

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032822\
 Data File : VL038771.D
 Acq On : 28 Mar 2022 14:57
 Operator : SY/AP
 Sample : N2096-02DL 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA L
 ClientSampleId :
 SV-02-(SB-07)DL

Quant Time: Mar 29 06:10:33 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

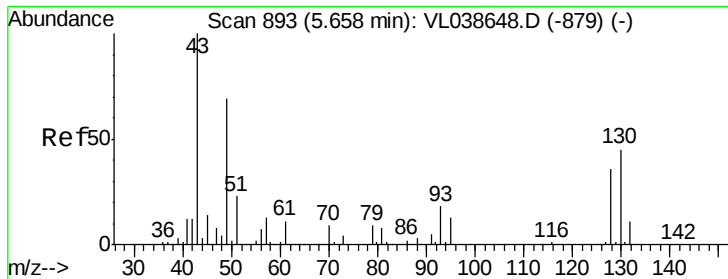
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	879614	10.00	ppbv	0.01
33) 1,4-Difluorobenzene	7.18	114	2410017	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2154819	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	1660537	10.05	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.06	85	65587	0.555	ppbv	97
3) Chlorodifluoromethane	3.00	51	7980	0.086	ppbv	98
4) Chloromethane	3.15	50	7876	0.154	ppbv	89
5) Vinyl Chloride	3.03	62	21853	0.422	ppbv #	47
9) Propene	3.02	41	543610	12.120	ppbv	90
10) Heptane	8.13	43	11777	0.110	ppbv #	26
11) Trichlorofluoromethane	3.96	101	30785	0.295	ppbv	93
13) Ethanol	3.61	45	194474	39.307	ppbv	99
15) Acetone	3.86	43	165030	2.174	ppbv #	47
16) 1,3-Butadiene	3.32	39	140107	3.253	ppbv #	32
17) tert-Butyl alcohol	4.32	59	13258	0.200	ppbv #	73
19) Isopropyl Alcohol	3.98	45	21033	0.500	ppbv #	1
20) Methylene Chloride	4.35	84	44055	1.378	ppbv	99
21) Allyl Chloride	4.30	41	2509	0.046	ppbv #	1
23) Vinyl Acetate	5.06	43	27648	0.376	ppbv #	1
25) Ethyl Acetate	5.69	43	273875	1.433	ppbv #	79
26) Hexane	5.69	57	376257	4.399	ppbv #	40
27) Carbon Disulfide	4.56	76	105435	1.256	ppbv #	93
29) Chloroform	5.76	83	5141	0.038	ppbv	94
30) Cyclohexane	7.14	84	35879	0.482	ppbv #	52
32) 1,1,1-Trichloroethane	6.52	97	13228	0.100	ppbv #	23
34) 2-Butanone	5.25	43	15423	0.162	ppbv	91
35) Carbon Tetrachloride	7.02	117	24217	0.173	ppbv	94
36) Benzene	6.89	78	39057	0.210	ppbv #	90
38) Trichloroethene	7.83	130	16073	0.206	ppbv	88
39) 1,2-Dichloropropane	7.18	63	552250	7.595	ppbv #	28
51) 2-Hexanone	10.12	43	6954	0.055	ppbv #	28
52) Tetrachloroethene	11.22	164	2141	0.031	ppbv #	58
53) Toluene	9.81	91	56228	0.281	ppbv	98
57) Chlorobenzene	12.14	112	4666	0.030	ppbv #	26
58) Ethyl Benzene	12.71	91	9890	0.039	ppbv #	87
59) m/p-Xylene	13.00	91	12980	0.059	ppbv #	30
60) o-Xylene	13.69	91	10860	0.052	ppbv #	33

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 28 Mar 2022 14:57 SV-02-(SB-07)DL

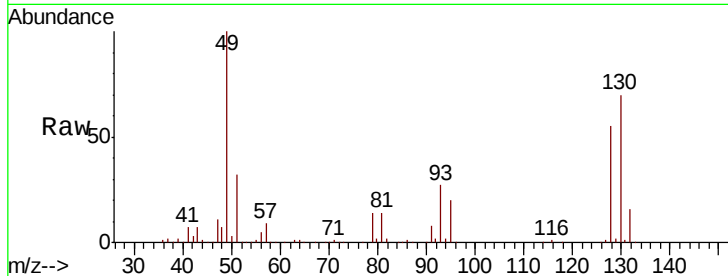
Tot Ion: 49 Resp: 879614

Ion Ratio Lower Upper

49 100

128 57.2 26.2 78.6

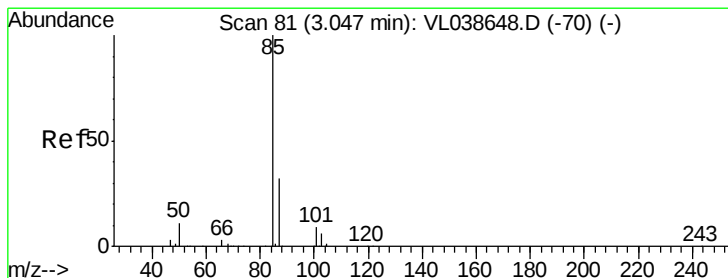
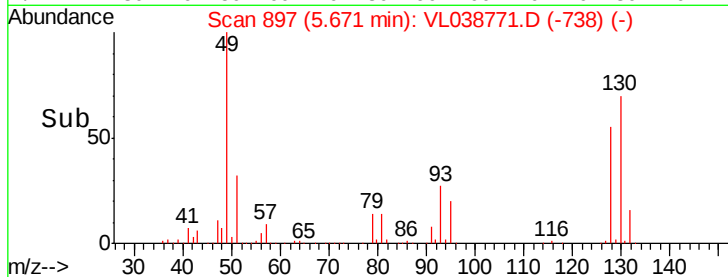
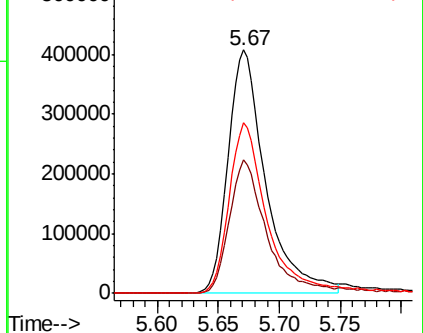
130 73.7 33.7 101.1



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: 0.555 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.01 min

Lab File: VL038771.D

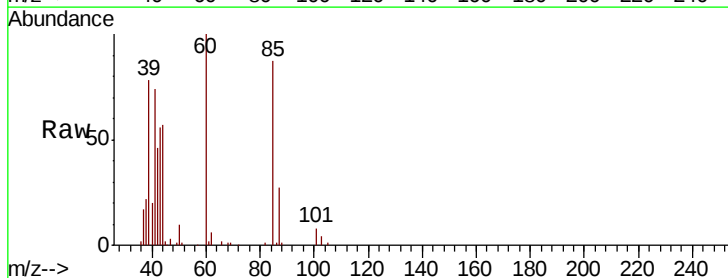
Acq: 28 Mar 2022 14:57

Tgt Ion: 85 Resp: 65587

Ion Ratio Lower Upper

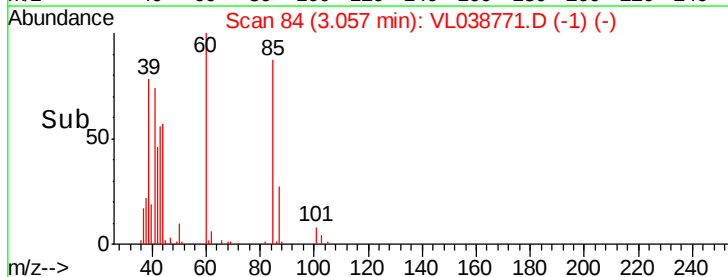
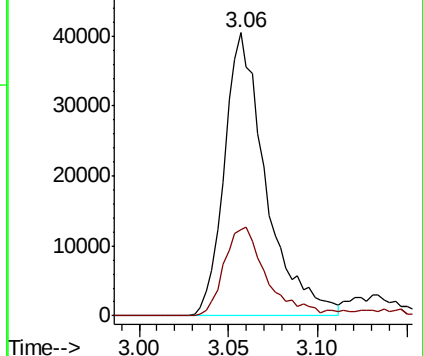
85 100

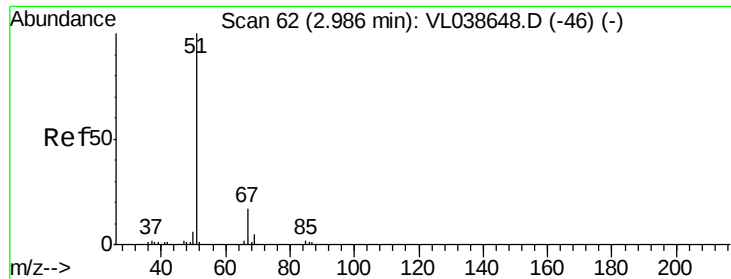
87 30.6 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.086 ppbv

RT: 3.00 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

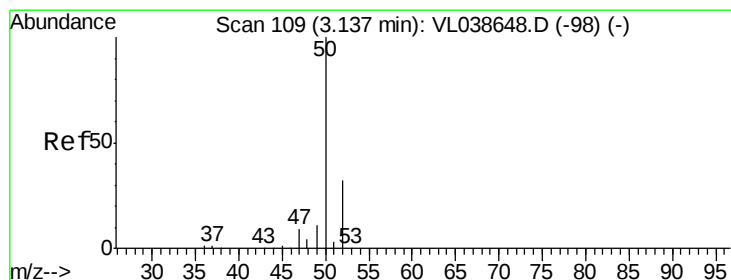
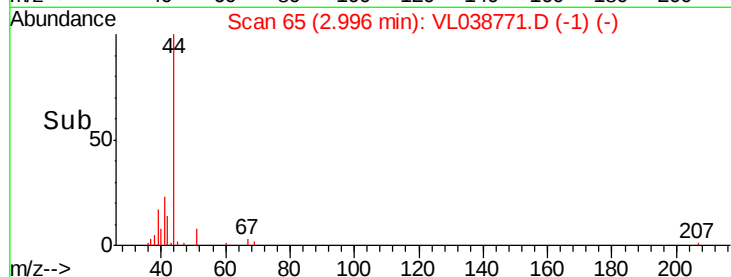
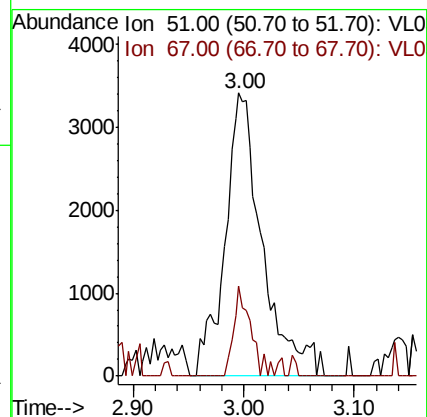
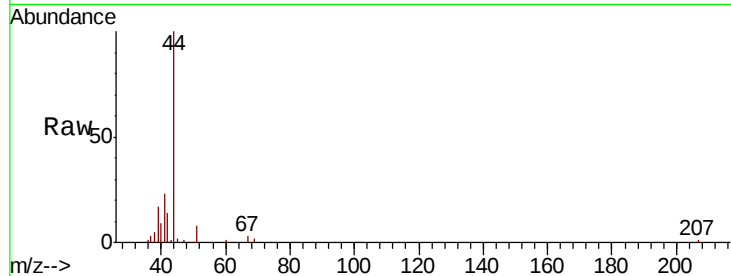
Acq: 28 Mar 2022 14:57

Tot Ion: 51 Resp: 7980

Ion Ratio Lower Upper

51 100

67 16.6 14.1 21.1



#4

Chloromethane

Concen: 0.154 ppbv

RT: 3.15 min Scan# 113

Delta R.T. 0.01 min

Lab File: VL038771.D

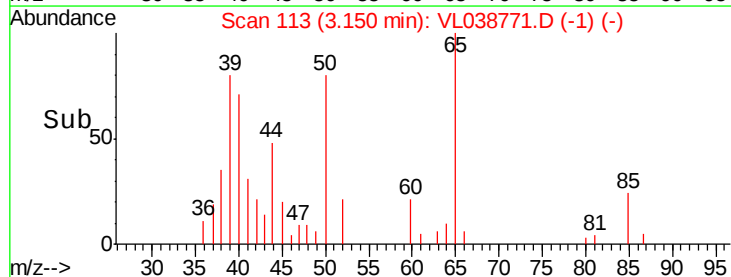
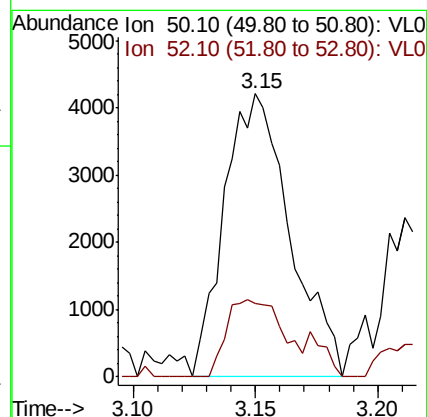
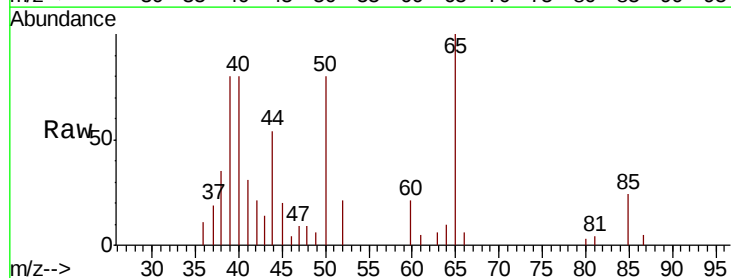
Acq: 28 Mar 2022 14:57

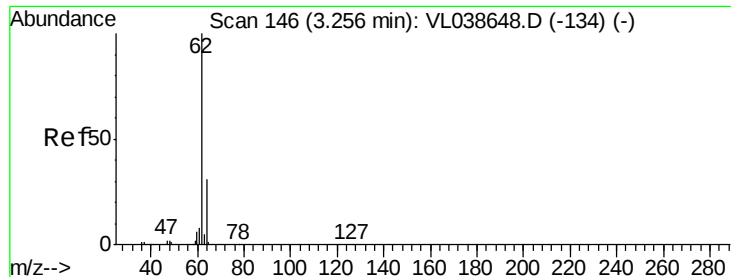
Tgt Ion: 50 Resp: 7876

Ion Ratio Lower Upper

50 100

52 26.0 25.5 38.3





#5

Vinyl Chloride

Concen: 0.422 ppbv

RT: 3.03 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

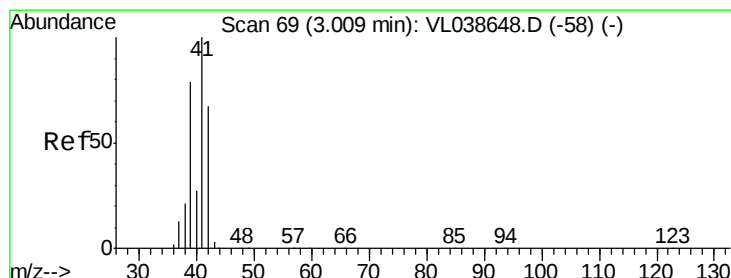
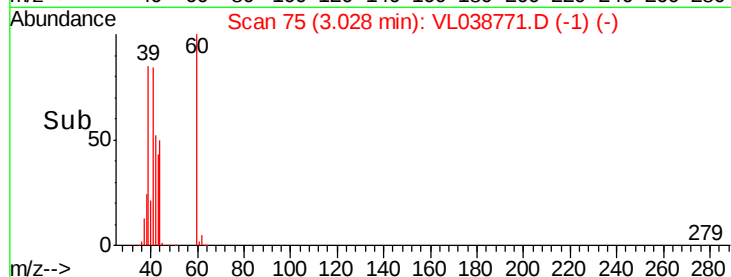
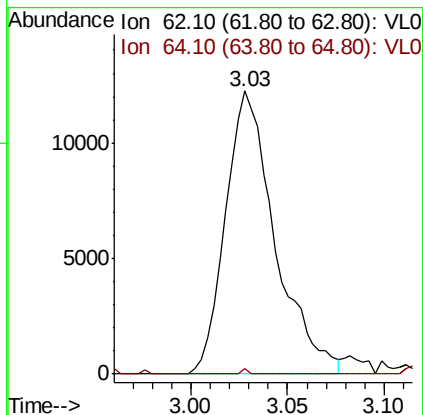
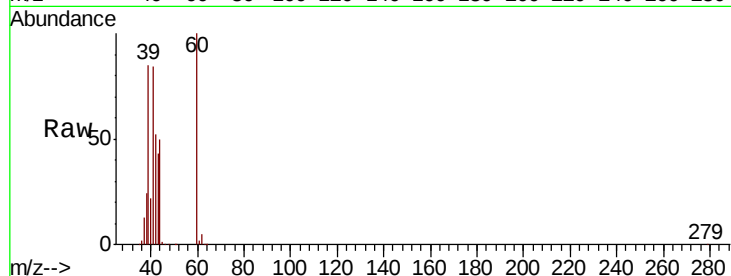
Acq: 28 Mar 2022 14:57 SV-02-(SB-07)DL

Tot Ion: 62 Resp: 21853

Ion Ratio Lower Upper

62 100

64 2.1 25.0 37.4#



#9

Propene

Concen: 12.120 ppbv

RT: 3.02 min Scan# 73

Delta R.T. 0.01 min

Lab File: VL038771.D

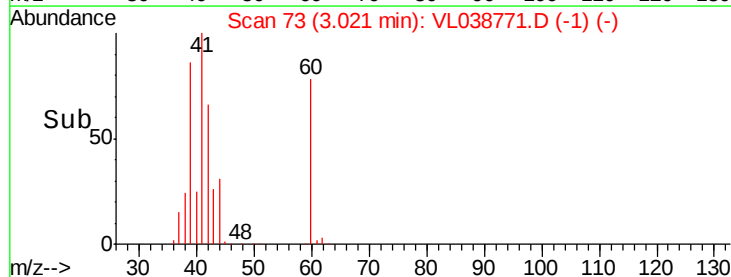
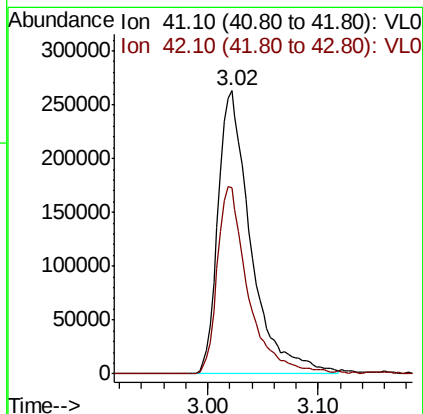
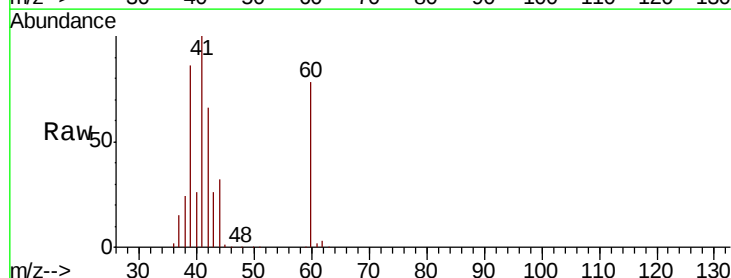
Acq: 28 Mar 2022 14:57

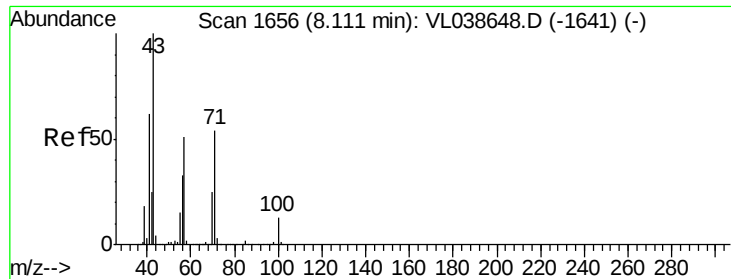
Tgt Ion: 41 Resp: 543610

Ion Ratio Lower Upper

41 100

42 62.2 56.2 84.4





#10

Heptane

Concen: 0.110 ppbv

RT: 8.13 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

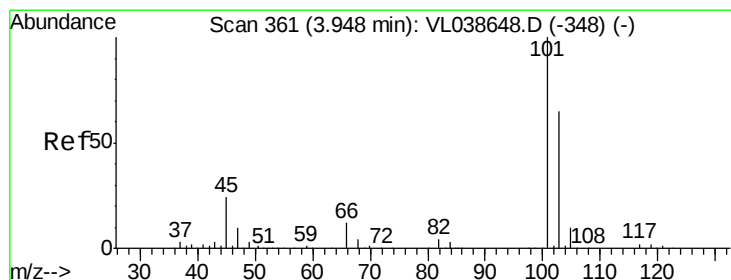
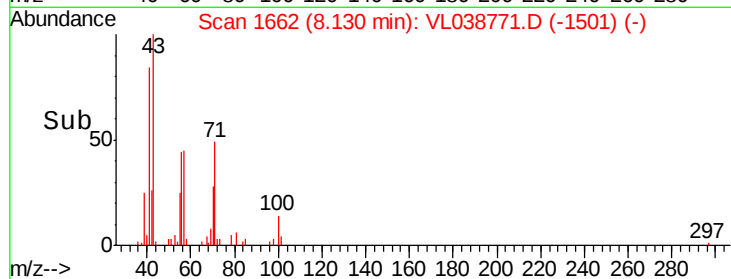
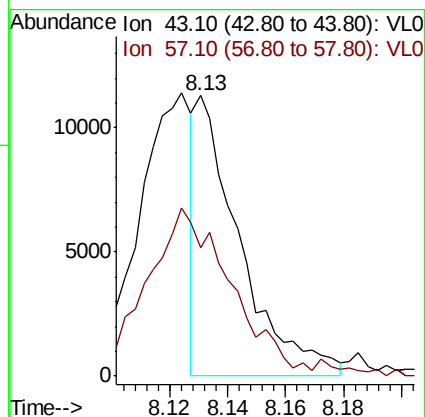
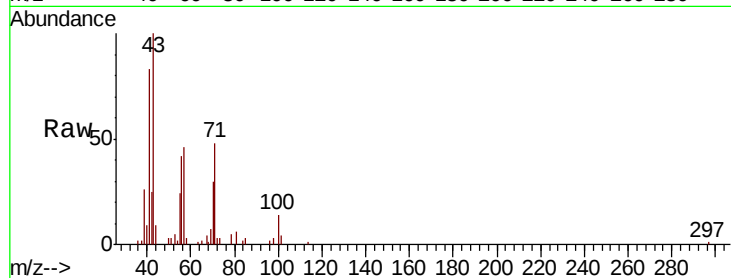
Acq: 28 Mar 2022 14:57 SV-02-(SB-07)DL

Tot Ion: 43 Resp: 11777

Ion Ratio Lower Upper

43 100

57 0.0 41.4 62.2#



#11

Trichlorofluoromethane

Concen: 0.295 ppbv

RT: 3.96 min Scan# 365

Delta R.T. 0.01 min

Lab File: VL038771.D

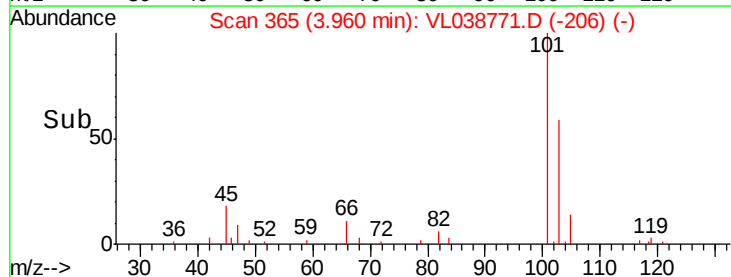
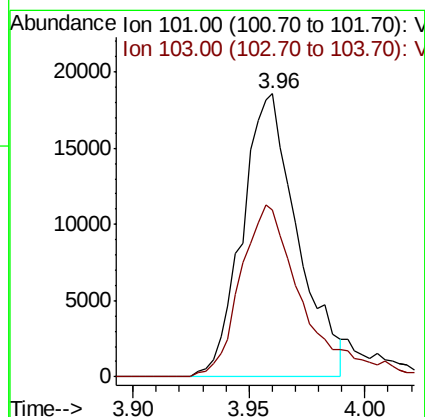
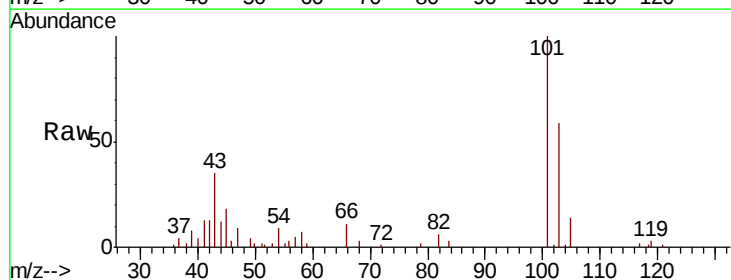
Acq: 28 Mar 2022 14:57

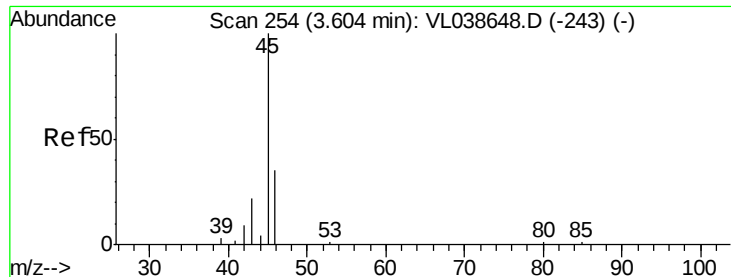
Tgt Ion: 101 Resp: 30785

Ion Ratio Lower Upper

101 100

103 59.1 51.9 77.9





#13

Ethanol

Concen: 39.307 ppbv

RT: 3.61 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

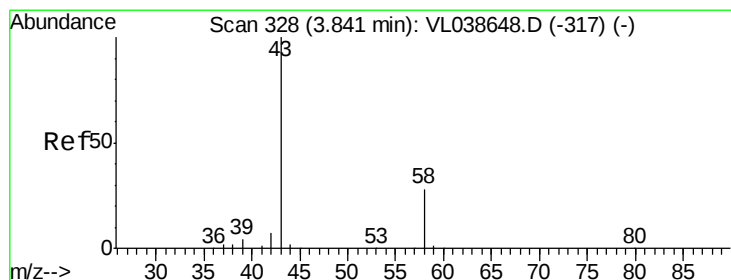
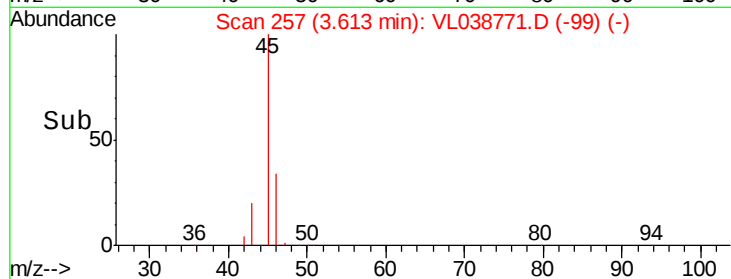
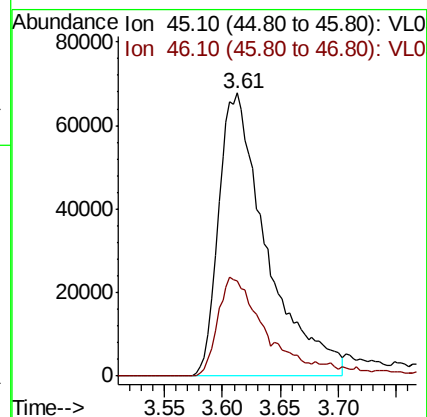
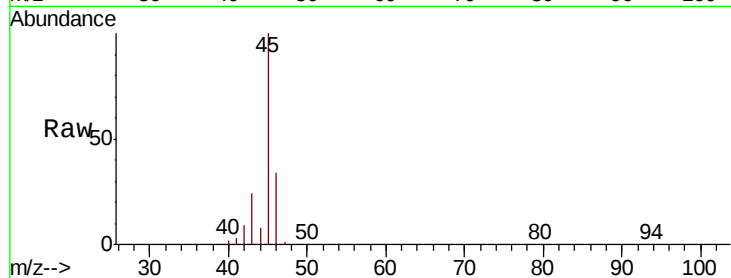
Acq: 28 Mar 2022 14:57 SV-02-(SB-07)DL

Tot Ion: 45 Resp: 194474

Ion Ratio Lower Upper

45 100

46 38.6 15.1 60.5



#15

Acetone

Concen: 2.174 ppbv

RT: 3.86 min Scan# 333

Delta R.T. 0.02 min

Lab File: VL038771.D

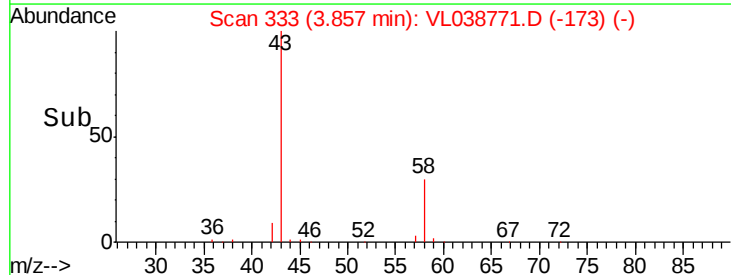
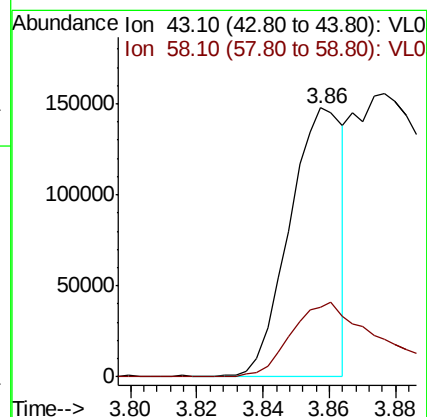
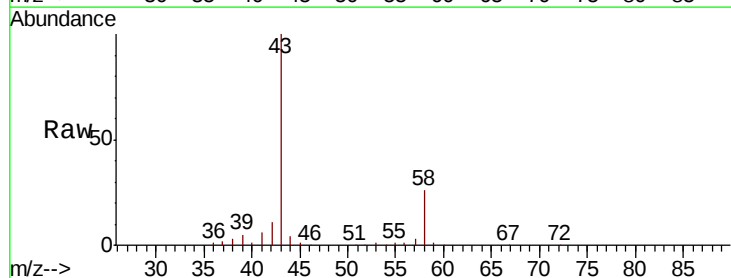
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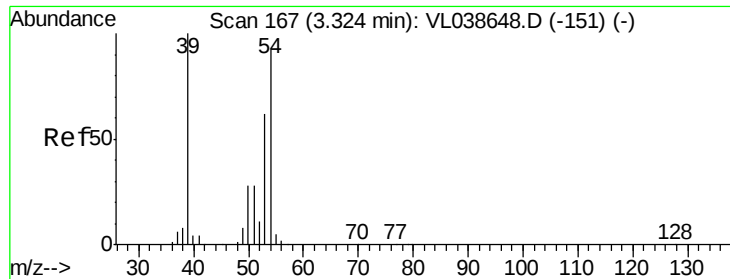
Tgt Ion: 43 Resp: 165030

Ion Ratio Lower Upper

43 100

58 57.2 23.3 34.9#





#16

1,3-Butadiene

Concen: 3.253 ppbv

RT: 3.32 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

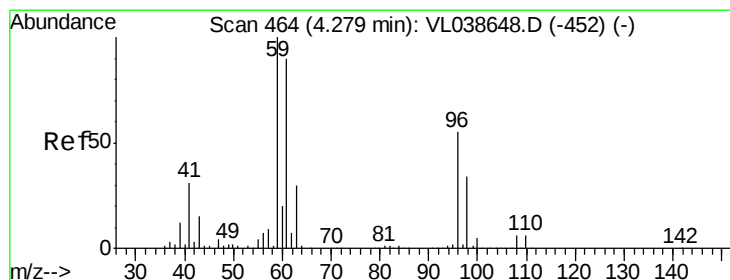
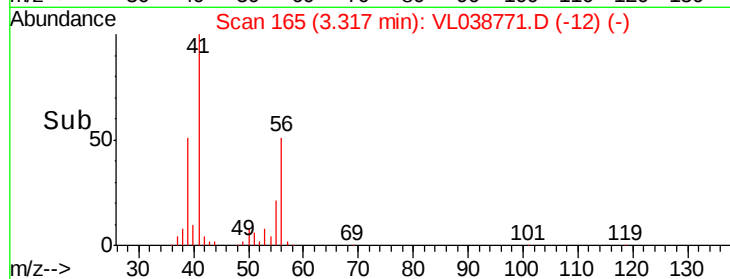
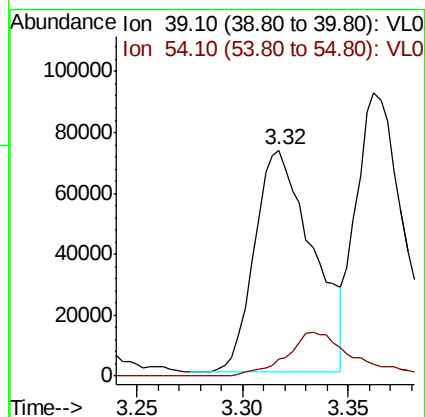
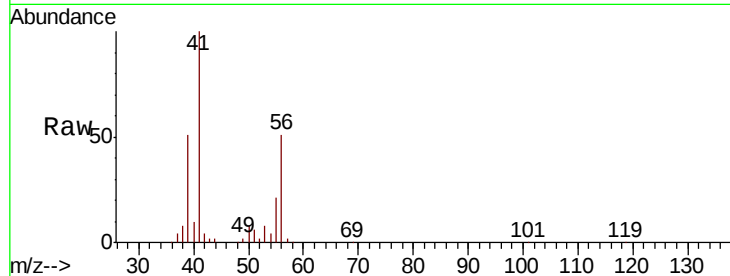
Acq: 28 Mar 2022 14:57 SV-02-(SB-07)DL

Tot Ion: 39 Resp: 140107

Ion Ratio Lower Upper

39 100

54 23.5 69.1 103.7#



#17

tert-Butyl alcohol

Concen: 0.200 ppbv

RT: 4.32 min Scan# 476

Delta R.T. 0.04 min

Lab File: VL038771.D

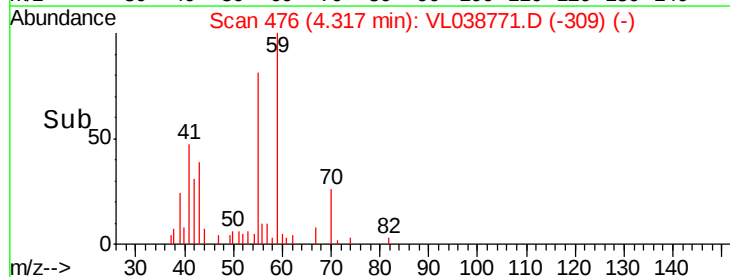
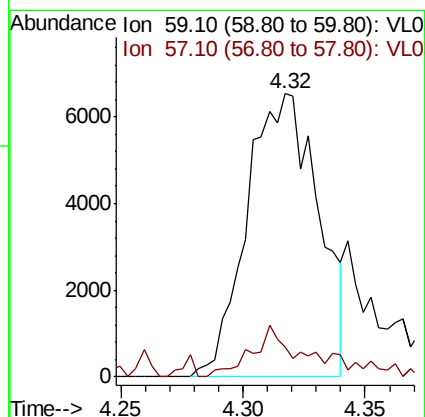
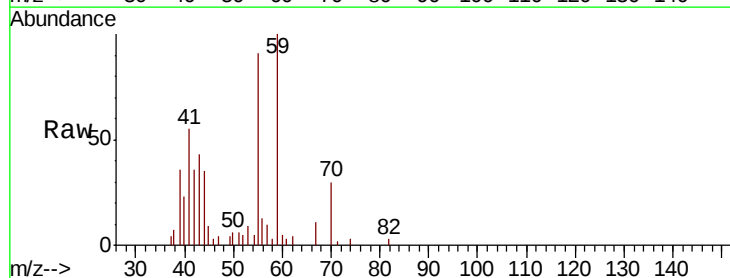
Acq: 28 Mar 2022 14:57

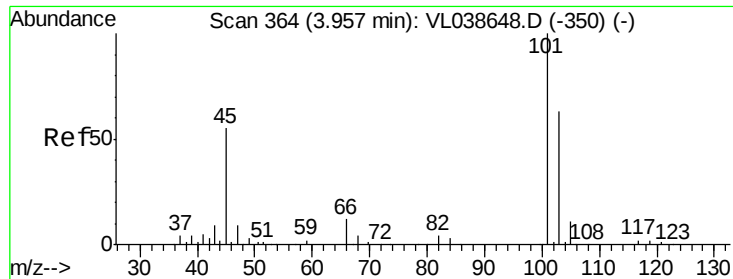
Tgt Ion: 59 Resp: 13258

Ion Ratio Lower Upper

59 100

57 0.0 8.2 12.2#





#19

Isopropyl Alcohol

Concen: 0.500 ppbv

RT: 3.98 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

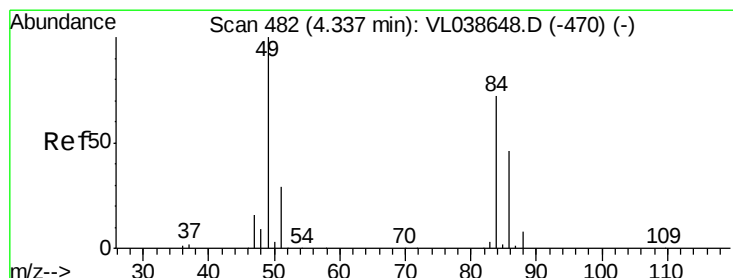
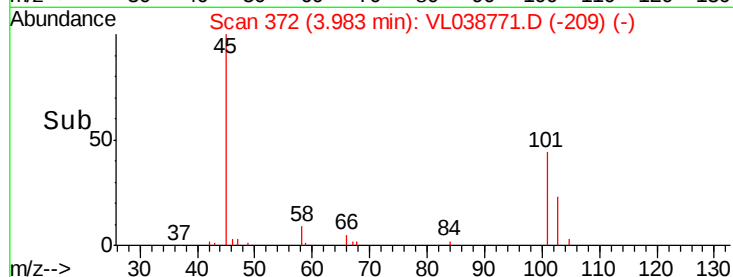
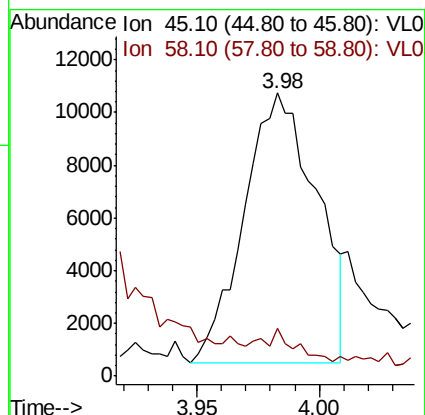
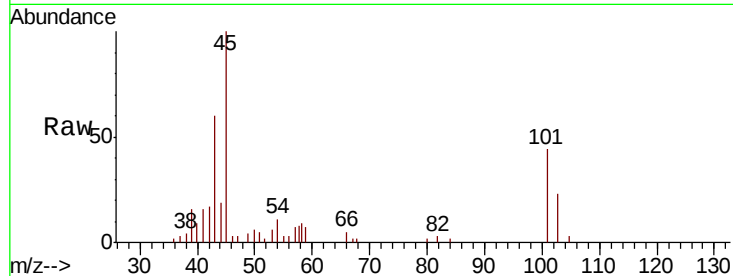
Acq: 28 Mar 2022 14:57 SV-02-(SB-07)DL

Tot Ion: 45 Resp: 21033

Ion Ratio Lower Upper

45 100

58 449.0 2.3 3.5#



#20

Methylene Chloride

Concen: 1.378 ppbv

RT: 4.35 min Scan# 487

Delta R.T. 0.02 min

Lab File: VL038771.D

Acq: 28 Mar 2022 14:57

Tgt Ion: 84 Resp: 44055

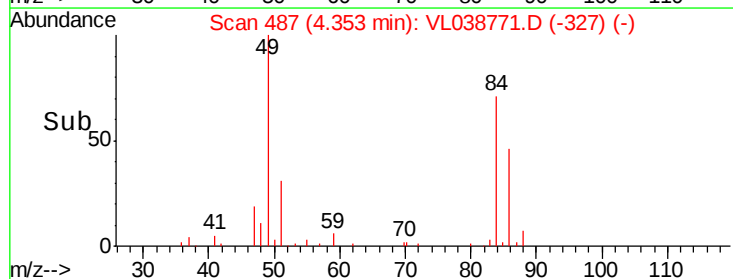
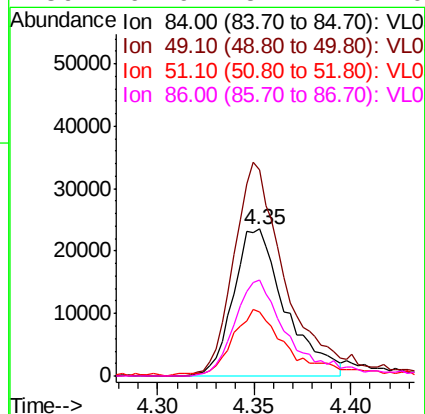
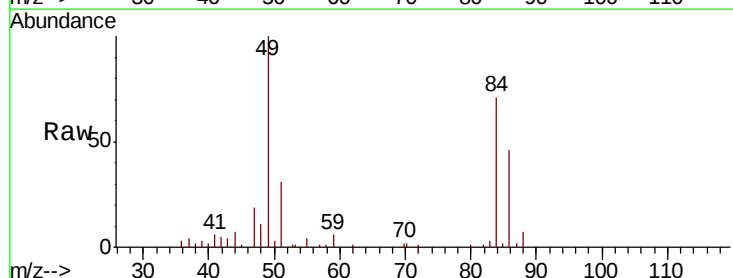
Ion Ratio Lower Upper

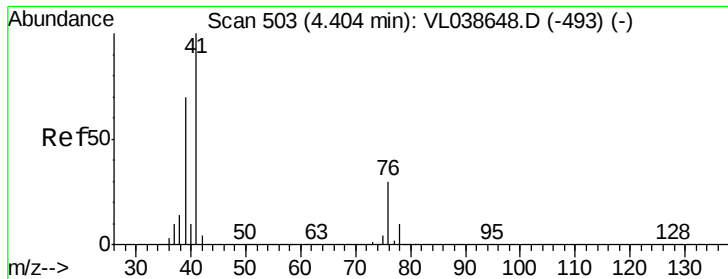
84 100

49 139.2 111.2 166.8

51 41.9 32.8 49.2

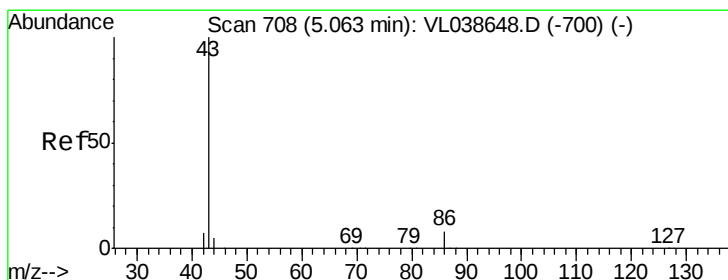
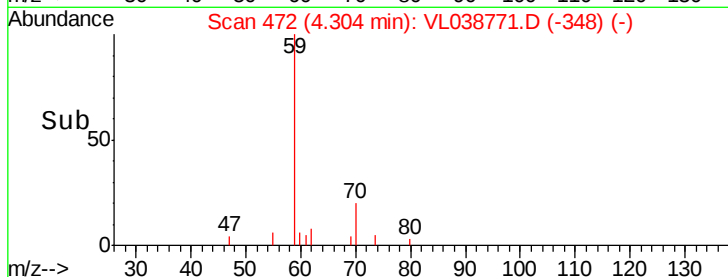
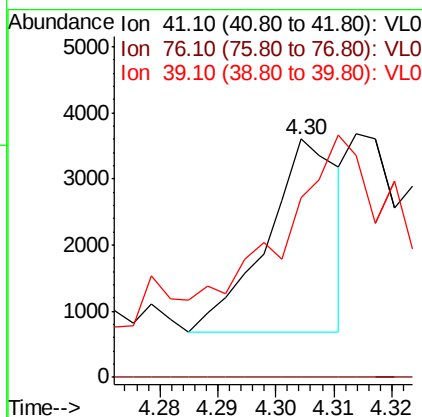
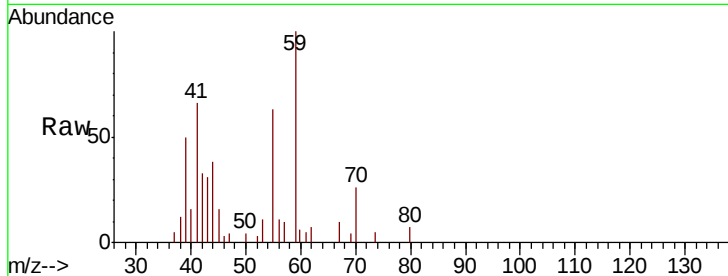
86 64.9 51.4 77.0





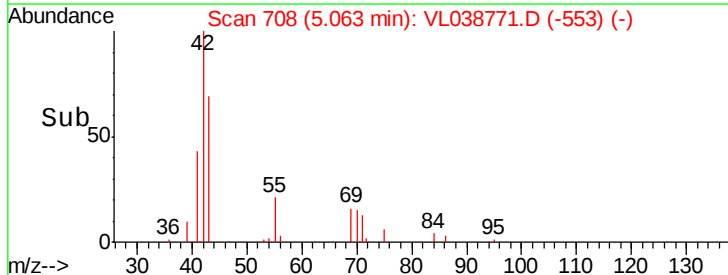
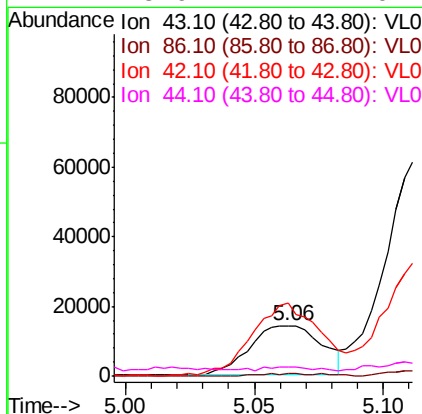
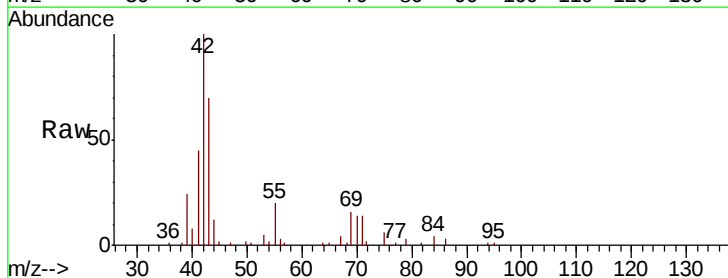
#21
 Allvl Chloride
 Concen: 0.046 ppbv
 RT: 4.30
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 SV-02-(SB-07)DL
 Acq: 28 Mar 2022 14:57

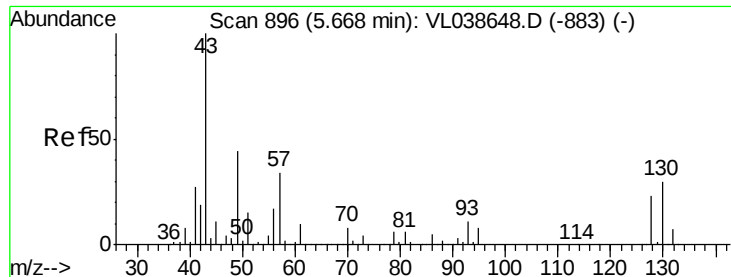
Tot Ion: 41 Resp: 2509
 Ion Ratio Lower Upper
 41 100
 76 0.0 25.0 37.6#
 39 234.6 56.6 85.0#



#23
 Vinyl Acetate
 Concen: 0.376 ppbv
 RT: 5.06 min Scan# 708
 Delta R.T. -0.00 min
 Lab File: VL038771.D
 Acq: 28 Mar 2022 14:57

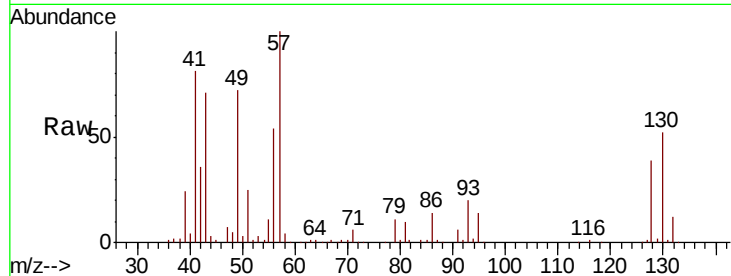
Tgt Ion: 43 Resp: 27648
 Ion Ratio Lower Upper
 43 100
 86 4.6 5.6 8.4#
 42 142.1 6.8 10.2#
 44 5.9 4.2 6.2





#25
Ethyl Acetate
Concen: 1.433 ppbv
RT: 5.69 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-02-(SB-07)DL
Acq: 28 Mar 2022 14:57

Tot Ion:	43	Resp:	273875
Ion	Ratio	Lower	Upper
43	100		
45	1.8	8.2	12.4#
61	1.1	8.3	12.5#
70	2.1	5.6	8.4#



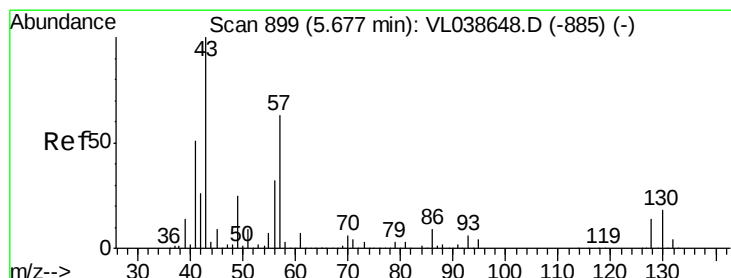
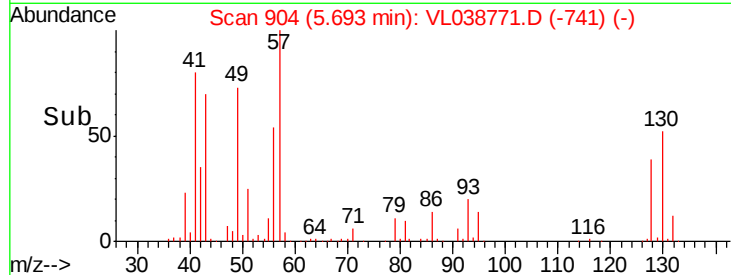
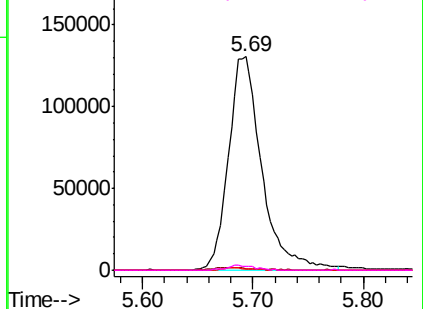
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

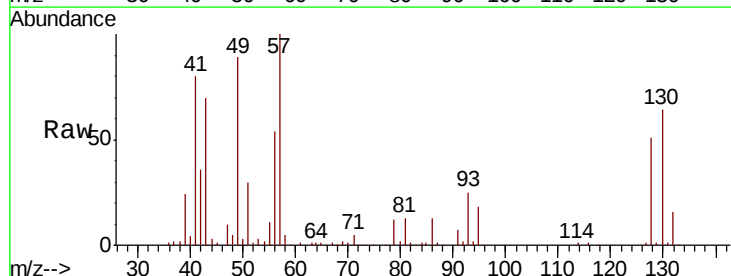
Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26
Hexane
Concen: 4.399 ppbv
RT: 5.69 min Scan# 903
Delta R.T. 0.01 min
Lab File: VL038771.D
Acq: 28 Mar 2022 14:57

Tgt Ion:	57	Resp:	376257
Ion	Ratio	Lower	Upper
57	100		
41	82.9	67.0	100.4
43	74.1	184.2	276.2#
56	55.3	42.6	64.0



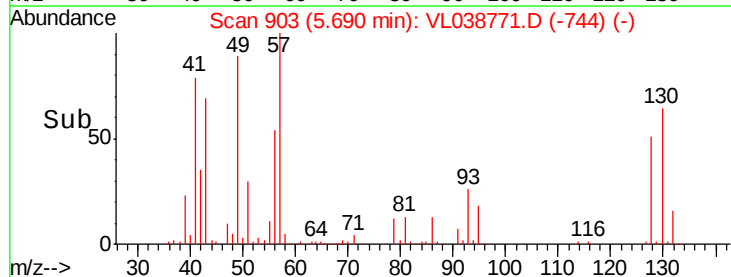
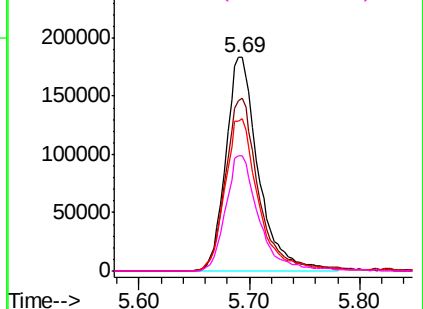
Abundance

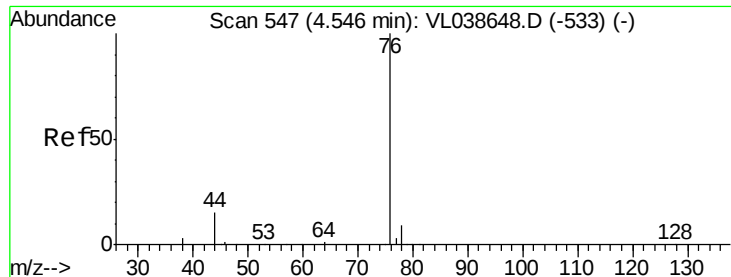
Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

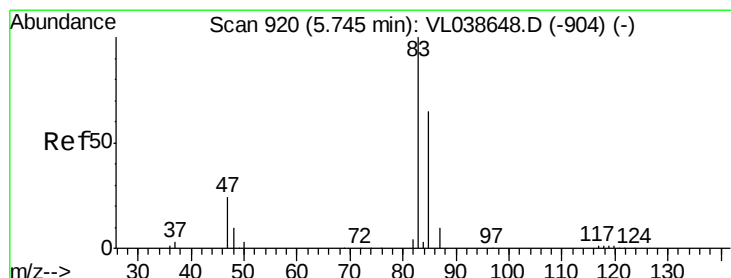
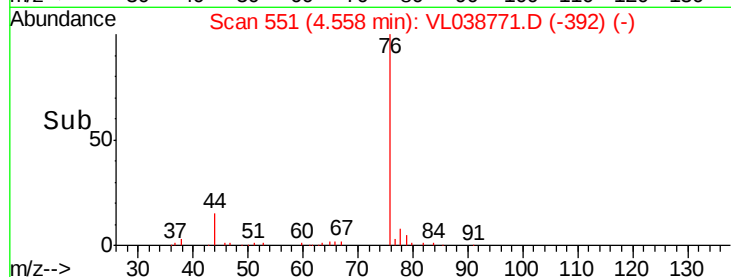
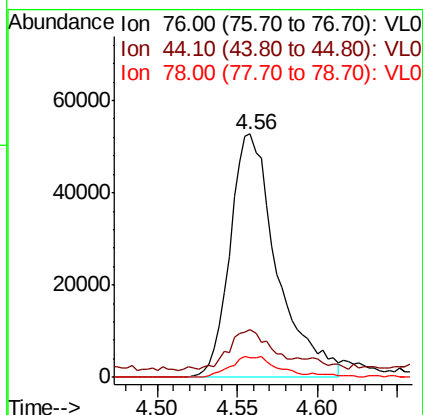
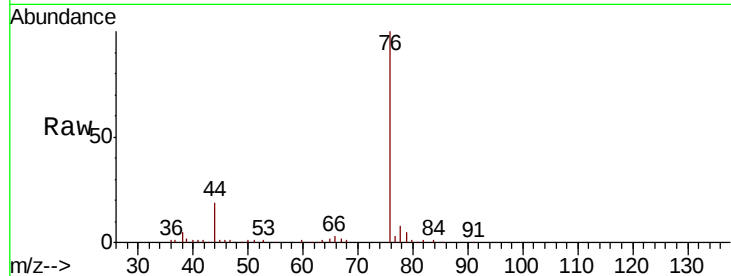
Ion 56.10 (55.80 to 56.80): VL0





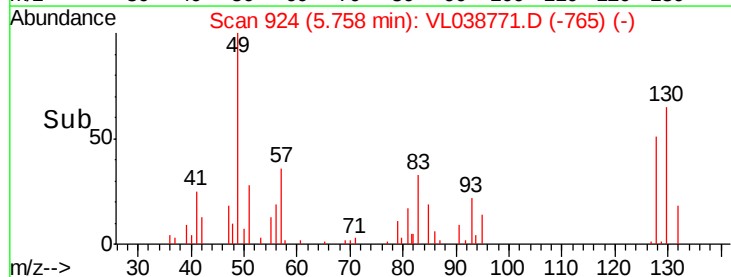
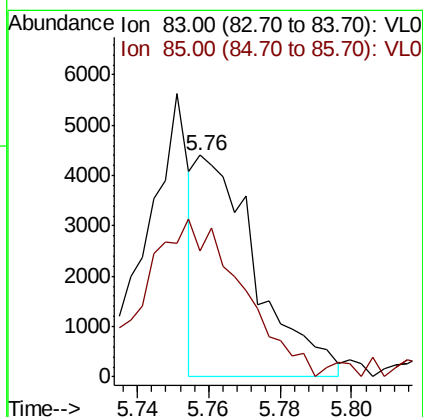
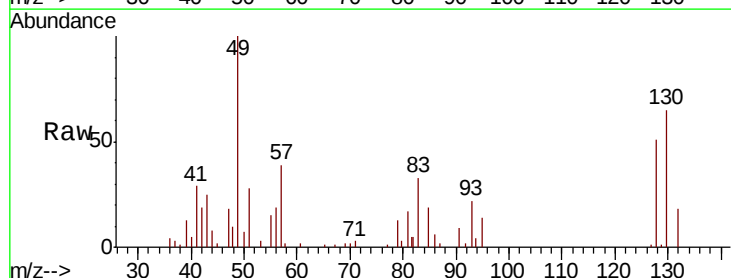
#27
Carbon Disulfide
Concen: 1.256 ppbv
RT: 4.56
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-02-(SB-07)DL
Acq: 28 Mar 2022 14:57

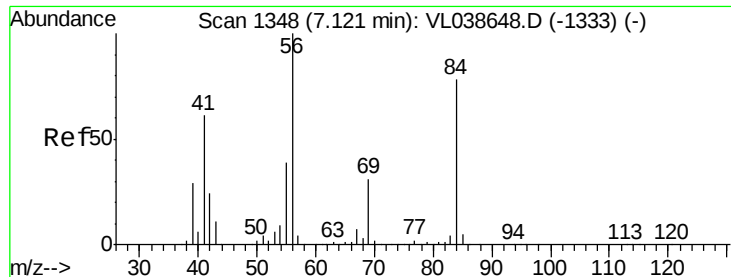
Tot Ion: 76 Resp: 105435
Ion Ratio Lower Upper
76 100
44 20.3 12.4 18.6#
78 9.5 7.8 11.8



#29
Chloroform
Concen: 0.038 ppbv
RT: 5.76 min Scan# 924
Delta R.T. 0.01 min
Lab File: VL038771.D
Acq: 28 Mar 2022 14:57

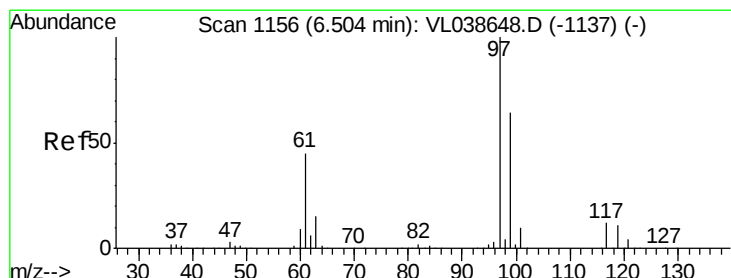
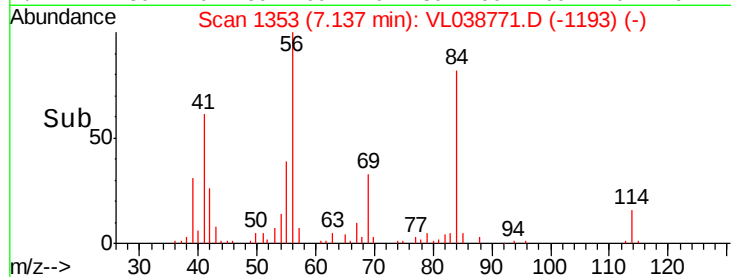
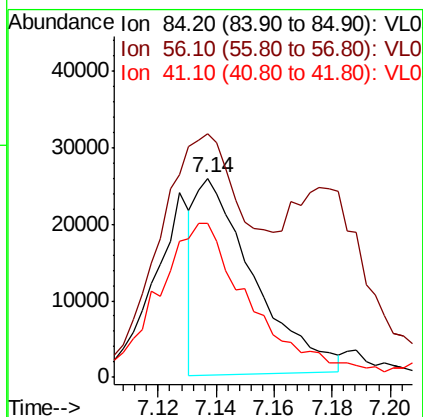
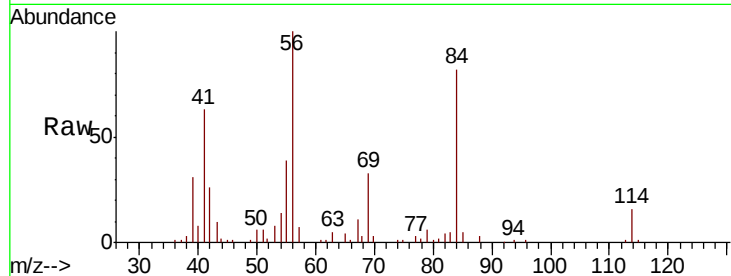
Tgt Ion: 83 Resp: 5141
Ion Ratio Lower Upper
83 100
85 59.7 51.7 77.5





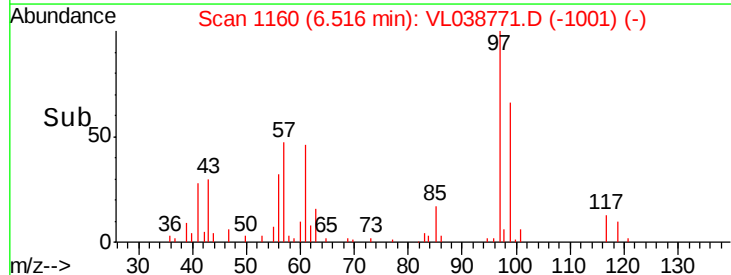
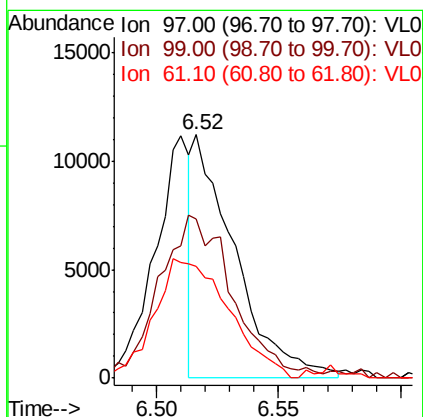
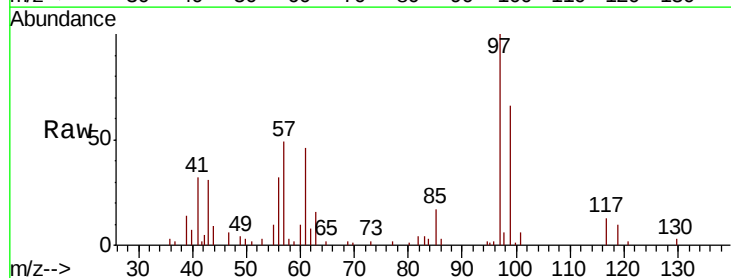
#30
Cvclohexane
Concen: 0.482 ppbv
RT: 7.14
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 28 Mar 2022 14:57

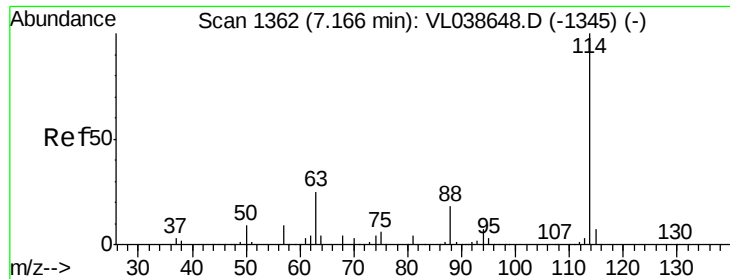
Tot Ion: 84 Resp: 35879
Ion Ratio Lower Upper
84 100
56 186.5 108.2 162.4#
41 126.6 61.8 92.6#



#32
1,1,1-Trichloroethane
Concen: 0.100 ppbv
RT: 6.52 min Scan# 1160
Delta R.T. 0.01 min
Lab File: VL038771.D
Acq: 28 Mar 2022 14:57

Tgt Ion: 97 Resp: 13228
Ion Ratio Lower Upper
97 100
99 0.0 51.8 77.8#
61 0.0 36.7 55.1#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 28 Mar 2022 14:57

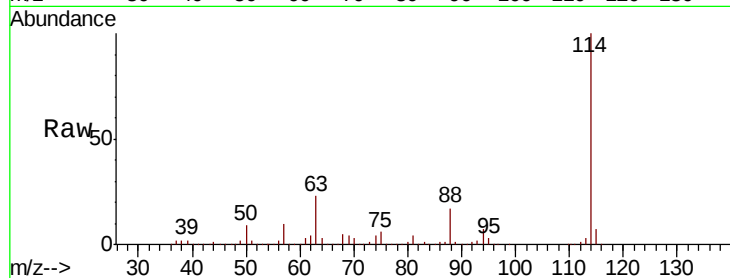
Tot Ion:114 Resp: 2410017

Ion Ratio Lower Upper

114 100

63 23.5 19.4 29.0

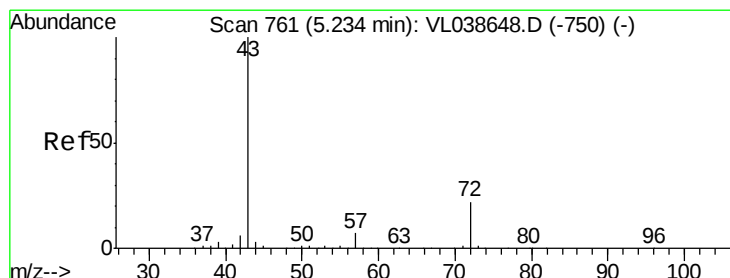
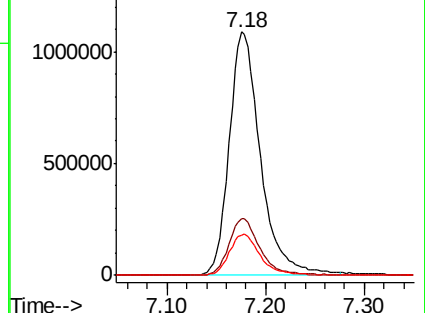
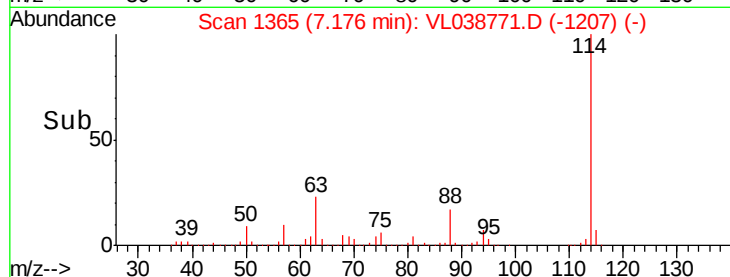
88 17.1 13.9 20.9



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.162 ppbv

RT: 5.25 min Scan# 767

Delta R.T. 0.02 min

Lab File: VL038771.D

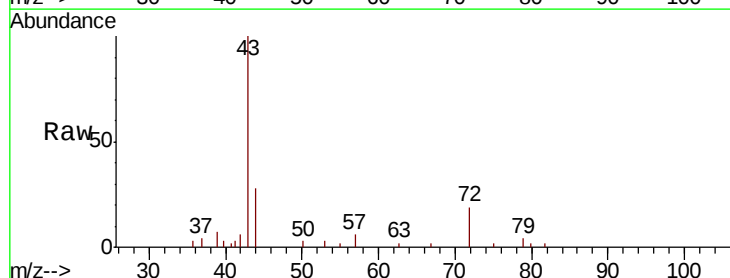
Acq: 28 Mar 2022 14:57

Tgt Ion: 43 Resp: 15423

Ion Ratio Lower Upper

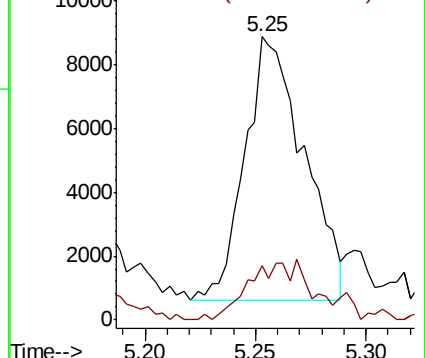
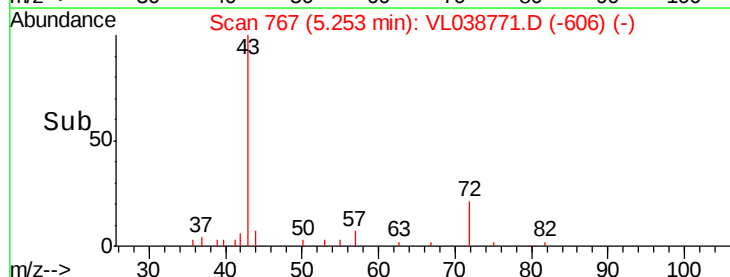
43 100

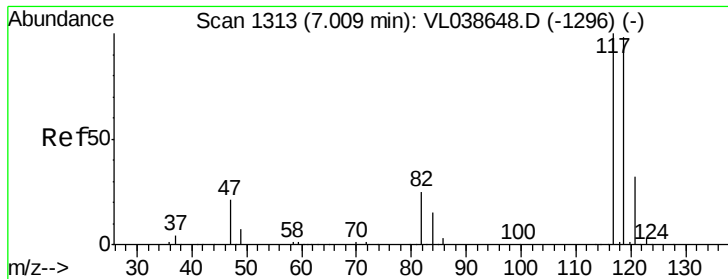
72 26.6 17.8 26.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

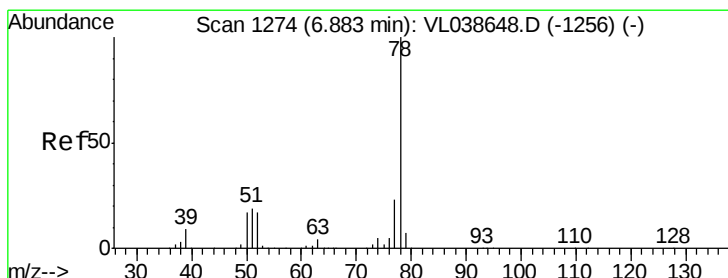
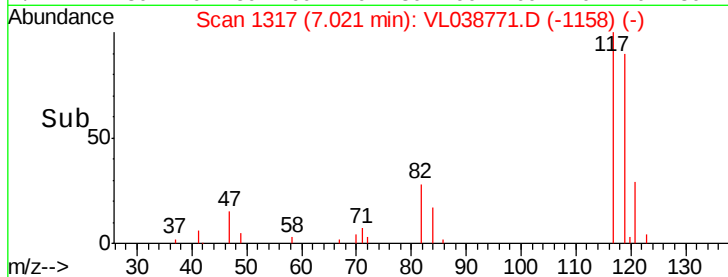
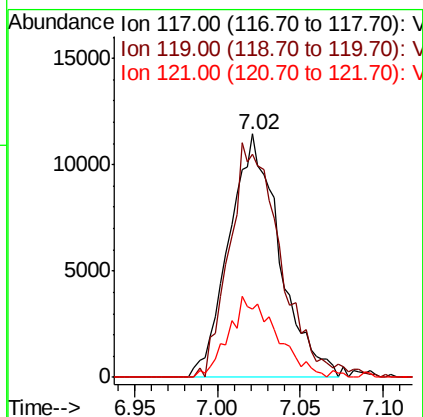
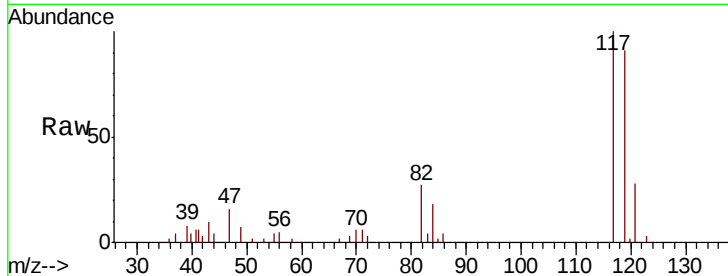
Ion 72.10 (71.80 to 72.80): VL0





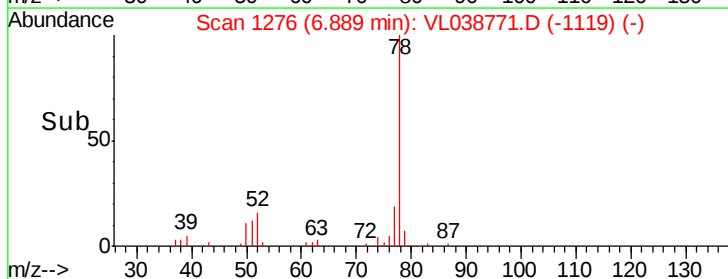
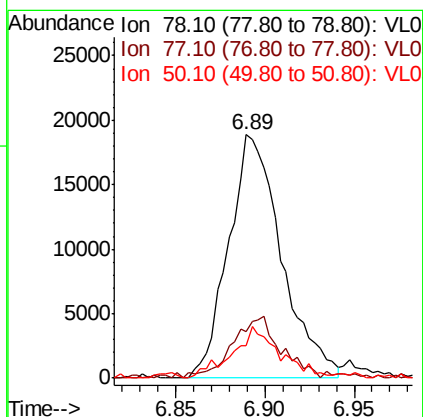
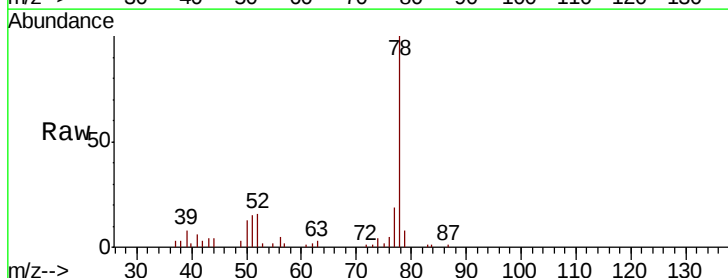
#35
Carbon Tetrachloride
Concen: 0.173 ppbv
RT: 7.02
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-02-(SB-07)DL
Acq: 28 Mar 2022 14:57

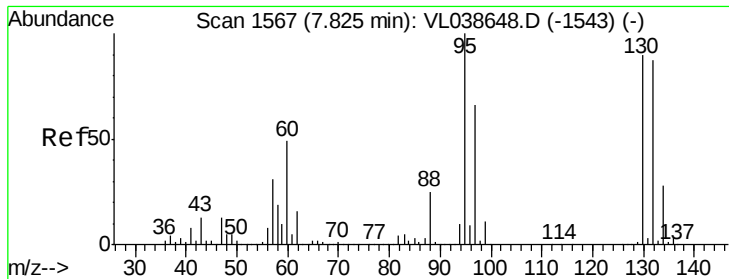
Tot Ion:117 Resp: 24217
Ion Ratio Lower Upper
117 100
119 91.5 78.1 117.1
121 28.1 25.8 38.6



#36
Benzene
Concen: 0.210 ppbv
RT: 6.89 min Scan# 1276
Delta R.T. 0.01 min
Lab File: VL038771.D
Acq: 28 Mar 2022 14:57

Tgt Ion: 78 Resp: 39057
Ion Ratio Lower Upper
78 100
77 17.3 18.1 27.1#
50 13.2 13.6 20.4#





#38

Trichloroethene

Concen: 0.206 ppbv

RT: 7.83 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 28 Mar 2022 14:57

Tot Ion:130 Resp: 16073

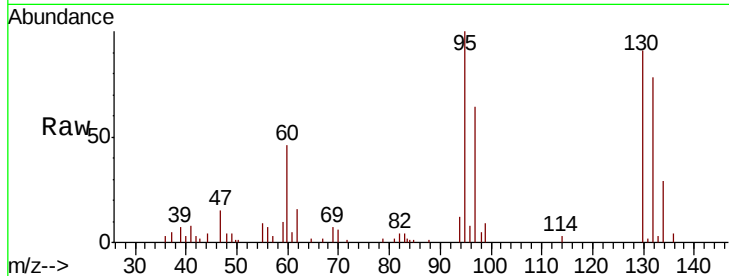
Ion Ratio Lower Upper

130 100

95 98.1 88.9 133.3

132 77.8 77.4 116.0

97 70.1 58.2 87.4

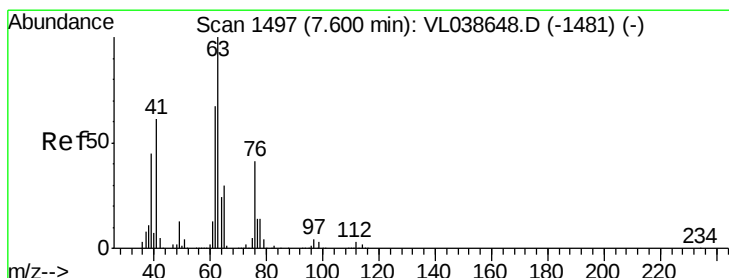
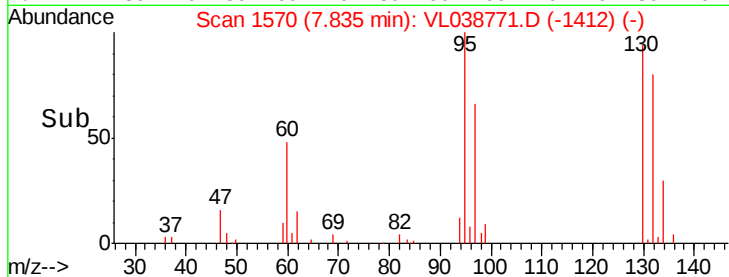
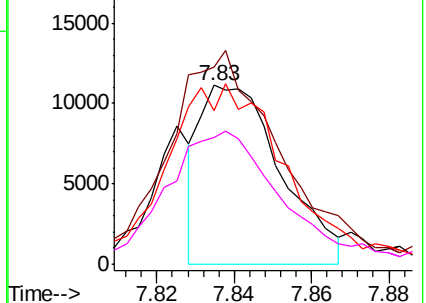


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 7.595 ppbv

RT: 7.18 min Scan# 1366

Delta R.T. -0.42 min

Lab File: VL038771.D

Acq: 28 Mar 2022 14:57

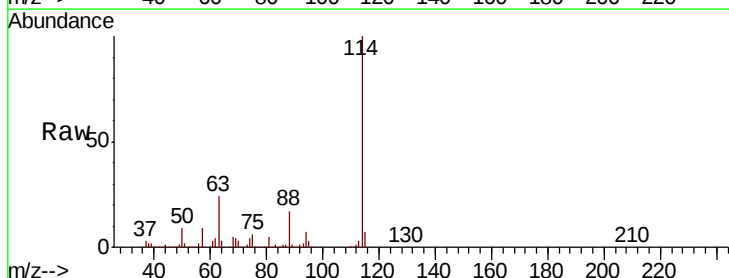
Tgt Ion: 63 Resp: 552250

Ion Ratio Lower Upper

63 100

41 0.0 49.0 73.6#

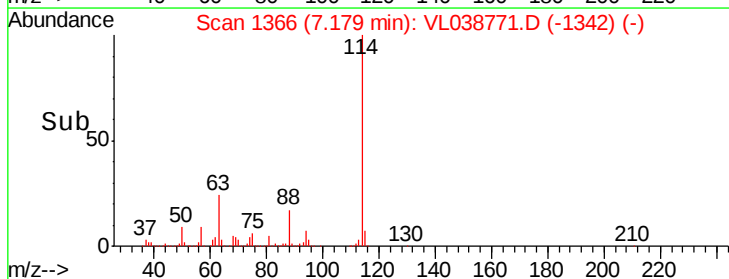
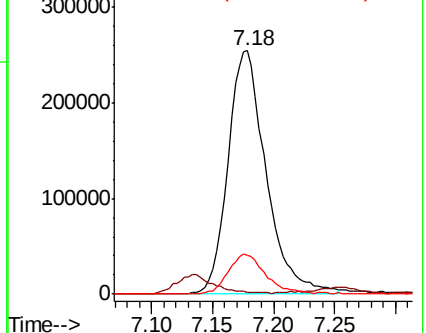
62 16.2 53.9 80.9#

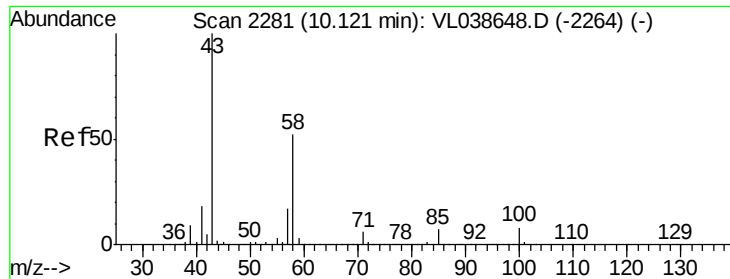


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

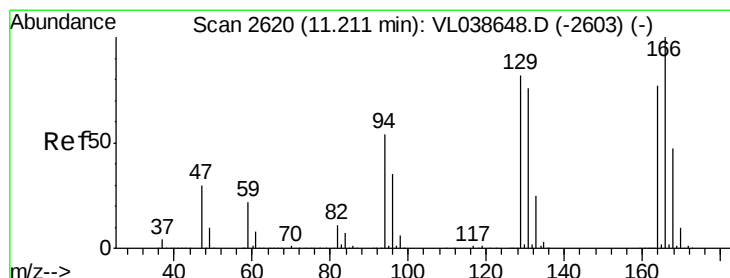
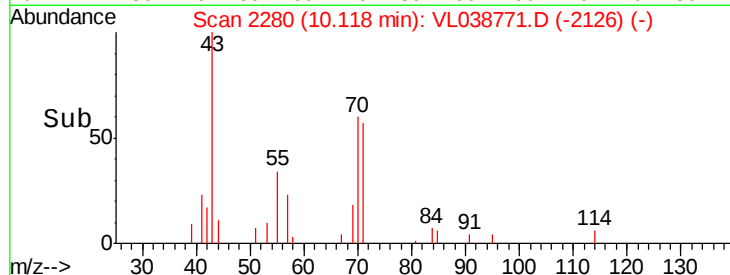
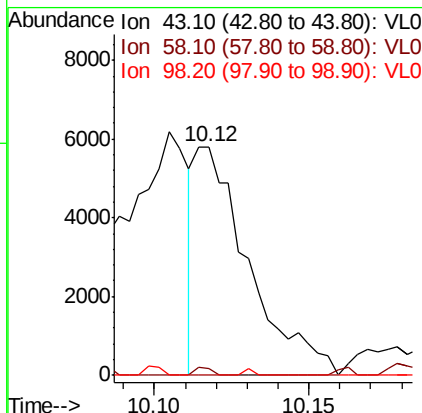
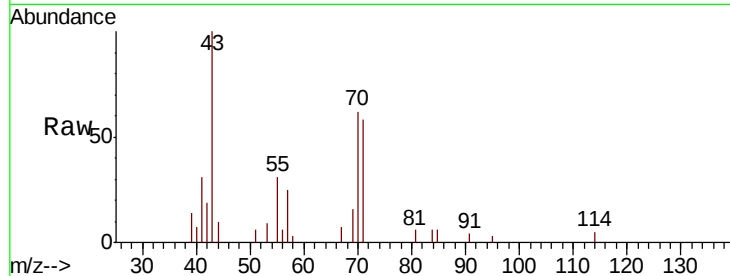
Ion 62.10 (61.80 to 62.80): VL0





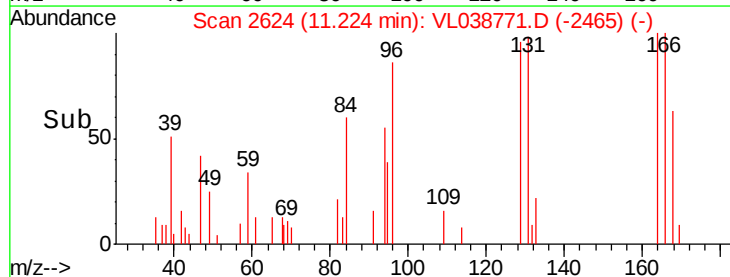
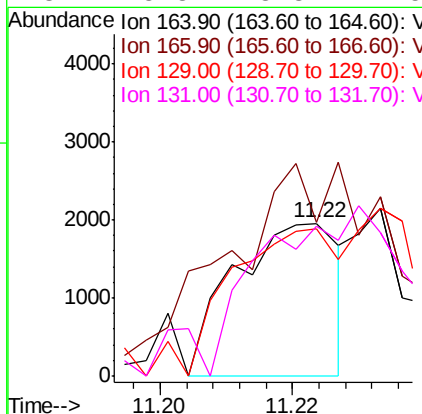
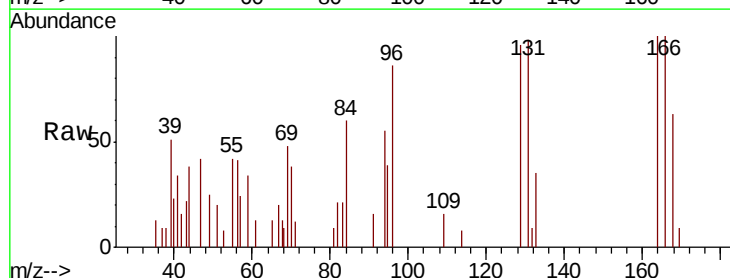
#51
2-Hexanone
Concen: 0.055 ppbv
RT: 10.12 min
Delta R.T. MSVOA_L
Lab File: ClientSampled :
SV-02-(SB-07)DL
Acq: 28 Mar 2022 14:57

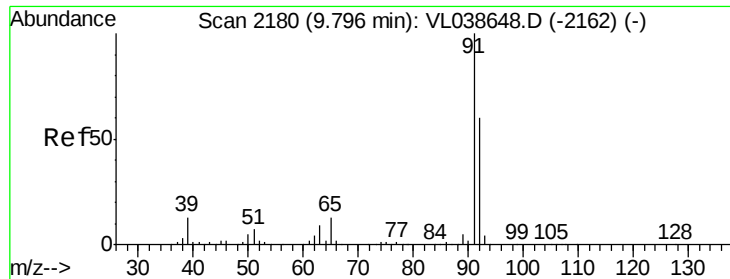
Tot Ion: 43 Resp: 6954
Ion Ratio Lower Upper
43 100
58 1.1 41.2 61.8#
98 0.0 0.2 0.4#



#52
Tetrachloroethene
Concen: 0.031 ppbv
RT: 11.22 min Scan# 2624
Delta R.T. 0.01 min
Lab File: VL038771.D
Acq: 28 Mar 2022 14:57

Tgt Ion:164 Resp: 2141
Ion Ratio Lower Upper
164 100
166 31.8 103.3 154.9#
129 95.9 85.2 127.8
131 75.8 78.3 117.5#





#53

Toluene

Concen: 0.281 ppbv

RT: 9.81 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

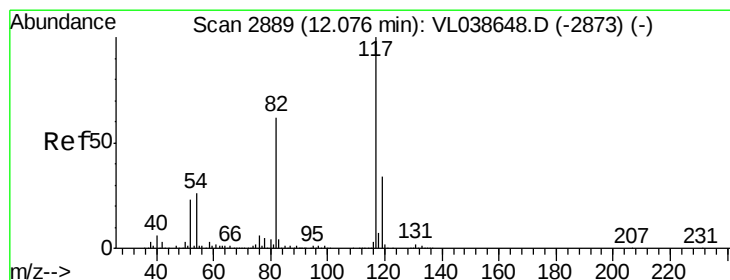
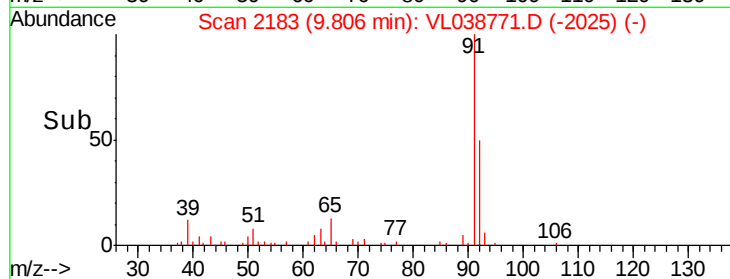
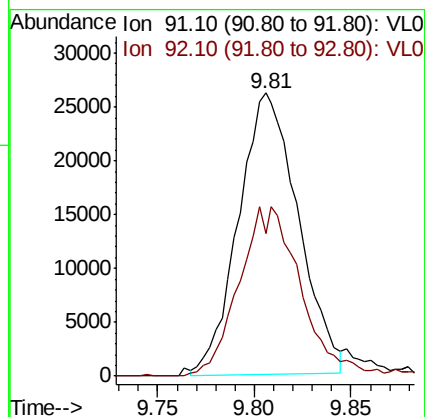
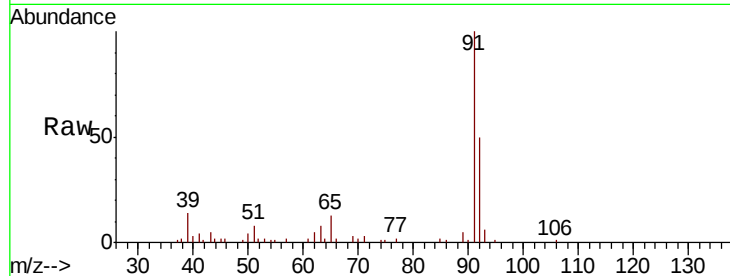
Acq: 28 Mar 2022 14:57 SV-02-(SB-07)DL

Tot Ion: 91 Resp: 56228

Ion Ratio Lower Upper

91 100

92 62.7 48.7 73.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2892

Delta R.T. 0.01 min

Lab File: VL038771.D

Acq: 28 Mar 2022 14:57

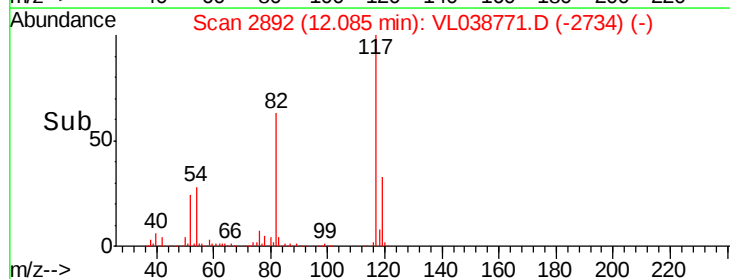
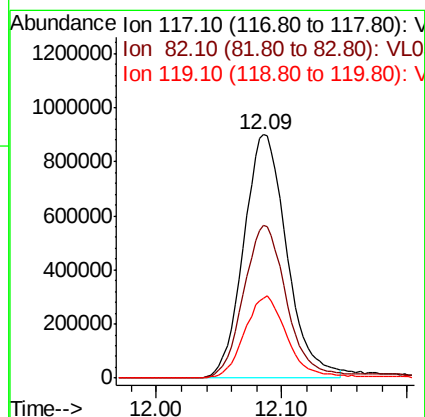
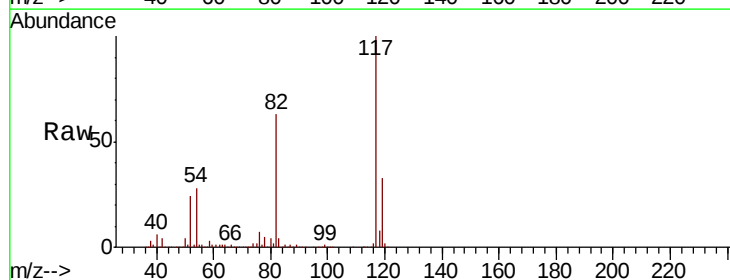
Tgt Ion: 117 Resp: 2154819

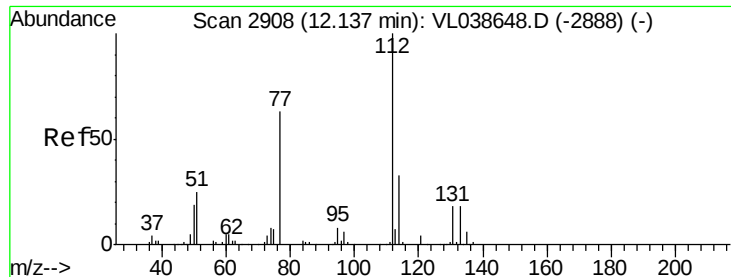
Ion Ratio Lower Upper

117 100

82 66.0 51.6 77.4

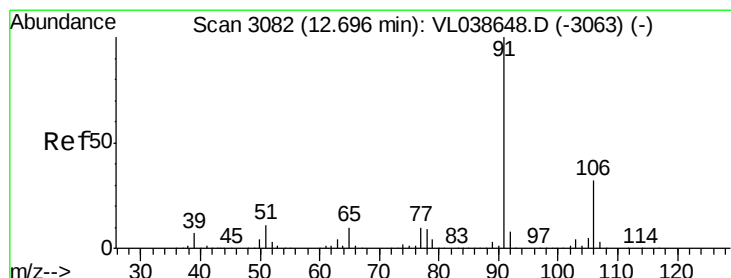
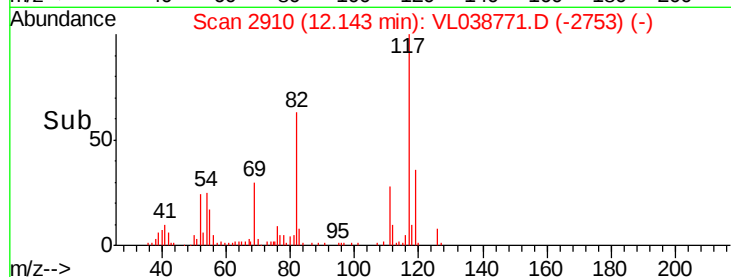
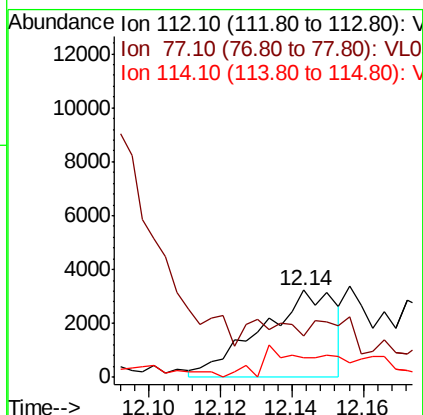
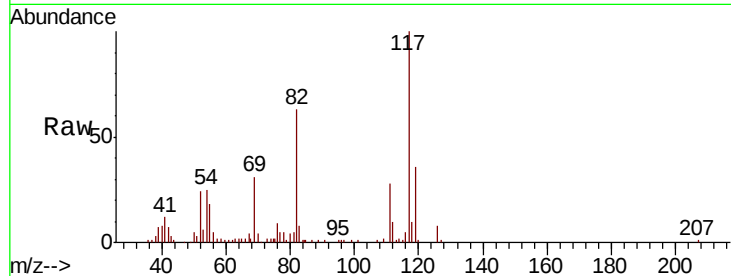
119 34.5 26.9 40.3





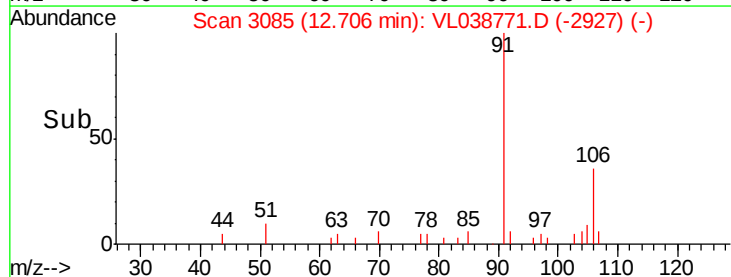
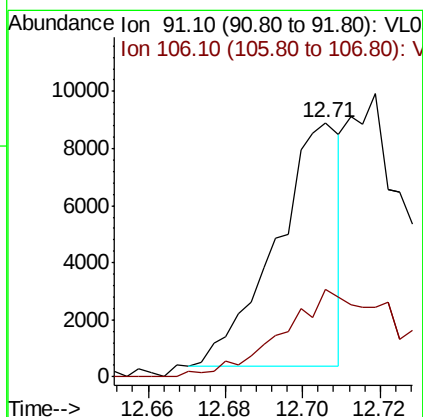
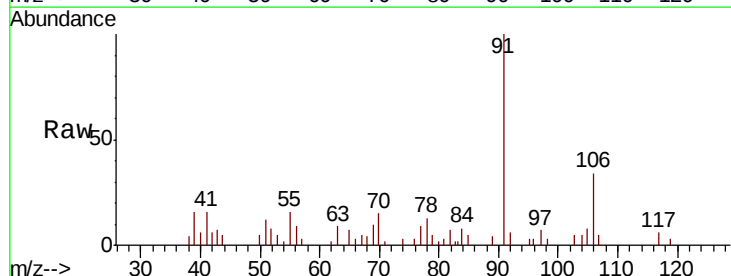
#57
Chlorobenzene
Concen: 0.030 ppbv
RT: 12.14 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-02-(SB-07)DL
Acq: 28 Mar 2022 14:57

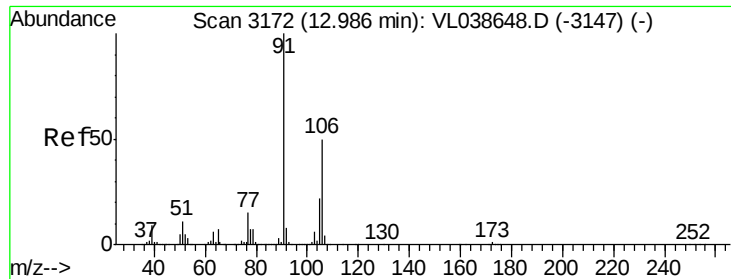
Tot Ion: 112 Resp: 4666
Ion Ratio Lower Upper
112 100
77 0.0 51.0 76.6#
114 0.0 29.8 36.4#



#58
Ethyl Benzene
Concen: 0.039 ppbv
RT: 12.71 min Scan# 3085
Delta R.T. 0.01 min
Lab File: VL038771.D
Acq: 28 Mar 2022 14:57

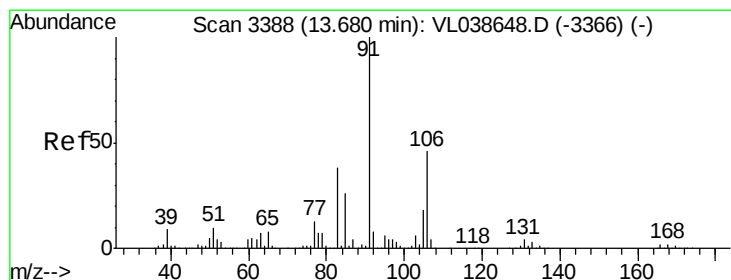
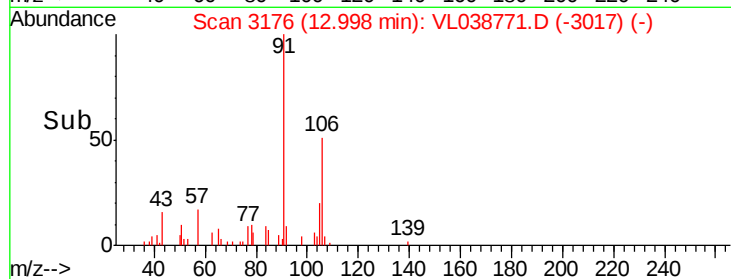
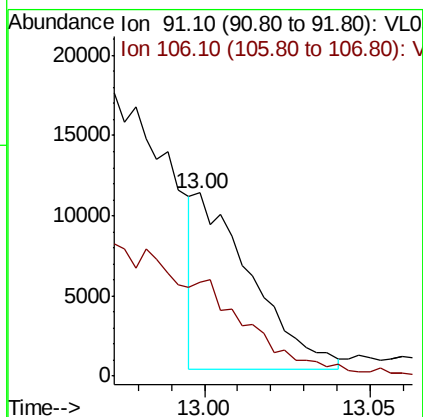
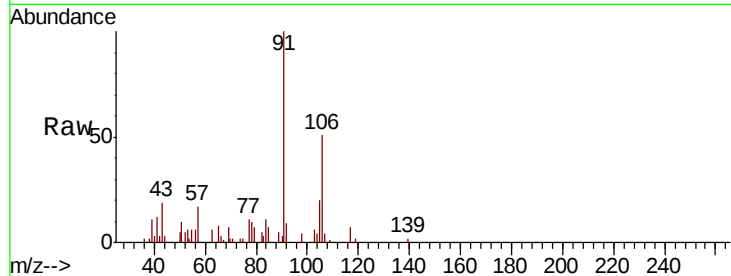
Tgt Ion: 91 Resp: 9890
Ion Ratio Lower Upper
91 100
106 38.7 25.4 38.0#





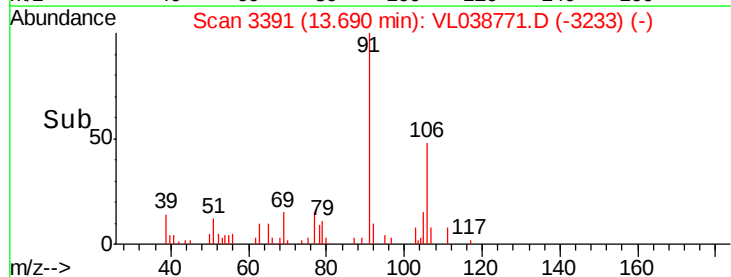
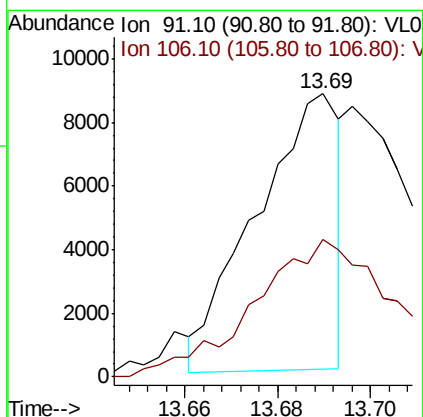
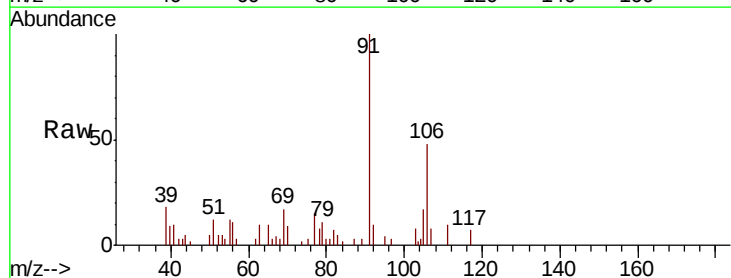
#59
m/p-Xylene
Concen: 0.059 ppbv
RT: 13.00
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-02-(SB-07)DL
Acq: 28 Mar 2022 14:57

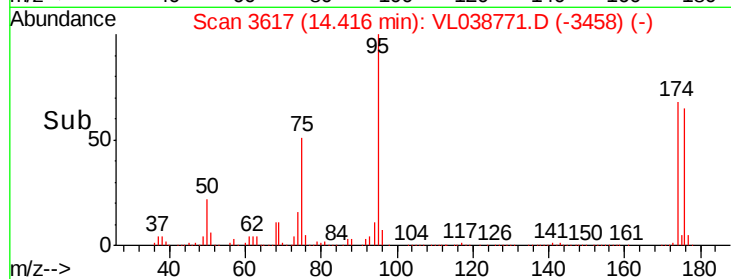
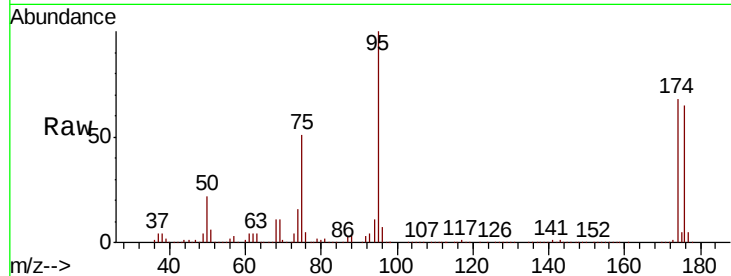
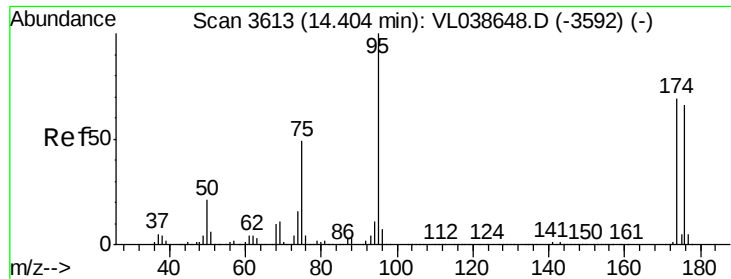
Tot Ion: 91 Resp: 12980
Ion Ratio Lower Upper
91 100
106 0.0 37.2 55.8#



#60
o-Xylene
Concen: 0.052 ppbv
RT: 13.69 min Scan# 3391
Delta R.T. 0.01 min
Lab File: VL038771.D
Acq: 28 Mar 2022 14:57

Tgt Ion: 91 Resp: 10860
Ion Ratio Lower Upper
91 100
106 91.8 23.5 70.5#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.051 ppbv

RT: 14.42

Delta R.T: MSVOA_L

Lab File: ClientSampleId :

Acq: 28 Mar 2022 14:37

Tot Ion: 95 Resp: 1660537

Ion Ratio Lower Upper

95 100

174 70.5 56.1 84.1

175 5.1 4.2 6.2

