

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL050824\
 Data File : VL041244.D
 Acq On : 8 May 2024 15:11
 Operator : SY/MD
 Sample : P2334-05
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: May 09 02:51:03 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL042924AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu May 09 02:43:03 2024
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	5.217	49	796967	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.677	114	2078690	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.494	117	1863283	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.802	95	1440337	10.239	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.400%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.751	85	36601	0.340	ppbv #	83
3) Chlorodifluoromethane	2.677	51	1271993	10.509	ppbv #	61
4) Chloromethane	2.835	50	25341	0.534	ppbv	99
9) Propene	2.767	41	2012	0.042	ppbv	98
10) Heptane	7.610	43	4358	0.038	ppbv #	7
11) Trichlorofluoromethane	3.587	101	26462	0.242	ppbv	97
12) 1,1,2-Trichlorotrifluo...	4.092	101	3779	0.047	ppbv #	46
13) Ethanol	3.259	45	1545094	145.506	ppbv	95
15) Acetone	3.491	43	927297	9.859	ppbv	98
16) 1,3-Butadiene	2.986	39	5098	0.107	ppbv #	32
19) Isopropyl Alcohol	3.600	45	613398	9.939	ppbv #	45
20) Methylene Chloride	3.957	84	944013	28.862	ppbv	98
23) Vinyl Acetate	4.639	43	14073	0.136	ppbv #	1
25) Ethyl Acetate	5.237	43	520077	2.770	ppbv #	81
26) Hexane	5.240	57	647807	7.732	ppbv #	44
30) Cyclohexane	6.629	84	2096	0.032	ppbv #	1
31) cis-1,2-Dichloroethene	5.230	61	6733	0.086	ppbv #	27
34) 2-Butanone	4.816	43	73578	0.695	ppbv	94
36) Benzene	6.394	78	30117	0.173	ppbv #	94
37) 1,2-Dichloroethane	5.832	62	9137	0.100	ppbv #	92
39) 1,2-Dichloropropane	6.677	63	519415	7.726	ppbv #	25
41) Tetrahydrofuran	5.237	42	246643	3.220	ppbv #	51
44) 2,2,4-Trimethylpentane	7.352	57	16998	0.057	ppbv #	25
52) Tetrachloroethene	10.645	164	6508	0.106	ppbv	86
53) Toluene	9.249	91	124857	0.617	ppbv	99
59) m/p-Xylene	12.394	91	8671	0.040	ppbv #	31
60) o-Xylene	13.089	91	6126	0.030	ppbv #	31
74) 1,2,4-Trimethylbenzene	16.137	105	12028	0.053	ppbv #	58

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

MSVOA L

ClientSampleId :

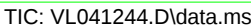
Quant Time: May 09 02:51:03 2024

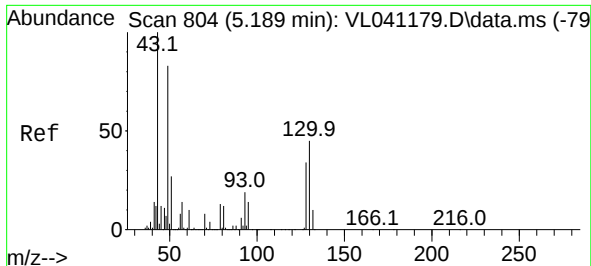
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL042924AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022

QLast Update : Thu May 09 02:43:03 2024

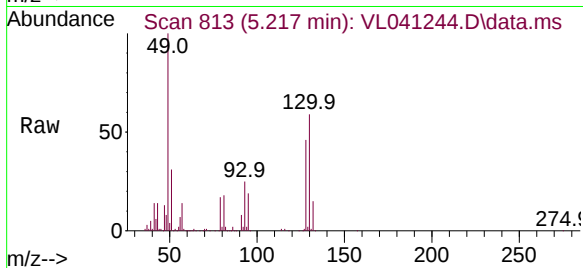
Response via : Initial Calibration



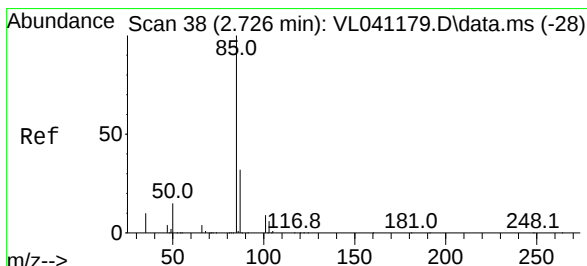
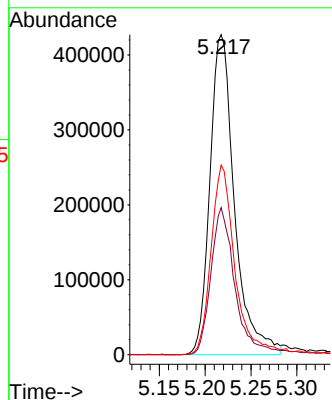
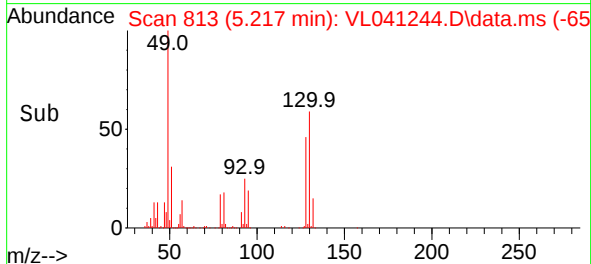


#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.217 min Scan# 81
 Delta R.T. 0.006 min
 Lab File: VL041244.D
 Acq: 8 May 2024 15:11

Instrument :
 MSVOA_L
 ClientSampleId :

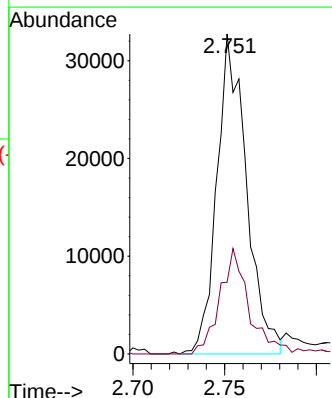
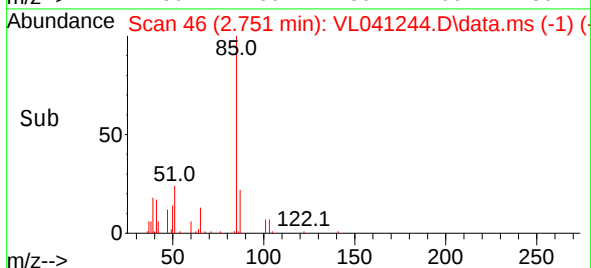
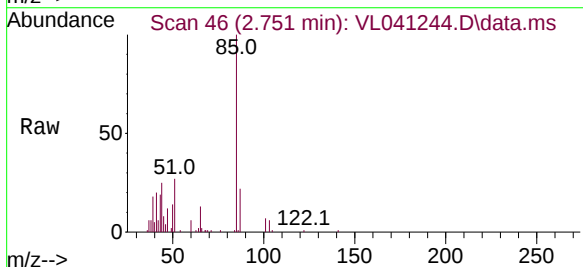


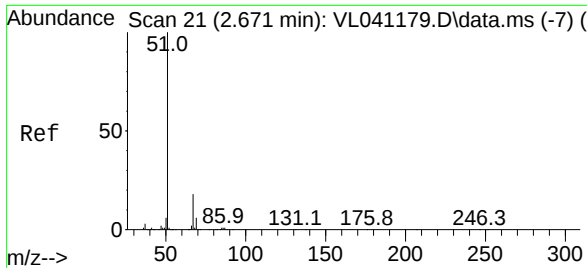
Tgt Ion: 49 Resp: 796967
 Ion Ratio Lower Upper
 49 100
 128 46.3 21.5 64.5
 130 59.8 27.2 81.6



#2
 Dichlorodifluoromethane
 Concen: 0.340 ppbv
 RT: 2.751 min Scan# 46
 Delta R.T. 0.006 min
 Lab File: VL041244.D
 Acq: 8 May 2024 15:11

Tgt Ion: 85 Resp: 36601
 Ion Ratio Lower Upper
 85 100
 87 22.4 25.7 38.5#





#3

Chlorodifluoromethane

Concen: 10.509 ppbv

RT: 2.677 min Scan# 21

Delta R.T. -0.013 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

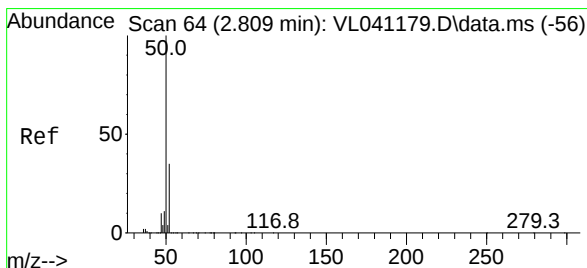
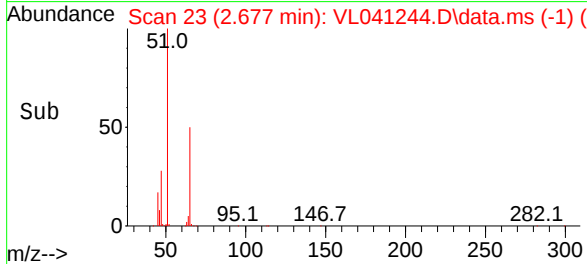
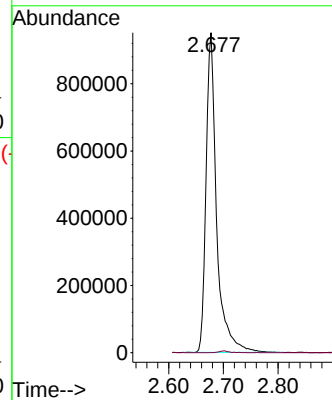
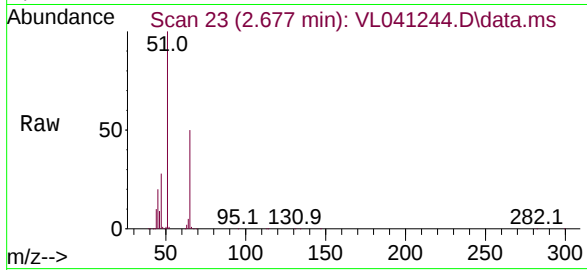
ClientSampleId :

Tgt Ion: 51 Resp: 1271993

Ion Ratio Lower Upper

51 100

67 0.5 14.0 21.0#



#4

Chloromethane

Concen: 0.534 ppbv

RT: 2.835 min Scan# 72

Delta R.T. 0.003 min

Lab File: VL041244.D

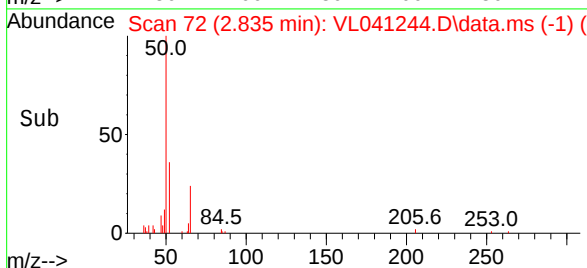
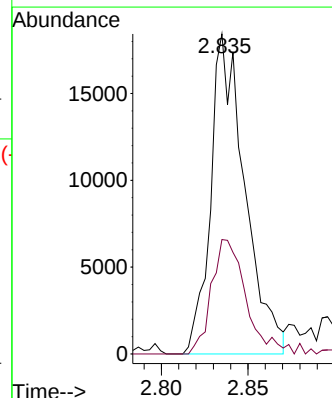
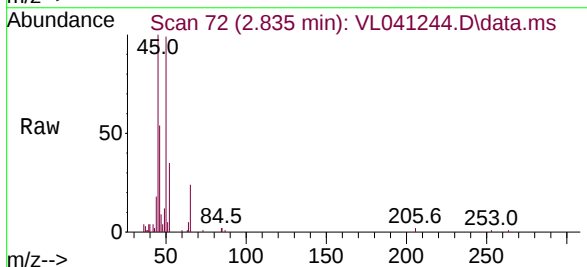
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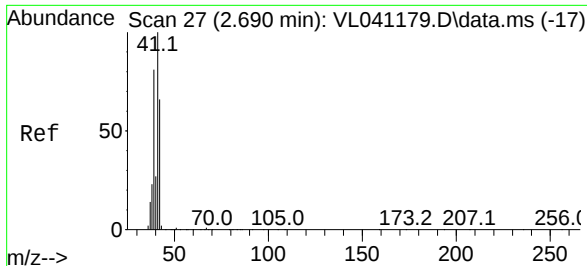
Tgt Ion: 50 Resp: 25341

Ion Ratio Lower Upper

50 100

52 35.7 28.3 42.5





#9

Propene

Concen: 0.042 ppbv

RT: 2.767 min Scan# 51

Delta R.T. 0.058 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

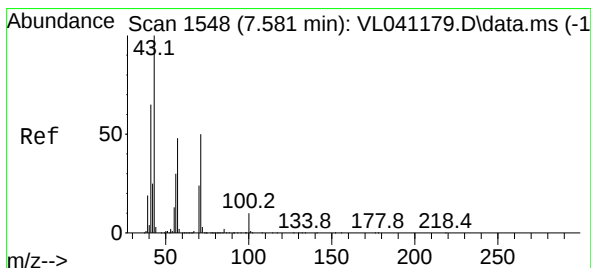
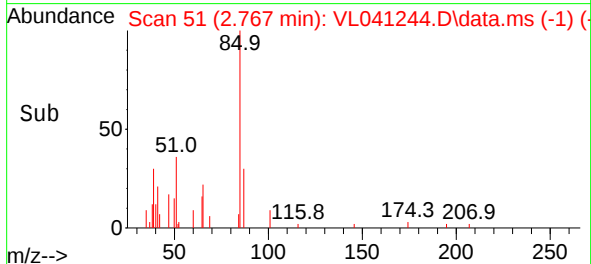
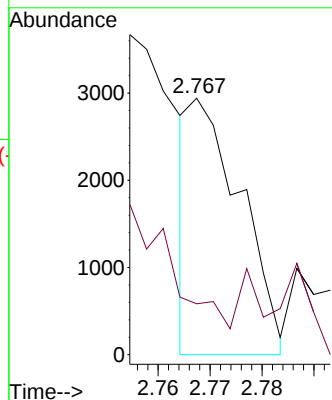
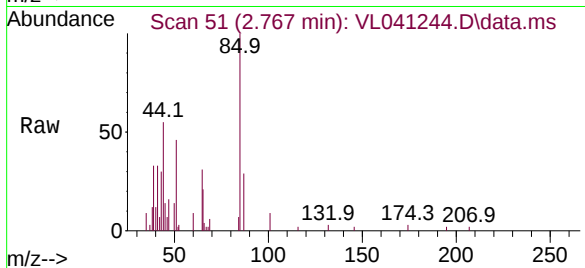
ClientSampleId :

Tgt Ion: 41 Resp: 2012

Ion Ratio Lower Upper

41 100

42 67.6 55.3 82.9



#10

Heptane

Concen: 0.038 ppbv

RT: 7.610 min Scan# 1557

Delta R.T. 0.010 min

Lab File: VL041244.D

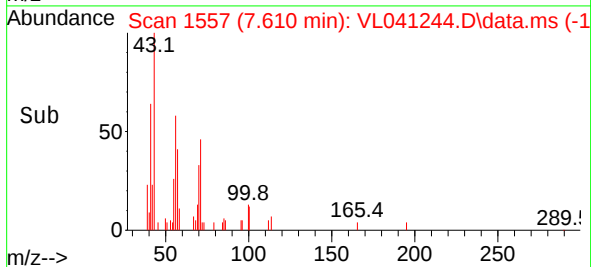
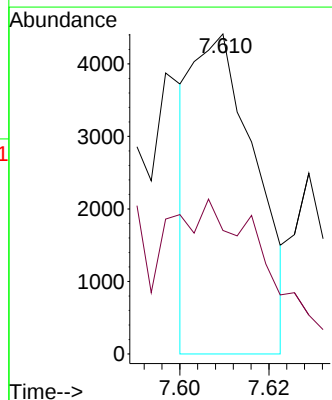
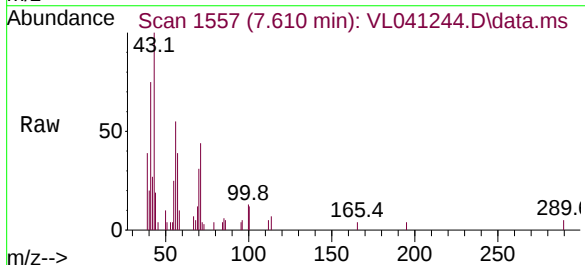
Acq: 8 May 2024 15:11

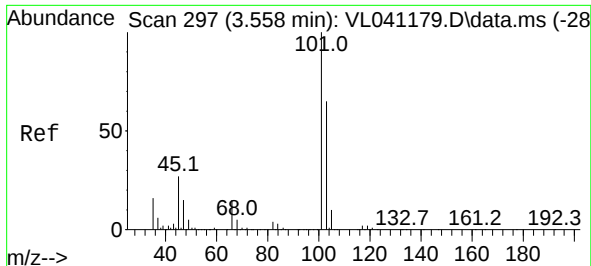
Tgt Ion: 43 Resp: 4358

Ion Ratio Lower Upper

43 100

57 111.8 38.7 58.1#





#11

Trichlorofluoromethane

Concen: 0.242 ppbv

RT: 3.587 min Scan# 306

Delta R.T. 0.006 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

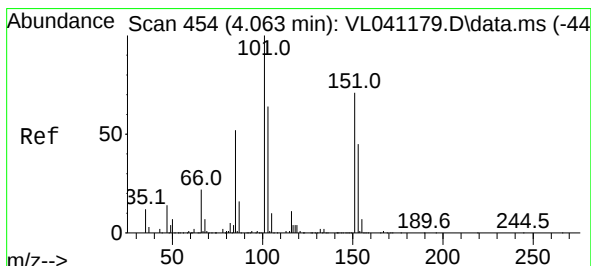
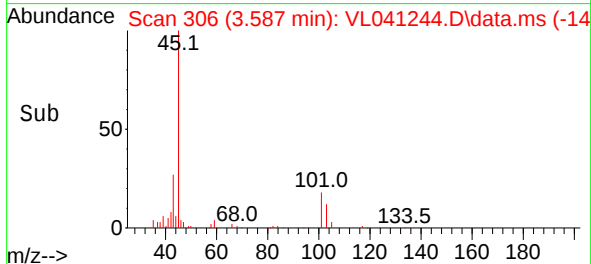
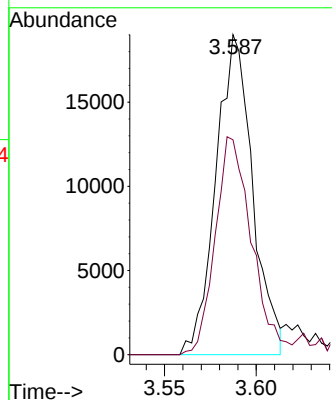
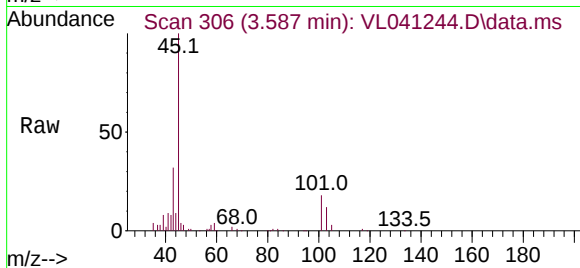
ClientSampleId :

Tgt Ion:101 Resp: 26462

Ion Ratio Lower Upper

101 100

103 67.1 51.6 77.4



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.047 ppbv

RT: 4.092 min Scan# 463

Delta R.T. 0.010 min

Lab File: VL041244.D

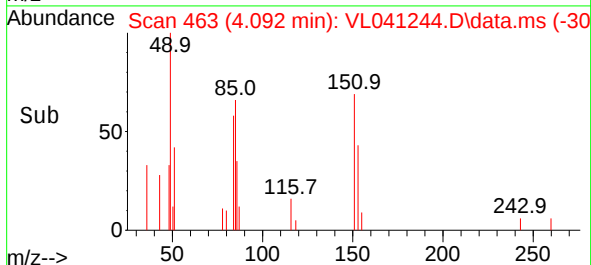
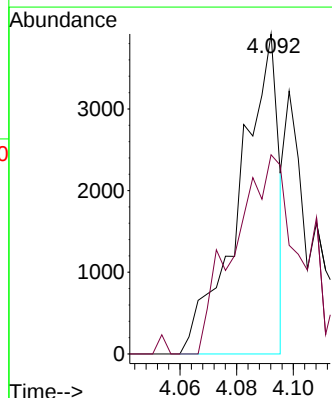
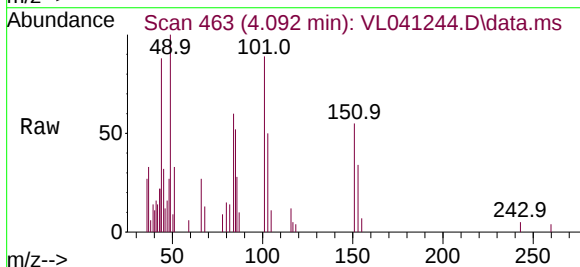
Acq: 8 May 2024 15:11

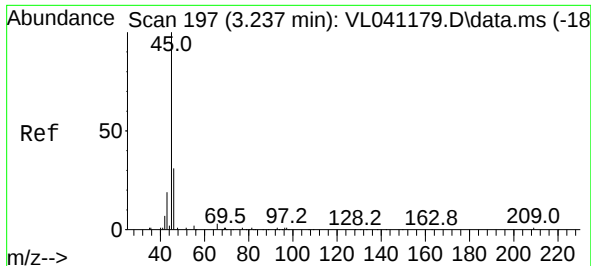
Tgt Ion:101 Resp: 3779

Ion Ratio Lower Upper

101 100

151 115.7 56.8 85.2#





#13

Ethanol

Concen: 145.506 ppbv

RT: 3.259 min Scan# 204

Delta R.T. 0.003 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

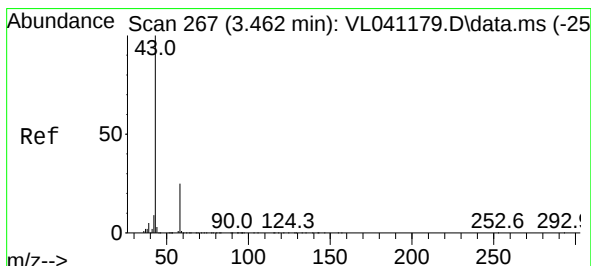
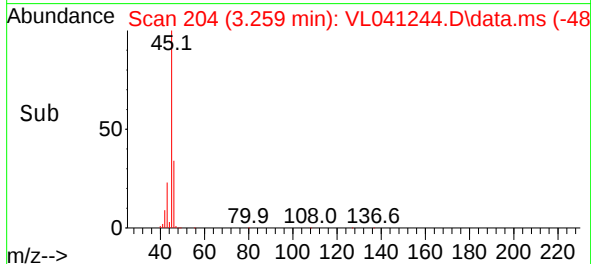
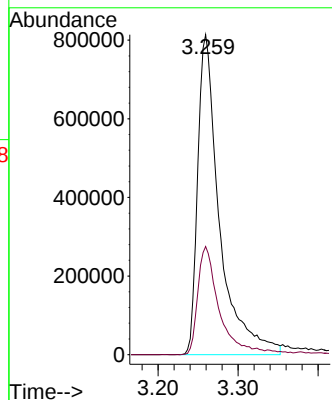
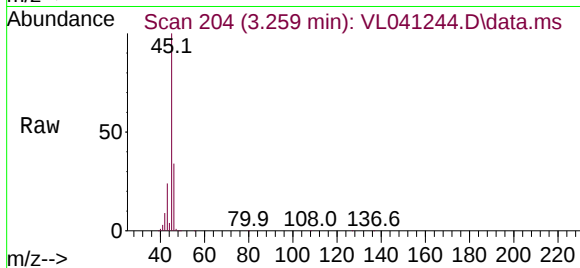
ClientSampleId :

Tgt Ion: 45 Resp: 1545094

Ion Ratio Lower Upper

45 100

46 34.0 14.8 59.0



#15

Acetone

Concen: 9.859 ppbv

RT: 3.491 min Scan# 276

Delta R.T. 0.006 min

Lab File: VL041244.D

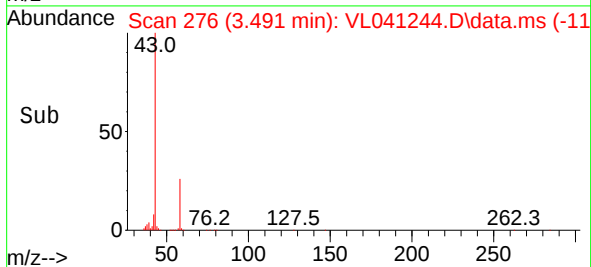
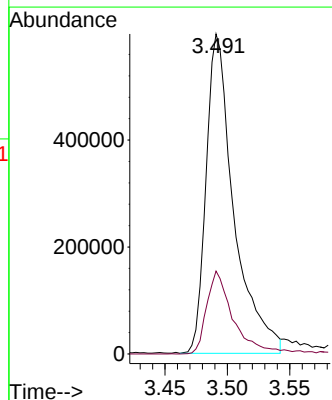
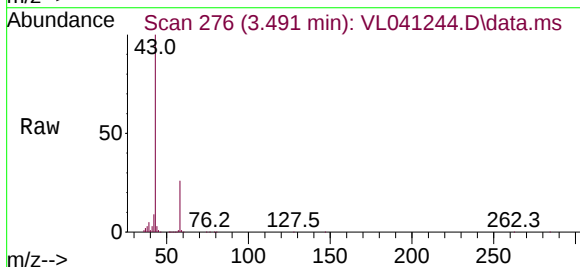
Acq: 8 May 2024 15:11

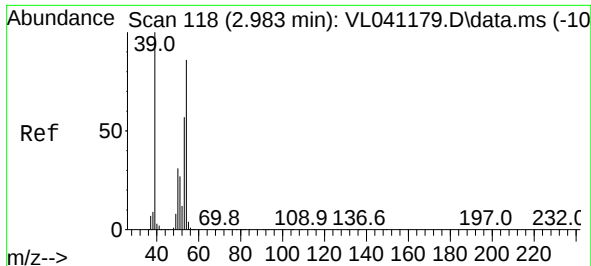
Tgt Ion: 43 Resp: 927297

Ion Ratio Lower Upper

43 100

58 25.7 21.4 32.0





#16

1,3-Butadiene

Concen: 0.107 ppbv

RT: 2.986 min Scan# 118

Delta R.T. -0.016 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

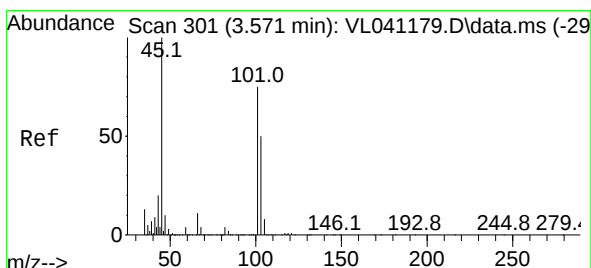
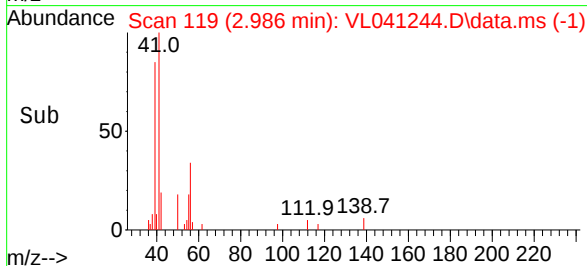
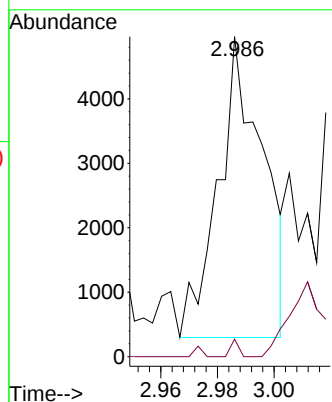
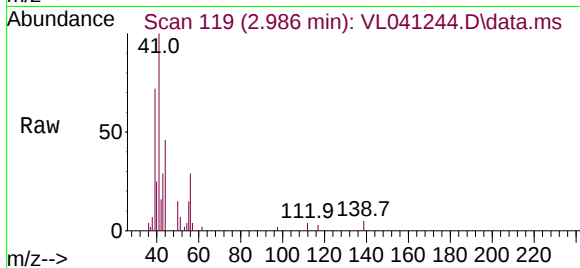
ClientSampleId :

Tgt Ion: 39 Resp: 5098

Ion Ratio Lower Upper

39 100

54 18.9 62.2 93.4#



#19

Isopropyl Alcohol

Concen: 9.939 ppbv

RT: 3.600 min Scan# 310

Delta R.T. 0.010 min

Lab File: VL041244.D

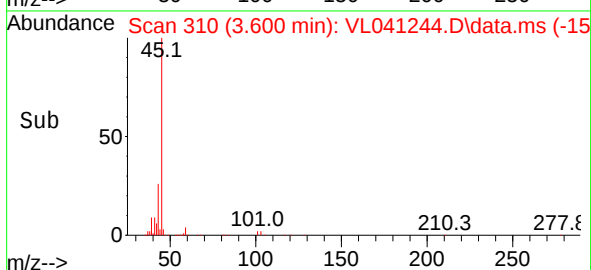
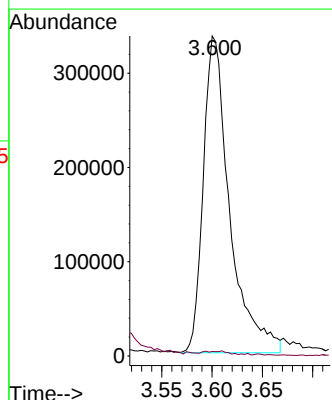
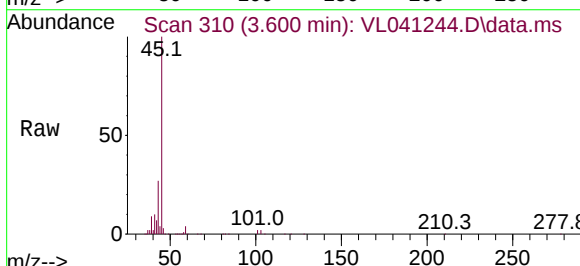
Acq: 8 May 2024 15:11

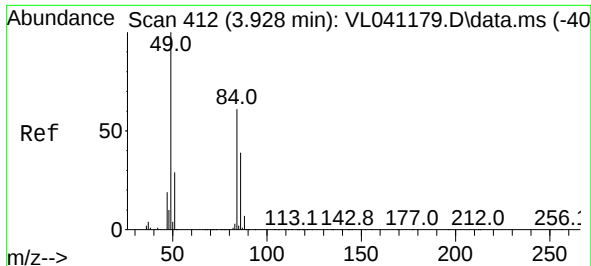
Tgt Ion: 45 Resp: 613398

Ion Ratio Lower Upper

45 100

58 2.0 26.8 40.2#

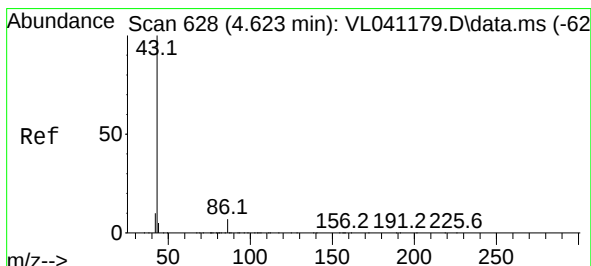
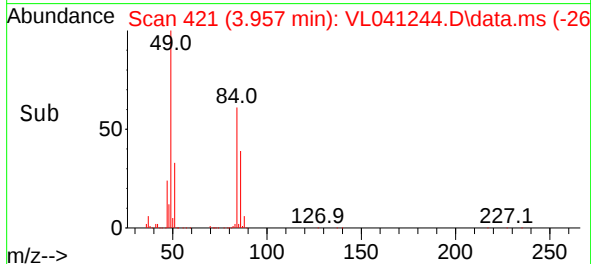
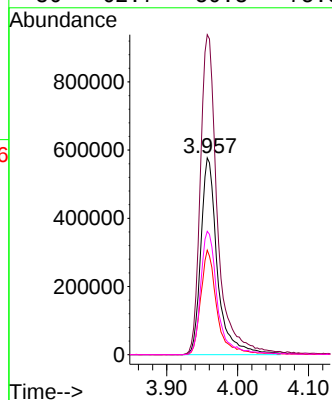
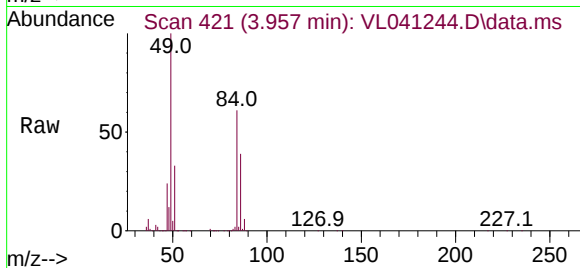




#20
Methylene Chloride
Concen: 28.862 ppbv
RT: 3.957 min Scan# 41
Delta R.T. 0.006 min
Lab File: VL041244.D
Acq: 8 May 2024 15:11

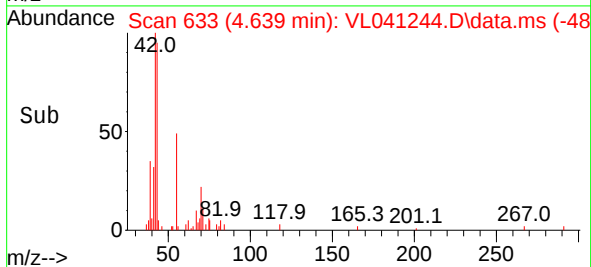
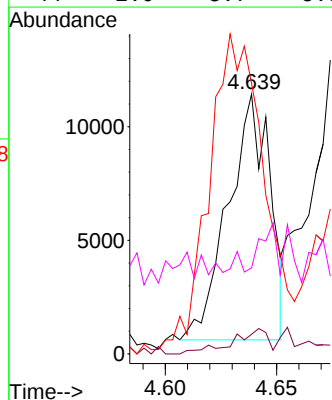
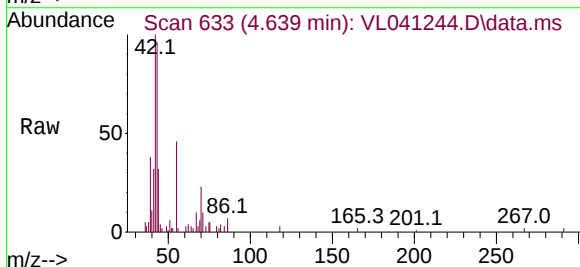
Instrument :
MSVOA_L
ClientSampleId :

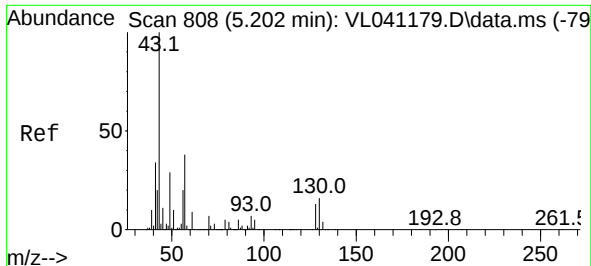
Tgt Ion: 84 Resp: 944013
Ion Ratio Lower Upper
84 100
49 162.6 130.4 195.6
51 53.1 38.0 57.0
86 62.7 50.3 75.5



#23
Vinyl Acetate
Concen: 0.136 ppbv
RT: 4.639 min Scan# 633
Delta R.T. -0.007 min
Lab File: VL041244.D
Acq: 8 May 2024 15:11

Tgt Ion: 43 Resp: 14073
Ion Ratio Lower Upper
43 100
86 8.0 4.9 7.3#
42 94.7 8.0 12.0#
44 2.9 3.7 5.5#





#25

Ethyl Acetate

Concen: 2.770 ppbv

RT: 5.237 min Scan# 819

Delta R.T. 0.016 min

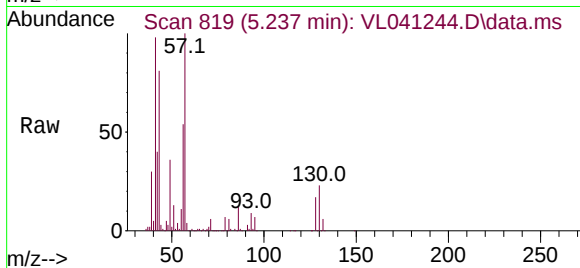
Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

ClientSampleId :



Tgt Ion: 43 Resp: 520077

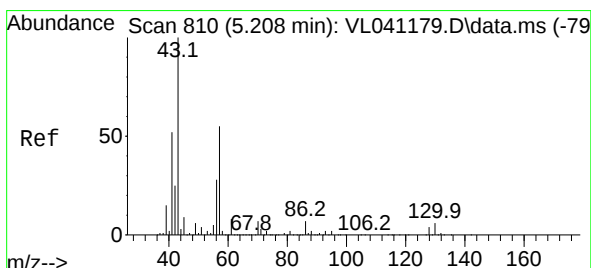
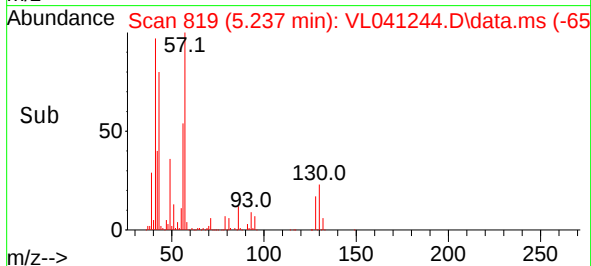
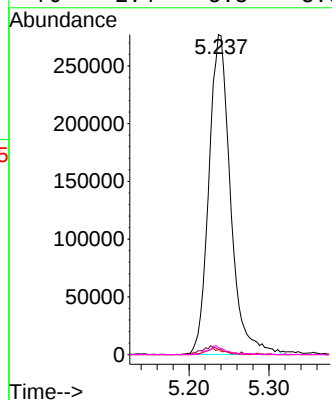
Ion Ratio Lower Upper

43 100

45 3.0 8.2 12.2#

61 1.6 7.7 11.5#

70 2.4 5.8 8.6#



#26

Hexane

Concen: 7.732 ppbv

RT: 5.240 min Scan# 820

Delta R.T. 0.010 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Tgt Ion: 57 Resp: 647807

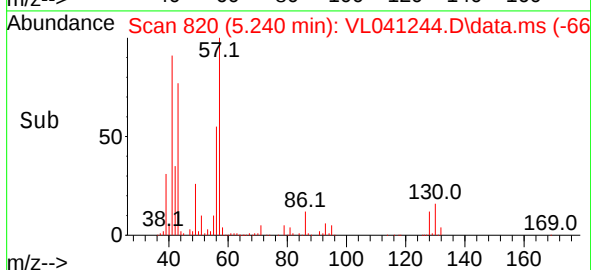
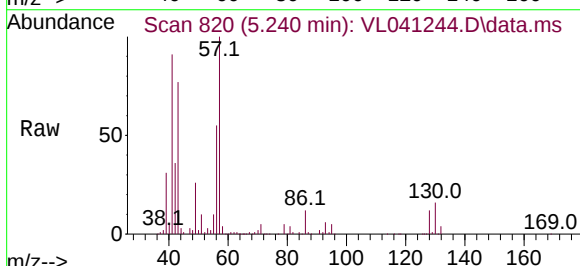
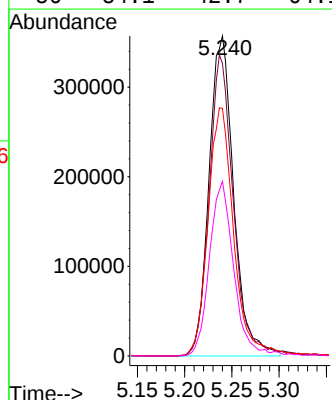
Ion Ratio Lower Upper

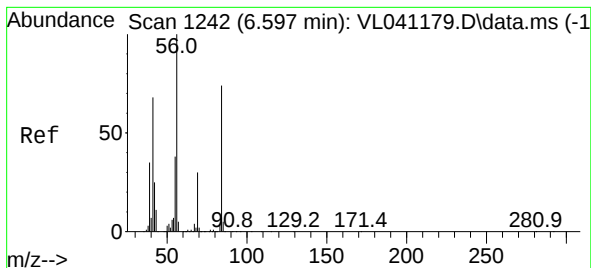
57 100

41 93.2 75.8 113.8

43 81.4 187.0 280.4#

56 54.1 42.7 64.1





#30

Cyclohexane

Concen: 0.032 ppbv

RT: 6.629 min Scan# 11

Delta R.T. 0.006 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

ClientSampleId :

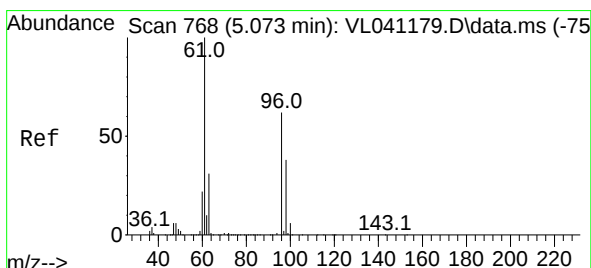
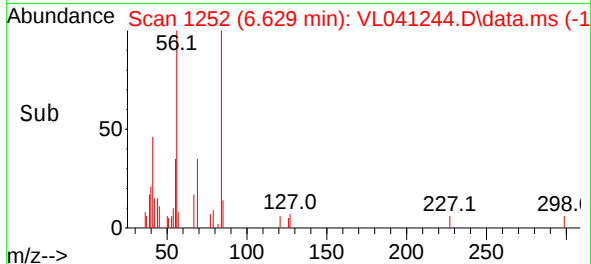
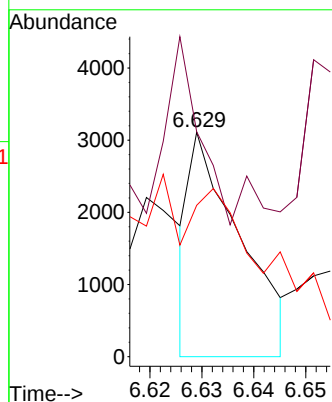
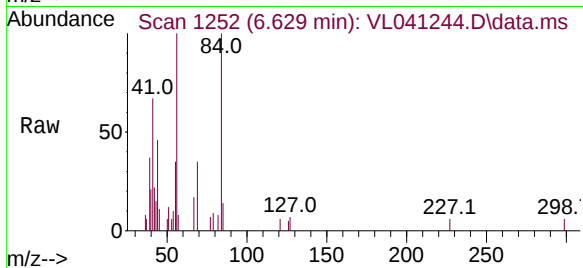
Tgt Ion: 84 Resp: 2096

Ion Ratio Lower Upper

84 100

56 0.0 116.8 175.2#

41 0.0 73.8 110.8#



#31

cis-1,2-Dichloroethene

Concen: 0.086 ppbv

RT: 5.230 min Scan# 817

Delta R.T. 0.135 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

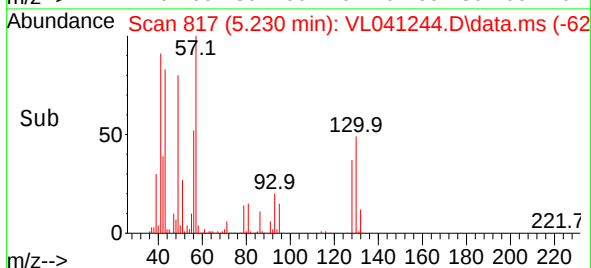
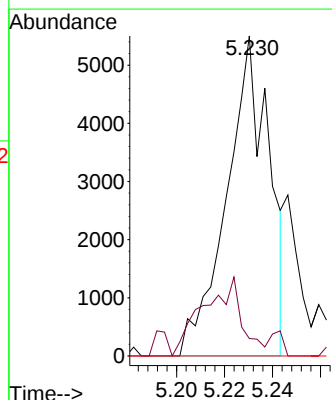
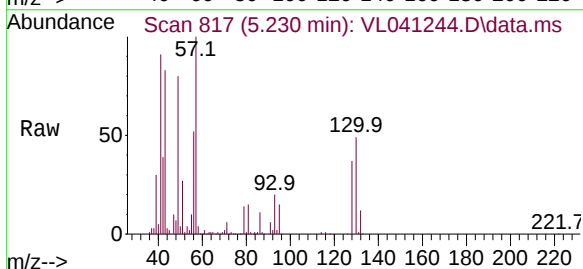
Tgt Ion: 61 Resp: 6733

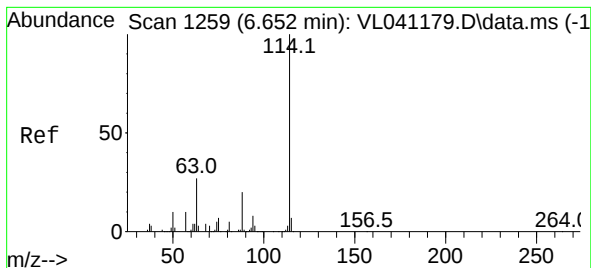
Ion Ratio Lower Upper

61 100

96 1.0 49.8 74.6#

98 0.0 30.0 45.0#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.677 min Scan# 114

Delta R.T. 0.003 min

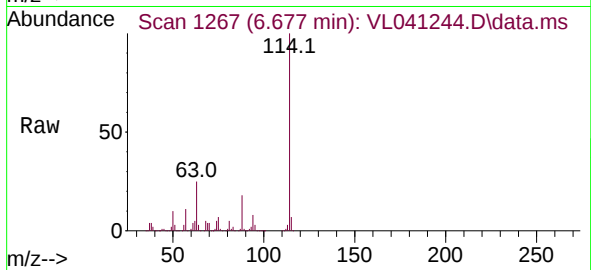
Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

ClientSampleId :



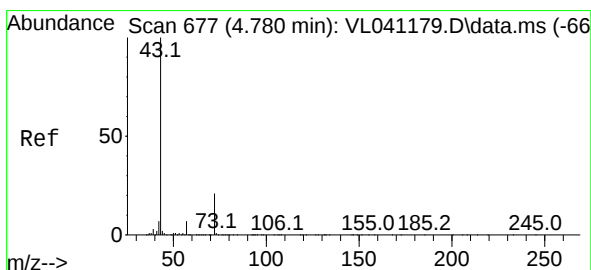
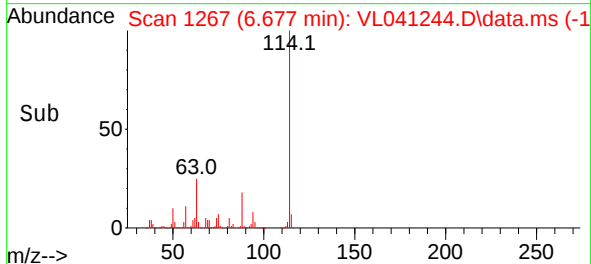
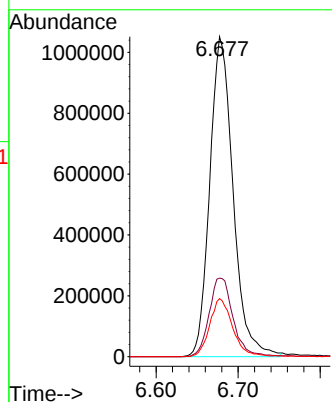
Tgt Ion:114 Resp: 2078690

Ion Ratio Lower Upper

114 100

63 25.5 21.8 32.6

88 18.1 15.2 22.8



#34

2-Butanone

Concen: 0.695 ppbv

RT: 4.816 min Scan# 688

Delta R.T. 0.013 min

Lab File: VL041244.D

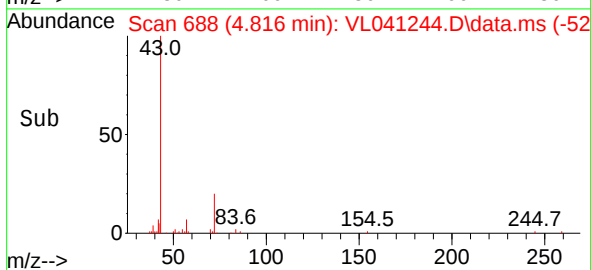
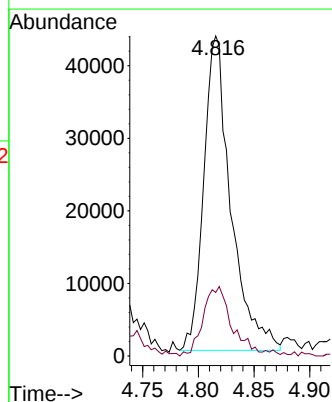
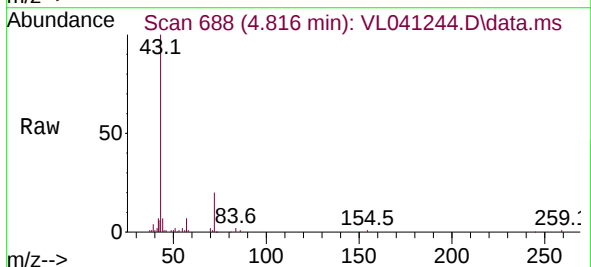
Acq: 8 May 2024 15:11

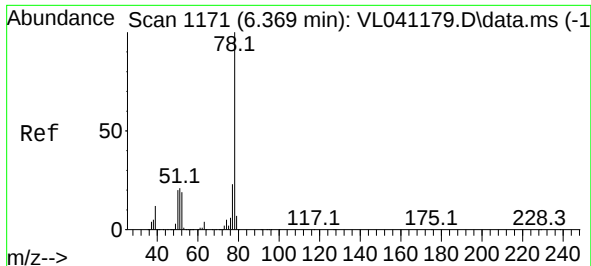
Tgt Ion: 43 Resp: 73578

Ion Ratio Lower Upper

43 100

72 24.7 17.3 25.9

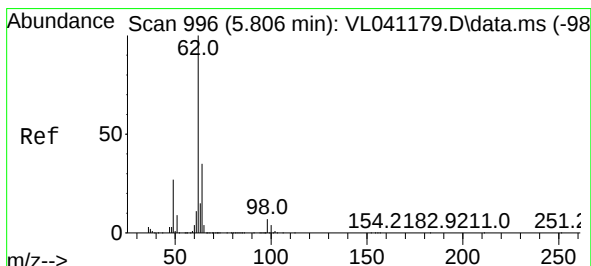
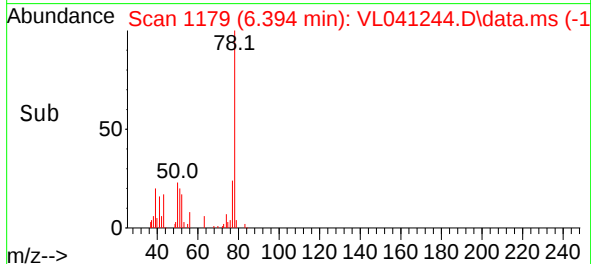
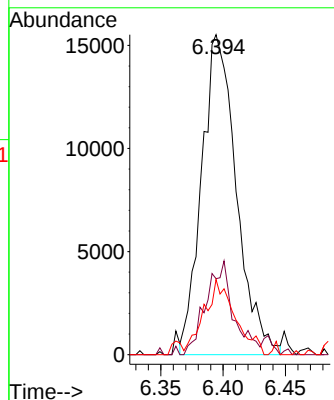
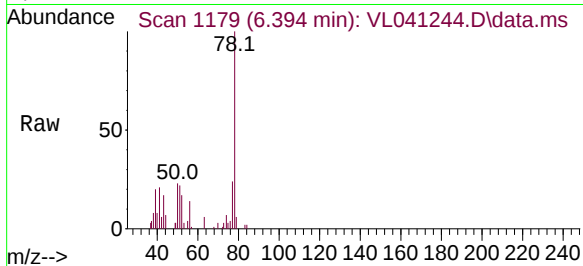




#36
Benzene
Concen: 0.173 ppbv
RT: 6.394 min Scan# 1171
Delta R.T. 0.003 min
Lab File: VL041244.D
Acq: 8 May 2024 15:11

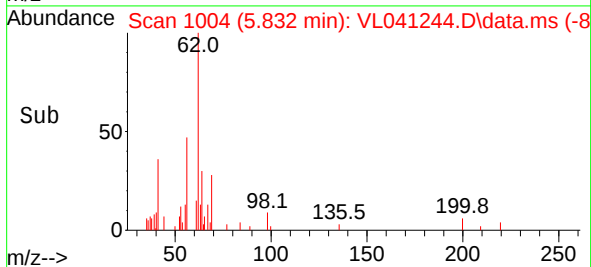
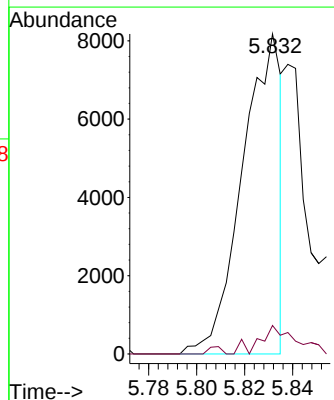
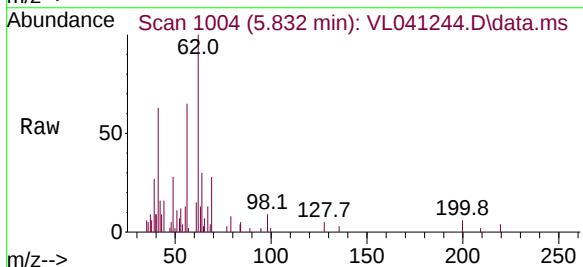
Instrument :
MSVOA_L
ClientSampleId :

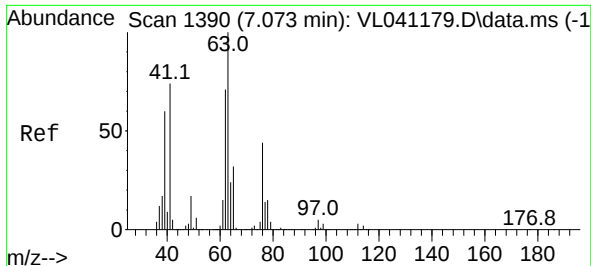
Tgt Ion: 78 Resp: 30117
Ion Ratio Lower Upper
78 100
77 24.4 18.3 27.5
50 24.1 15.9 23.9#



#37
1,2-Dichloroethane
Concen: 0.100 ppbv
RT: 5.832 min Scan# 1004
Delta R.T. 0.003 min
Lab File: VL041244.D
Acq: 8 May 2024 15:11

Tgt Ion: 62 Resp: 9137
Ion Ratio Lower Upper
62 100
98 8.9 5.0 7.4#





#39

1,2-Dichloropropane

Concen: 7.726 ppbv

RT: 6.677 min Scan# 11

Delta R.T. -0.415 min

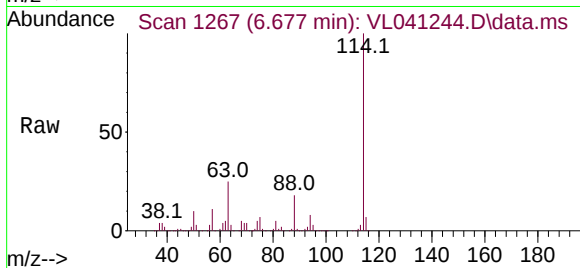
Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

ClientSampleId :



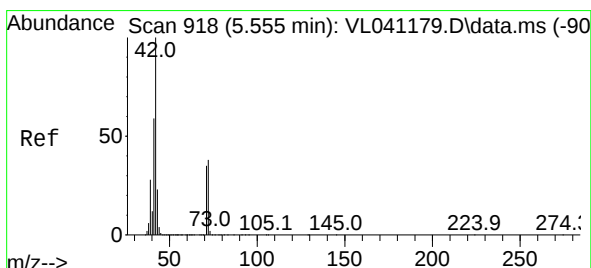
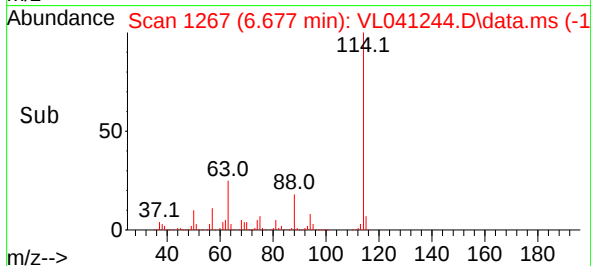
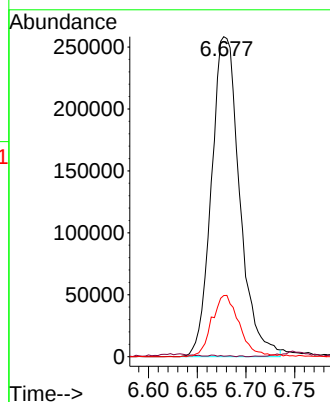
Tgt Ion: 63 Resp: 519415

Ion Ratio Lower Upper

63 100

41 0.0 59.4 89.0#

62 19.1 56.8 85.2#



#41

Tetrahydrofuran

Concen: 3.220 ppbv

RT: 5.237 min Scan# 819

Delta R.T. -0.341 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

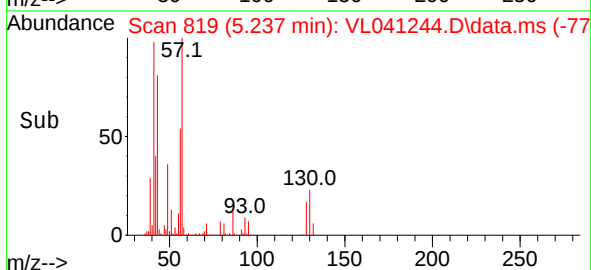
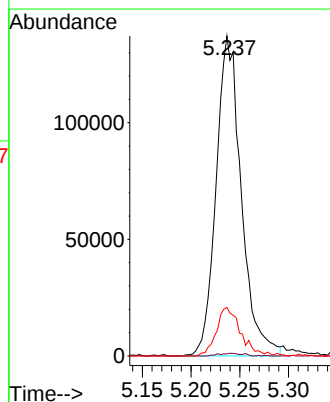
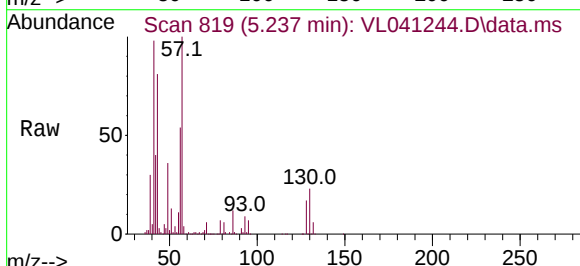
Tgt Ion: 42 Resp: 246643

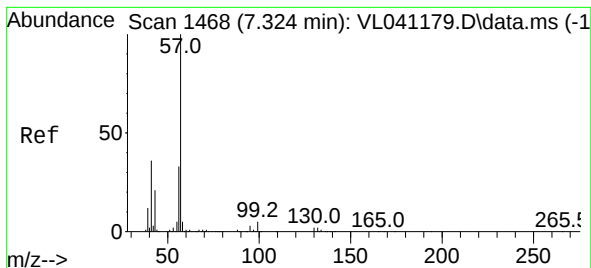
Ion Ratio Lower Upper

42 100

72 0.8 29.4 44.0#

71 14.7 29.1 43.7#





#44

2,2,4-Trimethylpentane

Concen: 0.057 ppbv

RT: 7.352 min Scan# 14

Delta R.T. 0.006 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

ClientSampleId :

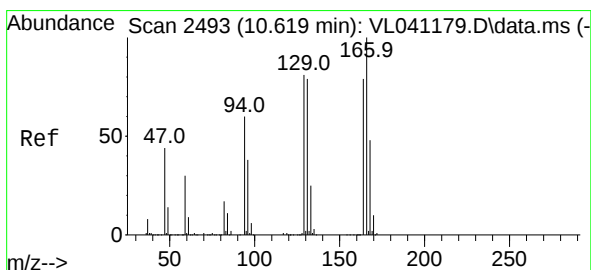
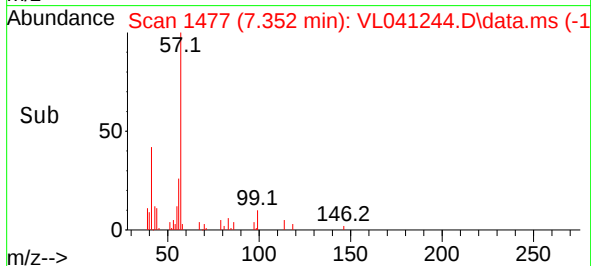
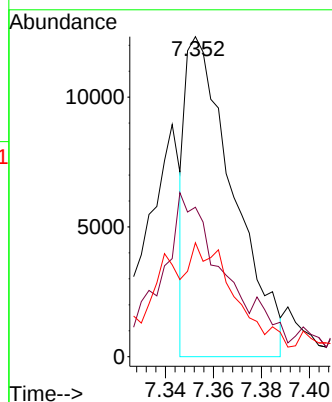
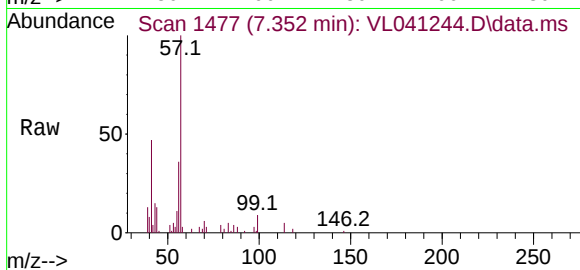
Tgt Ion: 57 Resp: 16998

Ion Ratio Lower Upper

57 100

41 0.0 29.5 44.3#

56 81.7 25.3 37.9#



#52

Tetrachloroethene

Concen: 0.106 ppbv

RT: 10.645 min Scan# 2501

Delta R.T. 0.010 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Tgt Ion:164 Resp: 6508

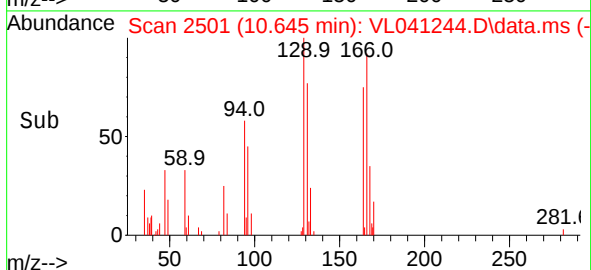
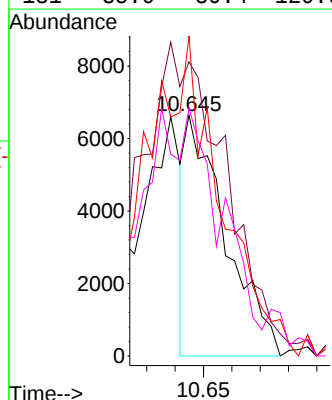
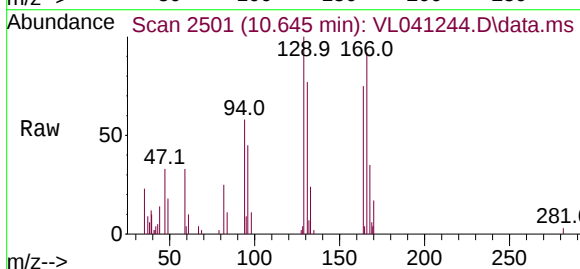
Ion Ratio Lower Upper

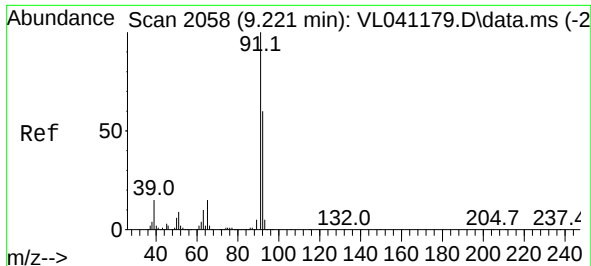
164 100

166 113.0 101.1 151.7

129 117.8 81.7 122.5

131 85.0 80.4 120.6





#53

Toluene

Concen: 0.617 ppbv

RT: 9.249 min Scan# 2058

Delta R.T. 0.010 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

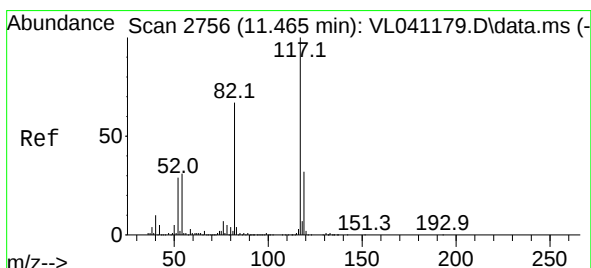
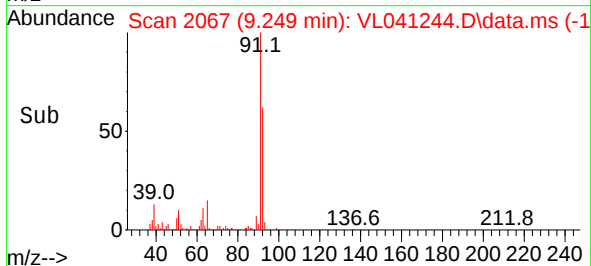
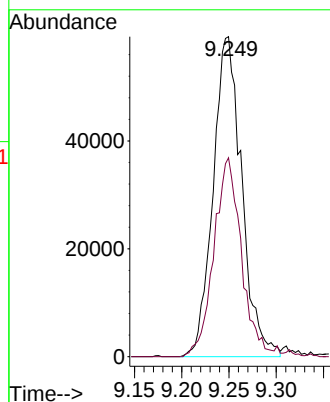
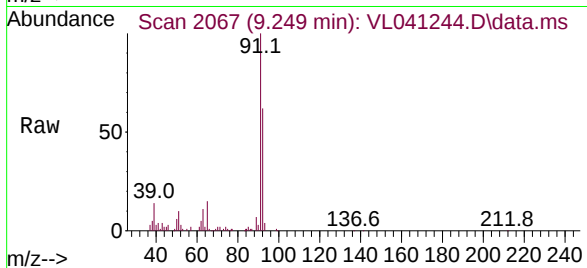
ClientSampleId :

Tgt Ion: 91 Resp: 124857

Ion Ratio Lower Upper

91 100

92 60.9 48.2 72.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.494 min Scan# 2765

Delta R.T. 0.006 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

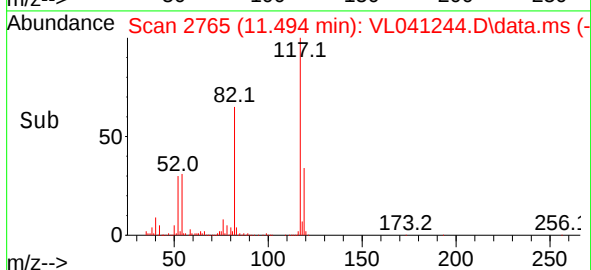
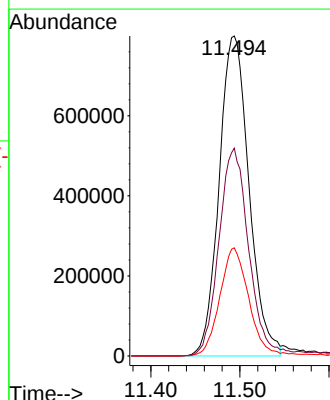
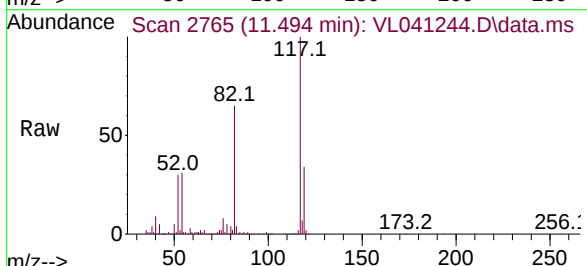
Tgt Ion: 117 Resp: 1863283

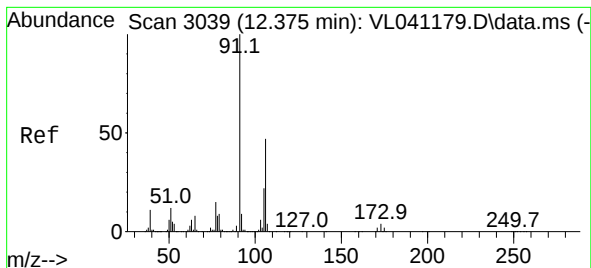
Ion Ratio Lower Upper

117 100

82 66.9 53.6 80.4

119 33.4 27.2 40.8





#59

m/p-Xylene

Concen: 0.040 ppbv

RT: 12.394 min Scan# 3039

Delta R.T. 0.003 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

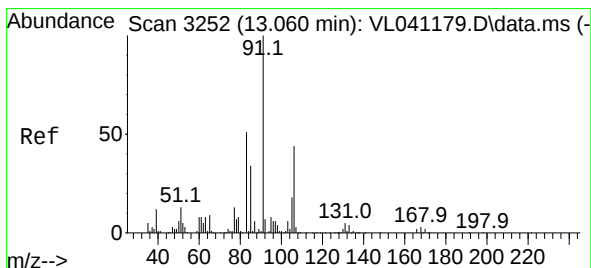
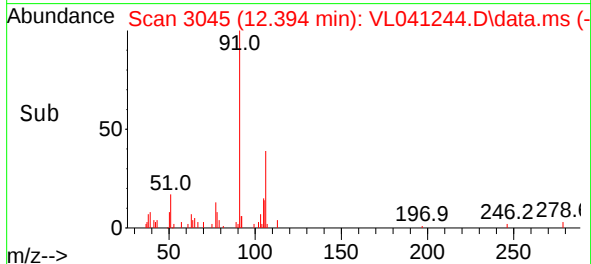
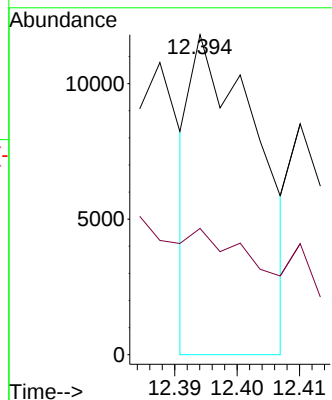
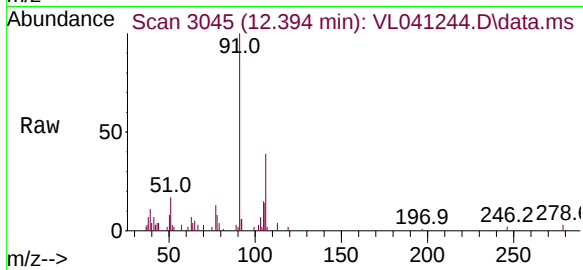
ClientSampleId :

Tgt Ion: 91 Resp: 8671

Ion Ratio Lower Upper

91 100

106 0.0 35.7 53.5#



#60

o-Xylene

Concen: 0.030 ppbv

RT: 13.089 min Scan# 3261

Delta R.T. 0.010 min

Lab File: VL041244.D

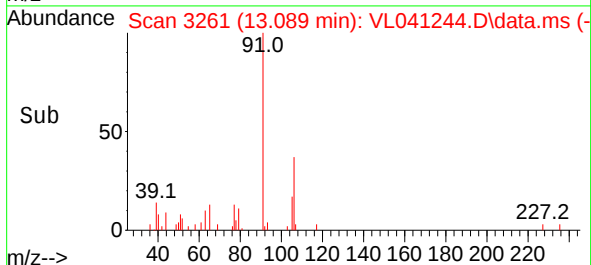
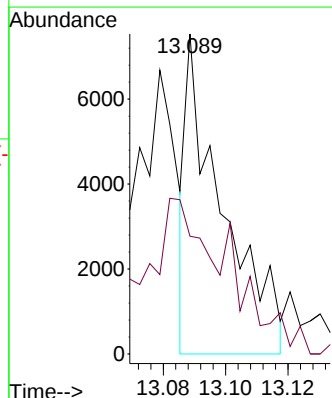
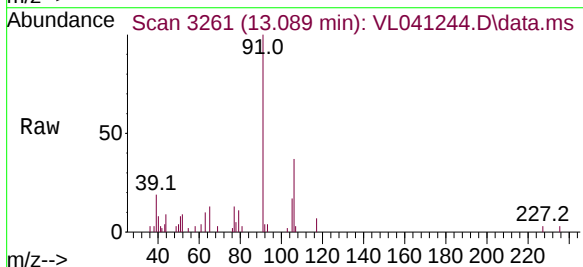
Acq: 8 May 2024 15:11

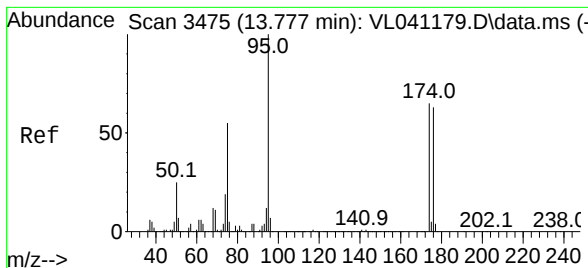
Tgt Ion: 91 Resp: 6126

Ion Ratio Lower Upper

91 100

106 0.0 22.4 67.3#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.239 ppbv

RT: 13.802 min Scan# 3475

Delta R.T. 0.006 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Instrument :

MSVOA_L

ClientSampleId :

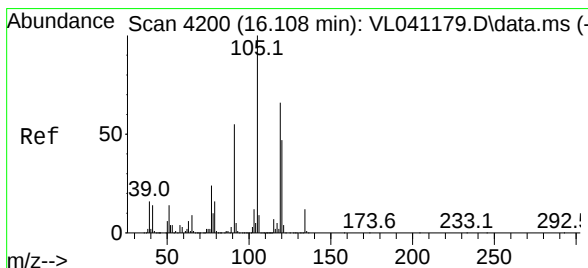
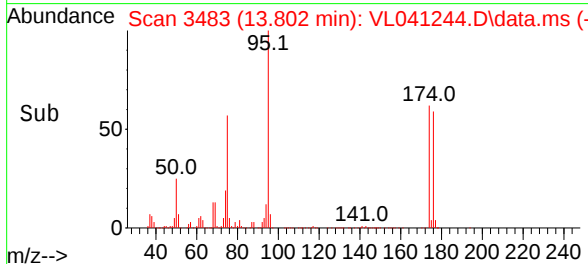
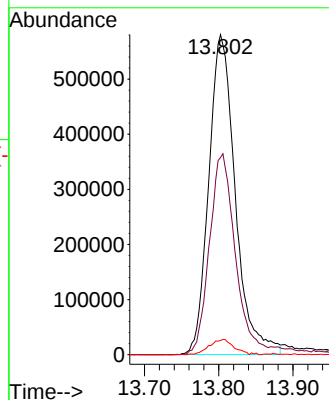
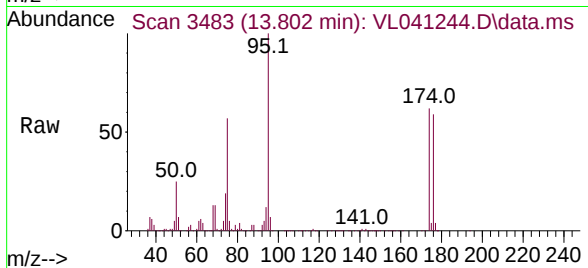
Tgt Ion: 95 Resp: 1440337

Ion Ratio Lower Upper

95 100

174 64.8 53.6 80.4

175 4.5 4.2 6.4



#74

1,2,4-Trimethylbenzene

Concen: 0.053 ppbv

RT: 16.137 min Scan# 4209

Delta R.T. 0.010 min

Lab File: VL041244.D

Acq: 8 May 2024 15:11

Tgt Ion:105 Resp: 12028

Ion Ratio Lower Upper

105 100

120 57.8 37.8 56.6#

91 6.4 44.3 66.5#

77 6.5 19.0 28.4#

