

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL032222\
 Data File : VL038697.D
 Acq On : 22 Mar 2022 23:42
 Operator : SY/AP
 Sample : N1961-15DL 5X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P78DL

Quant Time: Mar 23 04:16:36 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	5.65	49	851366	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	2310322	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.06	117	2006756	10.00	ppbv	-0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	1450049	9.42	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.20%

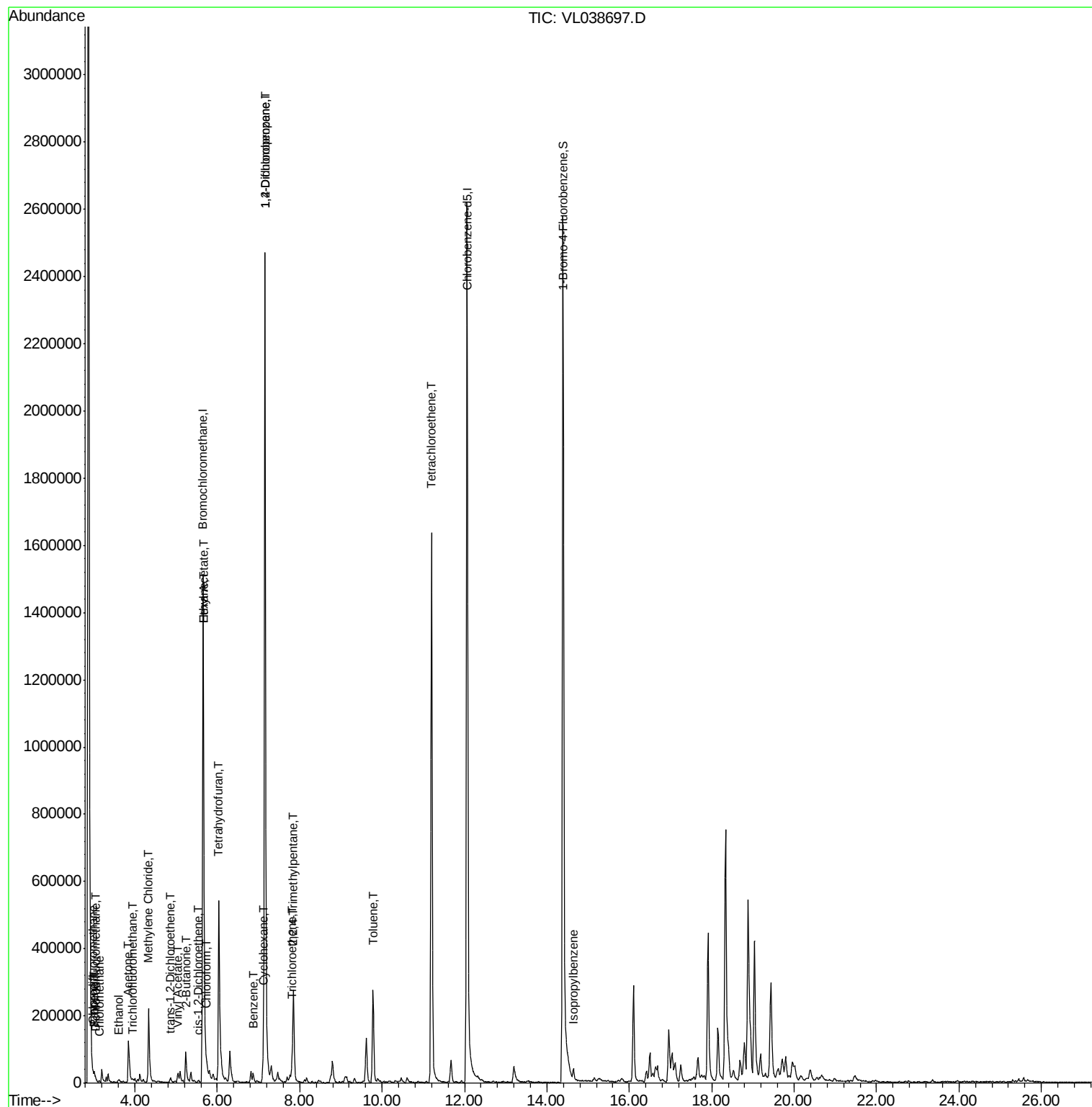
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	8923	0.08	ppbv	96
3) Chlorodifluoromethane	2.98	51	25439	0.28	ppbv	97
4) Chloromethane	3.13	50	1506	0.03	ppbv	95
9) Propene	3.02	41	9133	0.21	ppbv	91
11) Trichlorofluoromethane	3.94	101	3897	0.04	ppbv	90
13) Ethanol	3.60	45	9028	1.89	ppbv #	61
15) Acetone	3.84	43	168199	2.29	ppbv	97
20) Methylene Chloride	4.33	84	93309	3.02	ppbv	95
22) trans-1,2-Dichloroethene	4.88	96	832	0.02	ppbv #	61
23) Vinyl Acetate	5.05	43	1573	0.02	ppbv #	1
25) Ethyl Acetate	5.67	43	74715	0.40	ppbv #	77
26) Hexane	5.67	57	108874	1.32	ppbv #	40
29) Chloroform	5.73	83	4907	0.04	ppbv	96
30) Cyclohexane	7.11	84	26729	0.37	ppbv	88
31) cis-1,2-Dichloroethene	5.54	61	2467	0.03	ppbv #	73
34) 2-Butanone	5.23	43	136491	1.49	ppbv	95
36) Benzene	6.87	78	20210	0.11	ppbv	93
38) Trichloroethene	7.82	130	20154	0.27	ppbv	91
39) 1,2-Dichloropropane	7.15	63	514860	7.39	ppbv #	28
41) Tetrahydrofuran	6.04	42	433613	6.37	ppbv	98
44) 2,2,4-Trimethylpentane	7.85	57	267615	0.89	ppbv	92
52) Tetrachloroethene	11.20	164	483341	7.41	ppbv	95
53) Toluene	9.78	91	111106	0.58	ppbv	100
62) Isopropylbenzene	14.64	105	18568	0.06	ppbv #	71

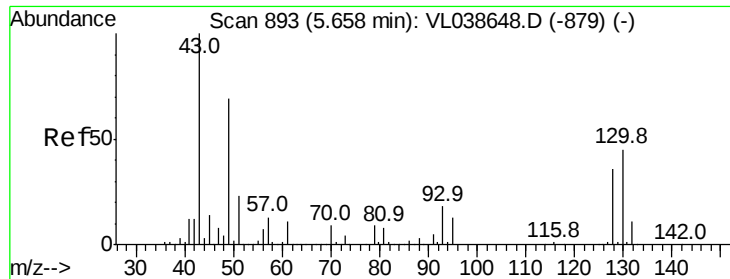
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: COP78DL

Acq: 22 Mar 2022 23:42

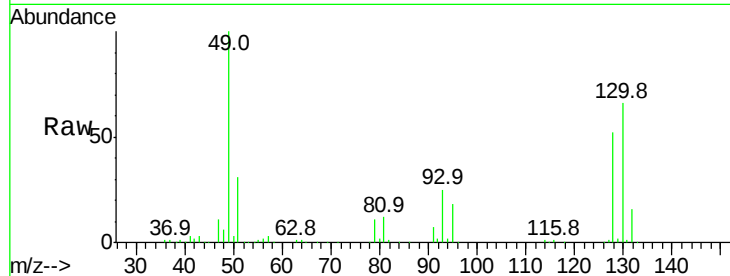
Tgt Ion: 49 Resp: 851366

Ion Ratio Lower Upper

49 100

128 53.2 26.2 78.6

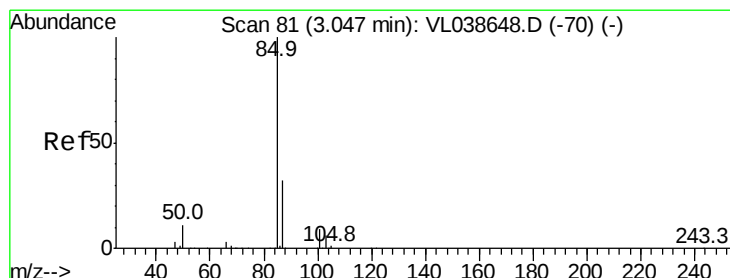
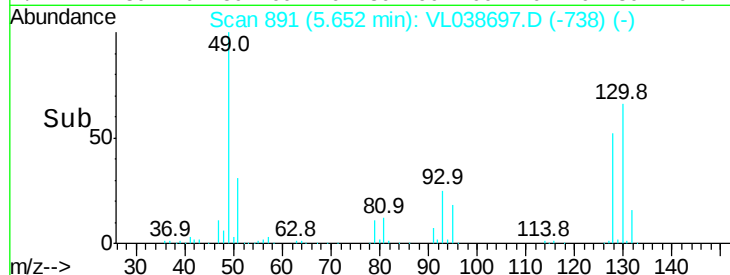
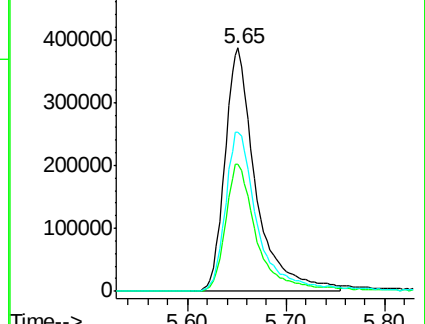
130 69.0 33.7 101.1



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: 0.08 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL038697.D

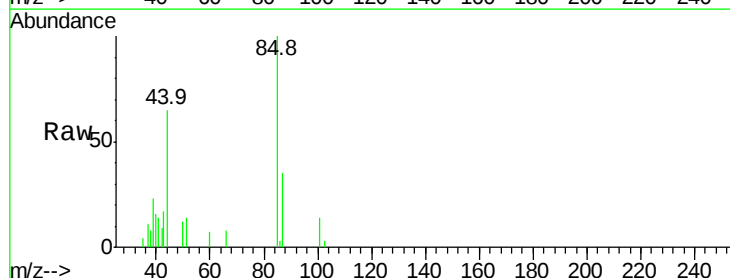
Acq: 22 Mar 2022 23:42

Tgt Ion: 85 Resp: 8923

Ion Ratio Lower Upper

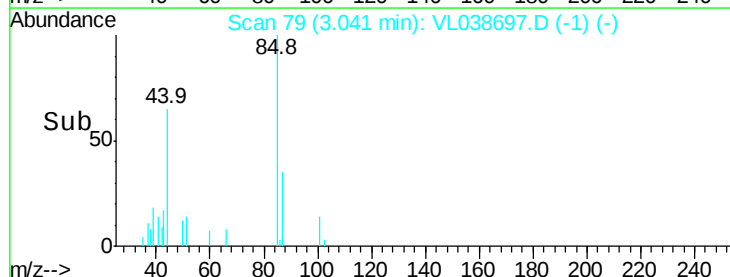
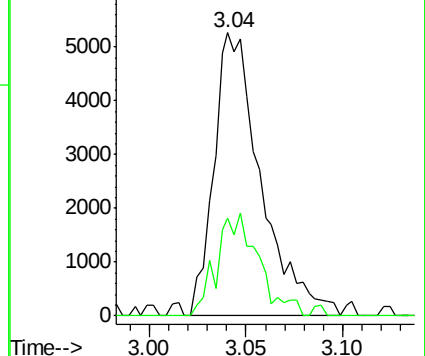
85 100

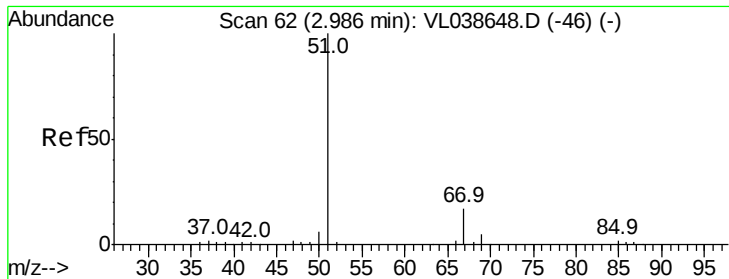
87 34.5 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.28 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: C0P78DL

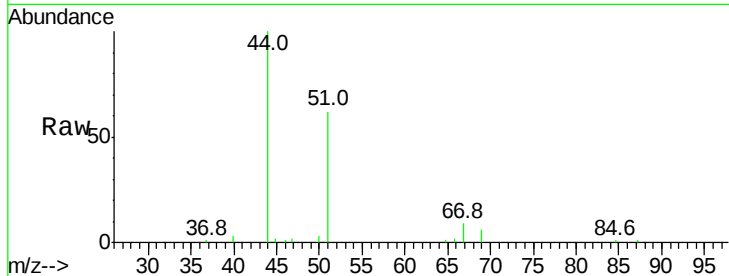
Acq: 22 Mar 2022 23:42

Tgt Ion: 51 Resp: 25439

Ion Ratio Lower Upper

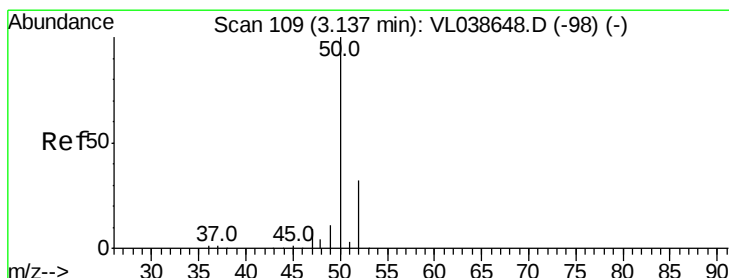
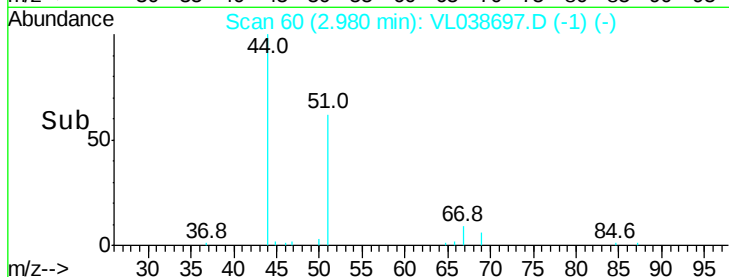
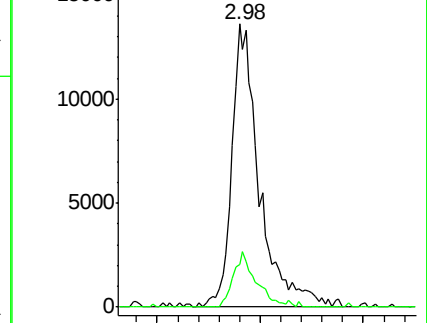
51 100

67 16.4 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: 0.03 ppbv

RT: 3.13 min Scan# 107

Delta R.T. -0.01 min

Lab File: VL038697.D

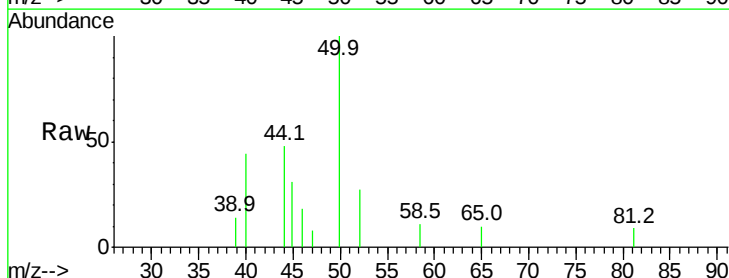
Acq: 22 Mar 2022 23:42

Tgt Ion: 50 Resp: 1506

Ion Ratio Lower Upper

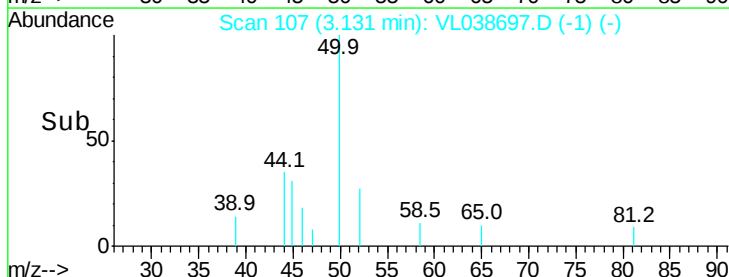
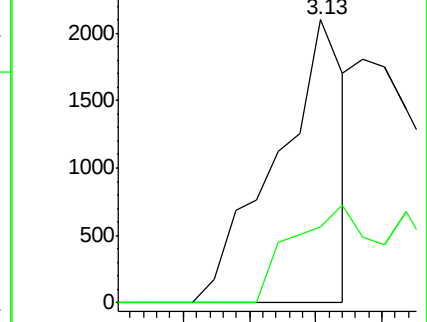
50 100

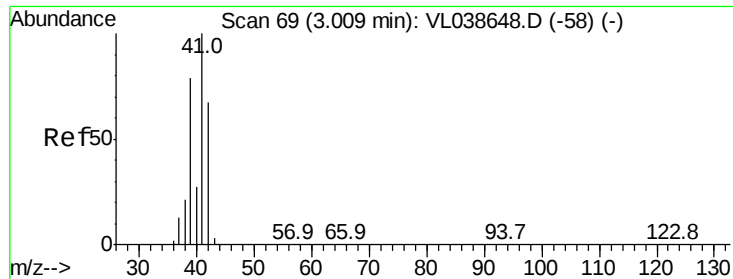
52 29.3 25.5 38.3



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.21 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

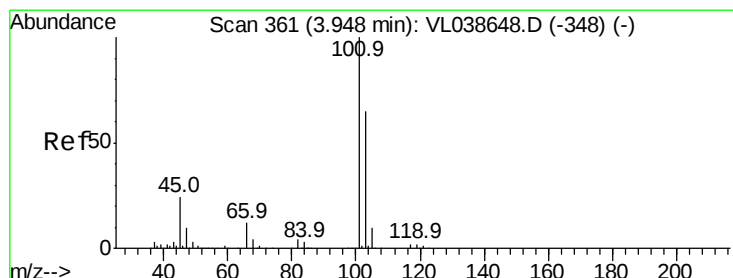
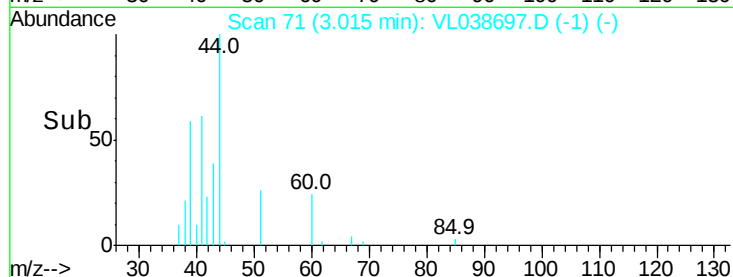
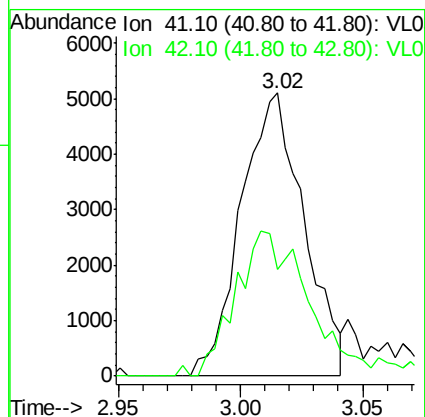
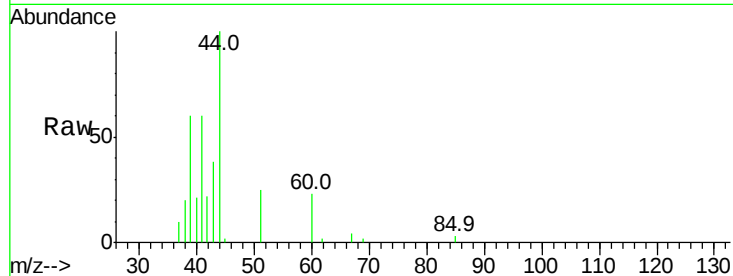
Acq: 22 Mar 2022 23:42 C0P78DL

Tgt Ion: 41 Resp: 9133

Ion Ratio Lower Upper

41 100

42 62.8 56.2 84.4



#11

Trichlorofluoromethane

Concen: 0.04 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.01 min

Lab File: VL038697.D

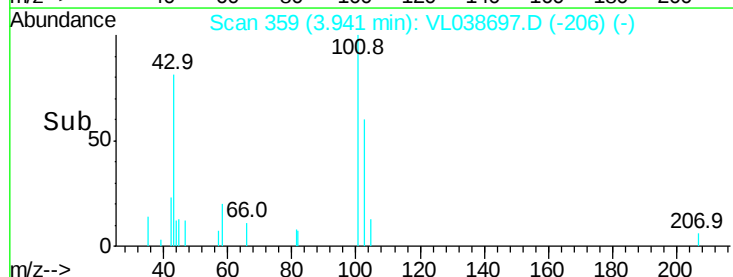
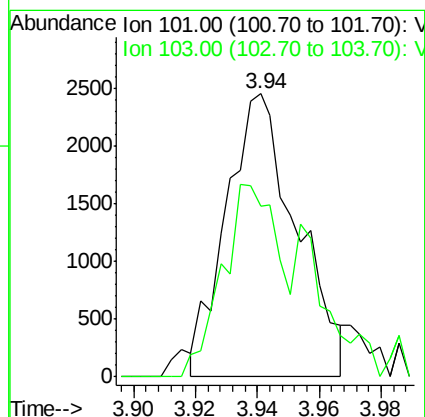
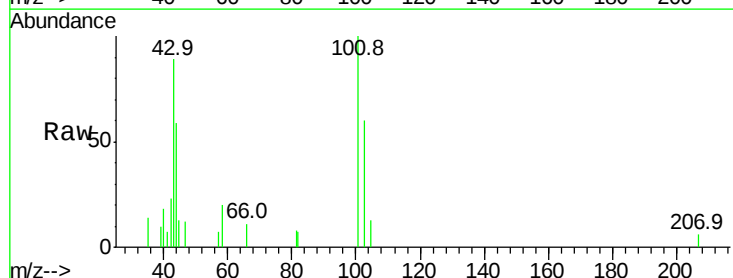
Acq: 22 Mar 2022 23:42

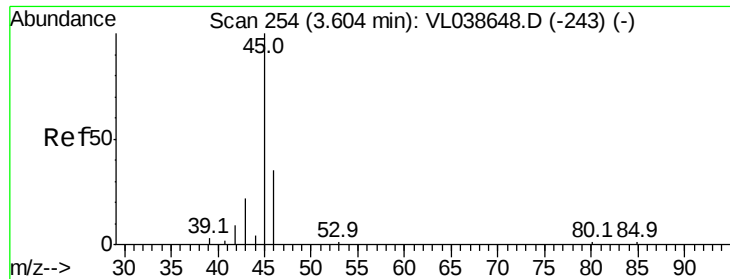
Tgt Ion: 101 Resp: 3897

Ion Ratio Lower Upper

101 100

103 56.7 51.9 77.9





#13

Ethanol

Concen: 1.89 ppbv

RT: 3.60 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

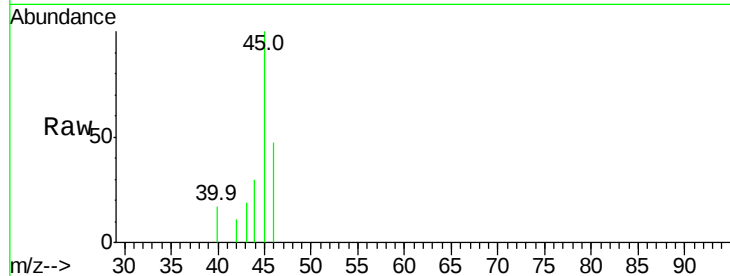
Acq: 22 Mar 2022 23:42

Tgt Ion: 45 Resp: 9028

Ion Ratio Lower Upper

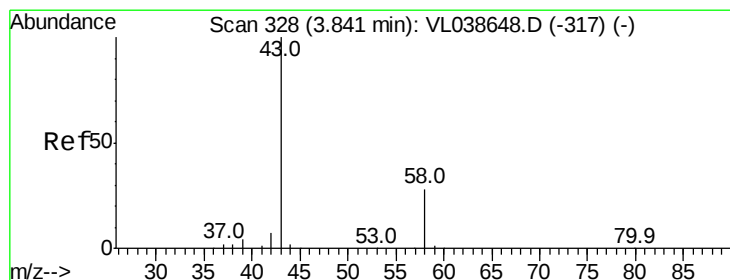
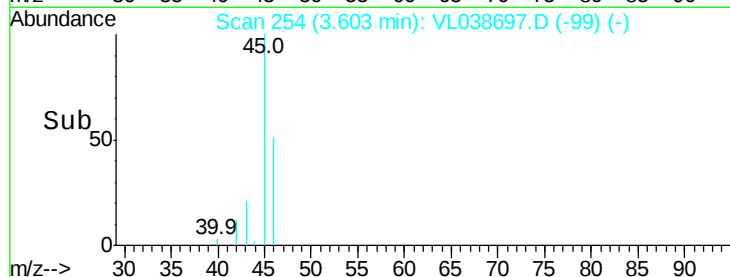
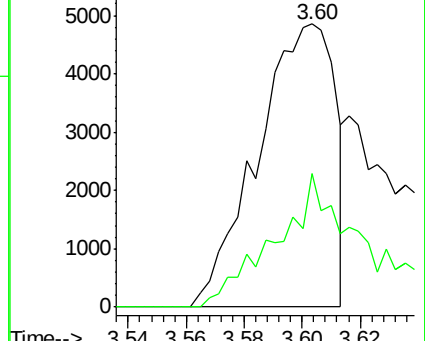
45 100

46 61.4 15.1 60.5#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0



#15

Acetone

Concen: 2.29 ppbv

RT: 3.84 min Scan# 328

Delta R.T. -0.00 min

Lab File: VL038697.D

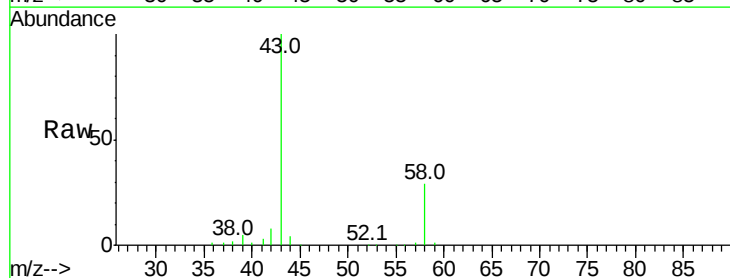
Acq: 22 Mar 2022 23:42

Tgt Ion: 43 Resp: 168199

Ion Ratio Lower Upper

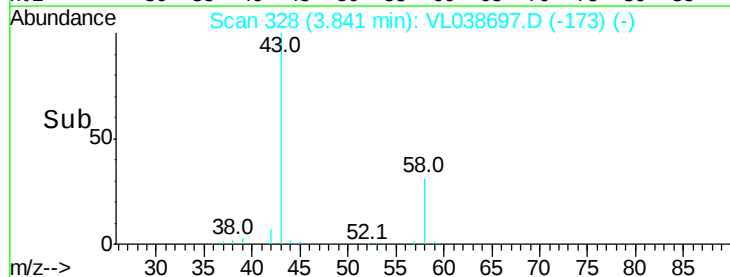
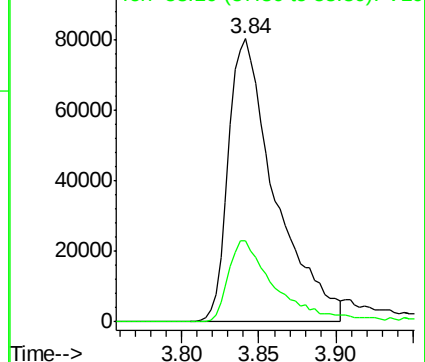
43 100

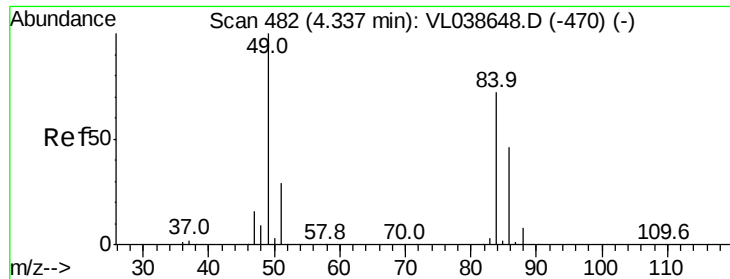
58 31.0 23.3 34.9



Abundance Ion 43.10 (42.80 to 43.80): VL0

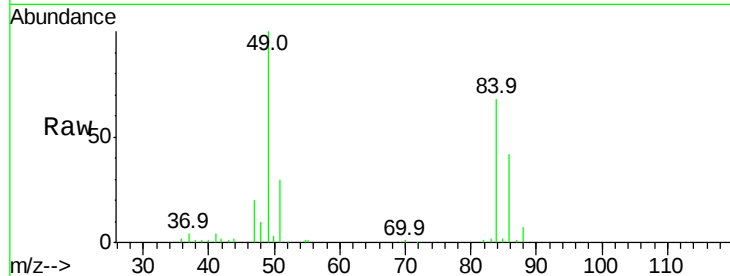
Ion 58.10 (57.80 to 58.80): VL0



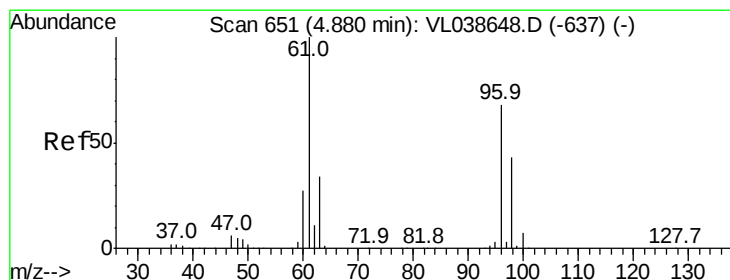
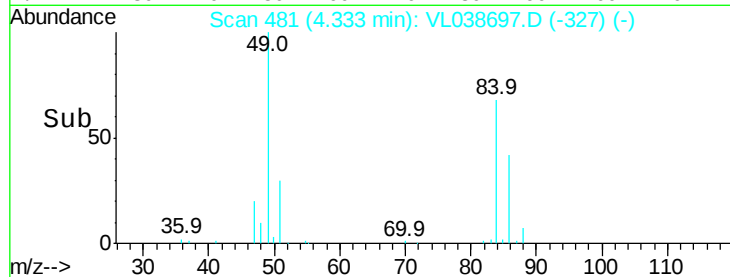
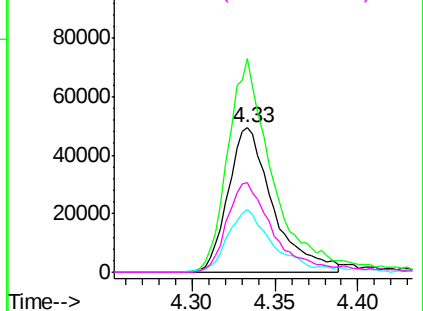


#20
Methylene Chloride
Concen: 3.02 ppbv
RT: 4.33
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 22 Mar 2022 23:42

Tgt Ion:	84	Resp:	93309
Ion	Ratio	Lower	Upper
84	100		
49	147.6	111.2	166.8
51	43.3	32.8	49.2
86	61.8	51.4	77.0

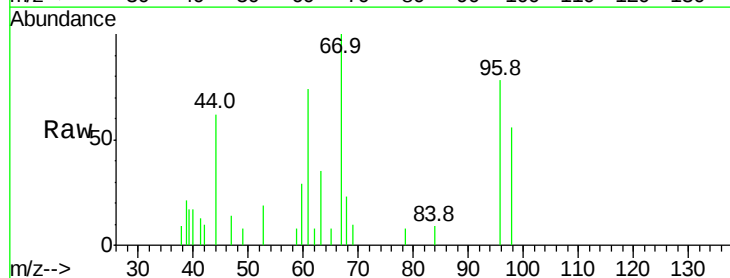


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

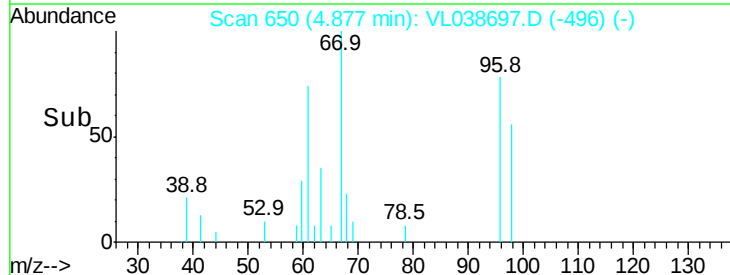
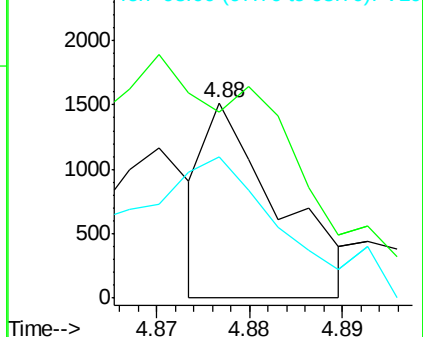


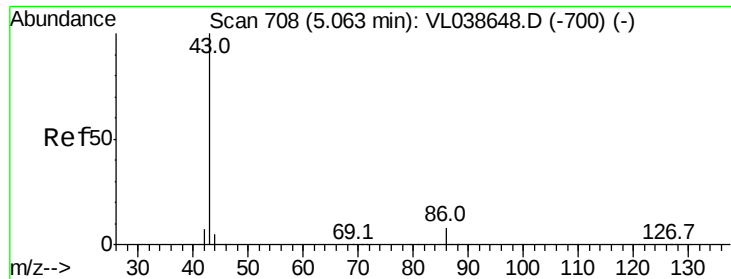
#22
trans-1,2-Dichloroethene
Concen: 0.02 ppbv
RT: 4.88 min Scan# 650
Delta R.T. -0.00 min
Lab File: VL038697.D
Acq: 22 Mar 2022 23:42

Tgt Ion:	96	Resp:	832
Ion	Ratio	Lower	Upper
96	100		
61	86.7	118.3	177.5#
98	78.4	51.3	76.9#



Abundance Ion 96.00 (95.70 to 96.70): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 98.00 (97.70 to 98.70): VL0





#23

Vinyl Acetate

Concen: 0.02 ppbv

RT: 5.05 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 22 Mar 2022 23:42

Tgt Ion: 43 Resp: 1573

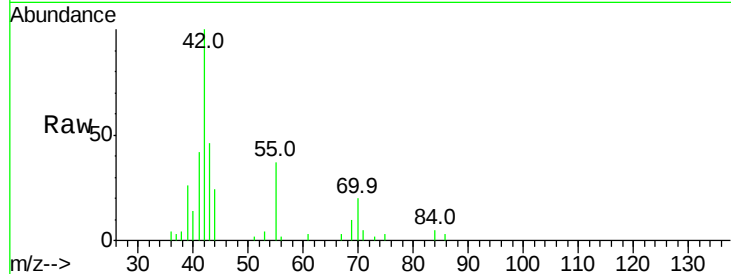
Ion Ratio Lower Upper

43 100

86 9.9 5.6 8.4#

42 222.8 6.8 10.2#

44 9.7 4.2 6.2#

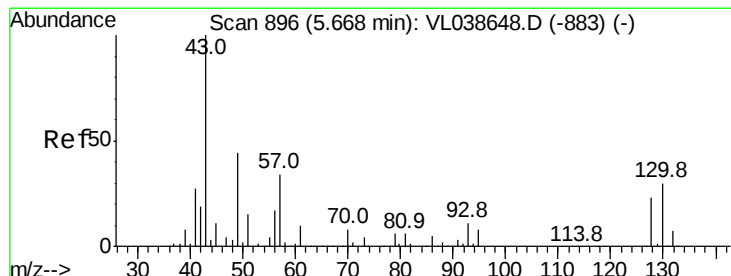
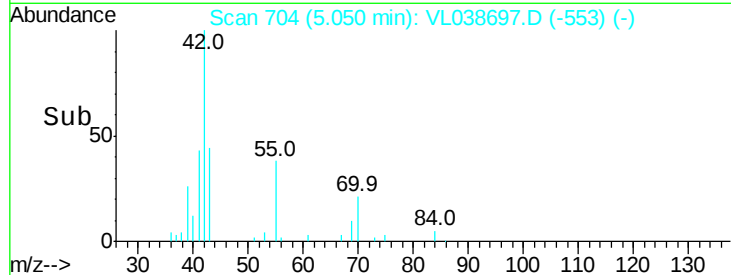
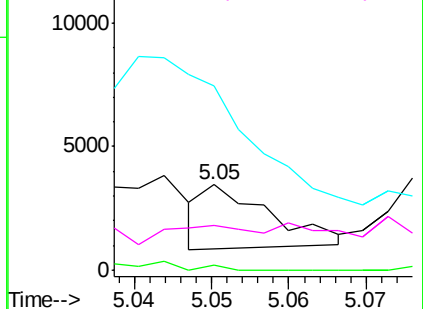


Abundance Ion 43.10 (42.80 to 43.80): VL0

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



#25

Ethyl Acetate

Concen: 0.40 ppbv

RT: 5.67 min Scan# 897

Delta R.T. 0.00 min

Lab File: VL038697.D

Acq: 22 Mar 2022 23:42

Tgt Ion: 43 Resp: 74715

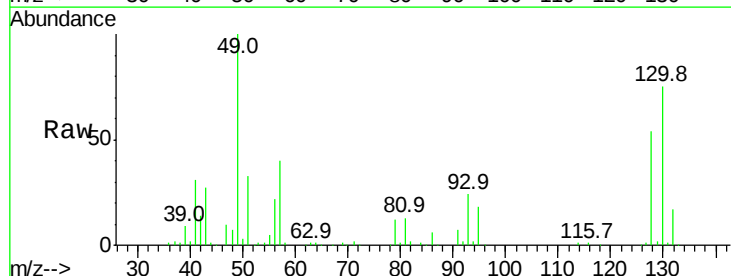
Ion Ratio Lower Upper

43 100

45 1.0 8.2 12.4#

61 0.2 8.3 12.5#

70 1.6 5.6 8.4#

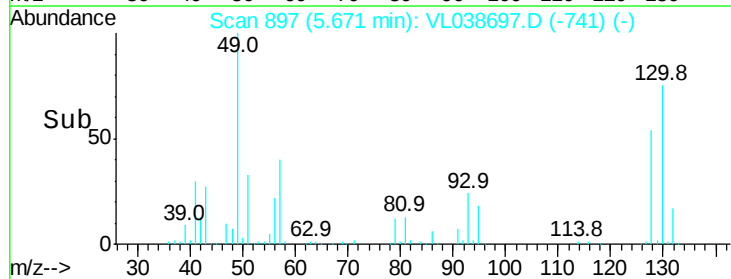
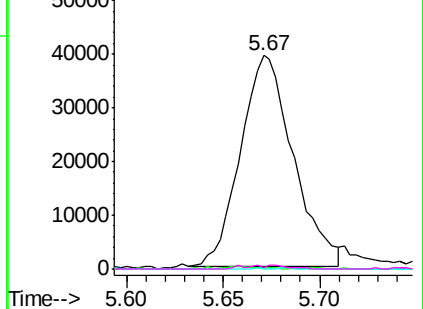


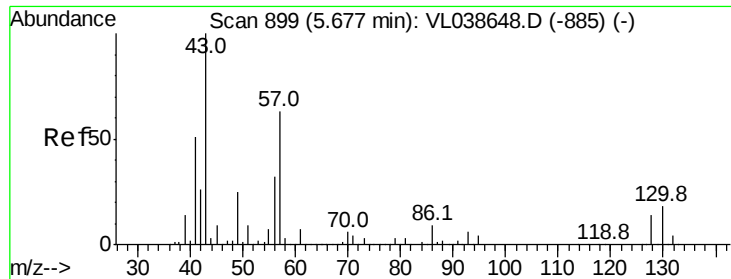
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

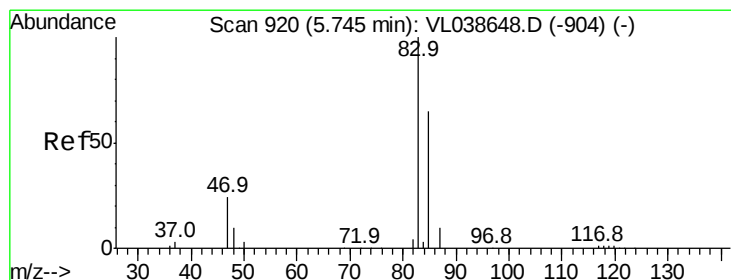
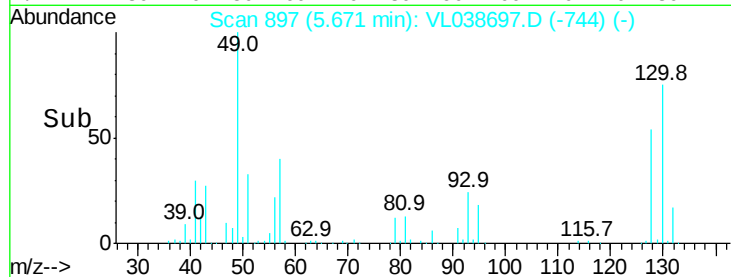
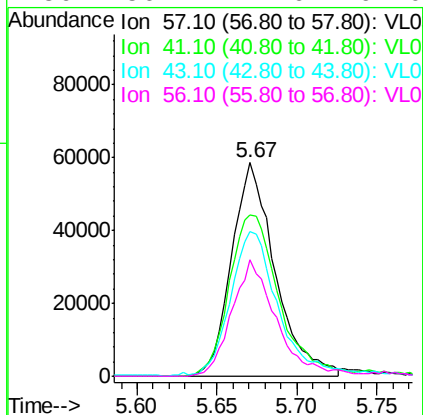
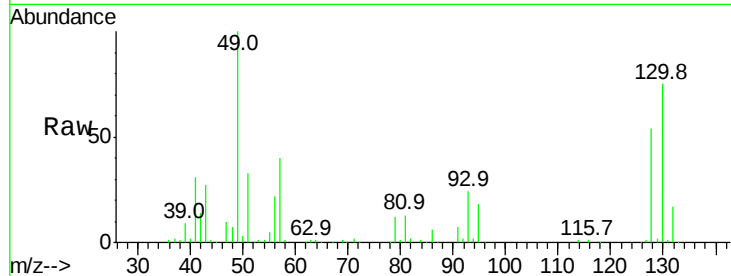
Ion 70.10 (69.80 to 70.80): VL0





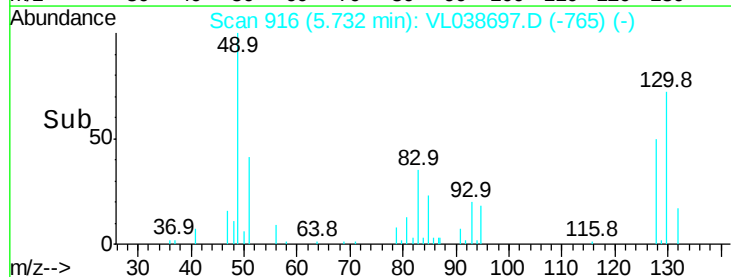
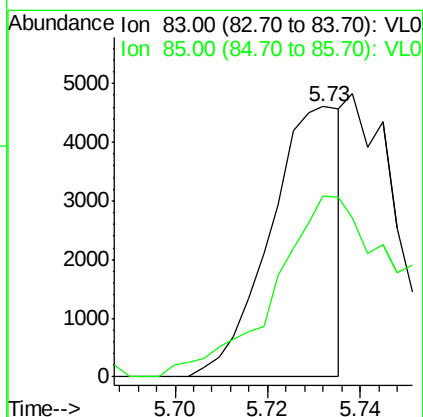
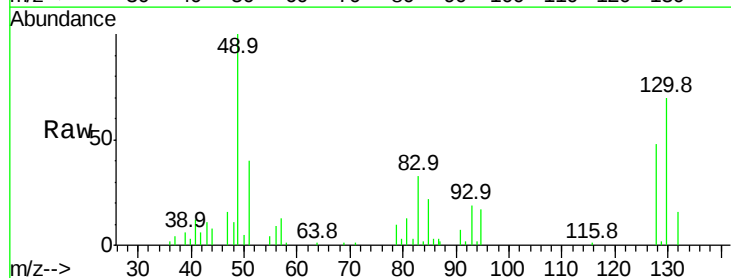
#26
Hexane
Concen: 1.32 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 22 Mar 2022 23:42
COP78DL

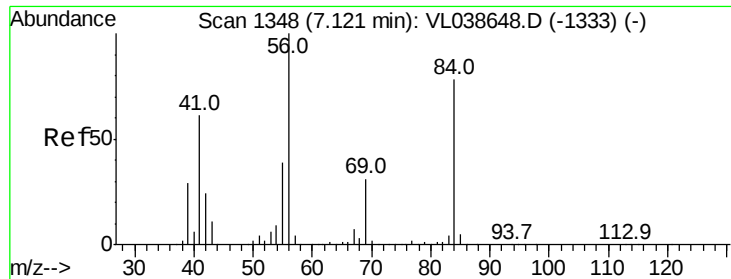
Tgt Ion	Resp	Lower	Upper
57	100		
41	89.2	67.0	100.4
43	76.4	184.2	276.2
56	56.2	42.6	64.0



#29
Chloroform
Concen: 0.04 ppbv
RT: 5.73 min Scan# 916
Delta R.T. -0.01 min
Lab File: VL038697.D
Acq: 22 Mar 2022 23:42

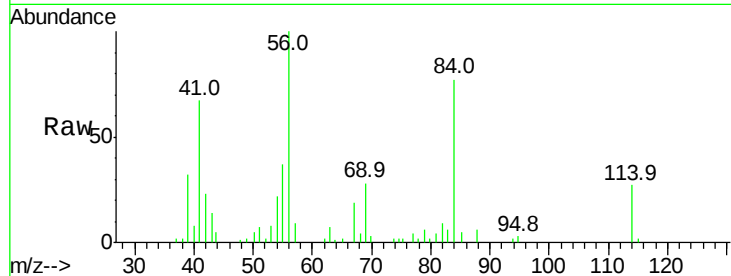
Tgt Ion	Resp	Lower	Upper
83	100		
85	61.7	51.7	77.5



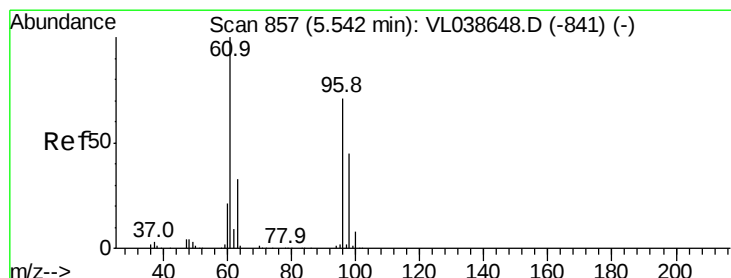
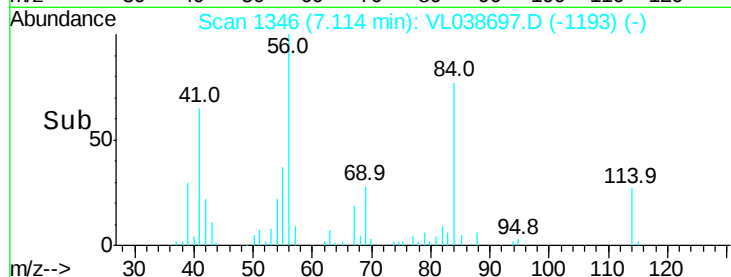
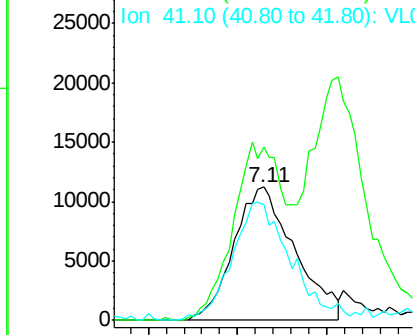


#30
Cyclohexane
Concen: 0.37 ppbv
RT: 7.11
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 22 Mar 2022 23:42

Tgt Ion: 84 Resp: 26729
Ion Ratio Lower Upper
84 100
56 118.4 108.2 162.4
41 85.3 61.8 92.6

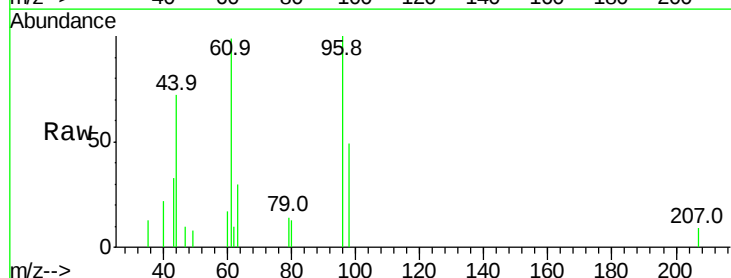


Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0

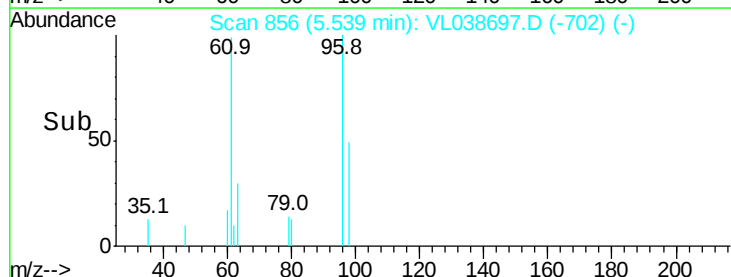
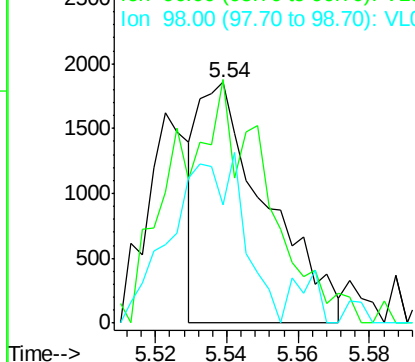


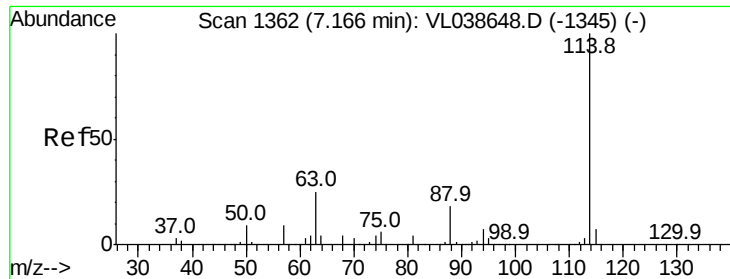
#31
cis-1,2-Dichloroethene
Concen: 0.03 ppbv
RT: 5.54 min Scan# 856
Delta R.T. -0.00 min
Lab File: VL038697.D
Acq: 22 Mar 2022 23:42

Tgt Ion: 61 Resp: 2467
Ion Ratio Lower Upper
61 100
96 99.0 56.6 84.8#
98 55.0 36.3 54.5#



Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0





#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.16 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 22 Mar 2022 23:42

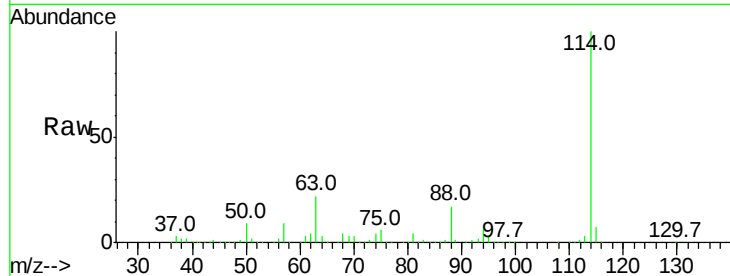
Tgt Ion: 114 Resp: 2310322

Ion Ratio Lower Upper

114 100

63 22.8 19.4 29.0

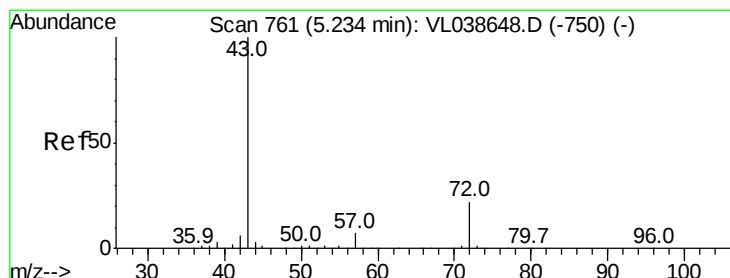
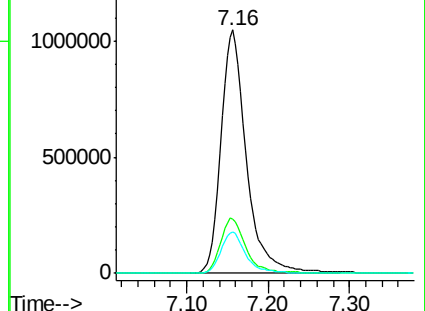
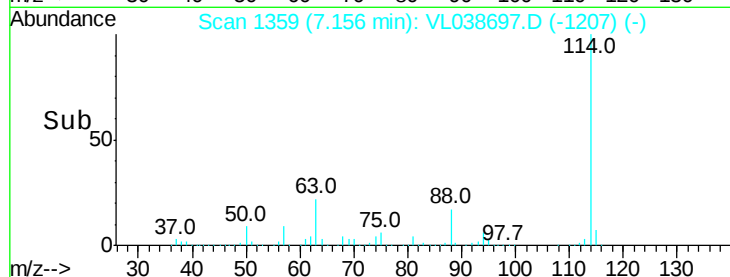
88 16.9 13.9 20.9



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: 1.49 ppbv

RT: 5.23 min Scan# 761

Delta R.T. -0.00 min

Lab File: VL038697.D

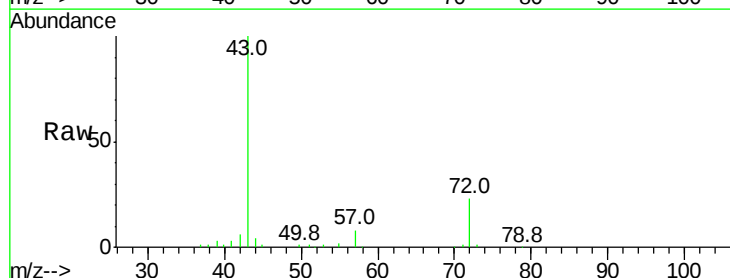
Acq: 22 Mar 2022 23:42

Tgt Ion: 43 Resp: 136491

Ion Ratio Lower Upper

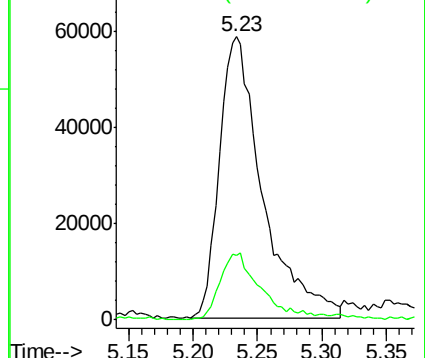
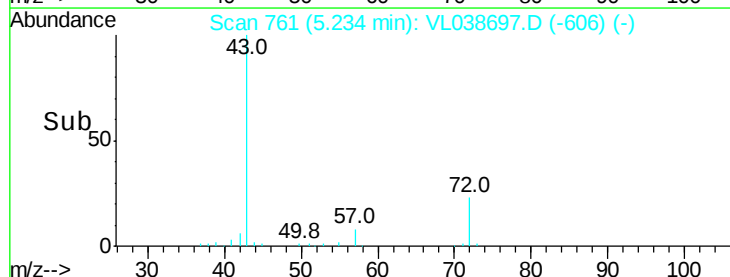
43 100

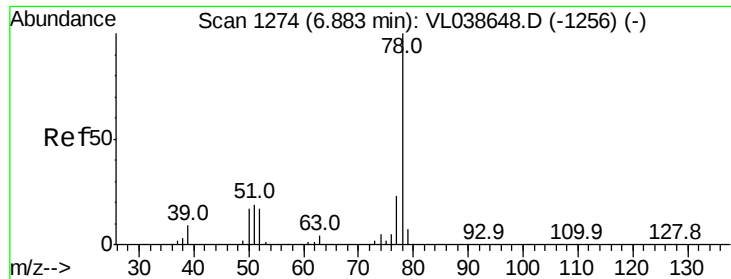
72 24.5 17.8 26.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

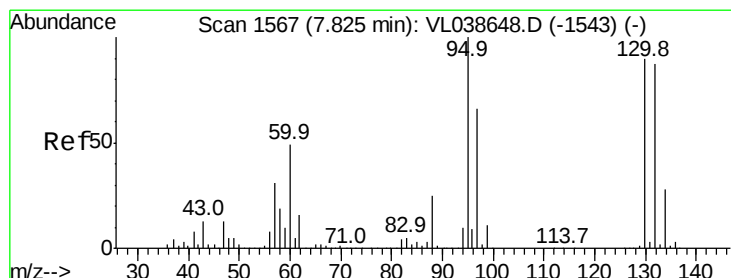
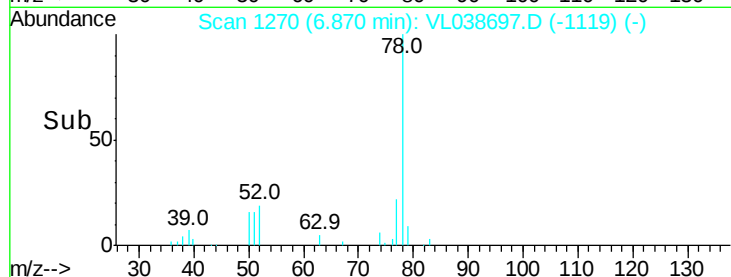
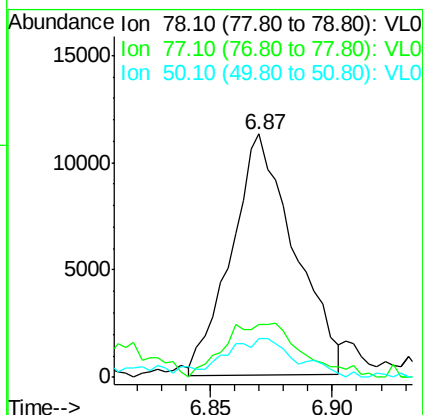
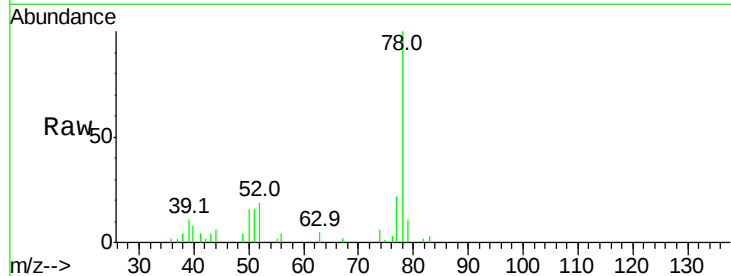
Ion 72.10 (71.80 to 72.80): VL0





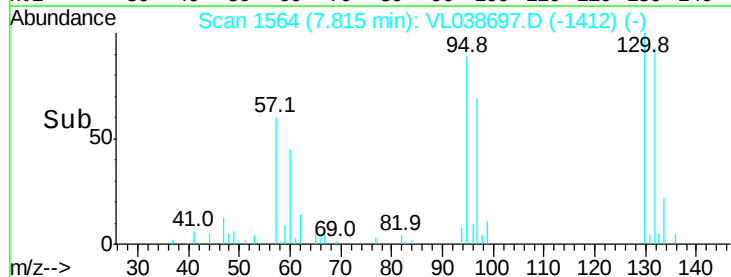
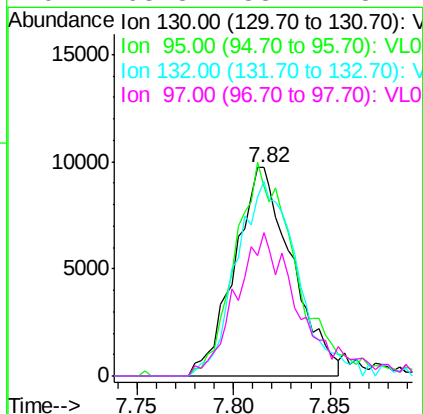
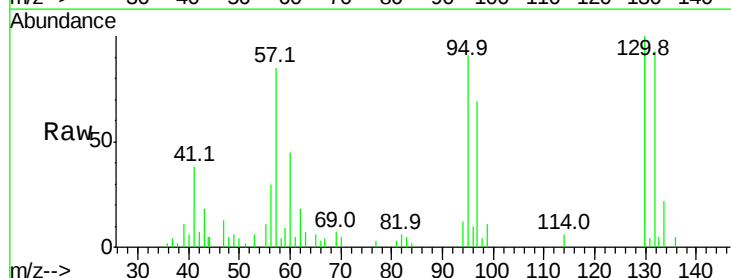
#36
Benzene
Concen: 0.11 ppbv
RT: 6.87
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 22 Mar 2022 23:42

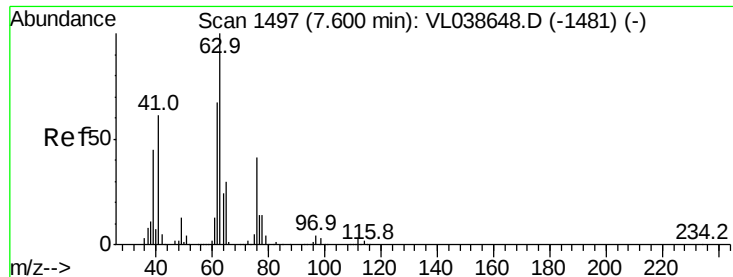
Tgt Ion: 78 Resp: 20210
Ion Ratio Lower Upper
78 100
77 18.9 18.1 27.1
50 14.4 13.6 20.4



#38
Trichloroethene
Concen: 0.27 ppbv
RT: 7.82 min Scan# 1564
Delta R.T. -0.01 min
Lab File: VL038697.D
Acq: 22 Mar 2022 23:42

Tgt Ion:130 Resp: 20154
Ion Ratio Lower Upper
130 100
95 91.1 88.9 133.3
132 97.9 77.4 116.0
97 68.8 58.2 87.4





#39

1,2-Dichloropropane

Concen: 7.39 ppbv

RT: 7.15

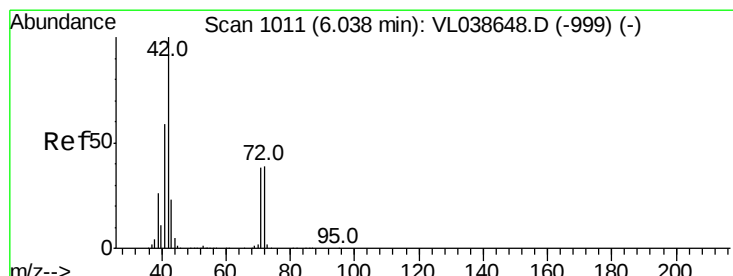
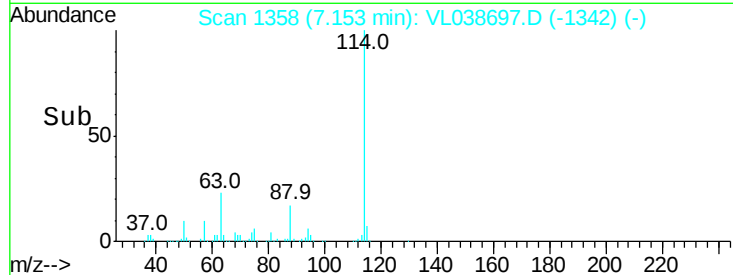
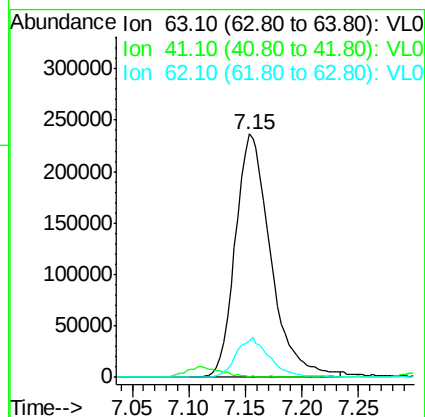
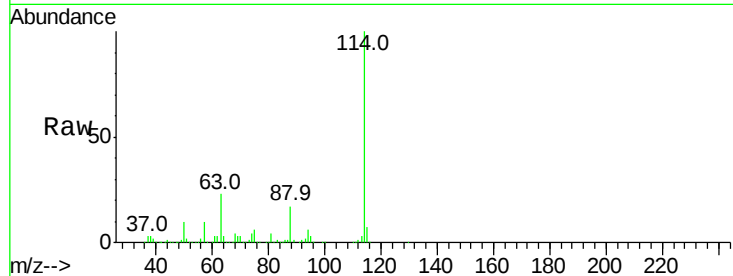
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 22 Mar 2022 23:42

Tgt Ion: 63 Resp: 514860

Ion	Ratio	Lower	Upper
63	100		
41	0.0	49.0	73.6#
62	14.9	53.9	80.9#



#41

Tetrahydrofuran

Concen: 6.37 ppbv

RT: 6.04 min Scan# 1011

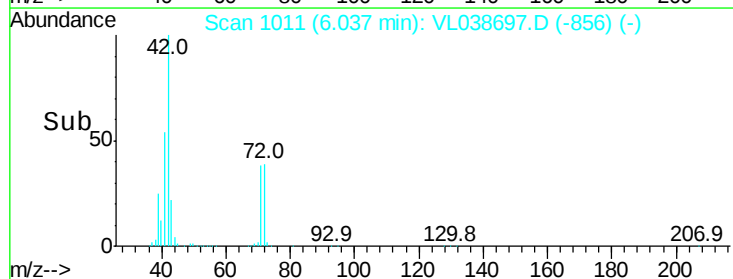
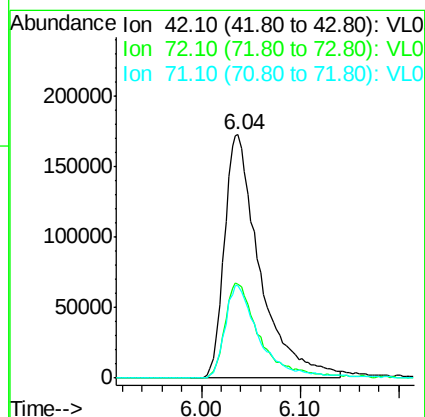
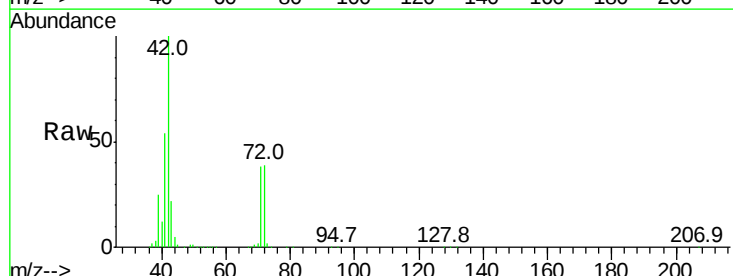
Delta R.T. -0.00 min

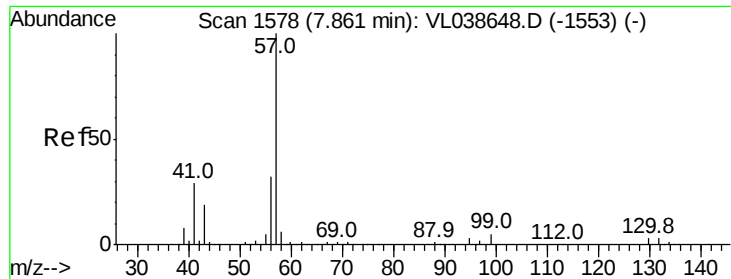
Lab File: VL038697.D

Acq: 22 Mar 2022 23:42

Tgt Ion: 42 Resp: 433613

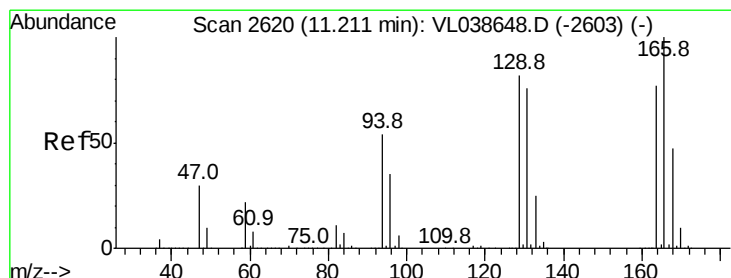
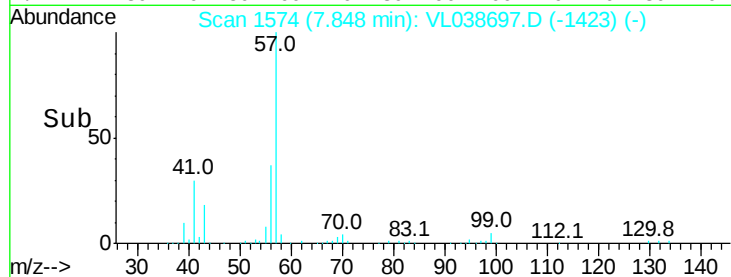
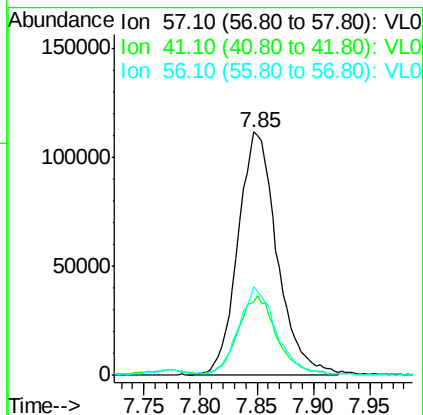
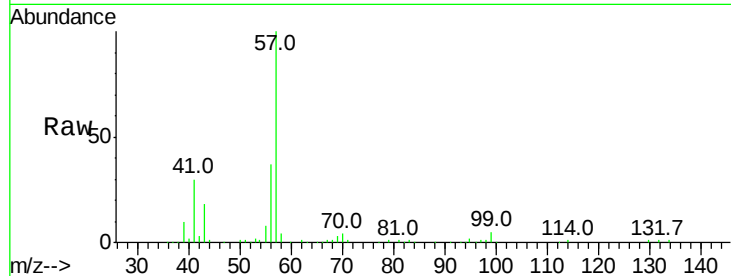
Ion	Ratio	Lower	Upper
42	100		
72	39.4	32.5	48.7
71	38.1	31.4	47.2



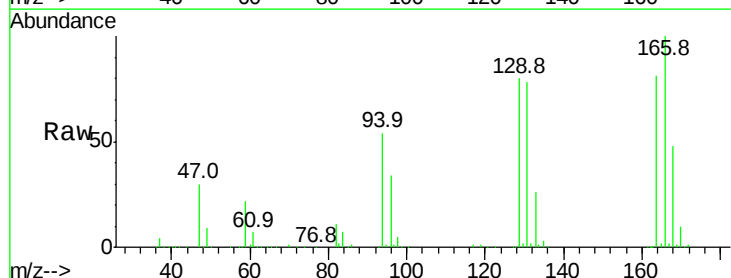


#44
 2,2,4-Trimethylpentane
 Concen: 0.89 ppbv
 RT: 7.85
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 22 Mar 2022 23:42

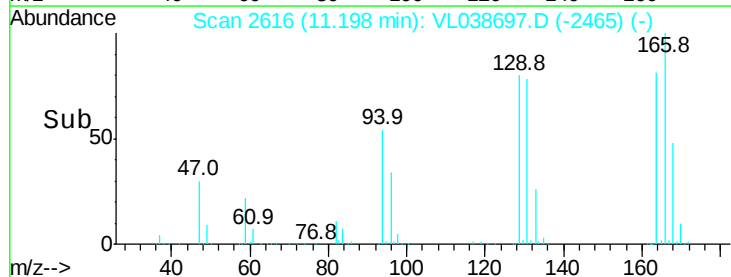
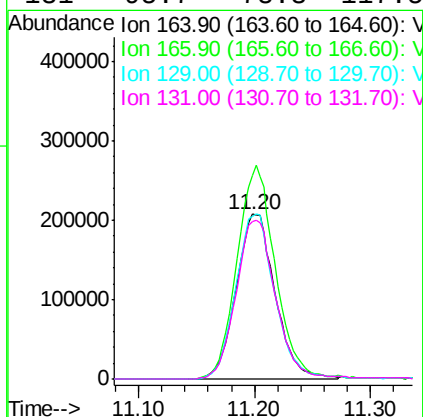
Tgt Ion	Ratio	Lower	Upper
57	100		
41	33.1	23.0	34.4
56	35.8	25.3	37.9

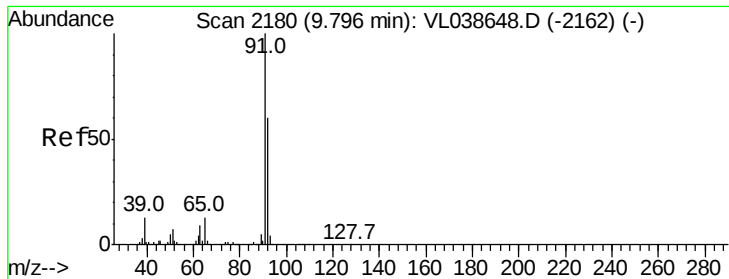


#52
 Tetrachloroethene
 Concen: 7.41 ppbv
 RT: 11.20 min Scan# 2616
 Delta R.T. -0.01 min
 Lab File: VL038697.D
 Acq: 22 Mar 2022 23:42



Tgt Ion	Ratio	Lower	Upper
164	100		
166	123.0	103.3	154.9
129	98.6	85.2	127.8
131	95.7	78.3	117.5





#53

Toluene

Concen: 0.58 ppbv

RT: 9.78 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

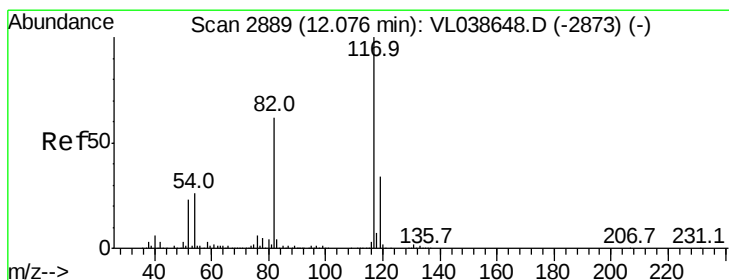
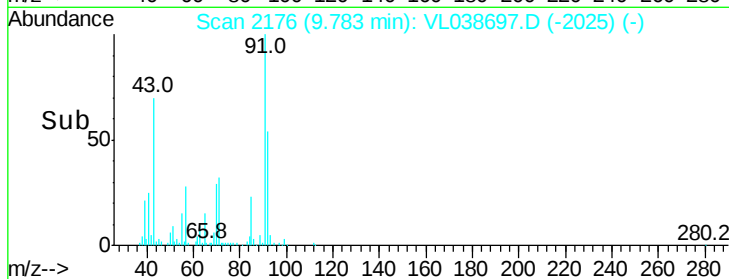
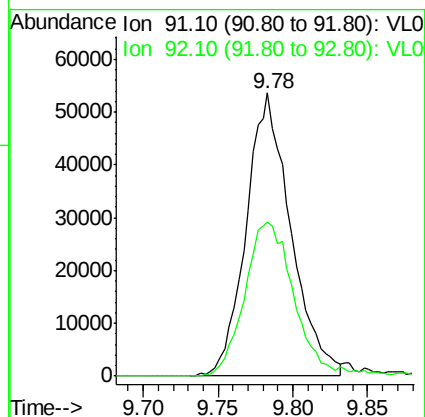
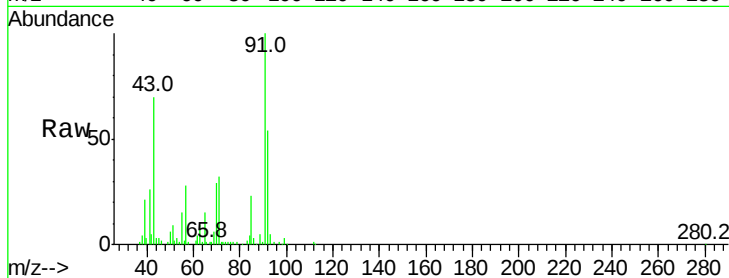
Acq: 22 Mar 2022 23:42 C0P78DL

Tgt Ion: 91 Resp: 111106

Ion Ratio Lower Upper

91 100

92 61.3 48.7 73.1



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.06 min Scan# 2885

Delta R.T. -0.01 min

Lab File: VL038697.D

Acq: 22 Mar 2022 23:42

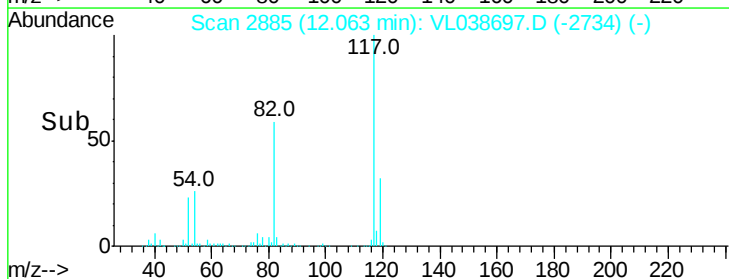
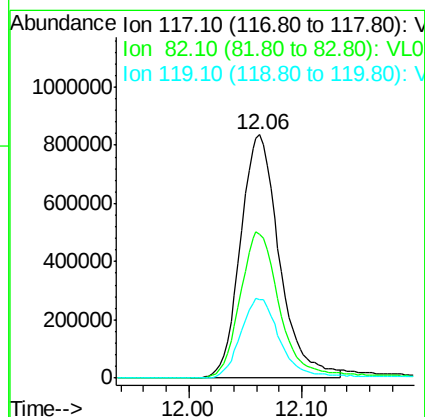
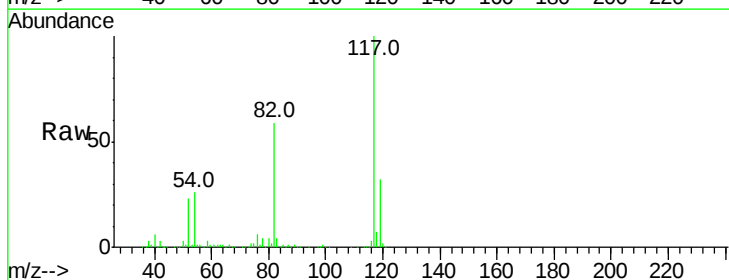
Tgt Ion: 117 Resp: 2006756

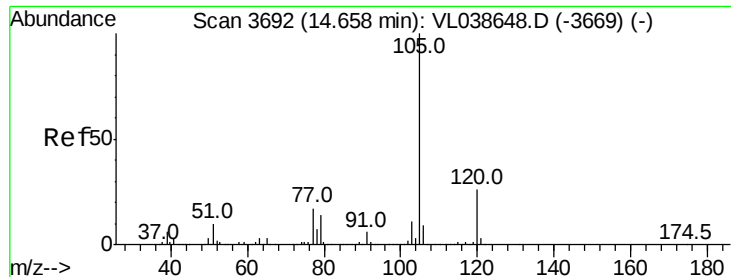
Ion Ratio Lower Upper

117 100

82 63.6 51.6 77.4

119 35.0 26.9 40.3





#62

Isopropylbenzene

Concen: 0.06 ppbv

RT: 14.64

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

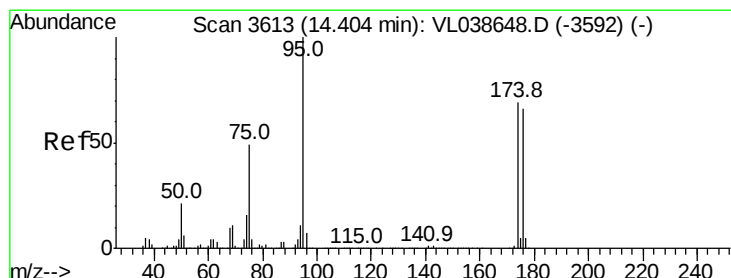
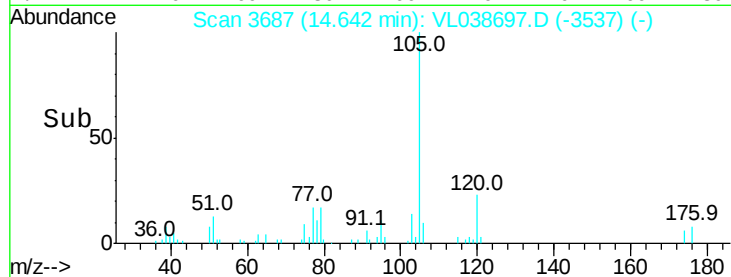
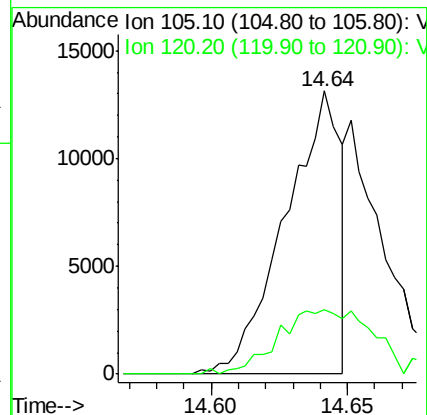
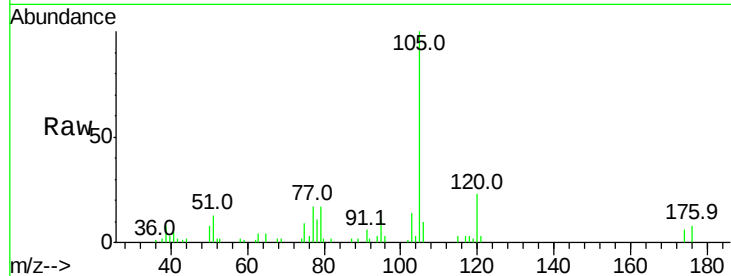
Acq: 22 Mar 2022 23:42

Tgt Ion: 105 Resp: 18568

Ion Ratio Lower Upper

105 100

120 41.4 21.2 31.8#



#68

1-Bromo-4-Fluorobenzene

Concen: 9.42 ppbv

RT: 14.39 min Scan# 3609

Delta R.T. -0.01 min

Lab File: VL038697.D

Acq: 22 Mar 2022 23:42

Tgt Ion: 95 Resp: 1450049

Ion Ratio Lower Upper

95 100

174 76.2 56.1 84.1

175 5.6 4.2 6.2

