

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL041122\
 Data File : VL038882.D
 Acq On : 11 Apr 2022 22:57
 Operator : SY/AP
 Sample : N2332-04DL 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-4DL

Quant Time: Apr 12 02:53:04 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL040522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Apr 06 06:12:53 2022
 QLast Update : Wed Apr 06 06:12:53 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1179688	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3084316	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	2772195	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	2171524	10.33	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	23409	0.140	ppbv #	86
3) Chlorodifluoromethane	2.99	51	16046	0.111	ppbv #	87
4) Chloromethane	3.14	50	4998	0.067	ppbv #	83
9) Propene	3.02	41	194616	2.555	ppbv #	66
10) Heptane	8.12	43	116193	0.606	ppbv	99
13) Ethanol	3.60	45	92456	19.973	ppbv #	100
15) Acetone	3.85	43	1538252	13.097	ppbv	99
16) 1,3-Butadiene	3.36	39	59961	0.893	ppbv #	17
19) Isopropyl Alcohol	3.98	45	57781	0.963	ppbv #	100
20) Methylene Chloride	4.35	84	34839	0.818	ppbv	97
23) Vinyl Acetate	5.06	43	23276	0.204	ppbv #	54
25) Ethyl Acetate	5.67	43	667261	2.239	ppbv #	91
26) Hexane	5.69	57	58695	0.433	ppbv #	1
30) Cyclohexane	7.13	84	6502	0.054	ppbv #	1
31) cis-1,2-Dichloroethene	5.67	61	41471	0.333	ppbv #	27
34) 2-Butanone	5.25	43	97819	0.803	ppbv	91
36) Benzene	6.88	78	22924	0.082	ppbv	95
39) 1,2-Dichloropropane	7.17	63	730149	6.803	ppbv #	26
44) 2,2,4-Trimethylpentane	7.86	57	30236	0.064	ppbv #	1
52) Tetrachloroethene	11.22	164	21013	0.214	ppbv #	85
53) Toluene	9.80	91	2369699	7.316	ppbv	99
58) Ethyl Benzene	12.70	91	64215	0.155	ppbv	95
59) m/p-Xylene	12.99	91	83822	0.241	ppbv #	30
60) o-Xylene	13.68	91	122685	0.377	ppbv	99
61) Styrene	13.51	104	40937	0.206	ppbv	94
74) 1,2,4-Trimethylbenzene	16.75	105	58296	0.158	ppbv #	72

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

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Instrument :
MSVOA_L
ClientSampleId :
IA-4DL

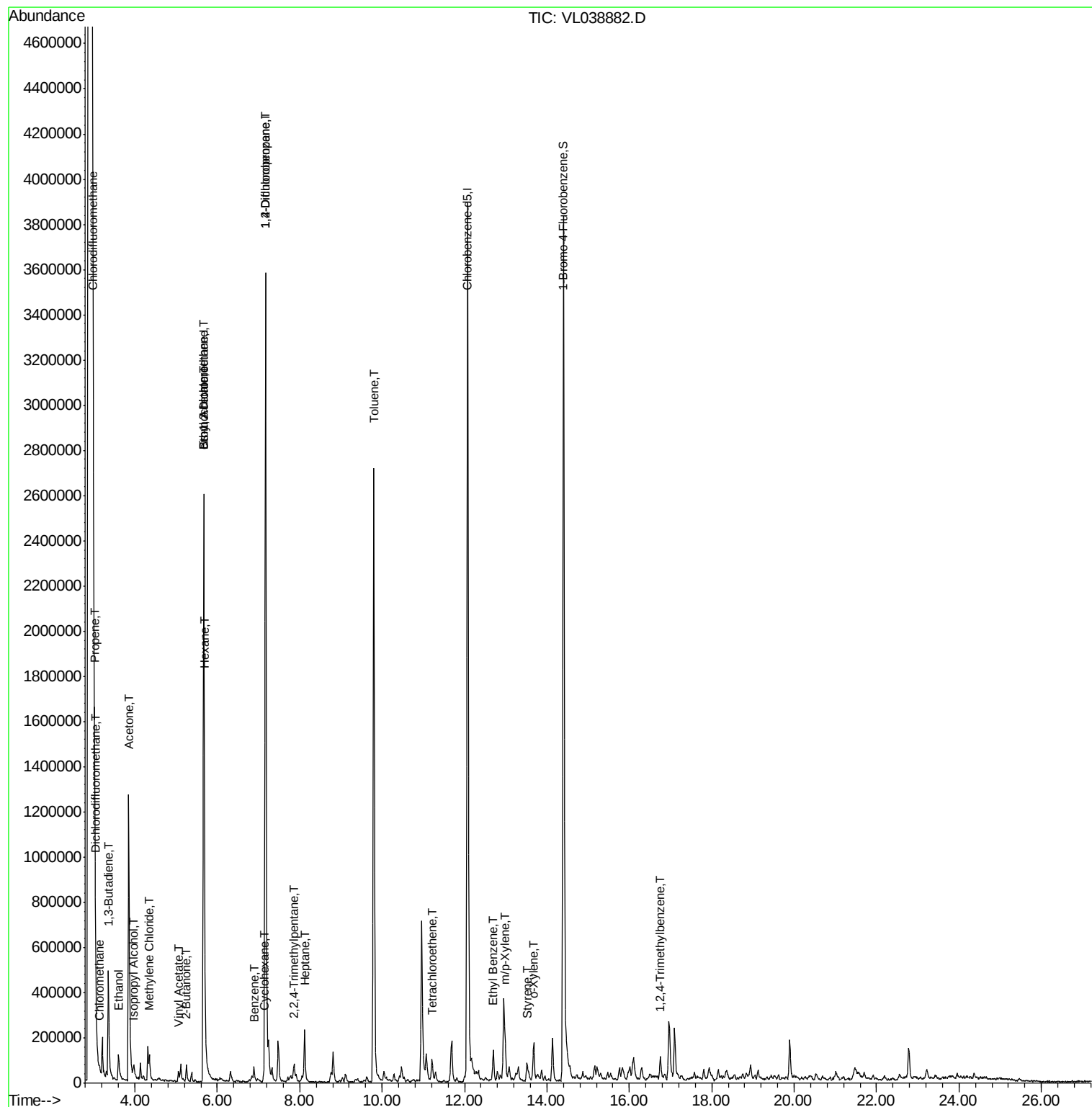
Quant Time: Apr 12 02:53:04 2022

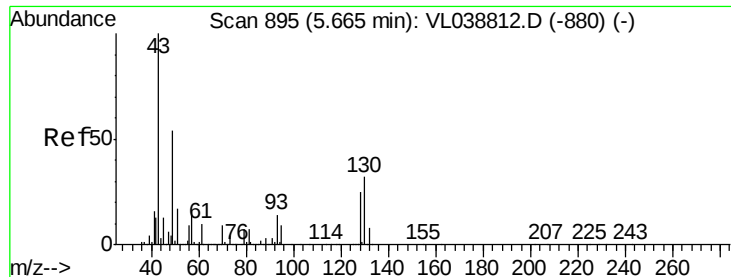
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL040522AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Apr 06 06:12:53 2022

QLast Update : Wed Apr 06 06:12:53 2022

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 11 Apr 2022 22:57

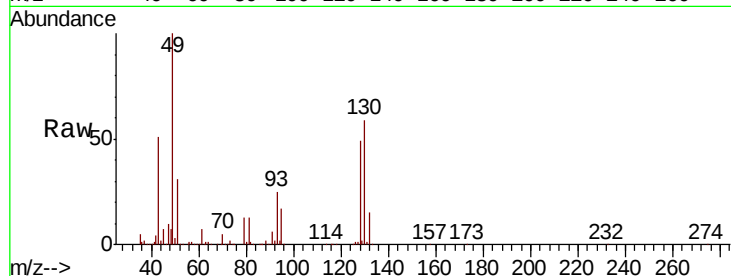
Tot Ion: 49 Resp: 1179688

Ion	Ratio	Lower	Upper
49	100		
128	48.9	24.1	72.3
130	60.4	30.9	92.8

49 100

128 48.9 24.1 72.3

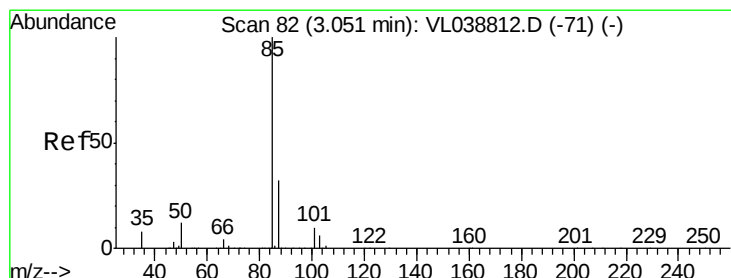
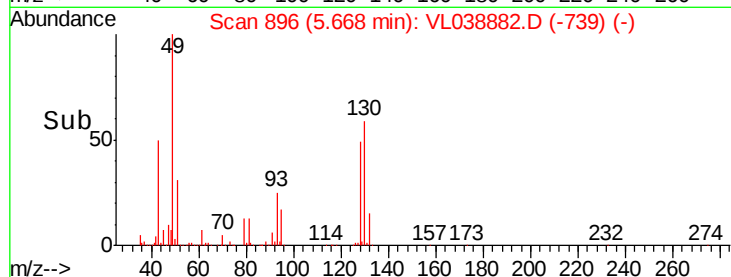
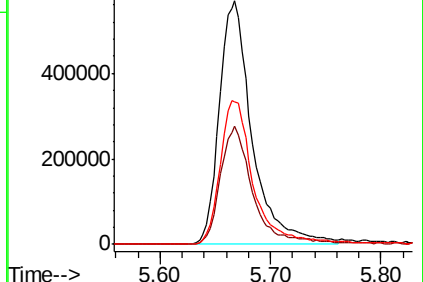
130 60.4 30.9 92.8



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: 0.140 ppbv

RT: 3.05 min Scan# 81

Delta R.T. -0.00 min

Lab File: VL038882.D

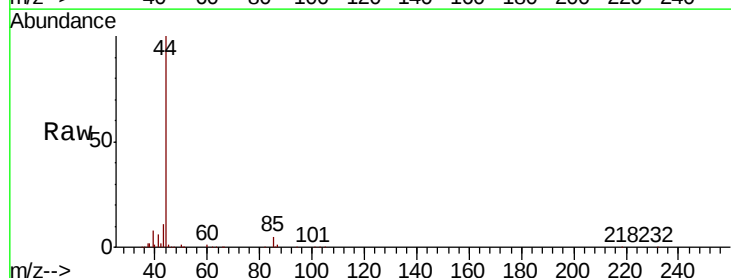
Acq: 11 Apr 2022 22:57

Tgt Ion: 85 Resp: 23409

Ion	Ratio	Lower	Upper
85	100		
87	24.7	25.9	38.9#

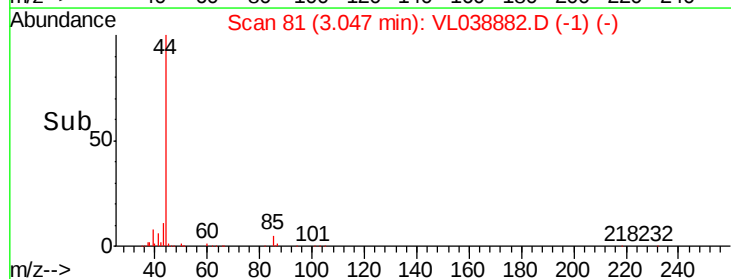
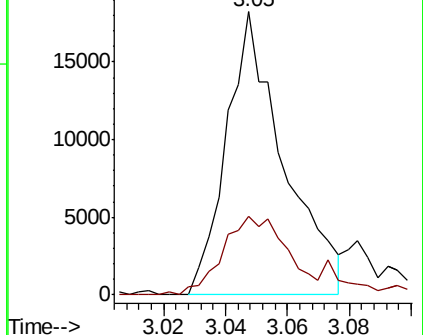
85 100

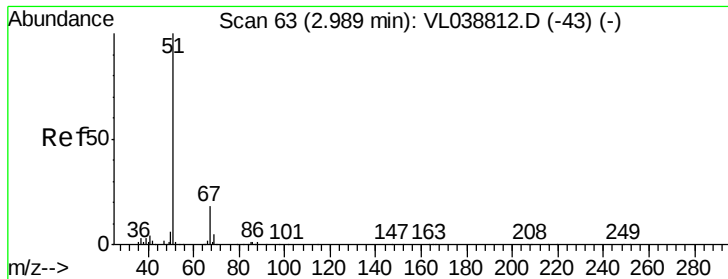
87 24.7 25.9 38.9#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.111 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

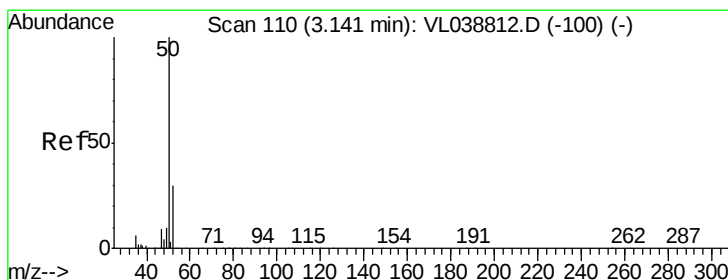
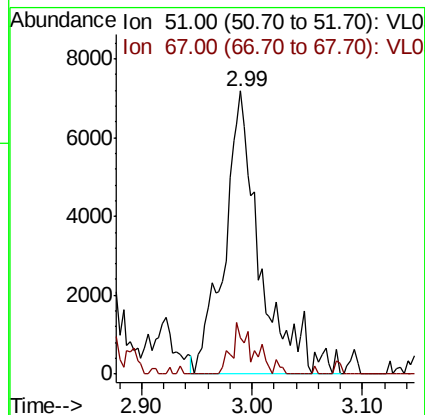
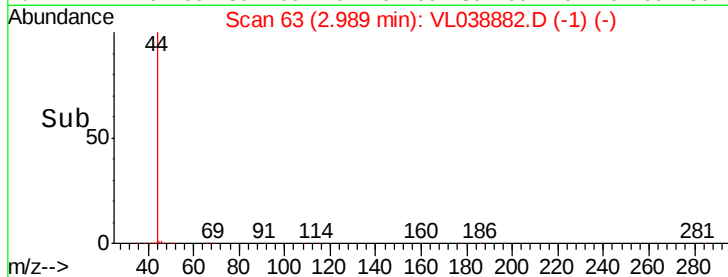
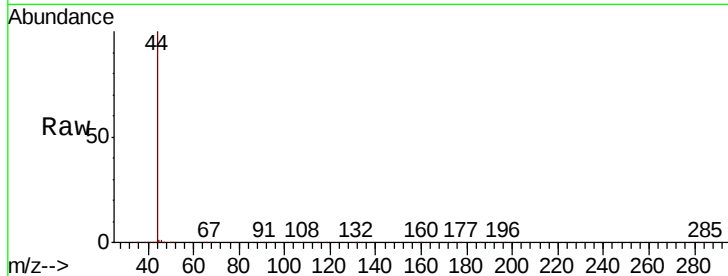
Acq: 11 Apr 2022 22:57

Tot Ion: 51 Resp: 16046

Ion Ratio Lower Upper

51 100

67 10.9 13.4 20.0#



#4

Chloromethane

Concen: 0.067 ppbv

RT: 3.14 min Scan# 111

Delta R.T. 0.00 min

Lab File: VL038882.D

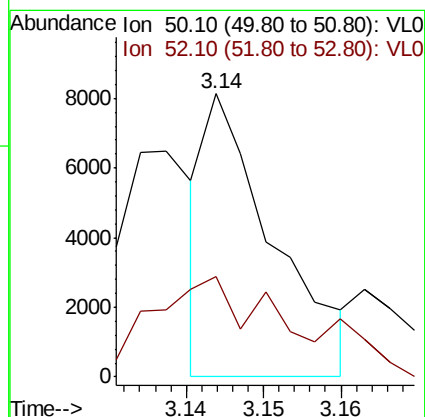
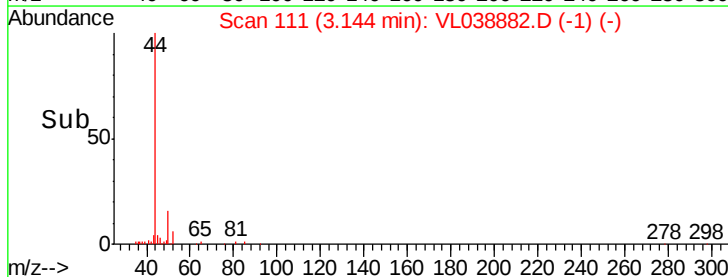
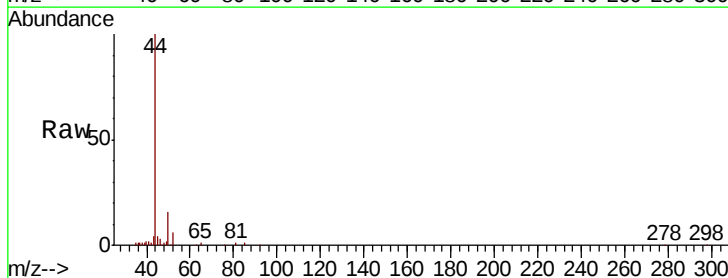
Acq: 11 Apr 2022 22:57

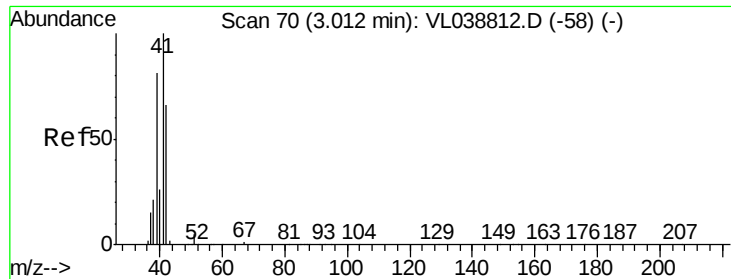
Tgt Ion: 50 Resp: 4998

Ion Ratio Lower Upper

50 100

52 21.0 24.3 36.5#





#9

Propene

Concen: 2.555 ppbv

RT: 3.02 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

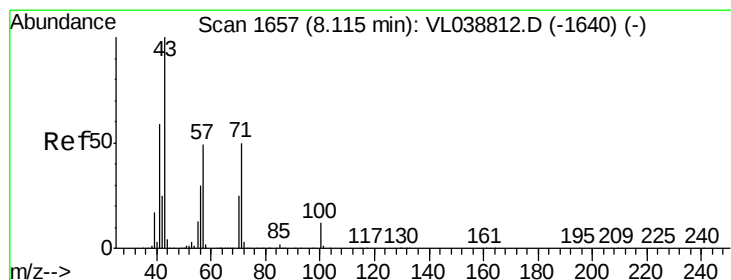
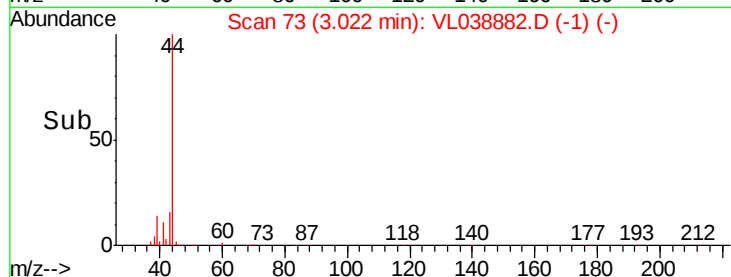
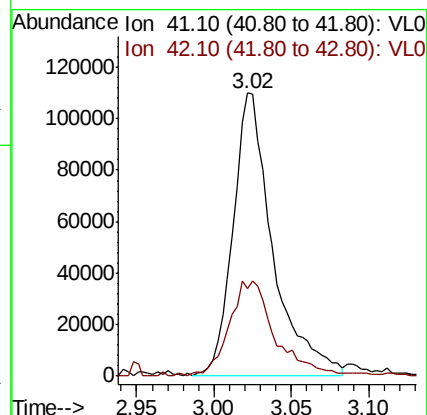
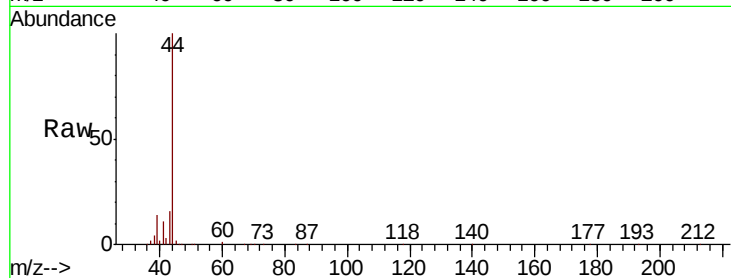
Acq: 11 Apr 2022 22:57

Tot Ion: 41 Resp: 194616

Ion Ratio Lower Upper

41 100

42 40.2 54.2 81.4#



#10

Heptane

Concen: 0.606 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. 0.00 min

Lab File: VL038882.D

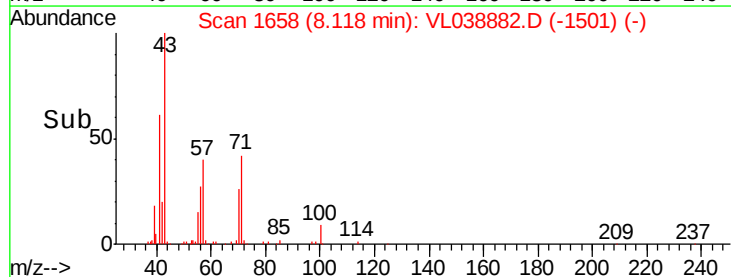
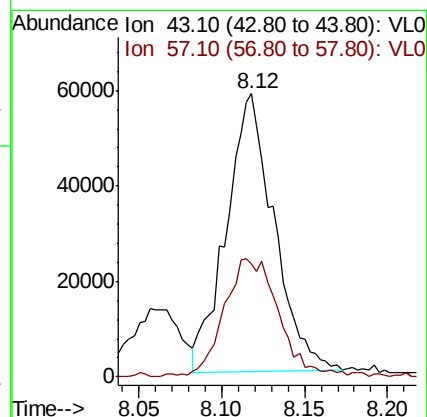
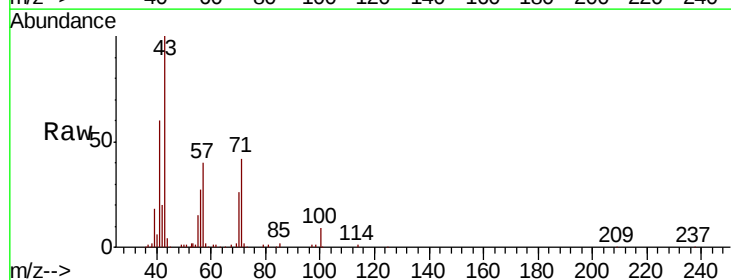
Acq: 11 Apr 2022 22:57

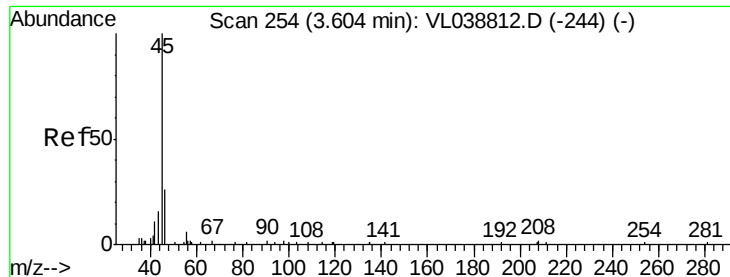
Tgt Ion: 43 Resp: 116193

Ion Ratio Lower Upper

43 100

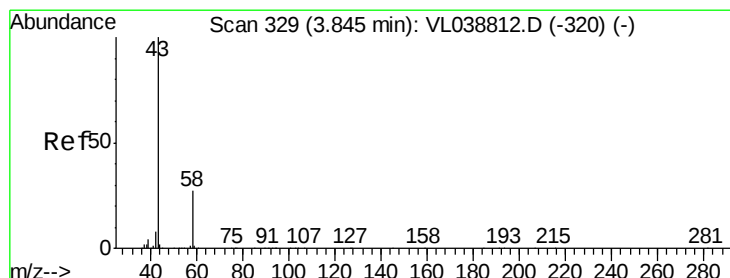
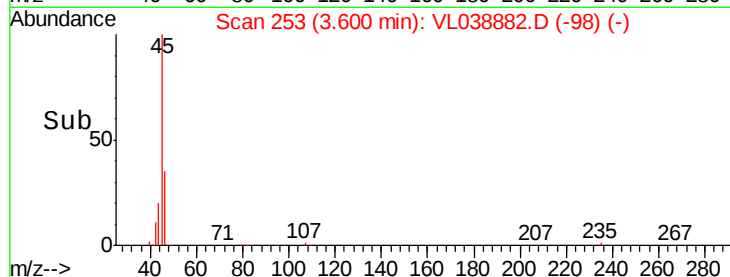
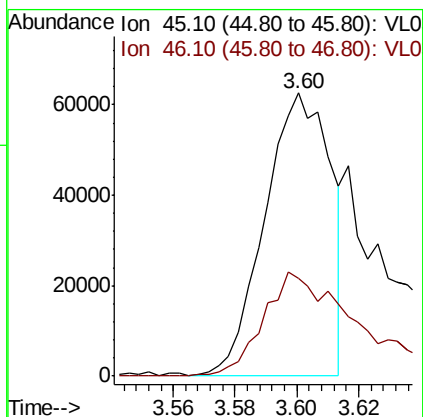
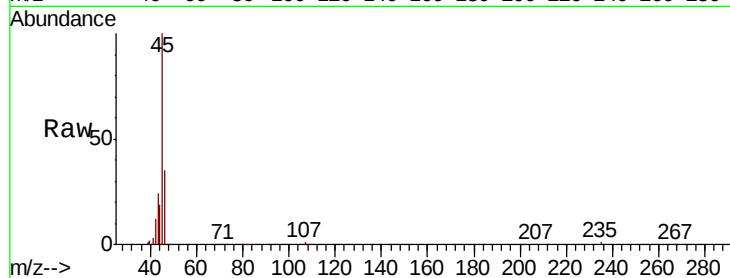
57 50.1 39.3 58.9





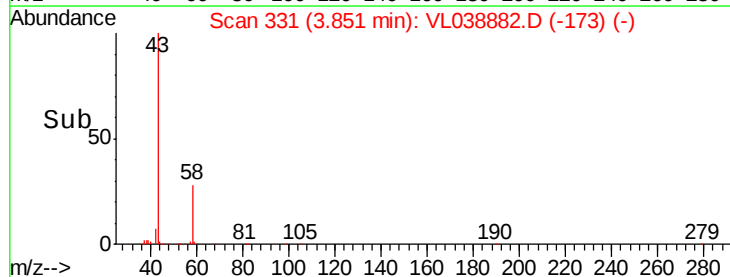
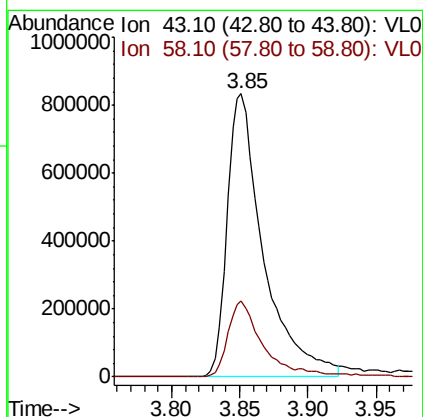
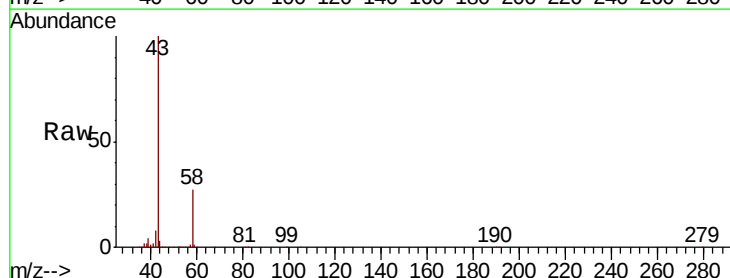
#13
Ethanol
Concen: 19.973 ppbv
RT: 3.60
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 11 Apr 2022 22:57

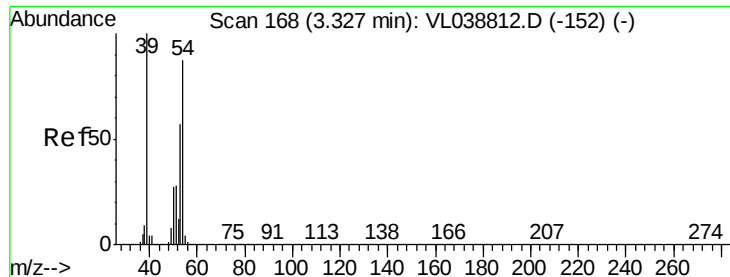
Tot Ion: 45 Resp: 92456
Ion Ratio Lower Upper
45 100
46 64.3 0.0 0.0#



#15
Acetone
Concen: 13.097 ppbv
RT: 3.85 min Scan# 331
Delta R.T. 0.01 min
Lab File: VL038882.D
Acq: 11 Apr 2022 22:57

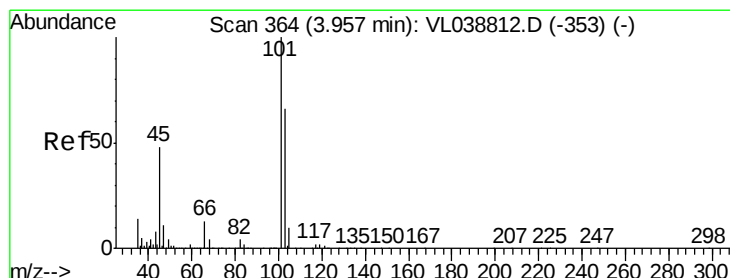
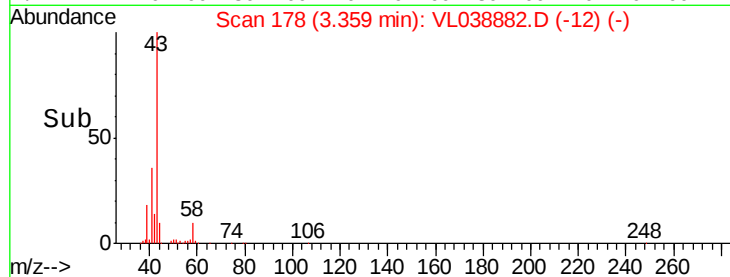
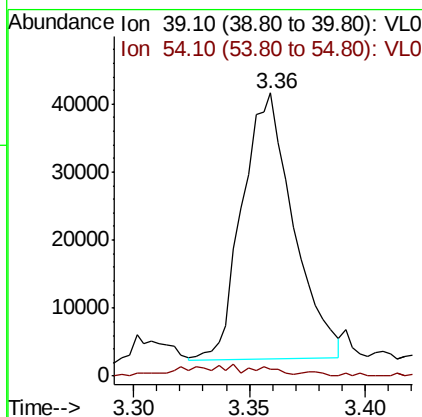
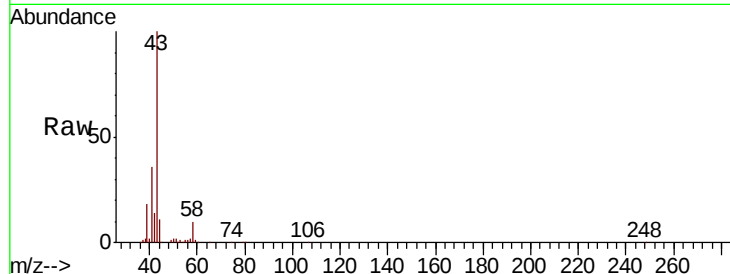
Tgt Ion: 43 Resp: 1538252
Ion Ratio Lower Upper
43 100
58 27.4 22.5 33.7





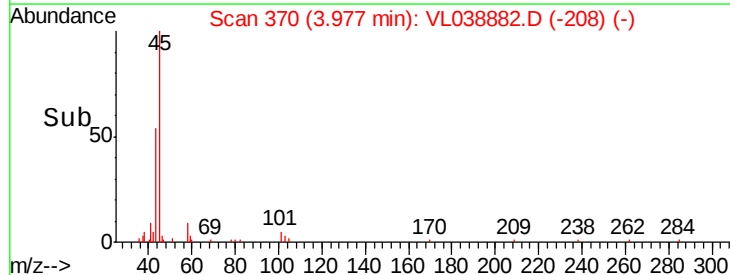
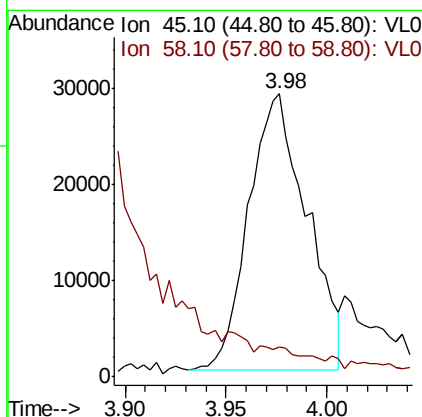
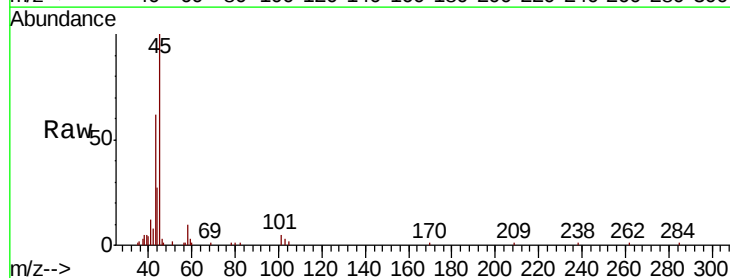
#16
 1,3-Butadiene
 Concen: 0.893 ppbv
 RT: 3.36
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 11 Apr 2022 22:57

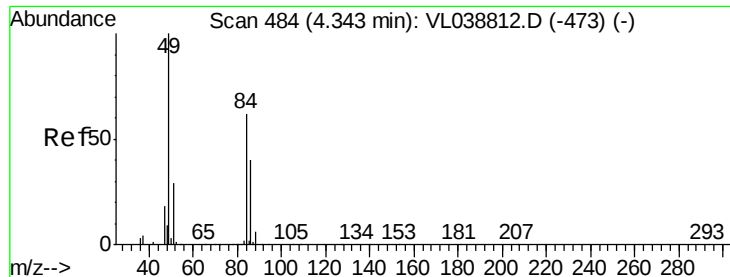
Tot Ion: 39 Resp: 59961
 Ion Ratio Lower Upper
 39 100
 54 7.5 64.8 97.2#



#19
 Isopropyl Alcohol
 Concen: 0.963 ppbv
 RT: 3.98 min Scan# 370
 Delta R.T. 0.02 min
 Lab File: VL038882.D
 Acq: 11 Apr 2022 22:57

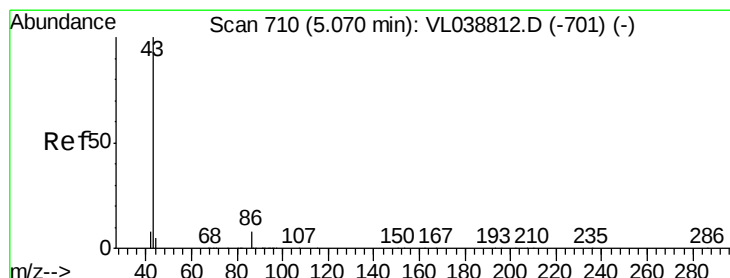
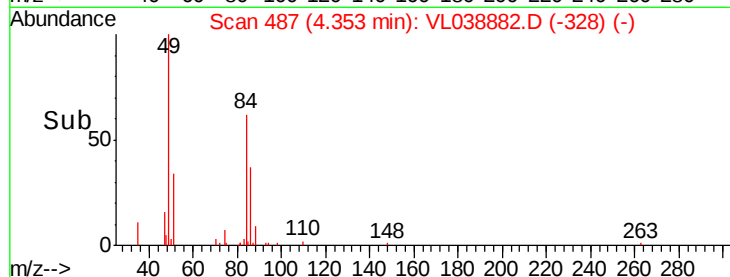
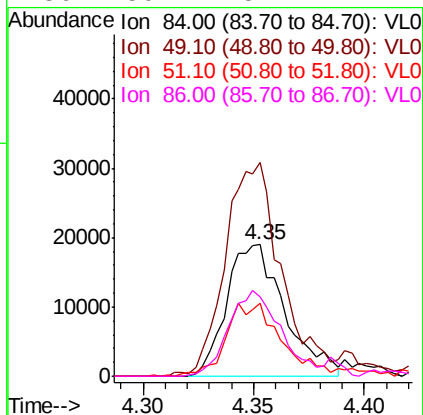
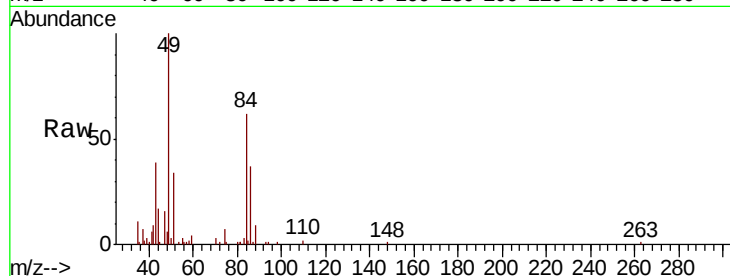
Tgt Ion: 45 Resp: 57781
 Ion Ratio Lower Upper
 45 100
 58 0.0 0.0 0.0





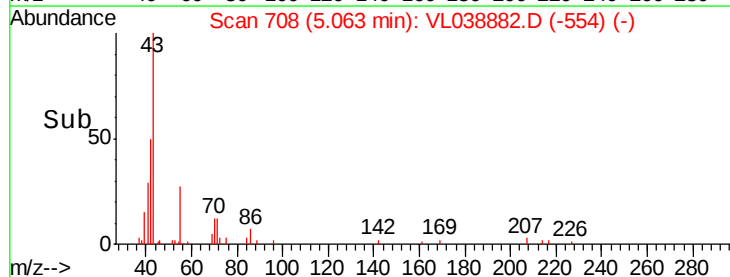
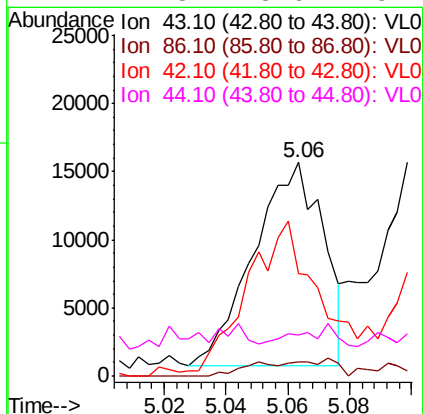
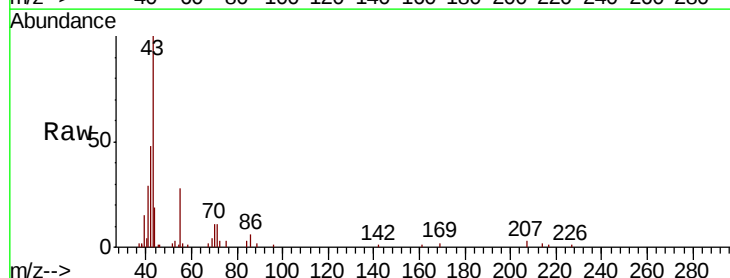
#20
Methvlene Chloride
Concen: 0.818 ppbv
RT: 4.35
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 11 Apr 2022 22:57

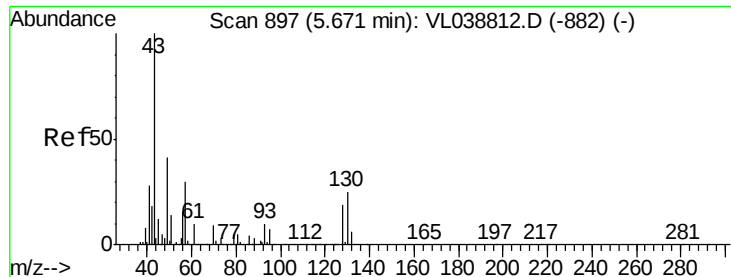
Tot Ion:	84	Resp:	34839
Ion	Ratio	Lower	Upper
84	100		
49	160.6	129.4	194.0
51	52.3	37.4	56.2
86	59.1	51.4	77.2



#23
Vinyl Acetate
Concen: 0.204 ppbv
RT: 5.06 min Scan# 708
Delta R.T. -0.01 min
Lab File: VL038882.D
Acq: 11 Apr 2022 22:57

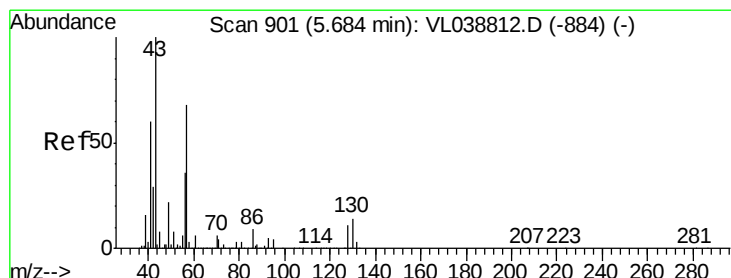
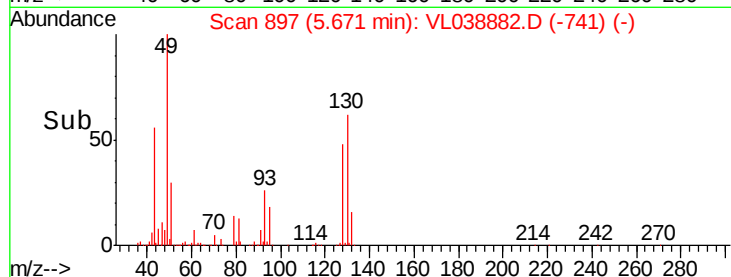
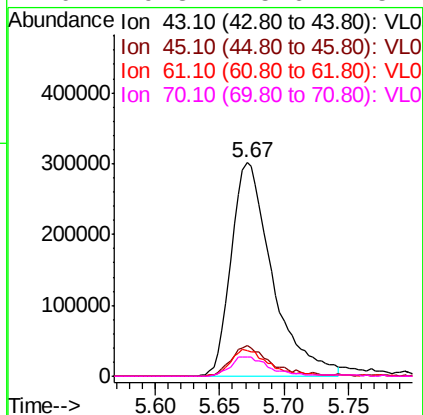
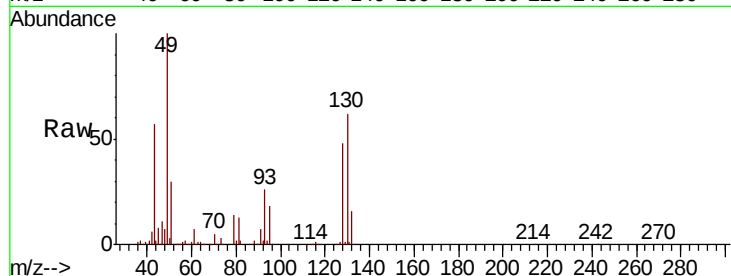
Tgt Ion:	43	Resp:	23276
Ion	Ratio	Lower	Upper
43	100		
86	6.8	5.8	8.6
42	45.1	7.8	11.6#
44	1.8	3.6	5.4#





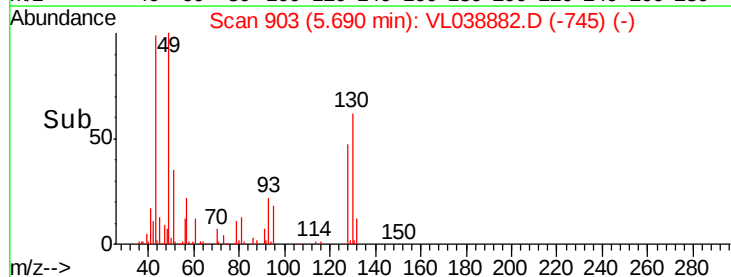
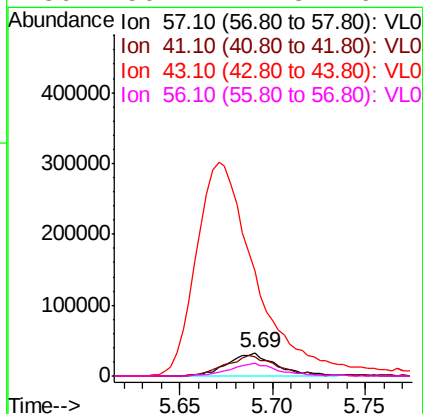
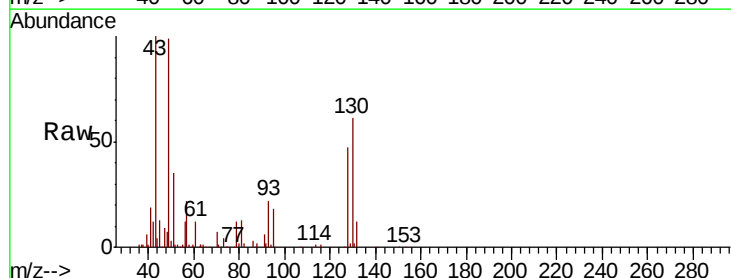
#25
Ethyl Acetate
Concen: 2.239 ppbv
RT: 5.67 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 11 Apr 2022 22:57

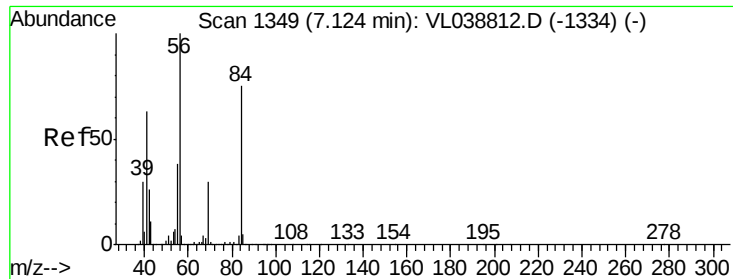
Tot Ion:	43	Resp:	667261
Ion	Ratio	Lower	Upper
43	100		
45	14.9	8.4	12.6#
61	12.3	7.9	11.9#
70	9.3	5.6	8.4#



#26
Hexane
Concen: 0.433 ppbv
RT: 5.69 min Scan# 903
Delta R.T.: 0.01 min
Lab File: VL038882.D
Acq: 11 Apr 2022 22:57

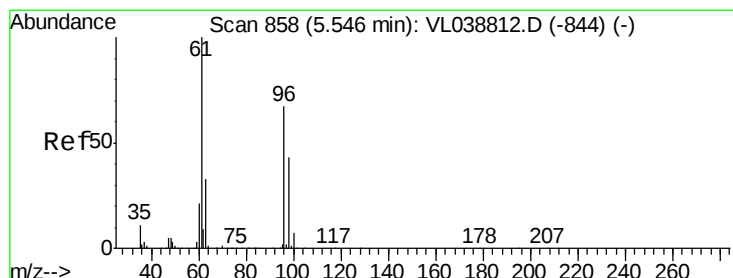
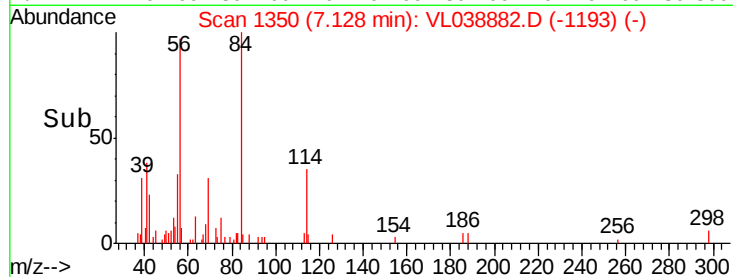
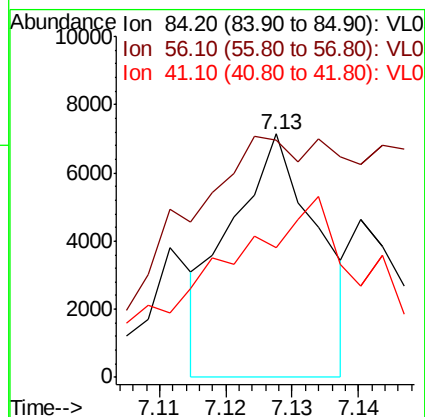
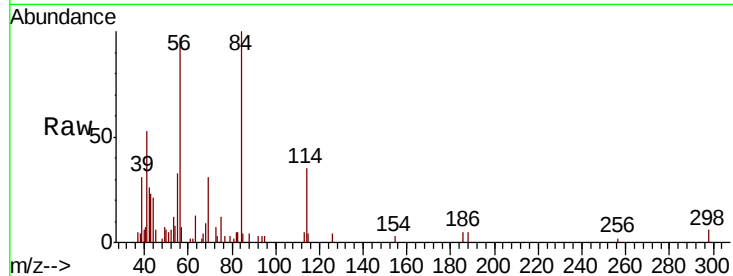
Tgt Ion:	57	Resp:	58695
Ion	Ratio	Lower	Upper
57	100		
41	101.8	72.0	108.0
43	1173.7	186.6	280.0#
56	56.4	42.8	64.2





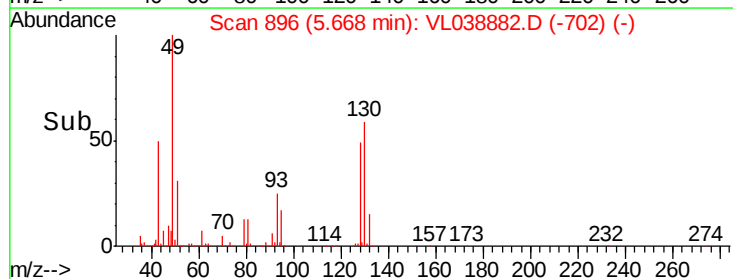
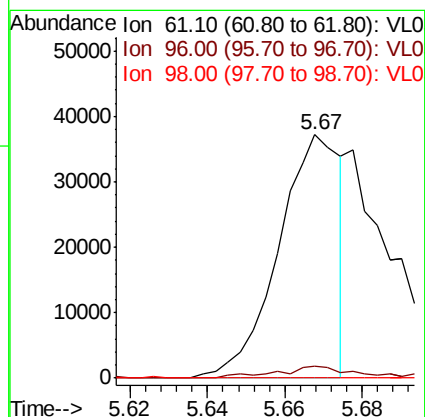
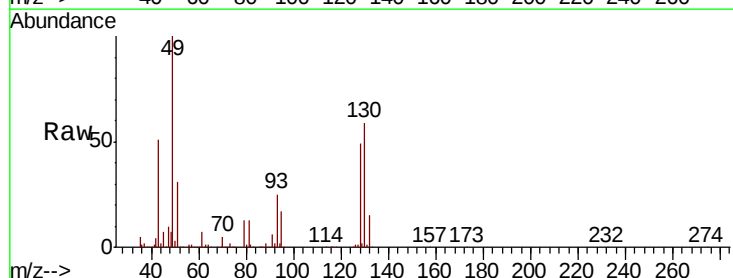
#30
Cvclohexane
Concen: 0.054 ppbv
RT: 7.13
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 11 Apr 2022 22:57

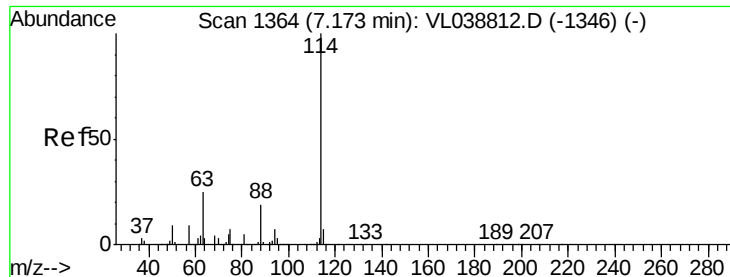
Tot Ion	84	Resp	6502
Ion	Ratio	Lower	Upper
84	100		
56	0.0	114.4	171.6#
41	0.0	69.0	103.4#



#31
cis-1,2-Dichloroethene
Concen: 0.333 ppbv
RT: 5.67 min Scan# 896
Delta R.T. 0.12 min
Lab File: VL038882.D
Acq: 11 Apr 2022 22:57

Tgt Ion	61	Resp	41471
Ion	Ratio	Lower	Upper
61	100		
96	4.9	53.4	80.0#
98	0.0	34.2	51.4#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17

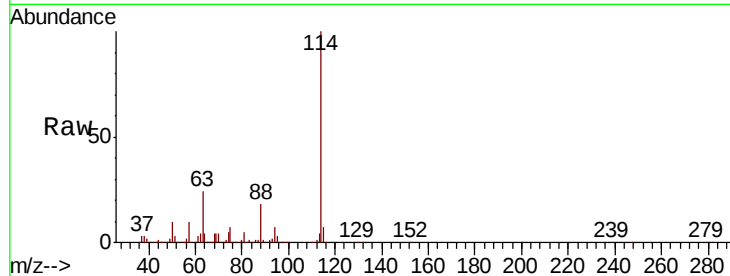
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 11 Apr 2022 22:57

Tot Ion:114 Resp: 3084316

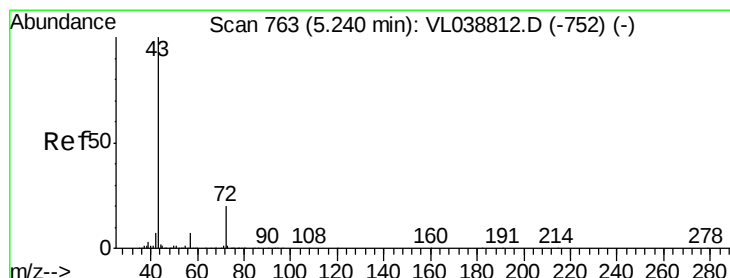
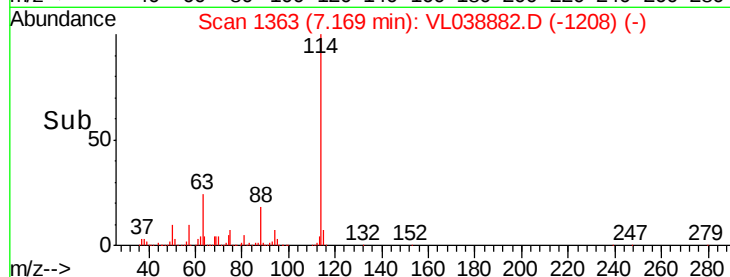
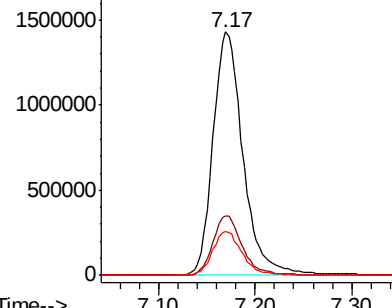
Ion	Ratio	Lower	Upper
114	100		
63	24.3	19.8	29.8
88	18.0	14.2	21.4



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: 0.803 ppbv

RT: 5.25 min Scan# 765

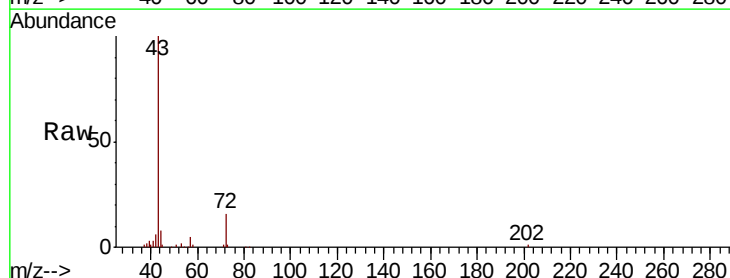
Delta R.T. 0.01 min

Lab File: VL038882.D

Acq: 11 Apr 2022 22:57

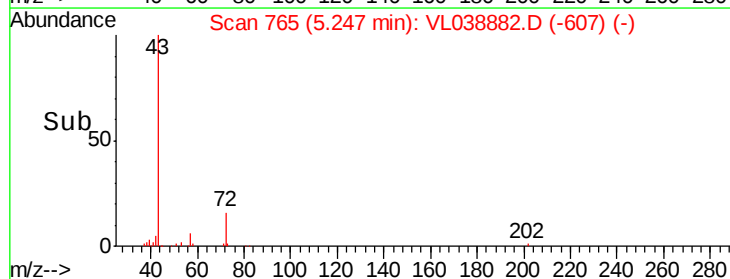
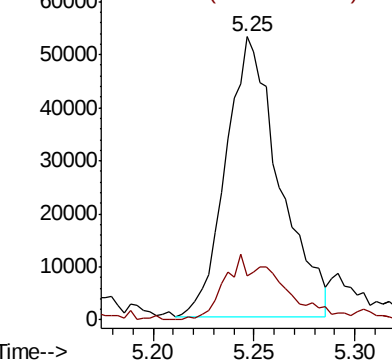
Tgt Ion: 43 Resp: 97819

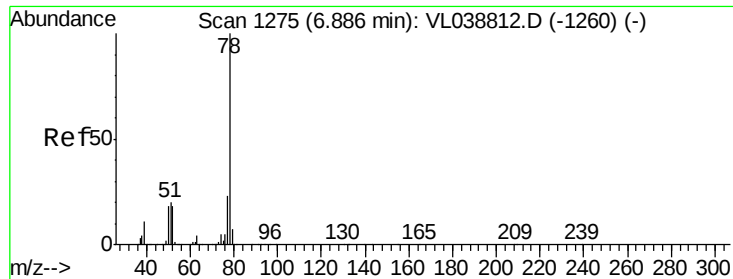
Ion	Ratio	Lower	Upper
43	100		
72	25.1	16.9	25.3



Abundance Ion 43.10 (42.80 to 43.80): VL0

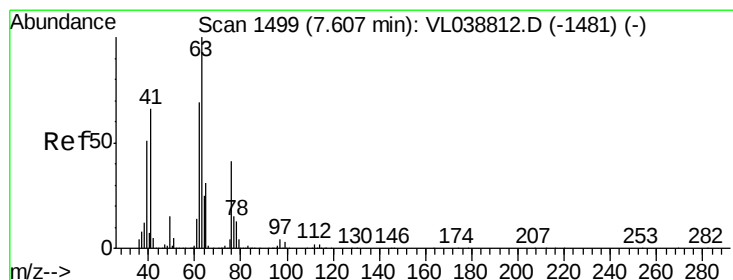
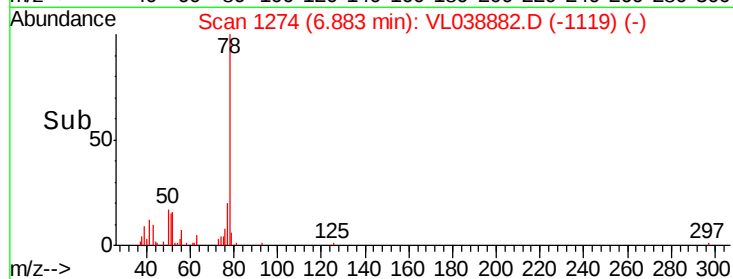
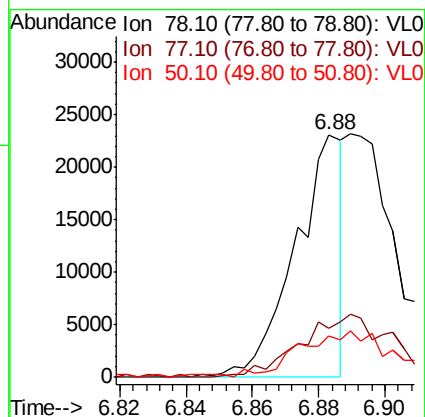
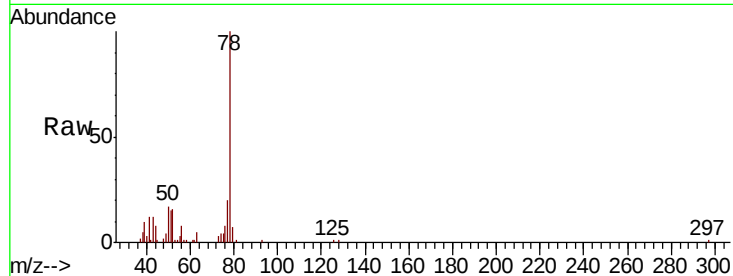
Ion 72.10 (71.80 to 72.80): VL0





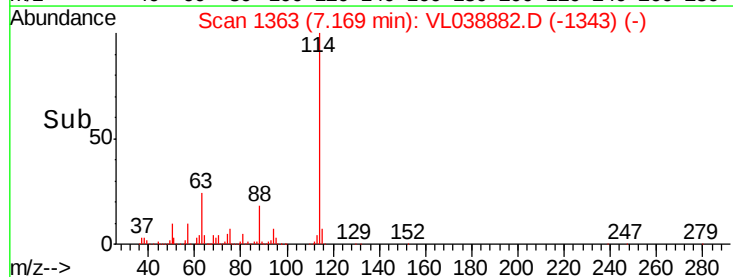
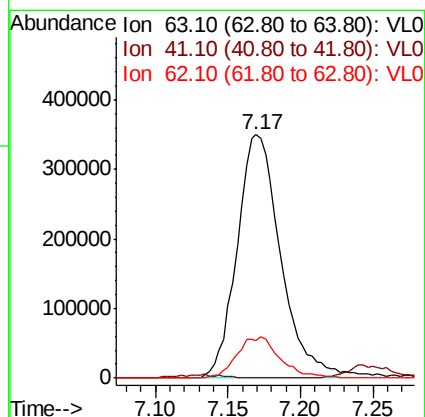
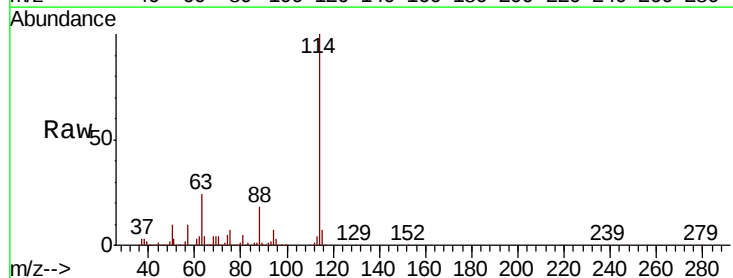
#36
Benzene
Concen: 0.082 ppbv
RT: 6.88
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 11 Apr 2022 22:57

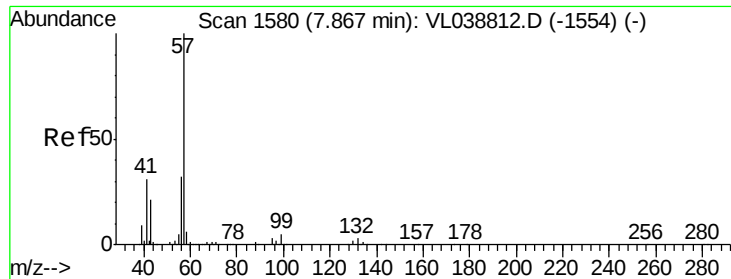
Tot Ion:	78	Resp:	22924
Ion	Ratio	Lower	Upper
78	100		
77	20.0	18.2	27.2
50	15.9	14.0	21.0



#39
1,2-Dichloropropane
Concen: 6.803 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.44 min
Lab File: VL038882.D
Acq: 11 Apr 2022 22:57

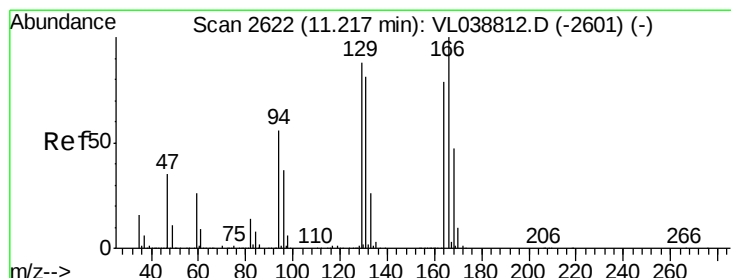
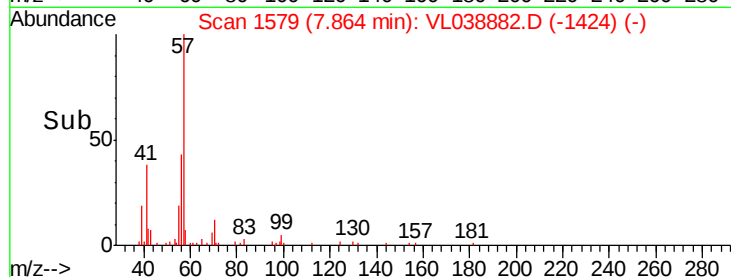
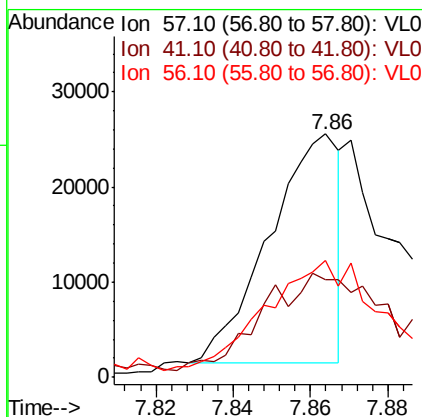
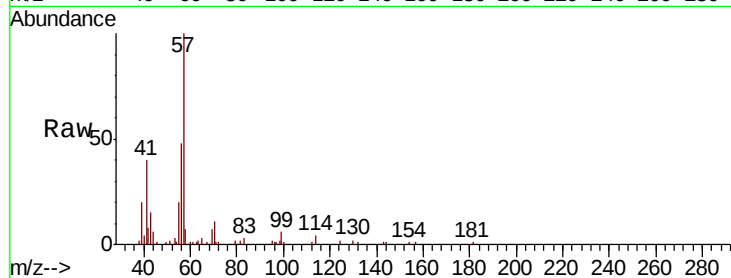
Tgt Ion:	63	Resp:	730149
Ion	Ratio	Lower	Upper
63	100		
41	0.0	53.0	79.6#
62	15.5	55.0	82.4#





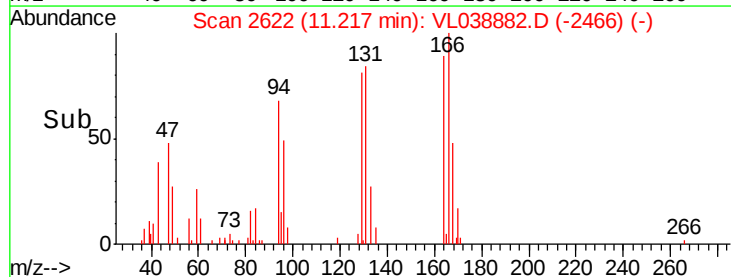
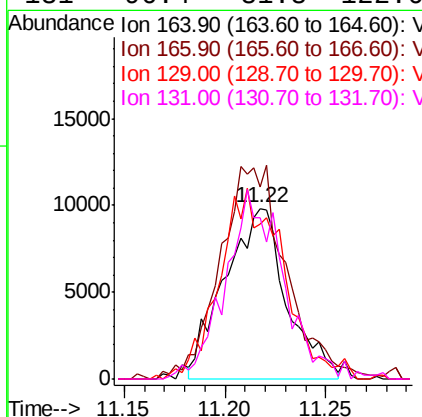
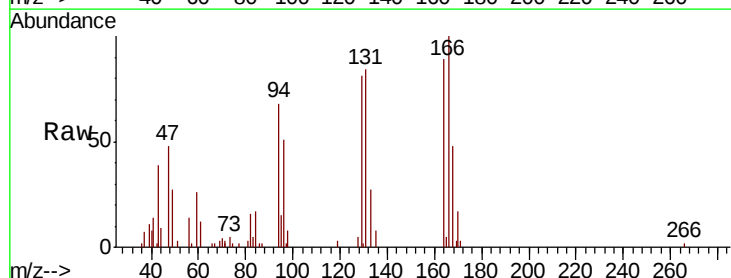
#44
 2,2,4-Trimethylpentane
 Concen: 0.064 ppbv
 RT: 7.86
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 11 Apr 2022 22:57

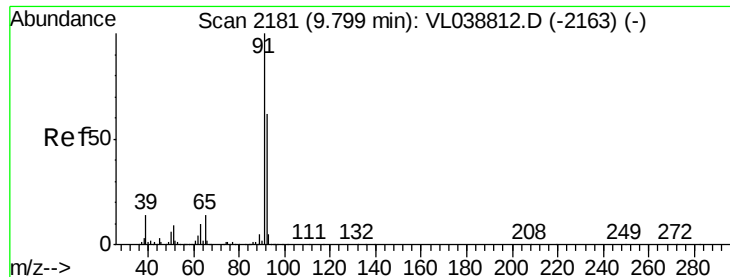
Tot Ion	57	Resp	30236
Ion Ratio	Lower	Upper	
57	100		
41	94.8	25.0	37.4#
56	95.5	25.3	37.9#



#52
 Tetrachloroethene
 Concen: 0.214 ppbv
 RT: 11.22 min Scan# 2622
 Delta R.T. 0.00 min
 Lab File: VL038882.D
 Acq: 11 Apr 2022 22:57

Tgt Ion	164	Resp	21013
Ion Ratio	Lower	Upper	
164	100		
166	109.0	101.0	151.6
129	86.7	88.7	133.1#
131	96.4	81.8	122.6





#53

Toluene

Concen: 7.316 ppbv

RT: 9.80 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

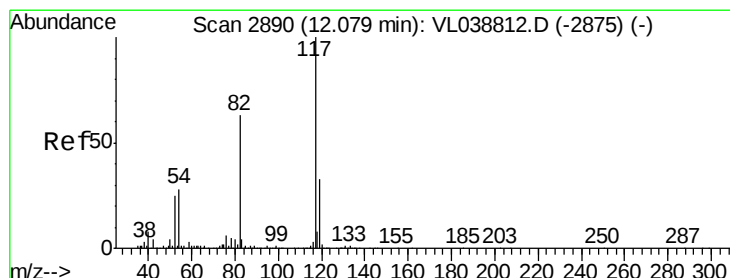
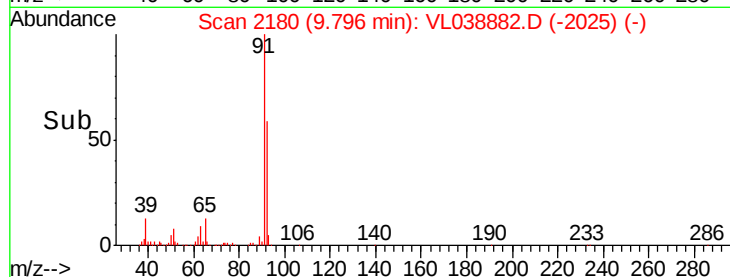
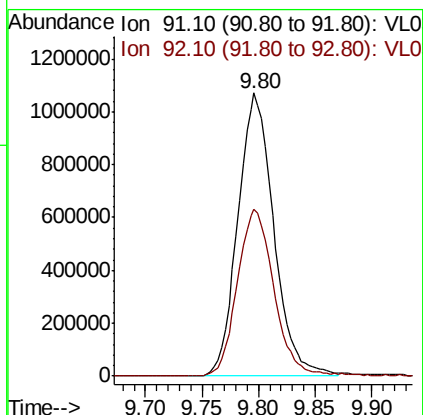
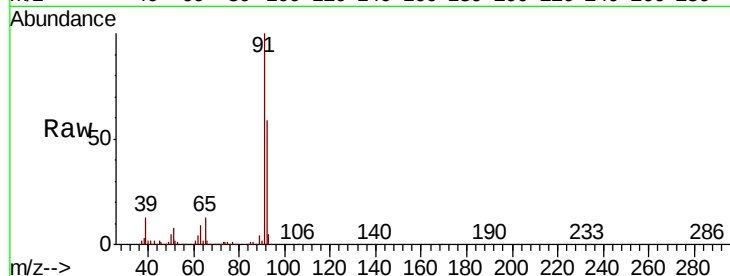
Acq: 11 Apr 2022 22:57

Tot Ion: 91 Resp: 2369699

Ion Ratio Lower Upper

91 100

92 60.4 49.2 73.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2889

Delta R.T. -0.00 min

Lab File: VL038882.D

Acq: 11 Apr 2022 22:57

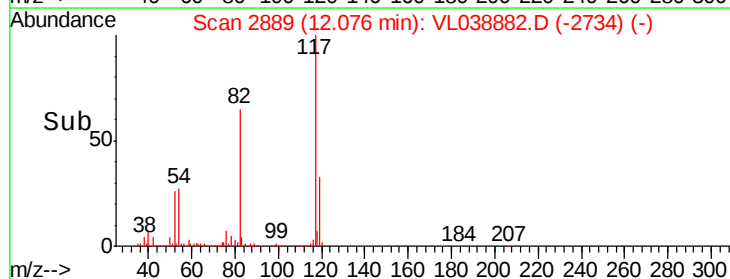
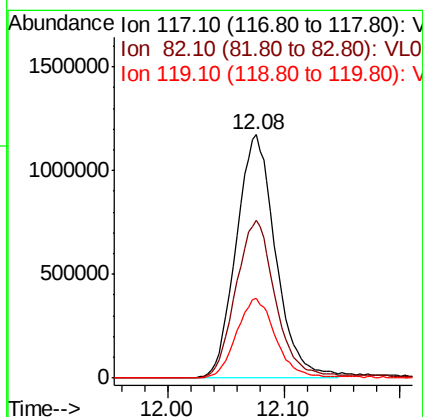
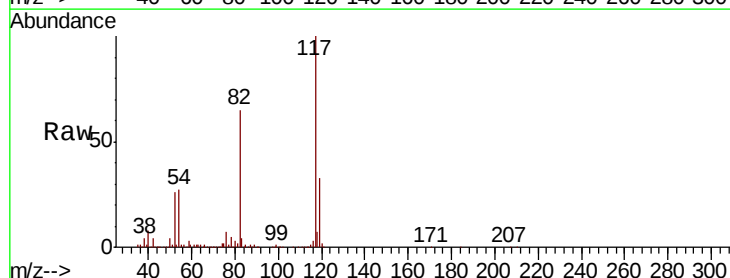
Tgt Ion: 117 Resp: 2772195

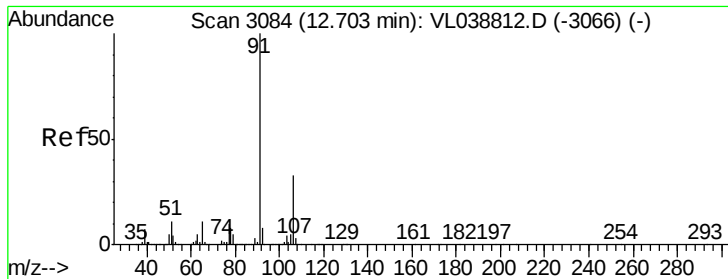
Ion Ratio Lower Upper

117 100

82 67.3 53.0 79.6

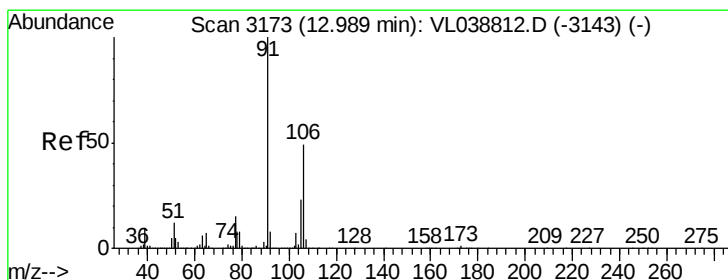
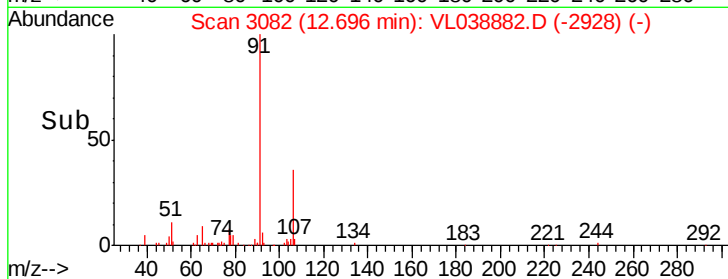
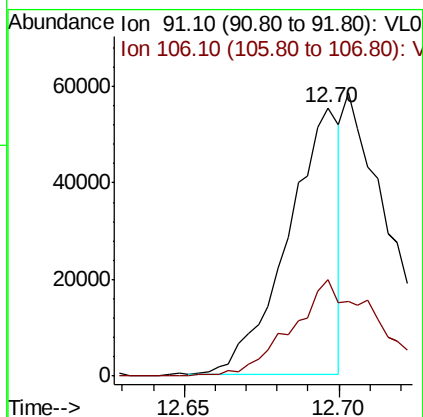
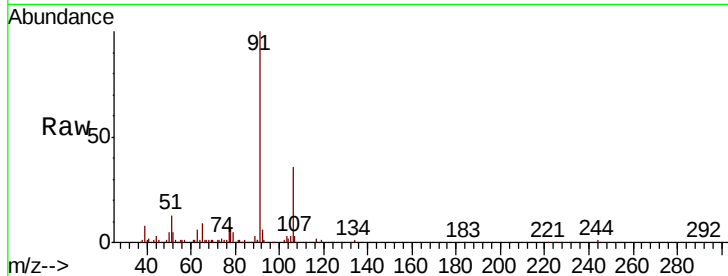
119 33.1 24.9 37.3





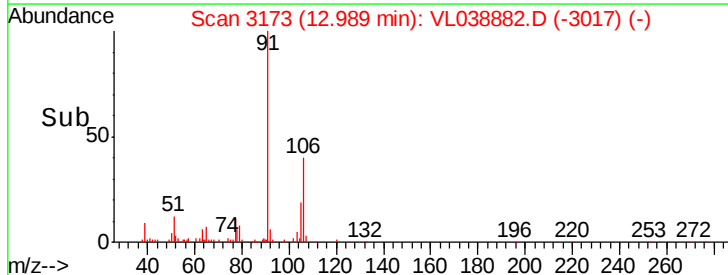
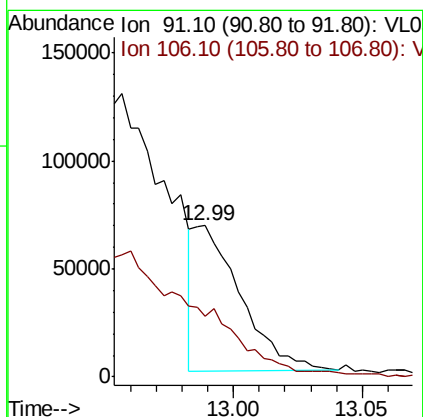
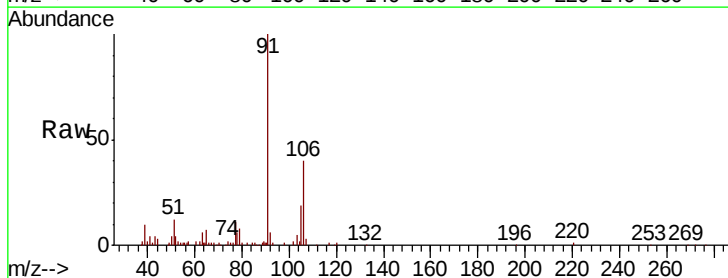
#58
Ethyl Benzene
Concen: 0.155 ppbv
RT: 12.70 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 11 Apr 2022 22:57

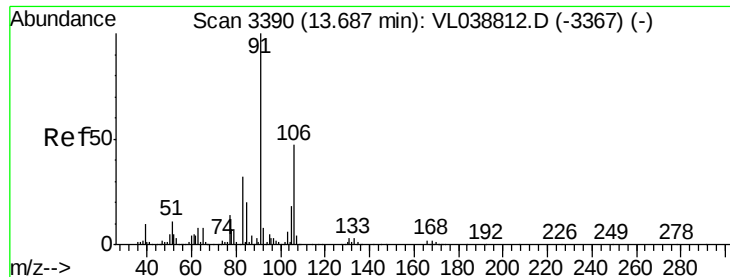
Tot Ion: 91 Resp: 64215
Ion Ratio Lower Upper
91 100
106 36.0 26.7 40.1



#59
m/p-Xylene
Concen: 0.241 ppbv
RT: 12.99 min Scan# 3173
Delta R.T. 0.00 min
Lab File: VL038882.D
Acq: 11 Apr 2022 22:57

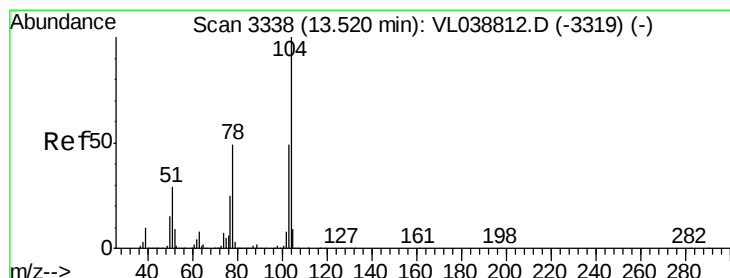
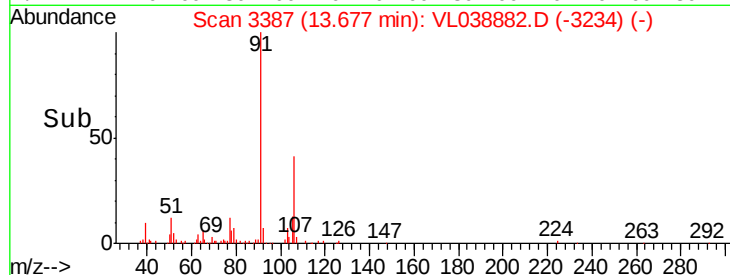
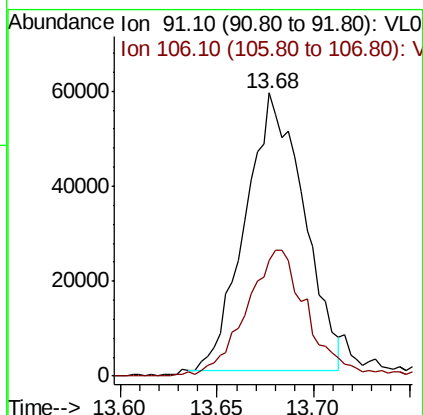
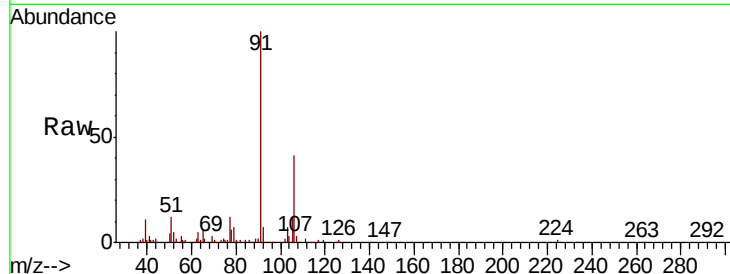
Tgt Ion: 91 Resp: 83822
Ion Ratio Lower Upper
91 100
106 0.0 37.1 55.7#





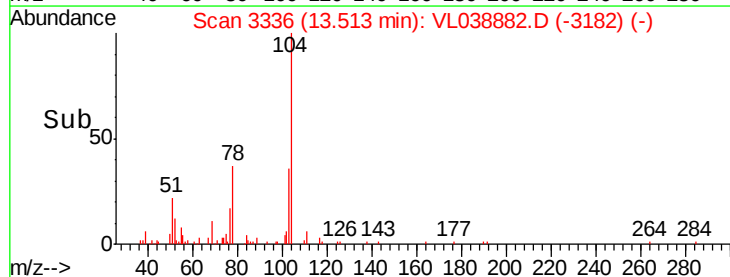
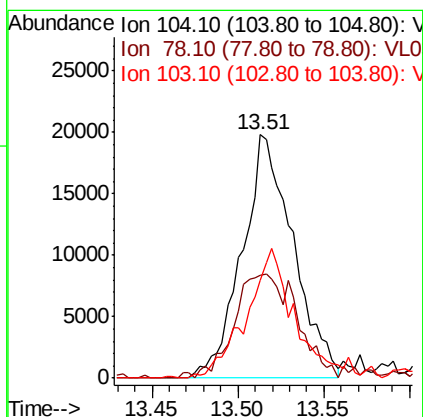
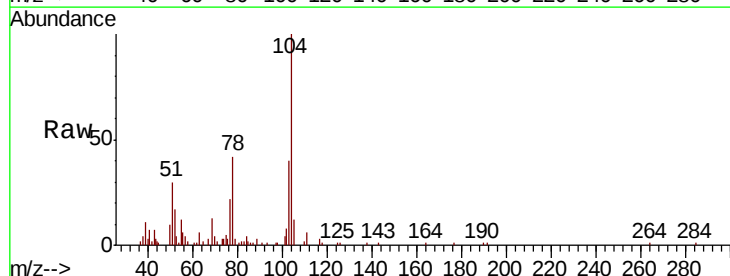
#60
o-Xylene
Concen: 0.377 ppbv
RT: 13.68
Delta R.T. MSVOA_L
Lab File: ClientSampled :
Acq: 11 Apr 2022 22:57

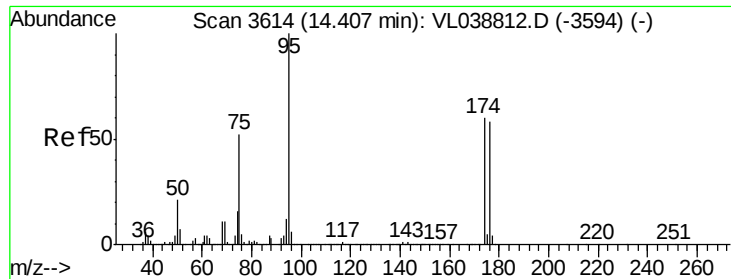
Tot Ion: 91 Resp: 122685
Ion Ratio Lower Upper
91 100
106 48.4 23.8 71.4



#61
Styrene
Concen: 0.206 ppbv
RT: 13.51 min Scan# 3336
Delta R.T. -0.01 min
Lab File: VL038882.D
Acq: 11 Apr 2022 22:57

Tgt Ion:104 Resp: 40937
Ion Ratio Lower Upper
104 100
78 56.2 40.5 60.7
103 51.6 39.0 58.4





#68

1-Bromo-4-Fluorobenzene

Concen: 10.327 ppbv

RT: 14.40

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 11 Apr 2022 22:57

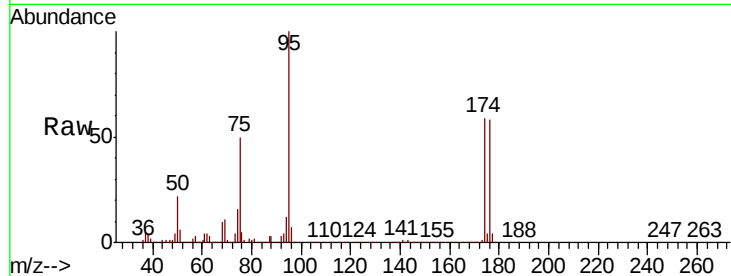
Tot Ion: 95 Resp: 2171524

Ion Ratio Lower Upper

95 100

174 64.3 52.0 78.0

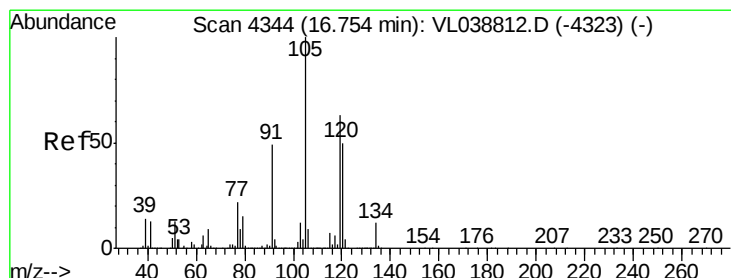
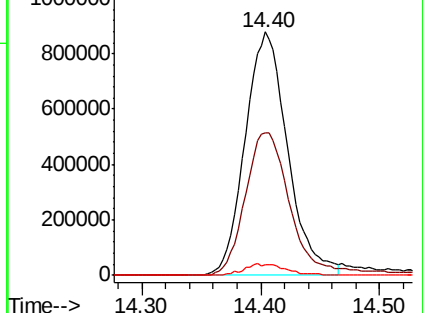
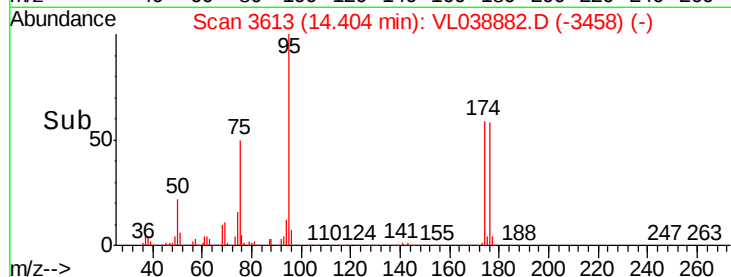
175 4.9 4.0 6.0



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



#74

1,2,4-Trimethylbenzene

Concen: 0.158 ppbv

RT: 16.75 min Scan# 4343

Delta R.T. -0.00 min

Lab File: VL038882.D

Acq: 11 Apr 2022 22:57

Tgt Ion:105 Resp: 58296

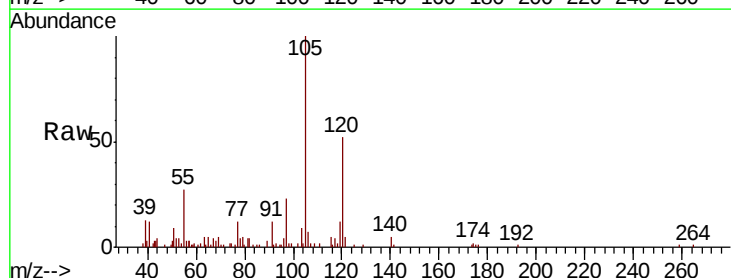
Ion Ratio Lower Upper

105 100

120 52.9 39.8 59.8

91 11.8 39.4 59.0#

77 11.6 17.3 25.9#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

