

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL022222\
 Data File : VL038388.D
 Acq On : 22 Feb 2022 14:22
 Operator : SY/AP
 Sample : N1585-01DL2 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-FAM4GL-3DL2

Quant Time: Feb 23 07:03:14 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL022222AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Feb 22 19:45:51 2022
 QLast Update : Tue Feb 22 19:45:51 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	970271	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	2522489	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	2206759	10.00	ppbv	0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	1718936	9.41	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.10%

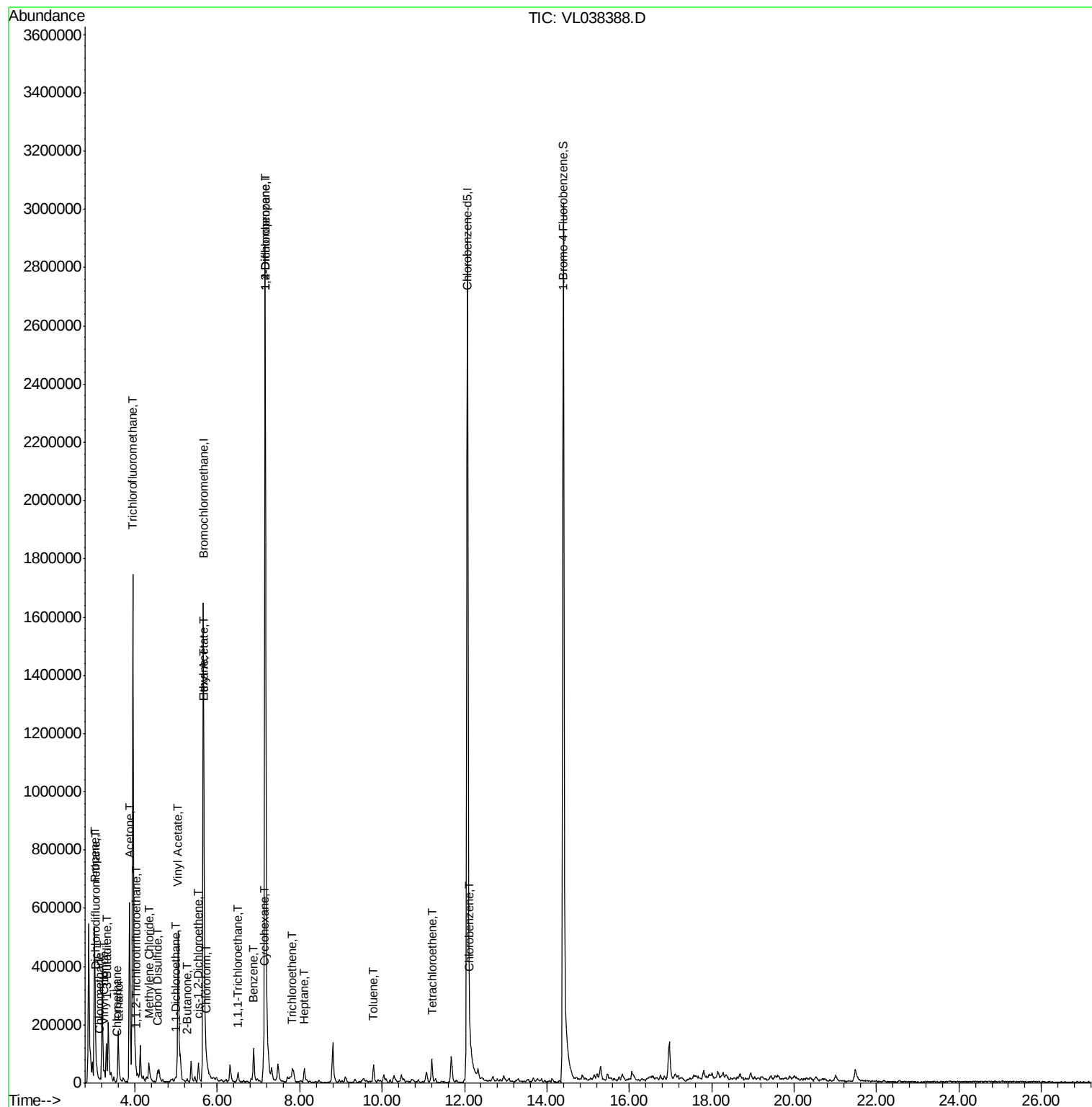
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.05	85	9587	0.06	ppbv	93
4) Chloromethane	3.14	50	1916	0.03	ppbv #	64
5) Vinyl Chloride	3.26	62	15561	0.25	ppbv	91
7) Chloroethane	3.55	64	1693	0.08	ppbv	94
9) Propene	3.02	41	198456	3.51	ppbv	89
10) Heptane	8.11	43	9747	0.07	ppbv #	1
11) Trichlorofluoromethane	3.95	101	1437088	9.77	ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.05	101	5441	0.05	ppbv #	15
13) Ethanol	3.62	45	2561	0.45	ppbv #	31
15) Acetone	3.87	43	358468	4.34	ppbv #	73
16) 1,3-Butadiene	3.30	39	42295	0.77	ppbv #	29
20) Methylene Chloride	4.34	84	11711	0.29	ppbv	93
23) Vinyl Acetate	5.05	43	24403	0.22	ppbv #	1
24) 1,1-Dichloroethane	5.01	63	6659	0.07	ppbv #	91
25) Ethyl Acetate	5.68	43	35235	0.16	ppbv #	78
26) Hexane	5.68	57	51734	0.52	ppbv #	42
27) Carbon Disulfide	4.55	76	52089	0.47	ppbv #	82
29) Chloroform	5.74	83	5144	0.03	ppbv #	78
30) Cyclohexane	7.12	84	11886	0.14	ppbv #	1
31) cis-1,2-Dichloroethene	5.54	61	40257	0.41	ppbv	97
32) 1,1,1-Trichloroethane	6.50	97	6431	0.04	ppbv #	22
34) 2-Butanone	5.26	43	8554	0.11	ppbv #	51
36) Benzene	6.88	78	103165	0.46	ppbv	92
38) Trichloroethene	7.82	130	6247	0.08	ppbv	94
39) 1,2-Dichloropropane	7.16	63	627537	7.09	ppbv #	25
52) Tetrachloroethene	11.21	164	9510	0.13	ppbv	93
53) Toluene	9.79	91	24617	0.10	ppbv #	27
57) Chlorobenzene	12.13	112	11761	0.07	ppbv #	90

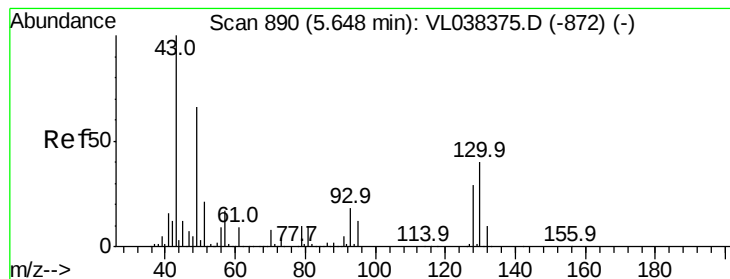
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.66 Instrument: MSVOA_1

Delta R.T. 0.01 min

Lab File: ClientSampleId: SG-FAM4GL-3DL2

Acq: 22 Feb 2022 14:22

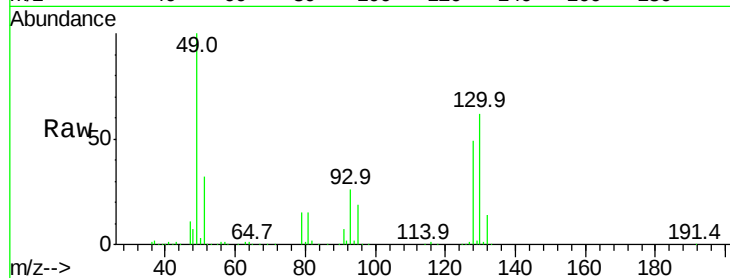
Tgt Ion: 49 Resp: 970271

Ion Ratio Lower Upper

49 100

128 50.5 24.3 72.9

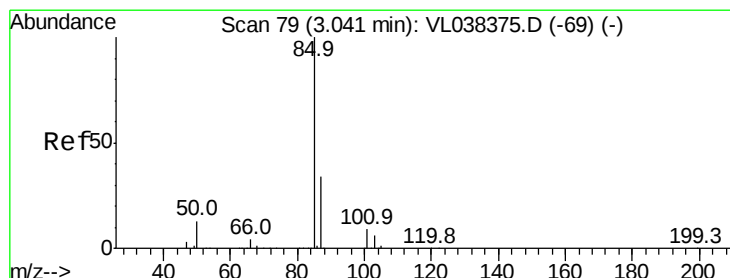
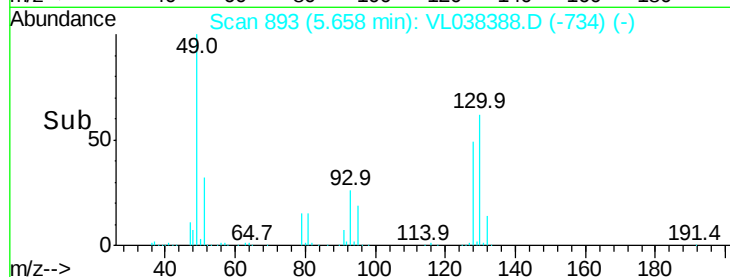
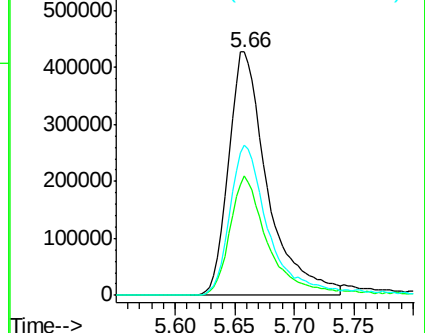
130 64.8 30.1 90.5



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: 0.06 ppbv

RT: 3.05 min Scan# 81

Delta R.T. 0.01 min

Lab File: VL038388.D

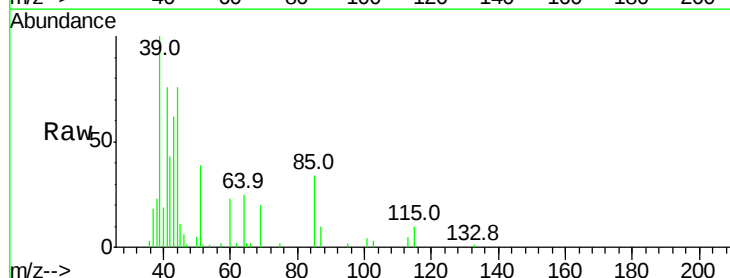
Acq: 22 Feb 2022 14:22

Tgt Ion: 85 Resp: 9587

Ion Ratio Lower Upper

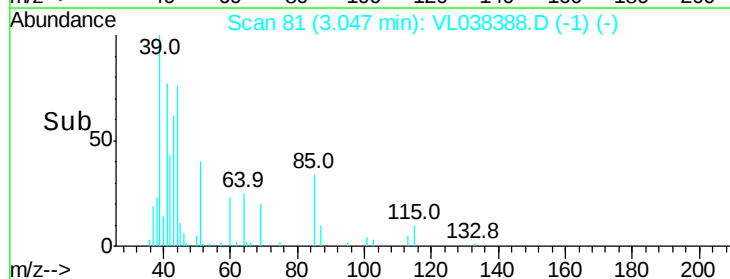
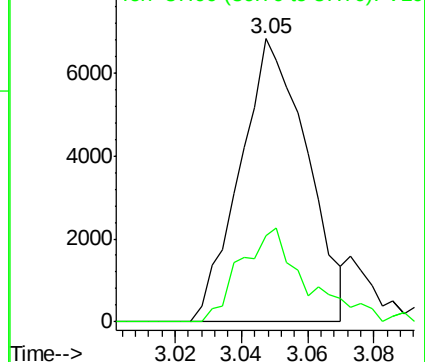
85 100

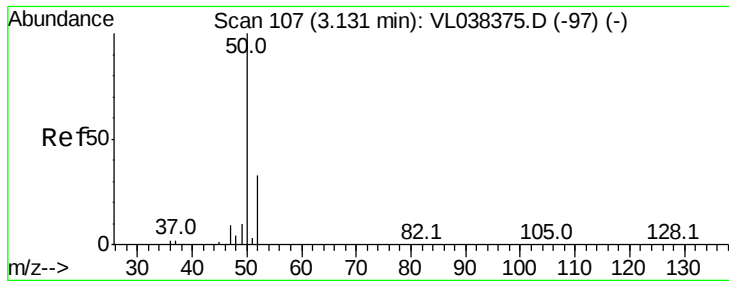
87 30.4 27.4 41.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.03 ppbv

RT: 3.14 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

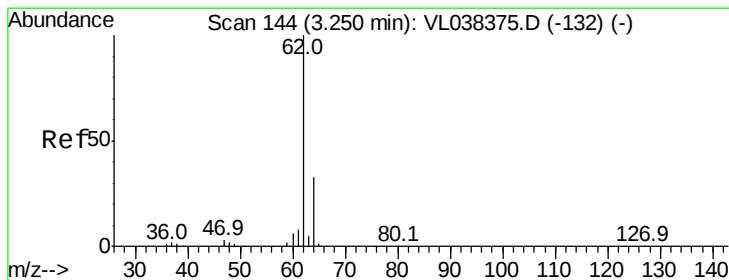
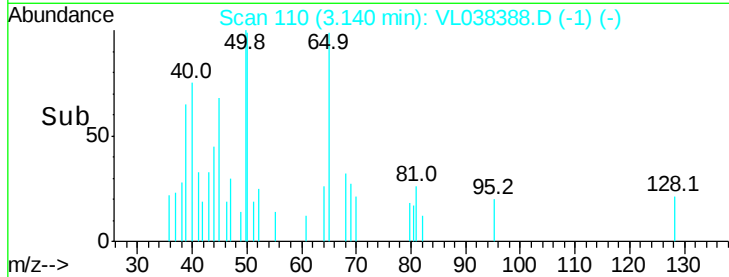
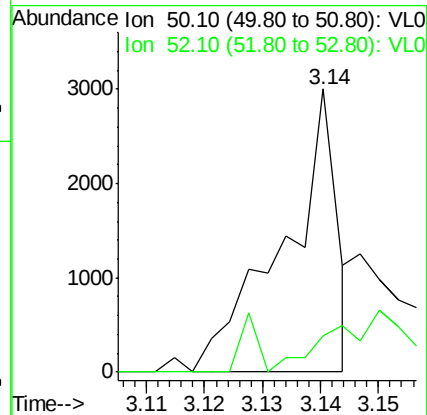
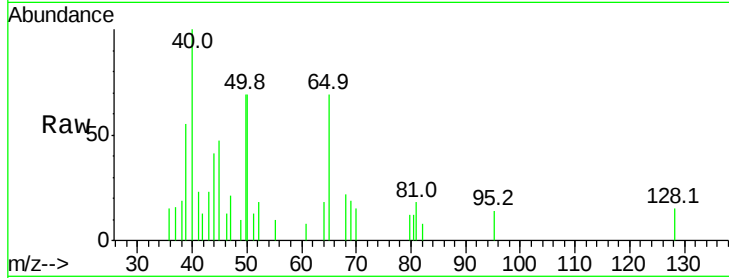
Acq: 22 Feb 2022 14:22 SG-FAM4GL-3DL2

Tgt Ion: 50 Resp: 1916

Ion Ratio Lower Upper

50 100

52 12.8 26.5 39.7#



#5

Vinyl Chloride

Concen: 0.25 ppbv

RT: 3.26 min Scan# 147

Delta R.T. 0.01 min

Lab File: VL038388.D

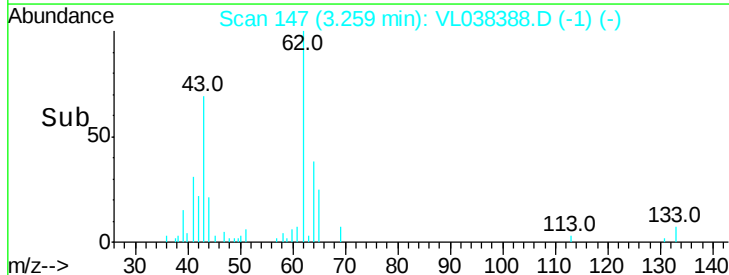
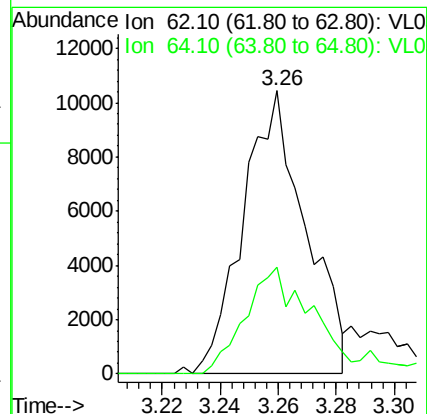
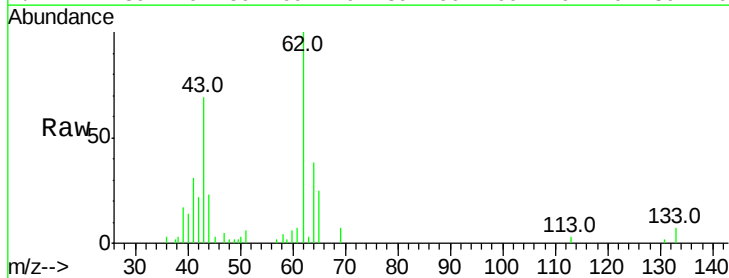
Acq: 22 Feb 2022 14:22

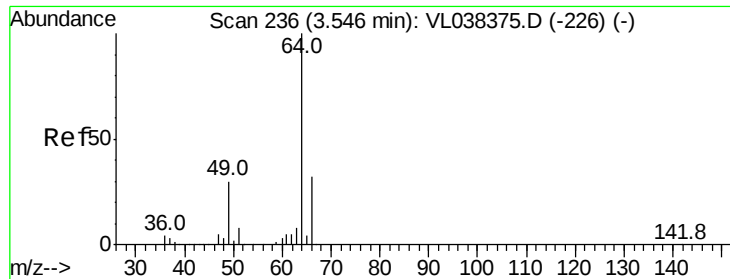
Tgt Ion: 62 Resp: 15561

Ion Ratio Lower Upper

62 100

64 37.7 26.2 39.2





#7

Chloroethane

Concen: 0.08 ppbv

RT: 3.55 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

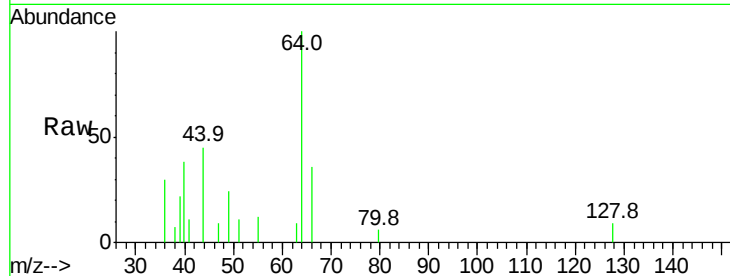
Acq: 22 Feb 2022 14:22 SG-FAM4GL-3DL2

Tgt Ion: 64 Resp: 1693

Ion Ratio Lower Upper

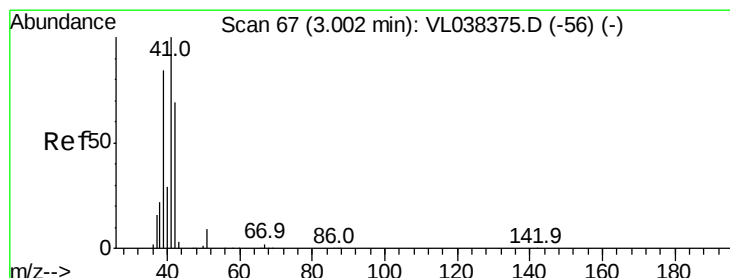
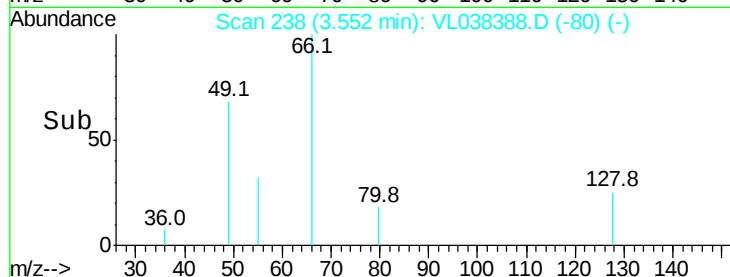
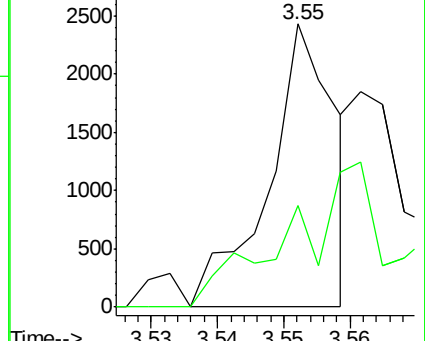
64 100

66 36.0 25.9 38.9



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#9

Propene

Concen: 3.51 ppbv

RT: 3.02 min Scan# 71

Delta R.T. 0.01 min

Lab File: VL038388.D

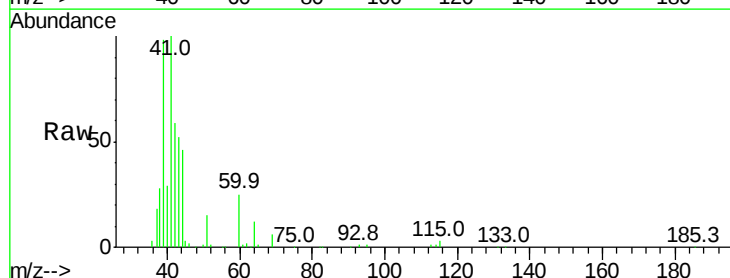
Acq: 22 Feb 2022 14:22

Tgt Ion: 41 Resp: 198456

Ion Ratio Lower Upper

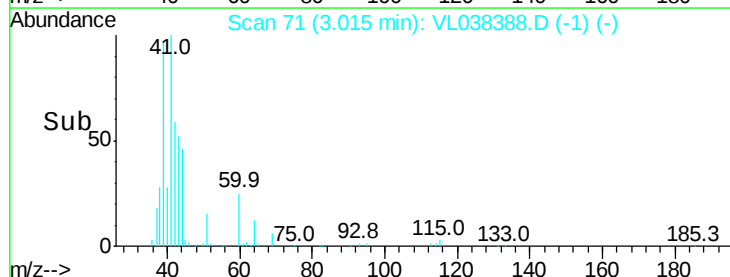
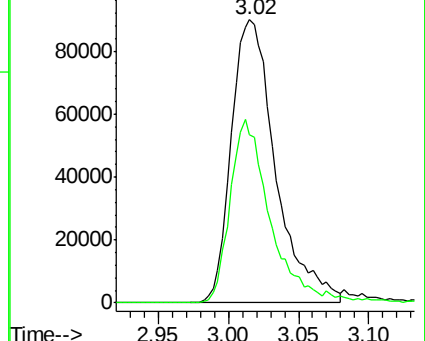
41 100

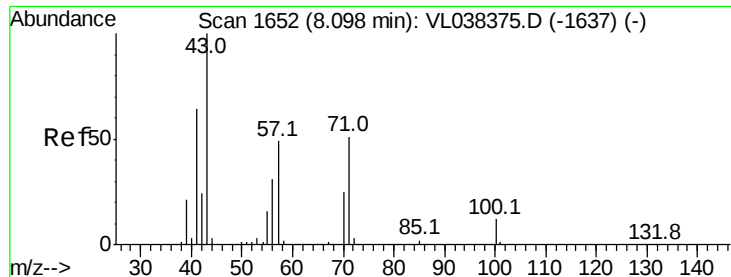
42 59.1 54.6 82.0



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.07 ppbv

RT: 8.11 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

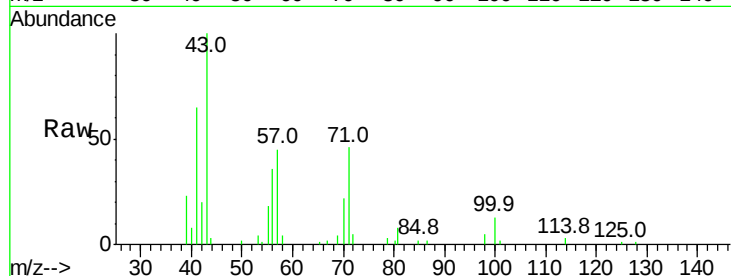
Acq: 22 Feb 2022 14:22 SG-FAM4GL-3DL2

Tgt Ion: 43 Resp: 9747

Ion Ratio Lower Upper

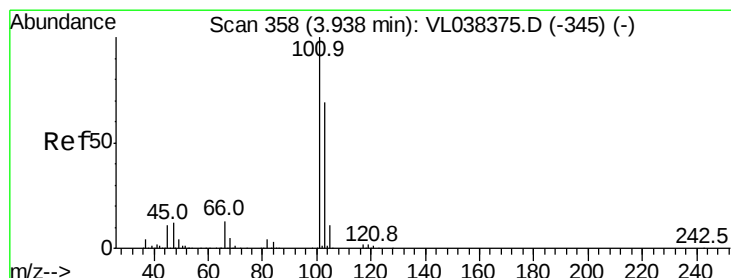
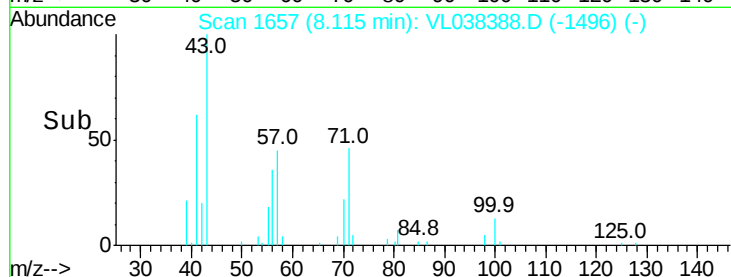
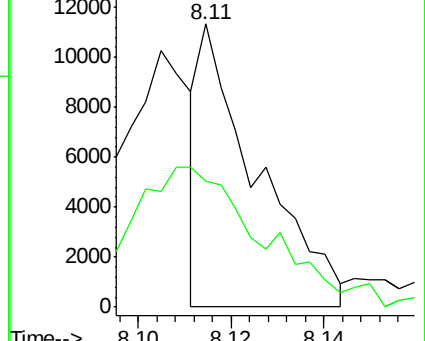
43 100

57 124.7 39.8 59.8#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#11

Trichlorofluoromethane

Concen: 9.77 ppbv

RT: 3.95 min Scan# 361

Delta R.T. 0.01 min

Lab File: VL038388.D

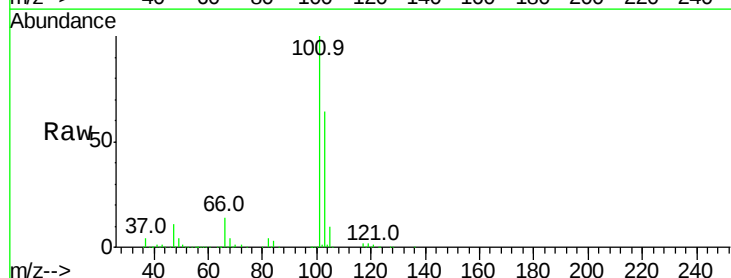
Acq: 22 Feb 2022 14:22

Tgt Ion: 101 Resp: 1437088

Ion Ratio Lower Upper

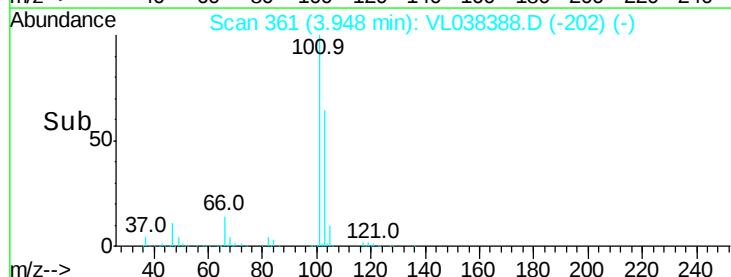
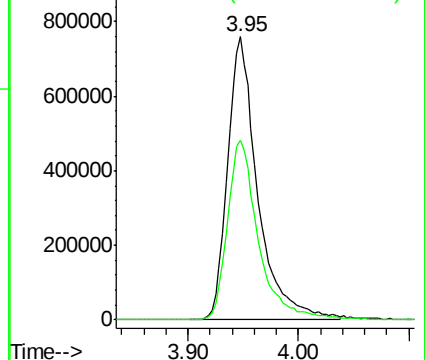
101 100

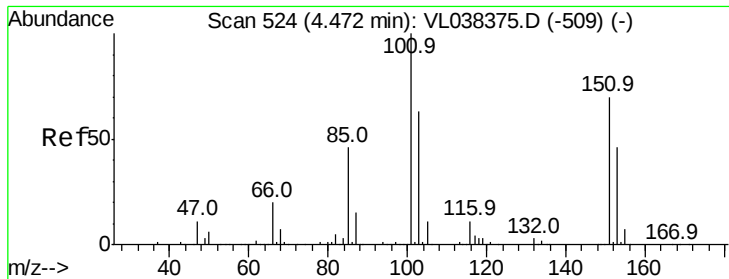
103 63.7 55.0 82.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.05 ppbv

RT: 4.05 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

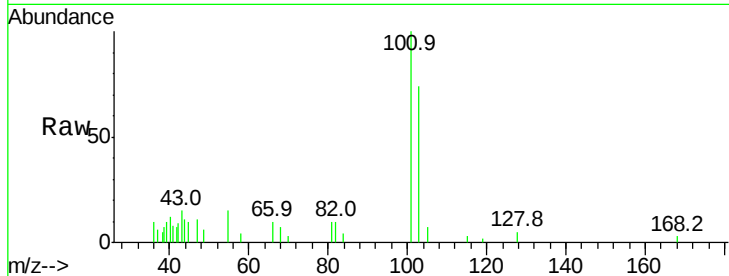
Acq: 22 Feb 2022 14:22 SG-FAM4GL-3DL2

Tgt Ion:101 Resp: 5441

Ion Ratio Lower Upper

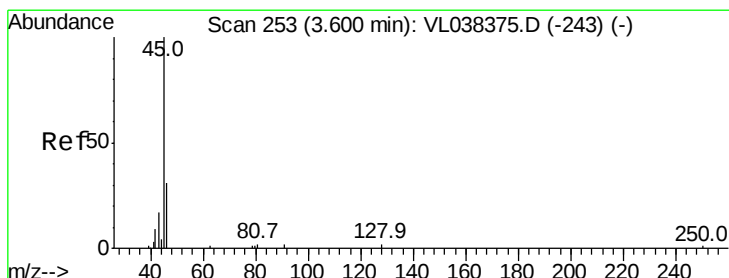
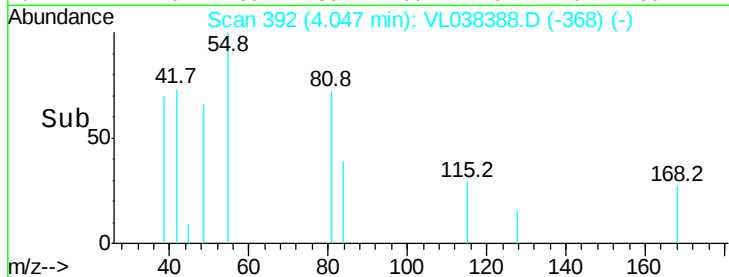
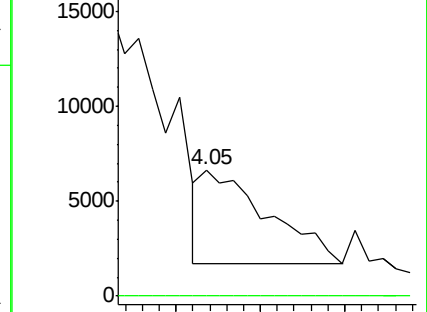
101 100

151 0.0 55.9 83.9#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 0.45 ppbv

RT: 3.62 min Scan# 259

Delta R.T. 0.02 min

Lab File: VL038388.D

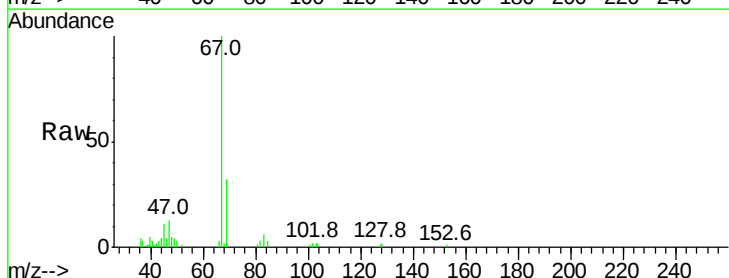
Acq: 22 Feb 2022 14:22

Tgt Ion: 45 Resp: 2561

Ion Ratio Lower Upper

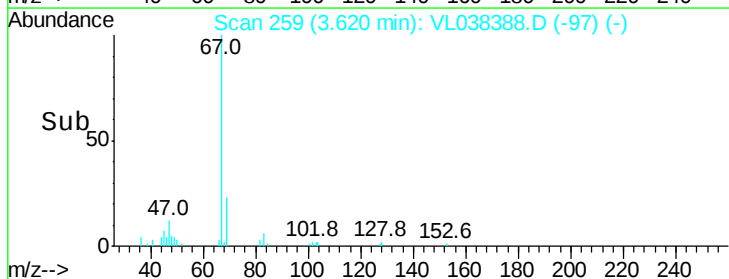
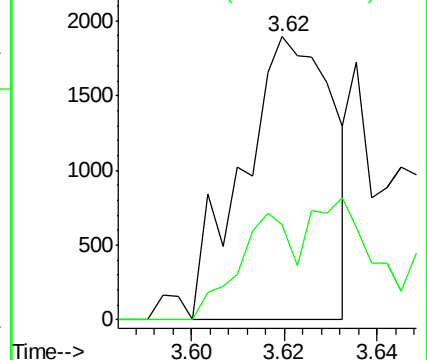
45 100

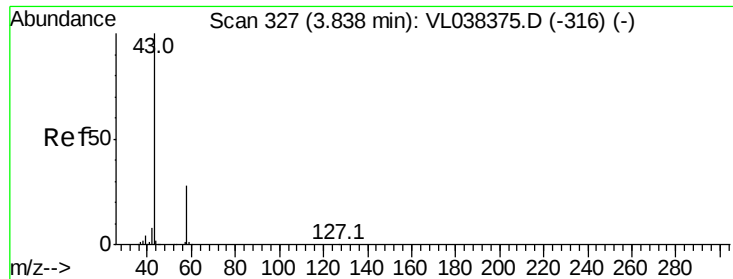
46 0.0 18.2 72.8#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 4.34 ppbv

RT: 3.87 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

SG-FAM4GL-3DL2

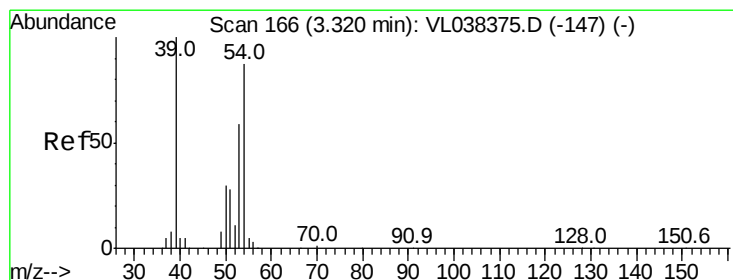
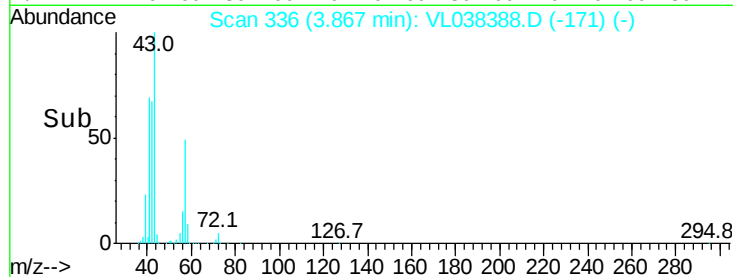
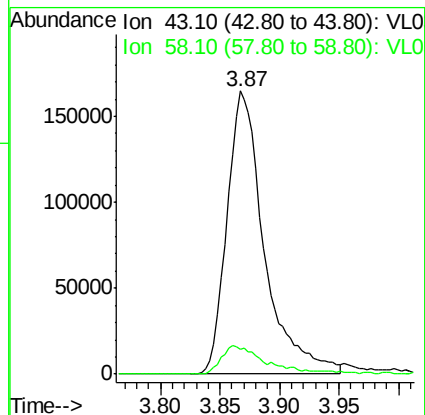
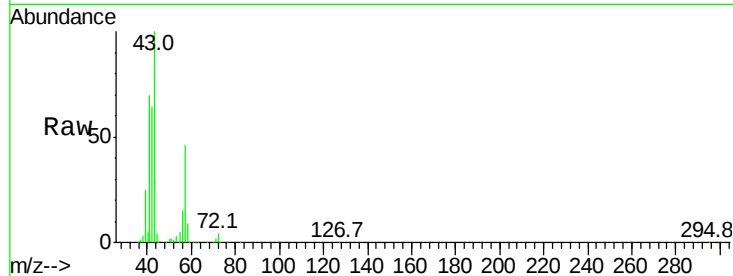
Acq: 22 Feb 2022 14:22

Tgt Ion: 43 Resp: 358468

Ion Ratio Lower Upper

43 100

58 12.8 21.7 32.5#



#16

1,3-Butadiene

Concen: 0.77 ppbv

RT: 3.30 min Scan# 161

Delta R.T. -0.02 min

Lab File: VL038388.D

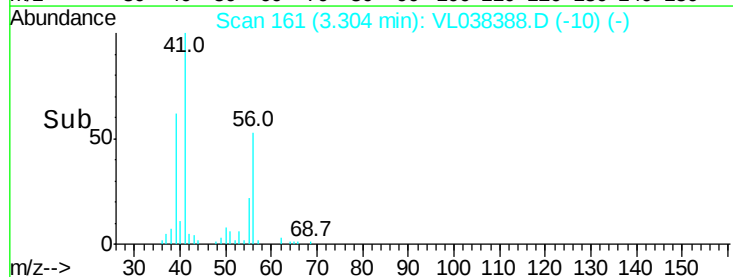
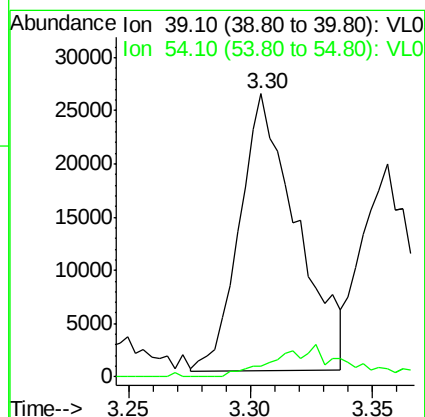
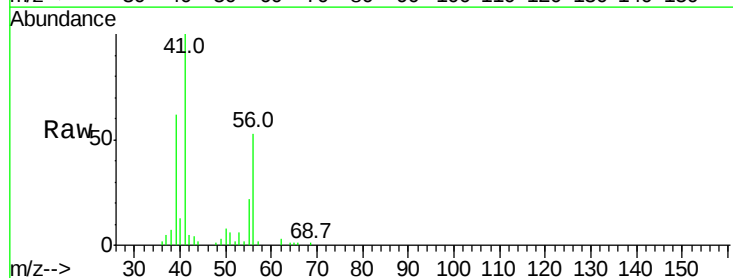
Acq: 22 Feb 2022 14:22

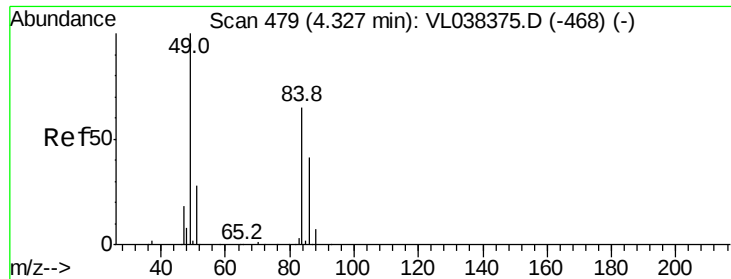
Tgt Ion: 39 Resp: 42295

Ion Ratio Lower Upper

39 100

54 15.1 60.3 90.5#





#20

Methylene Chloride

Concen: 0.29 ppbv

RT: 4.34 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

SG-FAM4GL-3DL2

Acq: 22 Feb 2022 14:22

Tgt Ion: 84 Resp: 11711

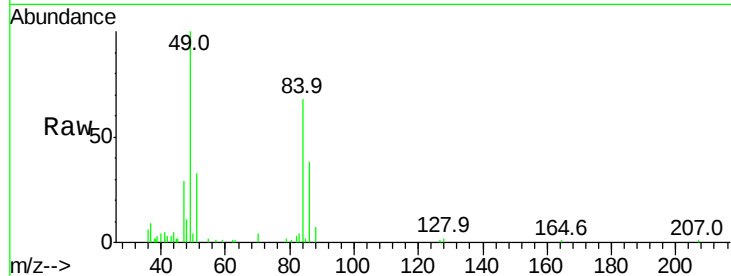
Ion Ratio Lower Upper

84 100

49 146.0 122.4 183.6

51 46.5 33.3 49.9

86 56.6 50.7 76.1

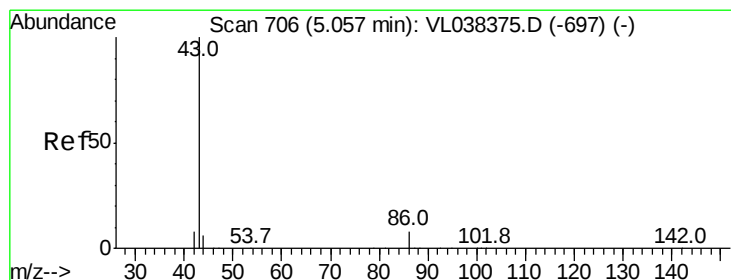
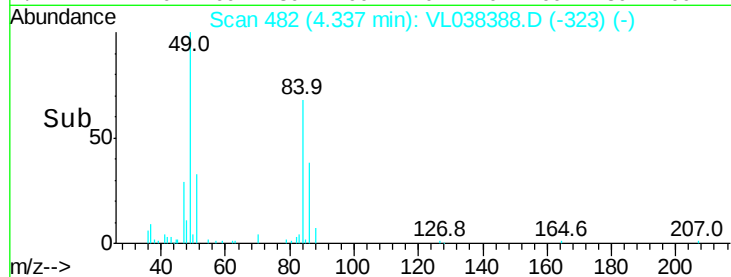
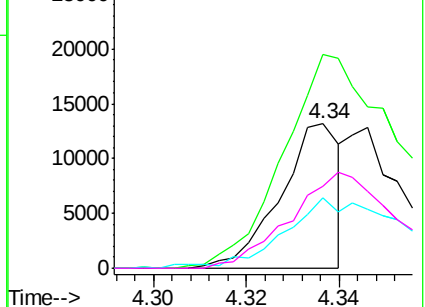


Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#23

Vinyl Acetate

Concen: 0.22 ppbv

RT: 5.05 min Scan# 704

Delta R.T. -0.01 min

Lab File: VL038388.D

Acq: 22 Feb 2022 14:22

Tgt Ion: 43 Resp: 24403

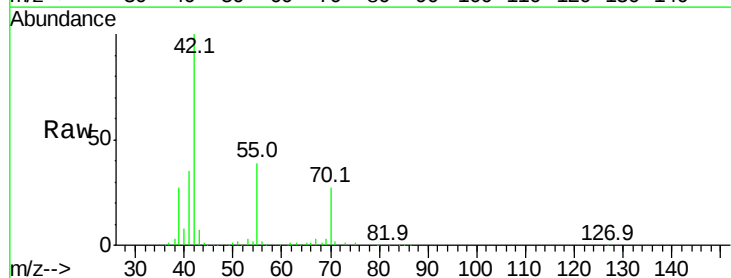
Ion Ratio Lower Upper

43 100

86 2.9 5.8 8.6#

42 1459.7 7.4 11.0#

44 9.9 4.2 6.2#

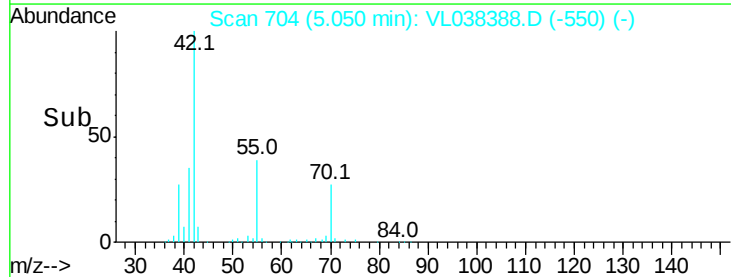
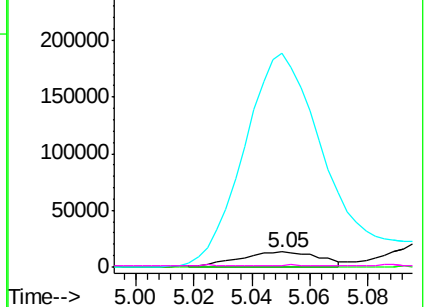


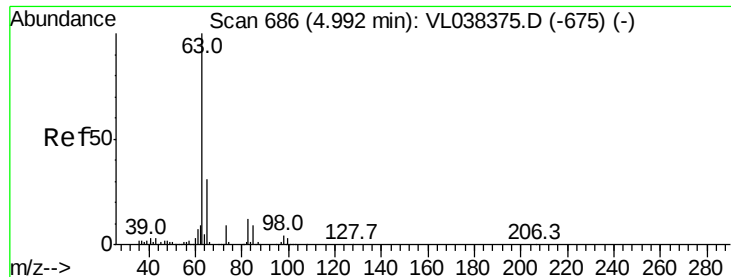
Abundance Ion 43.10 (42.80 to 43.80): VL0

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





#24

1,1-Dichloroethane

Concen: 0.07 ppbv

RT: 5.01 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 22 Feb 2022 14:22 SG-FAM4GL-3DL2

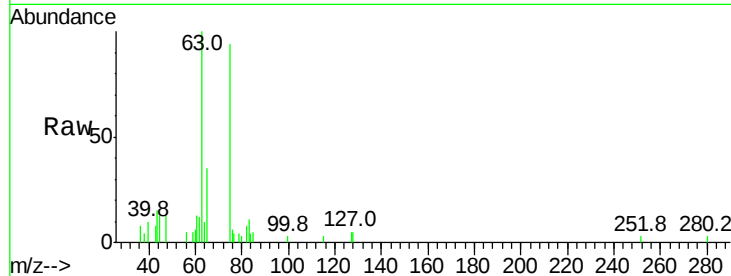
Tgt Ion: 63 Resp: 6659

Ion Ratio Lower Upper

63 100

98 0.0 2.1 6.5#

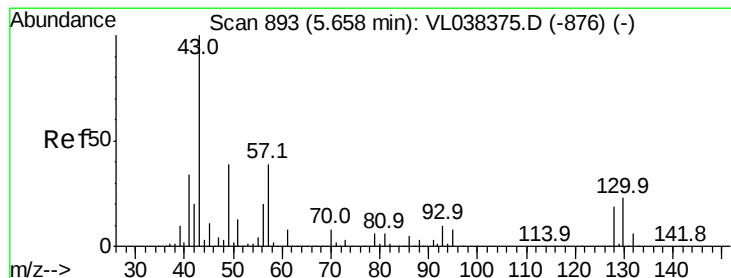
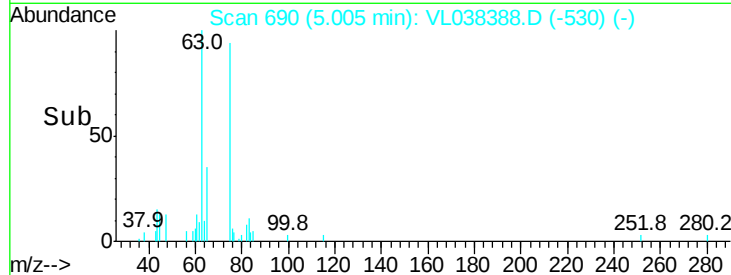
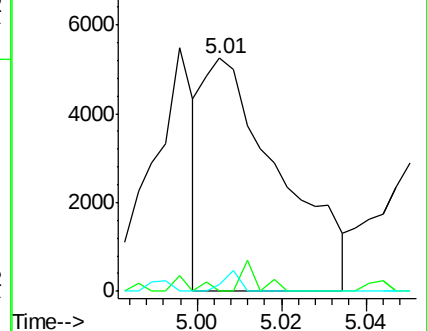
100 3.8 1.4 4.2



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0



#25

Ethyl Acetate

Concen: 0.16 ppbv

RT: 5.68 min Scan# 900

Delta R.T. 0.02 min

Lab File: VL038388.D

Acq: 22 Feb 2022 14:22

Tgt Ion: 43 Resp: 35235

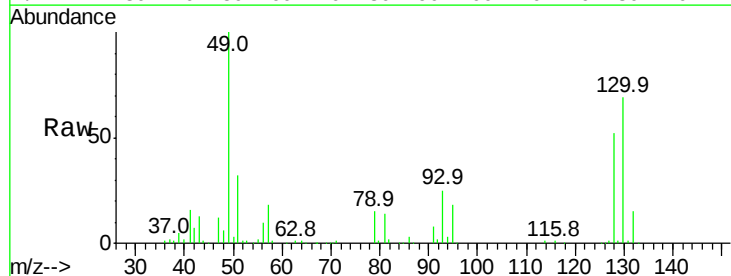
Ion Ratio Lower Upper

43 100

45 1.5 7.8 11.6#

61 0.0 7.5 11.3#

70 1.3 5.4 8.0#

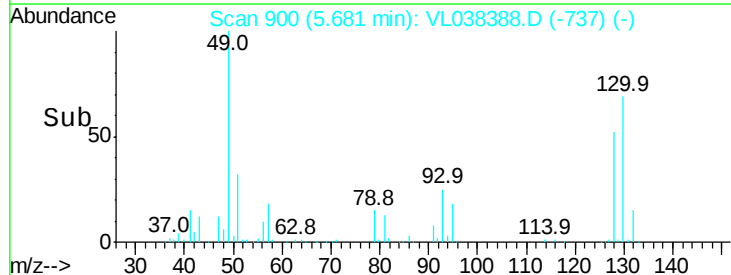
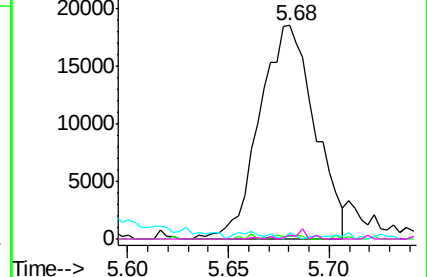


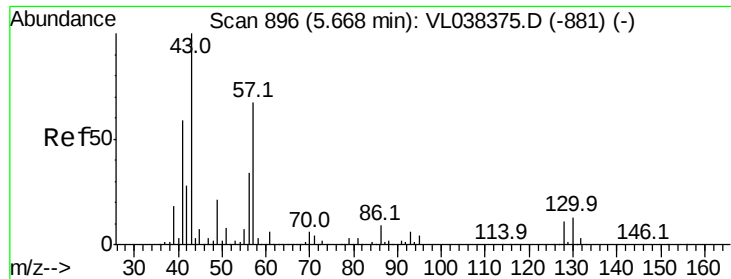
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.52 ppbv

RT: 5.68

Delta R.T.

Lab File:

Acq: 22 Feb 2022

Instrument:

MSVOA_1

ClientSampleId:

SG-FAM4GL-3DL2

Tgt Ion: 57 Resp: 51734

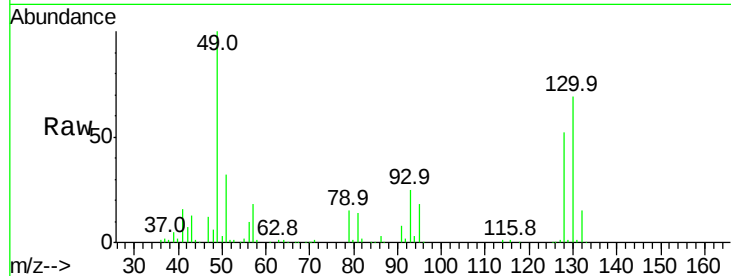
Ion Ratio Lower Upper

57 100

41 88.9 73.1 109.7

43 73.9 181.0 271.4#

56 56.0 43.4 65.0

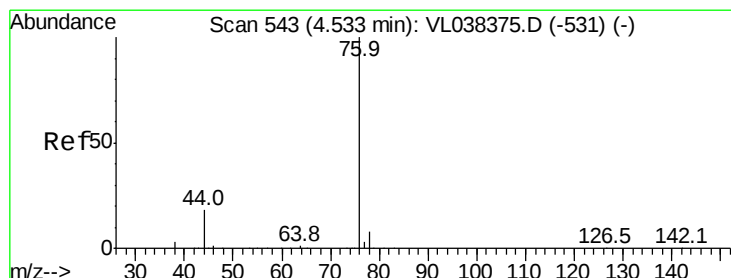
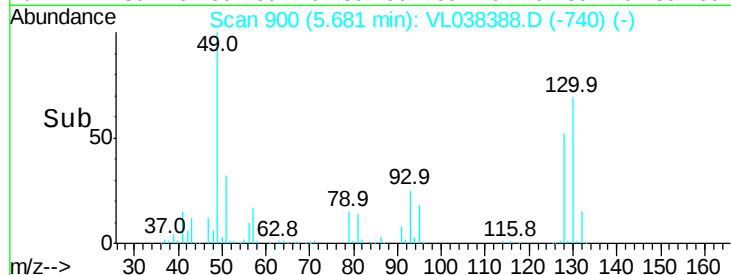
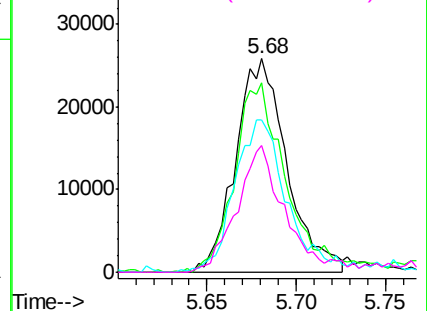


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#27

Carbon Disulfide

Concen: 0.47 ppbv

RT: 4.55 min Scan# 548

Delta R.T. 0.02 min

Lab File: VL038388.D

Acq: 22 Feb 2022 14:22

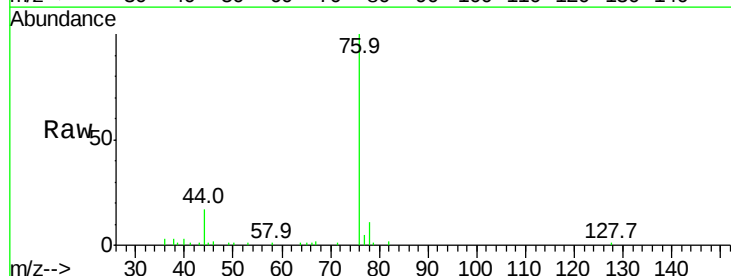
Tgt Ion: 76 Resp: 52089

Ion Ratio Lower Upper

76 100

44 28.8 14.2 21.2#

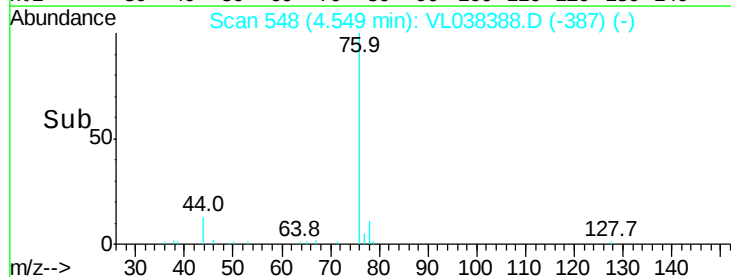
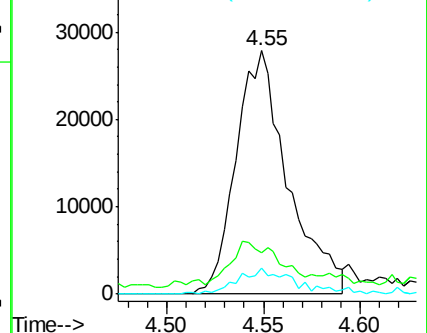
78 11.9 7.8 11.6#

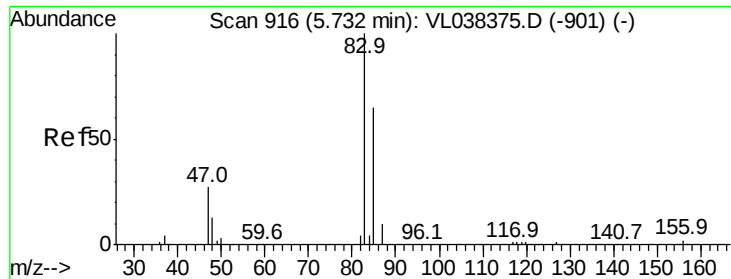


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#29

Chloroform

Concen: 0.03 ppbv

RT: 5.74 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

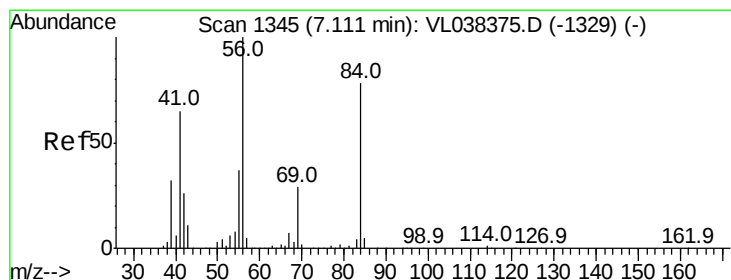
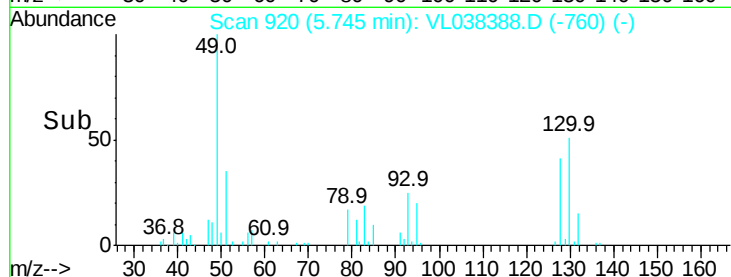
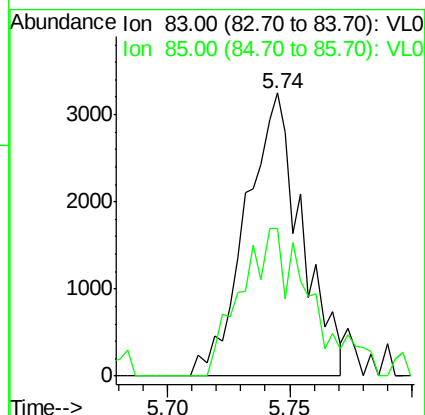
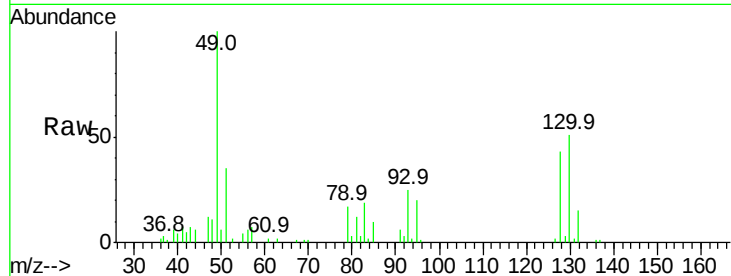
Acq: 22 Feb 2022 14:22 SG-FAM4GL-3DL2

Tgt Ion: 83 Resp: 5144

Ion Ratio Lower Upper

83 100

85 47.5 51.6 77.4#



#30

Cyclohexane

Concen: 0.14 ppbv

RT: 7.12 min Scan# 1349

Delta R.T. 0.01 min

Lab File: VL038388.D

Acq: 22 Feb 2022 14:22

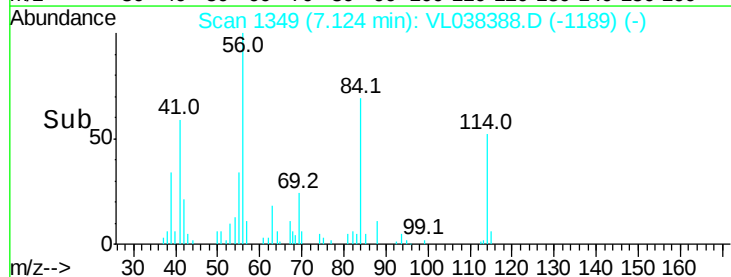
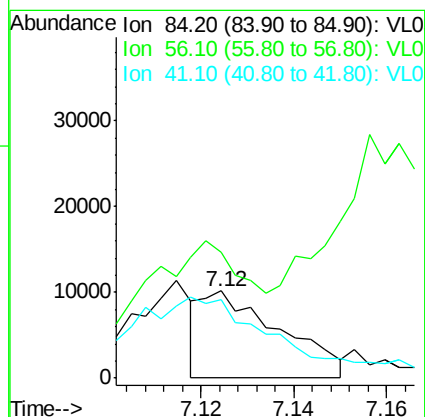
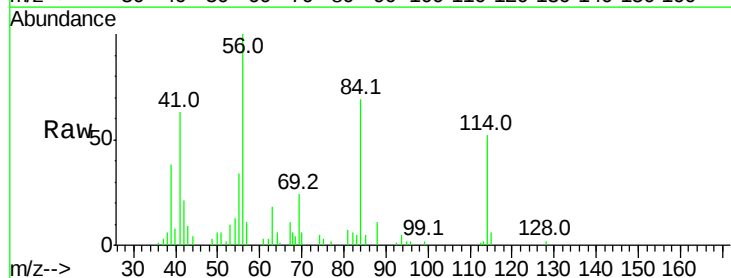
Tgt Ion: 84 Resp: 11886

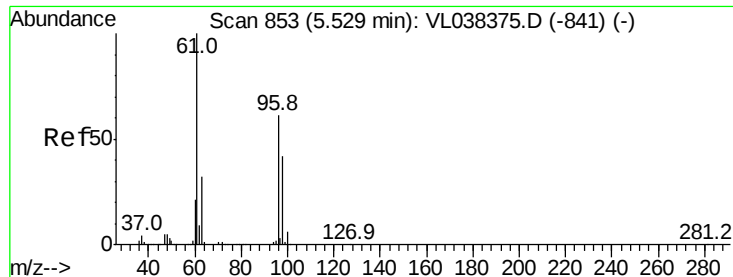
Ion Ratio Lower Upper

84 100

56 0.0 116.2 174.4#

41 0.0 74.3 111.5#





#31

cis-1,2-Dichloroethene

Concen: 0.41 ppbv

RT: 5.54

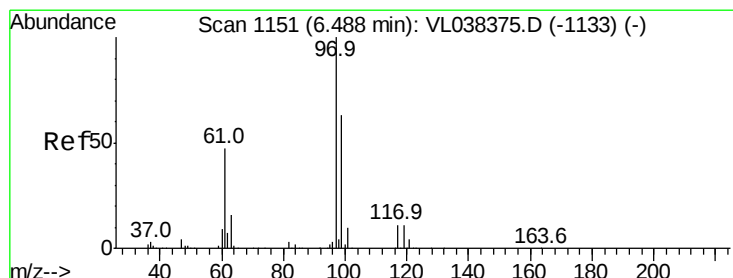
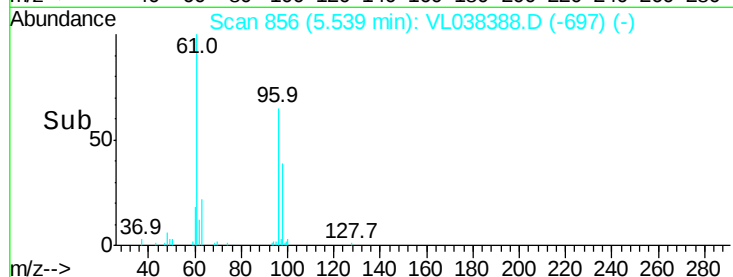
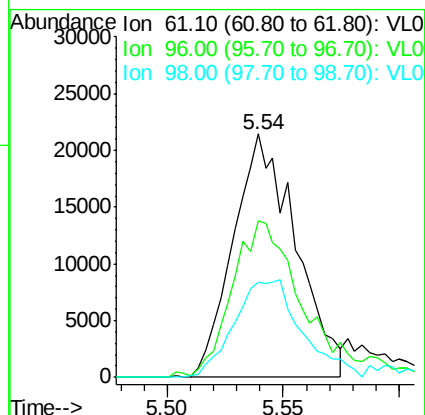
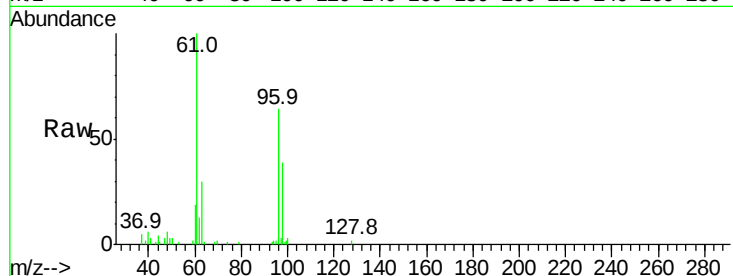
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 22 Feb 2022 14:22

Tgt Ion: 61 Resp: 40257

Ion	Ratio	Lower	Upper
61	100		
96	63.6	48.6	73.0
98	39.5	33.2	49.8



#32

1,1,1-Trichloroethane

Concen: 0.04 ppbv

RT: 6.50 min Scan# 1156

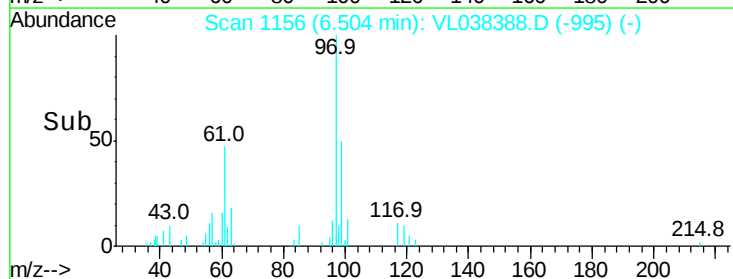
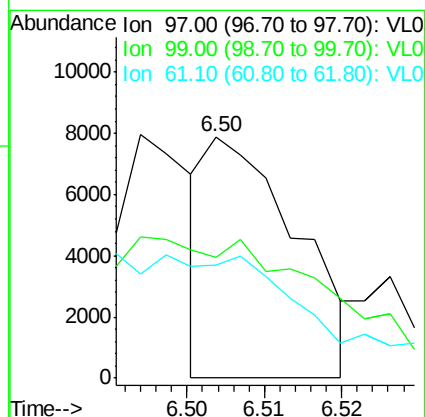
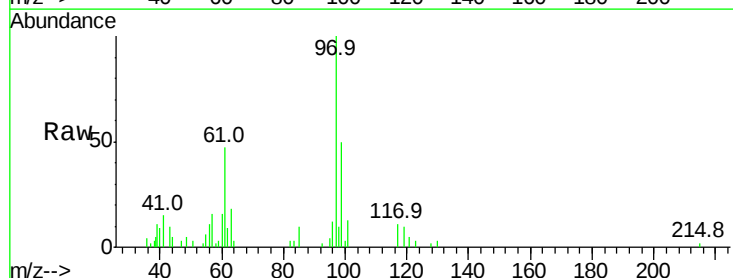
Delta R.T. 0.02 min

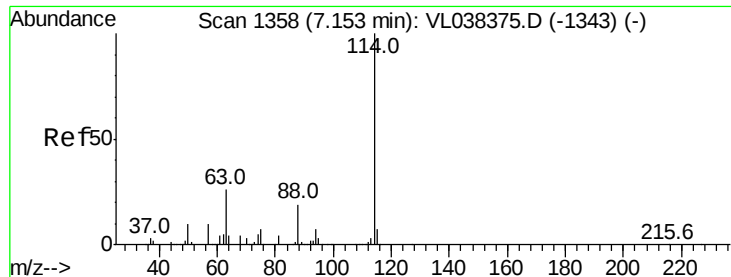
Lab File: VL038388.D

Acq: 22 Feb 2022 14:22

Tgt Ion: 97 Resp: 6431

Ion	Ratio	Lower	Upper
97	100		
99	0.0	51.9	77.9#
61	0.0	40.5	60.7#

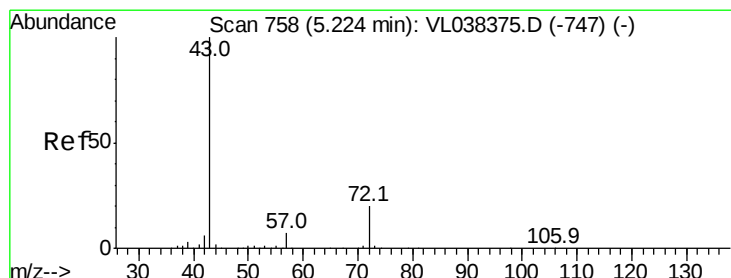
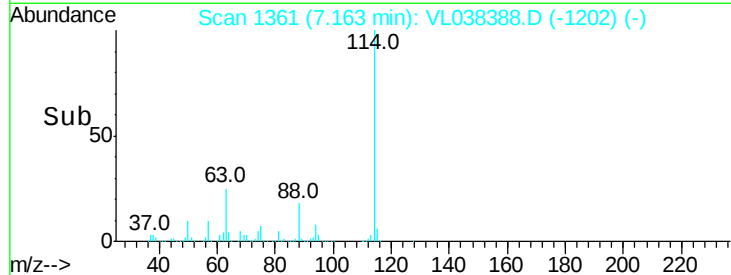
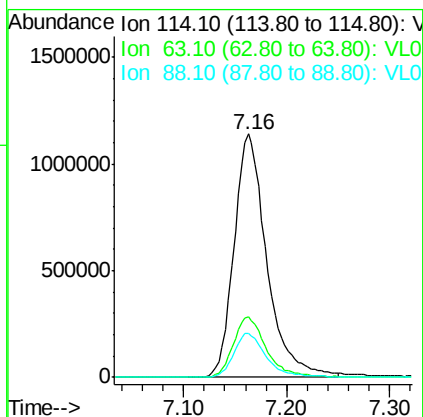
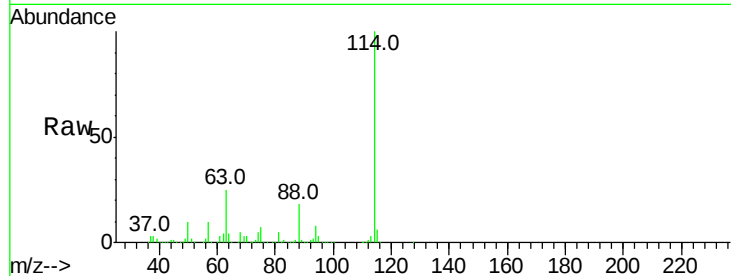




#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.16
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SG-FAM4GL-3DL2
 Acq: 22 Feb 2022 14:22

Tgt Ion: 114 Resp: 2522489

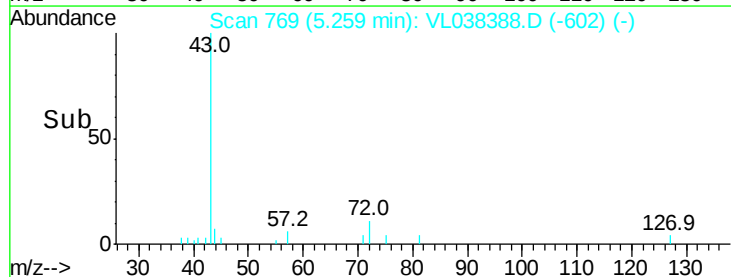
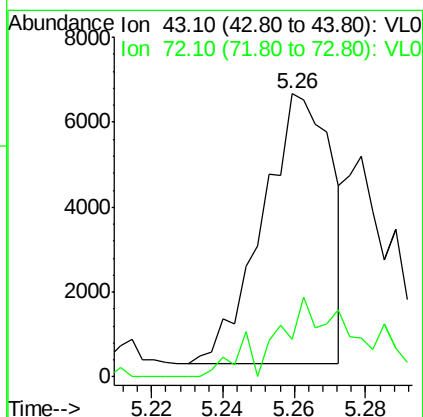
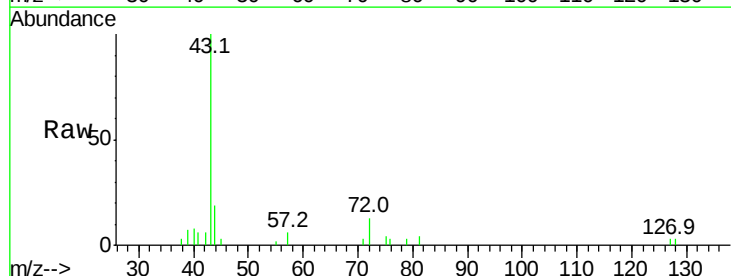
Ion	Ratio	Lower	Upper
114	100		
63	25.7	22.2	33.2
88	18.2	15.2	22.8

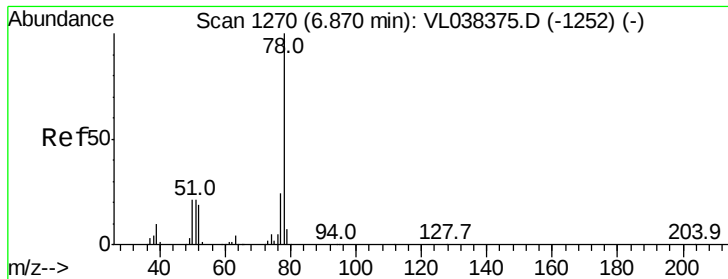


#34
 2-Butanone
 Concen: 0.11 ppbv
 RT: 5.26 min Scan# 769
 Delta R.T. 0.04 min
 Lab File: VL038388.D
 Acq: 22 Feb 2022 14:22

Tgt Ion: 43 Resp: 8554

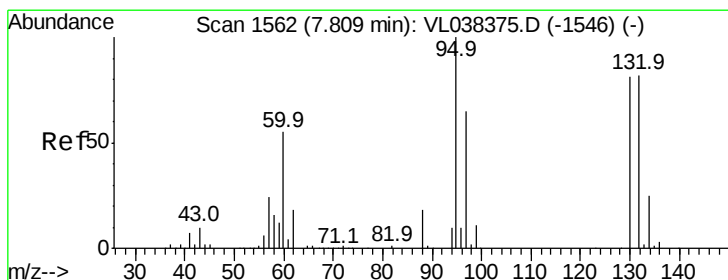
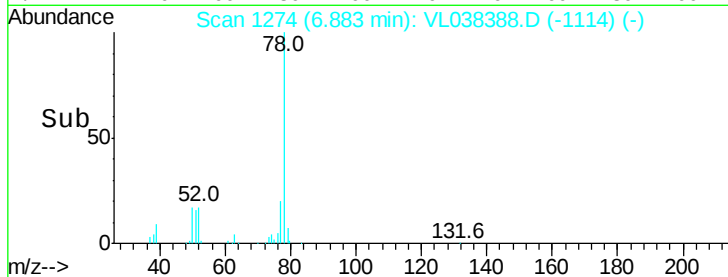
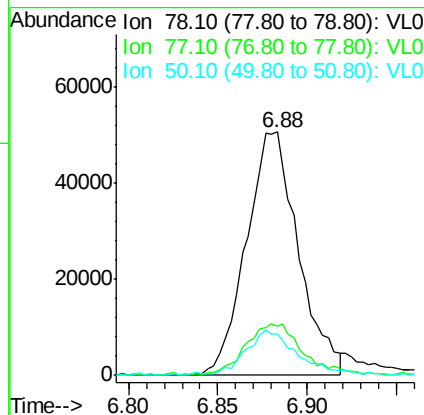
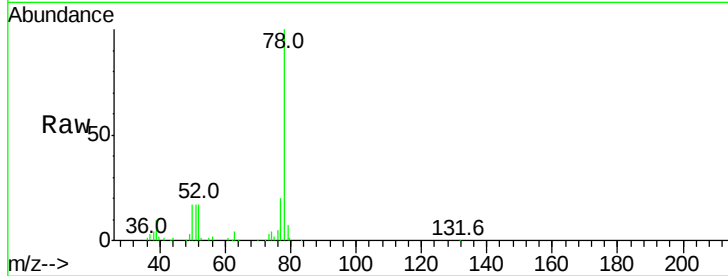
Ion	Ratio	Lower	Upper
43	100		
72	45.2	17.4	26.2#





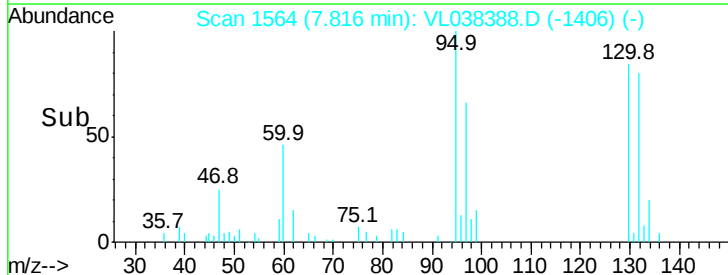
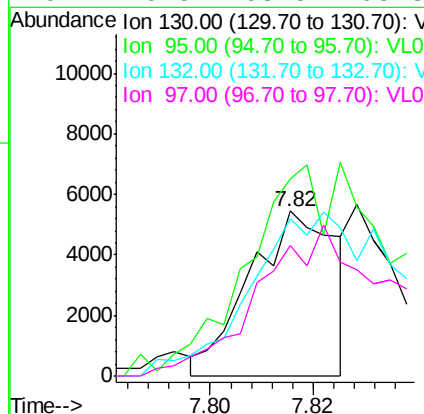
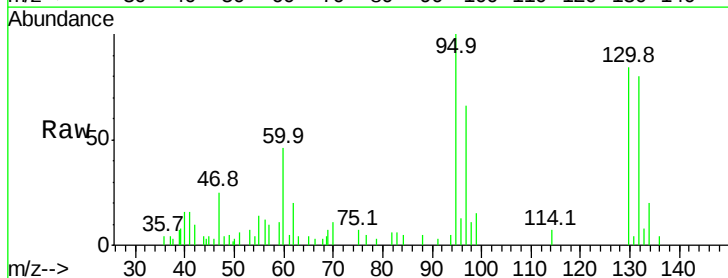
#36
Benzene
Concen: 0.46 ppbv
RT: 6.88
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId : SG-FAM4GL-3DL2
Acq: 22 Feb 2022 14:22

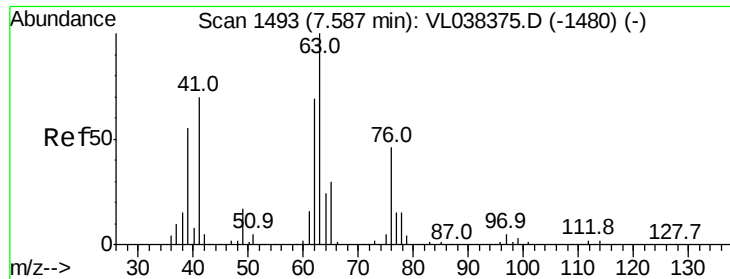
Tgt Ion	Ratio	Lower	Upper
78	100		
77	20.4	19.0	28.6
50	16.6	16.6	24.8



#38
Trichloroethene
Concen: 0.08 ppbv
RT: 7.82 min Scan# 1564
Delta R.T.: 0.01 min
Lab File: VL038388.D
Acq: 22 Feb 2022 14:22

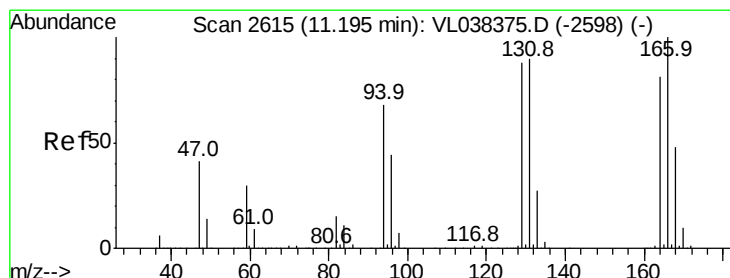
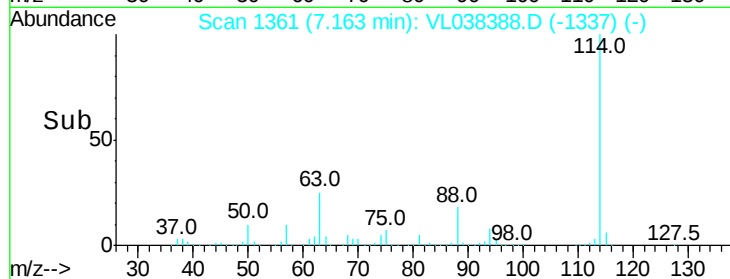
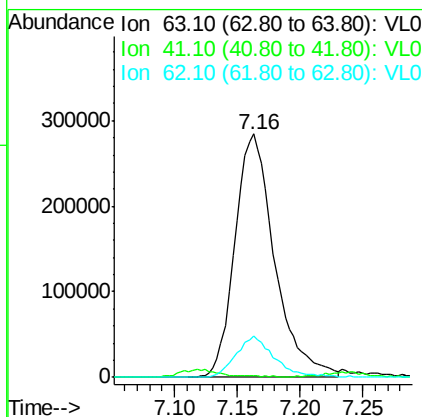
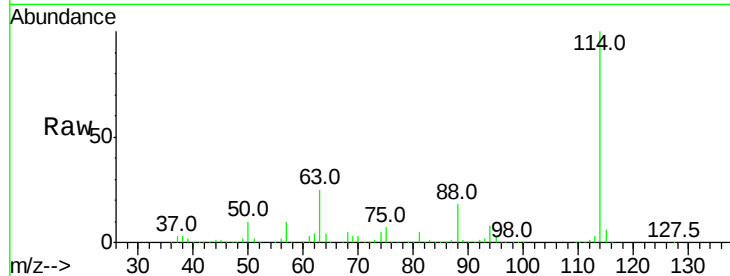
Tgt Ion	Ratio	Lower	Upper
130	100		
95	113.0	98.1	147.1
132	94.6	80.3	120.5
97	76.5	63.5	95.3





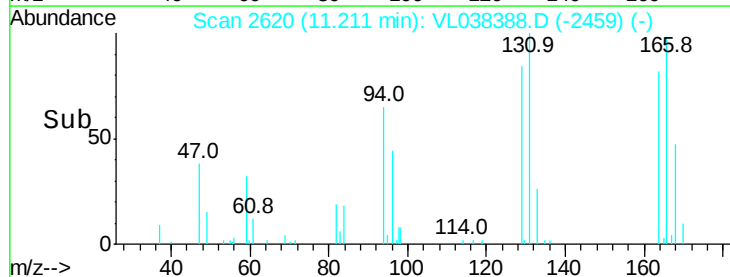
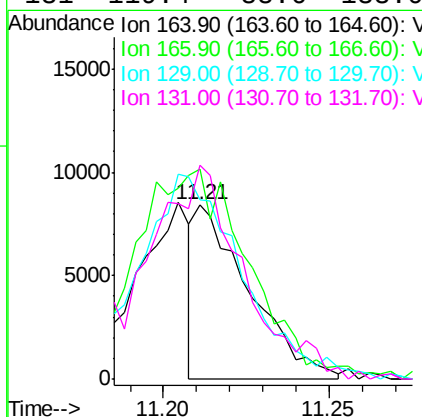
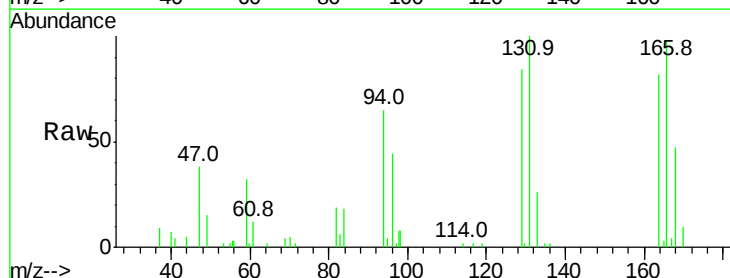
#39
 1,2-Dichloropropane
 Concen: 7.09 ppbv
 RT: 7.16
 Instrument: MSVOA_1
 Delta R.T.:
 ClientSampleId:
 Lab File: SG-FAM4GL-3DL2
 Acq: 22 Feb 2022 14:22

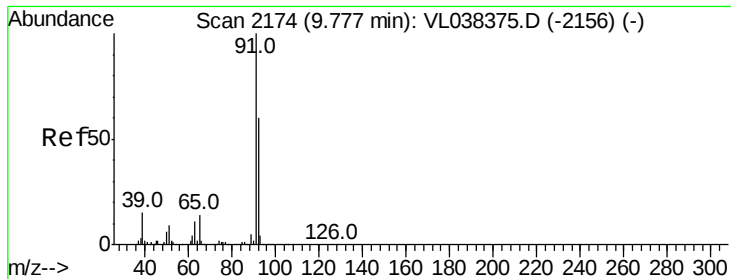
Tgt Ion: 63 Resp: 627537
 Ion Ratio Lower Upper
 63 100
 41 0.0 56.1 84.1#
 62 16.9 55.5 83.3#



#52
 Tetrachloroethene
 Concen: 0.13 ppbv
 RT: 11.21 min Scan# 2620
 Delta R.T.: 0.02 min
 Lab File: VL038388.D
 Acq: 22 Feb 2022 14:22

Tgt Ion: 164 Resp: 9510
 Ion Ratio Lower Upper
 164 100
 166 116.5 98.6 148.0
 129 101.2 86.9 130.3
 131 119.4 88.6 133.0





#53

Toluene

Concen: 0.10 ppbv

RT: 9.79 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SG-FAM4GL-3DL2

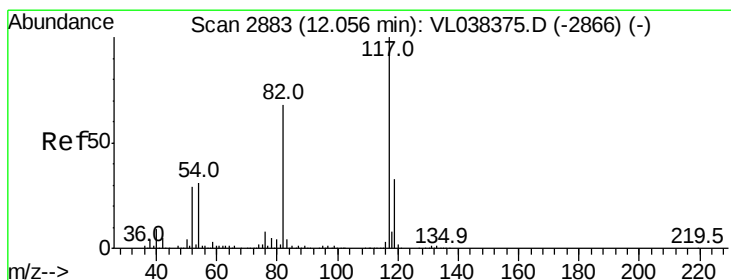
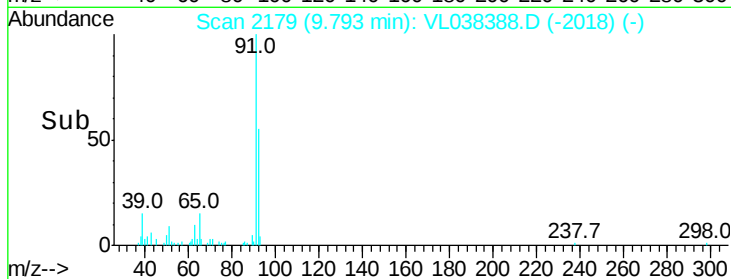
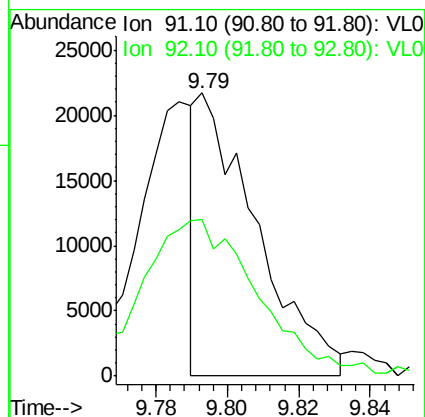
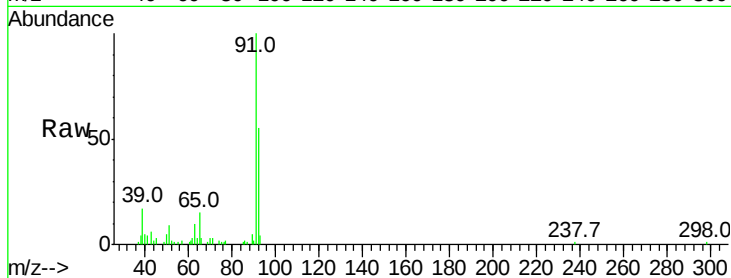
Acq: 22 Feb 2022 14:22

Tgt Ion: 91 Resp: 24617

Ion Ratio Lower Upper

91 100

92 115.6 48.2 72.4#



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.07 min Scan# 2887

Delta R.T. 0.01 min

Lab File: VL038388.D

Acq: 22 Feb 2022 14:22

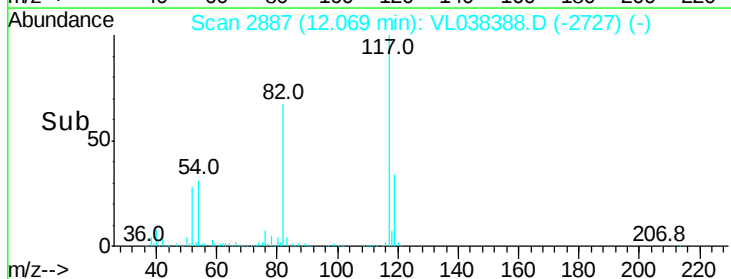
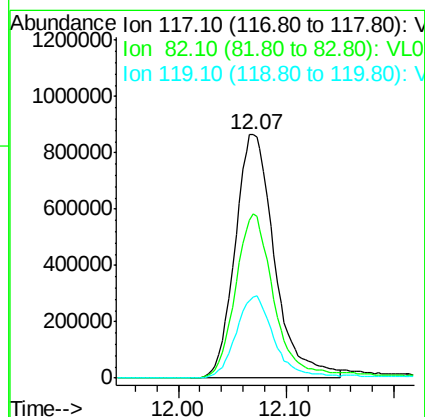
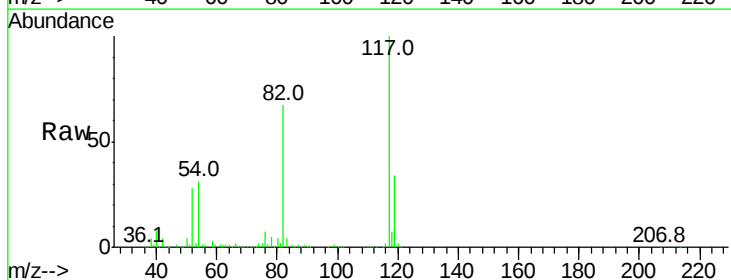
Tgt Ion: 117 Resp: 2206759

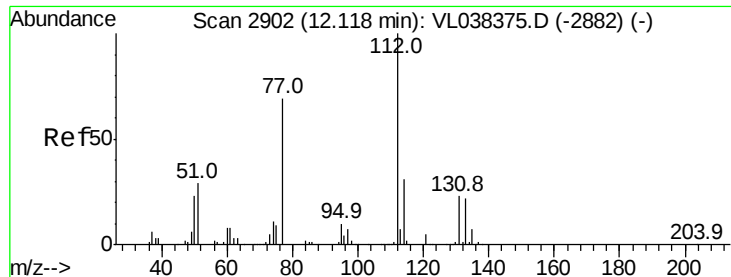
Ion Ratio Lower Upper

117 100

82 68.2 54.9 82.3

119 34.1 46.1 69.1#





#57

Chlorobenzene

Concen: 0.07 ppbv

RT: 12.13

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 22 Feb 2022 14:22

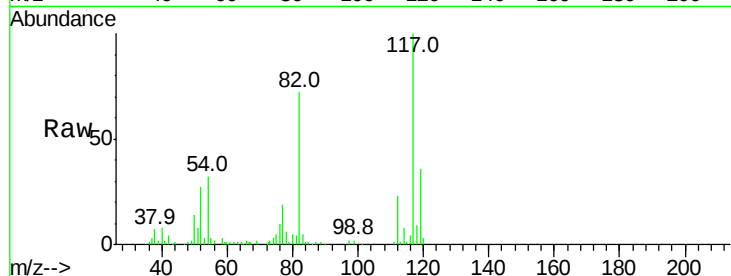
Tgt Ion: 112 Resp: 11761

Ion Ratio Lower Upper

112 100

77 59.7 55.2 82.8

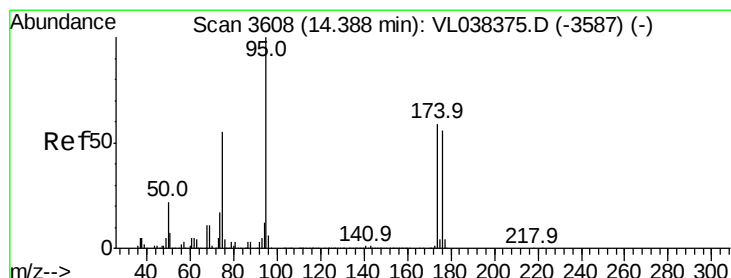
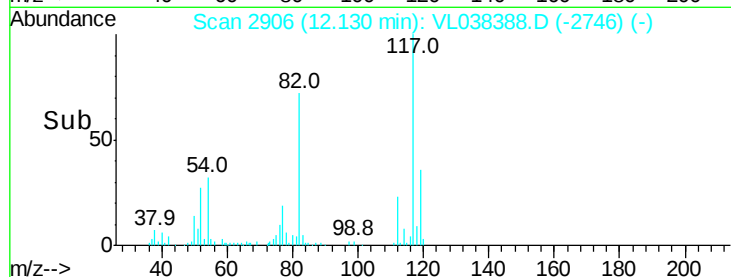
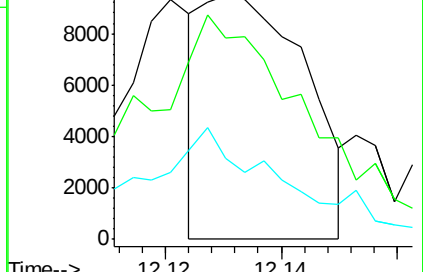
114 27.5 27.9 34.1#



Abundance Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): VL0

Ion 114.10 (113.80 to 114.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 9.41 ppbv

RT: 14.40 min Scan# 3611

Delta R.T. 0.01 min

Lab File: VL038388.D

Acq: 22 Feb 2022 14:22

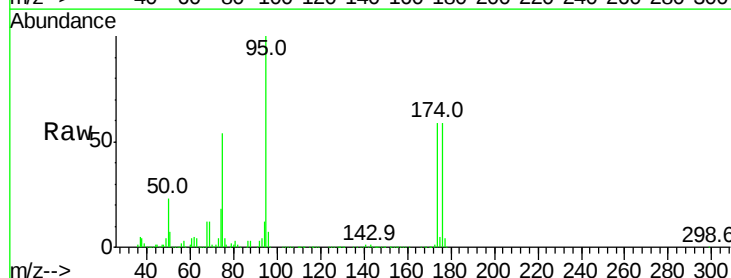
Tgt Ion: 95 Resp: 1718936

Ion Ratio Lower Upper

95 100

174 65.5 49.0 73.4

175 4.7 3.6 5.4



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

