

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071922\
 Data File : VL039493.D
 Acq On : 19 Jul 2022 22:45
 Operator : SY/AP
 Sample : N3750-05
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1

Quant Time: Jul 20 05:40:27 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL062922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jul 06 02:15:38 2022
 QLast Update : Wed Jul 06 02:15:38 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1238495	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.19	114	3395697	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.10	117	2988307	10.00	ppbv	0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2298761	10.37	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.70%

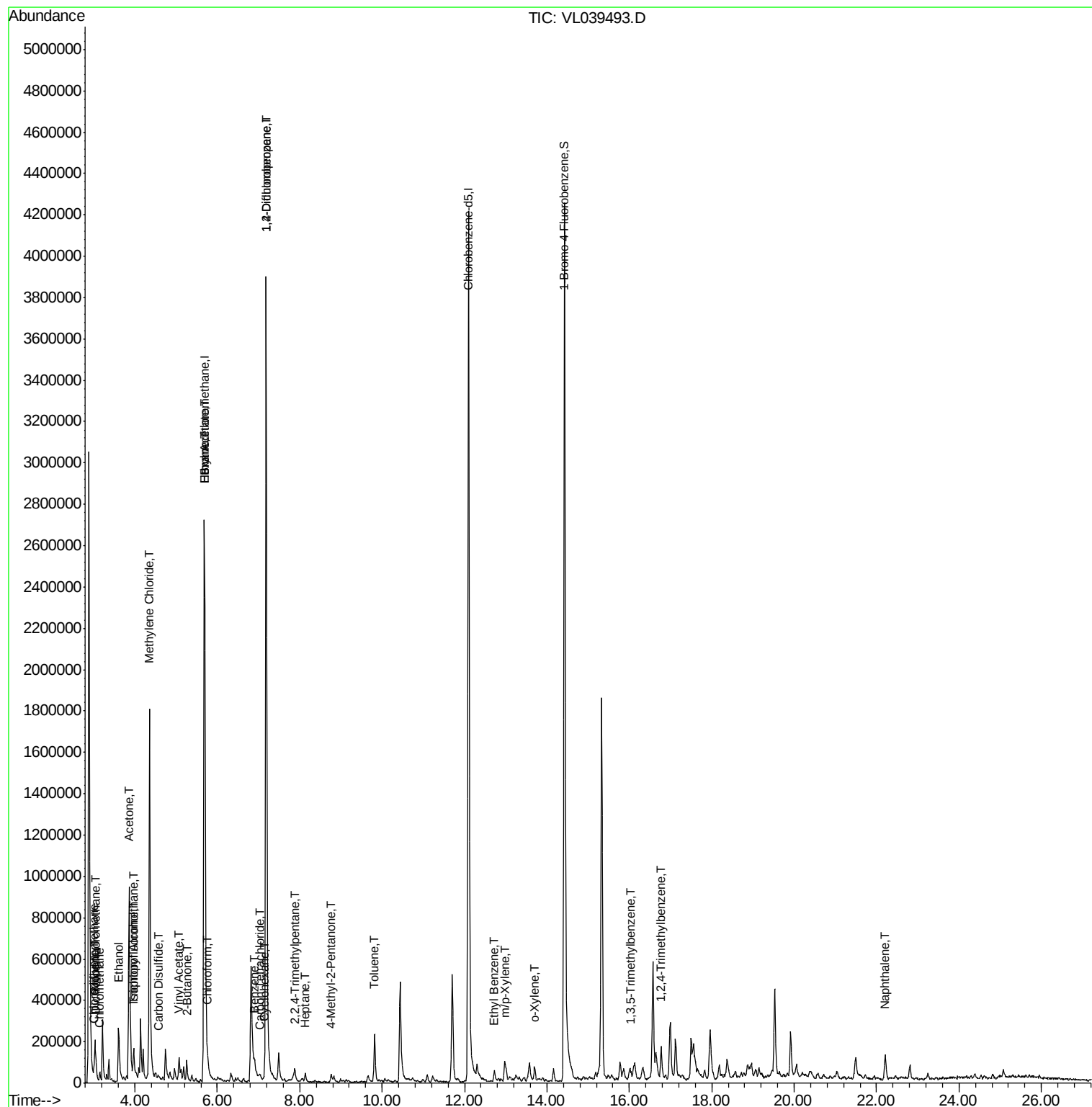
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.06	85	55292	0.310	ppbv	93
3) Chlorodifluoromethane	3.00	51	71623	0.456	ppbv #	85
4) Chloromethane	3.15	50	22898	0.266	ppbv	89
9) Propene	3.03	41	52987	0.747	ppbv #	80
10) Heptane	8.14	43	7831	0.047	ppbv #	1
11) Trichlorofluoromethane	3.96	101	36331	0.183	ppbv	98
13) Ethanol	3.61	45	331950	80.632	ppbv	77
15) Acetone	3.85	43	1274584	8.699	ppbv	96
19) Isopropyl Alcohol	3.97	45	128958	1.650	ppbv #	1
20) Methylene Chloride	4.36	84	747997	12.808	ppbv	99
23) Vinyl Acetate	5.07	43	96881	0.989	ppbv #	81
25) Ethyl Acetate	5.70	43	483968	1.611	ppbv #	80
26) Hexane	5.70	57	661400	5.461	ppbv #	40
27) Carbon Disulfide	4.57	76	5088	0.035	ppbv #	48
29) Chloroform	5.76	83	16668	0.079	ppbv	87
30) Cyclohexane	7.14	84	3716	0.034	ppbv #	1
34) 2-Butanone	5.26	43	120338	0.704	ppbv	96
35) Carbon Tetrachloride	7.03	117	9303	0.044	ppbv #	63
36) Benzene	6.90	78	34592	0.132	ppbv #	86
39) 1,2-Dichloropropane	7.19	63	801219	8.161	ppbv #	26
44) 2,2,4-Trimethylpentane	7.88	57	27098	0.061	ppbv #	19
50) 4-Methyl-2-Pentanone	8.76	43	20495	0.079	ppbv #	39
53) Toluene	9.82	91	185340	0.611	ppbv	98
58) Ethyl Benzene	12.72	91	14380	0.037	ppbv	90
59) m/p-Xylene	13.00	91	25084	0.074	ppbv #	32
60) o-Xylene	13.71	91	11435	0.035	ppbv #	1
73) 1,3,5-Trimethylbenzene	16.01	105	16739	0.048	ppbv	88
74) 1,2,4-Trimethylbenzene	16.77	105	111304	0.289	ppbv #	70
79) Naphthalene	22.21	128	125853	0.475	ppbv #	94

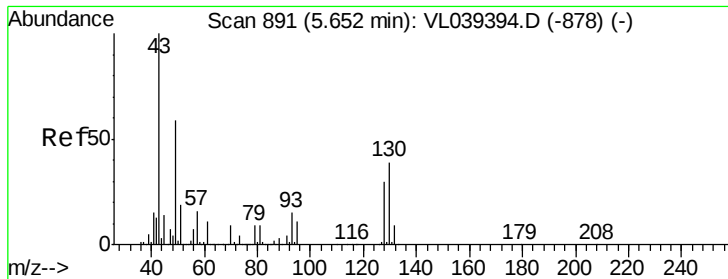
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Jul 06 02:15:38 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 19 Jul 2022 22:45

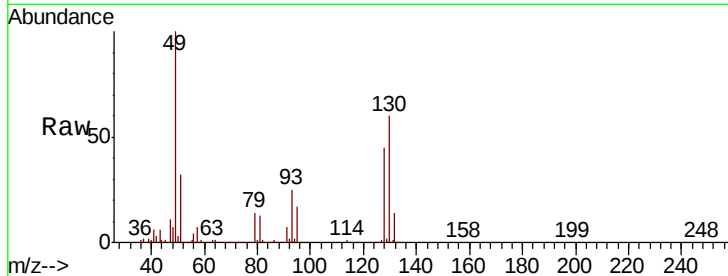
Tot Ion: 49 Resp: 1238495

Ion Ratio Lower Upper

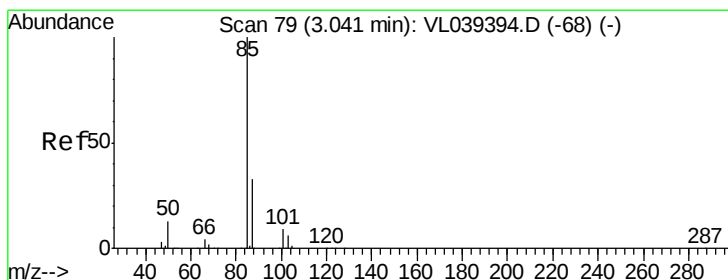
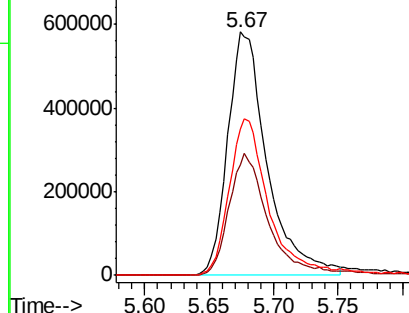
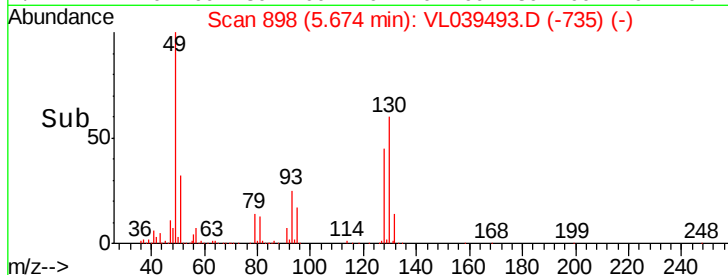
49 100

128 51.4 26.7 80.0

130 66.2 34.3 102.8



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: 0.310 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.02 min

Lab File: VL039493.D

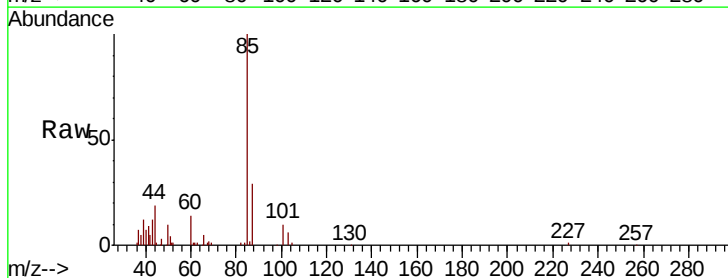
Acq: 19 Jul 2022 22:45

Tgt Ion: 85 Resp: 55292

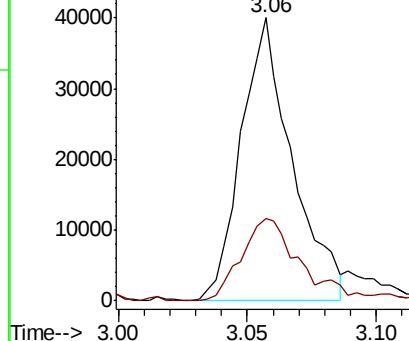
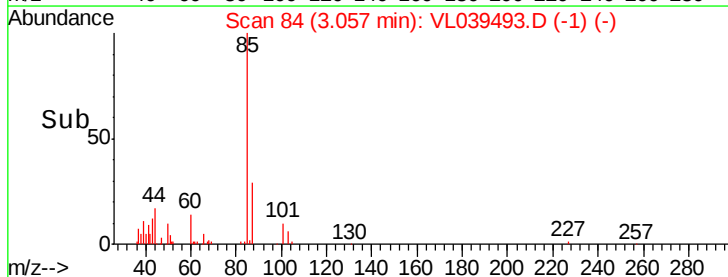
Ion Ratio Lower Upper

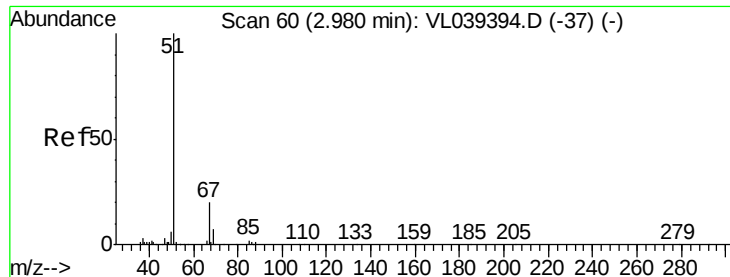
85 100

87 29.3 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.456 ppbv

RT: 3.00 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

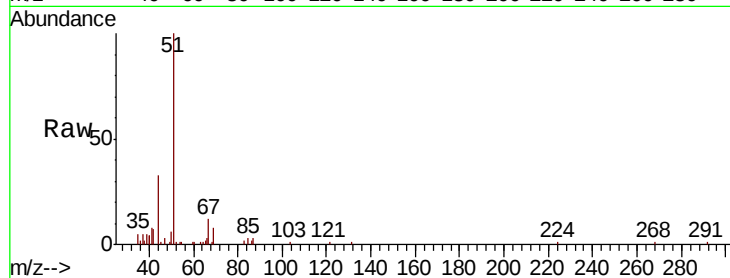
Acq: 19 Jul 2022 22:45

Tot Ion: 51 Resp: 71623

Ion Ratio Lower Upper

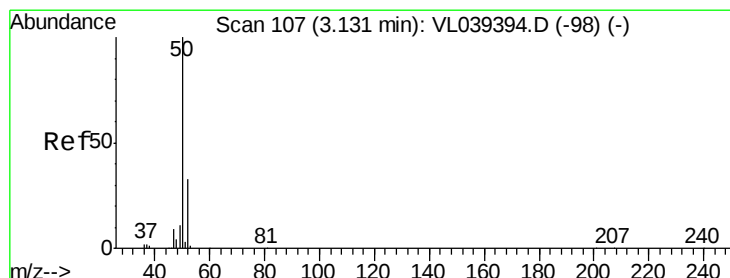
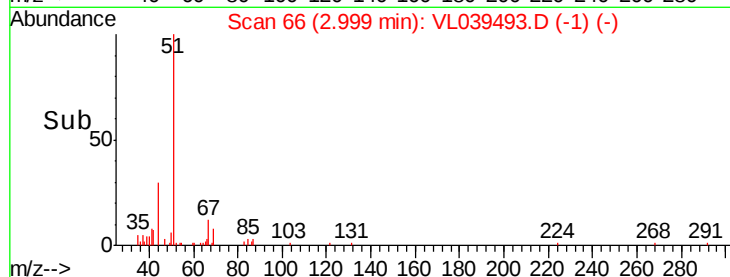
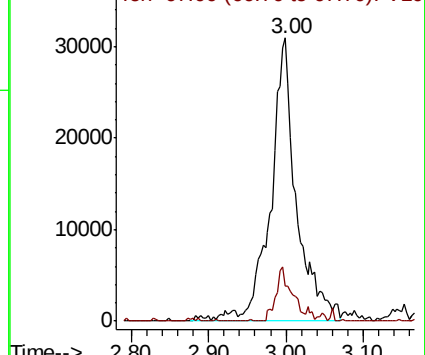
51 100

67 12.5 15.7 23.5#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.266 ppbv

RT: 3.15 min Scan# 113

Delta R.T. 0.02 min

Lab File: VL039493.D

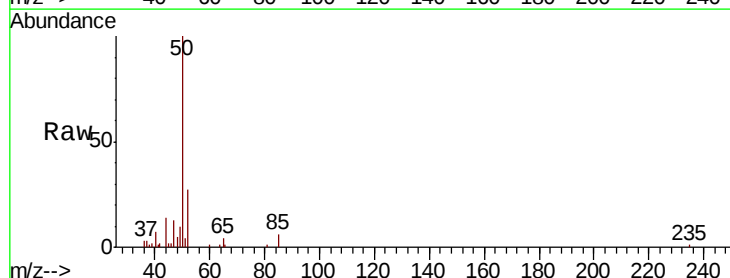
Acq: 19 Jul 2022 22:45

Tgt Ion: 50 Resp: 22898

Ion Ratio Lower Upper

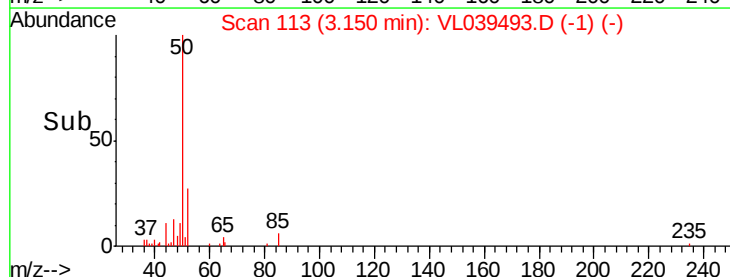
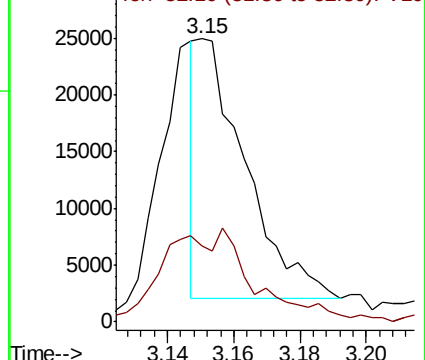
50 100

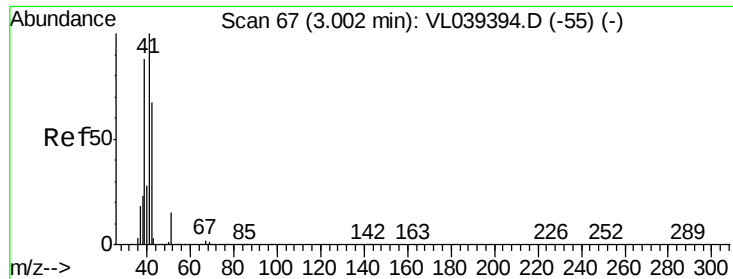
52 26.6 26.5 39.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.747 ppbv

RT: 3.03 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

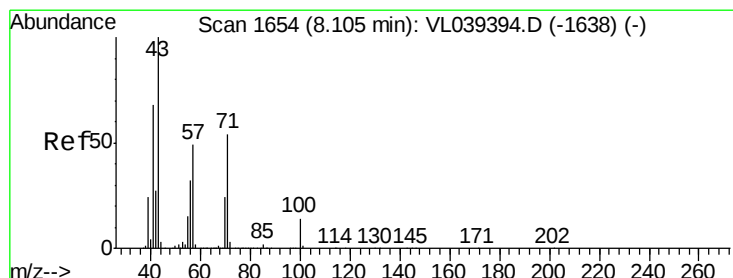
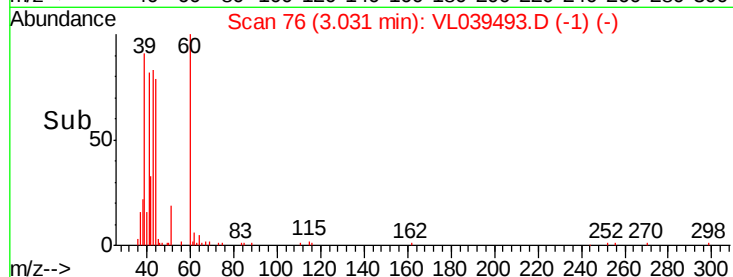
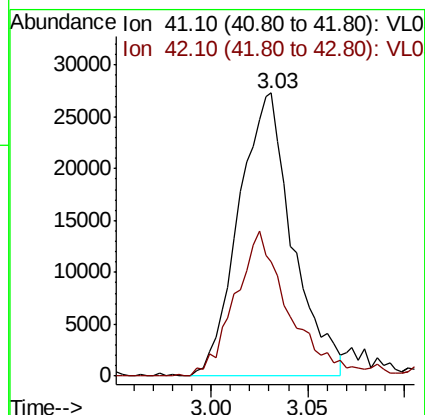
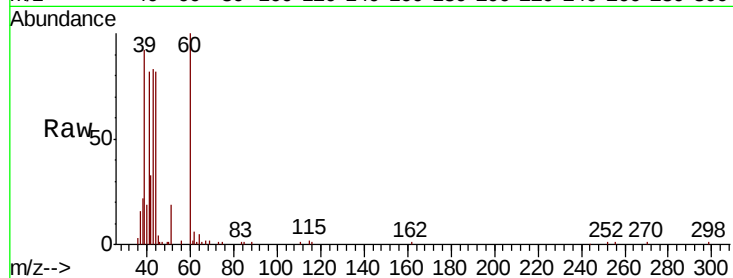
Acq: 19 Jul 2022 22:45

Tot Ion: 41 Resp: 52987

Ion Ratio Lower Upper

41 100

42 52.8 55.2 82.8#



#10

Heptane

Concen: 0.047 ppbv

RT: 8.14 min Scan# 1665

Delta R.T. 0.04 min

Lab File: VL039493.D

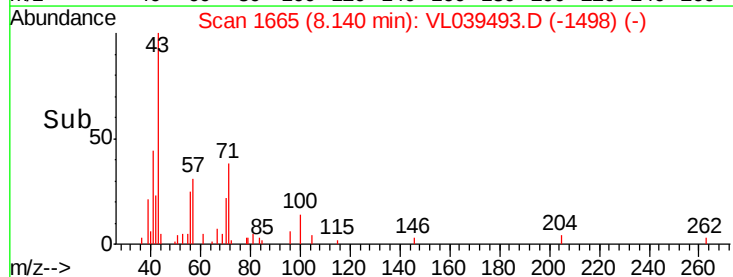
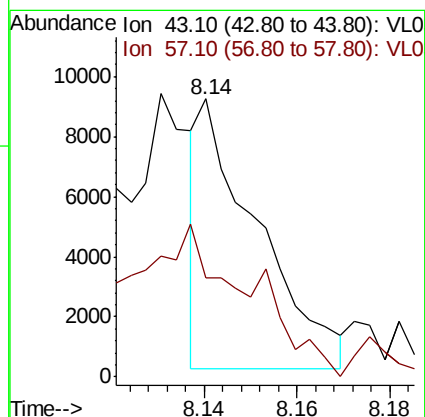
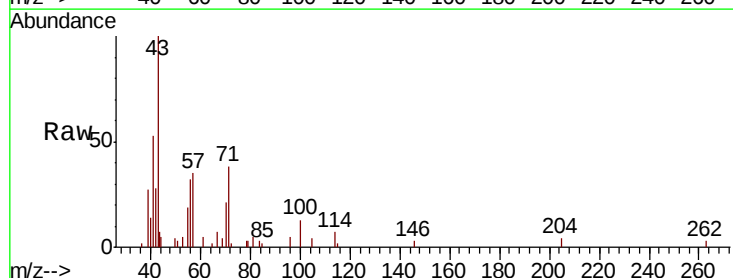
Acq: 19 Jul 2022 22:45

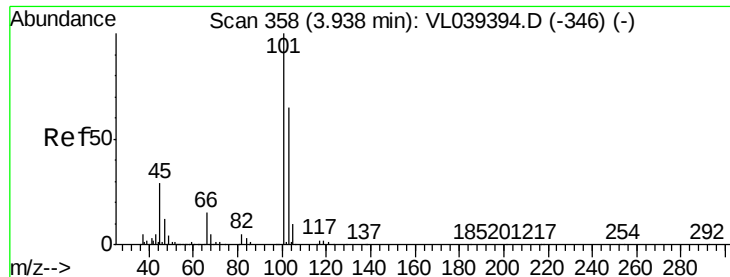
Tgt Ion: 43 Resp: 7831

Ion Ratio Lower Upper

43 100

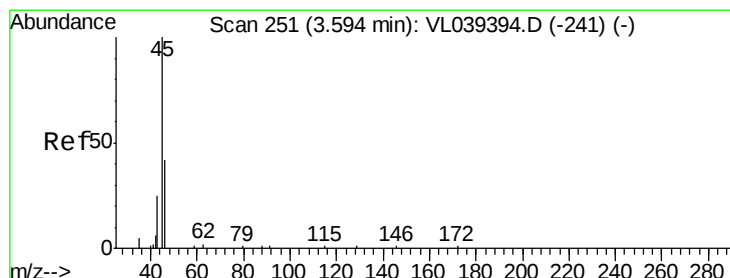
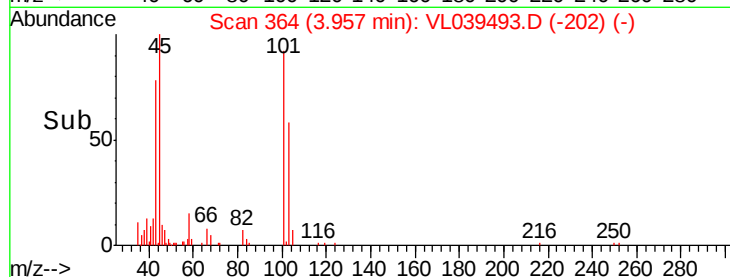
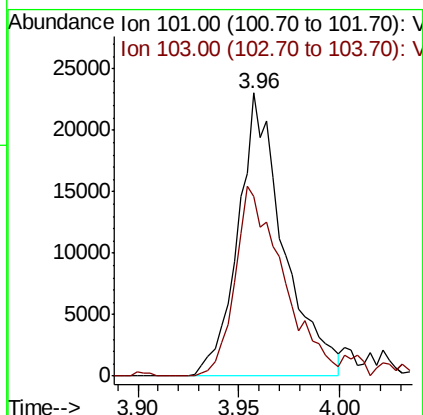
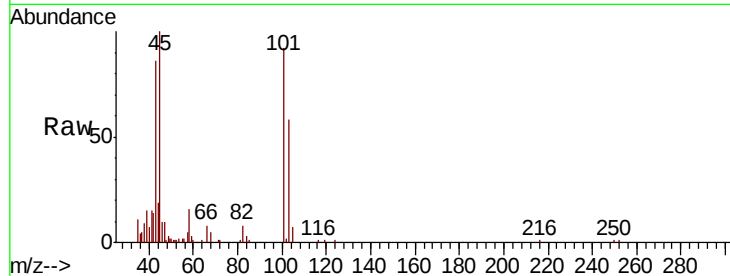
57 141.2 40.5 60.7#





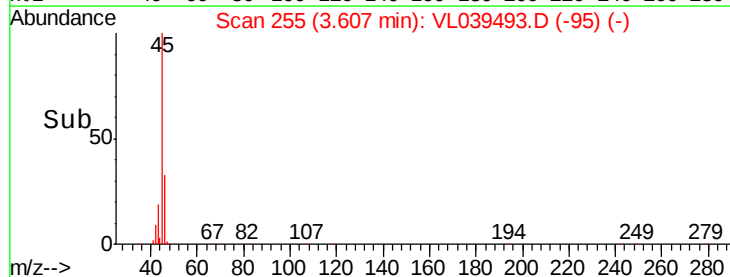
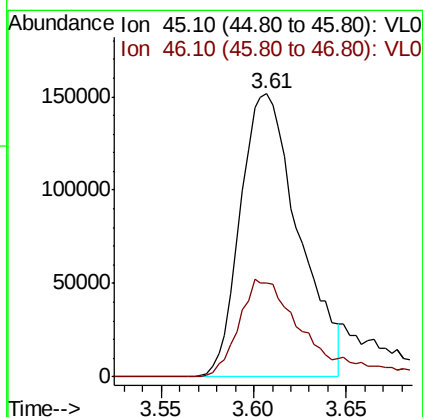
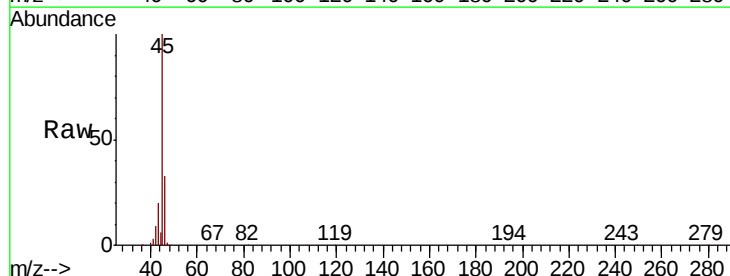
#11
 Trichlorofluoromethane
 Concen: 0.183 ppbv
 RT: 3.96
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 19 Jul 2022 22:45

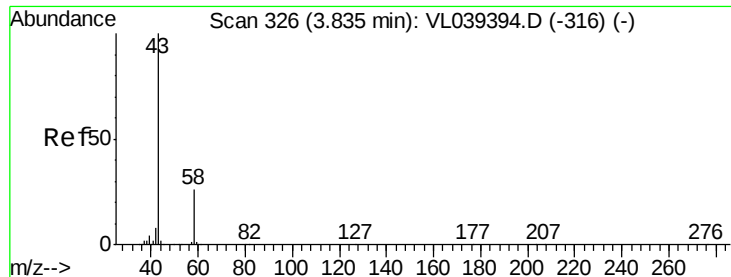
Tot Ion: 101 Resp: 36331
 Ion Ratio Lower Upper
 101 100
 103 63.4 51.8 77.8



#13
 Ethanol
 Concen: 80.632 ppbv
 RT: 3.61 min Scan# 255
 Delta R.T. 0.01 min
 Lab File: VL039493.D
 Acq: 19 Jul 2022 22:45

Tgt Ion: 45 Resp: 331950
 Ion Ratio Lower Upper
 45 100
 46 40.1 22.8 91.2





#15

Acetone

Concen: 8.699 ppbv

RT: 3.85 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

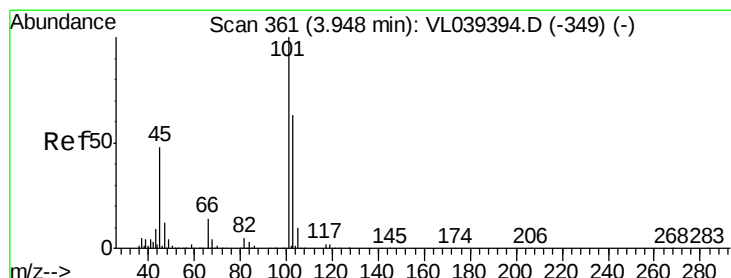
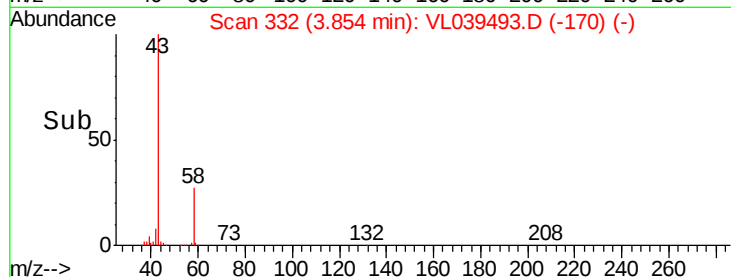
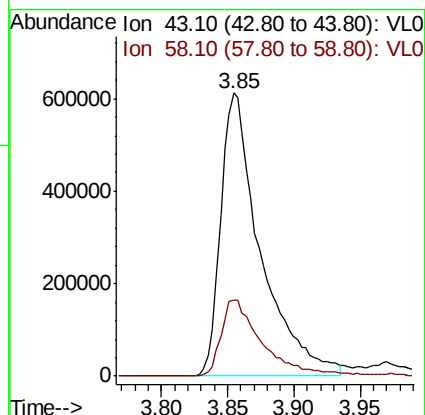
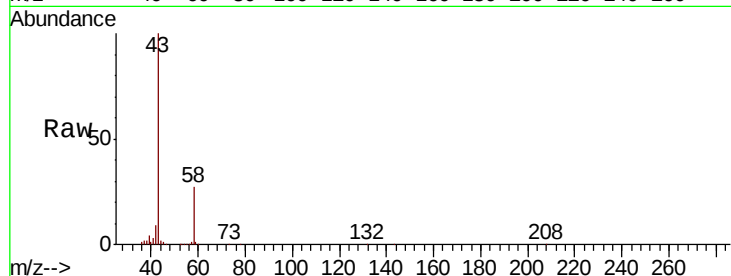
Acq: 19 Jul 2022 22:45

Tot Ion: 43 Resp: 1274584

Ion Ratio Lower Upper

43 100

58 28.5 21.0 31.6



#19

Isopropyl Alcohol

Concen: 1.650 ppbv

RT: 3.97 min Scan# 369

Delta R.T. 0.03 min

Lab File: VL039493.D

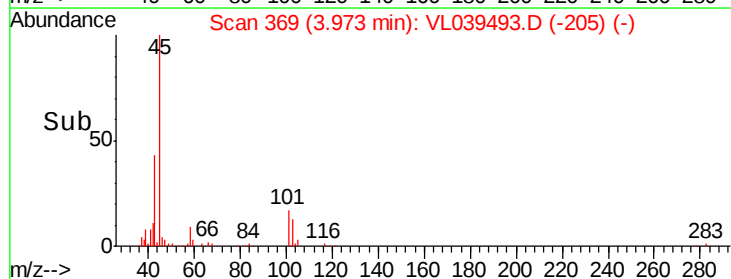
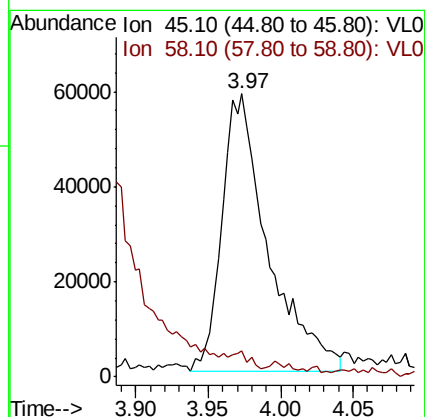
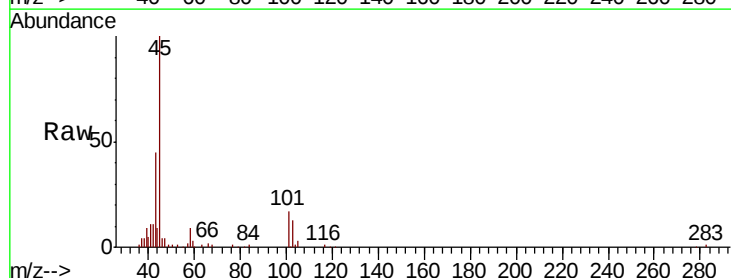
Acq: 19 Jul 2022 22:45

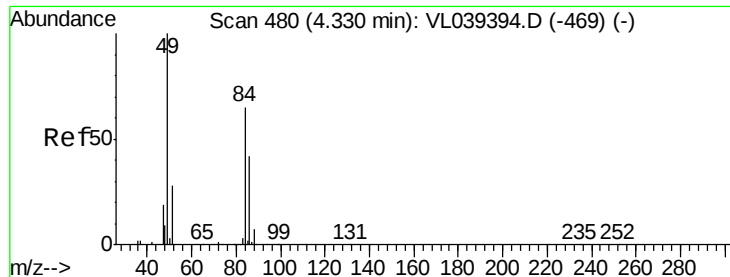
Tgt Ion: 45 Resp: 128958

Ion Ratio Lower Upper

45 100

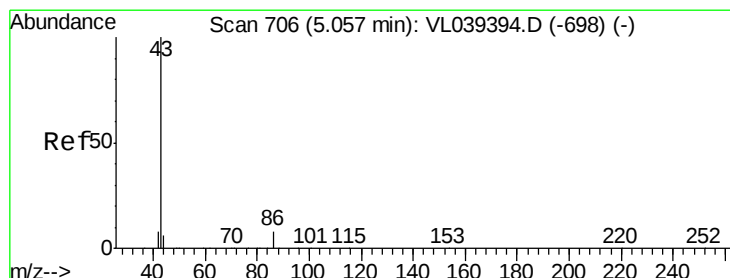
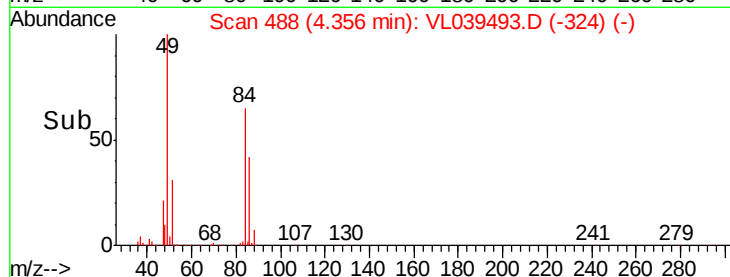
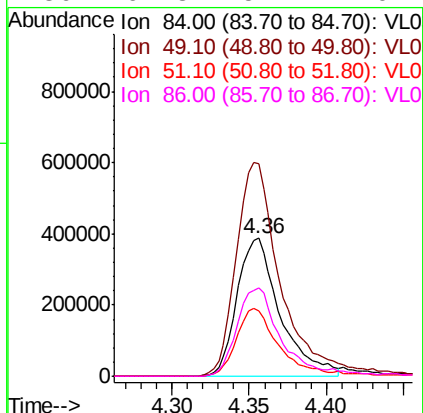
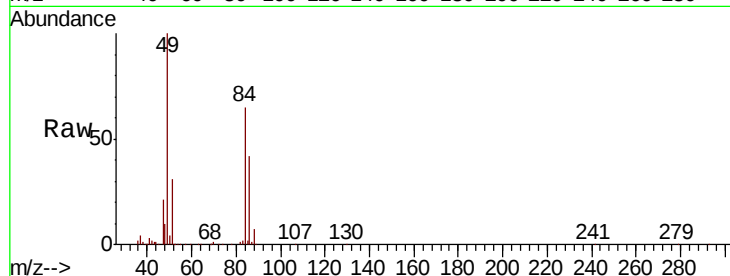
58 289.6 3.2 4.8#





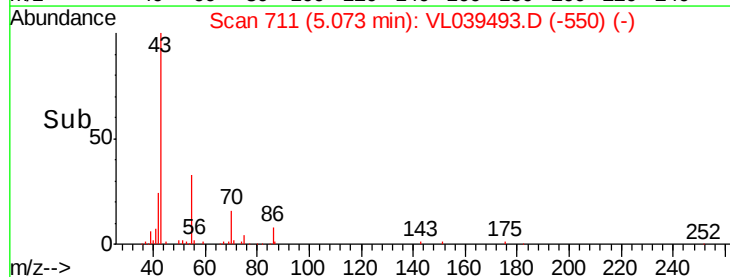
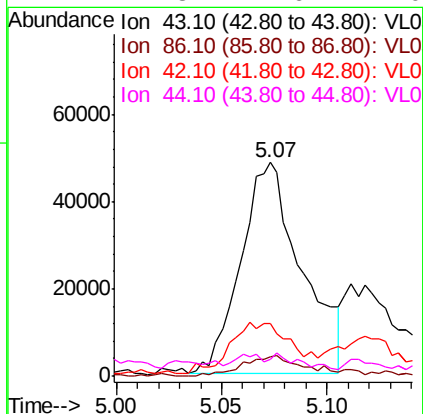
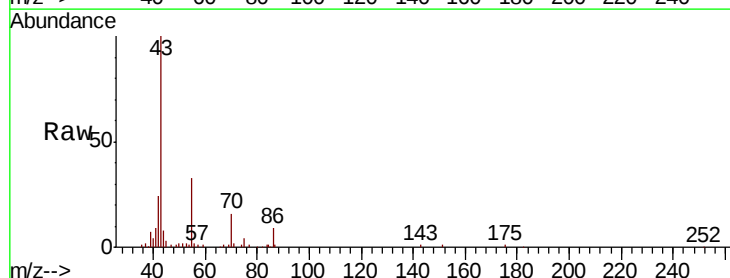
#20
Methvlene Chloride
Concen: 12.808 ppbv
RT: 4.36
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 19 Jul 2022 22:45

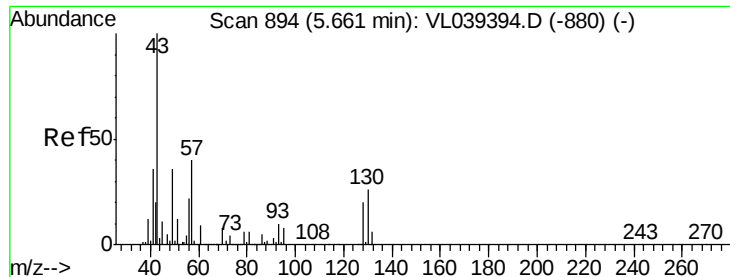
Tot Ion:	84	Resp:	747997
Ion	Ratio	Lower	Upper
84	100		
49	154.1	123.1	184.7
51	47.0	34.4	51.6
86	64.3	51.1	76.7



#23
Vinyl Acetate
Concen: 0.989 ppbv
RT: 5.07 min Scan# 711
Delta R.T. 0.02 min
Lab File: VL039493.D
Acq: 19 Jul 2022 22:45

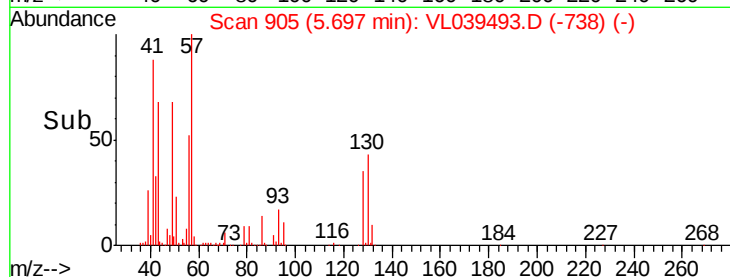
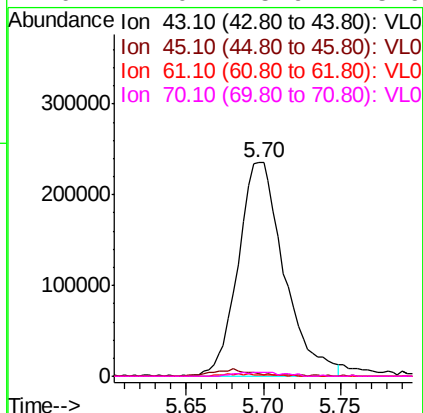
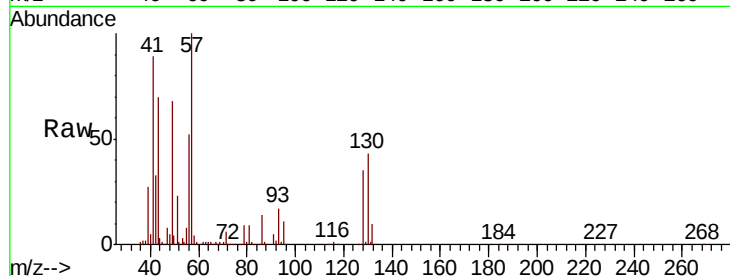
Tgt Ion:	43	Resp:	96881
Ion	Ratio	Lower	Upper
43	100		
86	10.1	5.0	7.6#
42	22.1	7.7	11.5#
44	4.8	4.6	7.0





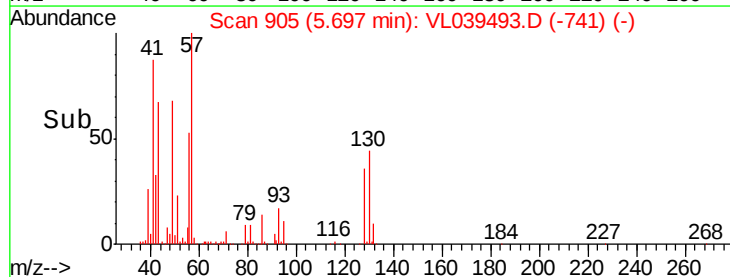
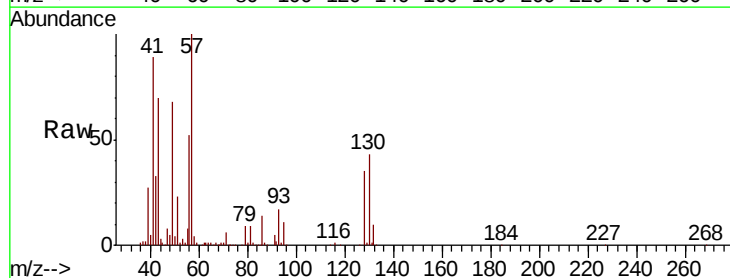
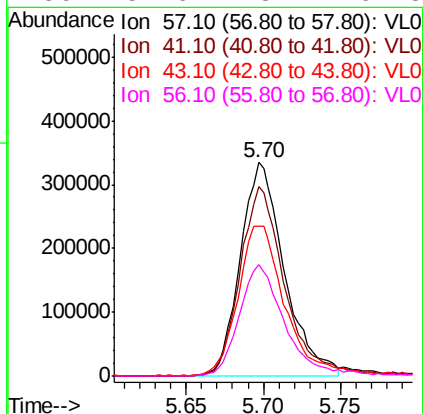
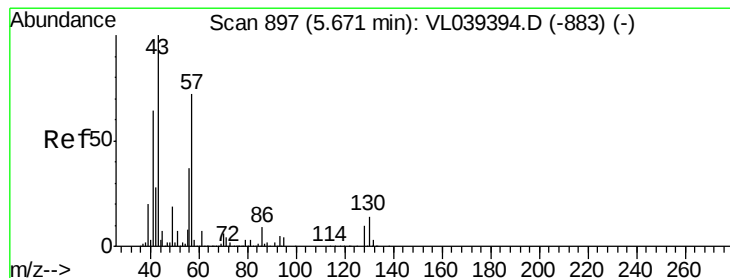
#25
Ethyl Acetate
Concen: 1.611 ppbv
RT: 5.70 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Jul 2022 22:45

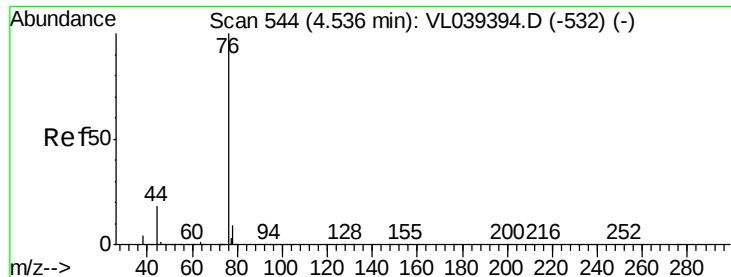
Tot Ion:	43	Resp:	483968
Ion	Ratio	Lower	Upper
43	100		
45	3.7	8.2	12.4#
61	1.1	8.3	12.5#
70	2.0	5.9	8.9#



#26
Hexane
Concen: 5.461 ppbv
RT: 5.70 min Scan# 905
Delta R.T. 0.03 min
Lab File: VL039493.D
Acq: 19 Jul 2022 22:45

Tgt Ion:	57	Resp:	661400
Ion	Ratio	Lower	Upper
57	100		
41	91.4	76.9	115.3
43	76.2	191.0	286.6#
56	54.6	43.2	64.8





#27

Carbon Disulfide

Concen: 0.035 ppbv

RT: 4.57 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 19 Jul 2022 22:45

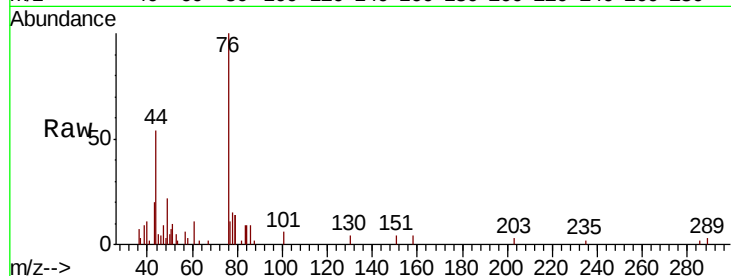
Tot Ion: 76 Resp: 5088

Ion Ratio Lower Upper

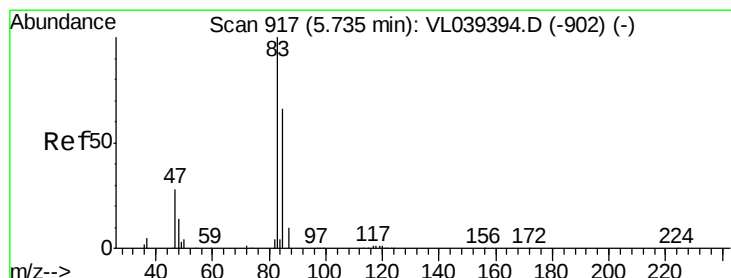
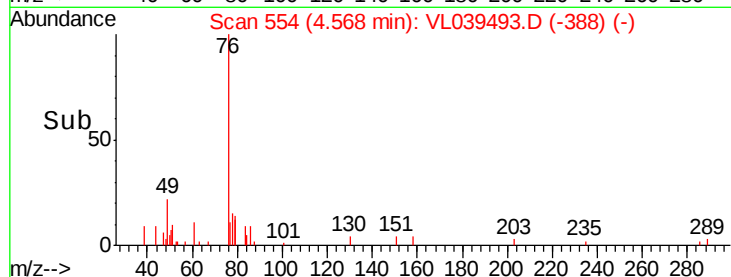
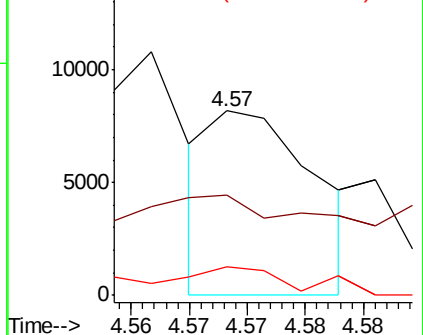
76 100

44 0.0 14.6 21.8#

78 36.3 7.8 11.6#



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0



#29

Chloroform

Concen: 0.079 ppbv

RT: 5.76 min Scan# 926

Delta R.T. 0.03 min

Lab File: VL039493.D

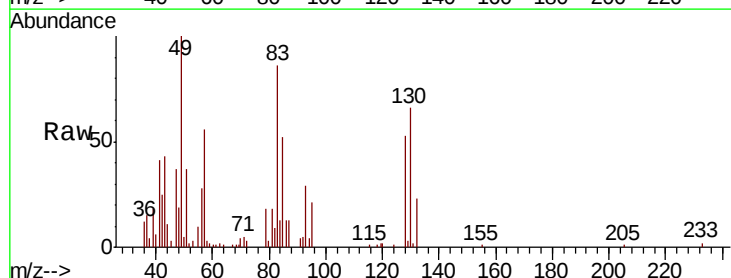
Acq: 19 Jul 2022 22:45

Tgt Ion: 83 Resp: 16668

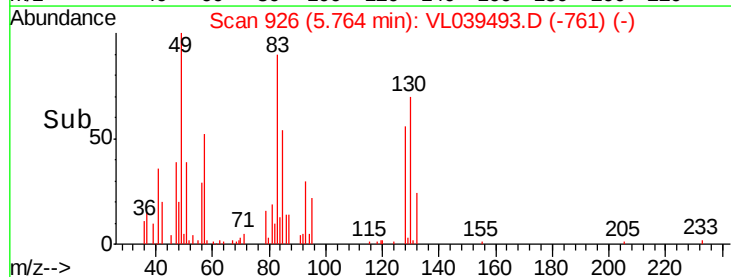
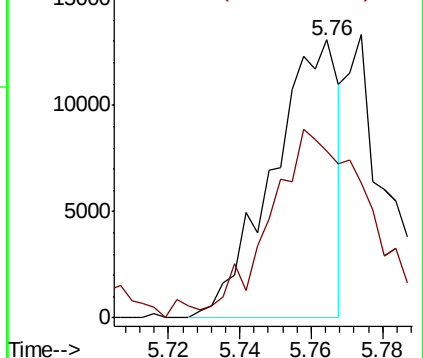
Ion Ratio Lower Upper

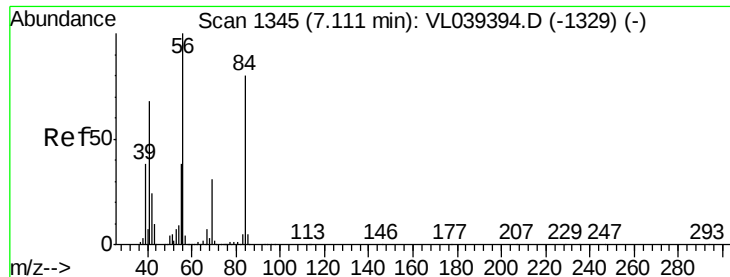
83 100

85 55.9 52.8 79.2



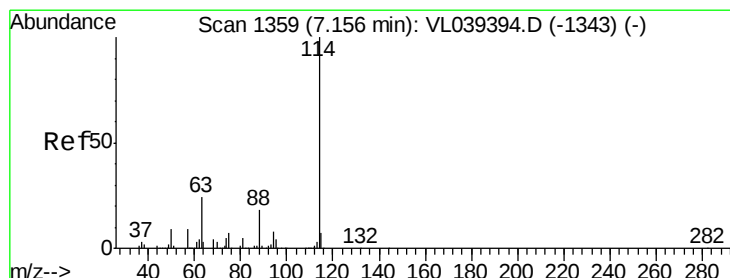
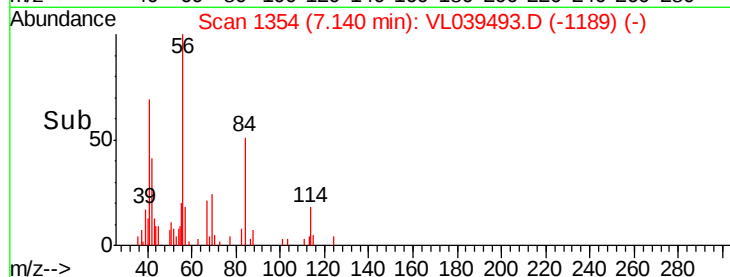
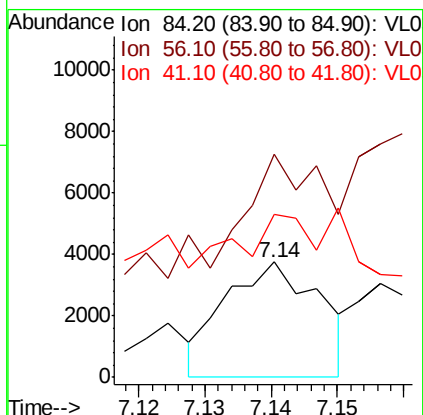
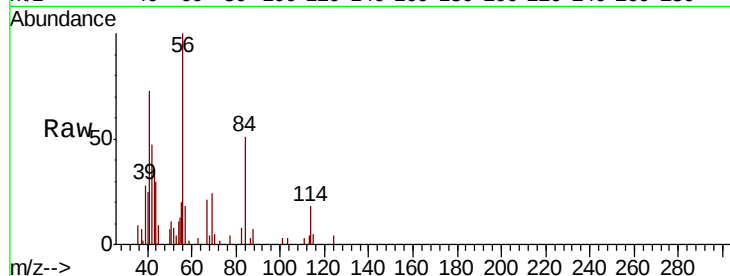
Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0





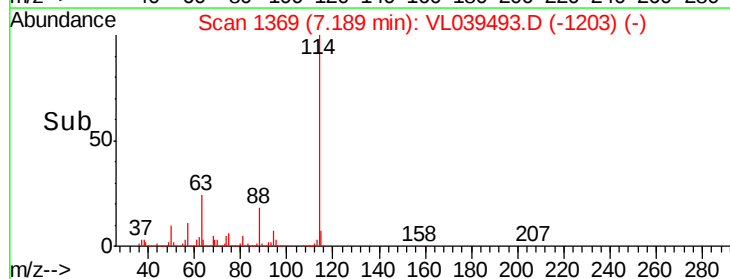
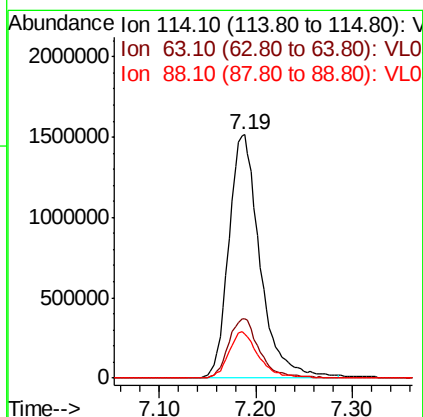
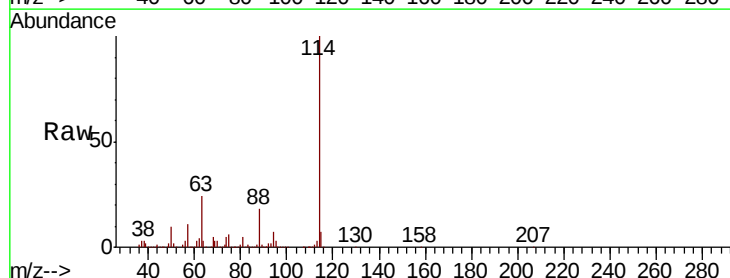
#30
Cvclohexane
Concen: 0.034 ppbv
RT: 7.14 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Jul 2022 22:45

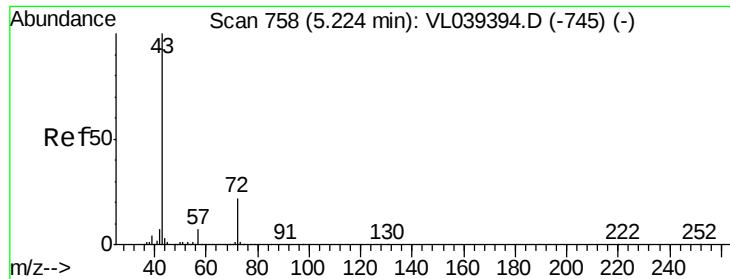
Tot Ion: 84 Resp: 3716
Ion Ratio Lower Upper
84 100
56 0.0 107.7 161.5#
41 471.4 67.7 101.5#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.19 min Scan# 1369
Delta R.T. 0.03 min
Lab File: VL039493.D
Acq: 19 Jul 2022 22:45

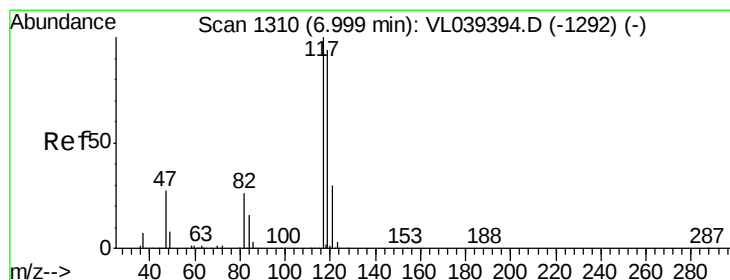
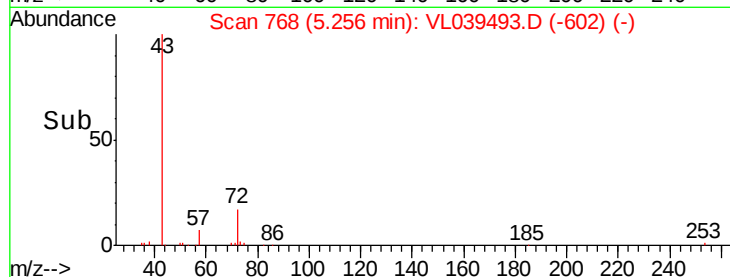
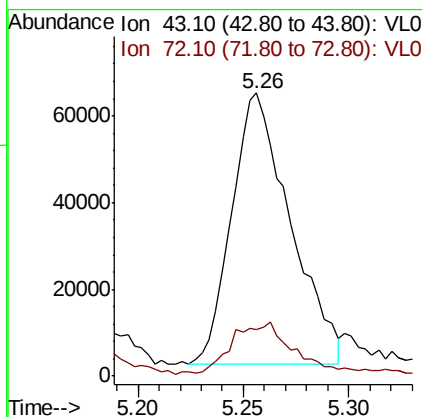
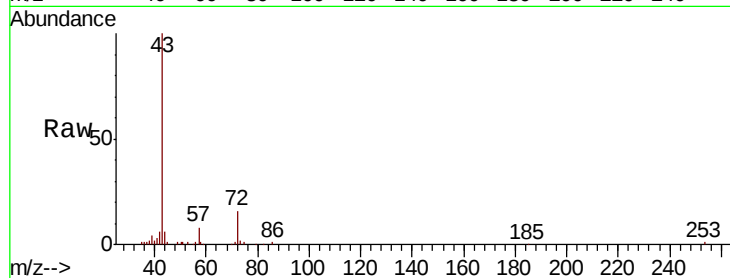
Tgt Ion: 114 Resp: 3395697
Ion Ratio Lower Upper
114 100
63 24.4 20.2 30.4
88 18.6 14.5 21.7





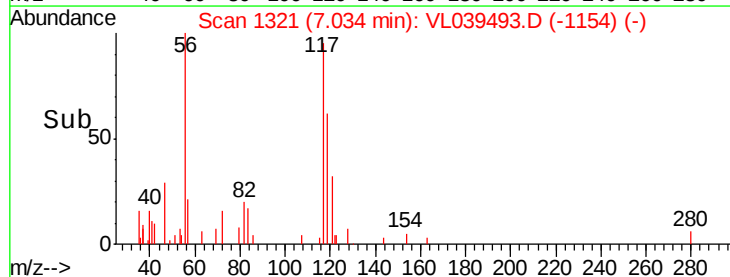
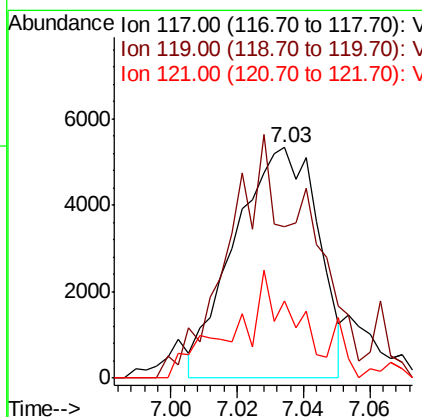
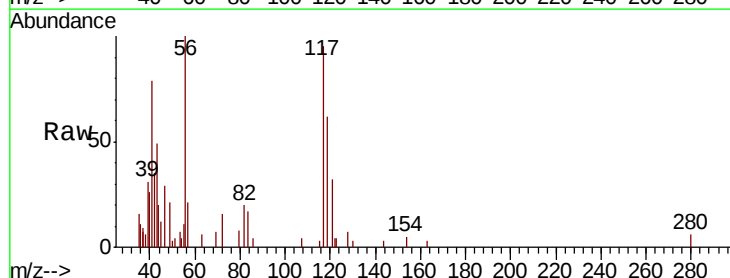
#34
 2-Butanone
 Concen: 0.704 ppbv
 RT: 5.26
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 19 Jul 2022 22:45

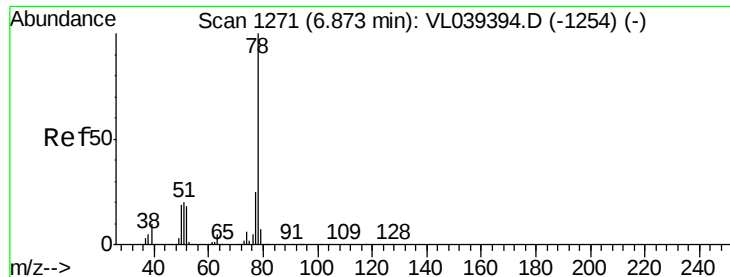
Tot Ion: 43 Resp: 120338
 Ion Ratio Lower Upper
 43 100
 72 24.2 17.9 26.9



#35
 Carbon Tetrachloride
 Concen: 0.044 ppbv
 RT: 7.03 min Scan# 1321
 Delta R.T. 0.04 min
 Lab File: VL039493.D
 Acq: 19 Jul 2022 22:45

Tgt Ion: 117 Resp: 9303
 Ion Ratio Lower Upper
 117 100
 119 48.9 75.4 113.2#
 121 26.3 24.2 36.2





#36

Benzene

Concen: 0.132 ppbv

RT: 6.90 Instrument:

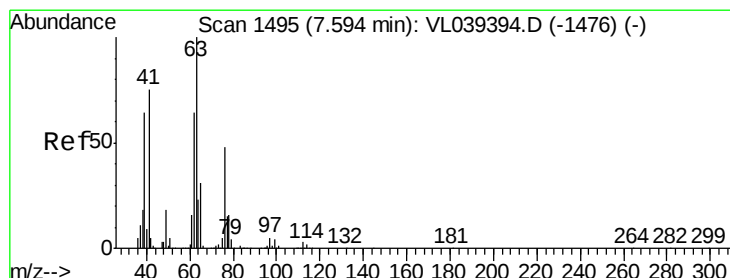
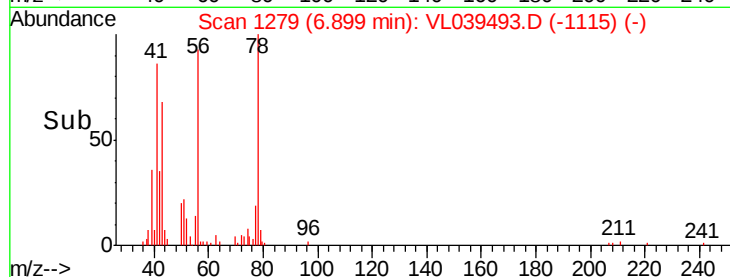
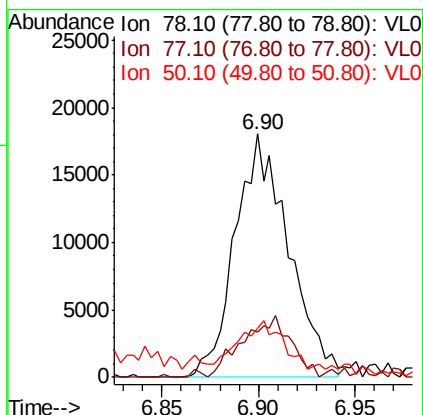
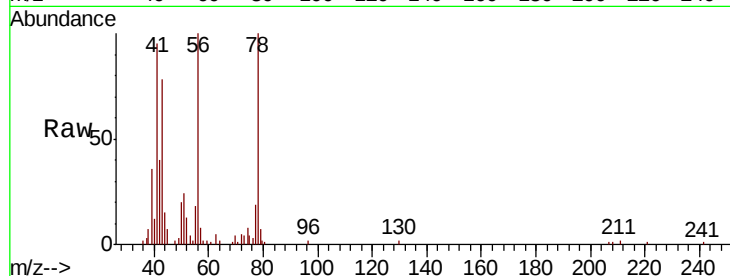
Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 19 Jul 2022 22:45

Tot Ion: 78 Resp: 34592

Ion	Ratio	Lower	Upper
78	100		
77	17.9	20.3	30.5#
50	13.8	15.5	23.3#



#39

1,2-Dichloropropane

Concen: 8.161 ppbv

RT: 7.19 min Scan# 1368

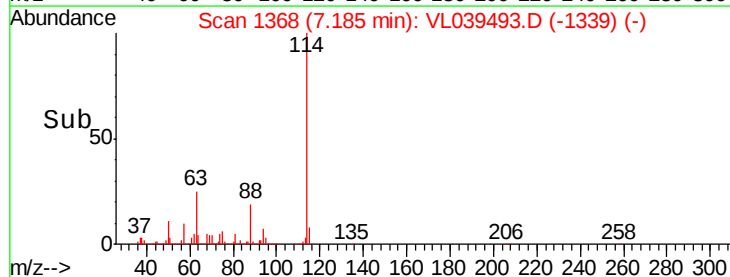
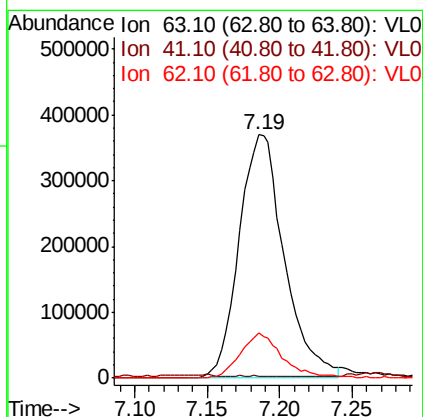
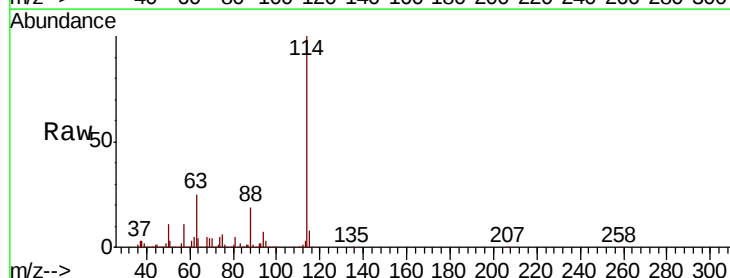
Delta R.T. -0.41 min

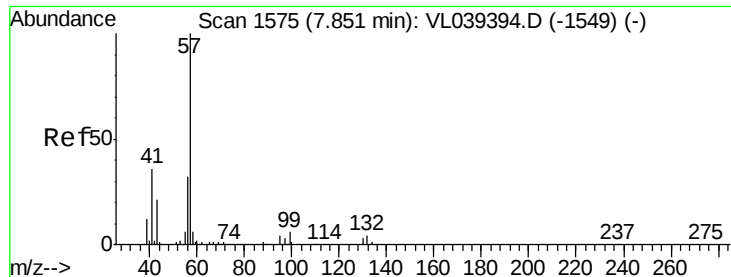
Lab File: VL039493.D

Acq: 19 Jul 2022 22:45

Tgt Ion: 63 Resp: 801219

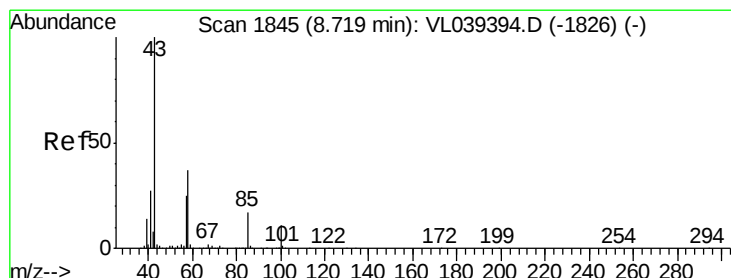
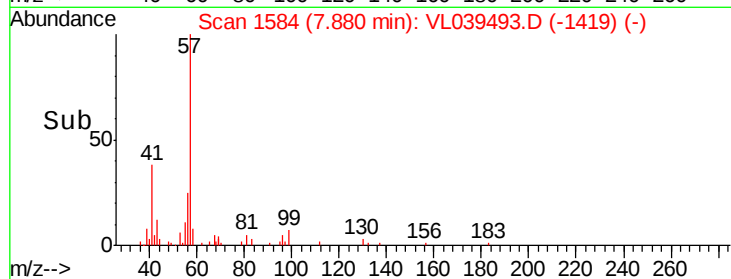
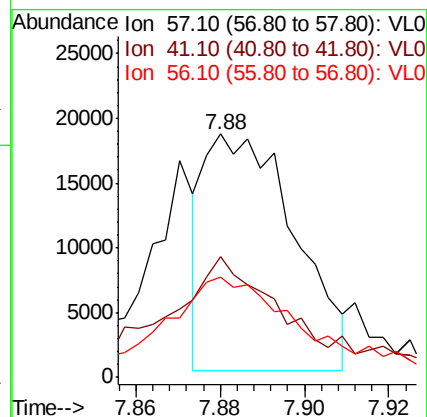
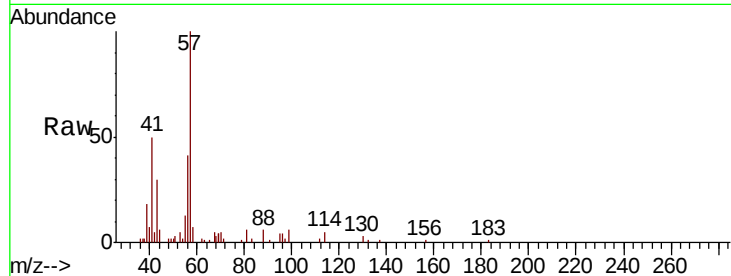
Ion	Ratio	Lower	Upper
63	100		
41	0.2	59.6	89.4#
62	18.8	51.4	77.0#





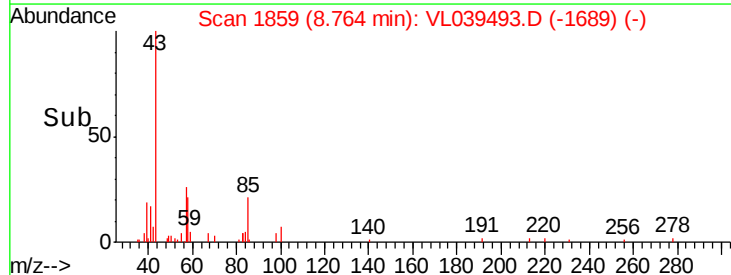
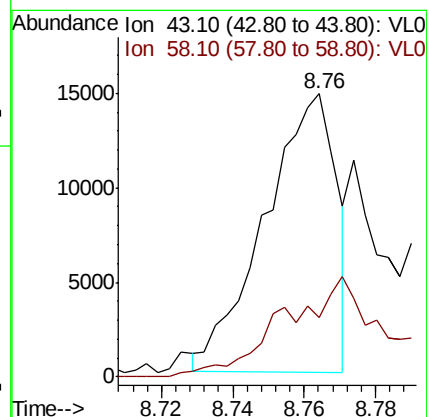
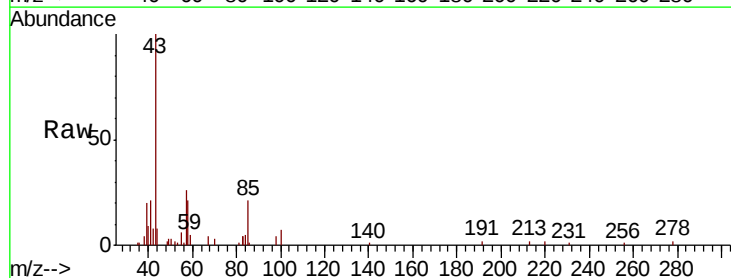
#44
 2,2,4-Trimethylpentane
 Concen: 0.061 ppbv
 RT: 7.88
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 19 Jul 2022 22:45

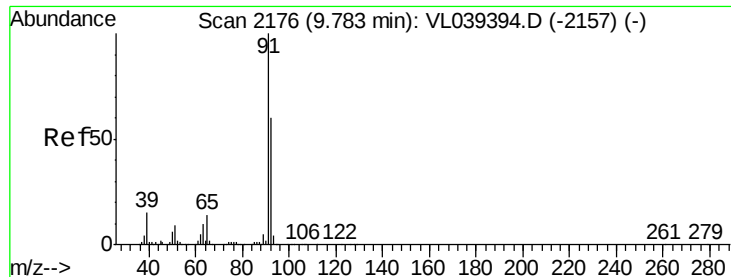
Tot Ion	57	Resp	27098
Ion Ratio	Lower	Upper	
57	100		
41	83.9	27.4	41.2#
56	71.9	24.5	36.7#



#50
 4-Methyl-2-Pentanone
 Concen: 0.079 ppbv
 RT: 8.76 min Scan# 1859
 Delta R.T. 0.05 min
 Lab File: VL039493.D
 Acq: 19 Jul 2022 22:45

Tgt Ion	43	Resp	20495
Ion Ratio	Lower	Upper	
43	100		
58	0.0	28.8	43.2#





#53

Toluene

Concen: 0.611 ppbv

RT: 9.82 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

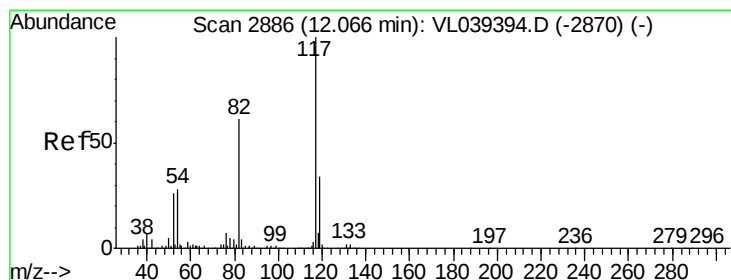
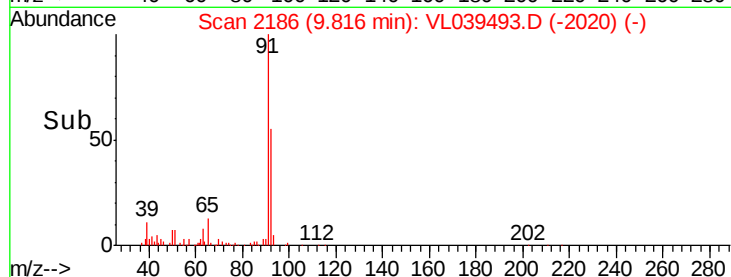
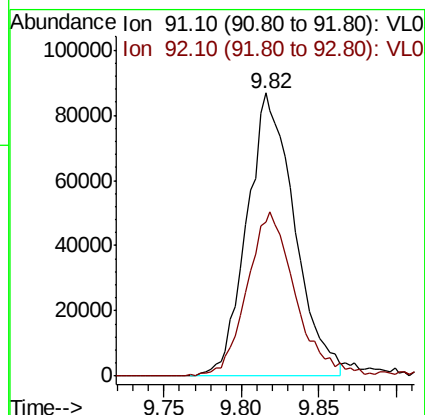
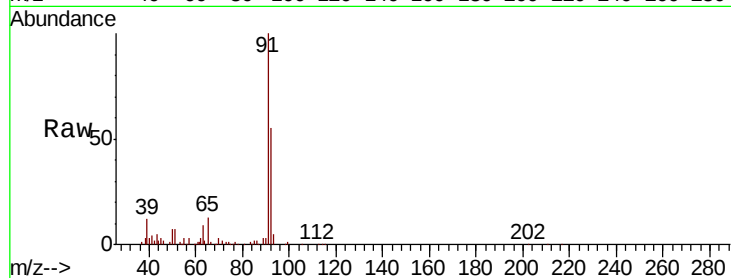
Acq: 19 Jul 2022 22:45

Tot Ion: 91 Resp: 185340

Ion Ratio Lower Upper

91 100

92 58.9 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2896

Delta R.T. 0.03 min

Lab File: VL039493.D

Acq: 19 Jul 2022 22:45

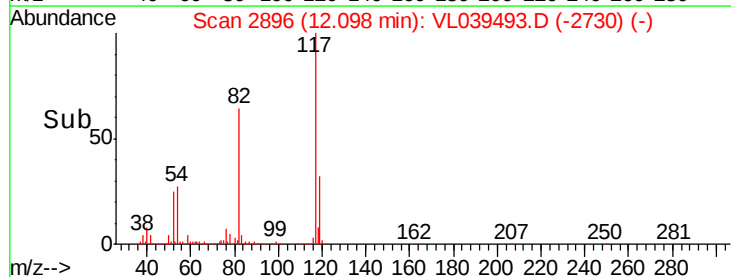
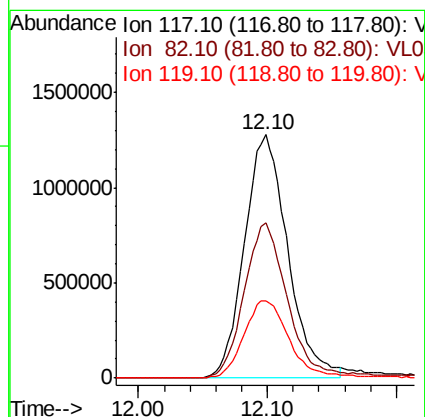
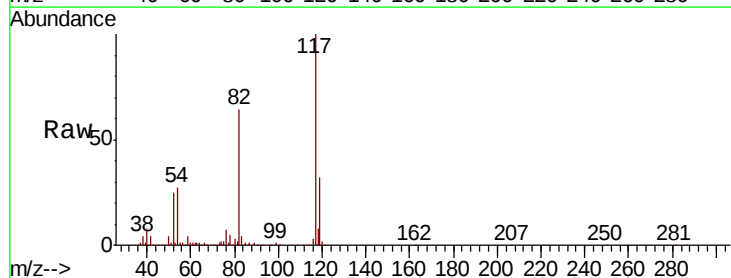
Tgt Ion: 117 Resp: 2988307

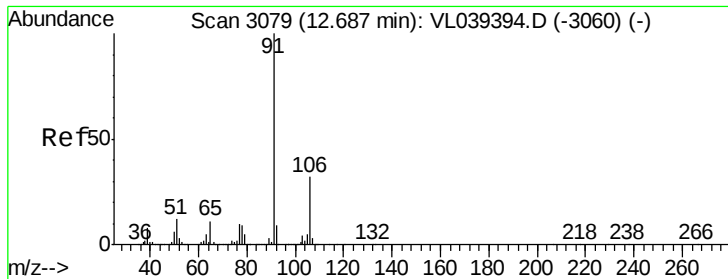
Ion Ratio Lower Upper

117 100

82 65.9 50.8 76.2

119 34.2 24.1 36.1





#58

Ethyl Benzene

Concen: 0.037 ppbv

RT: 12.72

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

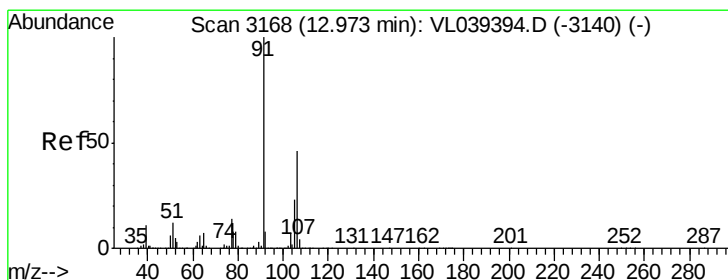
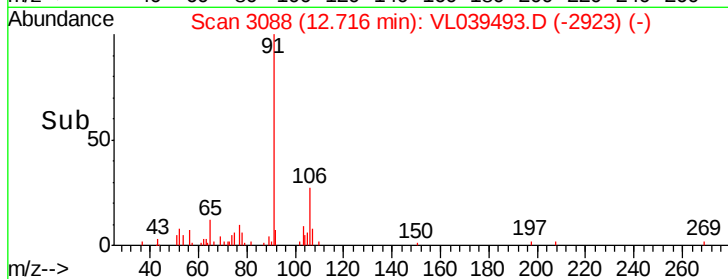
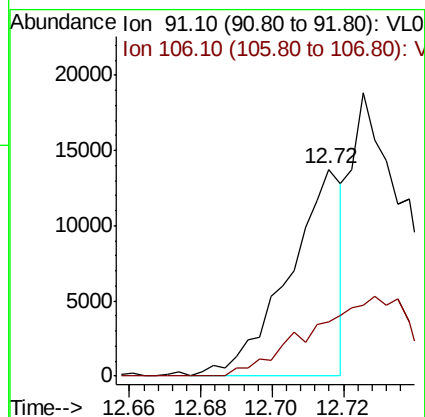
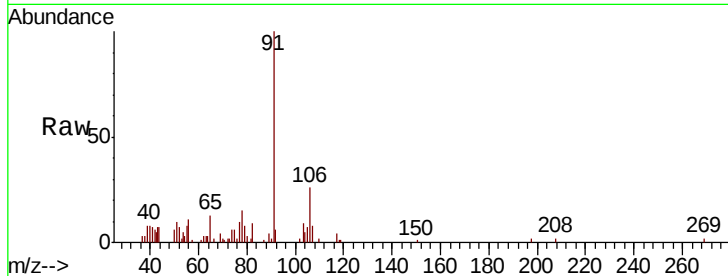
Acq: 19 Jul 2022 22:45

Tot Ion: 91 Resp: 14380

Ion Ratio Lower Upper

91 100

106 26.3 25.4 38.0



#59

m/p-Xylene

Concen: 0.074 ppbv

RT: 13.00 min Scan# 3177

Delta R.T. 0.03 min

Lab File: VL039493.D

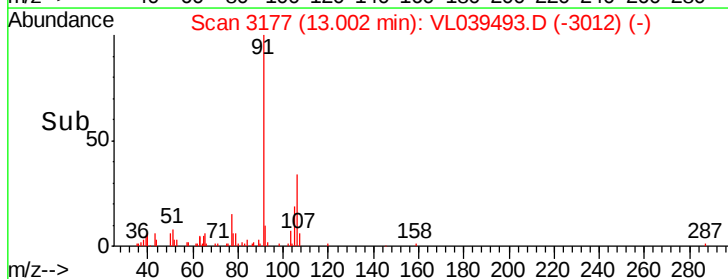
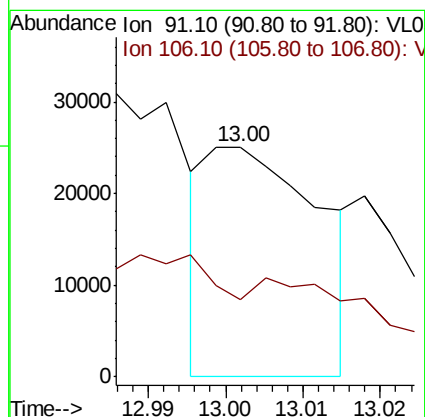
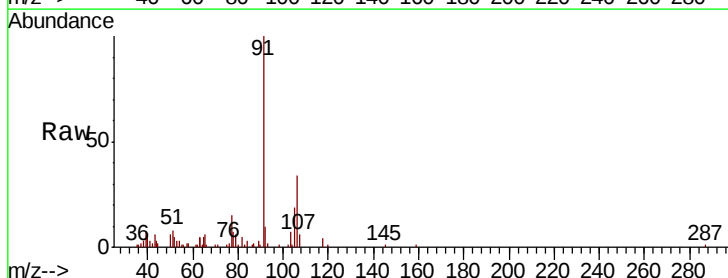
Acq: 19 Jul 2022 22:45

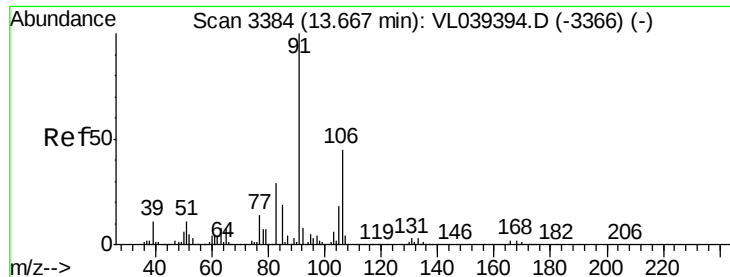
Tgt Ion: 91 Resp: 25084

Ion Ratio Lower Upper

91 100

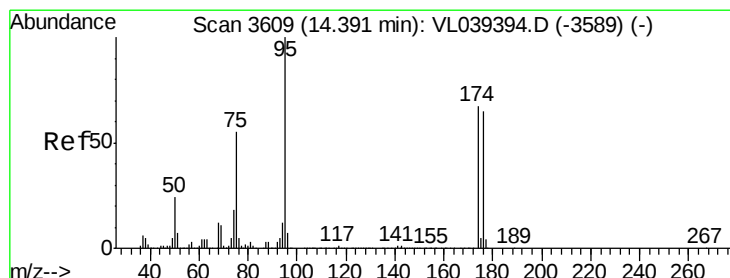
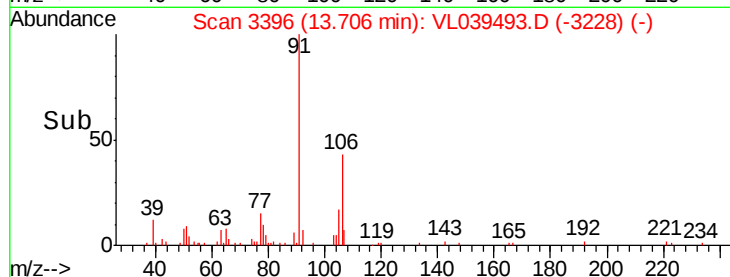
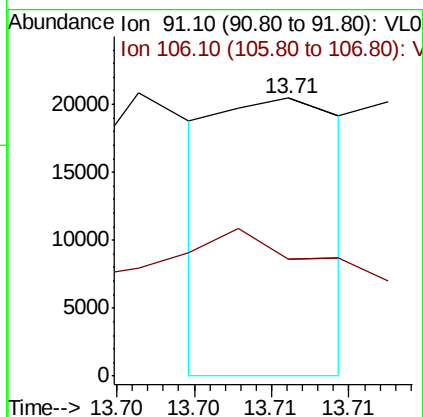
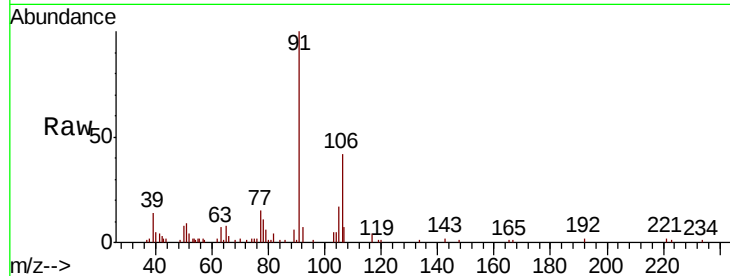
106 0.0 35.4 53.2#





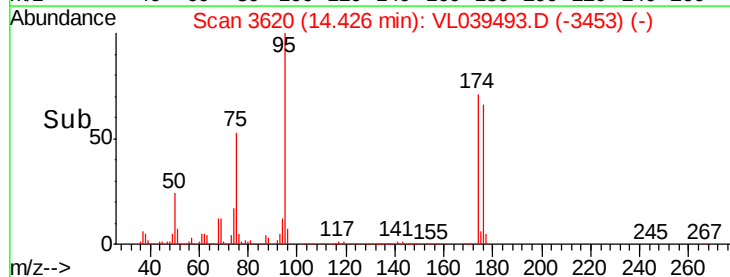
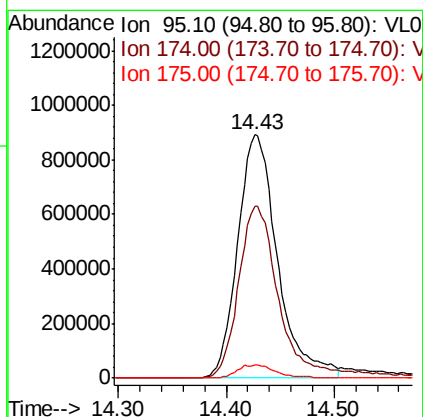
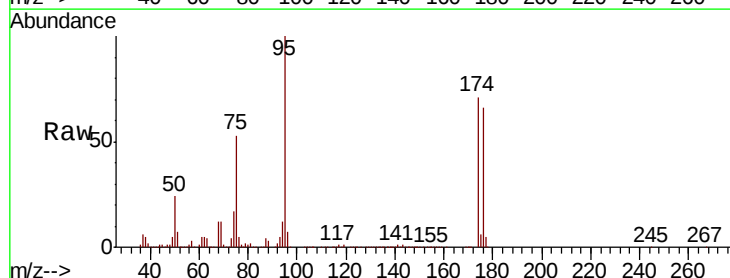
#60
o-Xylene
Concen: 0.035 ppbv
RT: 13.71 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 19 Jul 2022 22:45

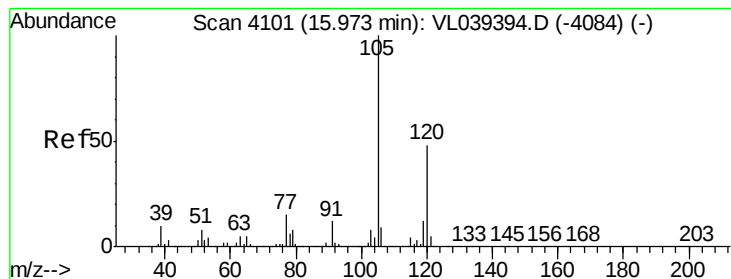
Tot Ion: 91 Resp: 11435
Ion Ratio Lower Upper
91 100
106 209.3 22.4 67.3#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.369 ppbv
RT: 14.43 min Scan# 3620
Delta R.T. 0.04 min
Lab File: VL039493.D
Acq: 19 Jul 2022 22:45

Tgt Ion: 95 Resp: 2298761
Ion Ratio Lower Upper
95 100
174 74.2 55.9 83.9
175 5.5 4.2 6.4





#73

1,3,5-Trimethylbenzene

Concen: 0.048 ppbv

RT: 16.01

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

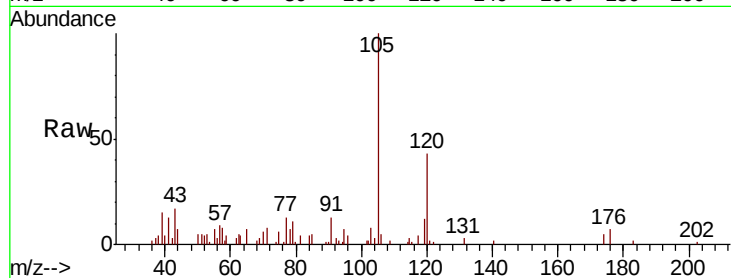
Acq: 19 Jul 2022 22:45

Tot Ion:105 Resp: 16739

Ion Ratio Lower Upper

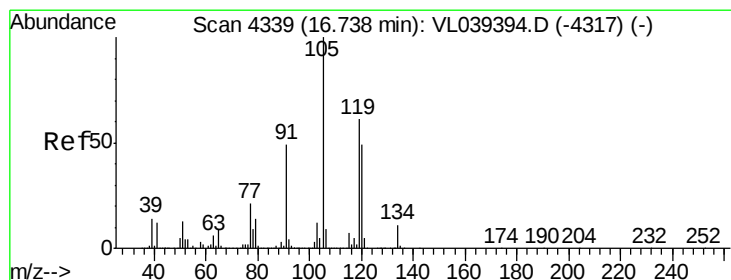
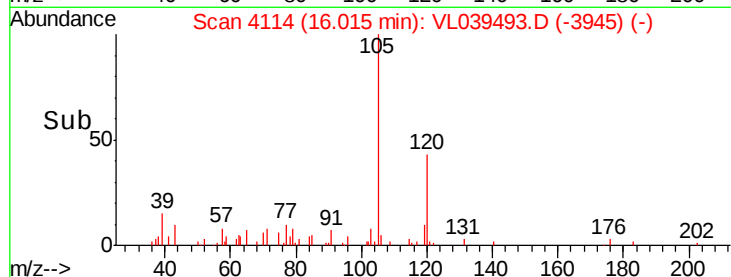
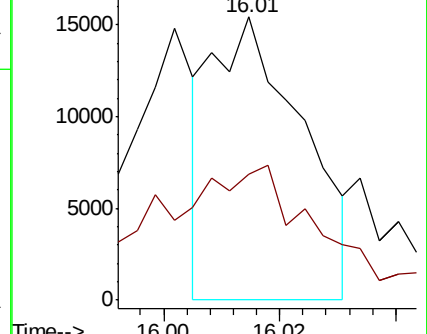
105 100

120 39.4 38.2 57.4



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.289 ppbv

RT: 16.77 min Scan# 4350

Delta R.T. 0.04 min

Lab File: VL039493.D

Acq: 19 Jul 2022 22:45

Tgt Ion:105 Resp: 111304

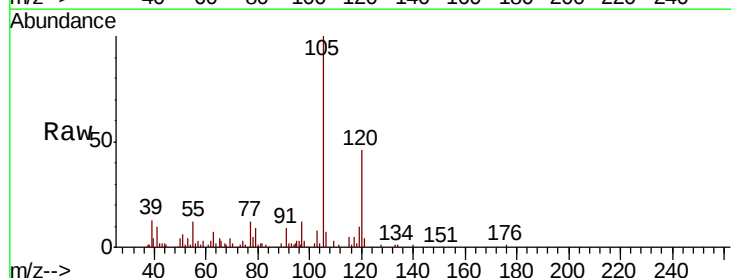
Ion Ratio Lower Upper

105 100

120 46.7 39.5 59.3

91 7.8 39.2 58.8#

77 11.5 17.2 25.8#

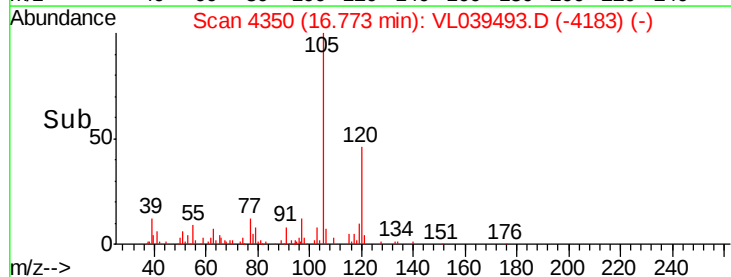
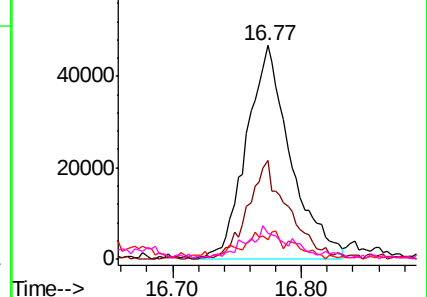


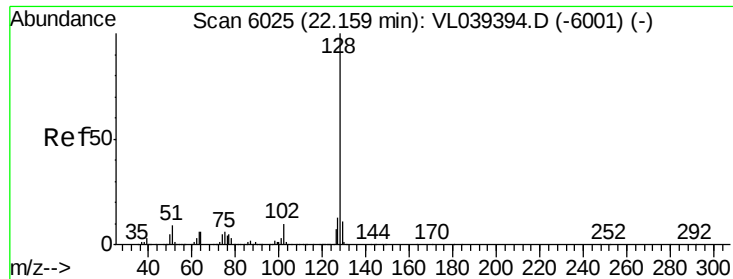
Abundance Ion 105.10 (104.80 to 105.80): V

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





#79

Naphthalene

Concen: 0.475 ppbv

RT: 22.21

Delta R.T: MSVOA_L

Lab File: ClientSampleId :

Acq: 19 Jul 2022 22.45

Tot Ion: 128 Resp: 125853

Ion Ratio Lower Upper

128 100

127 15.7 10.6 15.8

129 13.3 8.8 13.2#

