

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL051623\
 Data File : VL040452.D
 Acq On : 17 May 2023 00:37
 Operator : SY/MD
 Sample : 02793-02DL 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-2DL

Quant Time: May 17 05:19:36 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL051623AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed May 17 05:12:40 2023
 Response via : Initial Calibration

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

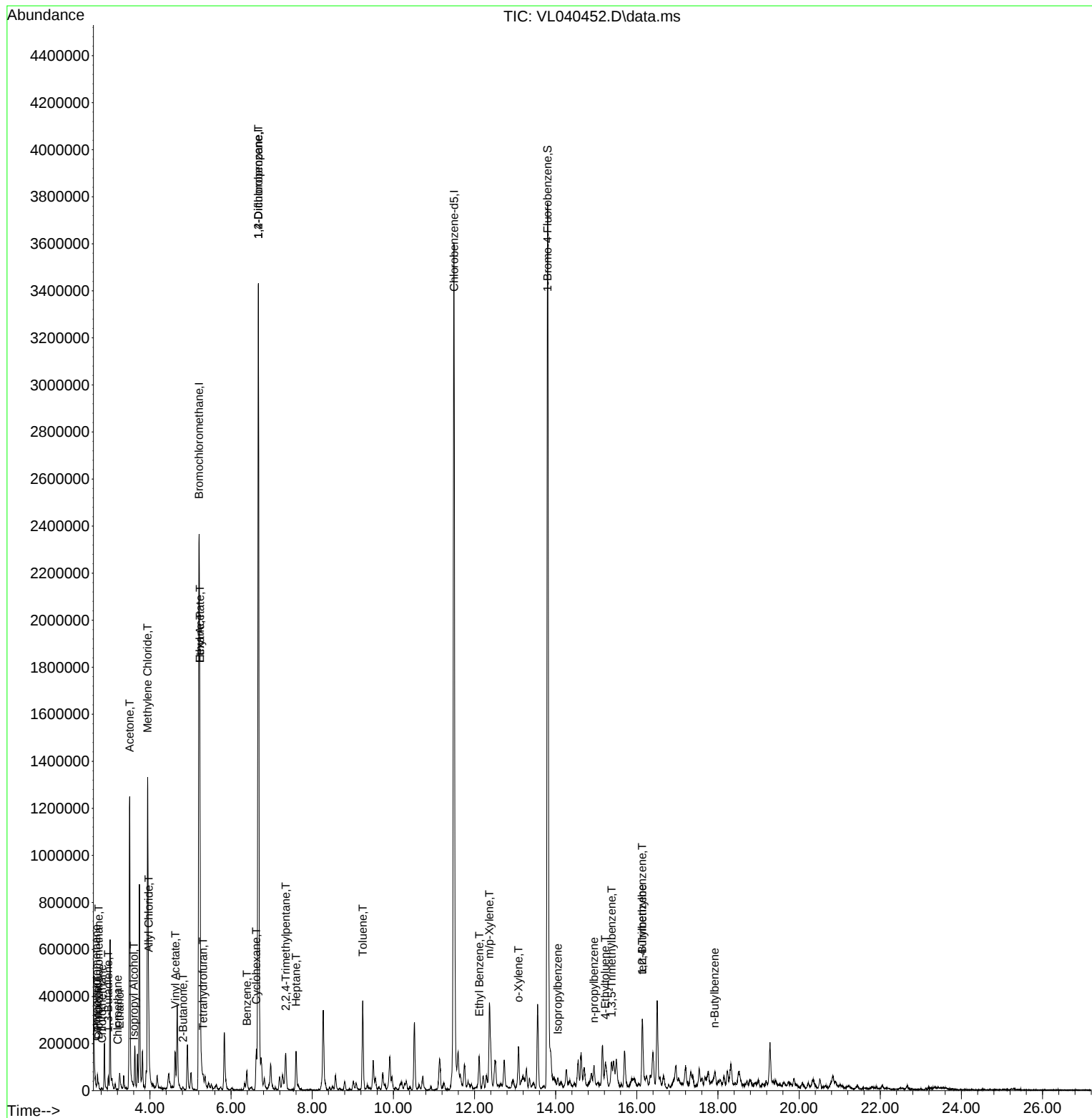
Internal Standards						
1) Bromochloromethane	5.208	49	996177	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.674	114	2512781	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.494	117	2276007	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.802	95	1843035	10.071	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	= 100.700%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.738	85	14782	0.076	ppbv	99
3) Chlorodifluoromethane	2.677	51	9400	0.073	ppbv #	91
4) Chloromethane	2.819	50	3701	0.046	ppbv #	40
7) Chloroethane	3.205	64	799	0.032	ppbv #	71
9) Propene	2.706	41	17926	0.358	ppbv	90
10) Heptane	7.600	43	53731	0.465	ppbv	91
13) Ethanol	3.253	45	76602	20.195	ppbv	89
15) Acetone	3.500	43	504993	4.007	ppbv #	67
16) 1,3-Butadiene	2.973	39	15145	0.262	ppbv #	43
19) Isopropyl Alcohol	3.603	45	5309	0.086	ppbv #	92
20) Methylene Chloride	3.944	84	446907	7.961	ppbv	94
21) Allyl Chloride	3.970	41	13168	0.163	ppbv #	1
23) Vinyl Acetate	4.626	43	44639	1.282	ppbv #	1
25) Ethyl Acetate	5.230	43	318752	1.343	ppbv #	75
26) Hexane	5.230	57	463772	4.714	ppbv #	37
30) Cyclohexane	6.622	84	39178	0.490	ppbv #	84
34) 2-Butanone	4.815	43	4707	0.035	ppbv #	1
36) Benzene	6.391	78	63129	0.309	ppbv	96
39) 1,2-Dichloropropane	6.674	63	642155	8.033	ppbv #	23
41) Tetrahydrofuran	5.311	42	2671	0.036	ppbv #	35
44) 2,2,4-Trimethylpentane	7.349	57	67111	0.199	ppbv #	34
53) Toluene	9.246	91	271760	1.261	ppbv	98
58) Ethyl Benzene	12.121	91	41711	0.145	ppbv	99
59) m/p-Xylene	12.368	91	349215	1.329	ppbv	99
60) o-Xylene	13.082	91	130643	0.522	ppbv	99
62) Isopropylbenzene	14.053	105	20709	0.057	ppbv #	77
64) n-propylbenzene	14.947	120	4812	0.053	ppbv #	1
65) tert-Butylbenzene	16.133	119	15945	0.050	ppbv #	1
70) n-Butylbenzene	17.918	91	19347	0.048	ppbv #	67
72) 4-Ethyltoluene	15.220	105	64984	0.229	ppbv #	92
73) 1,3,5-Trimethylbenzene	15.381	105	60679	0.233	ppbv	93
74) 1,2,4-Trimethylbenzene	16.133	105	181038	0.605	ppbv #	69

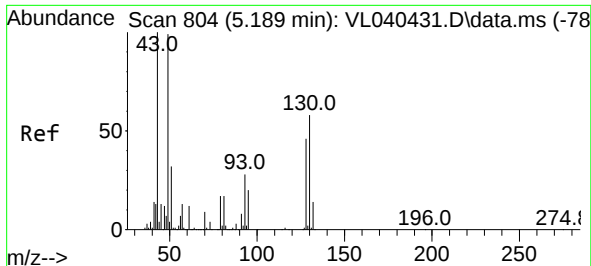
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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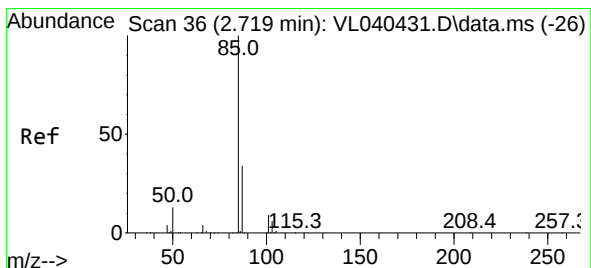
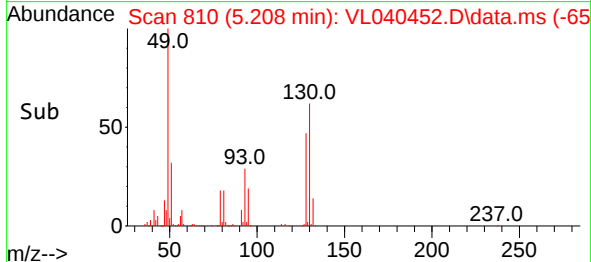
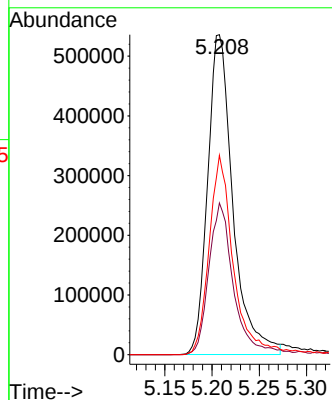
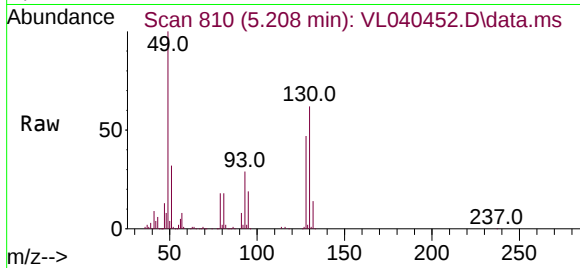




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.208 min Scan# 81
 Delta R.T. 0.003 min
 Lab File: VL040452.D
 Acq: 17 May 2023 00:37

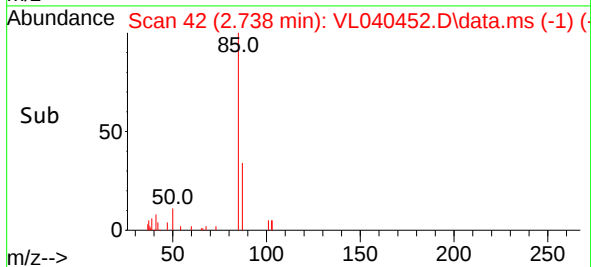
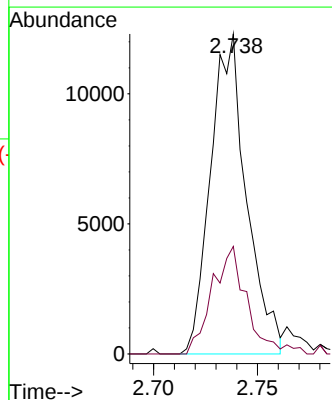
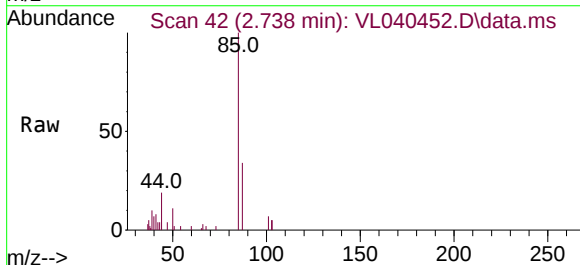
Instrument :
 MSVOA_L
 ClientSampleId :
 SG-2DL

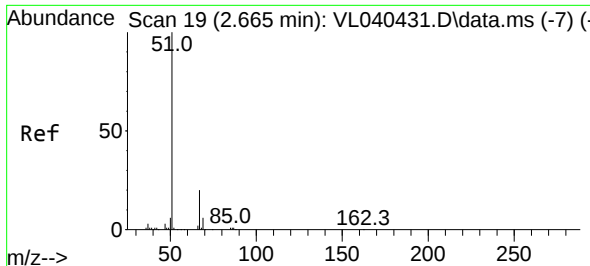
Tgt Ion: 49 Resp: 996177
 Ion Ratio Lower Upper
 49 100
 128 47.5 24.3 72.8
 130 61.4 30.2 90.6



#2
 Dichlorodifluoromethane
 Concen: 0.076 ppbv
 RT: 2.738 min Scan# 42
 Delta R.T. 0.010 min
 Lab File: VL040452.D
 Acq: 17 May 2023 00:37

Tgt Ion: 85 Resp: 14782
 Ion Ratio Lower Upper
 85 100
 87 33.6 27.4 41.0

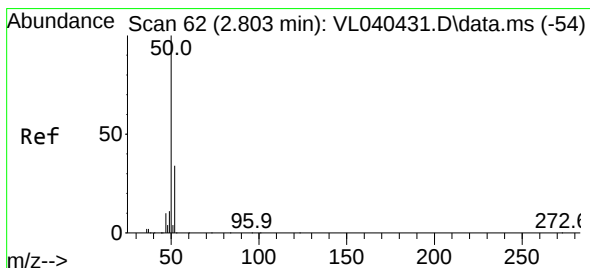
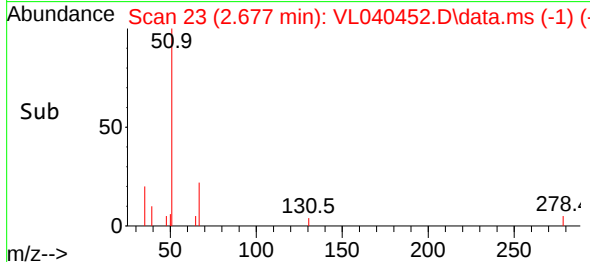
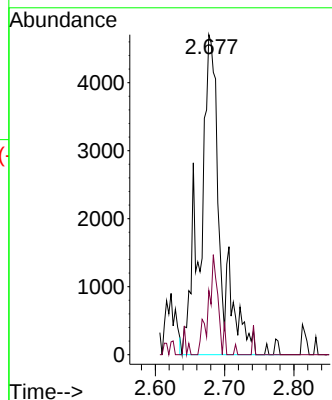
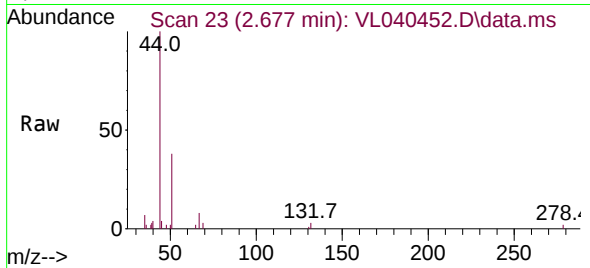




#3
Chlorodifluoromethane
Concen: 0.073 ppbv
RT: 2.677 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

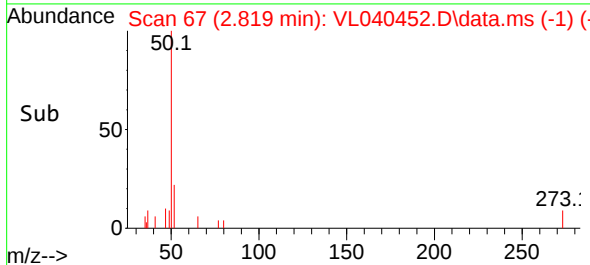
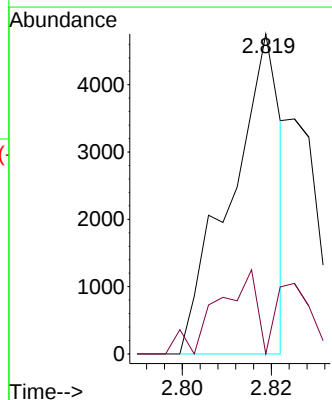
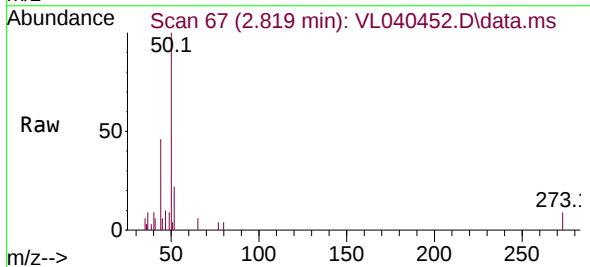
Instrument :
MSVOA_L
ClientSampleId :
SG-2DL

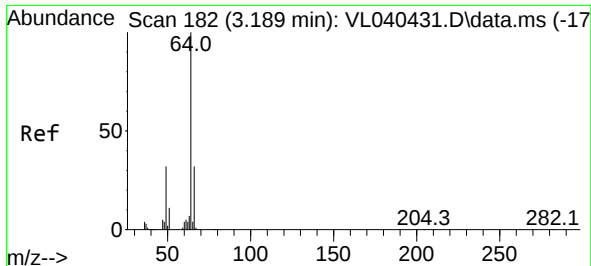
Tgt Ion: 51 Resp: 9400
Ion Ratio Lower Upper
51 100
67 15.5 15.8 23.6#



#4
Chloromethane
Concen: 0.046 ppbv
RT: 2.819 min Scan# 67
Delta R.T. 0.006 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

Tgt Ion: 50 Resp: 3701
Ion Ratio Lower Upper
50 100
52 0.0 27.6 41.4#

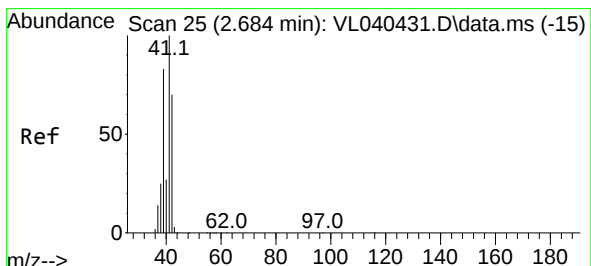
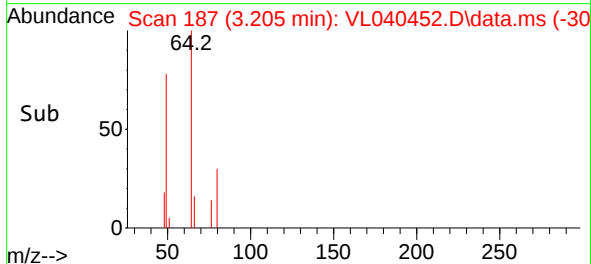
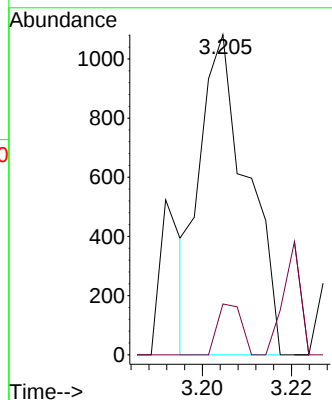
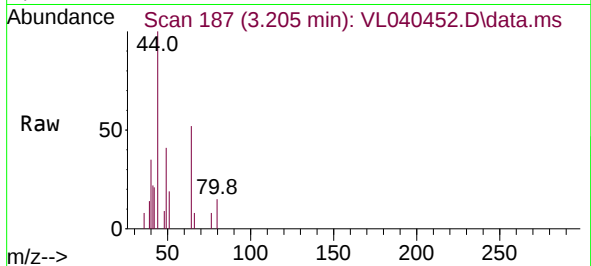




#7
Chloroethane
Concen: 0.032 ppbv
RT: 3.205 min Scan# 11
Delta R.T. 0.006 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

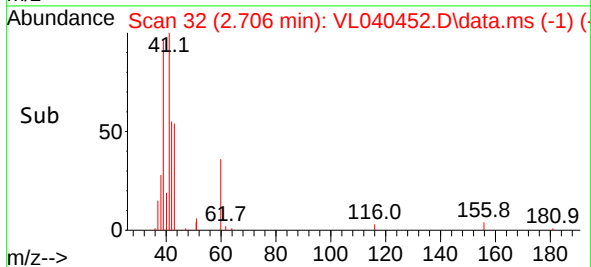
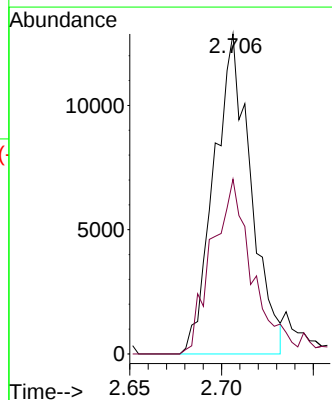
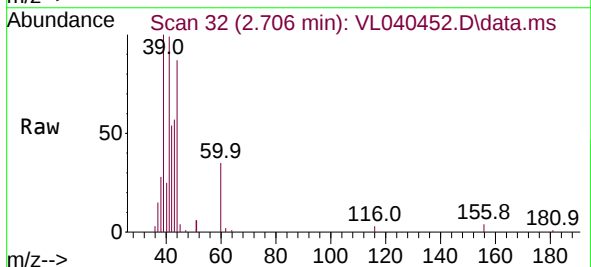
Instrument :
MSVOA_L
ClientSampleId :
SG-2DL

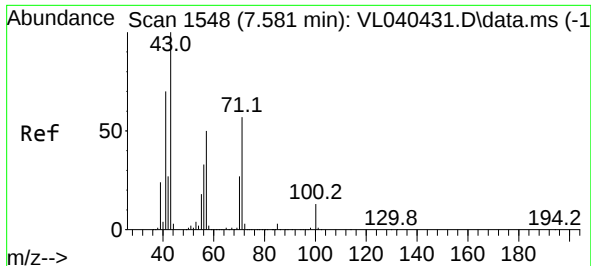
Tgt Ion: 64 Resp: 799
Ion Ratio Lower Upper
64 100
66 15.9 25.8 38.8#



#9
Propene
Concen: 0.358 ppbv
RT: 2.706 min Scan# 32
Delta R.T. 0.013 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

Tgt Ion: 41 Resp: 17926
Ion Ratio Lower Upper
41 100
42 62.7 56.6 84.8





#10

Heptane

Concen: 0.465 ppbv

RT: 7.600 min Scan# 11

Delta R.T. 0.003 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Instrument :

MSVOA_L

ClientSampleId :

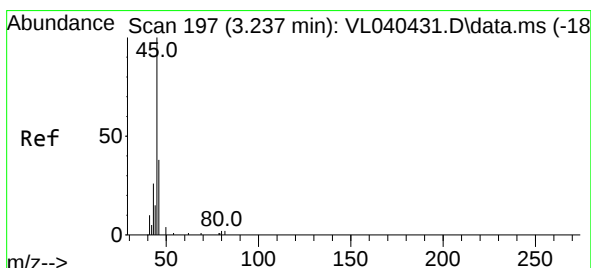
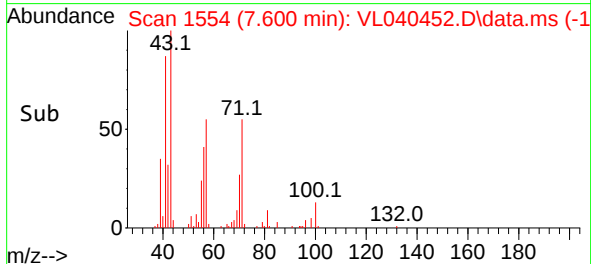
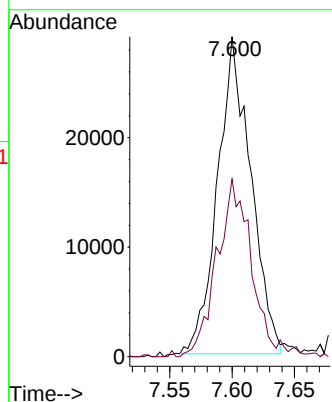
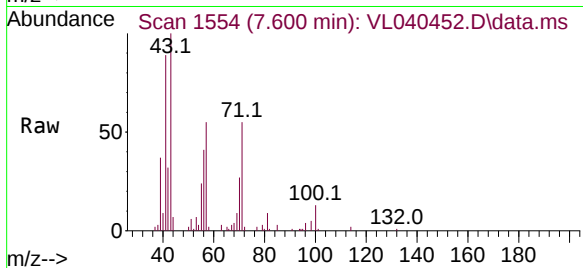
SG-2DL

Tgt Ion: 43 Resp: 53731

Ion Ratio Lower Upper

43 100

57 59.1 42.2 63.2



#13

Ethanol

Concen: 20.195 ppbv

RT: 3.253 min Scan# 202

Delta R.T. 0.003 min

Lab File: VL040452.D

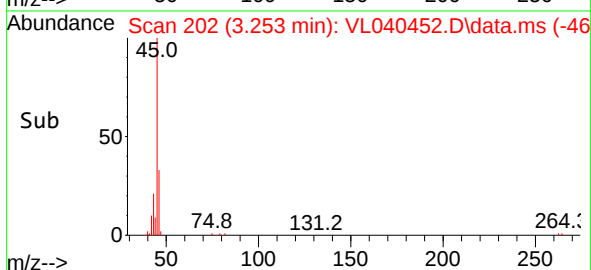
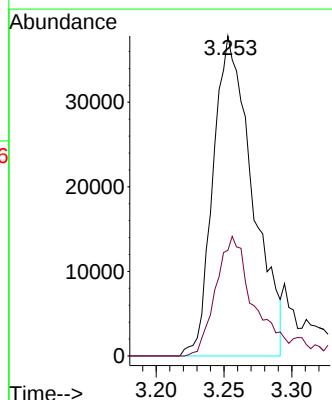
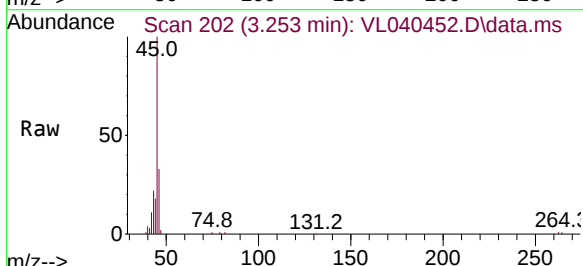
Acq: 17 May 2023 00:37

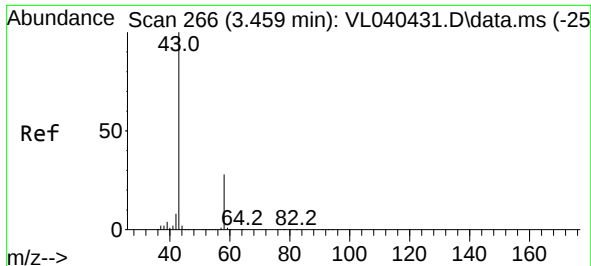
Tgt Ion: 45 Resp: 76602

Ion Ratio Lower Upper

45 100

46 39.0 13.2 52.8

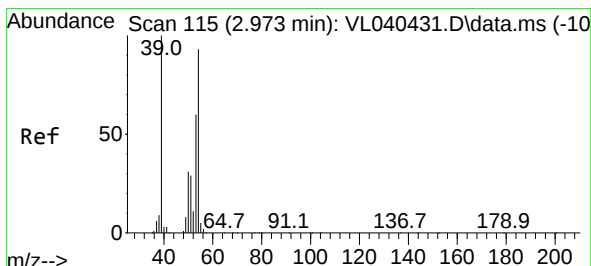
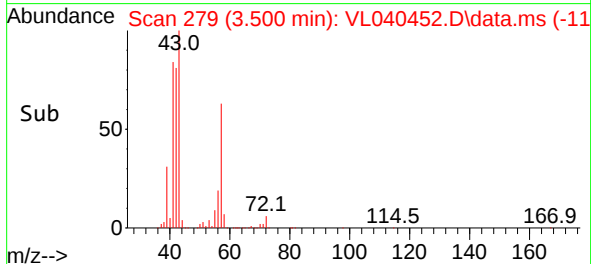
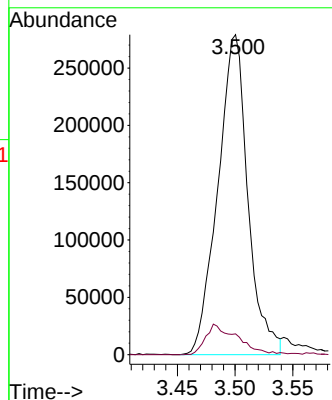
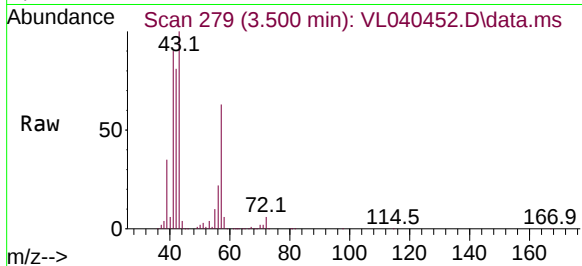




#15
Acetone
Concen: 4.007 ppbv
RT: 3.500 min Scan# 21
Delta R.T. 0.032 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

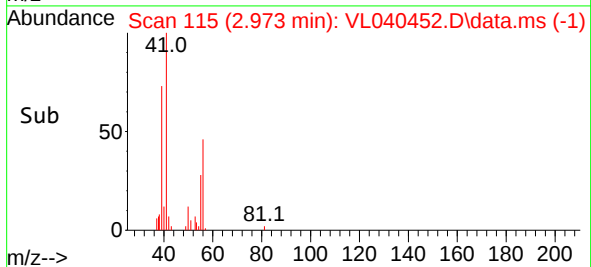
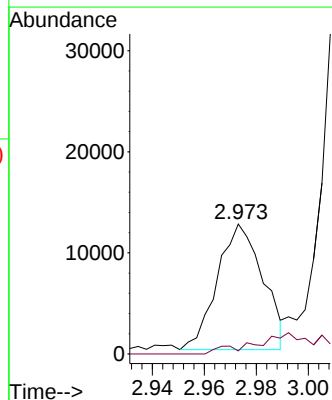
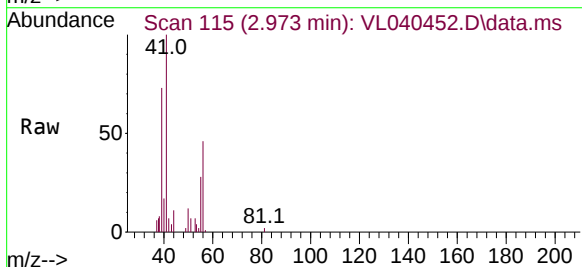
Instrument :
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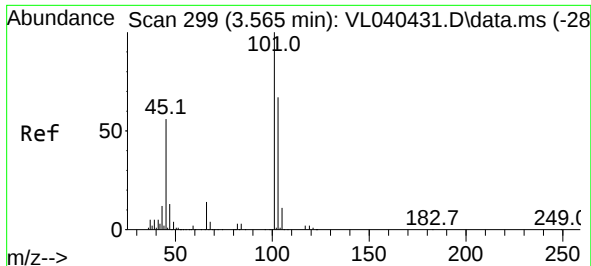
Tgt Ion: 43 Resp: 504993
Ion Ratio Lower Upper
43 100
58 10.3 22.2 33.4#



#16
1,3-Butadiene
Concen: 0.262 ppbv
RT: 2.973 min Scan# 115
Delta R.T. -0.013 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

Tgt Ion: 39 Resp: 15145
Ion Ratio Lower Upper
39 100
54 34.1 68.9 103.3#





#19

Isopropyl Alcohol

Concen: 0.086 ppbv

RT: 3.603 min Scan# 311

Delta R.T. 0.026 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Instrument :

MSVOA_L

ClientSampleId :

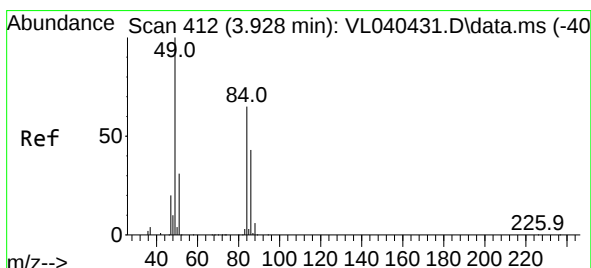
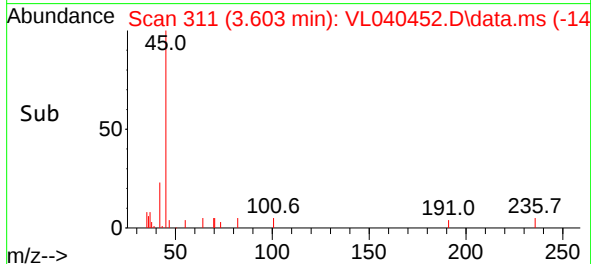
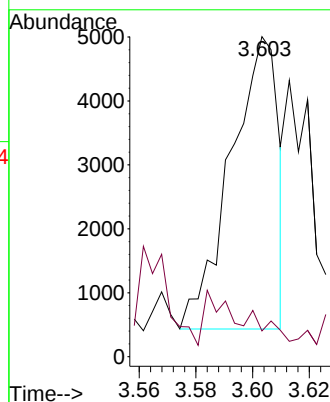
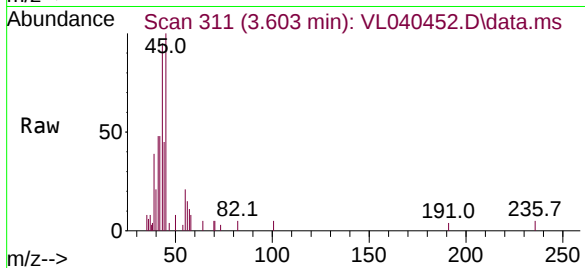
SG-2DL

Tgt Ion: 45 Resp: 5309

Ion Ratio Lower Upper

45 100

58 0.0 2.1 3.1#



#20

Methylene Chloride

Concen: 7.961 ppbv

RT: 3.944 min Scan# 417

Delta R.T. 0.006 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Tgt Ion: 84 Resp: 446907

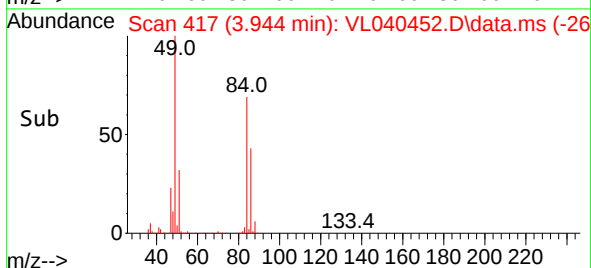
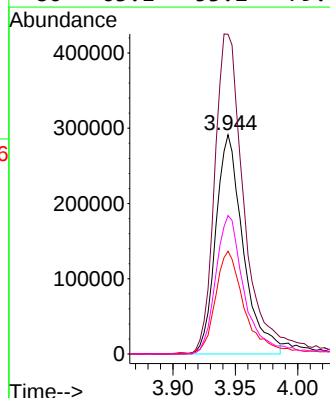
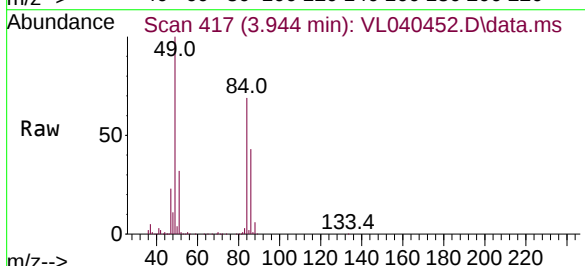
Ion Ratio Lower Upper

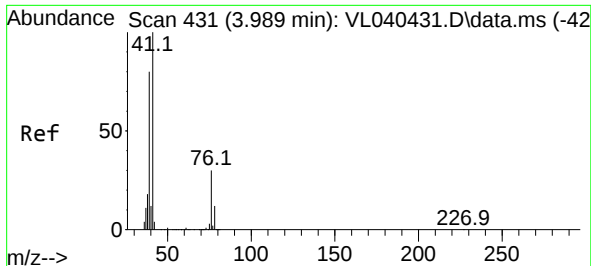
84 100

49 145.3 123.7 185.5

51 46.2 38.6 57.8

86 63.1 53.2 79.8





#21

Allyl Chloride

Concen: 0.163 ppbv

RT: 3.970 min Scan# 41

Delta R.T. -0.032 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Instrument :

MSVOA_L

ClientSampleId :

SG-2DL

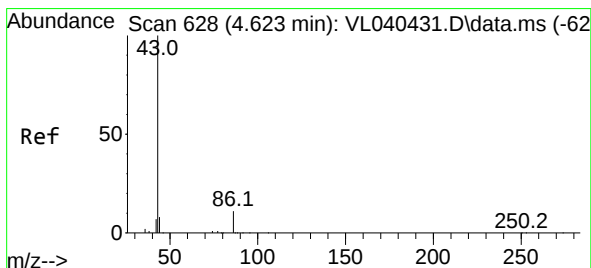
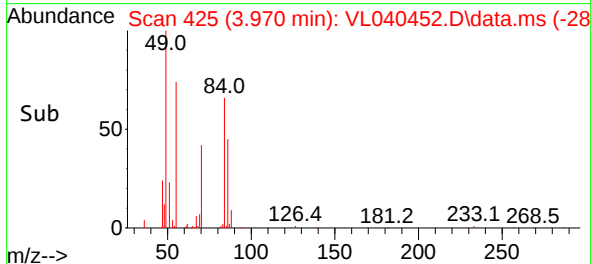
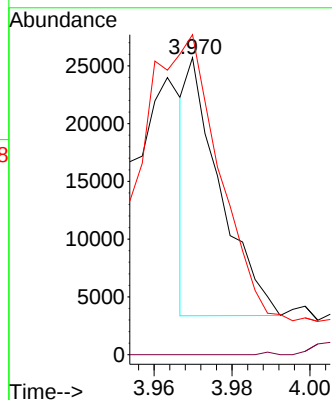
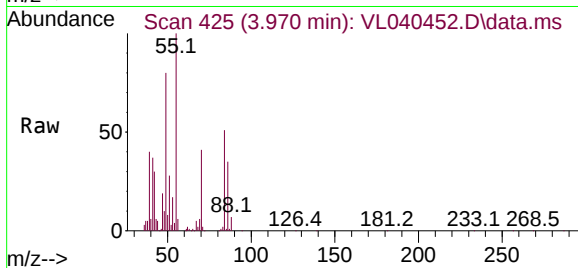
Tgt Ion: 41 Resp: 13168

Ion Ratio Lower Upper

41 100

76 3.7 25.3 37.9#

39 358.0 63.5 95.3#



#23

Vinyl Acetate

Concen: 1.282 ppbv

RT: 4.626 min Scan# 629

Delta R.T. -0.010 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Tgt Ion: 43 Resp: 44639

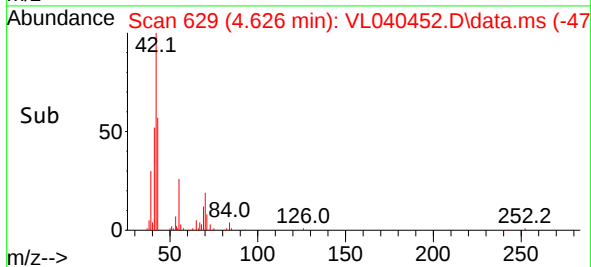
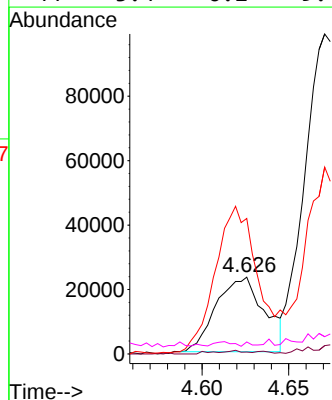
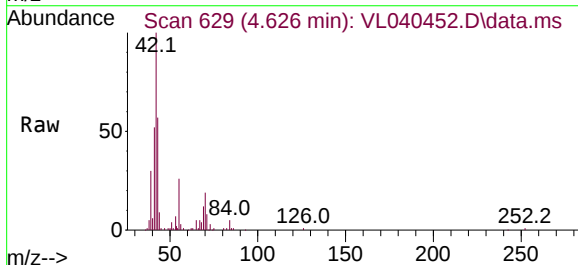
Ion Ratio Lower Upper

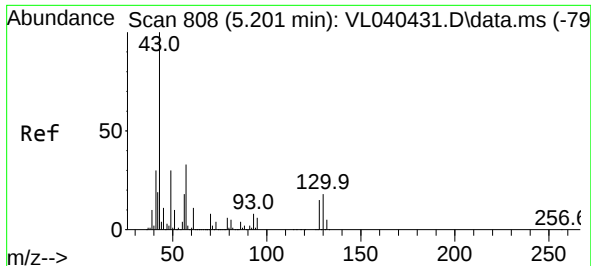
43 100

86 2.6 5.4 8.2#

42 178.5 7.8 11.6#

44 3.4 6.2 9.4#





#25

Ethyl Acetate

Concen: 1.343 ppbv

RT: 5.230 min Scan# 817

Delta R.T. 0.016 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Instrument :

MSVOA_L

ClientSampleId :

SG-2DL

Tgt Ion: 43 Resp: 318752

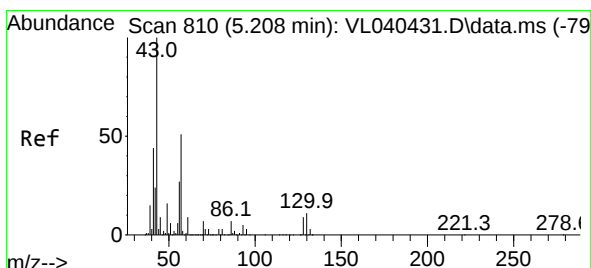
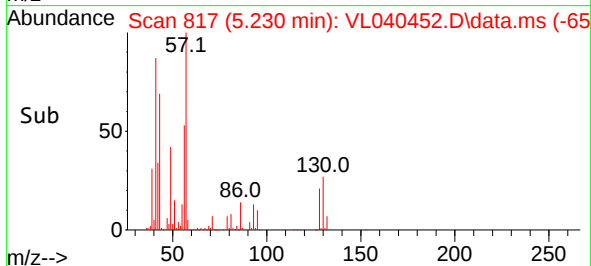
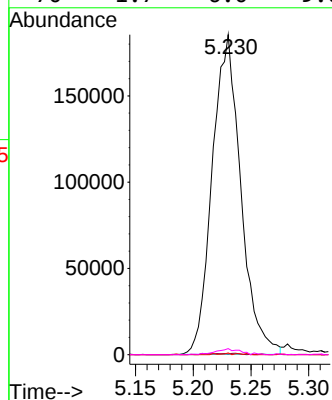
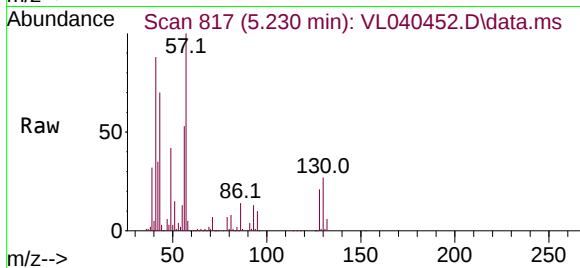
Ion Ratio Lower Upper

43 100

45 0.4 8.6 13.0#

61 0.3 8.6 12.8#

70 1.7 6.0 9.0#



#26

Hexane

Concen: 4.714 ppbv

RT: 5.230 min Scan# 817

Delta R.T. 0.006 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Tgt Ion: 57 Resp: 463772

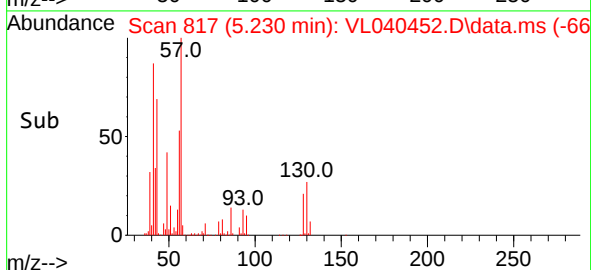
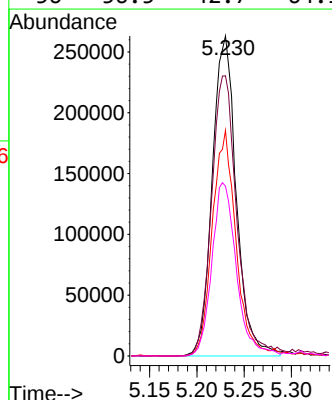
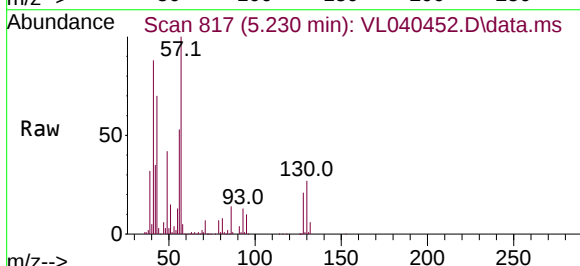
Ion Ratio Lower Upper

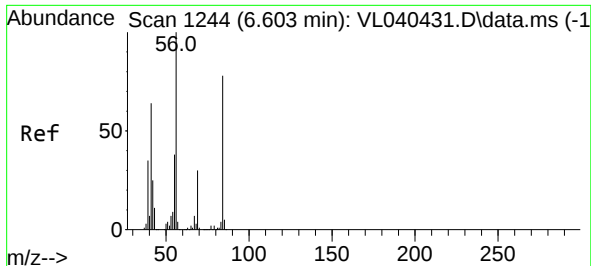
57 100

41 94.7 75.1 112.7

43 70.8 194.4 291.6#

56 56.5 42.7 64.1

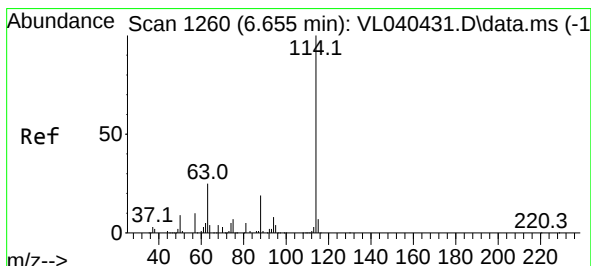
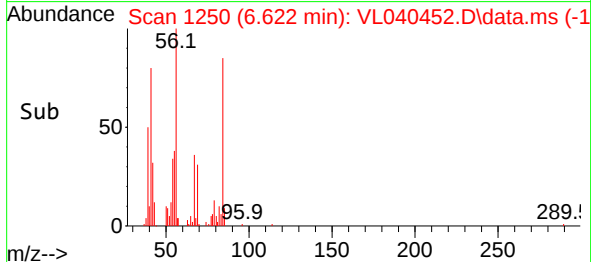
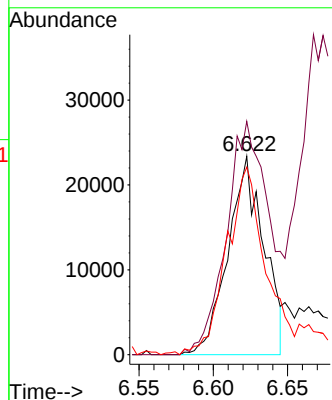
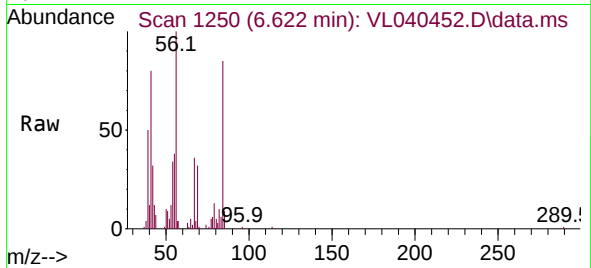




#30
Cyclohexane
Concen: 0.490 ppbv
RT: 6.622 min Scan# 1250
Delta R.T. 0.006 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

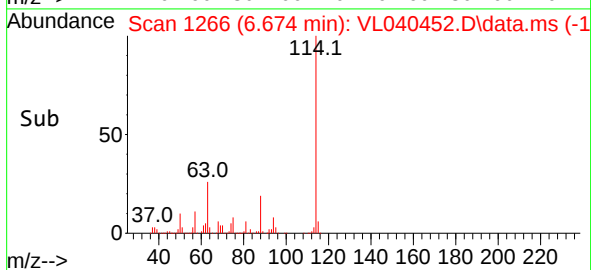
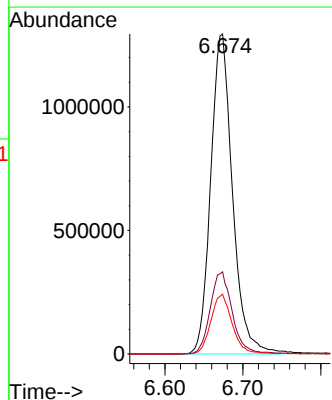
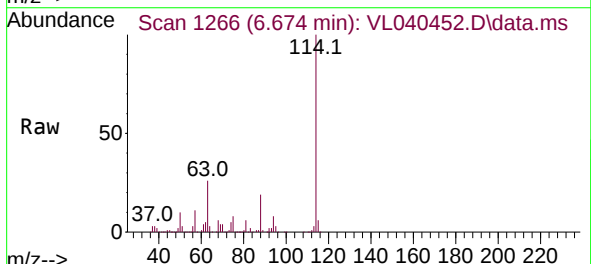
Instrument :
MSVOA_L
ClientSampleId :
SG-2DL

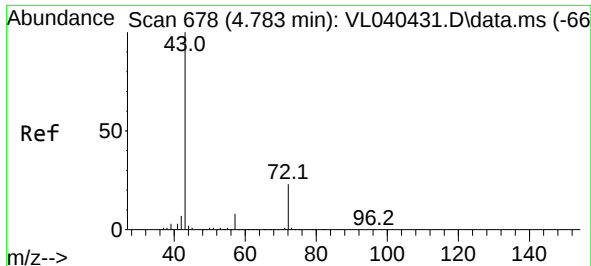
Tgt Ion: 84 Resp: 39178
Ion Ratio Lower Upper
84 100
56 130.8 108.2 162.4
41 114.8 66.9 100.3#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.674 min Scan# 1266
Delta R.T. 0.003 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

Tgt Ion: 114 Resp: 2512781
Ion Ratio Lower Upper
114 100
63 26.2 21.0 31.6
88 18.3 14.6 22.0

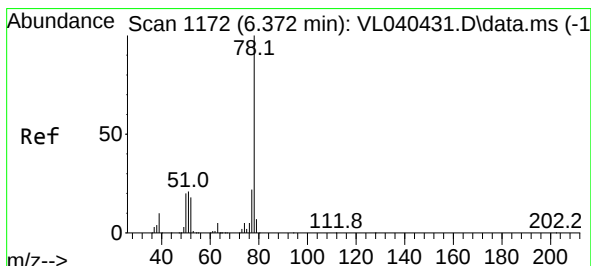
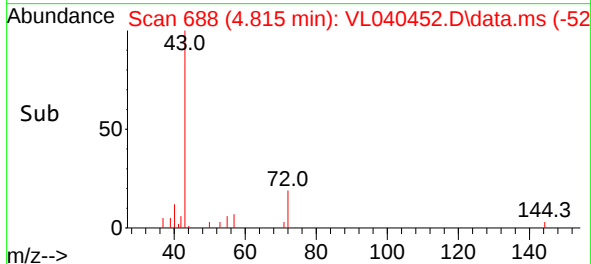
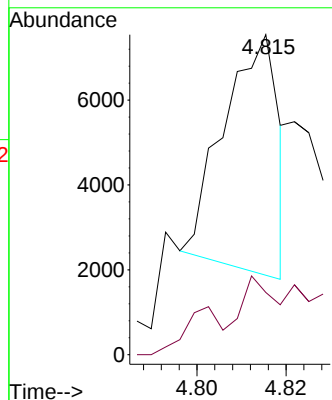
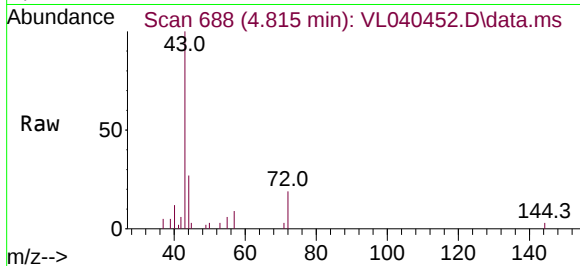




#34
2-Butanone
Concen: 0.035 ppbv
RT: 4.815 min Scan# 61
Delta R.T. 0.019 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

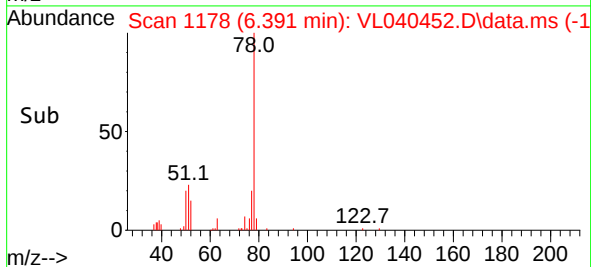
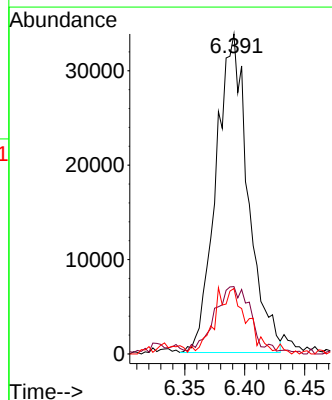
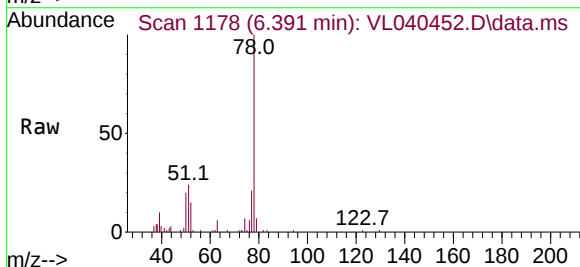
Instrument :
MSVOA_L
ClientSampleId :
SG-2DL

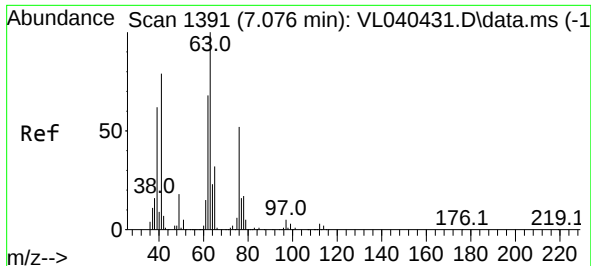
Tgt Ion: 43 Resp: 4707
Ion Ratio Lower Upper
43 100
72 73.9 18.3 27.5#



#36
Benzene
Concen: 0.309 ppbv
RT: 6.391 min Scan# 1178
Delta R.T. 0.006 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

Tgt Ion: 78 Resp: 63129
Ion Ratio Lower Upper
78 100
77 20.1 17.7 26.5
50 17.9 15.8 23.8





#39

1,2-Dichloropropane

Concen: 8.033 ppbv

RT: 6.674 min Scan# 1

Delta R.T. -0.415 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Instrument :

MSVOA_L

ClientSampleId :

SG-2DL

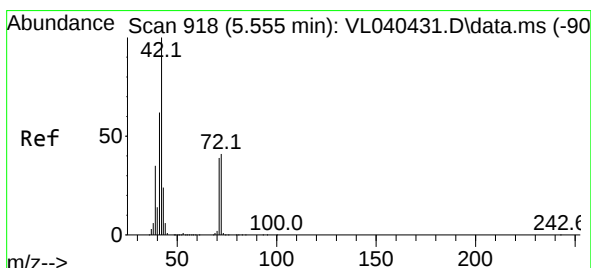
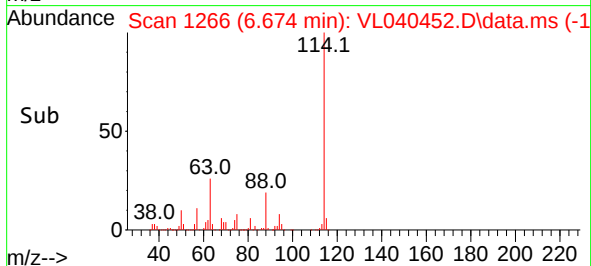
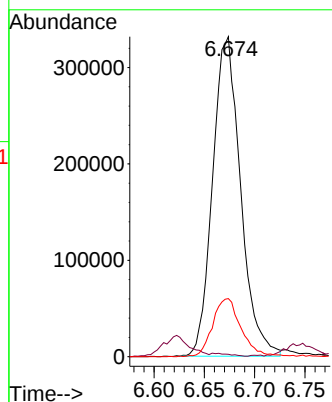
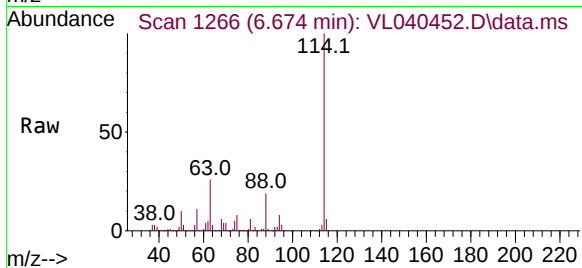
Tgt Ion: 63 Resp: 642155

Ion Ratio Lower Upper

63 100

41 0.0 63.3 94.9#

62 18.0 54.2 81.4#



#41

Tetrahydrofuran

Concen: 0.036 ppbv

RT: 5.311 min Scan# 842

Delta R.T. -0.257 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

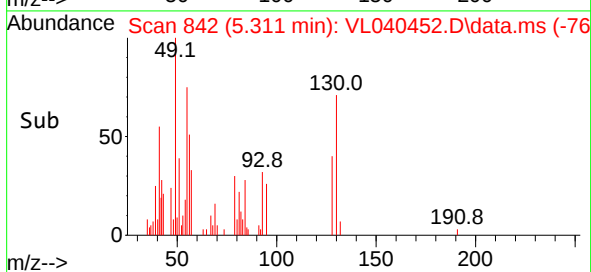
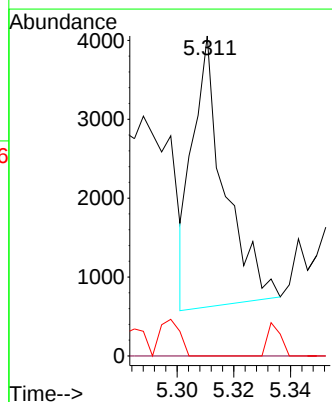
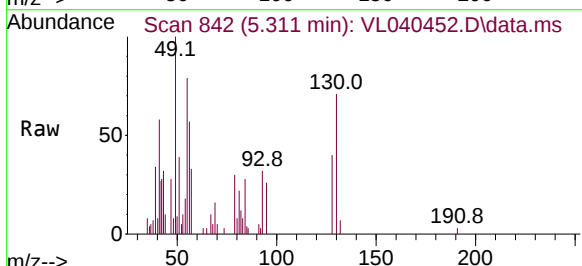
Tgt Ion: 42 Resp: 2671

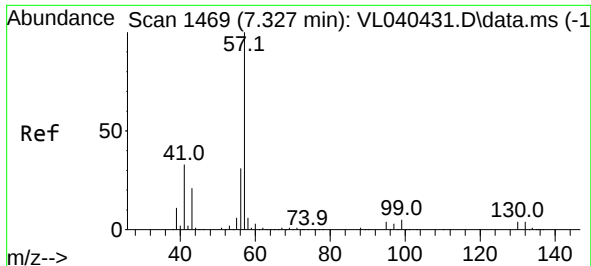
Ion Ratio Lower Upper

42 100

72 0.0 33.0 49.4#

71 0.0 32.2 48.2#





#44

2,2,4-Trimethylpentane

Concen: 0.199 ppbv

RT: 7.349 min Scan# 1469

Delta R.T. 0.006 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Instrument :

MSVOA_1

ClientSampleId :

SG-2DL

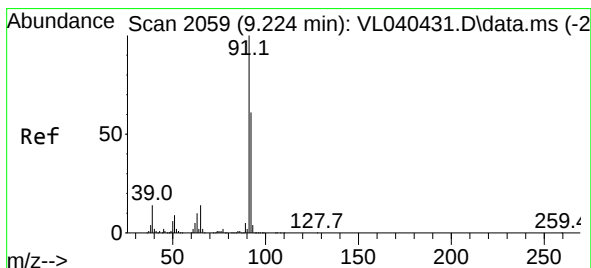
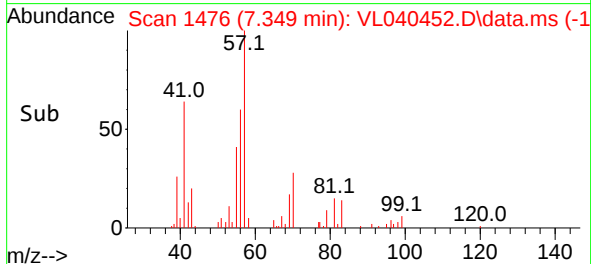
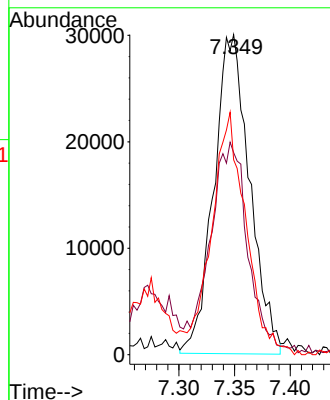
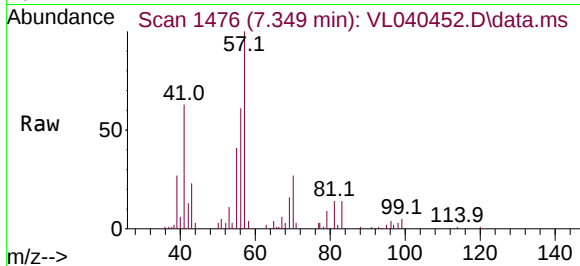
Tgt Ion: 57 Resp: 67111

Ion Ratio Lower Upper

57 100

41 68.1 27.0 40.4#

56 71.4 25.0 37.4#



#53

Toluene

Concen: 1.261 ppbv

RT: 9.246 min Scan# 2066

Delta R.T. 0.003 min

Lab File: VL040452.D

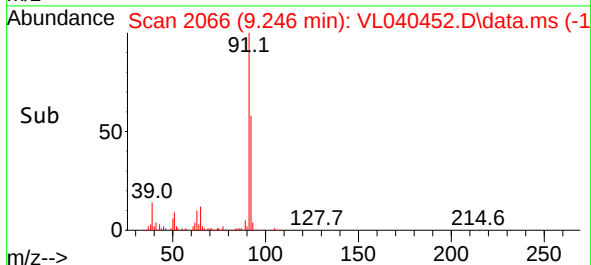
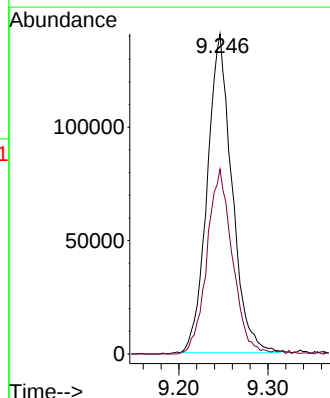
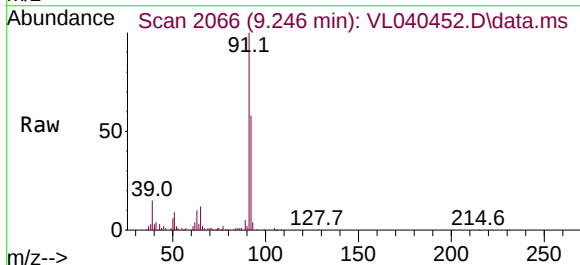
Acq: 17 May 2023 00:37

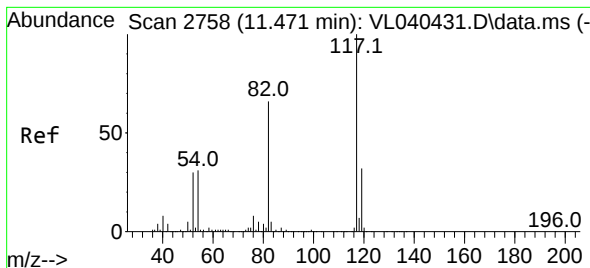
Tgt Ion: 91 Resp: 271760

Ion Ratio Lower Upper

91 100

92 60.0 49.1 73.7

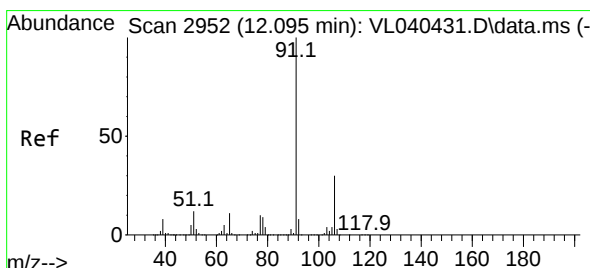
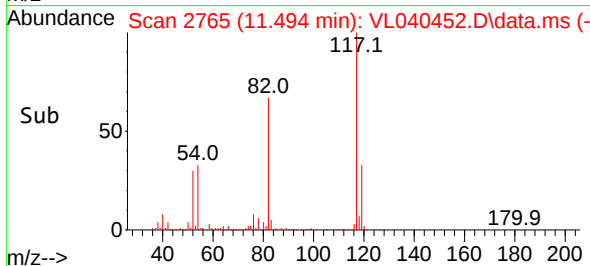
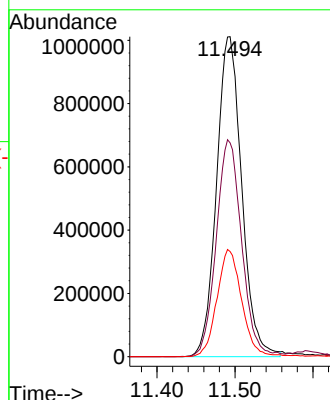
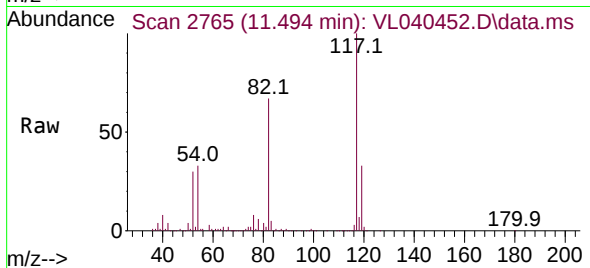




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.494 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

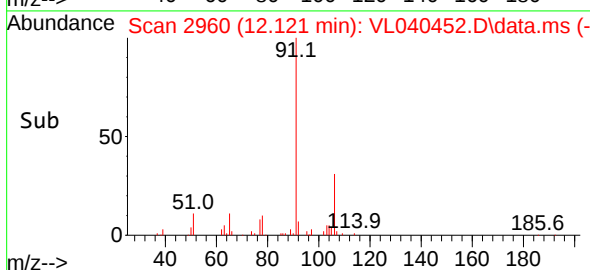
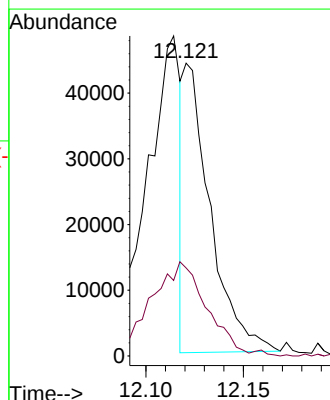
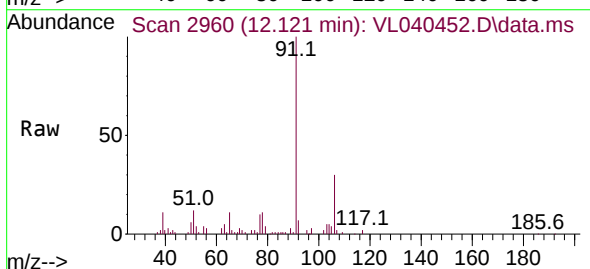
Instrument :
MSVOA_L
ClientSampleId :
SG-2DL

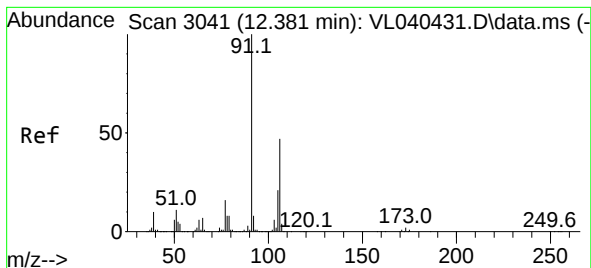
Tgt Ion:117 Resp: 2276007
Ion Ratio Lower Upper
117 100
82 68.4 52.5 78.7
119 33.4 24.0 36.0



#58
Ethyl Benzene
Concen: 0.145 ppbv
RT: 12.121 min Scan# 2960
Delta R.T. 0.010 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

Tgt Ion: 91 Resp: 41711
Ion Ratio Lower Upper
91 100
106 30.6 23.8 35.8





#59

m/p-Xylene

Concen: 1.329 ppbv

RT: 12.368 min Scan# 3041

Delta R.T. -0.029 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Instrument :

MSVOA_L

ClientSampleId :

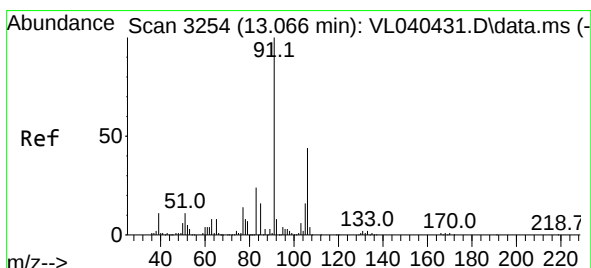
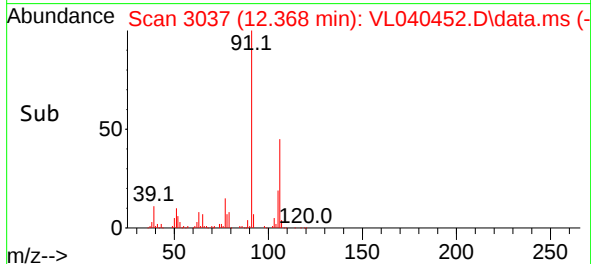
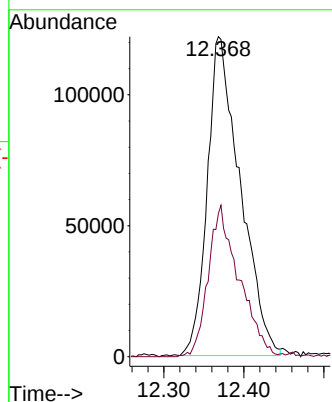
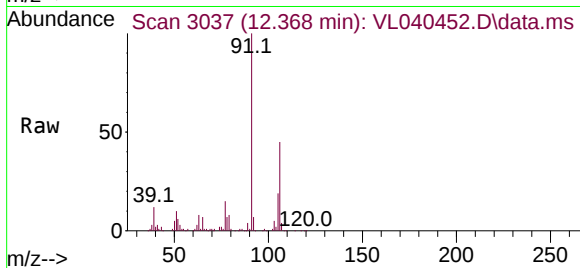
SG-2DL

Tgt Ion: 91 Resp: 349215

Ion Ratio Lower Upper

91 100

106 44.5 34.9 52.3



#60

o-Xylene

Concen: 0.522 ppbv

RT: 13.082 min Scan# 3259

Delta R.T. -0.000 min

Lab File: VL040452.D

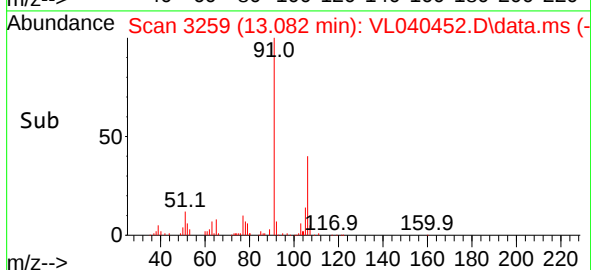
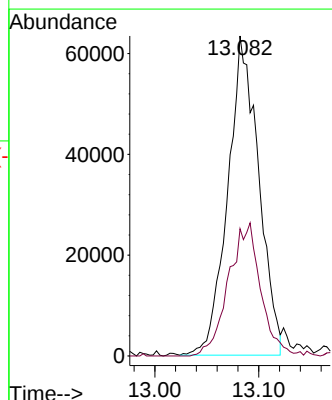
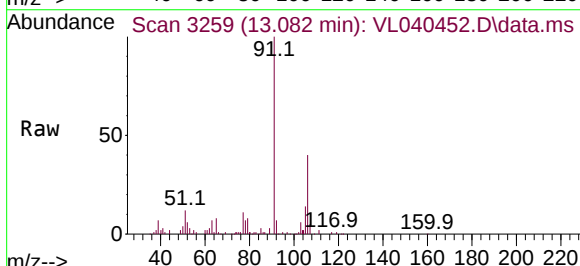
Acq: 17 May 2023 00:37

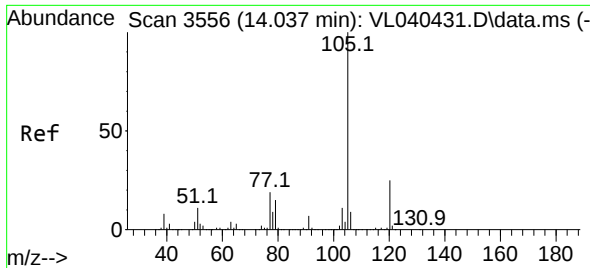
Tgt Ion: 91 Resp: 130643

Ion Ratio Lower Upper

91 100

106 44.0 21.8 65.4

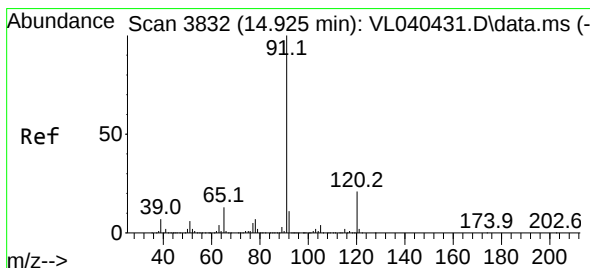
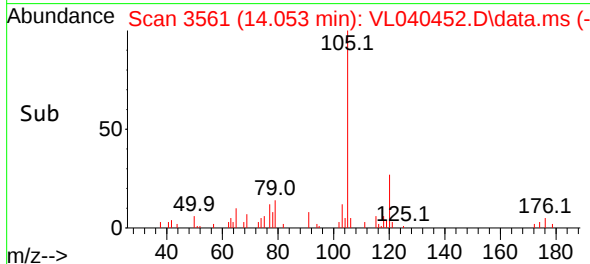
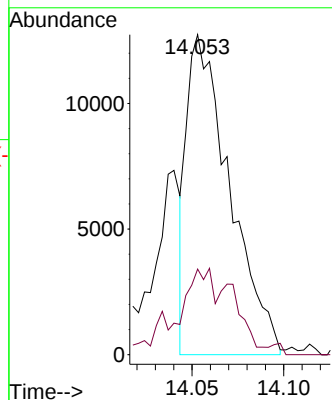
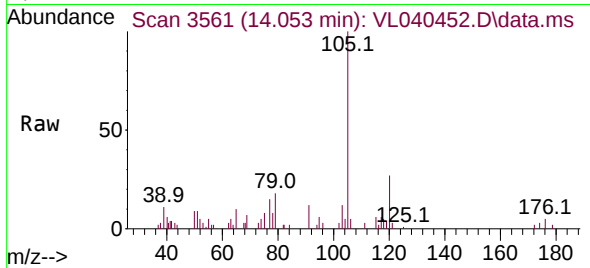




#62
Isopropylbenzene
Concen: 0.057 ppbv
RT: 14.053 min Scan# 31
Delta R.T. -0.003 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

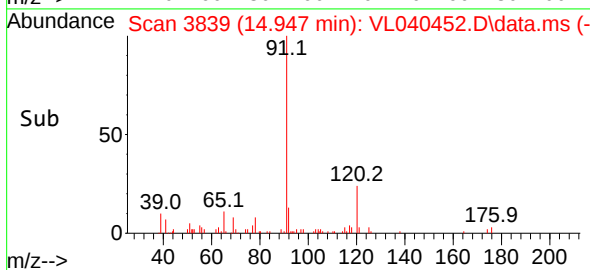
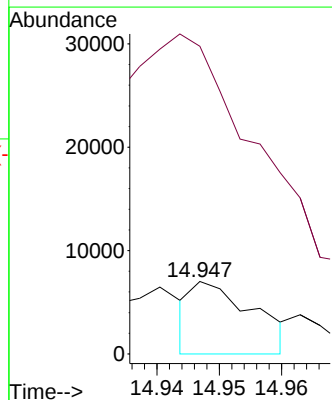
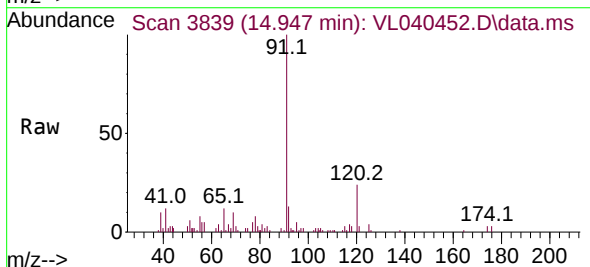
Instrument :
MSVOA_L
ClientSampleId :
SG-2DL

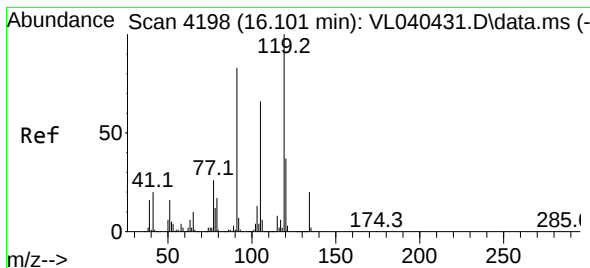
Tgt Ion:105 Resp: 20709
Ion Ratio Lower Upper
105 100
120 36.6 20.0 30.0#



#64
n-propylbenzene
Concen: 0.053 ppbv
RT: 14.947 min Scan# 3839
Delta R.T. 0.003 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

Tgt Ion:120 Resp: 4812
Ion Ratio Lower Upper
120 100
91 1523.9 393.2 589.8#





#65

tert-Butylbenzene

Concen: 0.050 ppbv

RT: 16.133 min Scan# 4198

Delta R.T. 0.016 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

Instrument :

MSVOA_L

ClientSampleId :

SG-2DL

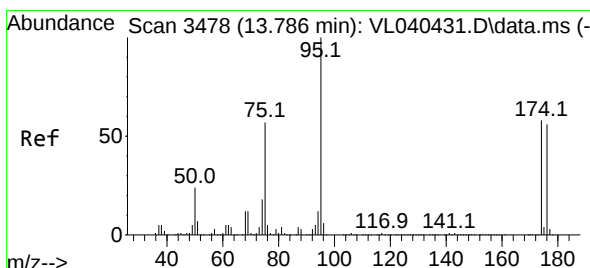
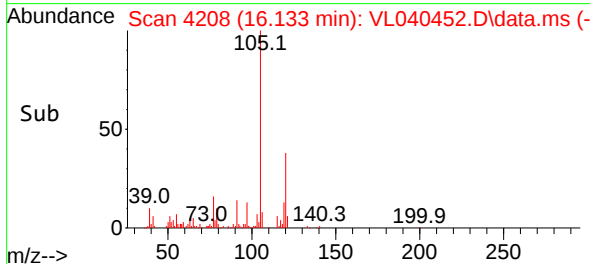
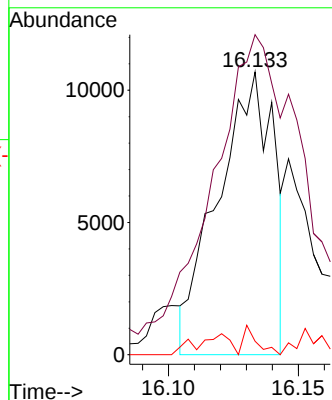
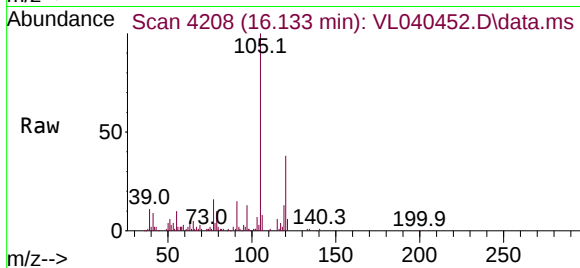
Tgt Ion:119 Resp: 15945

Ion Ratio Lower Upper

119 100

91 197.7 69.8 104.6#

134 6.8 15.4 23.2#



#68

1-Bromo-4-Fluorobenzene

Concen: 10.071 ppbv

RT: 13.802 min Scan# 3483

Delta R.T. 0.003 min

Lab File: VL040452.D

Acq: 17 May 2023 00:37

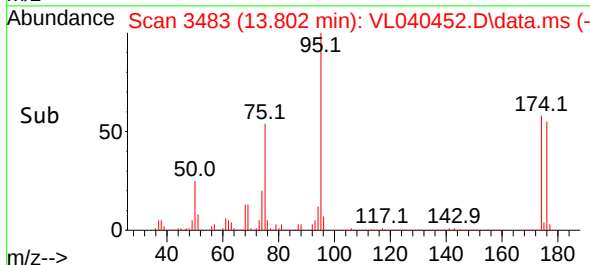
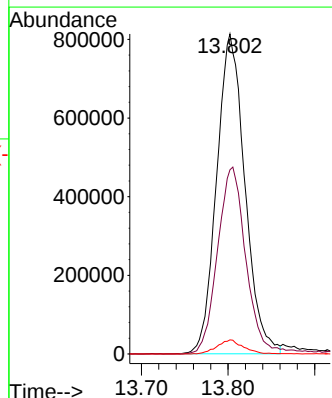
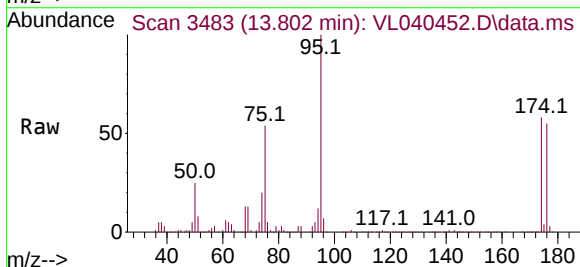
Tgt Ion: 95 Resp: 1843035

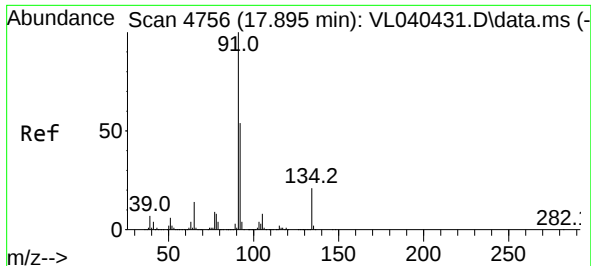
Ion Ratio Lower Upper

95 100

174 59.5 47.0 70.6

175 4.2 3.4 5.0

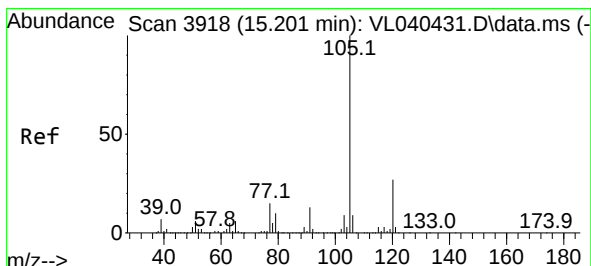
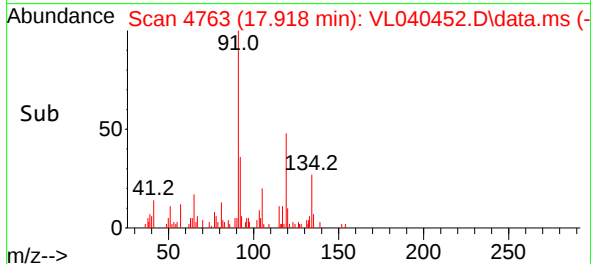
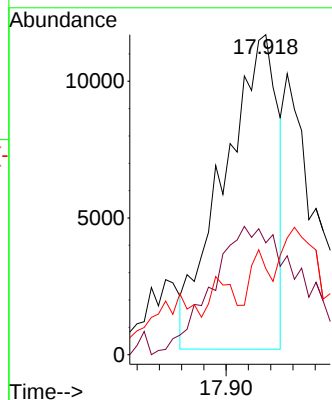
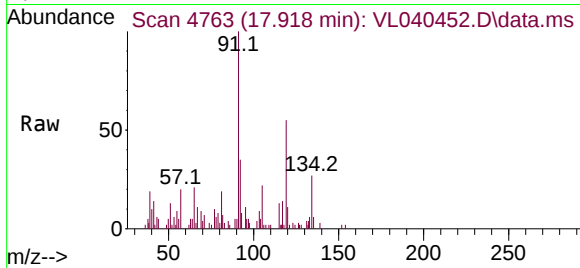




#70
n-Butylbenzene
Concen: 0.048 ppbv
RT: 17.918 min Scan# 41
Delta R.T. 0.006 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

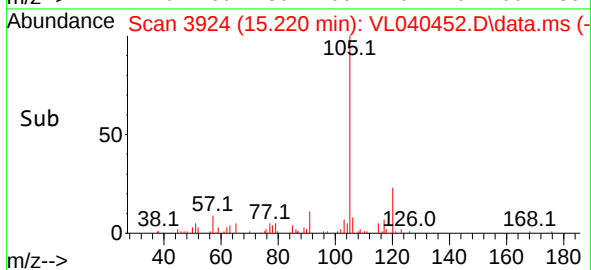
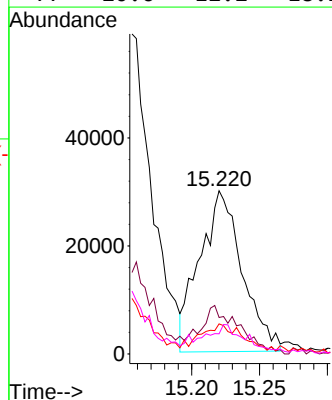
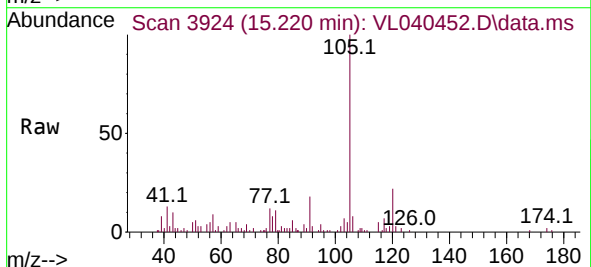
Instrument :
MSVOA_L
ClientSampleId :
SG-2DL

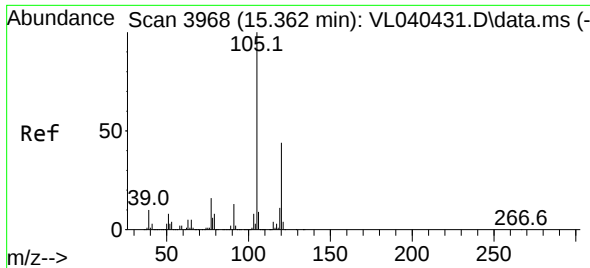
Tgt Ion: 91 Resp: 19347
Ion Ratio Lower Upper
91 100
92 74.6 43.2 64.8#
134 0.0 16.9 25.3#



#72
4-Ethyltoluene
Concen: 0.229 ppbv
RT: 15.220 min Scan# 3924
Delta R.T. -0.000 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

Tgt Ion: 105 Resp: 64984
Ion Ratio Lower Upper
105 100
120 30.5 23.8 35.8
91 21.1 11.0 16.4#
77 20.6 12.2 18.2#

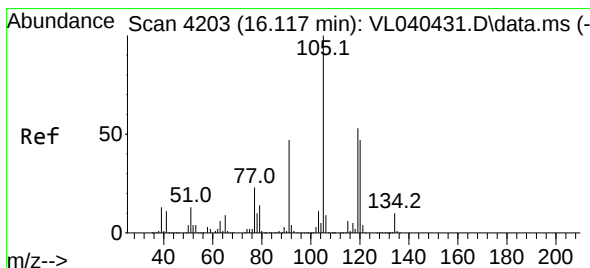
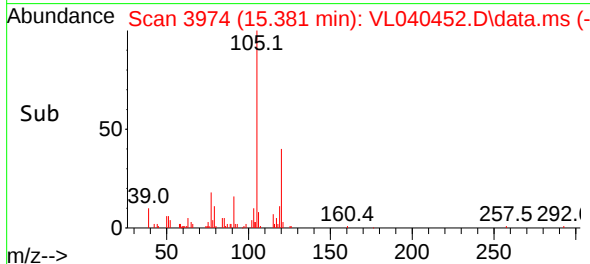
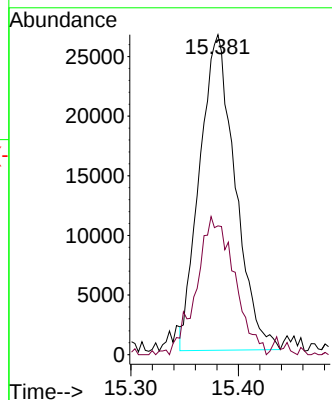
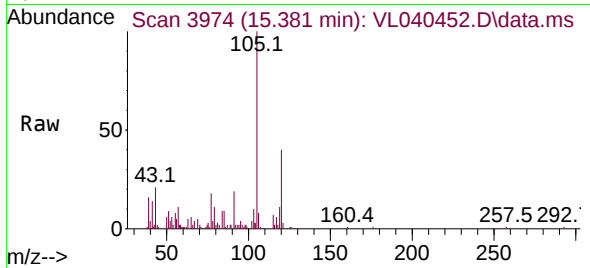




#73
1,3,5-Trimethylbenzene
Concen: 0.233 ppbv
RT: 15.381 min Scan# 3968
Delta R.T. 0.006 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

Instrument :
MSVOA_L
ClientSampleId :
SG-2DL

Tgt Ion:105 Resp: 60679
Ion Ratio Lower Upper
105 100
120 39.2 35.2 52.8



#74
1,2,4-Trimethylbenzene
Concen: 0.605 ppbv
RT: 16.133 min Scan# 4208
Delta R.T. -0.000 min
Lab File: VL040452.D
Acq: 17 May 2023 00:37

Tgt Ion:105 Resp: 181038
Ion Ratio Lower Upper
105 100
120 37.8 38.1 57.1#
91 13.8 40.2 60.2#
77 15.3 19.0 28.4#

