

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL051623\
 Data File : VL040451.D
 Acq On : 16 May 2023 23:56
 Operator : SY/MD
 Sample : 02793-04DUPDL 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4DLDUP

Quant Time: May 17 05:19:13 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	995574	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.671	114	2479582	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.494	117	2226583	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.802	95	1798878	10.048	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.500%

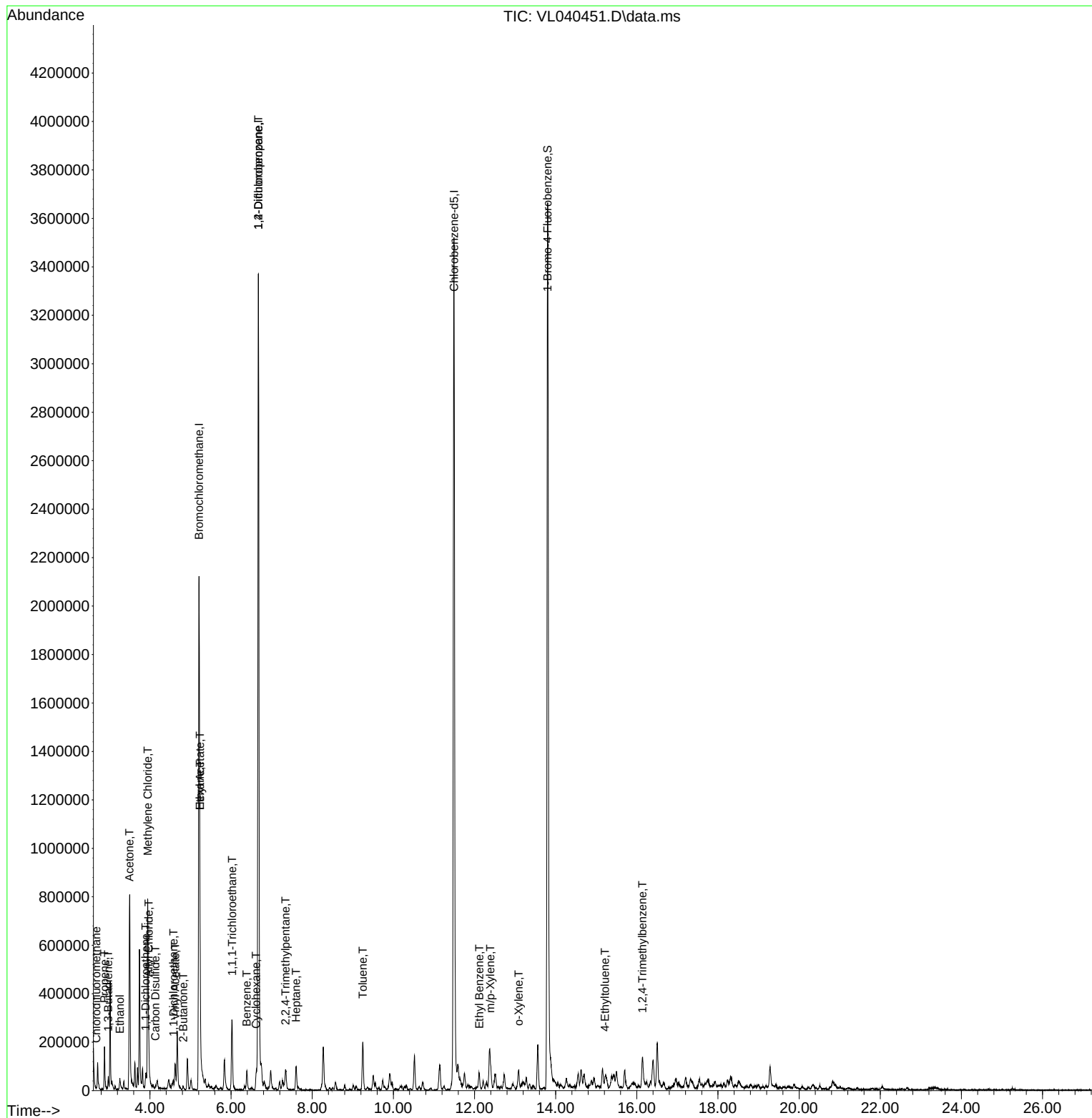
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chlorodifluoromethane	2.677	51	4899	0.038	ppbv	92
9) Propene	2.877	41	44314	0.886	ppbv	93
10) Heptane	7.600	43	22904	0.198	ppbv #	62
13) Ethanol	3.259	45	42085	11.102	ppbv	76
15) Acetone	3.494	43	444396	3.528	ppbv #	79
16) 1,3-Butadiene	2.973	39	11330	0.196	ppbv #	38
18) 1,1-Dichloroethene	3.893	96	12983	0.227	ppbv #	85
20) Methylene Chloride	3.947	84	270723	4.825	ppbv	98
21) Allyl Chloride	3.967	41	20725	0.257	ppbv #	44
23) Vinyl Acetate	4.623	43	22065	0.634	ppbv #	1
24) 1,1-Dichloroethane	4.581	63	21772	0.183	ppbv #	97
25) Ethyl Acetate	5.230	43	116411	0.491	ppbv #	77
26) Hexane	5.230	57	162928	1.657	ppbv #	36
27) Carbon Disulfide	4.137	76	8201	0.063	ppbv #	79
30) Cyclohexane	6.616	84	7726	0.097	ppbv #	1
32) 1,1,1-Trichloroethane	6.025	97	181666	0.975	ppbv	98
34) 2-Butanone	4.819	43	16048	0.122	ppbv #	88
36) Benzene	6.388	78	60176	0.299	ppbv #	91
39) 1,2-Dichloropropane	6.671	63	634191	8.039	ppbv #	22
44) 2,2,4-Trimethylpentane	7.343	57	16551	0.050	ppbv #	1
53) Toluene	9.243	91	146336	0.688	ppbv	98
58) Ethyl Benzene	12.118	91	45839	0.163	ppbv	100
59) m/p-Xylene	12.388	91	57614	0.224	ppbv #	32
60) o-Xylene	13.089	91	62150	0.254	ppbv	95
72) 4-Ethyltoluene	15.217	105	10188	0.037	ppbv #	55
74) 1,2,4-Trimethylbenzene	16.140	105	75440	0.258	ppbv #	74

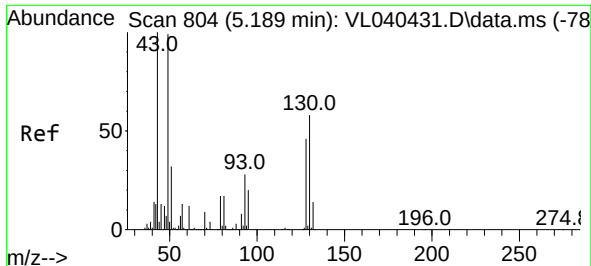
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: May 17 05:19:13 2023
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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

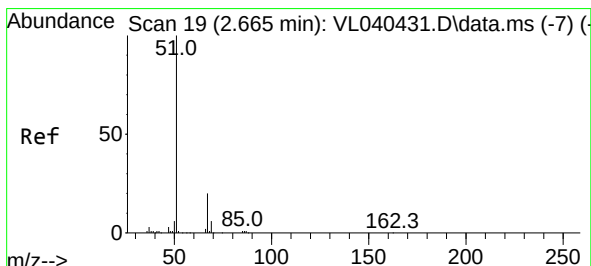
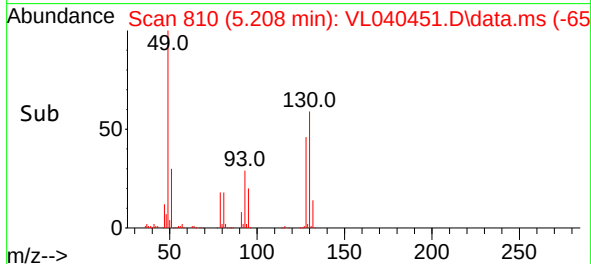
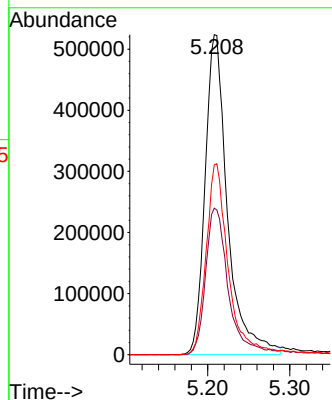
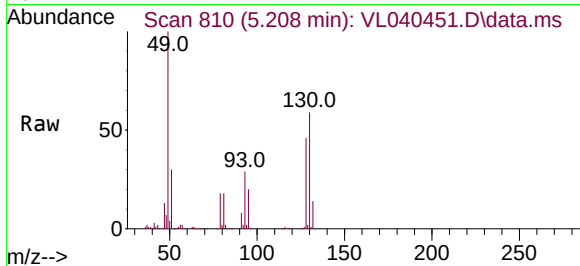




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.208 min Scan# 81
Delta R.T. 0.003 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

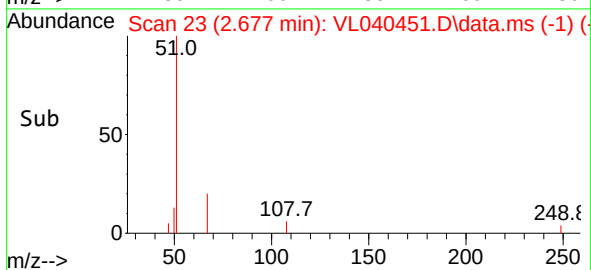
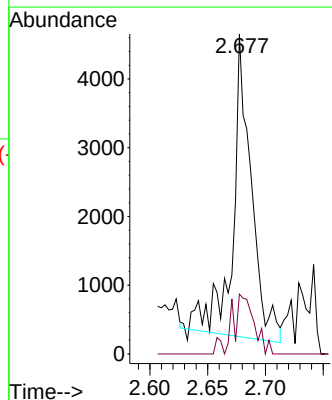
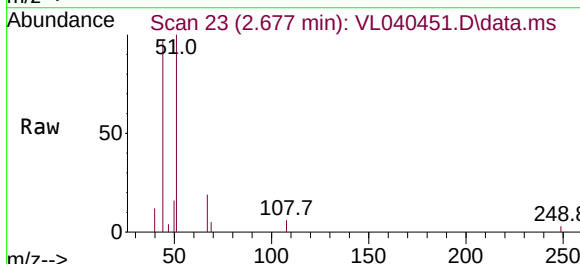
Instrument :
MSVOA_L
ClientSampleId :
SG-4DLDUP

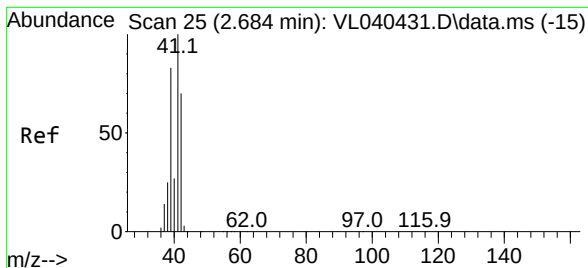
Tgt Ion: 49 Resp: 995574
Ion Ratio Lower Upper
49 100
128 48.5 24.3 72.8
130 59.8 30.2 90.6



#3
Chlorodifluoromethane
Concen: 0.038 ppbv
RT: 2.677 min Scan# 23
Delta R.T. 0.003 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

Tgt Ion: 51 Resp: 4899
Ion Ratio Lower Upper
51 100
67 23.2 15.8 23.6





#9

Propene

Concen: 0.886 ppbv

RT: 2.877 min Scan# 81

Delta R.T. 0.183 min

Lab File: VL040451.D

Acq: 16 May 2023 23:56

Instrument :

MSVOA_L

ClientSampleId :

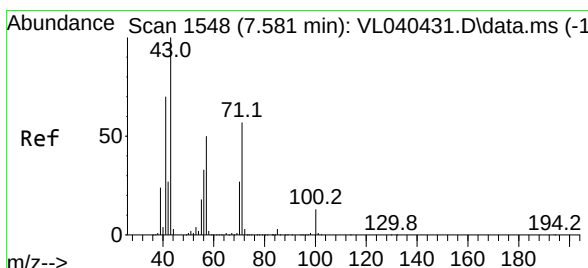
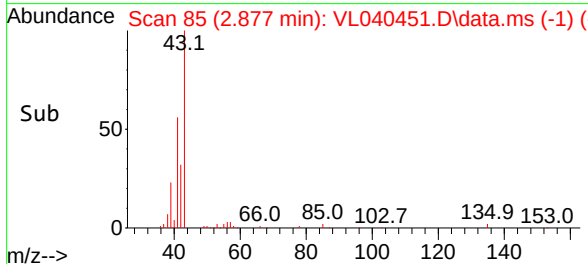
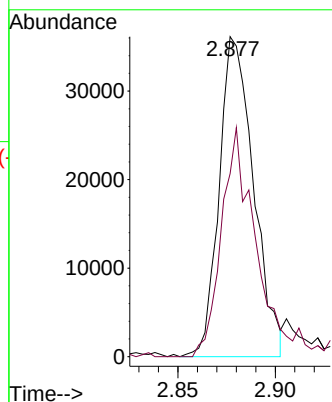
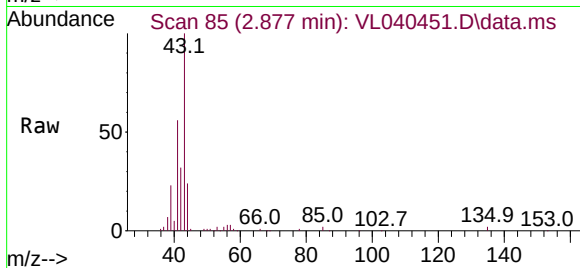
SG-4DLDUP

Tgt Ion: 41 Resp: 44314

Ion Ratio Lower Upper

41 100

42 76.2 56.6 84.8



#10

Heptane

Concen: 0.198 ppbv

RT: 7.600 min Scan# 1554

Delta R.T. 0.003 min

Lab File: VL040451.D

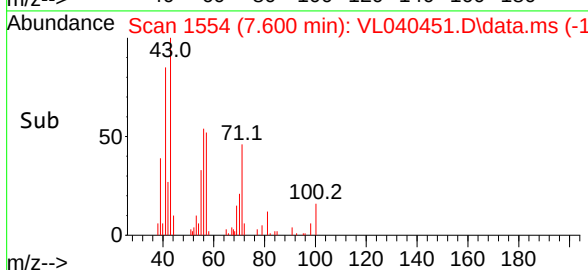
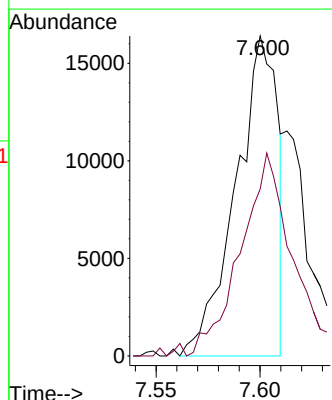
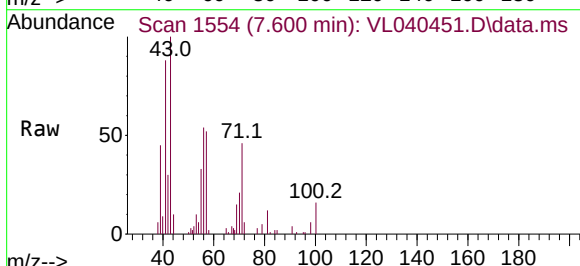
Acq: 16 May 2023 23:56

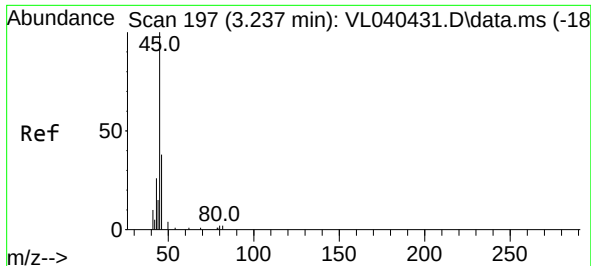
Tgt Ion: 43 Resp: 22904

Ion Ratio Lower Upper

43 100

57 79.4 42.2 63.2#

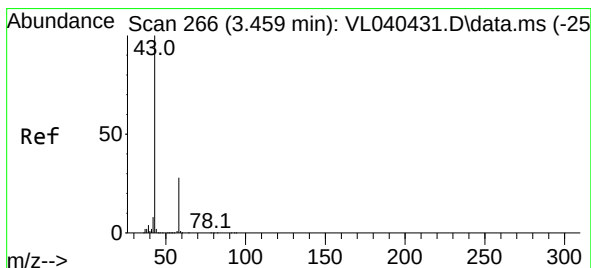
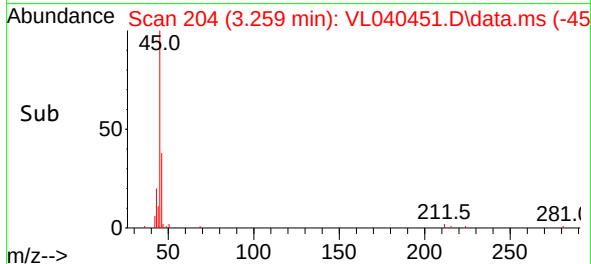
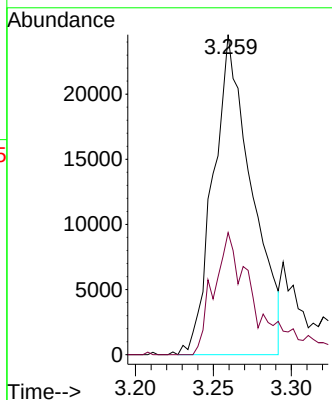
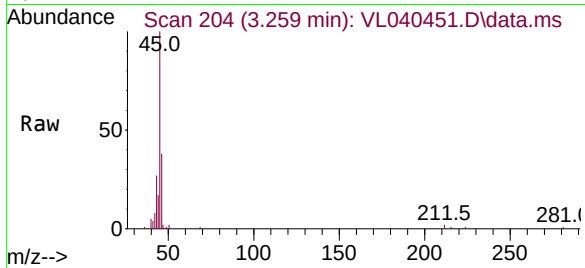




#13
 Ethanol
 Concen: 11.102 ppbv
 RT: 3.259 min Scan# 204
 Delta R.T. 0.010 min
 Lab File: VL040451.D
 Acq: 16 May 2023 23:56

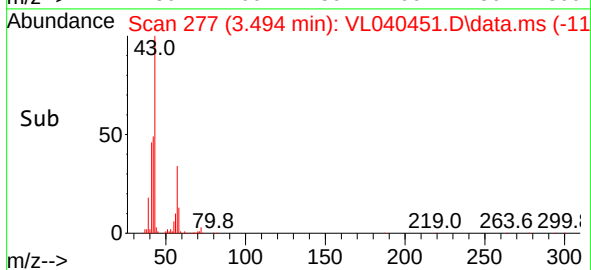
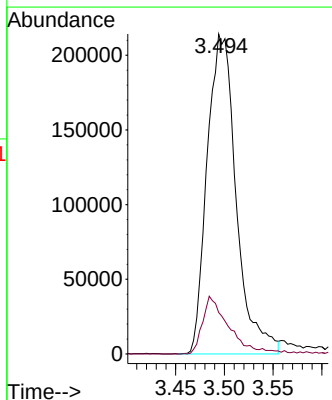
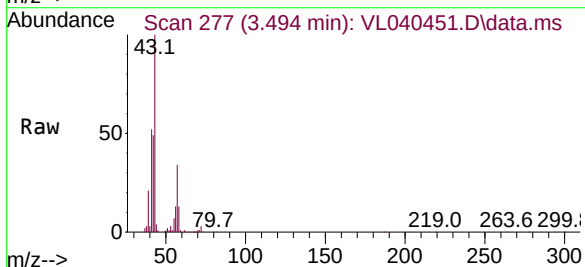
Instrument :
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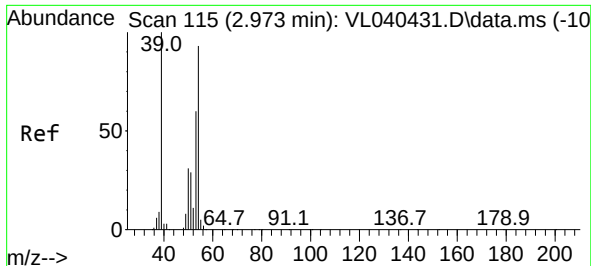
Tgt Ion: 45 Resp: 42085
 Ion Ratio Lower Upper
 45 100
 46 46.8 13.2 52.8



#15
 Acetone
 Concen: 3.528 ppbv
 RT: 3.494 min Scan# 277
 Delta R.T. 0.026 min
 Lab File: VL040451.D
 Acq: 16 May 2023 23:56

Tgt Ion: 43 Resp: 444396
 Ion Ratio Lower Upper
 43 100
 58 16.8 22.2 33.4#

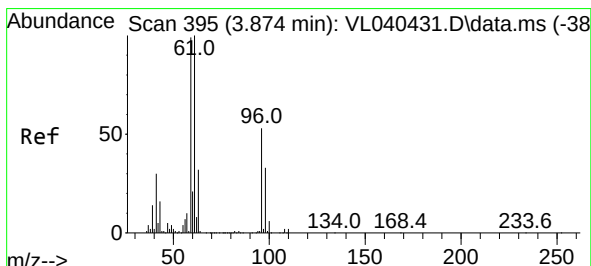
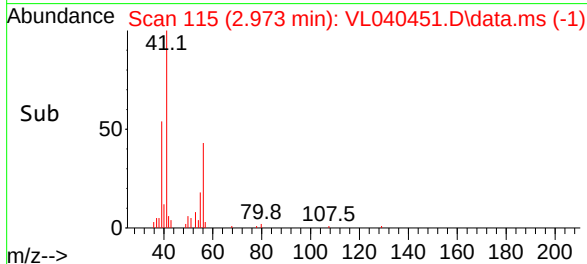
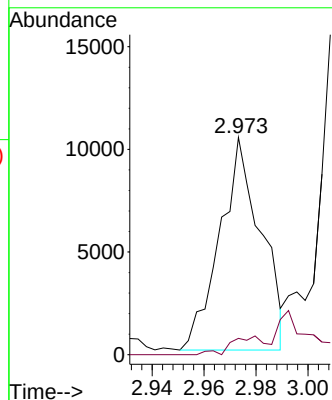
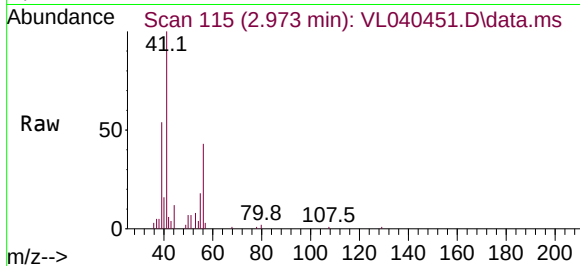




#16
1,3-Butadiene
Concen: 0.196 ppbv
RT: 2.973 min Scan# 115
Delta R.T. -0.013 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

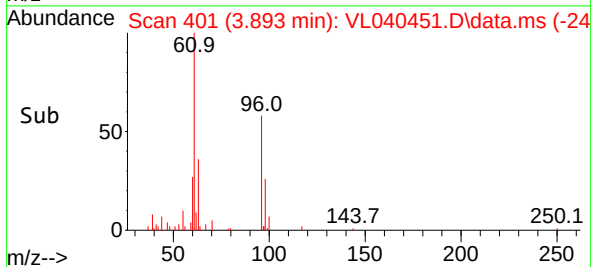
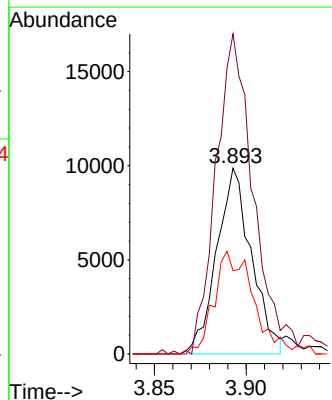
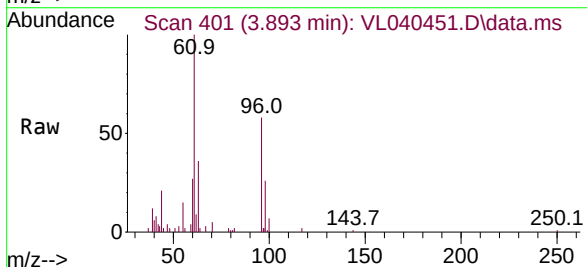
Instrument :
MSVOA_L
ClientSampleId :
SG-4DLDUP

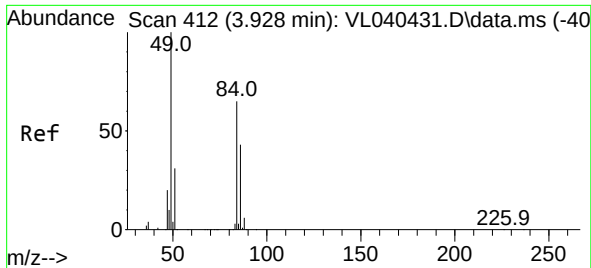
Tgt Ion: 39 Resp: 11330
Ion Ratio Lower Upper
39 100
54 28.9 68.9 103.3#



#18
1,1-Dichloroethene
Concen: 0.227 ppbv
RT: 3.893 min Scan# 401
Delta R.T. 0.006 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

Tgt Ion: 96 Resp: 12983
Ion Ratio Lower Upper
96 100
61 172.2 151.8 227.8
98 44.8 50.5 75.7#



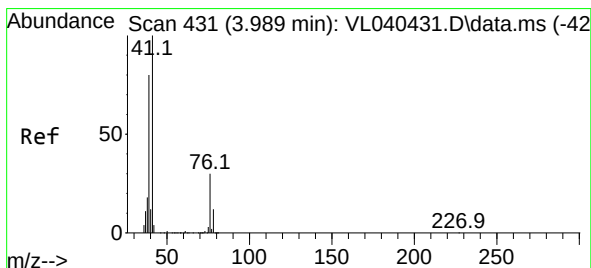
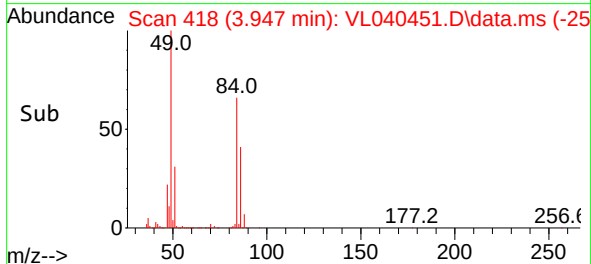
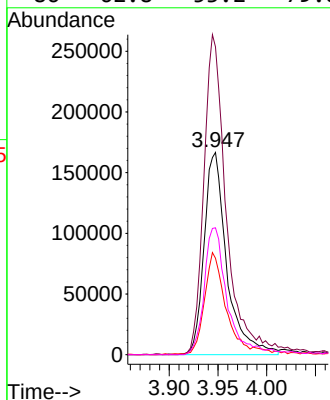
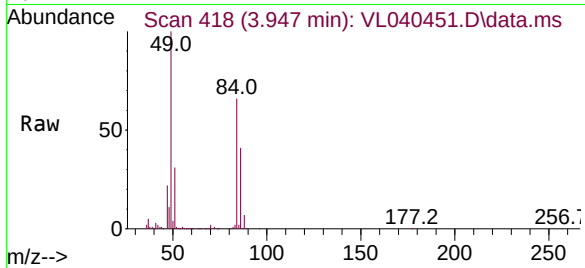


#20
Methylene Chloride
Concen: 4.825 ppbv
RT: 3.947 min Scan# 418
Delta R.T. 0.010 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

Instrument :
MSVOA_L
ClientSampleId :
SG-4DLDUP

Tgt Ion: 84 Resp: 270723

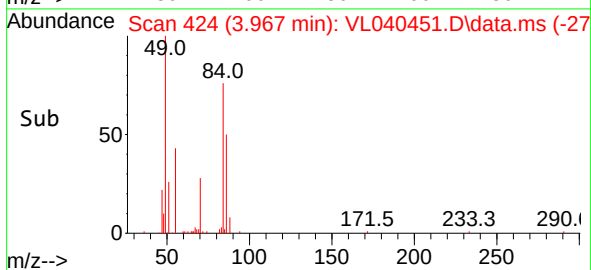
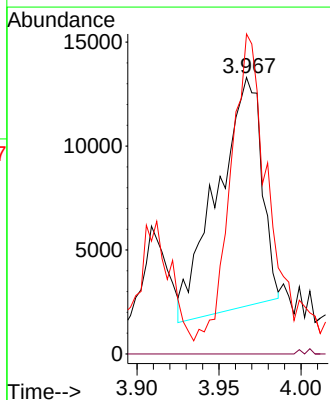
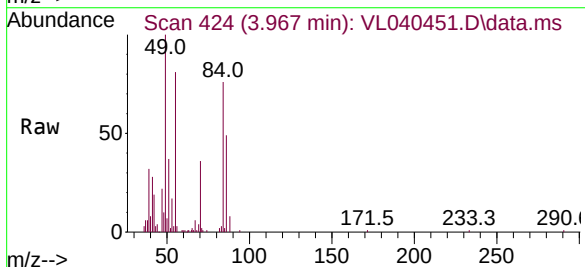
Ion	Ratio	Lower	Upper
84	100		
49	152.1	123.7	185.5
51	47.3	38.6	57.8
86	62.8	53.2	79.8

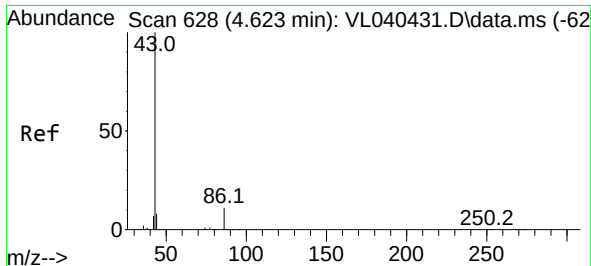


#21
Allyl Chloride
Concen: 0.257 ppbv
RT: 3.967 min Scan# 424
Delta R.T. -0.035 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

Tgt Ion: 41 Resp: 20725

Ion	Ratio	Lower	Upper
41	100		
76	0.0	25.3	37.9#
39	128.0	63.5	95.3#

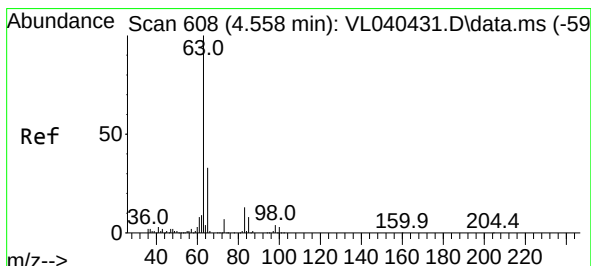
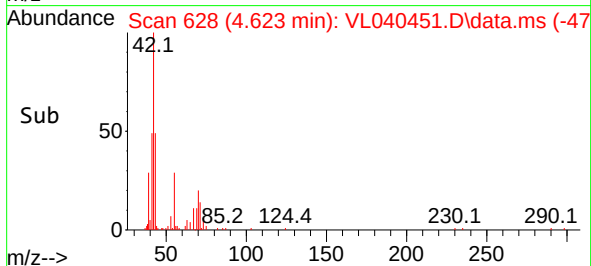
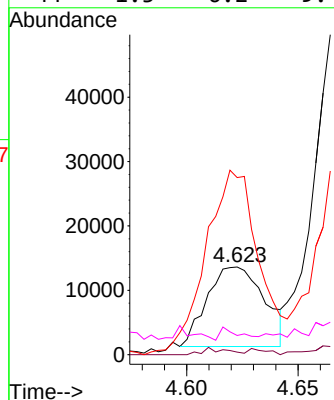
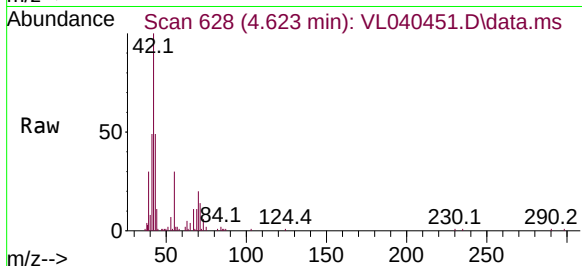




#23
 Vinyl Acetate
 Concen: 0.634 ppbv
 RT: 4.623 min Scan# 615
 Delta R.T. -0.013 min
 Lab File: VL040451.D
 Acq: 16 May 2023 23:56

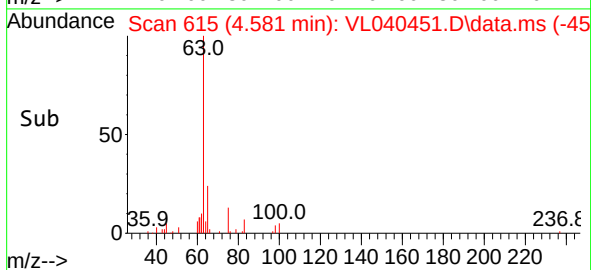
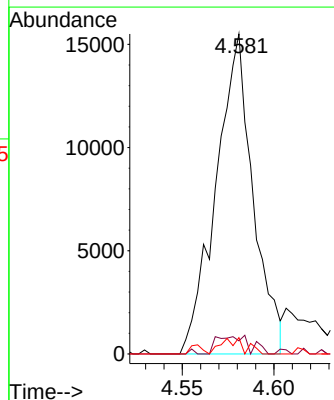
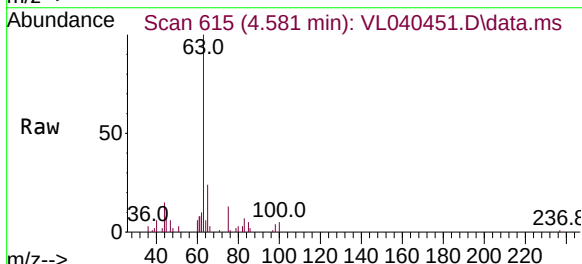
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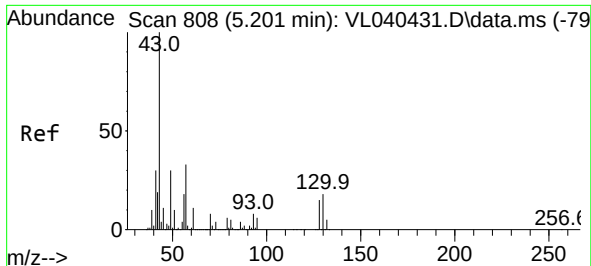
Tgt Ion:	43	Resp:	22065
Ion	Ratio	Lower	Upper
43	100		
86	3.2	5.4	8.2#
42	194.9	7.8	11.6#
44	1.3	6.2	9.4#



#24
 1,1-Dichloroethane
 Concen: 0.183 ppbv
 RT: 4.581 min Scan# 615
 Delta R.T. 0.010 min
 Lab File: VL040451.D
 Acq: 16 May 2023 23:56

Tgt Ion:	63	Resp:	21772
Ion	Ratio	Lower	Upper
63	100		
98	4.1	2.0	5.8
100	5.1	1.4	4.2#

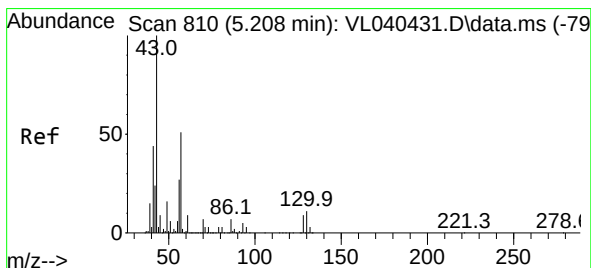
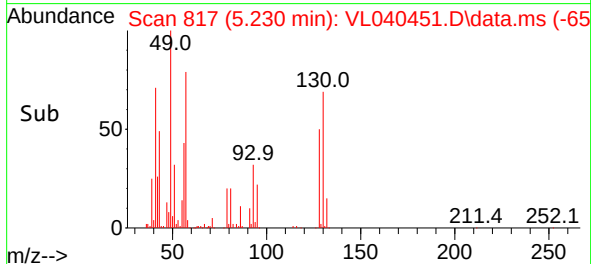
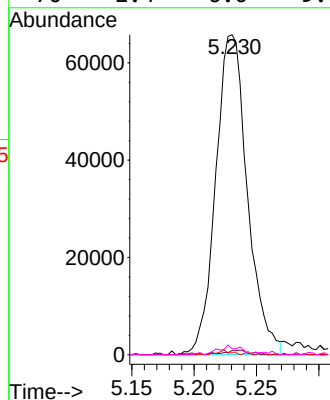
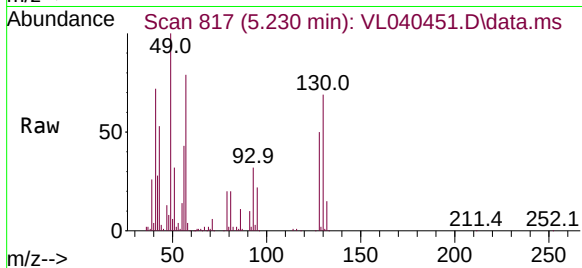




#25
Ethyl Acetate
Concen: 0.491 ppbv
RT: 5.230 min Scan# 817
Delta R.T. 0.016 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

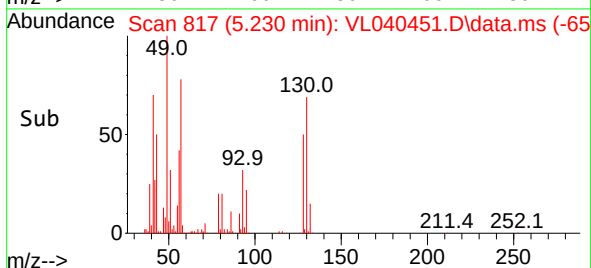
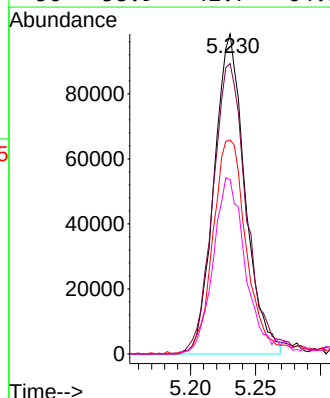
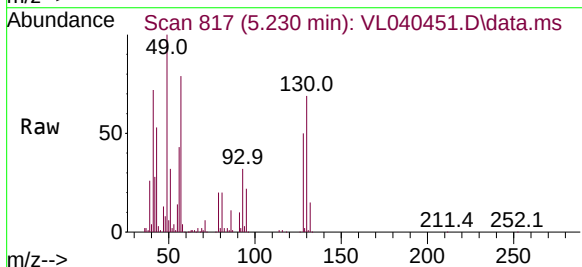
Instrument :
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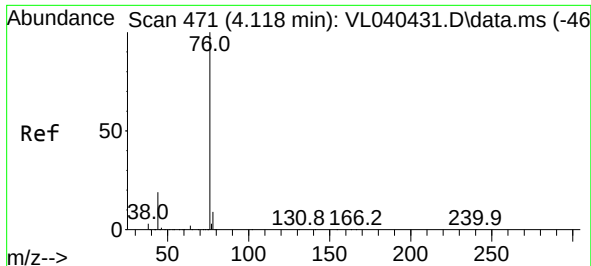
Tgt Ion: 43	Resp: 116411
Ion Ratio	Lower Upper
43 100	
45 1.2	8.6 13.0#
61 0.7	8.6 12.8#
70 2.4	6.0 9.0#



#26
Hexane
Concen: 1.657 ppbv
RT: 5.230 min Scan# 817
Delta R.T. 0.006 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

Tgt Ion: 57	Resp: 162928
Ion Ratio	Lower Upper
57 100	
41 99.9	75.1 112.7
43 75.0	194.4 291.6#
56 58.9	42.7 64.1

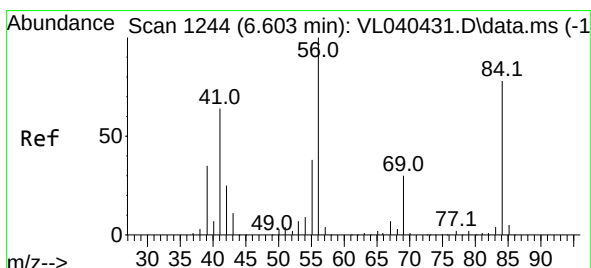
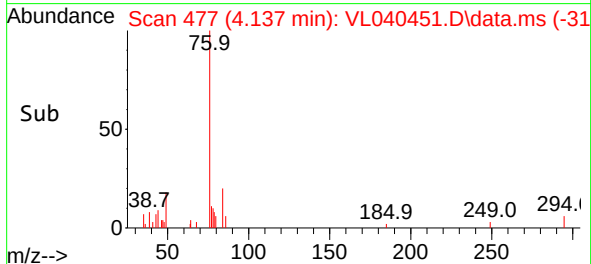
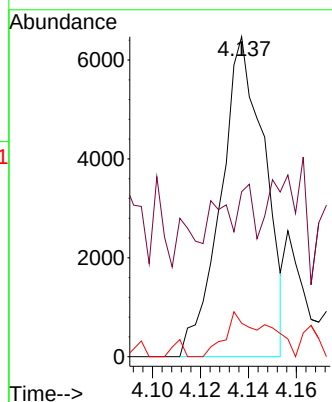
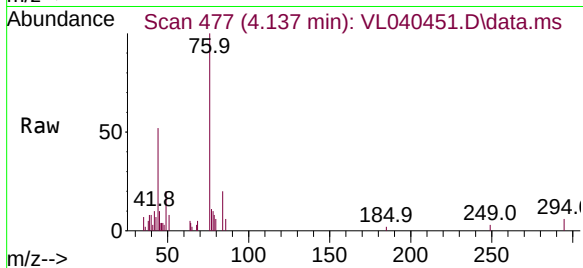




#27
Carbon Disulfide
Concen: 0.063 ppbv
RT: 4.137 min Scan# 41
Delta R.T. 0.006 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

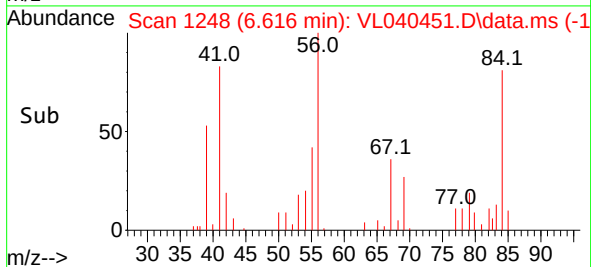
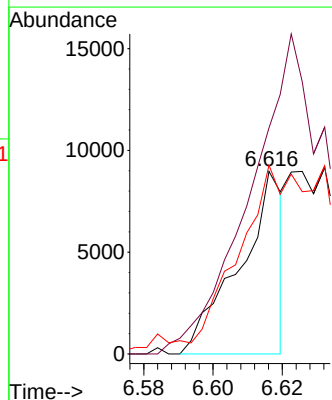
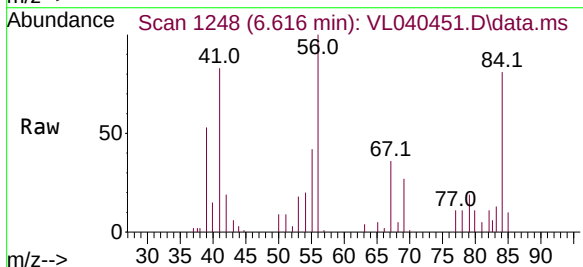
Instrument :
MSVOA_1
ClientSampleId :
SG-4DLDUP

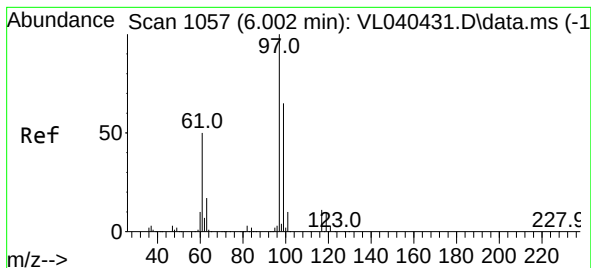
Tgt Ion: 76 Resp: 8201
Ion Ratio Lower Upper
76 100
44 9.8 15.3 22.9#
78 17.4 7.4 11.2#



#30
Cyclohexane
Concen: 0.097 ppbv
RT: 6.616 min Scan# 1248
Delta R.T. 0.000 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

Tgt Ion: 84 Resp: 7726
Ion Ratio Lower Upper
84 100
56 0.0 108.2 162.4#
41 307.4 66.9 100.3#





#32

1,1,1-Trichloroethane

Concen: 0.975 ppbv

RT: 6.025 min Scan# 1064

Delta R.T. 0.010 min

Lab File: VL040451.D

Acq: 16 May 2023 23:56

Instrument :

MSVOA_L

ClientSampleId :

SG-4DLDUP

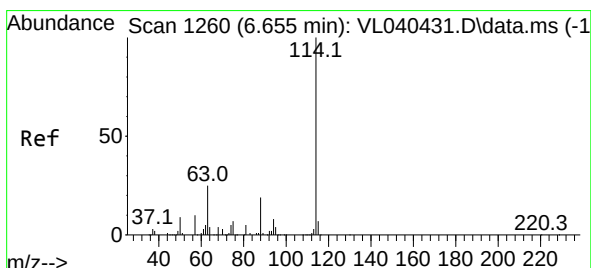
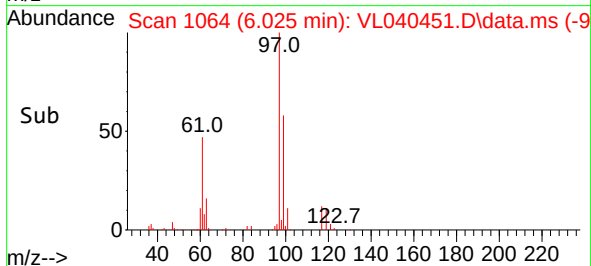
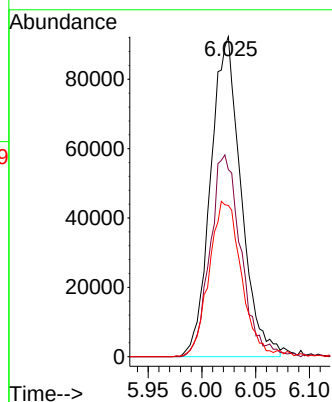
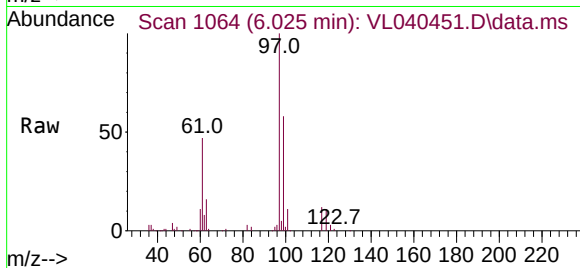
Tgt Ion: 97 Resp: 181666

Ion Ratio Lower Upper

97 100

99 64.4 52.2 78.2

61 52.3 40.2 60.4



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.671 min Scan# 1265

Delta R.T. 0.000 min

Lab File: VL040451.D

Acq: 16 May 2023 23:56

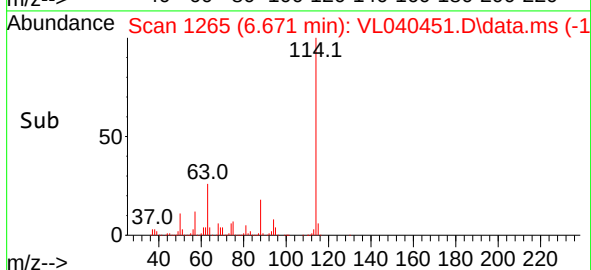
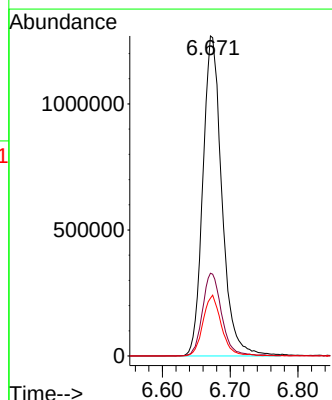
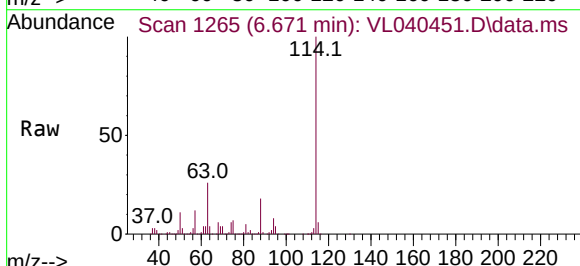
Tgt Ion: 114 Resp: 2479582

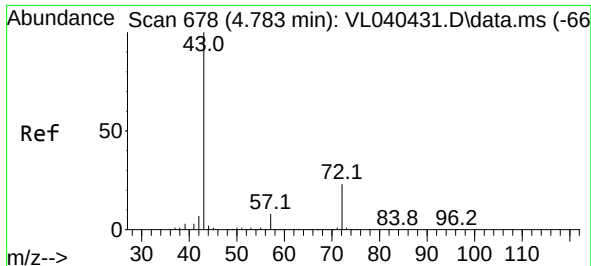
Ion Ratio Lower Upper

114 100

63 26.4 21.0 31.6

88 18.4 14.6 22.0





#34

2-Butanone

Concen: 0.122 ppbv

RT: 4.819 min Scan# 61

Delta R.T. 0.023 min

Lab File: VL040451.D

Acq: 16 May 2023 23:56

Instrument :

MSVOA_L

ClientSampleId :

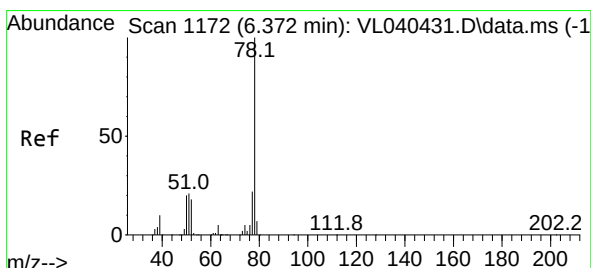
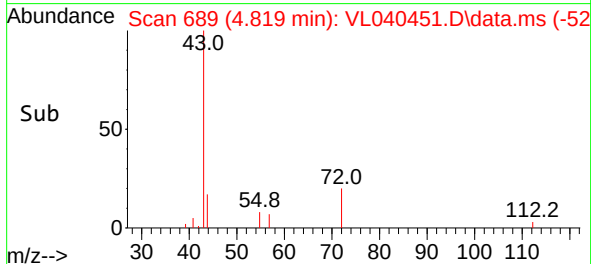
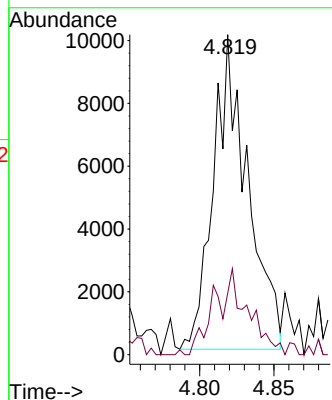
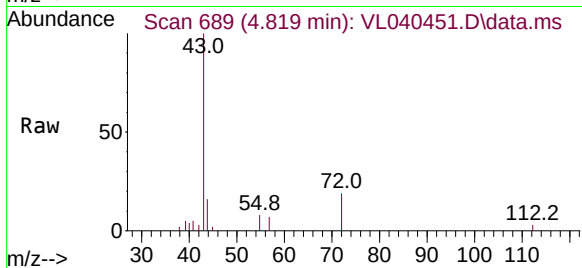
SG-4DLDUP

Tgt Ion: 43 Resp: 16048

Ion Ratio Lower Upper

43 100

72 28.7 18.3 27.5#



#36

Benzene

Concen: 0.299 ppbv

RT: 6.388 min Scan# 1177

Delta R.T. 0.003 min

Lab File: VL040451.D

Acq: 16 May 2023 23:56

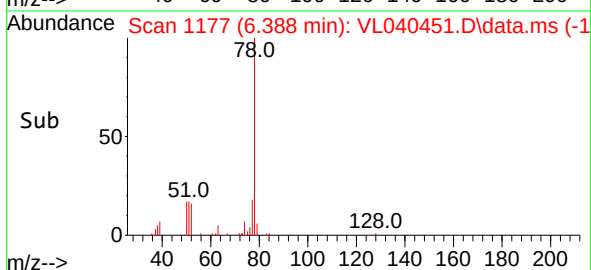
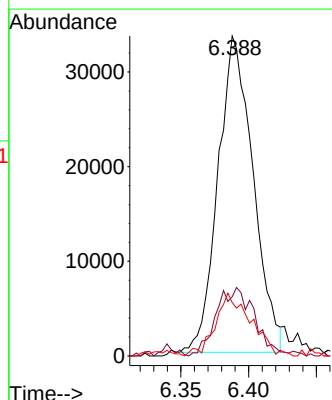
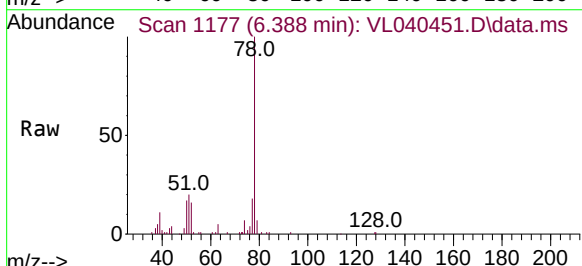
Tgt Ion: 78 Resp: 60176

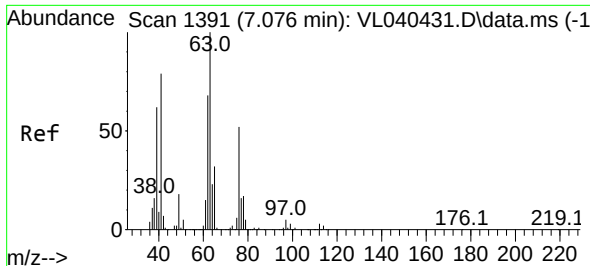
Ion Ratio Lower Upper

78 100

77 17.4 17.7 26.5#

50 16.2 15.8 23.8





#39

1,2-Dichloropropane

Concen: 8.039 ppbv

RT: 6.671 min Scan# 1

Delta R.T. -0.418 min

Lab File: VL040451.D

Acq: 16 May 2023 23:56

Instrument :

MSVOA_L

ClientSampleId :

SG-4DLDUP

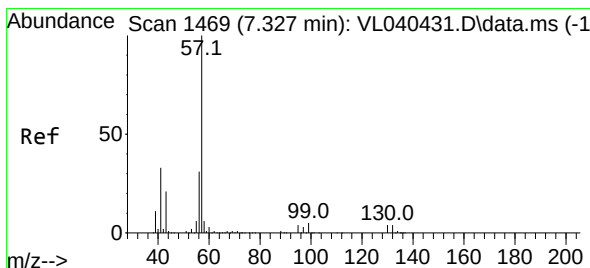
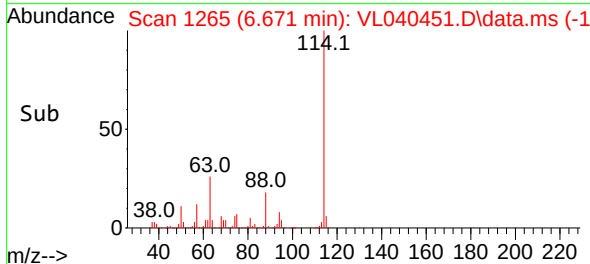
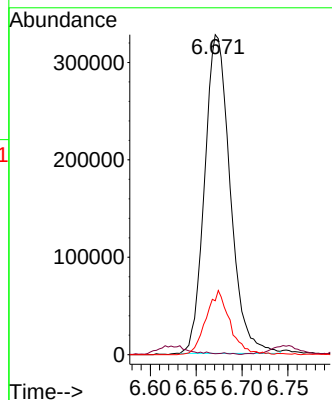
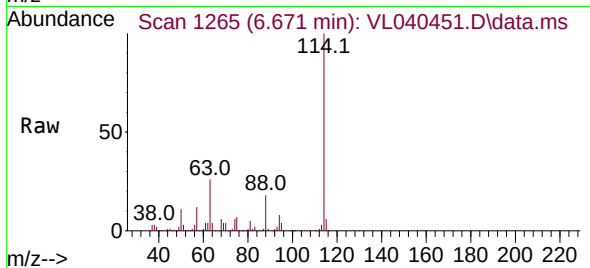
Tgt Ion: 63 Resp: 634191

Ion Ratio Lower Upper

63 100

41 0.0 63.3 94.9#

62 16.8 54.2 81.4#



#44

2,2,4-Trimethylpentane

Concen: 0.050 ppbv

RT: 7.343 min Scan# 1474

Delta R.T. 0.000 min

Lab File: VL040451.D

Acq: 16 May 2023 23:56

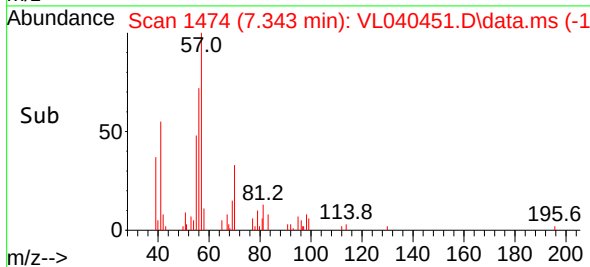
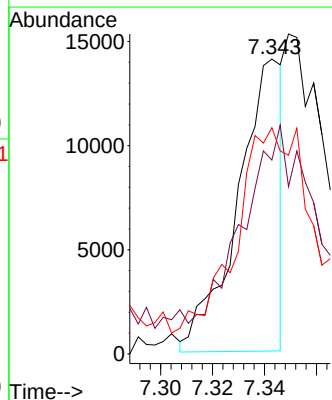
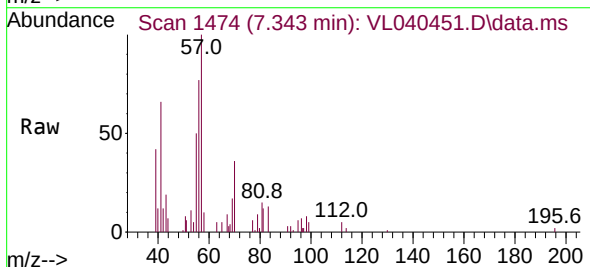
Tgt Ion: 57 Resp: 16551

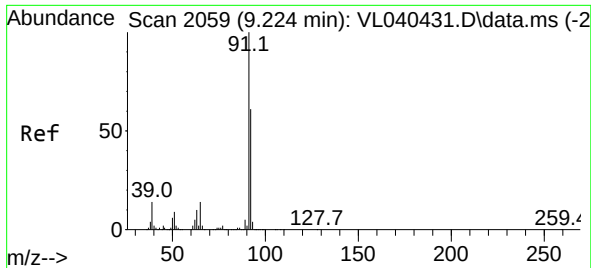
Ion Ratio Lower Upper

57 100

41 0.0 27.0 40.4#

56 152.1 25.0 37.4#

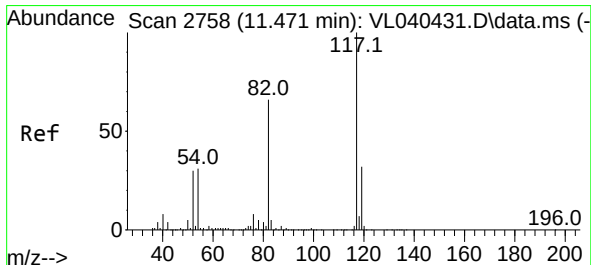
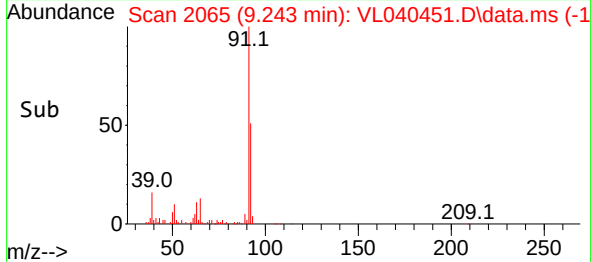
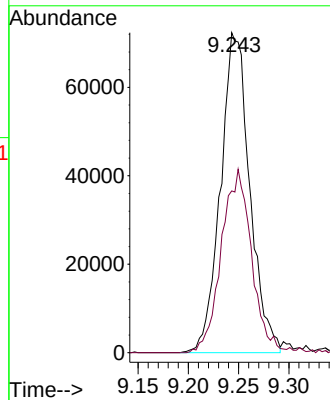
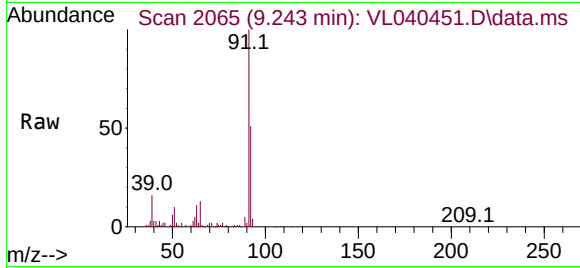




#53
Toluene
Concen: 0.688 ppbv
RT: 9.243 min Scan# 2059
Delta R.T. 0.000 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

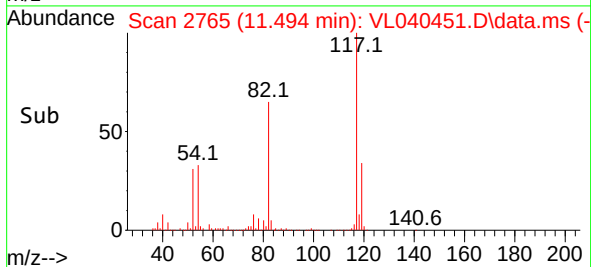
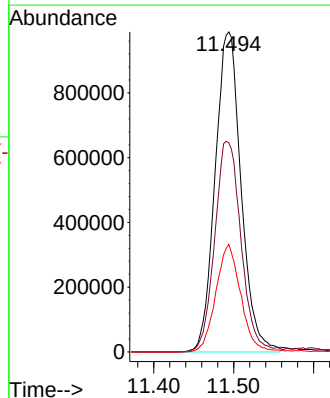
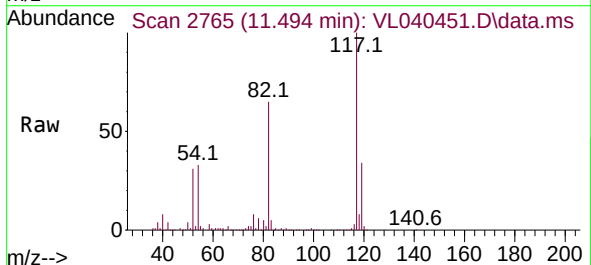
Instrument :
MSVOA_1
ClientSampleId :
SG-4DLDUP

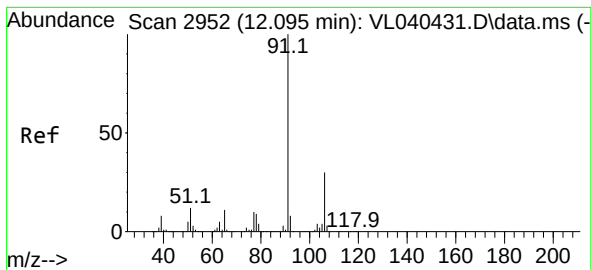
Tgt Ion: 91 Resp: 146336
Ion Ratio Lower Upper
91 100
92 59.8 49.1 73.7



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.494 min Scan# 2765
Delta R.T. 0.003 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

Tgt Ion: 117 Resp: 2226583
Ion Ratio Lower Upper
117 100
82 66.8 52.5 78.7
119 32.9 24.0 36.0

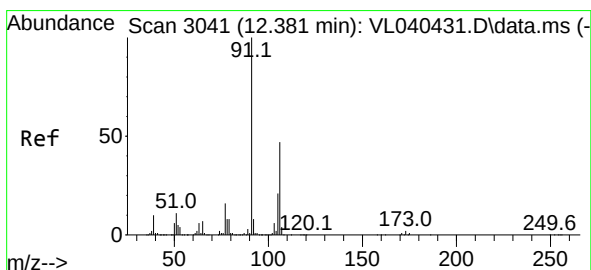
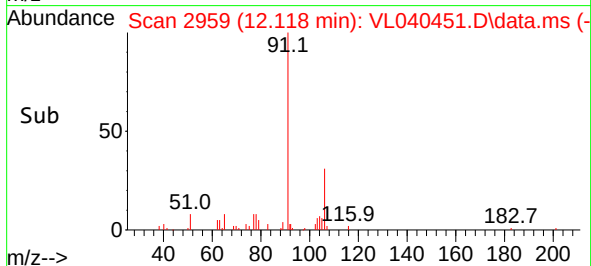
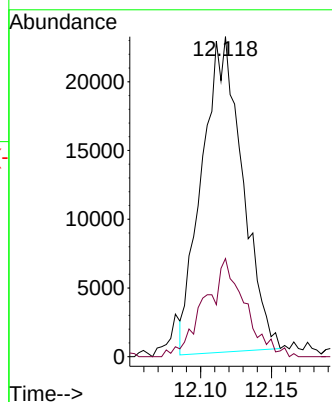
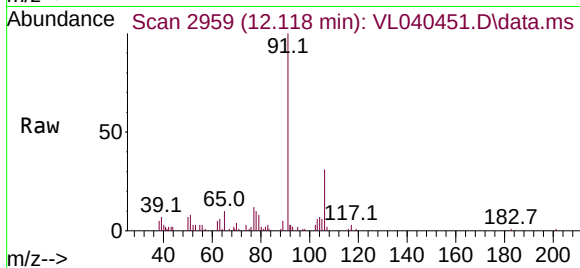




#58
Ethyl Benzene
Concen: 0.163 ppbv
RT: 12.118 min Scan# 2959
Delta R.T. 0.007 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

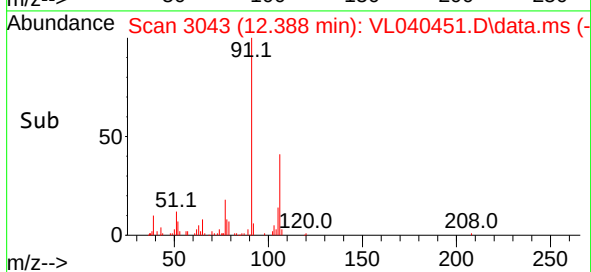
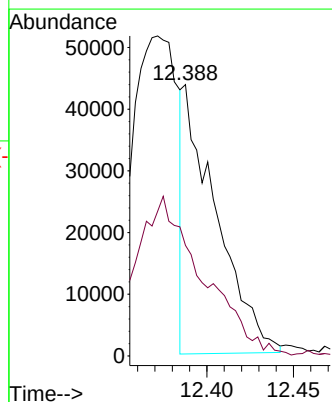
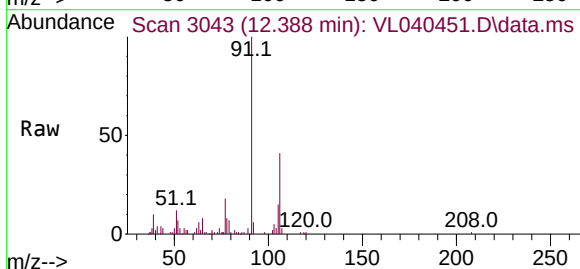
Instrument :
MSVOA_L
ClientSampleId :
SG-4DLDUP

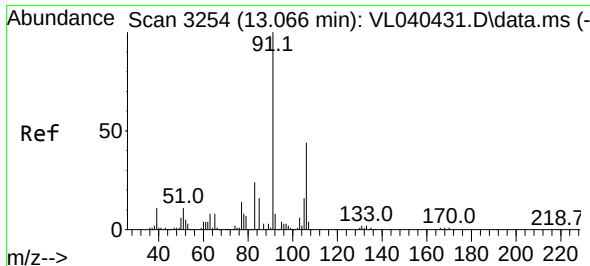
Tgt Ion: 91 Resp: 45839
Ion Ratio Lower Upper
91 100
106 29.6 23.8 35.8



#59
m/p-Xylene
Concen: 0.224 ppbv
RT: 12.388 min Scan# 3043
Delta R.T. -0.010 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

Tgt Ion: 91 Resp: 57614
Ion Ratio Lower Upper
91 100
106 0.0 34.9 52.3#

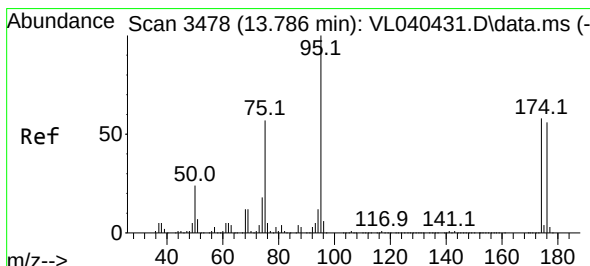
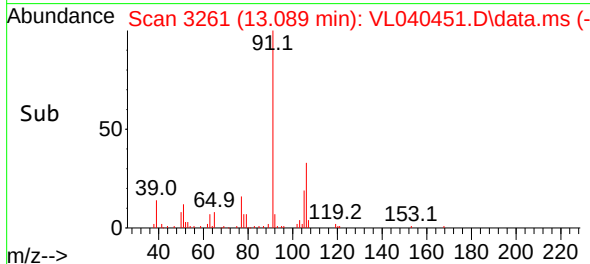
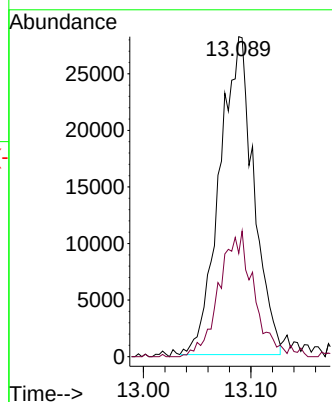
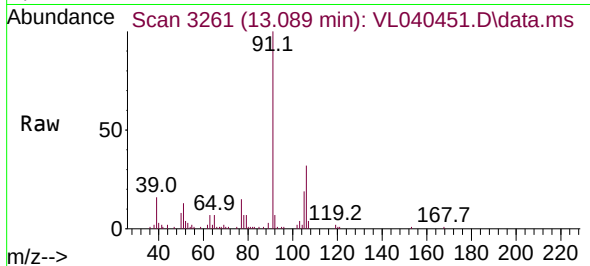




#60
o-Xylene
Concen: 0.254 ppbv
RT: 13.089 min Scan# 31
Delta R.T. 0.006 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

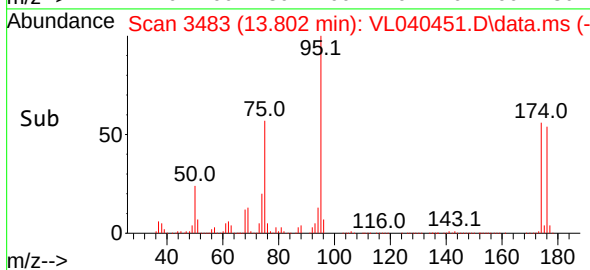
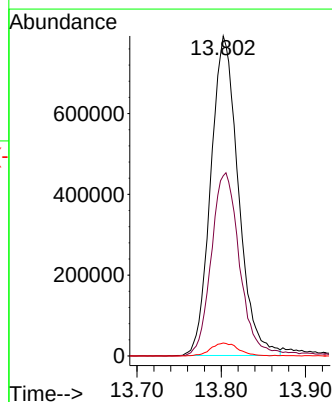
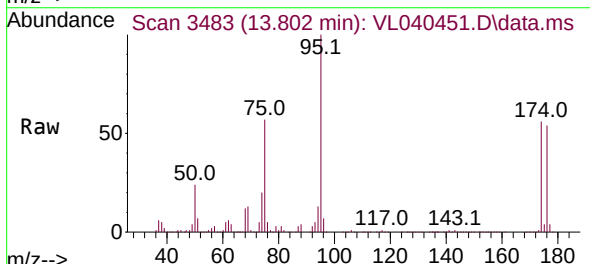
Instrument :
MSVOA_L
ClientSampleId :
SG-4DLDUP

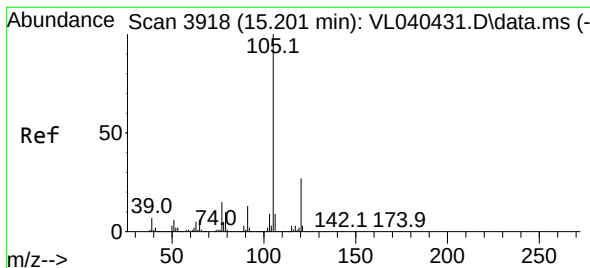
Tgt Ion: 91 Resp: 62150
Ion Ratio Lower Upper
91 100
106 40.2 21.8 65.4



#68
1-Bromo-4-Fluorobenzene
Concen: 10.048 ppbv
RT: 13.802 min Scan# 3483
Delta R.T. 0.003 min
Lab File: VL040451.D
Acq: 16 May 2023 23:56

Tgt Ion: 95 Resp: 1798878
Ion Ratio Lower Upper
95 100
174 60.8 47.0 70.6
175 4.2 3.4 5.0





#72

4-Ethyltoluene

Concen: 0.037 ppbv

RT: 15.217 min Scan# 3918

Delta R.T. -0.003 min

Lab File: VL040451.D

Acq: 16 May 2023 23:56

Instrument :

MSVOA_L

ClientSampleId :

SG-4DLDUP

Tgt Ion:105 Resp: 10188

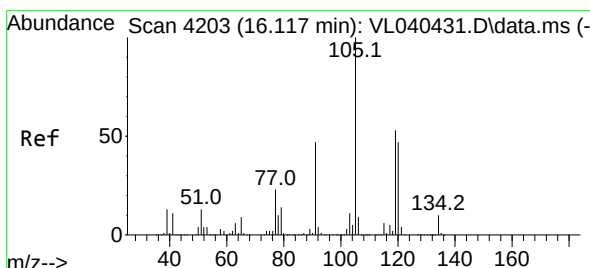
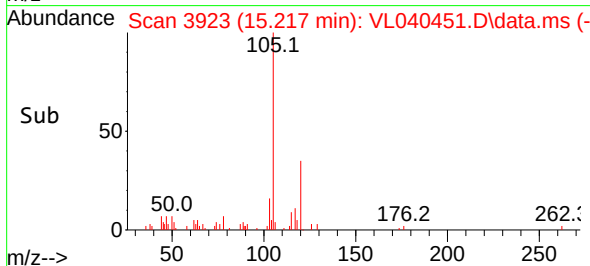
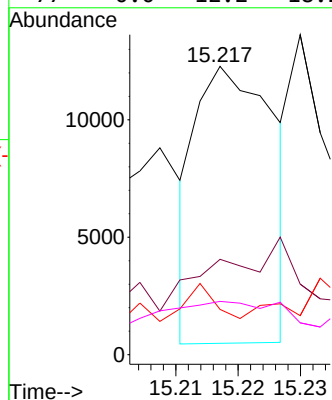
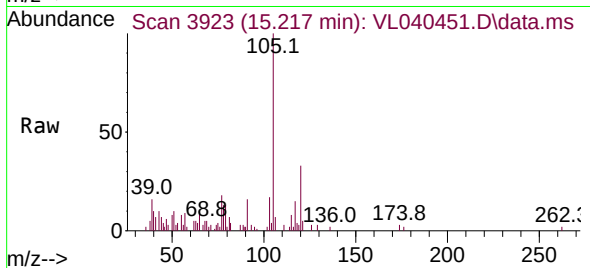
Ion Ratio Lower Upper

105 100

120 0.0 23.8 35.8#

91 0.0 11.0 16.4#

77 0.0 12.2 18.2#



#74

1,2,4-Trimethylbenzene

Concen: 0.258 ppbv

RT: 16.140 min Scan# 4210

Delta R.T. 0.006 min

Lab File: VL040451.D

Acq: 16 May 2023 23:56

Tgt Ion:105 Resp: 75440

Ion Ratio Lower Upper

105 100

120 38.7 38.1 57.1

91 18.0 40.2 60.2#

77 19.3 19.0 28.4

