

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL062922\
 Data File : VL039411.D
 Acq On : 30 Jun 2022 1:07
 Operator : SY/AP
 Sample : N3530-03
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Quant Time: Jun 30 05:44:40 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL062922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Jun 30 05:40:11 2022
 QLast Update : Thu Jun 30 05:40:11 2022
 Response via : Initial Calibration

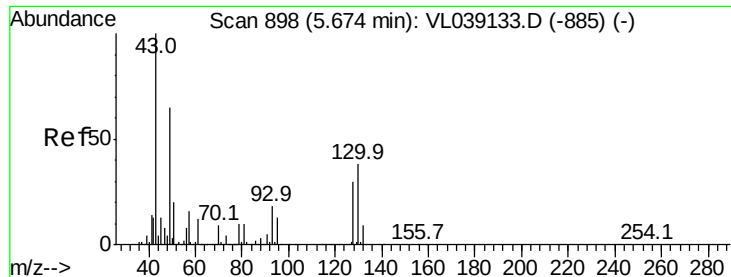
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1076744	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	2989754	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	2602693	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	1994658	10.33	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.05	85	56460	0.36	ppbv	98
3) Chlorodifluoromethane	2.99	51	80154	0.59	ppbv #	83
4) Chloromethane	3.14	50	34345	0.46	ppbv	95
9) Propene	3.20	41	67417	1.09	ppbv	86
10) Heptane	8.11	43	7956	0.06	ppbv #	60
11) Trichlorofluoromethane	3.95	101	41928	0.24	ppbv	85
13) Ethanol	3.59	45	105634	29.51	ppbv	97
15) Acetone	3.84	43	611039	4.80	ppbv	99
16) 1,3-Butadiene	3.32	39	2081	0.03	ppbv #	1
19) Isopropyl Alcohol	3.96	45	72489	1.07	ppbv #	90
20) Methylene Chloride	4.34	84	82601	1.63	ppbv #	80
23) Vinyl Acetate	5.06	43	4409	0.05	ppbv #	53
25) Ethyl Acetate	5.67	43	108208	0.41	ppbv #	96
26) Hexane	5.67	57	34775	0.33	ppbv #	32
31) cis-1,2-Dichloroethene	5.66	61	5595	0.05	ppbv #	37
34) 2-Butanone	5.24	43	43135	0.29	ppbv #	82
35) Carbon Tetrachloride	7.00	117	8465	0.05	ppbv #	45
36) Benzene	6.88	78	44691	0.19	ppbv #	91
39) 1,2-Dichloropropane	7.16	63	747155	8.64	ppbv #	26
44) 2,2,4-Trimethylpentane	7.85	57	45188	0.12	ppbv #	63
53) Toluene	9.79	91	210059	0.79	ppbv	97
58) Ethyl Benzene	12.69	91	10531	0.03	ppbv	91
59) m/p-Xylene	12.98	91	27382	0.09	ppbv #	32
60) o-Xylene	13.67	91	17364	0.06	ppbv #	31
76) 1,4-Dichlorobenzene	17.11	146	4114	0.02	ppbv #	1

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



#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: OA1

Acq: 30 Jun 2022 1:07

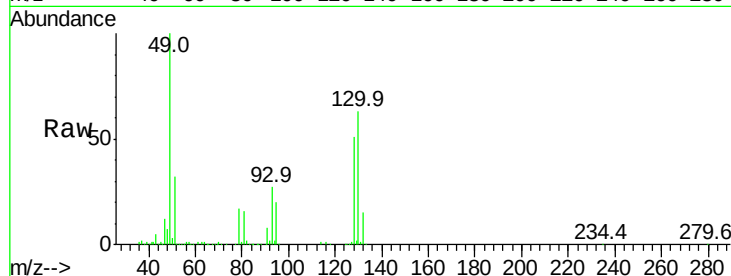
Tgt Ion: 49 Resp: 1076744

Ion Ratio Lower Upper

49 100

128 54.0 26.7 80.0

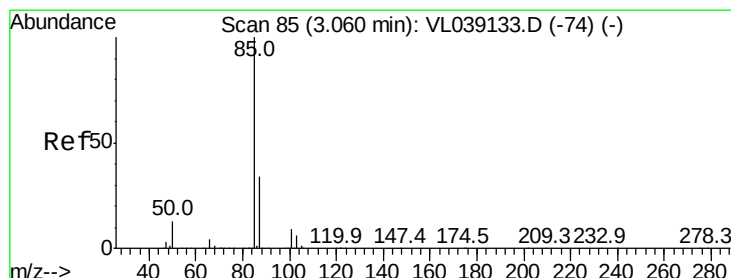
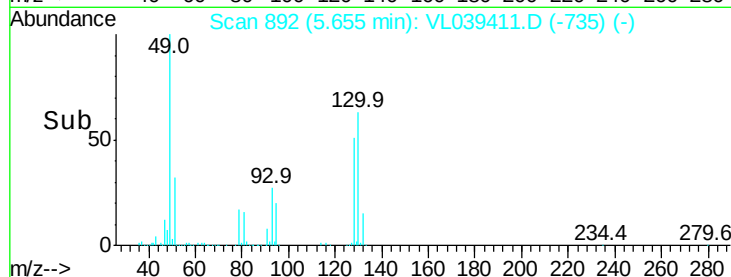
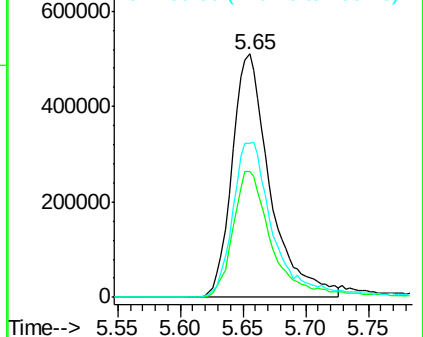
130 69.4 34.3 102.8



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.36 ppbv

RT: 3.05 min Scan# 81

Delta R.T. 0.01 min

Lab File: VL039411.D

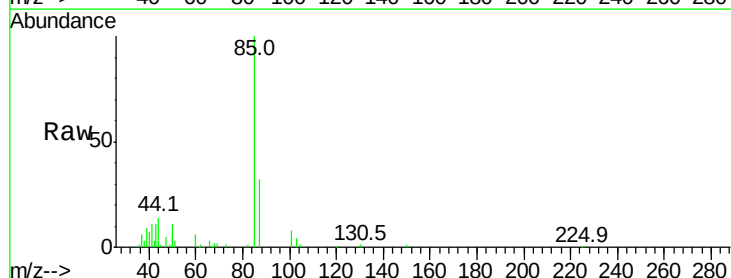
Acq: 30 Jun 2022 1:07

Tgt Ion: 85 Resp: 56460

Ion Ratio Lower Upper

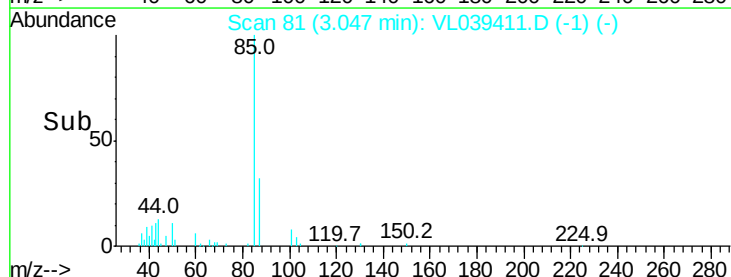
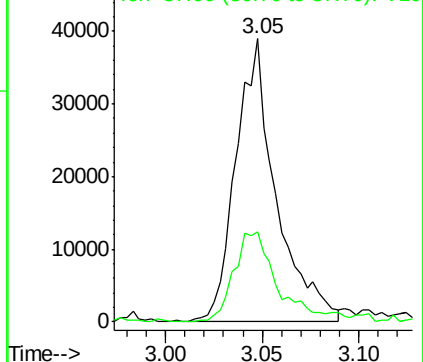
85 100

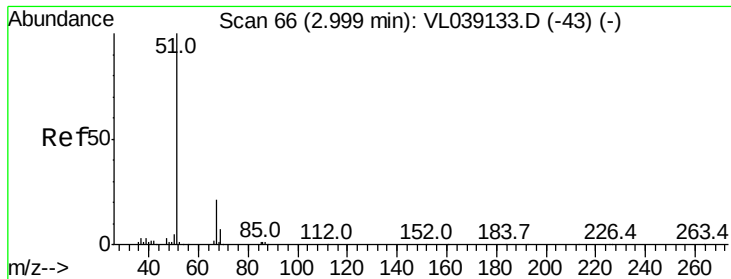
87 32.1 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.59 ppbv

RT: 2.99 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

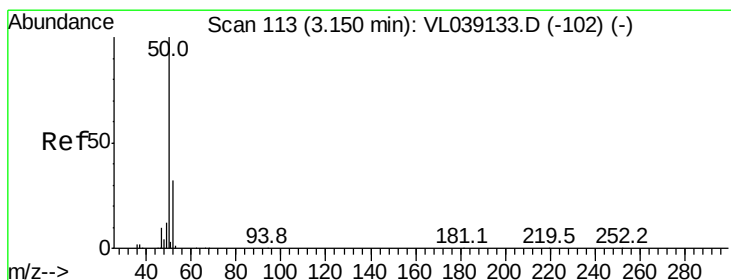
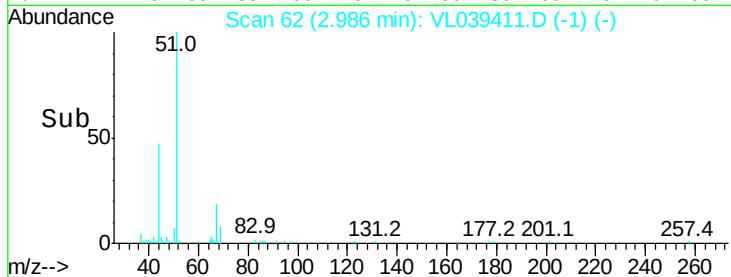
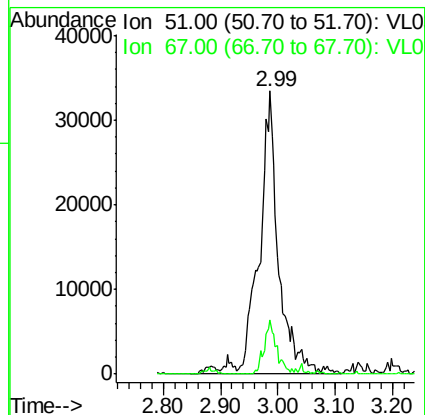
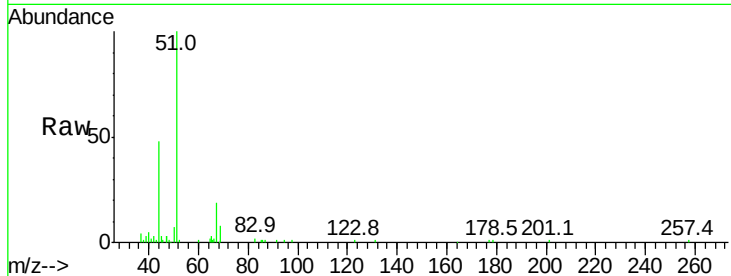
Acq: 30 Jun 2022 1:07

Tgt Ion: 51 Resp: 80154

Ion Ratio Lower Upper

51 100

67 11.8 15.7 23.5#



#4

Chloromethane

Concen: 0.46 ppbv

RT: 3.14 min Scan# 110

Delta R.T. 0.01 min

Lab File: VL039411.D

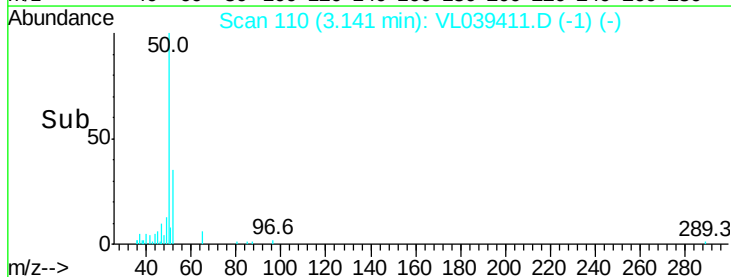
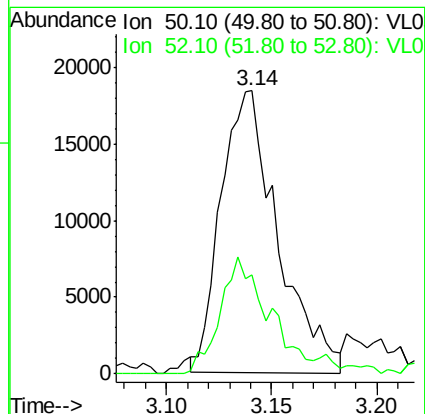
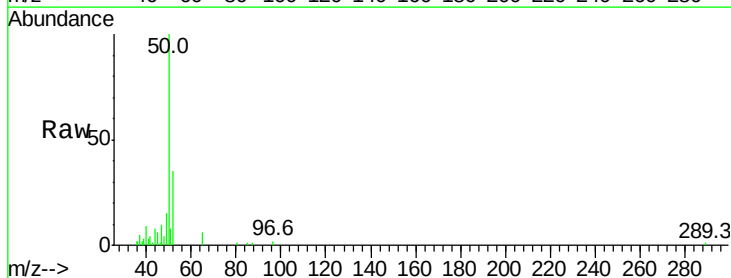
Acq: 30 Jun 2022 1:07

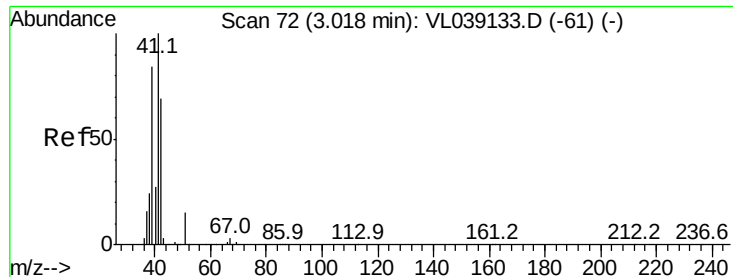
Tgt Ion: 50 Resp: 34345

Ion Ratio Lower Upper

50 100

52 35.8 26.5 39.7





#9

Propene

Concen: 1.09 ppbv

RT: 3.20 Instrument: MSVOA_1

Delta R.T. 0.00

Lab File: ClientSampleId: OA1

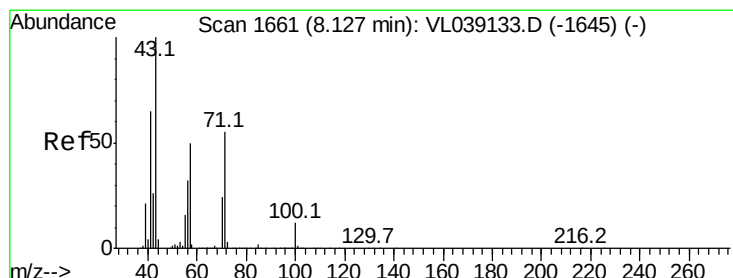
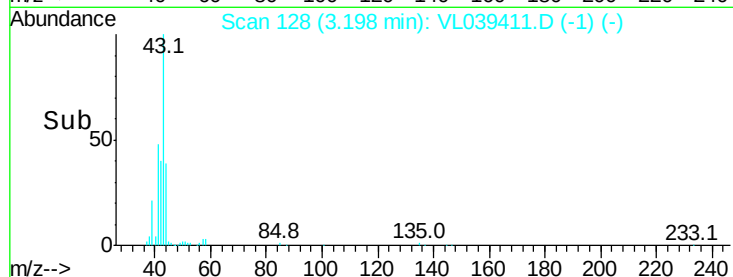
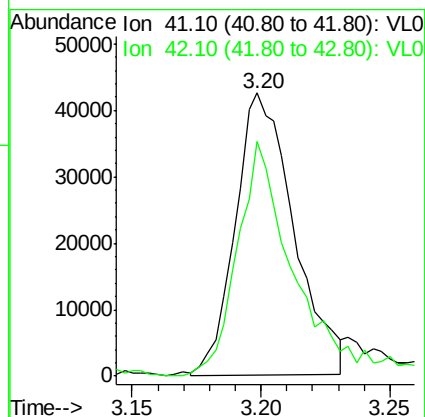
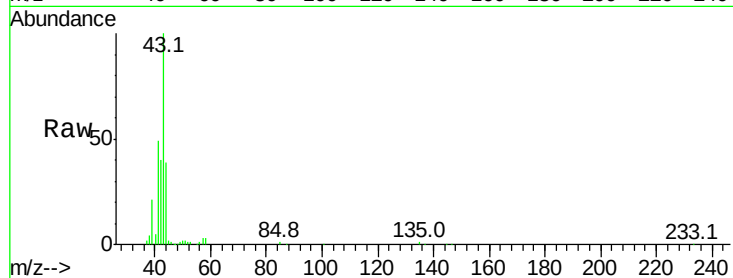
Acq: 30 Jun 2022 1:07

Tgt Ion: 41 Resp: 67417

Ion Ratio Lower Upper

41 100

42 80.3 55.2 82.8



#10

Heptane

Concen: 0.06 ppbv

RT: 8.11 min Scan# 1655

Delta R.T. 0.00 min

Lab File: VL039411.D

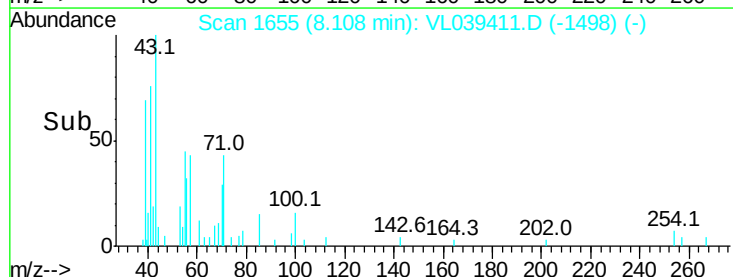
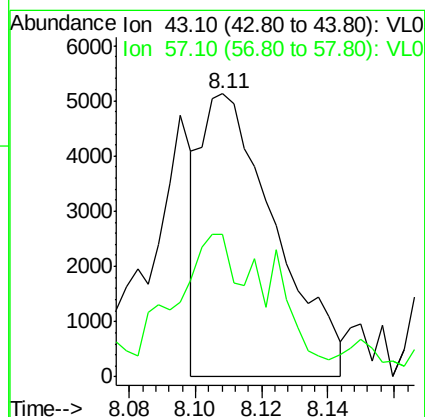
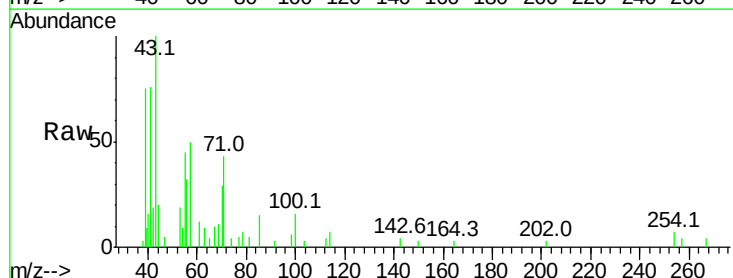
Acq: 30 Jun 2022 1:07

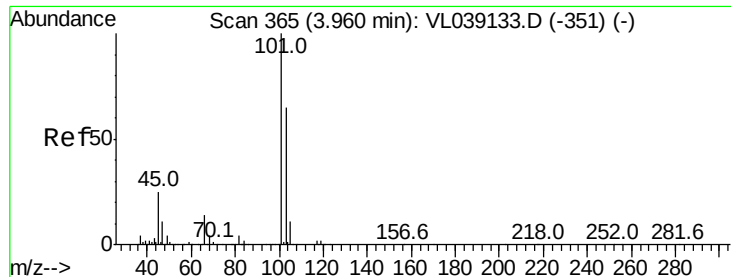
Tgt Ion: 43 Resp: 7956

Ion Ratio Lower Upper

43 100

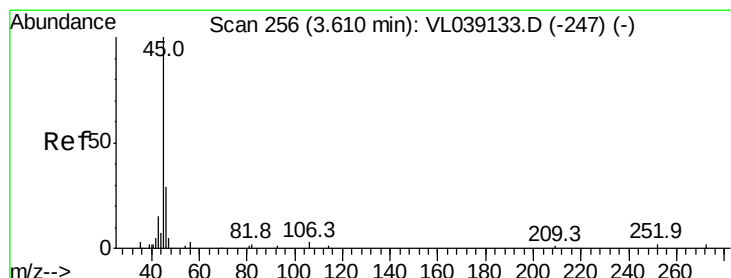
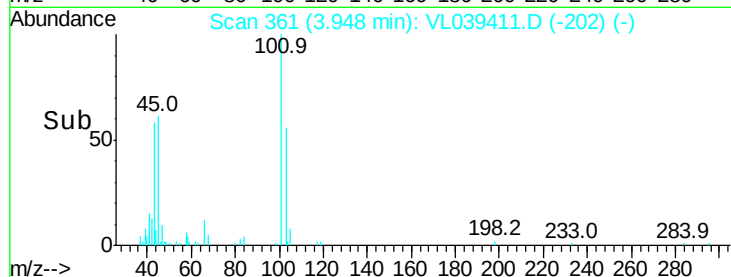
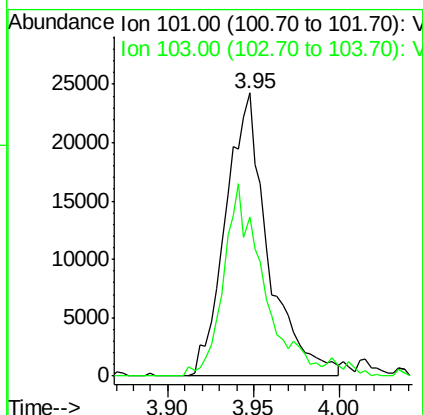
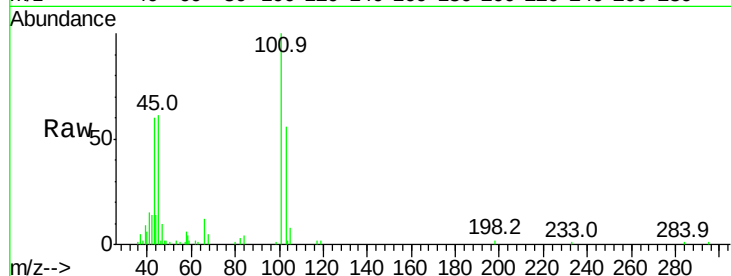
57 78.1 40.5 60.7#





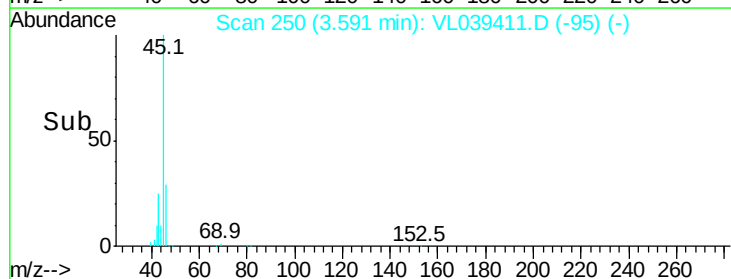
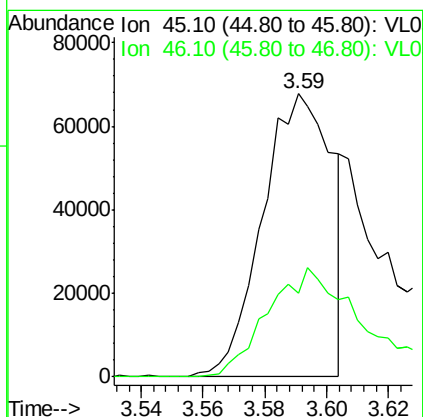
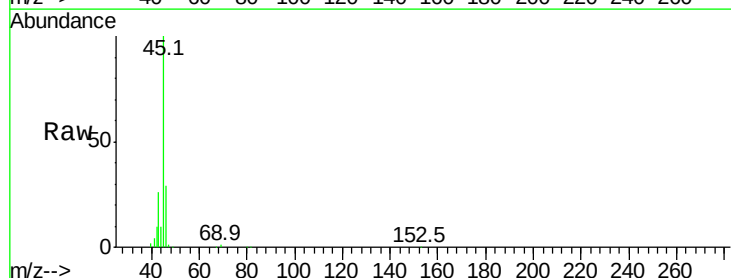
#11
 Trichlorofluoromethane
 Concen: 0.24 ppbv
 RT: 3.95 Instrument : MSVOA_1
 Delta R.T. ClientSampleId :
 Lab File: OA1
 Acq: 30 Jun 2022 1:07

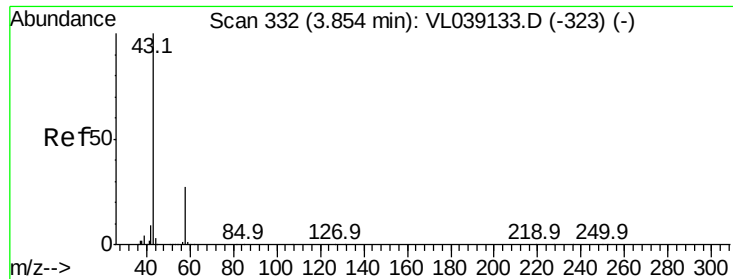
Tgt Ion:101 Resp: 41928
 Ion Ratio Lower Upper
 101 100
 103 52.8 51.8 77.8



#13
 Ethanol
 Concen: 29.51 ppbv
 RT: 3.59 min Scan# 250
 Delta R.T. -0.00 min
 Lab File: VL039411.D
 Acq: 30 Jun 2022 1:07

Tgt Ion: 45 Resp: 105634
 Ion Ratio Lower Upper
 45 100
 46 59.1 22.8 91.2





#15

Acetone

Concen: 4.80 ppbv

RT: 3.84 Instrument: MSVOA_1

Delta R.T. 0.00 min

Lab File: ClientSampleId: OA1

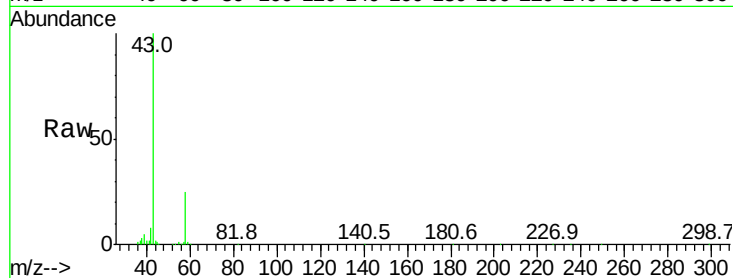
Acq: 30 Jun 2022 1:07

Tgt Ion: 43 Resp: 611039

Ion Ratio Lower Upper

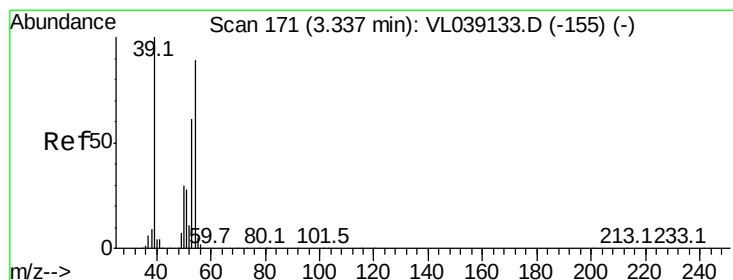
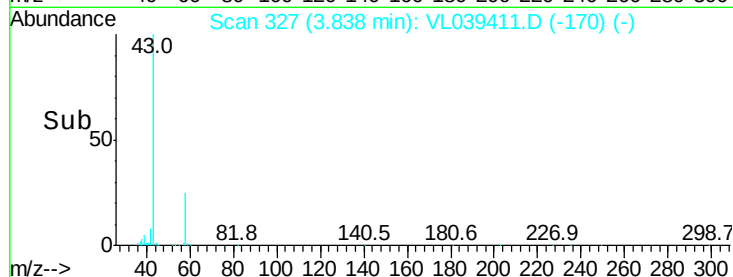
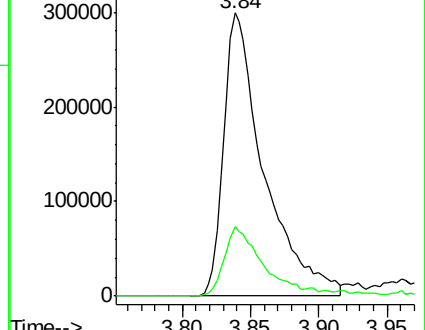
43 100

58 26.8 21.0 31.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.03 ppbv

RT: 3.32 min Scan# 165

Delta R.T. 0.00 min

Lab File: VL039411.D

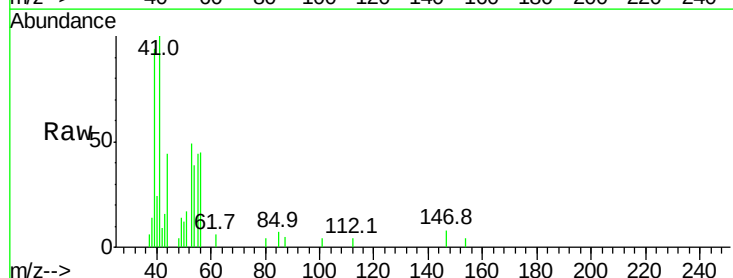
Acq: 30 Jun 2022 1:07

Tgt Ion: 39 Resp: 2081

Ion Ratio Lower Upper

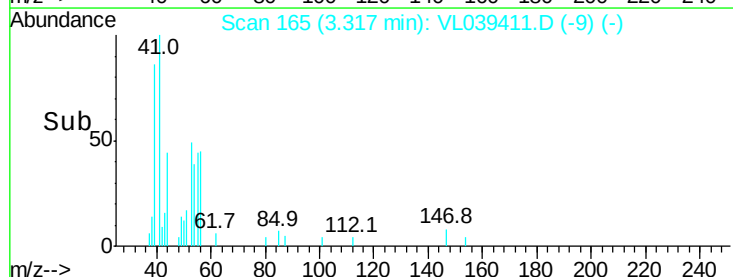
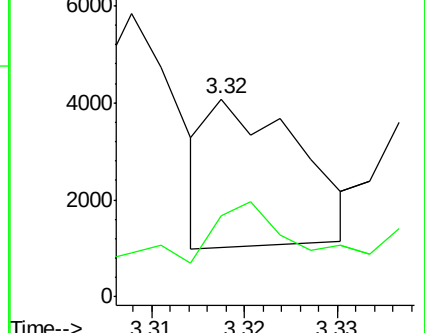
39 100

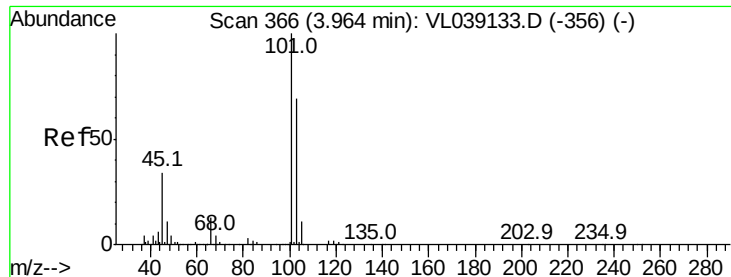
54 190.9 63.7 95.5#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#19

Isopropyl Alcohol

Concen: 1.07 ppbv

RT: 3.96 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId :

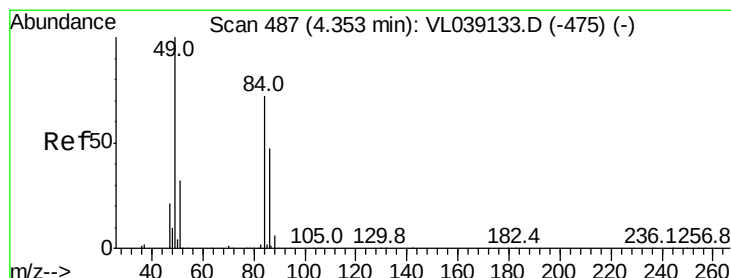
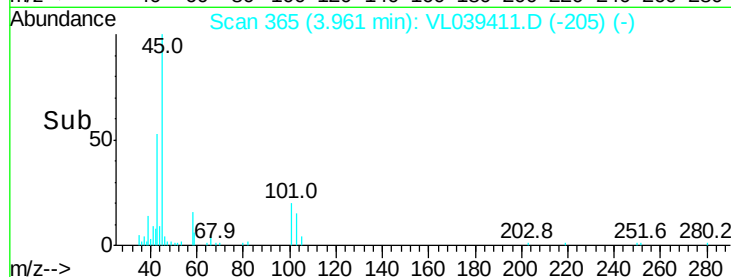
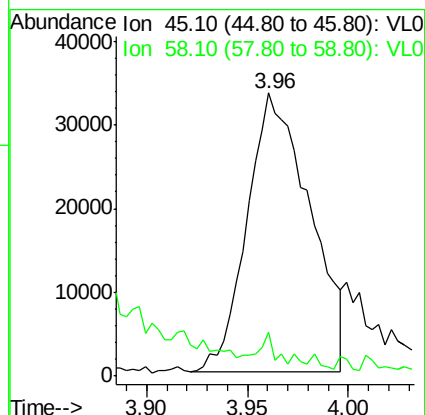
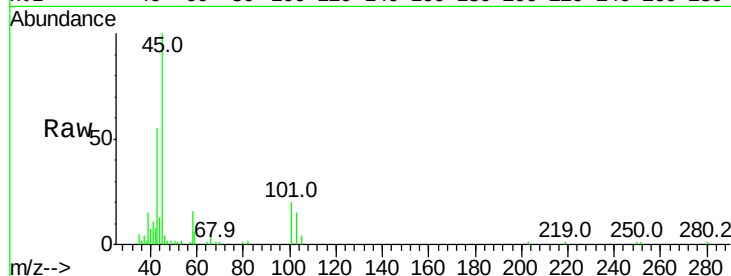
Acq: 30 Jun 2022 1:07

Tgt Ion: 45 Resp: 72489

Ion Ratio Lower Upper

45 100

58 7.3 3.2 4.8#



#20

Methylene Chloride

Concen: 1.63 ppbv

RT: 4.34 min Scan# 482

Delta R.T. 0.01 min

Lab File: VL039411.D

Acq: 30 Jun 2022 1:07

Tgt Ion: 84 Resp: 82601

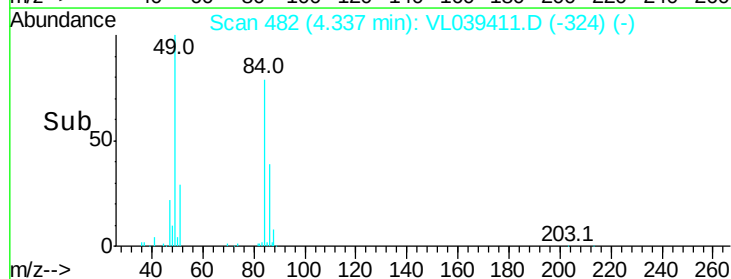
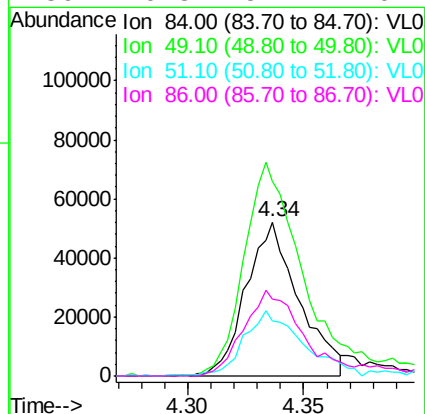
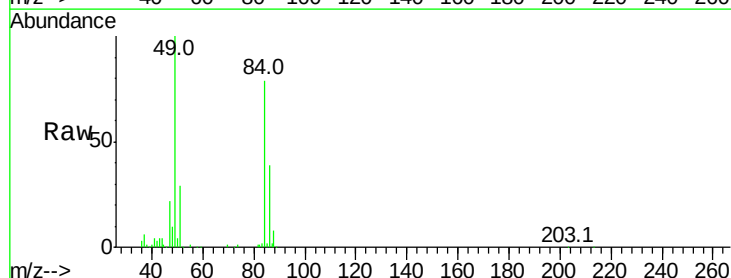
Ion Ratio Lower Upper

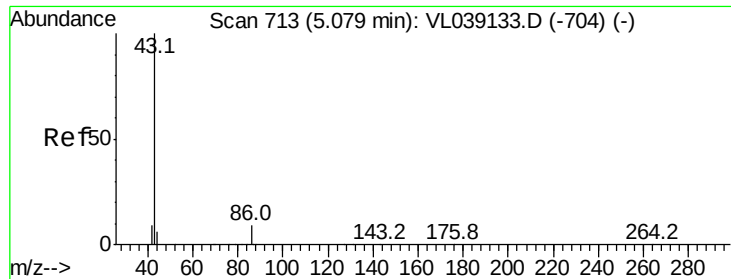
84 100

49 125.4 123.1 184.7

51 34.9 34.4 51.6

86 49.8 51.1 76.7#





#23

Vinyl Acetate

Concen: 0.05 ppbv

RT: 5.06 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 30 Jun 2022 1:07

Tgt Ion: 43 Resp: 4409

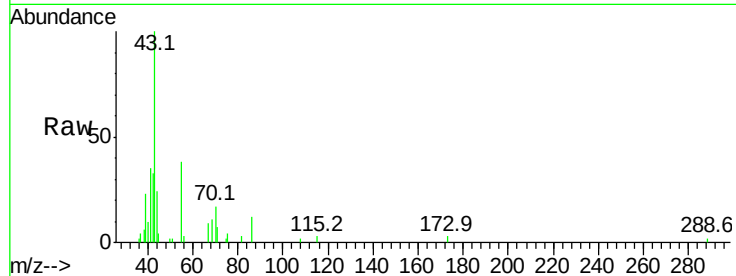
Ion Ratio Lower Upper

43 100

86 20.0 5.0 7.6#

42 28.1 7.7 11.5#

44 21.6 4.6 7.0#

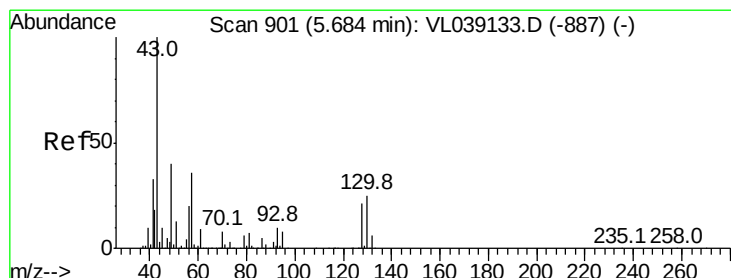
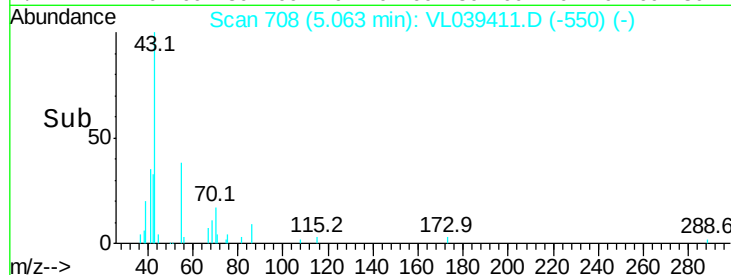
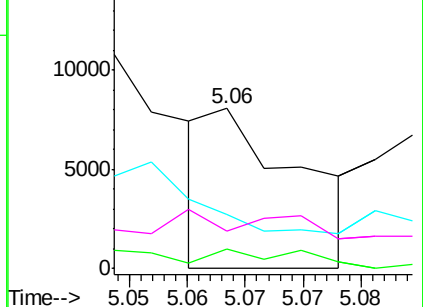


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.41 ppbv

RT: 5.67 min Scan# 897

Delta R.T. 0.01 min

Lab File: VL039411.D

Acq: 30 Jun 2022 1:07

Tgt Ion: 43 Resp: 108208

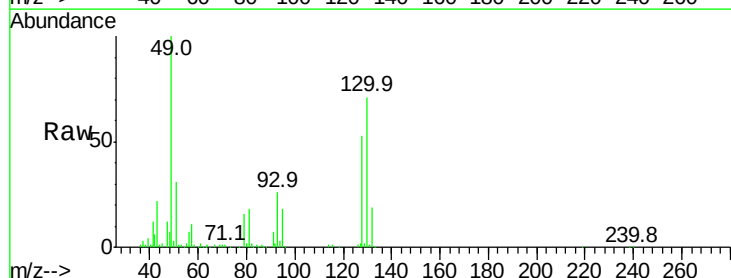
Ion Ratio Lower Upper

43 100

45 12.7 8.2 12.4#

61 8.8 8.3 12.5

70 7.2 5.9 8.9

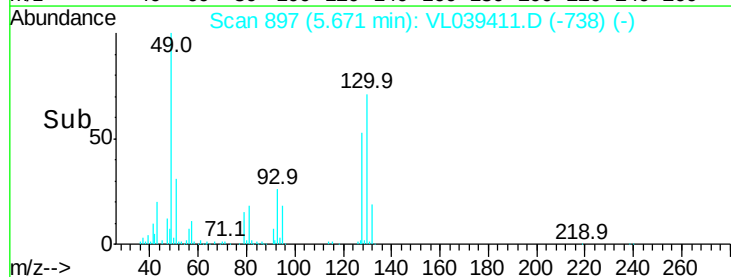
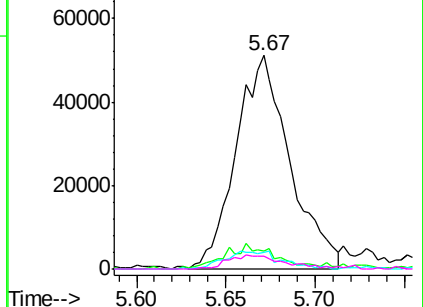


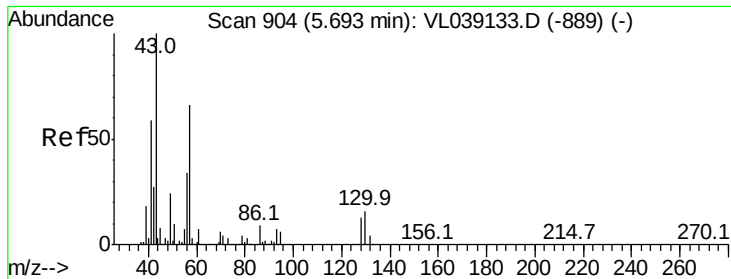
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

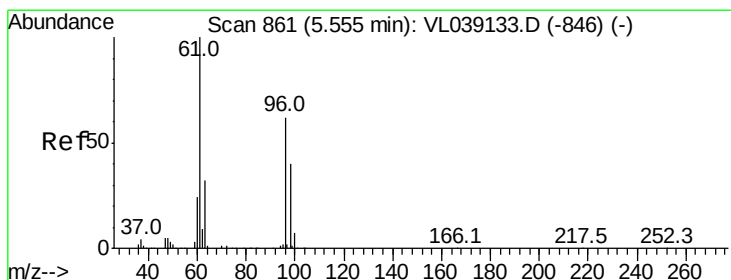
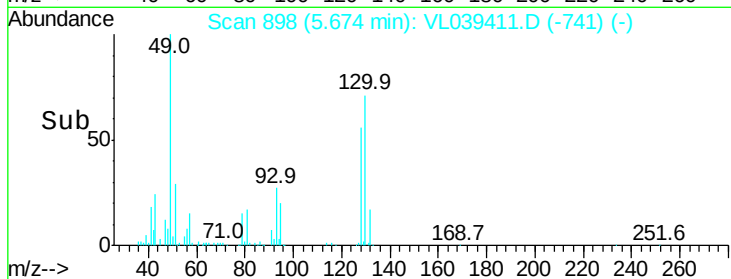
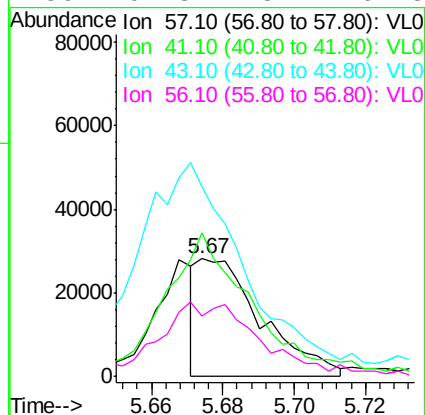
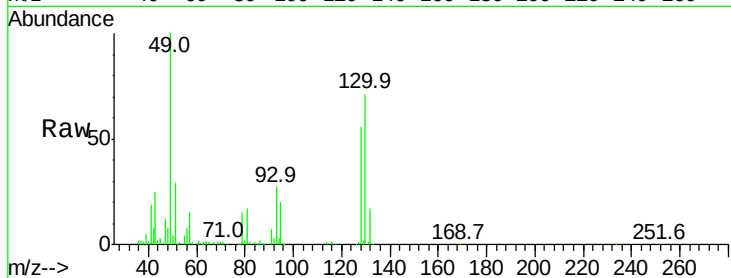
Ion 70.10 (69.80 to 70.80): VL0





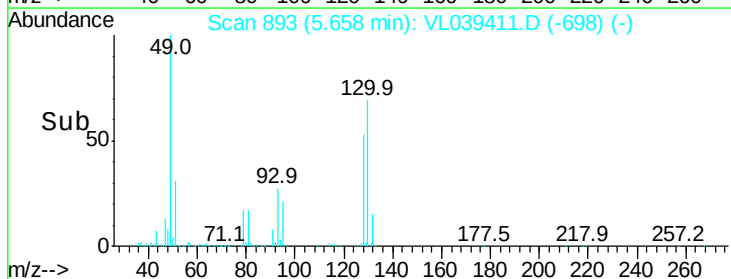
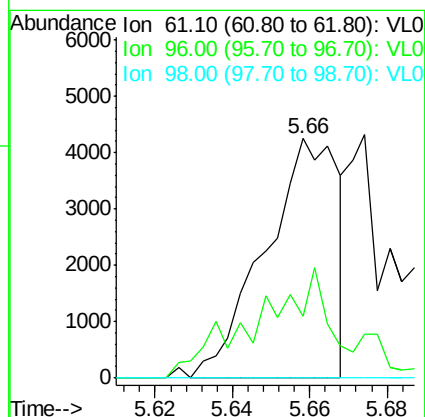
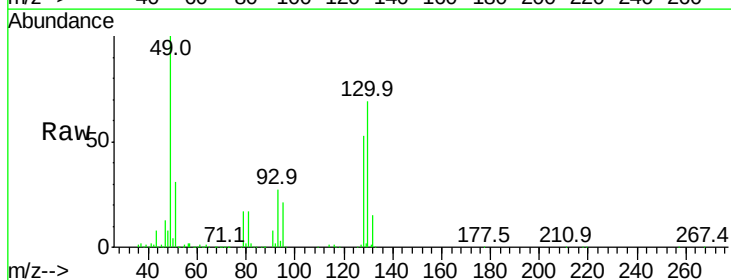
#26
Hexane
Concen: 0.33 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 30 Jun 2022 1:07

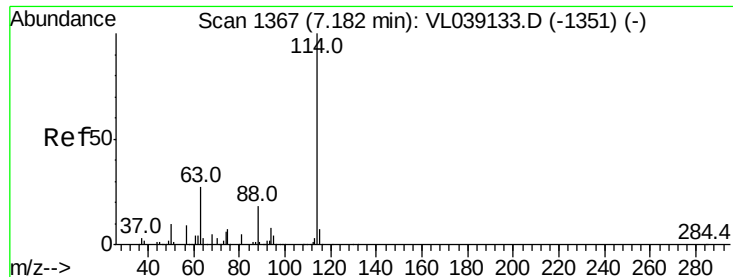
Tgt Ion:	57	Resp:	34775
Ion	Ratio	Lower	Upper
57	100		
41	181.2	76.9	115.3#
43	338.7	191.0	286.6#
56	107.3	43.2	64.8#



#31
cis-1,2-Dichloroethene
Concen: 0.05 ppbv
RT: 5.66 min Scan# 893
Delta R.T. 0.13 min
Lab File: VL039411.D
Acq: 30 Jun 2022 1:07

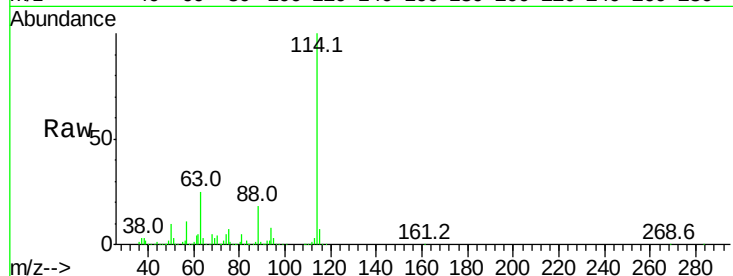
Tgt Ion:	61	Resp:	5595
Ion	Ratio	Lower	Upper
61	100		
96	18.9	54.1	81.1#
98	0.0	34.6	52.0#



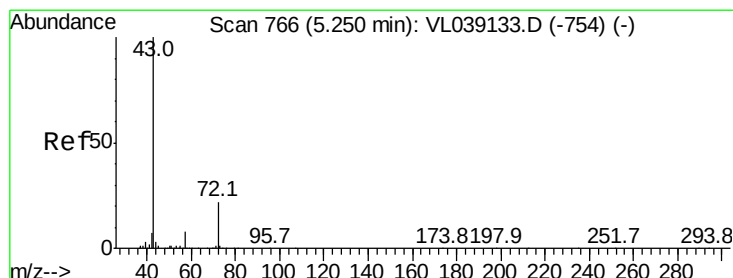
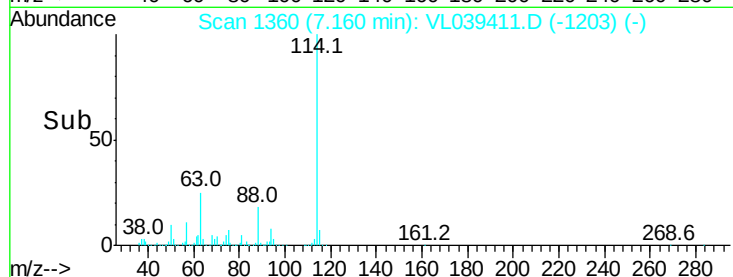
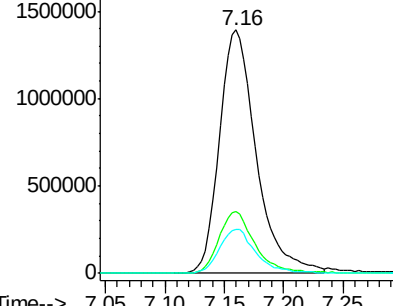


#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.16
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId :
 Acq: 30 Jun 2022 1:07

Tgt Ion:114 Resp: 2989754
 Ion Ratio Lower Upper
 114 100
 63 25.6 20.2 30.4
 88 18.2 14.5 21.7

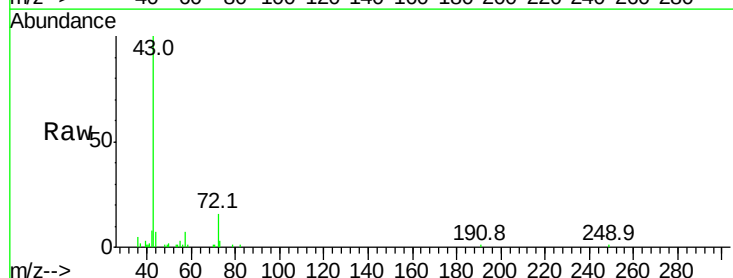


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

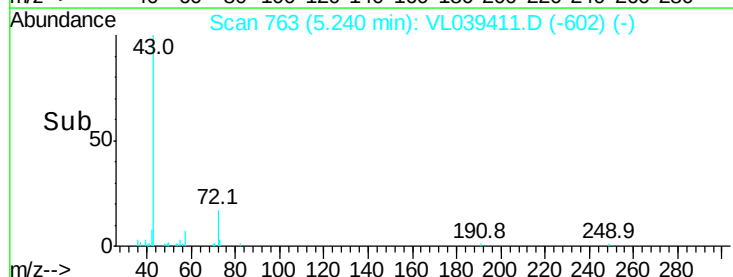
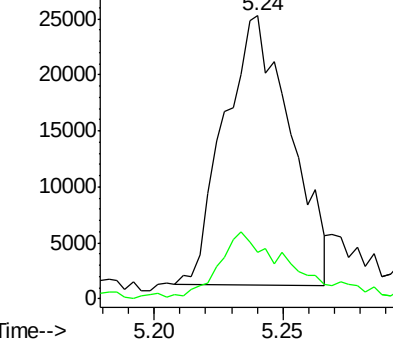


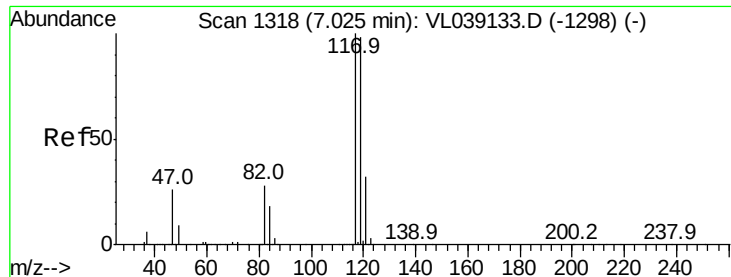
#34
 2-Butanone
 Concen: 0.29 ppbv
 RT: 5.24 min Scan# 763
 Delta R.T. 0.02 min
 Lab File: VL039411.D
 Acq: 30 Jun 2022 1:07

Tgt Ion: 43 Resp: 43135
 Ion Ratio Lower Upper
 43 100
 72 31.1 17.9 26.9#



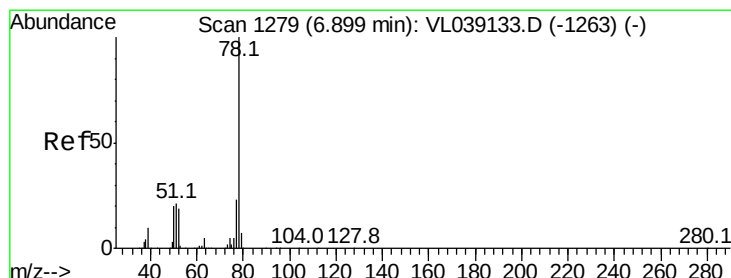
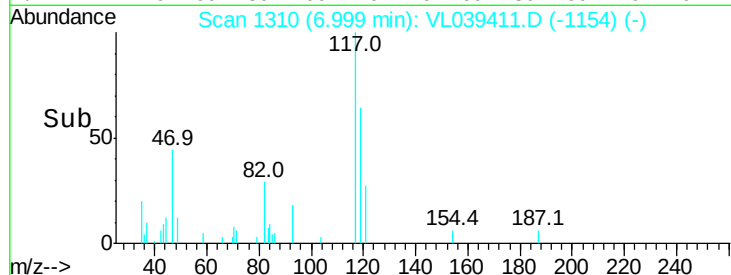
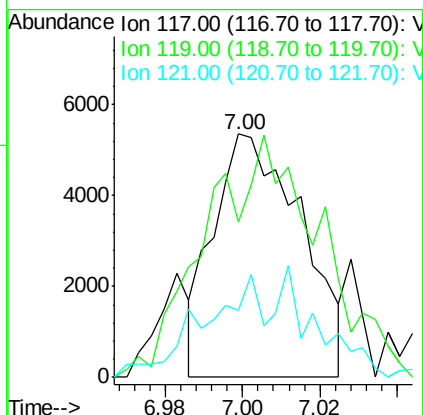
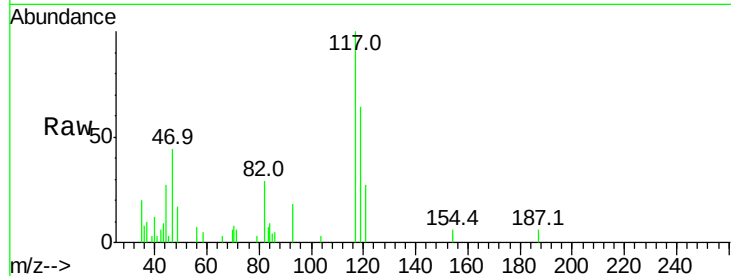
Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





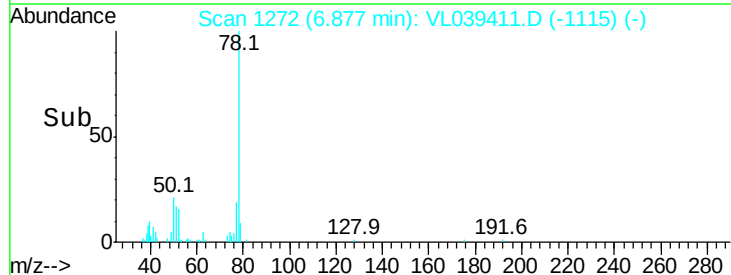
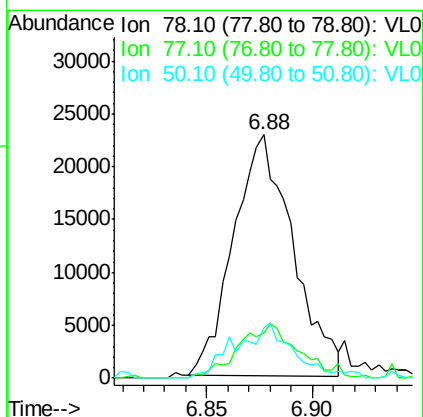
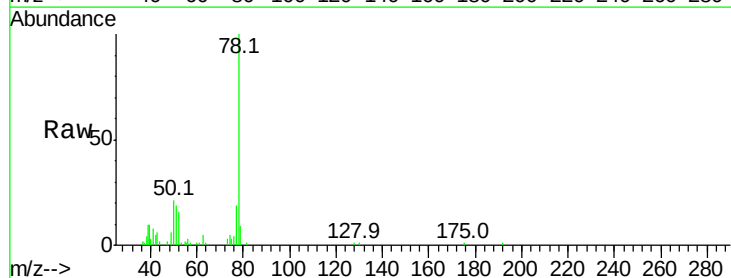
#35
Carbon Tetrachloride
Concen: 0.05 ppbv
RT: 7.00
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 30 Jun 2022 1:07

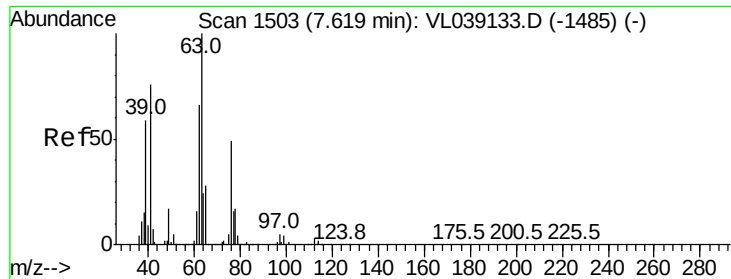
Tgt Ion: 117 Resp: 8465
Ion Ratio Lower Upper
117 100
119 33.7 75.4 113.2#
121 13.6 24.2 36.2#



#36
Benzene
Concen: 0.19 ppbv
RT: 6.88 min Scan# 1272
Delta R.T. 0.00 min
Lab File: VL039411.D
Acq: 30 Jun 2022 1:07

Tgt Ion: 78 Resp: 44691
Ion Ratio Lower Upper
78 100
77 18.7 20.3 30.5#
50 21.0 15.5 23.3





#39

1,2-Dichloropropane

Concen: 8.64 ppbv

RT: 7.16 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 30 Jun 2022 1:07

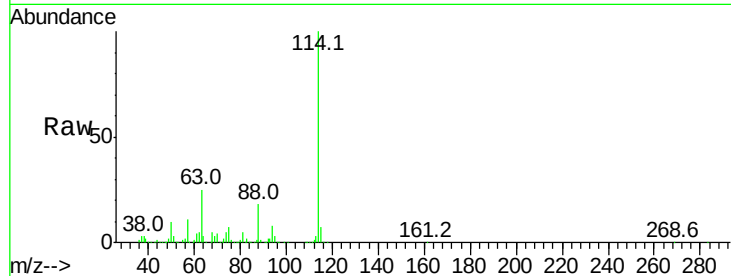
Tgt Ion: 63 Resp: 747155

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

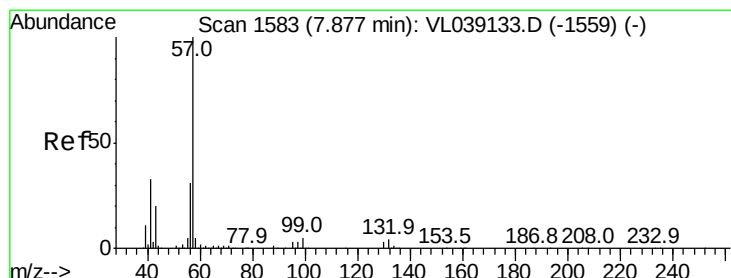
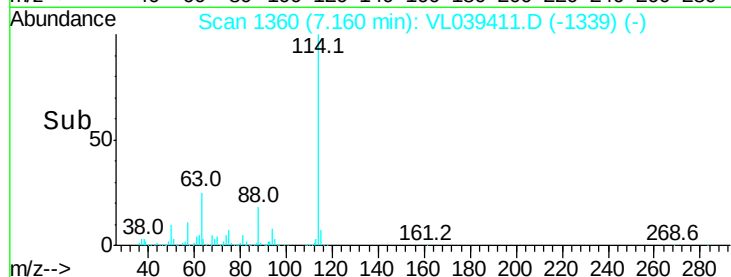
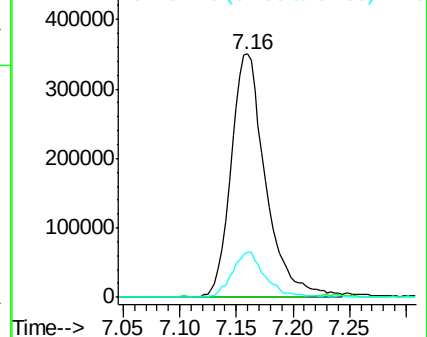
62 18.6 51.4 77.0#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.12 ppbv

RT: 7.85 min Scan# 1576

Delta R.T. 0.00 min

Lab File: VL039411.D

Acq: 30 Jun 2022 1:07

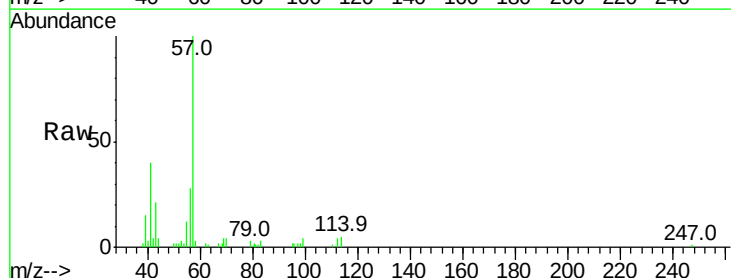
Tgt Ion: 57 Resp: 45188

Ion Ratio Lower Upper

57 100

41 60.4 27.4 41.2#

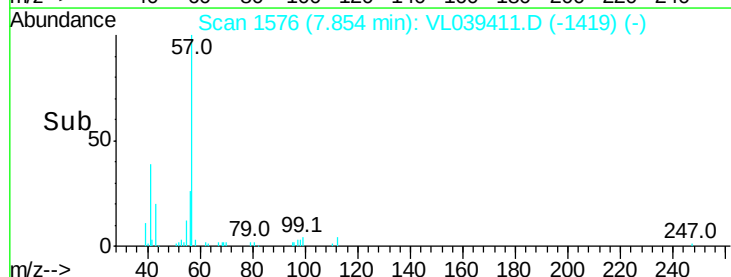
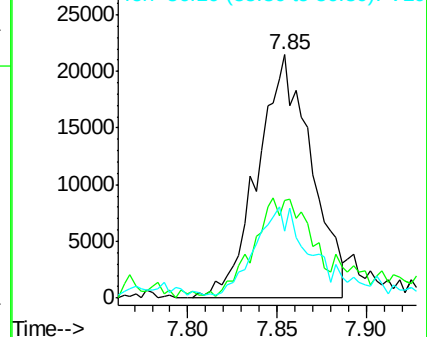
56 46.1 24.5 36.7#

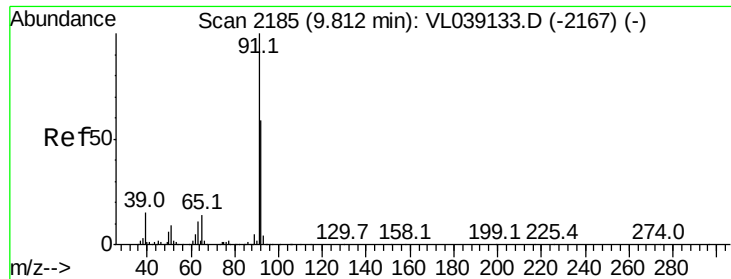


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.79 ppbv

RT: 9.79 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

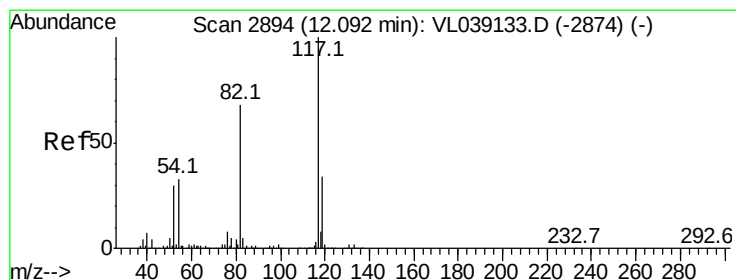
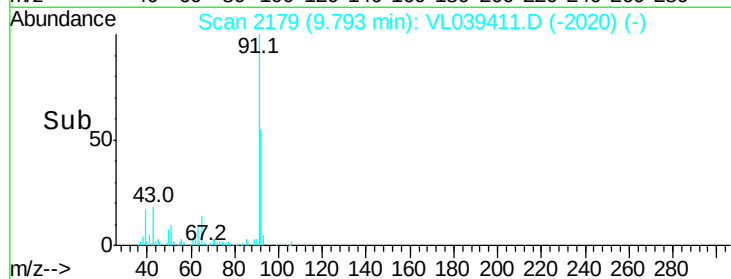
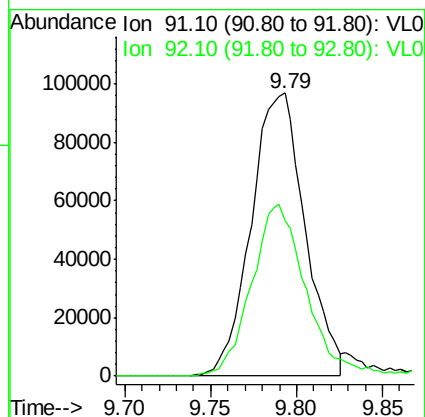
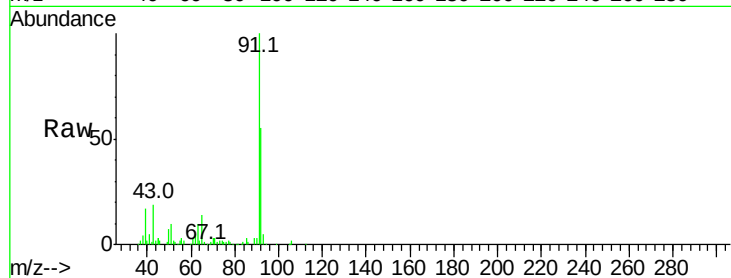
Acq: 30 Jun 2022 1:07

Tgt Ion: 91 Resp: 210059

Ion Ratio Lower Upper

91 100

92 62.3 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. 0.00 min

Lab File: VL039411.D

Acq: 30 Jun 2022 1:07

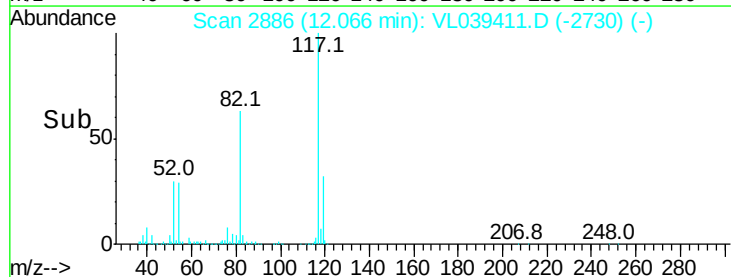
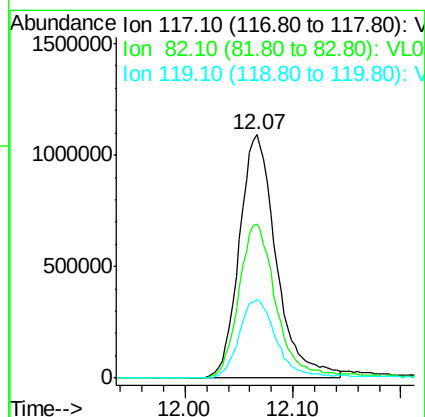
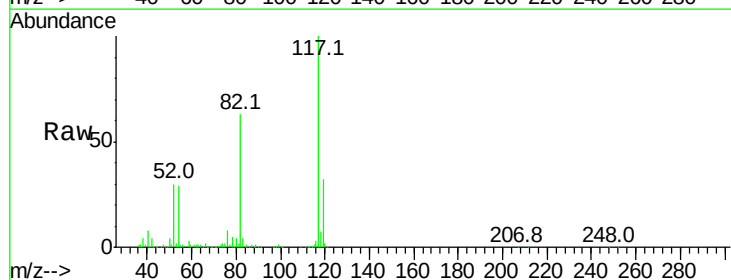
Tgt Ion: 117 Resp: 2602693

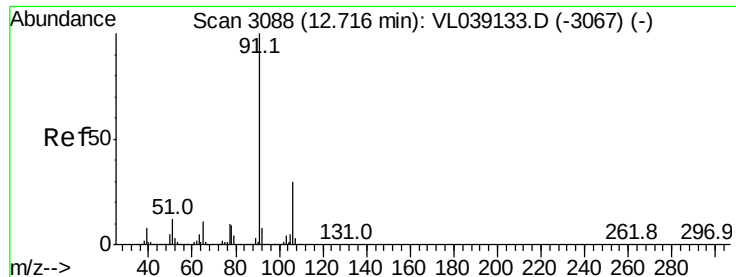
Ion Ratio Lower Upper

117 100

82 67.3 50.8 76.2

119 33.3 24.1 36.1





#58

Ethyl Benzene

Concen: 0.03 ppbv

RT: 12.69

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

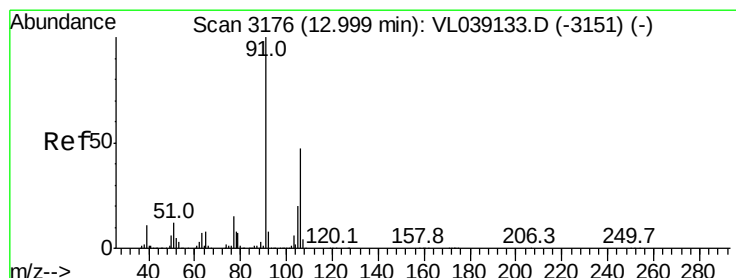
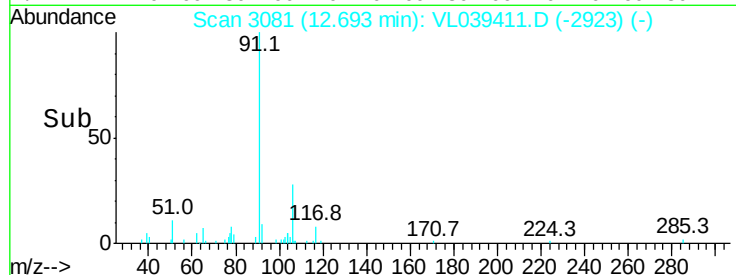
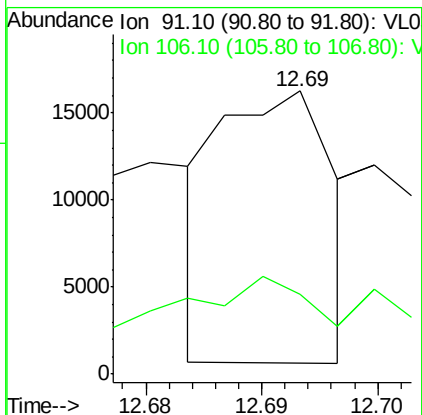
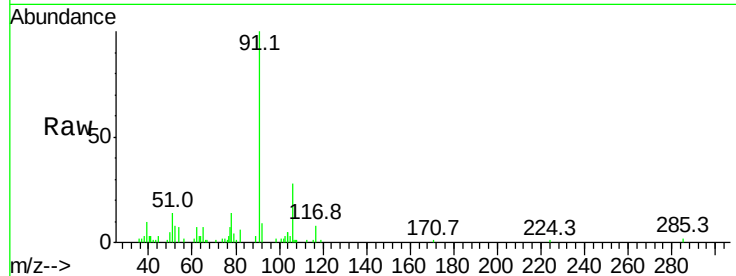
Acq: 30 Jun 2022 1:07

Tgt Ion: 91 Resp: 10531

Ion Ratio Lower Upper

91 100

106 36.8 25.4 38.0



#59

m/p-Xylene

Concen: 0.09 ppbv

RT: 12.98 min Scan# 3169

Delta R.T. 0.00 min

Lab File: VL039411.D

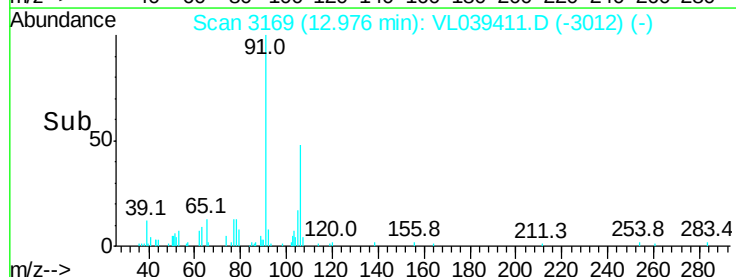
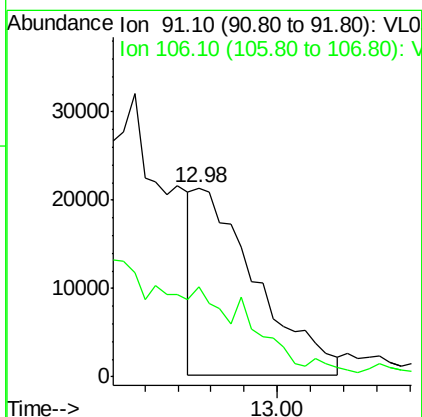
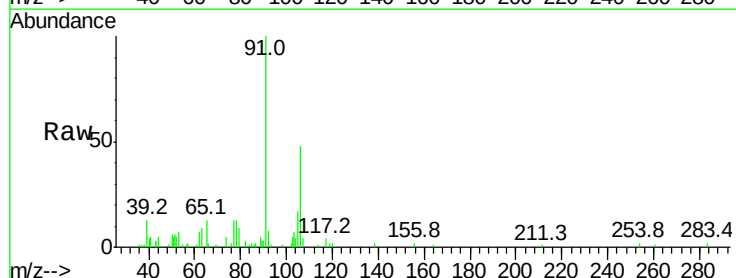
Acq: 30 Jun 2022 1:07

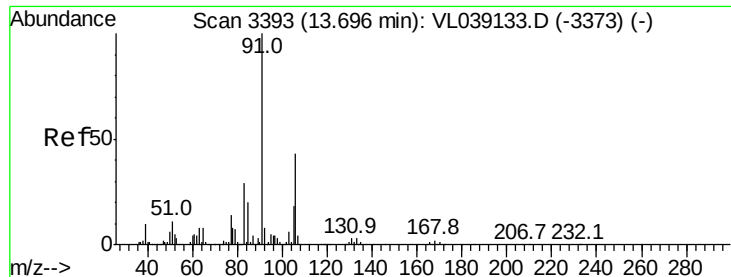
Tgt Ion: 91 Resp: 27382

Ion Ratio Lower Upper

91 100

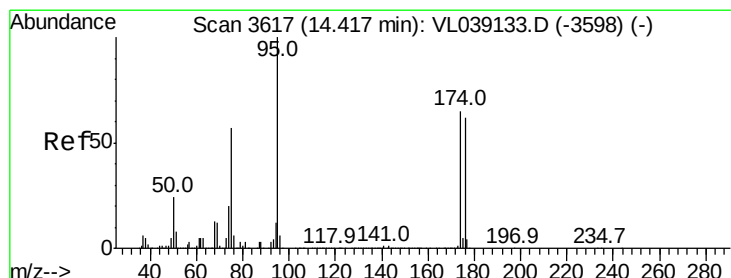
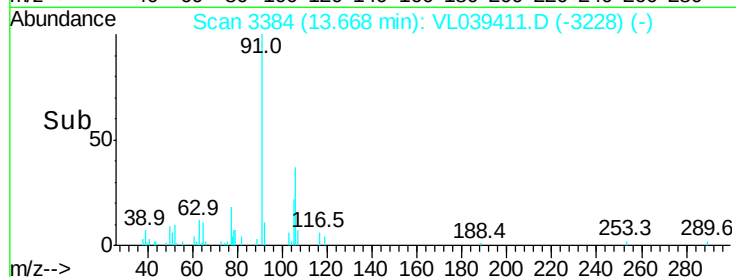
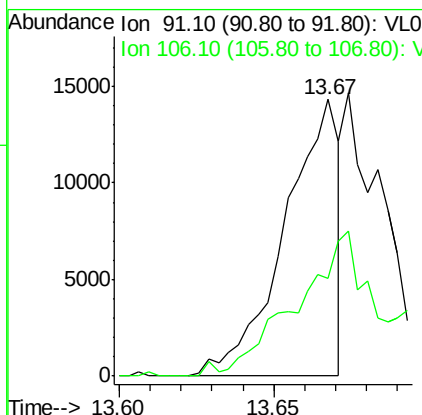
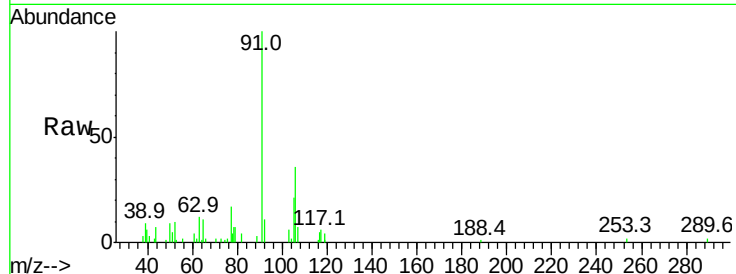
106 0.0 35.4 53.2#





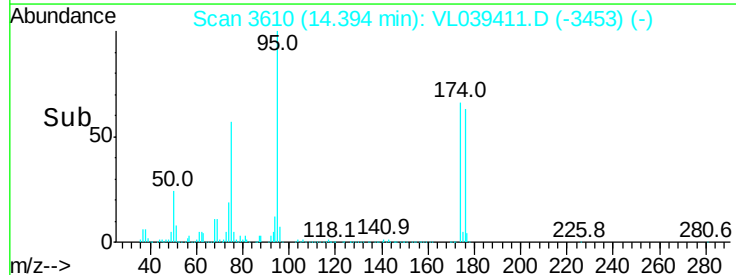
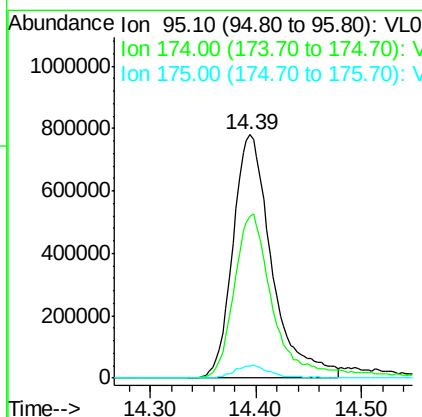
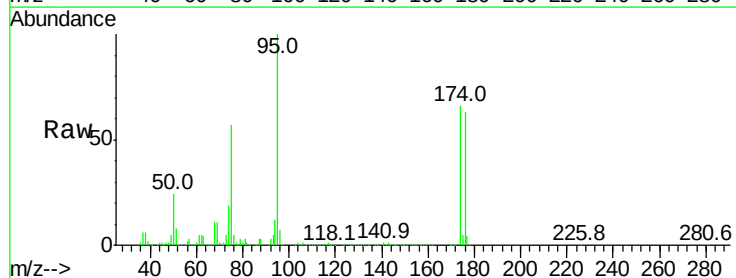
#60
o-Xylene
Concen: 0.06 ppbv
RT: 13.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 30 Jun 2022 1:07

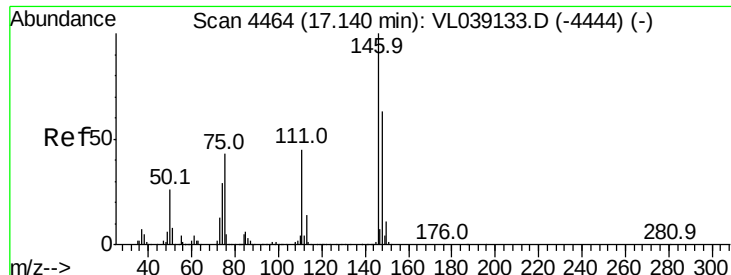
Tgt Ion: 91 Resp: 17364
Ion Ratio Lower Upper
91 100
106 0.0 22.4 67.3#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.33 ppbv
RT: 14.39 min Scan# 3610
Delta R.T. 0.00 min
Lab File: VL039411.D
Acq: 30 Jun 2022 1:07

Tgt Ion: 95 Resp: 1994658
Ion Ratio Lower Upper
95 100
174 70.1 55.9 83.9
175 5.4 4.2 6.4





#76

1,4-Dichlorobenzene

Concen: 0.02 ppbv

RT: 17.11 Instrument:

Delta R.T MSVOA_L

Lab File: ClientSampleId:

Acq: 30 Jun 2022 1.07

Tgt Ion:146 Resp: 4114

Ion Ratio Lower Upper

146 100

111 151.6 22.9 68.8#

148 201.2 33.6 100.8#

