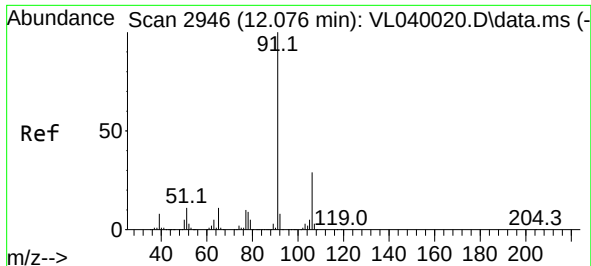
Tgt Ion: 91 Resp: 233988
Ion Ratio Lower Upper
91 100
92 60.2 48.7 73.1



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.452 min Scan# 2752
Delta R.T. 0.000 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

Tgt Ion: 117 Resp: 2113187
Ion Ratio Lower Upper
117 100
82 67.0 51.2 76.8
119 32.8 23.2 34.8

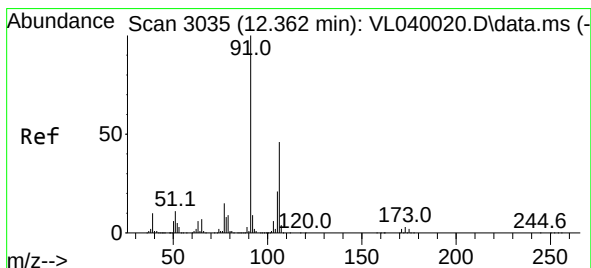
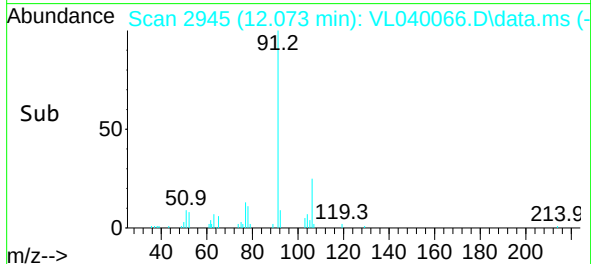
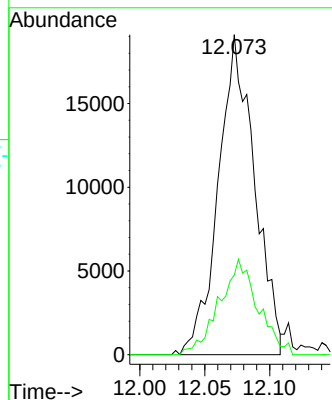
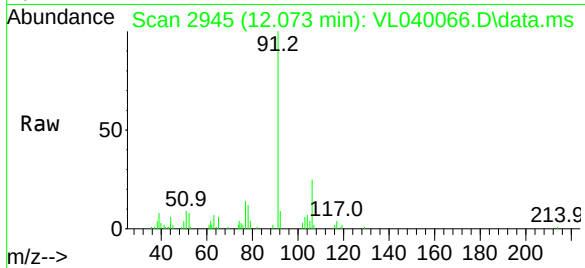




#58
Ethyl Benzene
Concen: 0.123 ppbv
RT: 12.073 min Scan# 2945
Delta R.T. -0.003 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

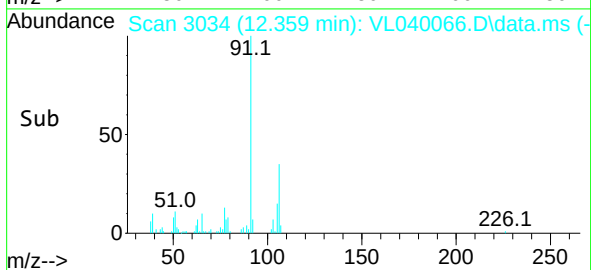
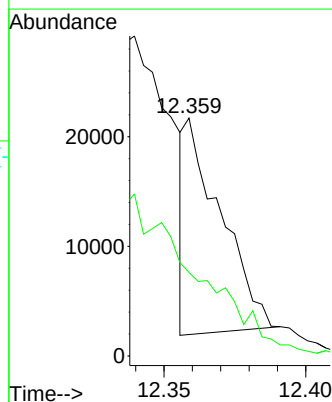
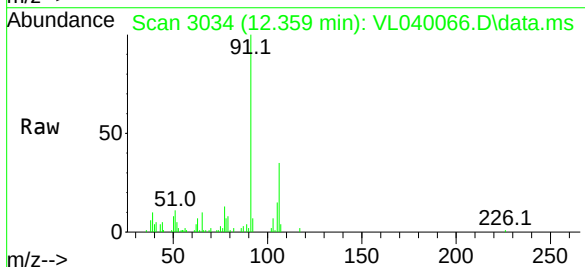
Instrument :
MSVOA_L
ClientSampleId :

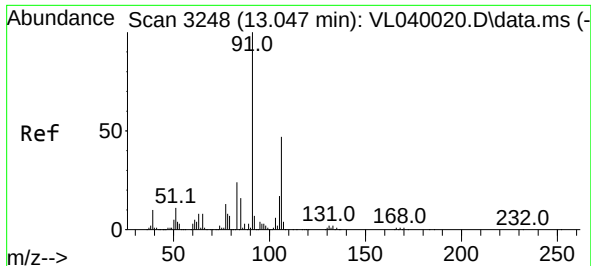
Tgt Ion: 91 Resp: 36930
Ion Ratio Lower Upper
91 100
106 24.9 23.5 35.3



#59
m/p-Xylene
Concen: 0.066 ppbv
RT: 12.359 min Scan# 3034
Delta R.T. -0.003 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

Tgt Ion: 91 Resp: 17154
Ion Ratio Lower Upper
91 100
106 0.0 35.5 53.3#

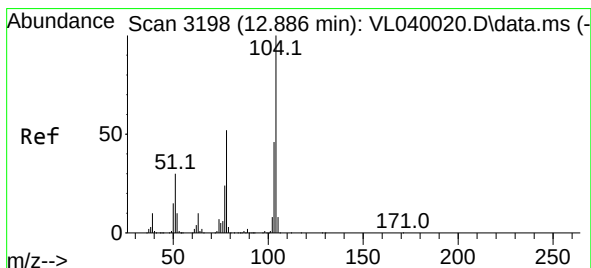
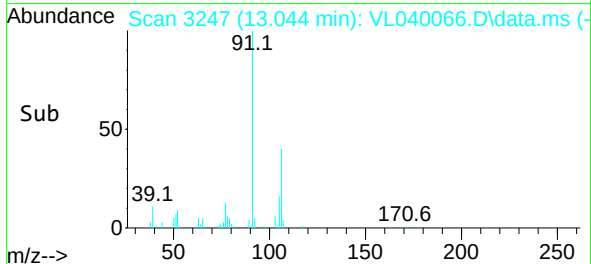
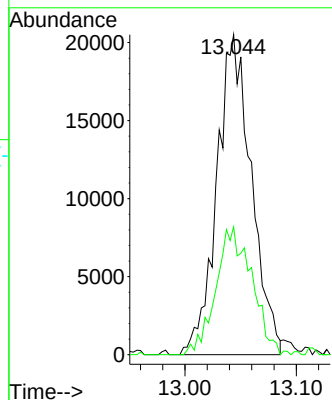
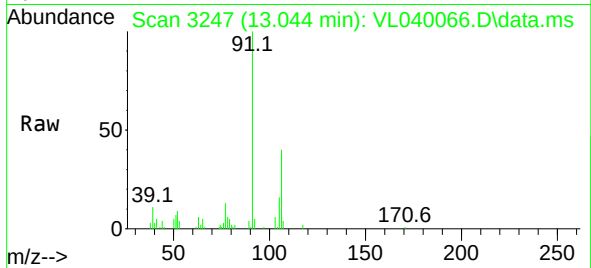




#60
o-Xylene
Concen: 0.176 ppbv
RT: 13.044 min Scan# 31
Delta R.T. -0.003 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

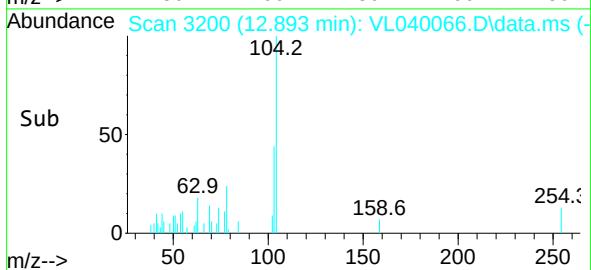
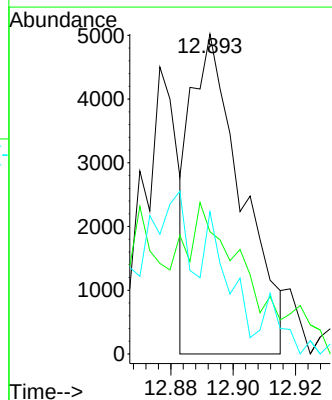
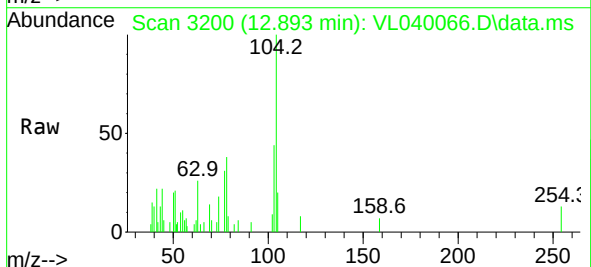
Instrument :
MSVOA_L
ClientSampleId :

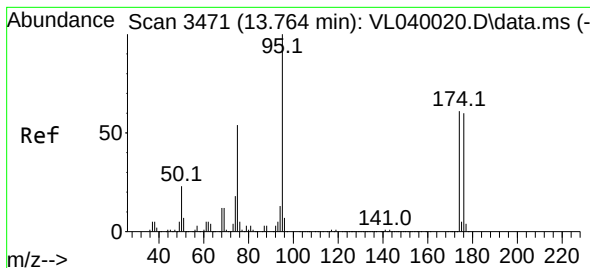
Tgt Ion: 91 Resp: 44196
Ion Ratio Lower Upper
91 100
106 41.6 22.4 67.0



#61
Styrene
Concen: 0.043 ppbv
RT: 12.893 min Scan# 3200
Delta R.T. 0.007 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

Tgt Ion: 104 Resp: 5719
Ion Ratio Lower Upper
104 100
78 105.9 42.4 63.6#
103 87.5 37.2 55.8#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.275 ppbv

RT: 13.764 min Scan# 3471

Delta R.T. 0.000 min

Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

Instrument :

MSVOA_L

ClientSampleId :

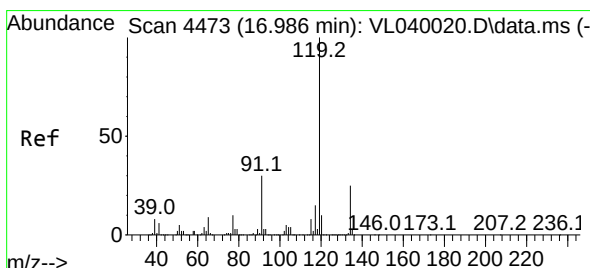
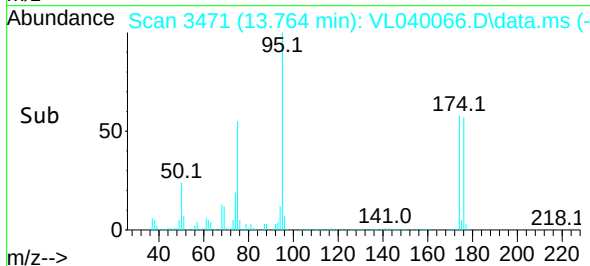
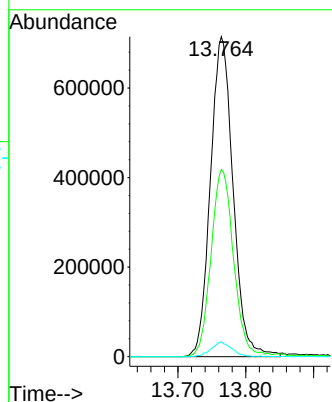
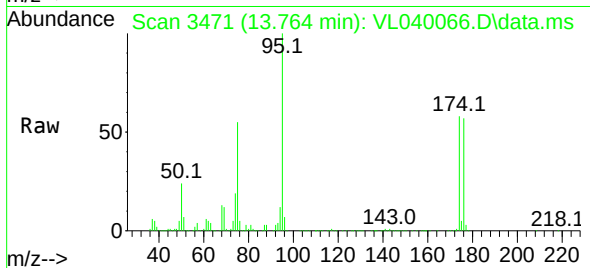
Tgt Ion: 95 Resp: 1658616

Ion Ratio Lower Upper

95 100

174 58.8 48.6 73.0

175 4.3 3.4 5.2



#69

p-Isopropyltoluene

Concen: 1.101 ppbv

RT: 17.278 min Scan# 4564

Delta R.T. 0.293 min

Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

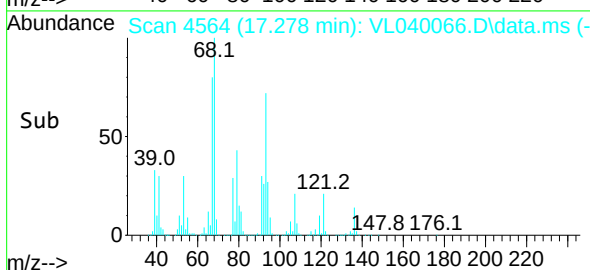
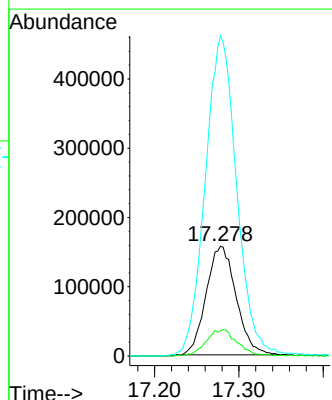
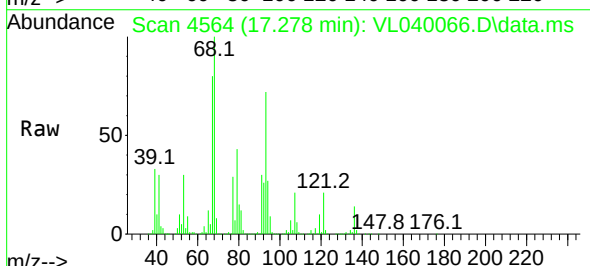
Tgt Ion: 119 Resp: 386878

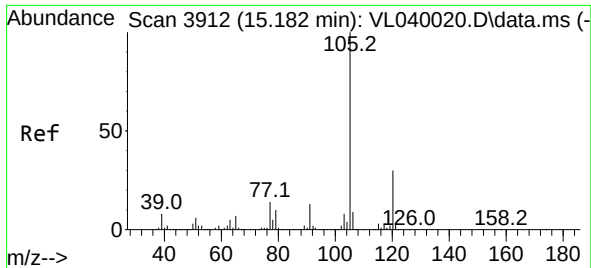
Ion Ratio Lower Upper

119 100

134 25.4 20.2 30.4

91 312.0 24.2 36.4#

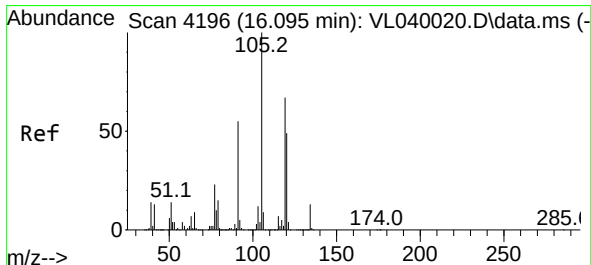
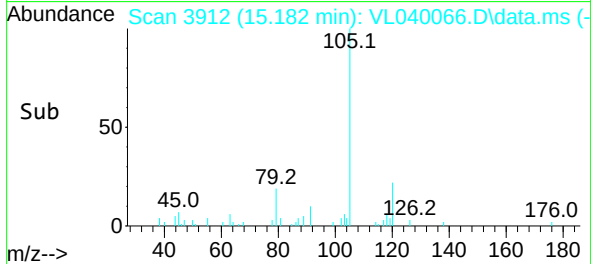
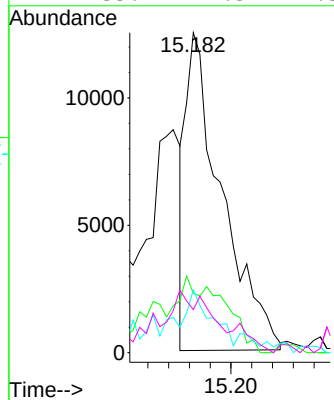
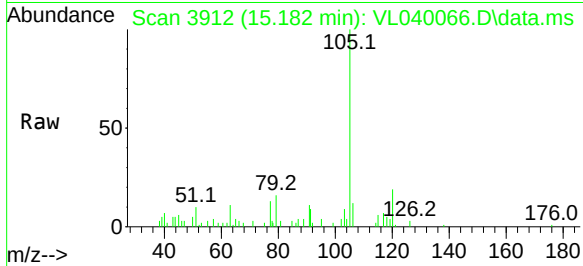




#72
4-Ethyltoluene
Concen: 0.054 ppbv
RT: 15.182 min Scan# 3912
Delta R.T. 0.000 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

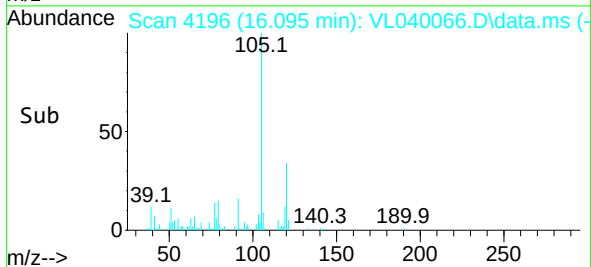
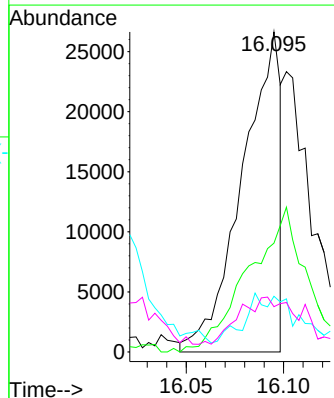
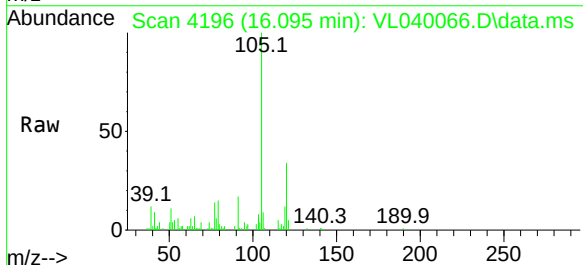
Instrument :
MSVOA_L
ClientSampleId :

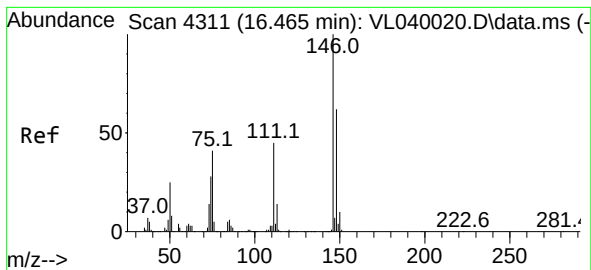
Tgt Ion:105 Resp: 14917
Ion Ratio Lower Upper
105 100
120 45.5 23.5 35.3#
91 30.3 10.5 15.7#
77 33.9 11.5 17.3#



#74
1,2,4-Trimethylbenzene
Concen: 0.132 ppbv
RT: 16.095 min Scan# 4196
Delta R.T. 0.000 min
Lab File: VL040066.D
Acq: 22 Dec 2022 13:49

Tgt Ion:105 Resp: 36381
Ion Ratio Lower Upper
105 100
120 35.0 39.3 58.9#
91 12.8 44.2 66.4#
77 10.5 18.8 28.2#





#76

1,4-Dichlorobenzene

Concen: 0.069 ppbv

RT: 16.468 min Scan# 41

Delta R.T. 0.003 min

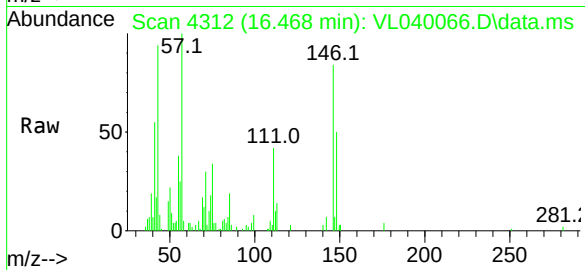
Lab File: VL040066.D

Acq: 22 Dec 2022 13:49

Instrument :

MSVOA_L

ClientSampleId :



Tgt Ion:146 Resp: 10264

Ion Ratio Lower Upper

146 100

111 0.0 23.4 70.2#

148 131.1 32.0 96.2#

