

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032322\
 Data File : VL038735.D
 Acq On : 24 Mar 2022 3:48
 Operator : SY/AP
 Sample : N2050-01DL 5X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P87DL

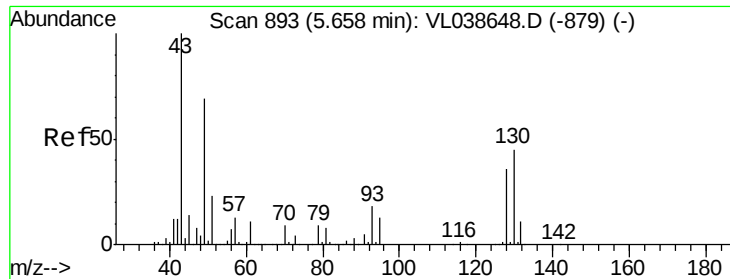
Quant Time: Mar 24 04:37:19 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 21 17:09:26 2022
 QLast Update : Mon Mar 21 17:09:26 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	817005	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	2212732	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	1872754	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.41	95	1359303	9.47	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.70%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	11333	0.103 ppbv	98
3) Chlorodifluoromethane	2.99	51	8758	0.101 ppbv #	83
4) Chloromethane	3.14	50	3354	0.071 ppbv #	82
9) Propene	3.02	41	21228	0.510 ppbv	96
11) Trichlorofluoromethane	3.95	101	4160	0.043 ppbv	95
13) Ethanol	3.62	45	19083	4.153 ppbv #	44
15) Acetone	3.86	43	248899	3.531 ppbv #	87
16) 1,3-Butadiene	3.31	39	26299	0.657 ppbv #	14
17) tert-Butyl alcohol	4.31	59	10257	0.167 ppbv #	90
20) Methylene Chloride	4.34	84	6255	0.211 ppbv #	80
23) Vinyl Acetate	5.25	43	233288	3.417 ppbv #	88
25) Ethyl Acetate	5.30	43	10772	0.061 ppbv #	75
26) Hexane	5.69	57	2855	0.036 ppbv #	1
29) Chloroform	5.75	83	34182	0.269 ppbv	91
30) Cyclohexane	7.16	84	2866	0.041 ppbv #	23
34) 2-Butanone	5.25	43	233288	2.664 ppbv #	90
39) 1,2-Dichloropropane	7.17	63	505344	7.569 ppbv #	29
51) 2-Hexanone	10.15	43	14411	0.123 ppbv #	91
52) Tetrachloroethene	11.22	164	178515	2.856 ppbv	96
53) Toluene	9.80	91	7203	0.039 ppbv #	77
75) 1,3-Dichlorobenzene	16.99	146	5166	0.038 ppbv #	1

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: COP87DL

Acq: 24 Mar 2022 3:48

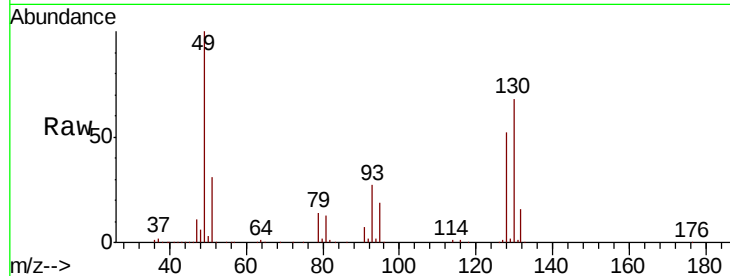
Tot Ion: 49 Resp: 817005

Ion Ratio Lower Upper

49 100

128 55.9 26.2 78.6

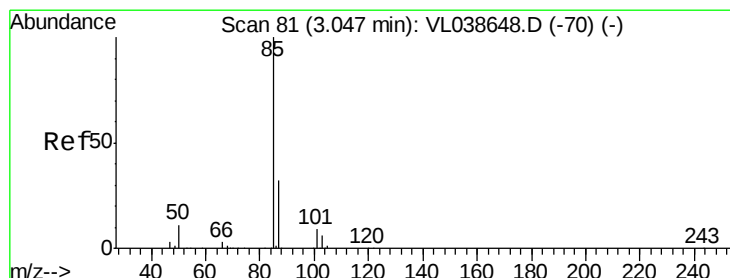
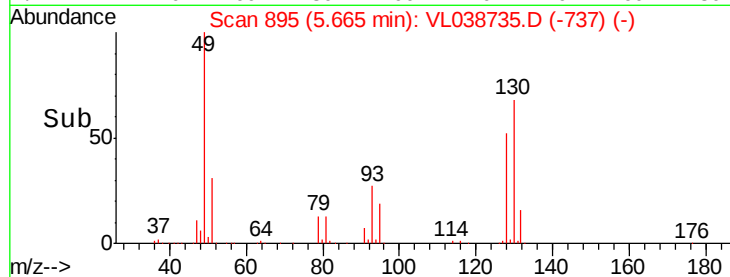
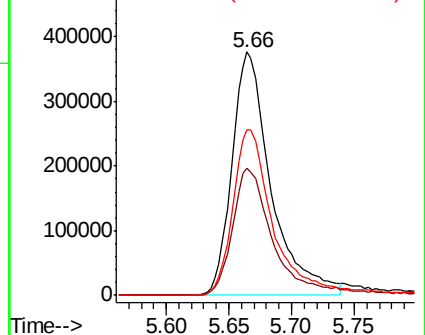
130 71.8 33.7 101.1



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.103 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.01 min

Lab File: VL038735.D

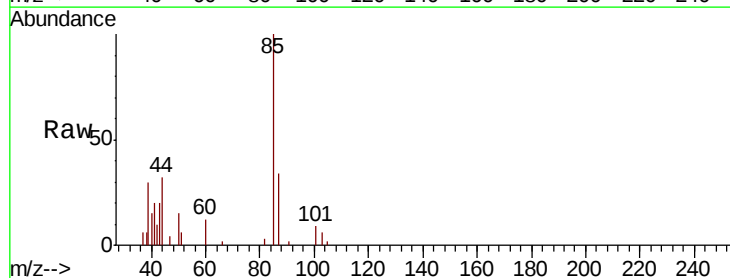
Acq: 24 Mar 2022 3:48

Tgt Ion: 85 Resp: 11333

Ion Ratio Lower Upper

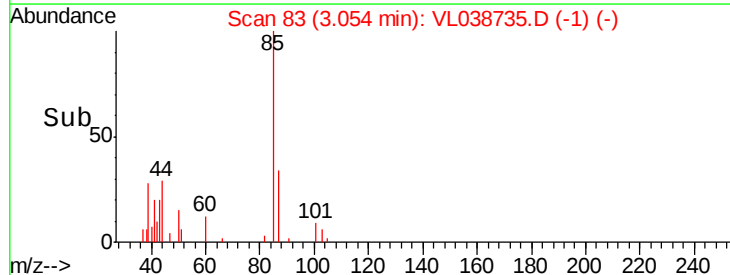
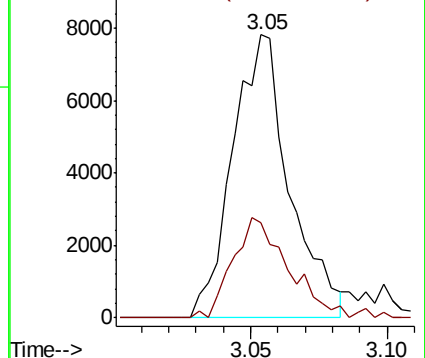
85 100

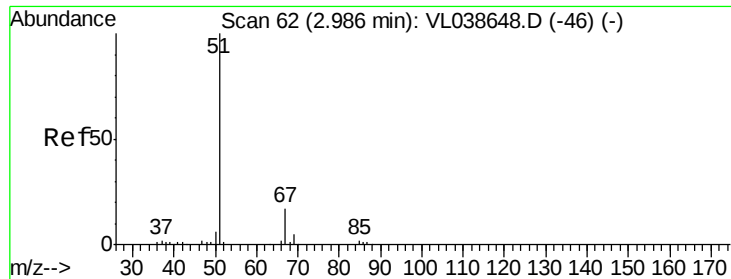
87 33.8 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.101 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

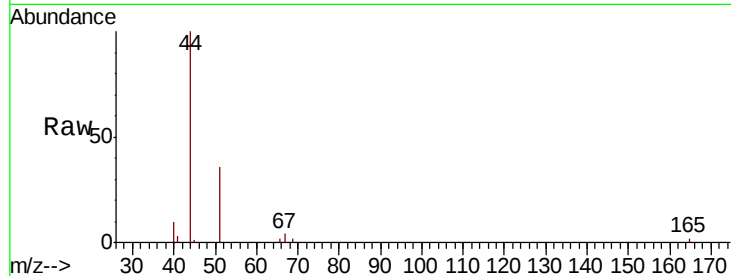
Acq: 24 Mar 2022 3:48

Tot Ion: 51 Resp: 8758

Ion Ratio Lower Upper

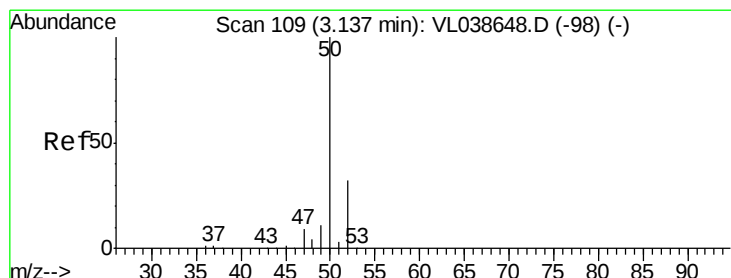
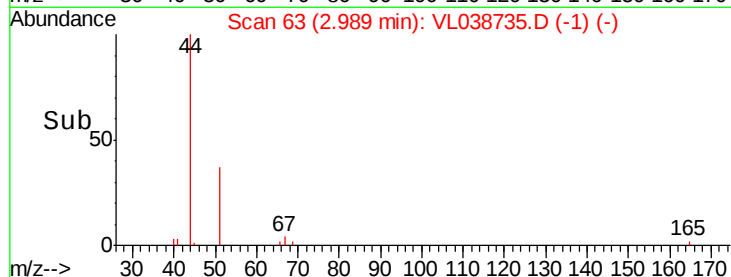
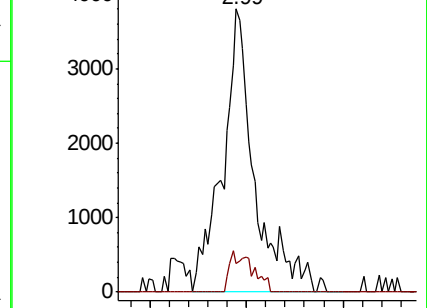
51 100

67 10.2 14.1 21.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.071 ppbv

RT: 3.14 min Scan# 110

Delta R.T. 0.00 min

Lab File: VL038735.D

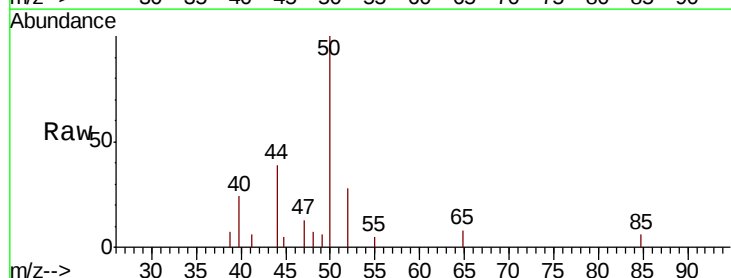
Acq: 24 Mar 2022 3:48

Tgt Ion: 50 Resp: 3354

Ion Ratio Lower Upper

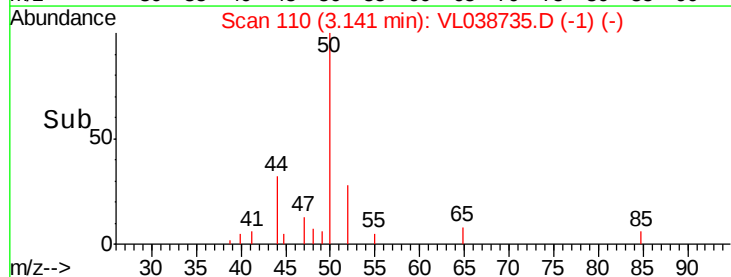
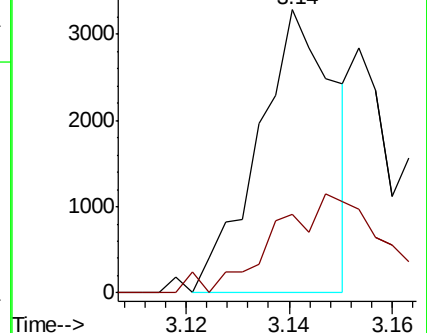
50 100

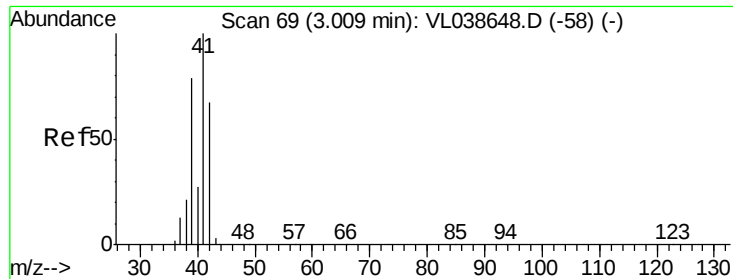
52 21.8 25.5 38.3#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.510 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

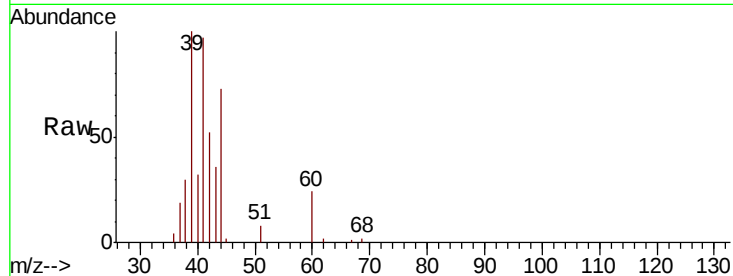
Acq: 24 Mar 2022 3:48

Tot Ion: 41 Resp: 21228

Ion Ratio Lower Upper

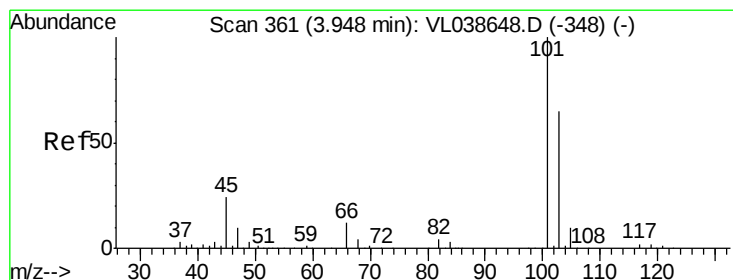
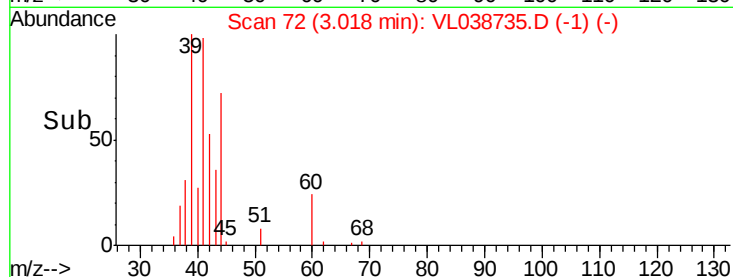
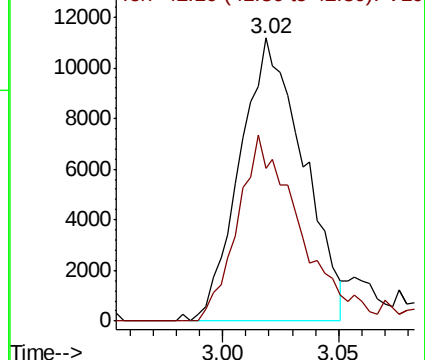
41 100

42 66.7 56.2 84.4



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.043 ppbv

RT: 3.95 min Scan# 363

Delta R.T. 0.01 min

Lab File: VL038735.D

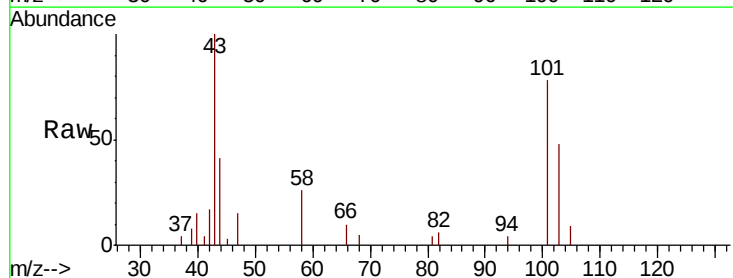
Acq: 24 Mar 2022 3:48

Tgt Ion: 101 Resp: 4160

Ion Ratio Lower Upper

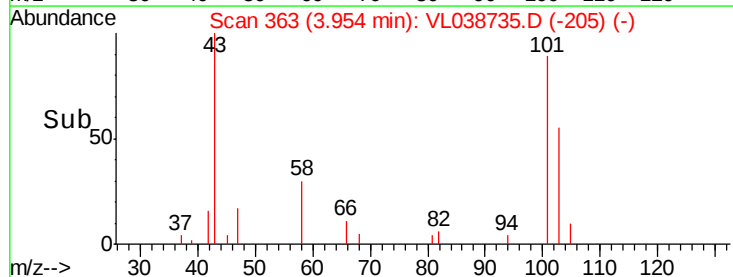
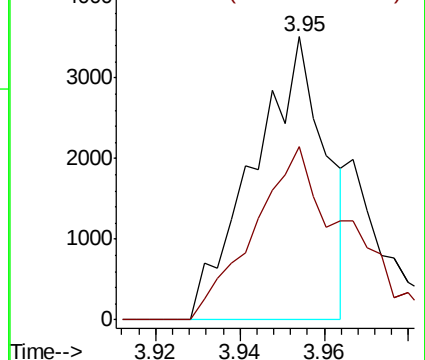
101 100

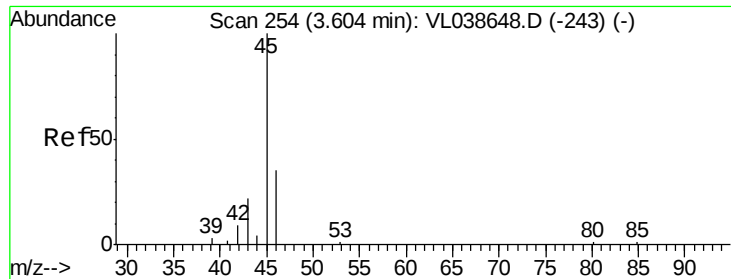
103 61.2 51.9 77.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#13

Ethanol

Concen: 4.153 ppbv

RT: 3.62

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

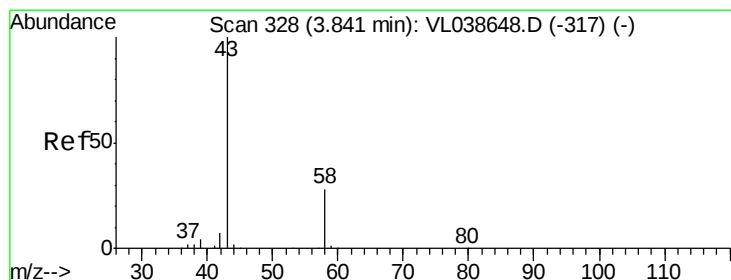
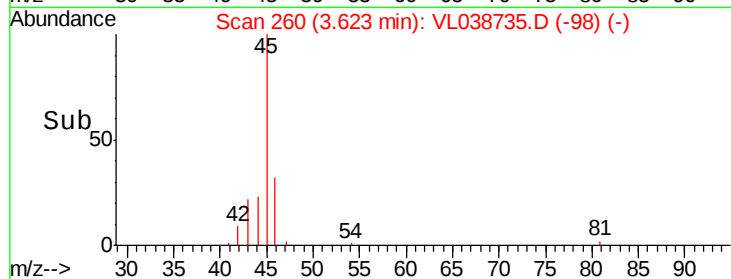
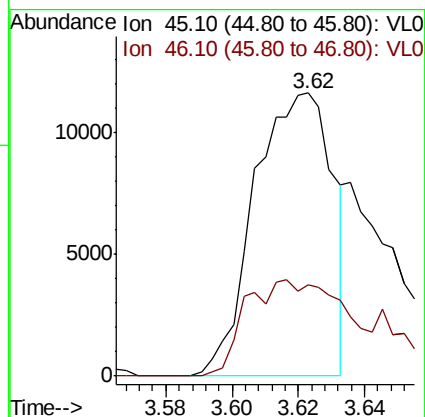
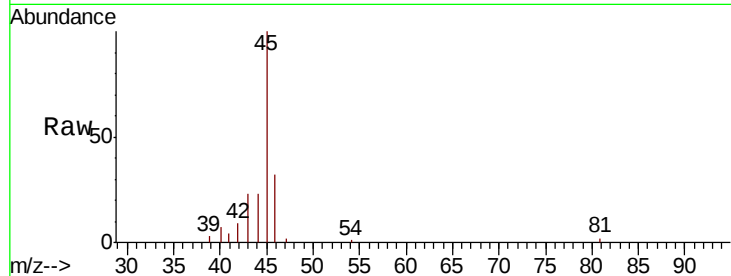
Acq: 24 Mar 2022 3:48

Tot Ion: 45 Resp: 19083

Ion Ratio Lower Upper

45 100

46 71.2 15.1 60.5#



#15

Acetone

Concen: 3.531 ppbv

RT: 3.86 min Scan# 333

Delta R.T. 0.02 min

Lab File: VL038735.D

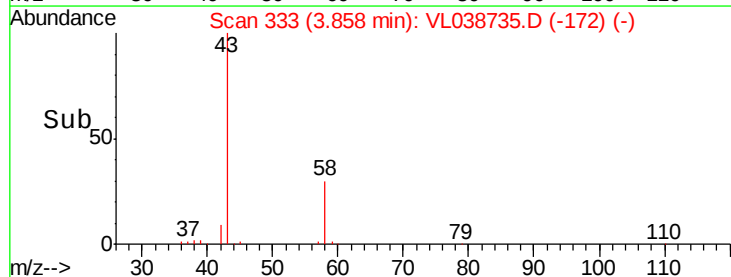
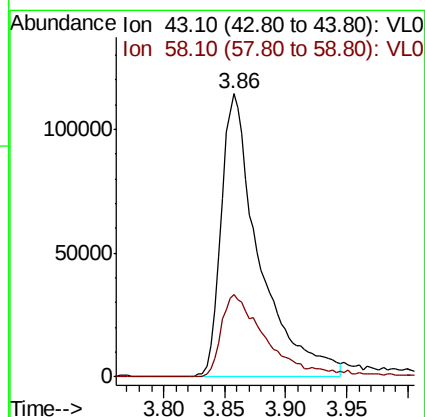
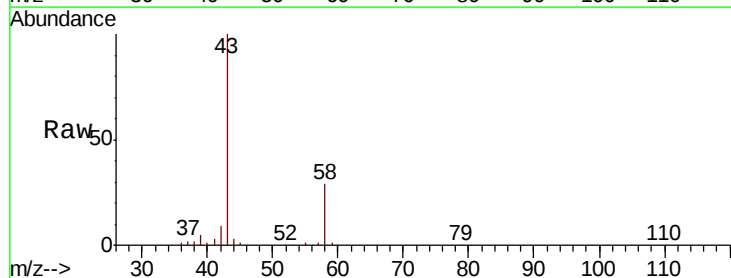
Acq: 24 Mar 2022 3:48

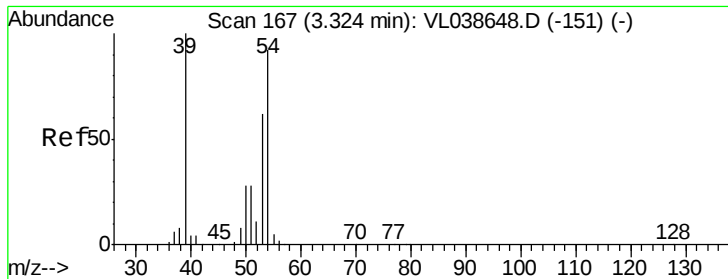
Tgt Ion: 43 Resp: 248899

Ion Ratio Lower Upper

43 100

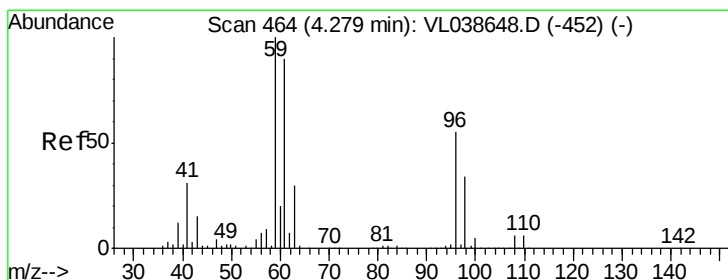
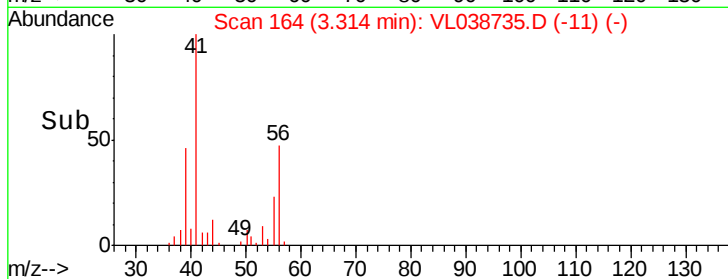
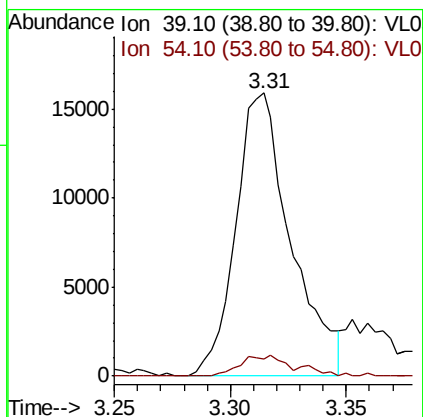
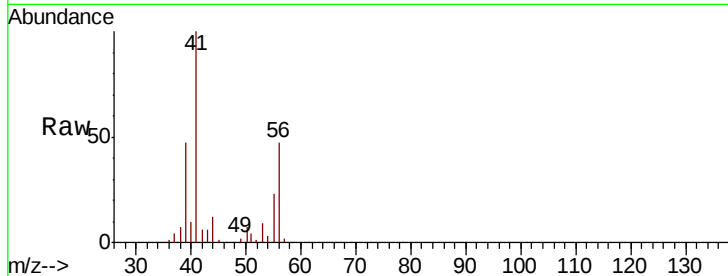
58 36.1 23.3 34.9#





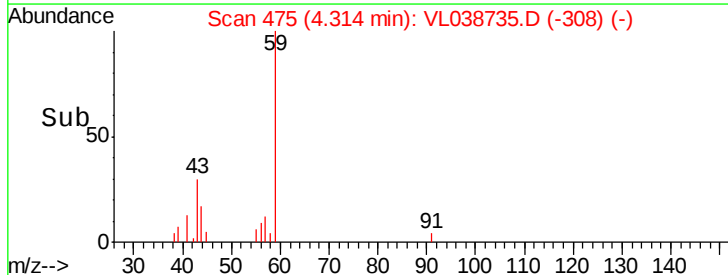
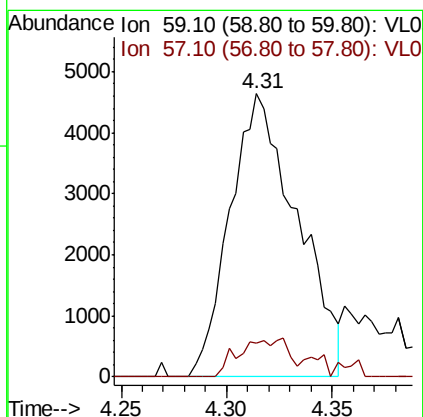
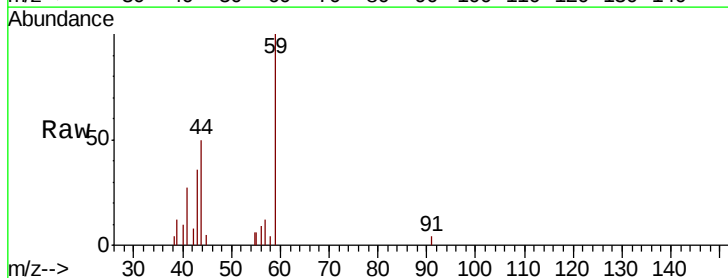
#16
1,3-Butadiene
Concen: 0.657 ppbv
RT: 3.31 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
COP87DL
Acq: 24 Mar 2022 3:48

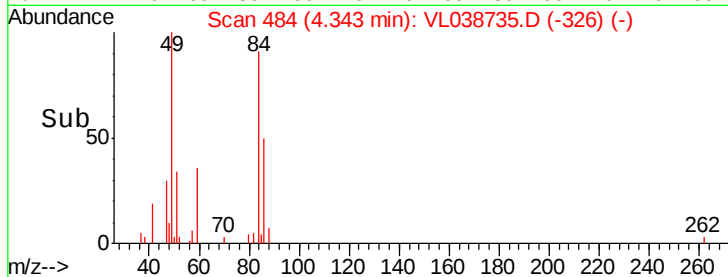
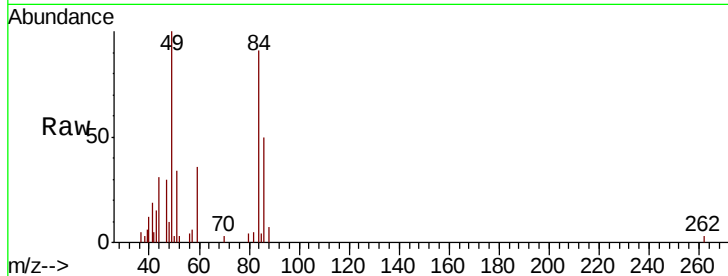
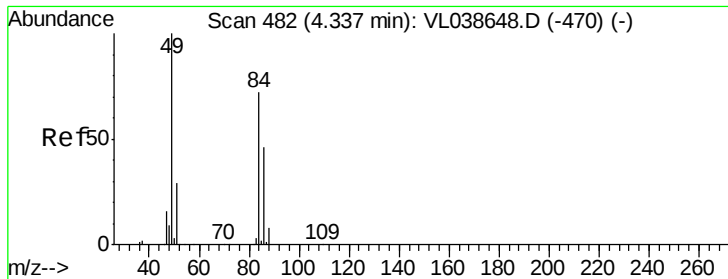
Tot Ion: 39 Resp: 26299
Ion Ratio Lower Upper
39 100
54 7.3 69.1 103.7#



#17
tert-Butyl alcohol
Concen: 0.167 ppbv
RT: 4.31 min Scan# 475
Delta R.T. 0.04 min
Lab File: VL038735.D
Acq: 24 Mar 2022 3:48

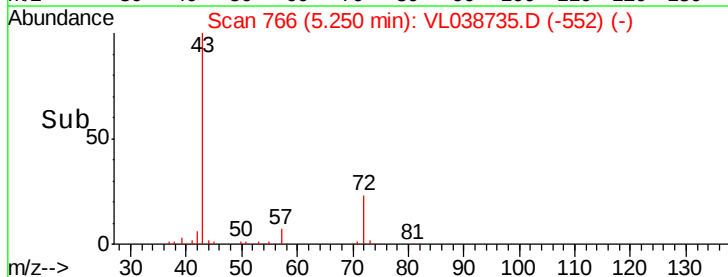
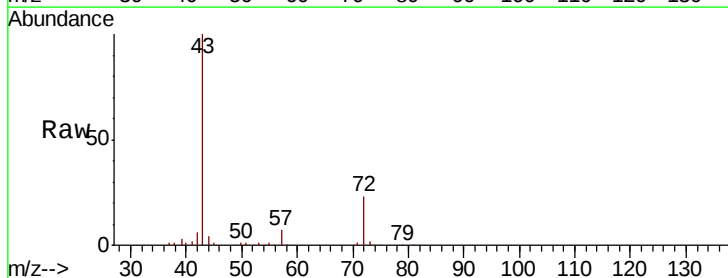
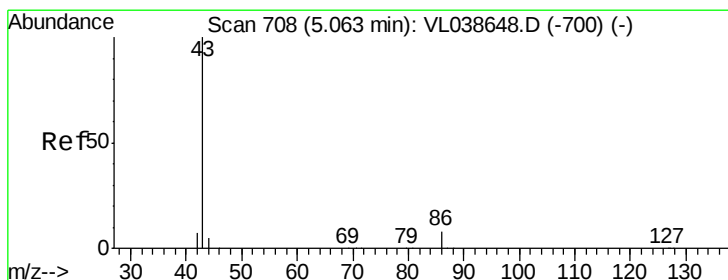
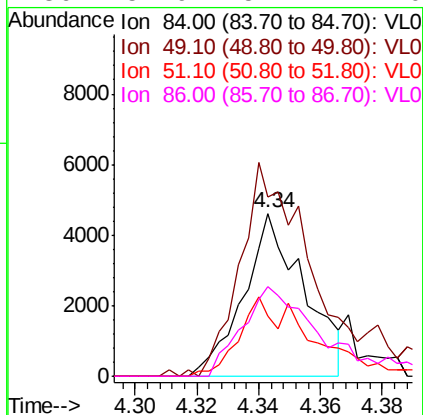
Tgt Ion: 59 Resp: 10257
Ion Ratio Lower Upper
59 100
57 13.9 8.2 12.2#





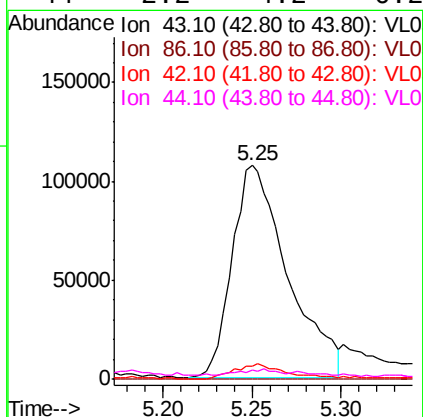
#20
Methvlene Chloride
Concen: 0.211 ppbv
RT: 4.34
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
COP87DL
Acq: 24 Mar 2022 3:48

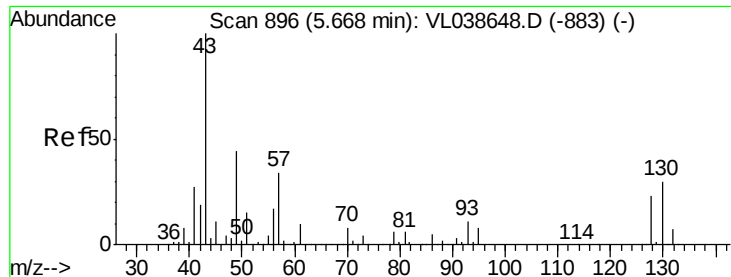
Tot Ion: 84 Resp: 6255
Ion Ratio Lower Upper
84 100
49 105.6 111.2 166.8#
51 37.0 32.8 49.2
86 54.9 51.4 77.0



#23
Vinyl Acetate
Concen: 3.417 ppbv
RT: 5.25 min Scan# 766
Delta R.T. 0.19 min
Lab File: VL038735.D
Acq: 24 Mar 2022 3:48

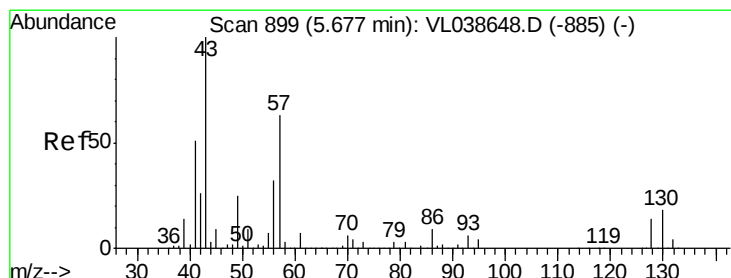
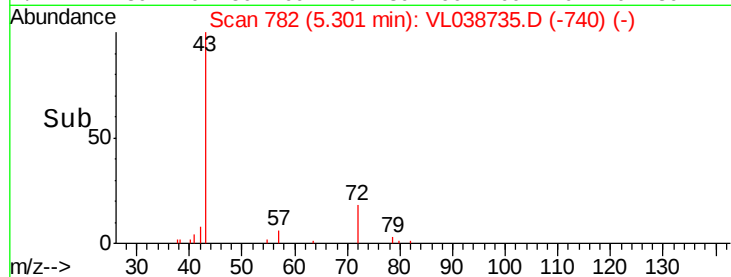
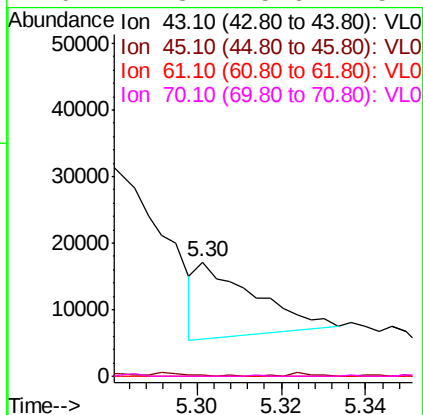
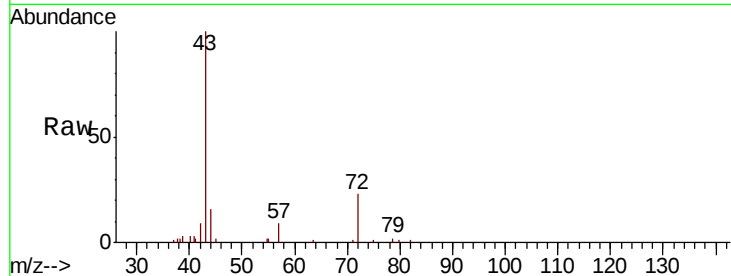
Tgt Ion: 43 Resp: 233288
Ion Ratio Lower Upper
43 100
86 0.0 5.6 8.4#
42 5.8 6.8 10.2#
44 2.2 4.2 6.2#





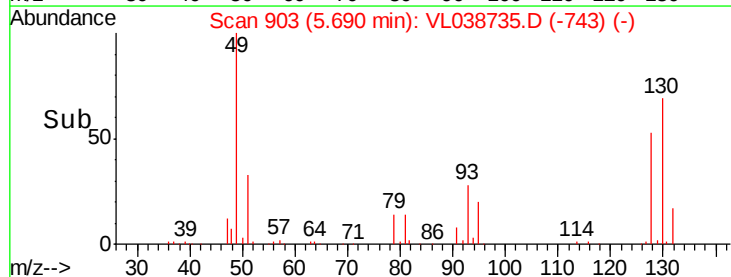
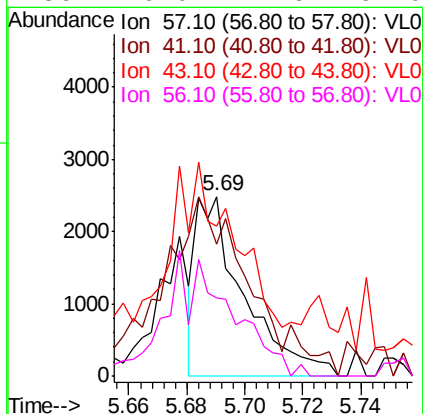
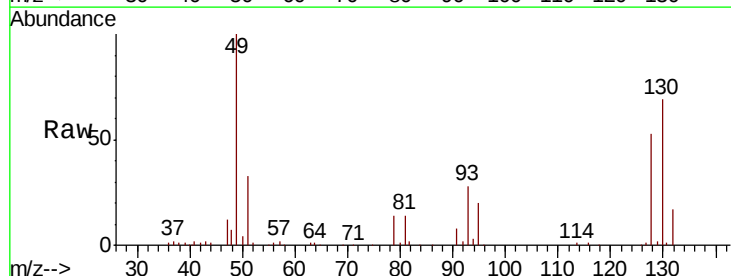
#25
Ethyl Acetate
Concen: 0.061 ppbv
RT: 5.30
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 24 Mar 2022 3:48

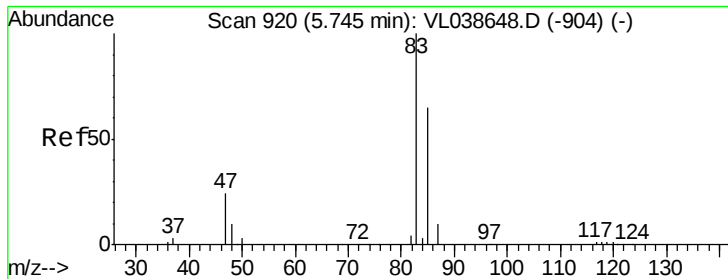
Tot Ion:	43	Resp:	10772
Ion	Ratio	Lower	Upper
43	100		
45	0.0	8.2	12.4#
61	0.0	8.3	12.5#
70	1.3	5.6	8.4#



#26
Hexane
Concen: 0.036 ppbv
RT: 5.69 min Scan# 903
Delta R.T. 0.01 min
Lab File: VL038735.D
Acq: 24 Mar 2022 3:48

Tgt Ion:	57	Resp:	2855
Ion	Ratio	Lower	Upper
57	100		
41	204.2	67.0	100.4#
43	0.0	184.2	276.2#
56	0.0	42.6	64.0#





#29

Chloroform

Concen: 0.269 ppbv

RT: 5.75 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

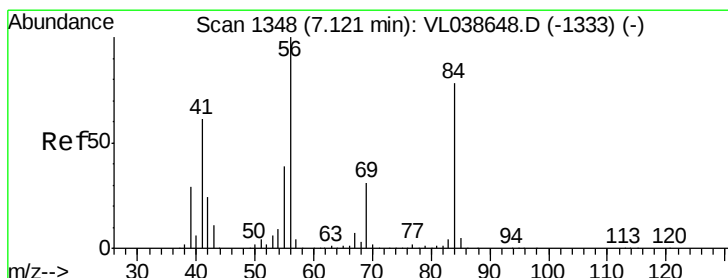
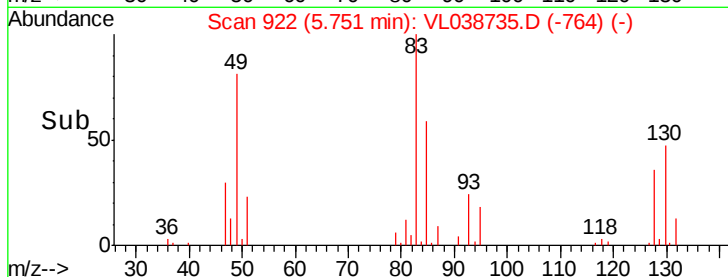
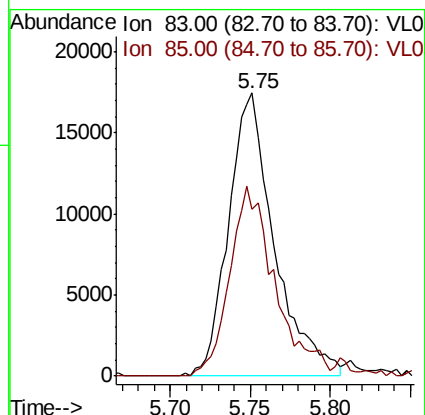
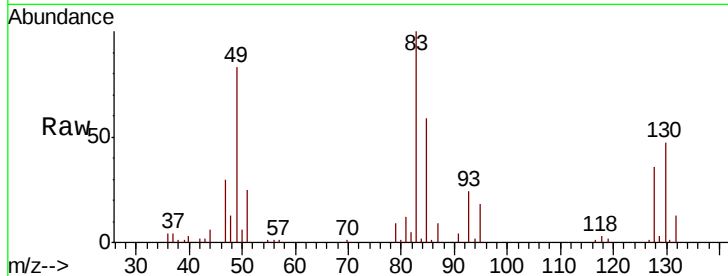
Acq: 24 Mar 2022 3:48

Tot Ion: 83 Resp: 34182

Ion Ratio Lower Upper

83 100

85 57.8 51.7 77.5



#30

Cyclohexane

Concen: 0.041 ppbv

RT: 7.16 min Scan# 1359

Delta R.T. 0.04 min

Lab File: VL038735.D

Acq: 24 Mar 2022 3:48

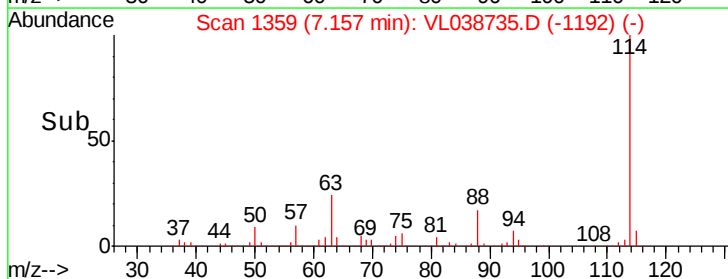
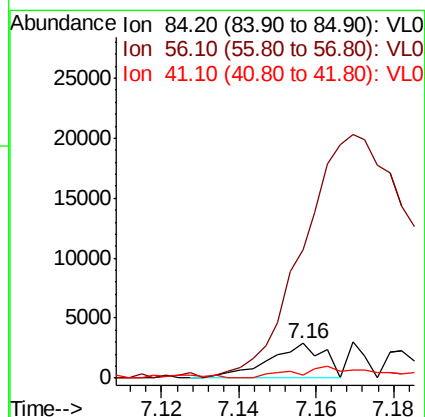
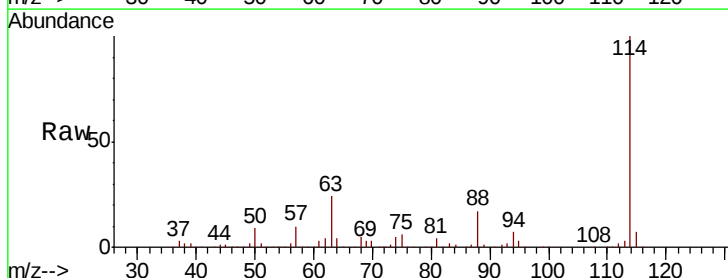
Tgt Ion: 84 Resp: 2866

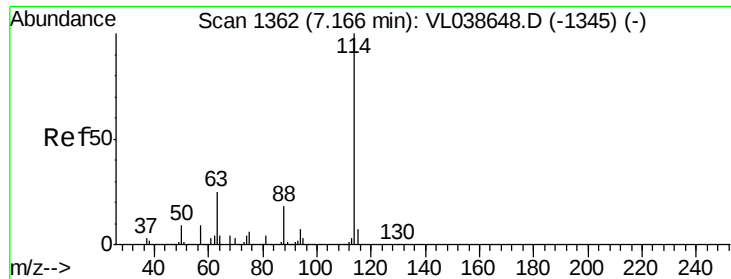
Ion Ratio Lower Upper

84 100

56 0.0 108.2 162.4#

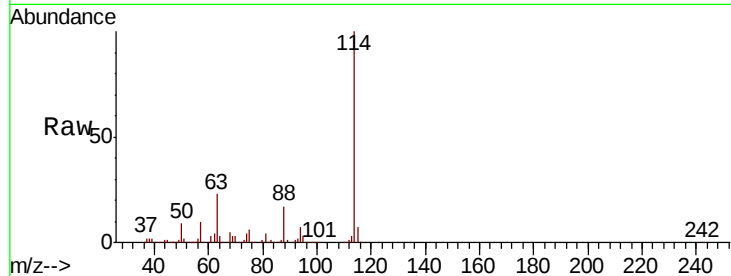
41 65.0 61.8 92.6



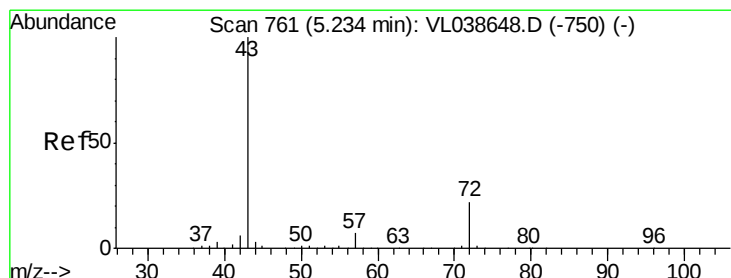
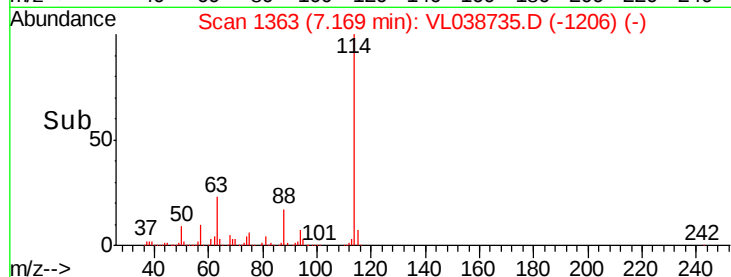
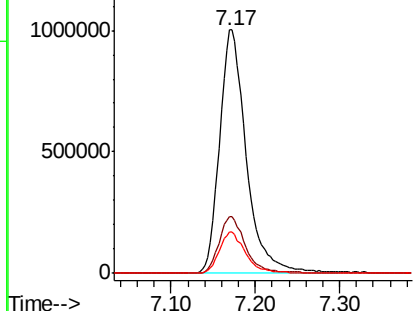


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 C0P87DL
 Acq: 24 Mar 2022 3:48

Tot Ion:114 Resp: 2212732
 Ion Ratio Lower Upper
 114 100
 63 23.3 19.4 29.0
 88 17.0 13.9 20.9

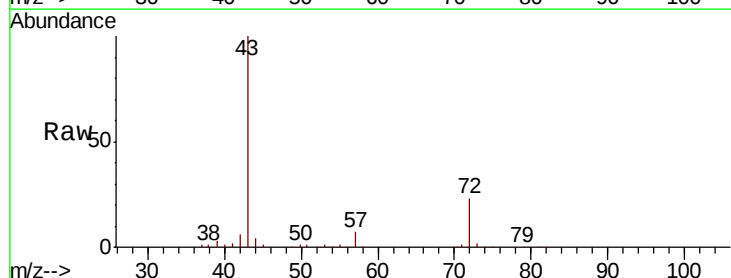


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

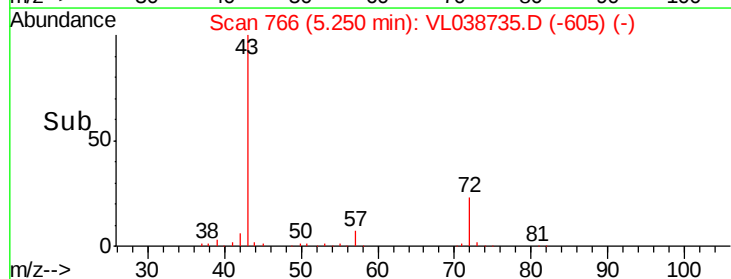
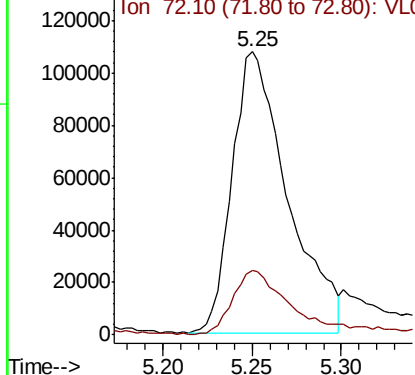


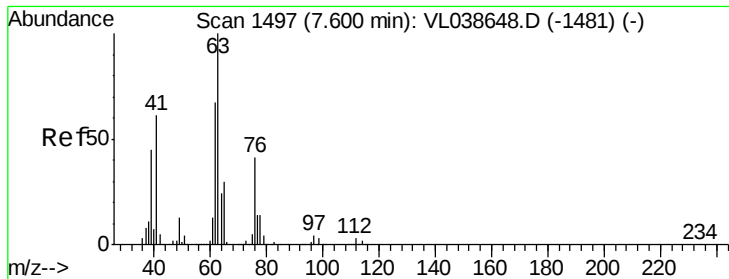
#34
 2-Butanone
 Concen: 2.664 ppbv
 RT: 5.25 min Scan# 766
 Delta R.T. 0.02 min
 Lab File: VL038735.D
 Acq: 24 Mar 2022 3:48

Tgt Ion: 43 Resp: 233288
 Ion Ratio Lower Upper
 43 100
 72 27.1 17.8 26.8#



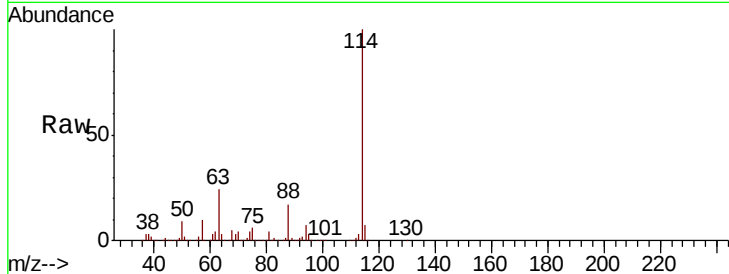
Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0



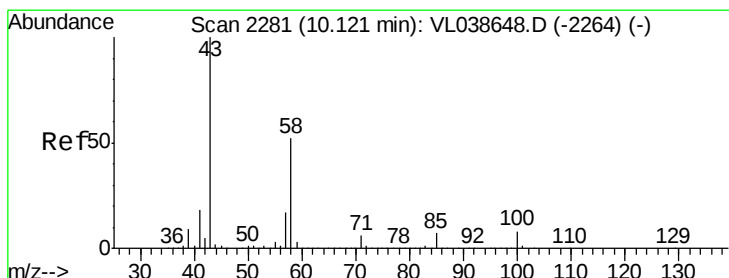
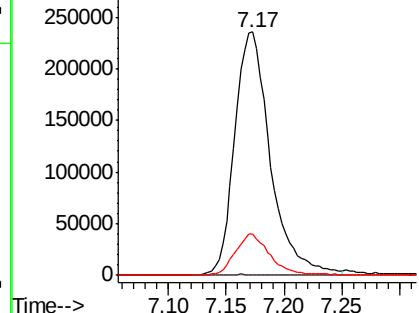
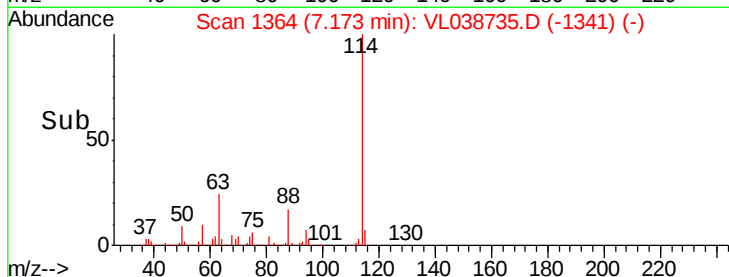


#39
 1,2-Dichloropropane
 Concen: 7.569 ppbv
 RT: 7.17
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 C0P87DL
 Acq: 24 Mar 2022 3:48

Tot Ion	63	Resp	505344
Ion Ratio	Lower	Upper	
63	100		
41	0.2	49.0	73.6#
62	17.2	53.9	80.9#

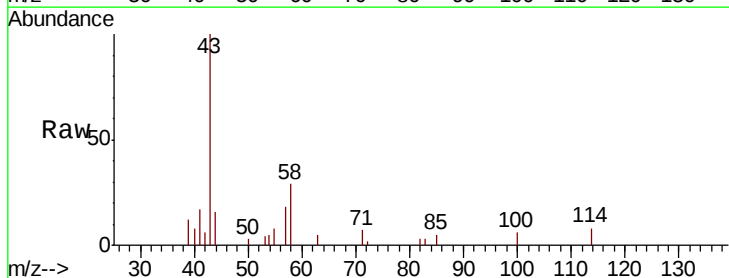


Abundance Ion 63.10 (62.80 to 63.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 62.10 (61.80 to 62.80): VL0

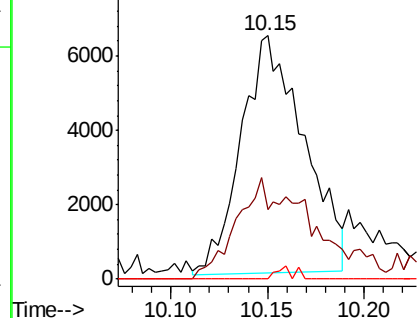
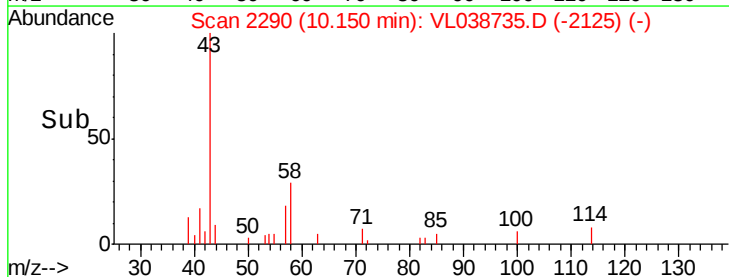


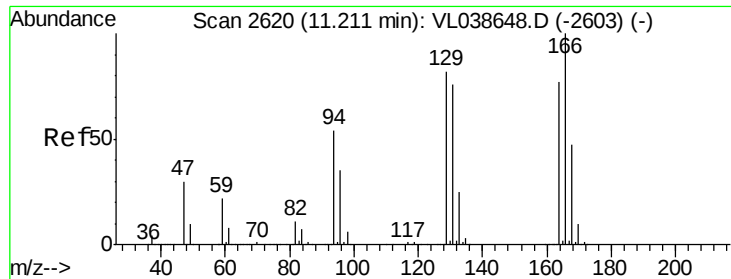
#51
 2-Hexanone
 Concen: 0.123 ppbv
 RT: 10.15 min Scan# 2290
 Delta R.T. 0.03 min
 Lab File: VL038735.D
 Acq: 24 Mar 2022 3:48

Tgt Ion	43	Resp	14411
Ion Ratio	Lower	Upper	
43	100		
58	57.9	41.2	61.8
98	1.5	0.2	0.4#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 58.10 (57.80 to 58.80): VL0
 Ion 98.20 (97.90 to 98.90): VL0





#52

Tetrachloroethene

Concen: 2.856 ppbv

RT: 11.22

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 24 Mar 2022 3:48

Tot Ion:164 Resp: 178515

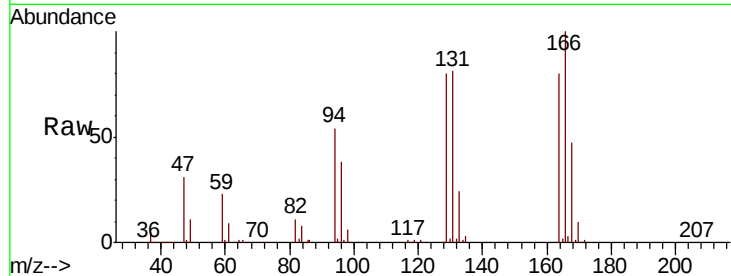
Ion Ratio Lower Upper

164 100

166 124.6 103.3 154.9

129 99.3 85.2 127.8

131 100.5 78.3 117.5



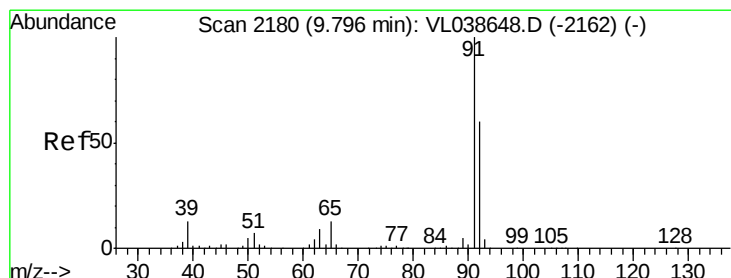
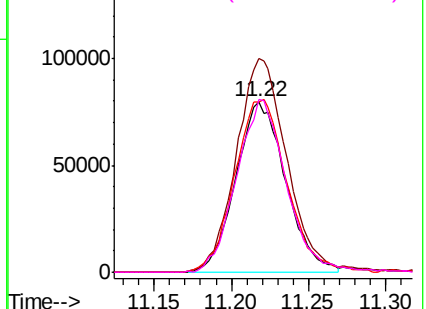
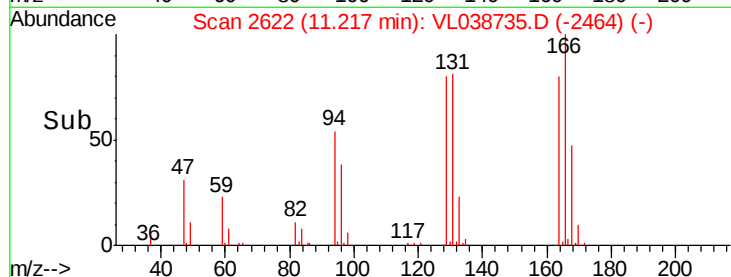
Abundance

Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.039 ppbv

RT: 9.80 min Scan# 2182

Delta R.T. 0.01 min

Lab File: VL038735.D

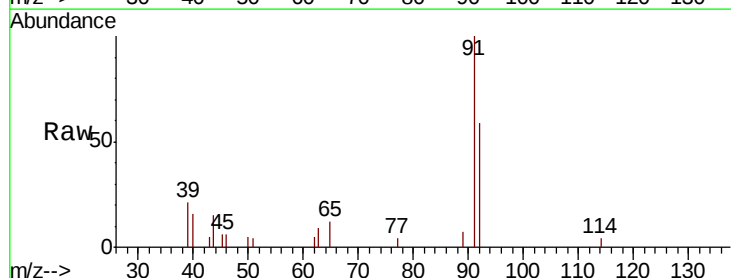
Acq: 24 Mar 2022 3:48

Tgt Ion: 91 Resp: 7203

Ion Ratio Lower Upper

91 100

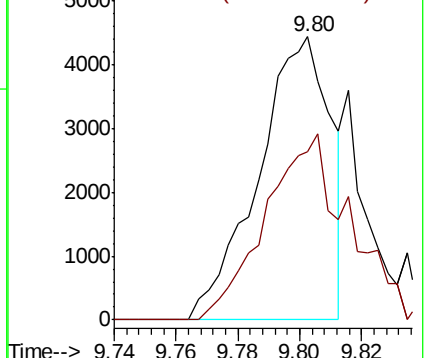
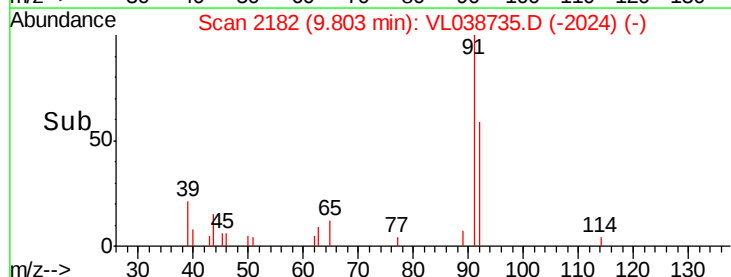
92 78.1 48.7 73.1#

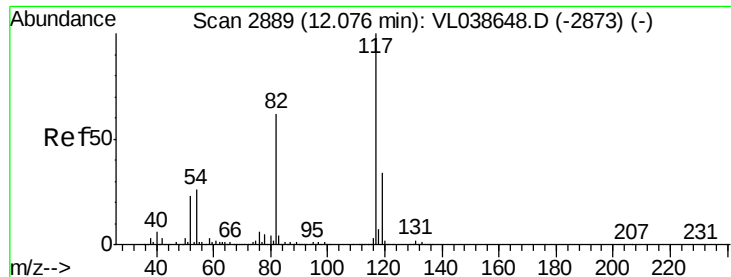


Abundance

Ion 91.10 (90.80 to 91.80): VL0

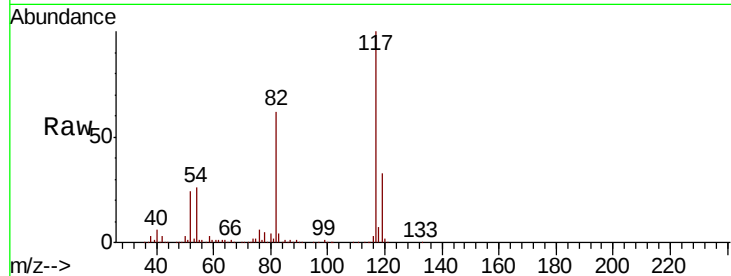
Ion 92.10 (91.80 to 92.80): VL0



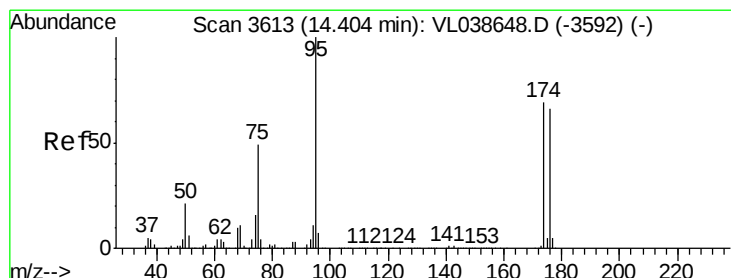
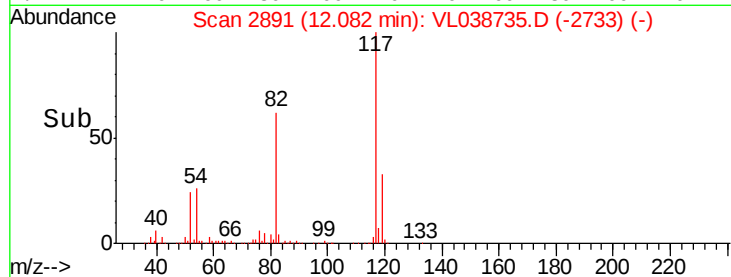
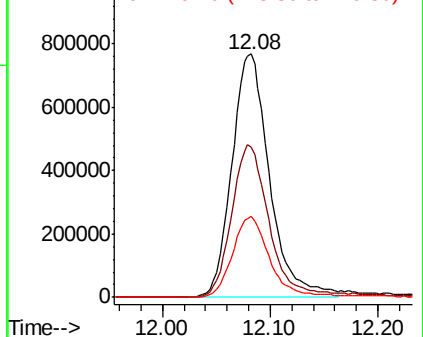


#55
 Chlorobenzene-d5
 Concen: 10.000 ppbv
 RT: 12.08 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 C0P87DL
 Acq: 24 Mar 2022 3:48

Tot Ion: 117 Resp: 1872754
 Ion Ratio Lower Upper
 117 100
 82 65.5 51.6 77.4
 119 33.9 26.9 40.3

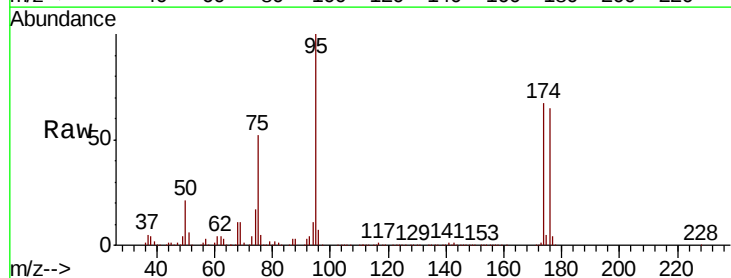


Abundance Ion 117.10 (116.80 to 117.80): V
 Ion 82.10 (81.80 to 82.80): V
 Ion 119.10 (118.80 to 119.80): V

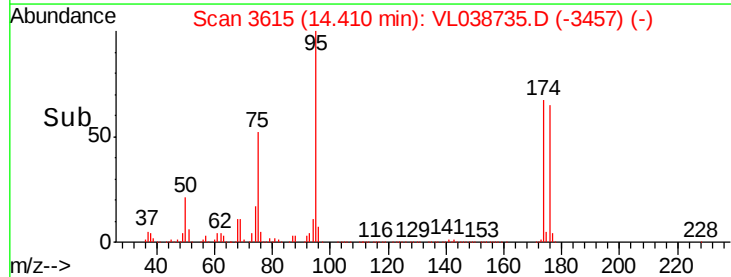
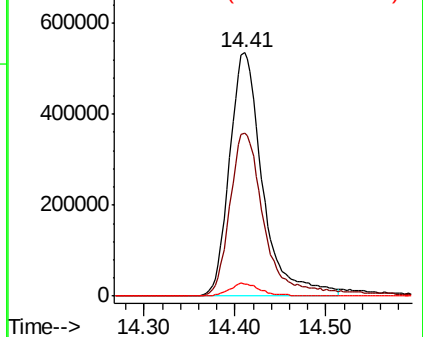


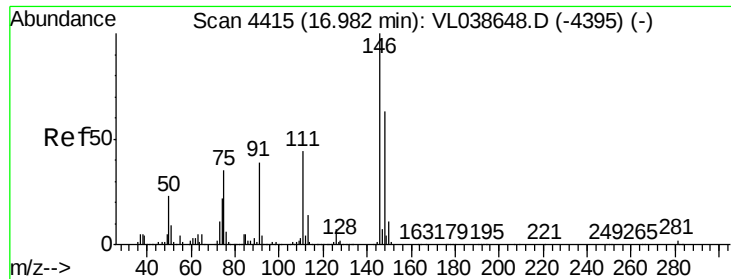
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.467 ppbv
 RT: 14.41 min Scan# 3615
 Delta R.T.: 0.01 min
 Lab File: VL038735.D
 Acq: 24 Mar 2022 3:48

Tgt Ion: 95 Resp: 1359303
 Ion Ratio Lower Upper
 95 100
 174 71.9 56.1 84.1
 175 5.2 4.2 6.2



Abundance Ion 95.10 (94.80 to 95.80): V
 Ion 174.00 (173.70 to 174.70): V
 Ion 175.00 (174.70 to 175.70): V





#75

1,3-Dichlorobenzene

Concen: 0.038 ppbv

RT: 16.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 24 Mar 2022 C0P87DL

3.48

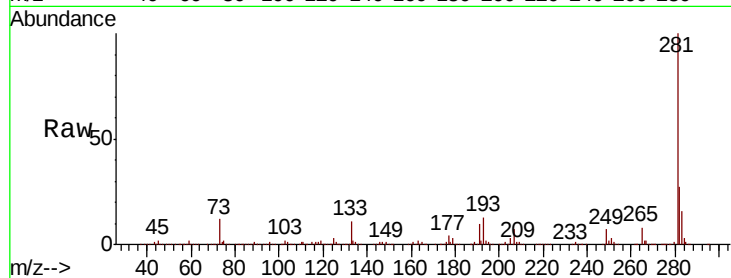
Tot Ion:146 Resp: 5166

Ion Ratio Lower Upper

146 100

111 0.0 22.2 66.6#

148 235.1 32.5 97.5#



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

