

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL122121\
 Data File : VL038225.D
 Acq On : 21 Dec 2021 22:57
 Operator : SY/AP
 Sample : M5118-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 22 08:29:21 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL122121AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Dec 21 17:47:08 2021
 QLast Update : Tue Dec 21 17:47:08 2021
 Response via : Initial Calibration

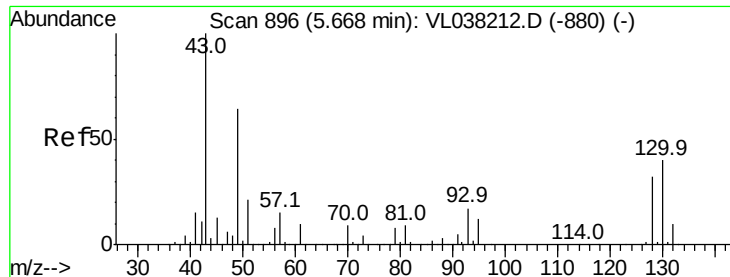
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	646084	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	1833318	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	1555688	10.00	ppbv	0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	1237653	10.32	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.20%

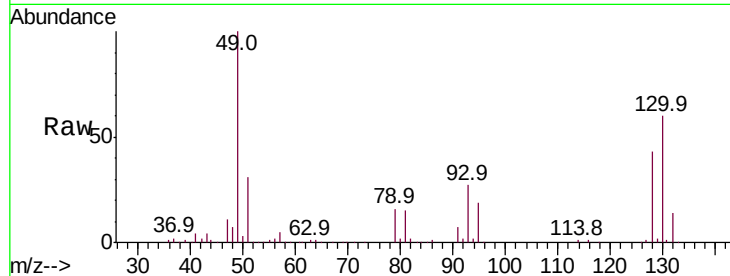
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.06	85	37537	0.308	ppbv	94
3) Chlorodifluoromethane	3.01	51	49468	0.364	ppbv #	91
4) Chloromethane	3.15	50	12197	0.259	ppbv	95
9) Propene	3.22	41	33397	0.708	ppbv	84
10) Heptane	8.13	43	8835	0.074	ppbv #	39
11) Trichlorofluoromethane	3.97	101	27872	0.249	ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.51	101	4621	0.055	ppbv	87
13) Ethanol	3.62	45	188886	23.634	ppbv #	100
15) Acetone	3.87	43	298201	4.599	ppbv	91
16) 1,3-Butadiene	3.32	39	4425	0.100	ppbv	92
19) Isopropyl Alcohol	3.99	45	219153	5.419	ppbv #	40
20) Methylene Chloride	4.36	84	220101	6.012	ppbv	93
23) Vinyl Acetate	5.08	43	12707	0.145	ppbv #	26
25) Ethyl Acetate	5.70	43	156730	0.892	ppbv #	78
26) Hexane	5.70	57	212831	2.415	ppbv #	46
34) 2-Butanone	5.26	43	29944	0.543	ppbv	96
35) Carbon Tetrachloride	7.03	117	6055	0.054	ppbv #	89
36) Benzene	6.90	78	54594	0.319	ppbv	99
39) 1,2-Dichloropropane	7.19	63	469040	7.127	ppbv #	25
41) Tetrahydrofuran	6.07	42	1843	0.046	ppbv #	37
44) 2,2,4-Trimethylpentane	7.88	57	60751	0.209	ppbv #	78
53) Toluene	9.81	91	136110	0.690	ppbv	99
58) Ethyl Benzene	12.71	91	11056	0.046	ppbv	92
59) m/p-Xylene	13.01	91	13959	0.068	ppbv #	30
60) o-Xylene	13.70	91	13499	0.071	ppbv #	30

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

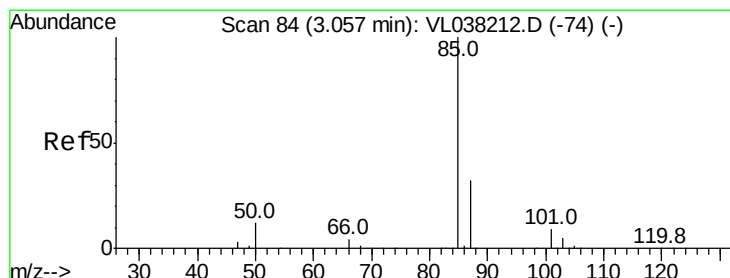
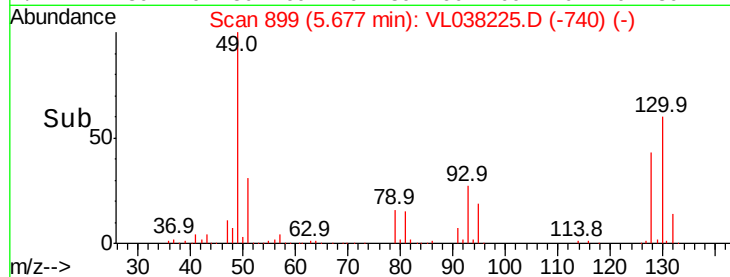
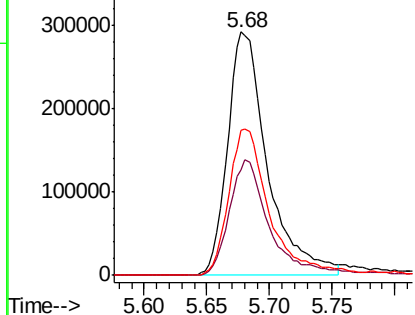


#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.68
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 21 Dec 2021 22:57

Tot Ion	49	Resp	646084
Ion Ratio	Lower	Upper	
49	100		
128	49.1	26.9	80.6
130	62.9	32.3	96.9

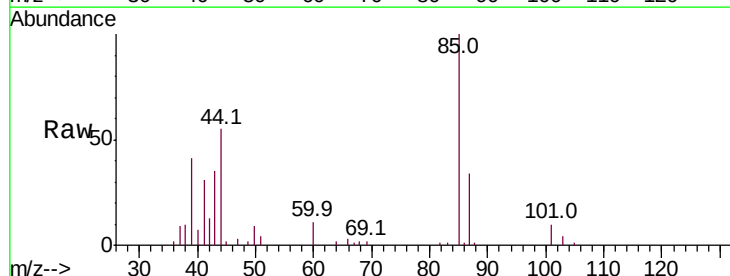


Abundance Ion 49.10 (48.80 to 49.80): VL0
 Ion 128.00 (127.70 to 128.70): V
 Ion 130.00 (129.70 to 130.70): V

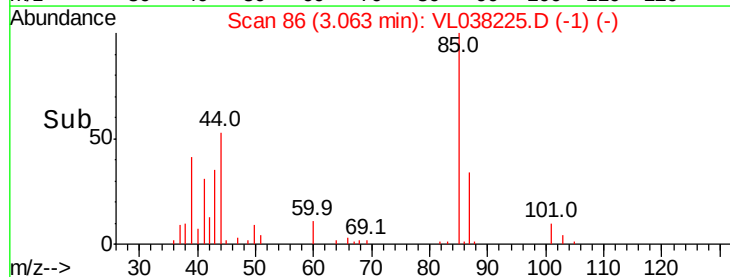
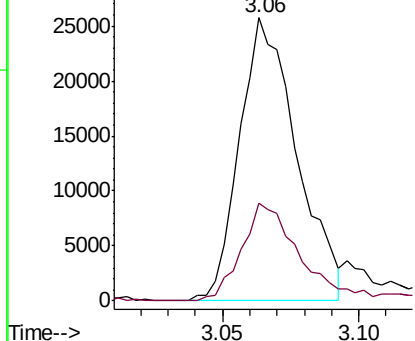


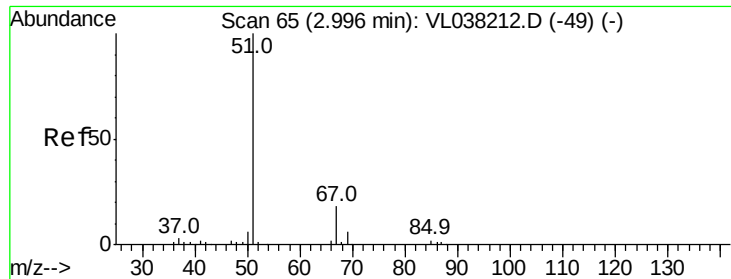
#2
 Dichlorodifluoromethane
 Concen: 0.308 ppbv
 RT: 3.06 min Scan# 86
 Delta R.T.: 0.01 min
 Lab File: VL038225.D
 Acq: 21 Dec 2021 22:57

Tgt Ion	85	Resp	37537
Ion Ratio	Lower	Upper	
85	100		
87	35.2	25.4	38.2



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





#3

Chlorodifluoromethane

Concen: 0.364 ppbv

RT: 3.01 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

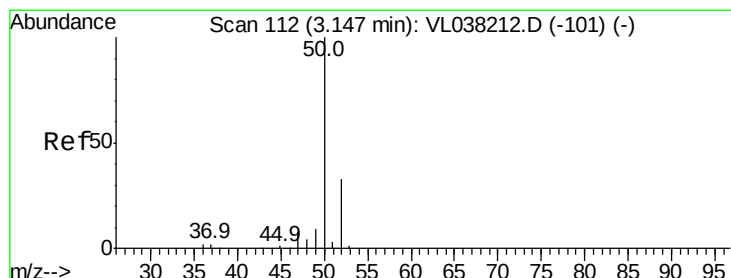
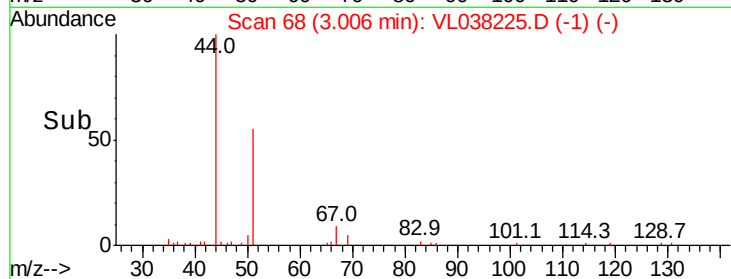
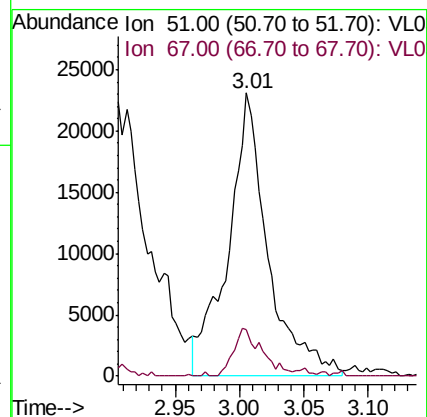
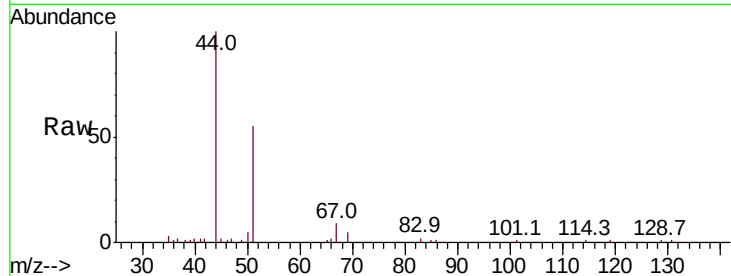
Acq: 21 Dec 2021 22:57

Tot Ion: 51 Resp: 49468

Ion Ratio Lower Upper

51 100

67 13.4 14.0 21.0#



#4

Chloromethane

Concen: 0.259 ppbv

RT: 3.15 min Scan# 114

Delta R.T. 0.01 min

Lab File: VL038225.D

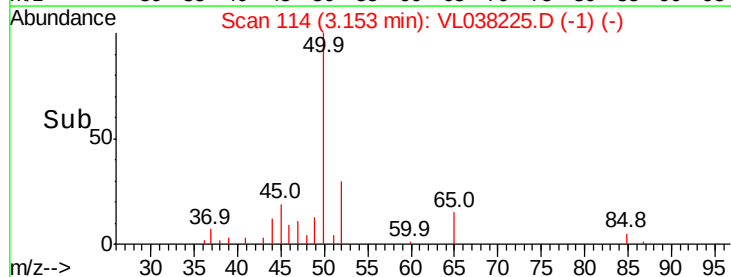
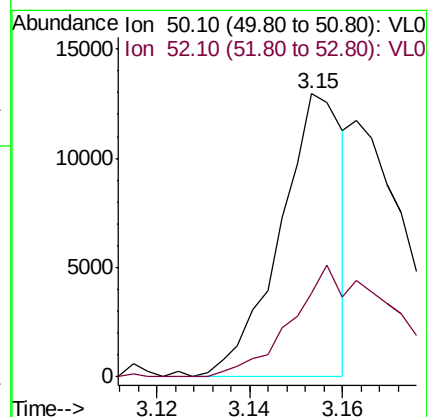
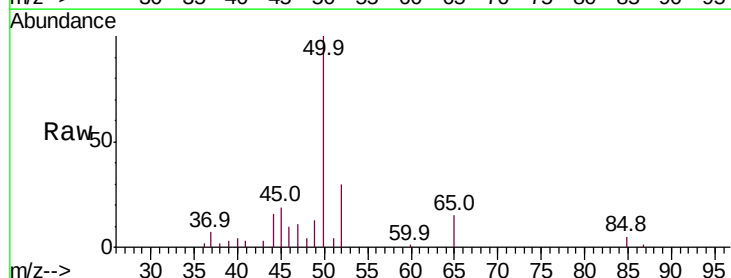
Acq: 21 Dec 2021 22:57

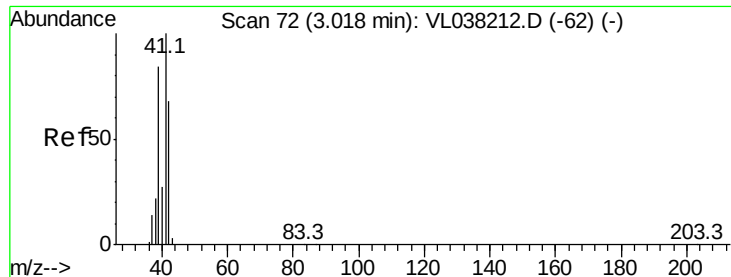
Tgt Ion: 50 Resp: 12197

Ion Ratio Lower Upper

50 100

52 29.6 26.2 39.2





#9

Propene

Concen: 0.708 ppbv

RT: 3.22 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

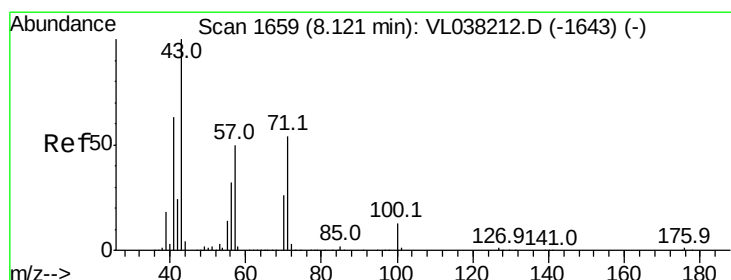
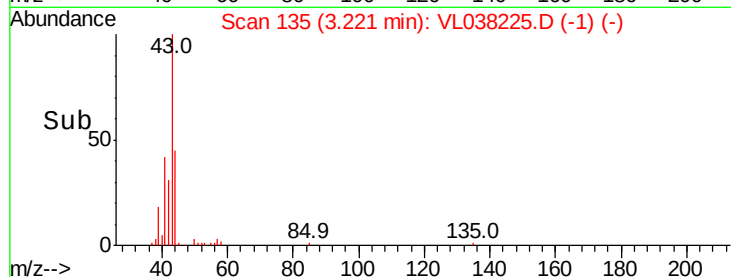
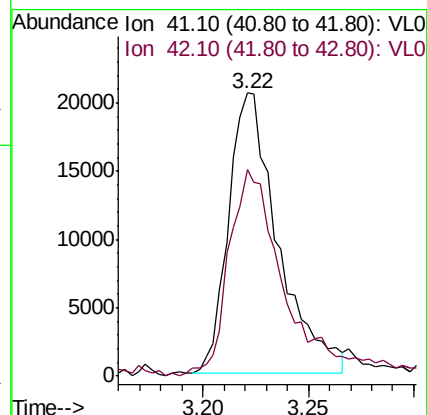
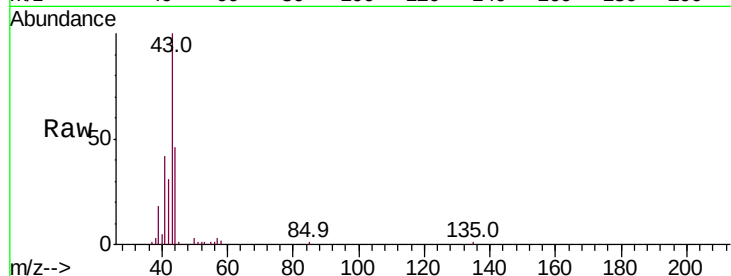
Acq: 21 Dec 2021 22:57

Tot Ion: 41 Resp: 33397

Ion Ratio Lower Upper

41 100

42 82.3 55.5 83.3



#10

Heptane

Concen: 0.074 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. 0.01 min

Lab File: VL038225.D

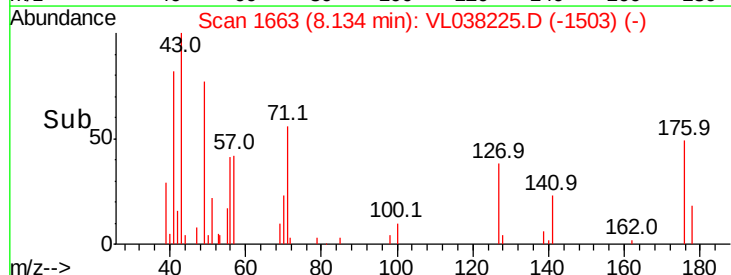
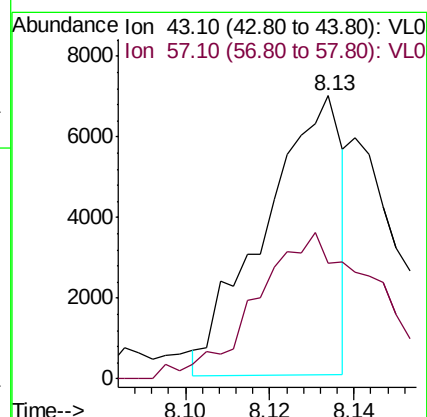
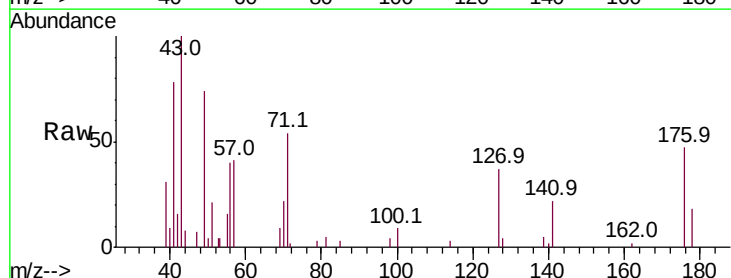
Acq: 21 Dec 2021 22:57

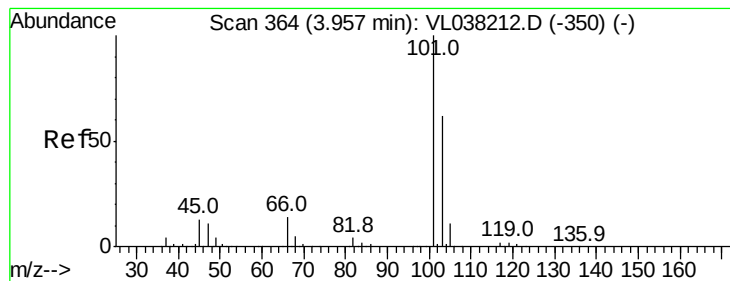
Tgt Ion: 43 Resp: 8835

Ion Ratio Lower Upper

43 100

57 92.8 40.3 60.5#





#11

Trichlorofluoromethane

Concen: 0.249 ppbv

RT: 3.97 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

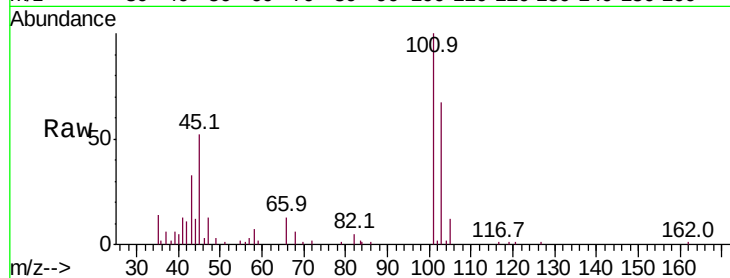
Acq: 21 Dec 2021 22:57

Tot Ion:101 Resp: 27872

Ion Ratio Lower Upper

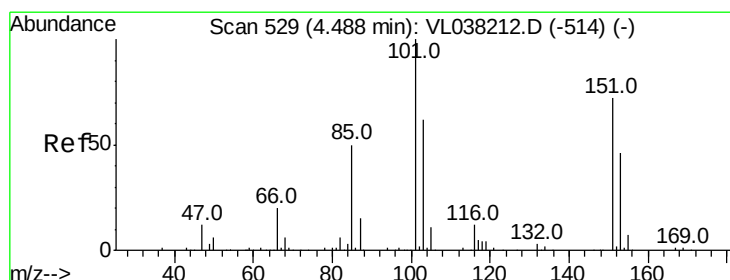
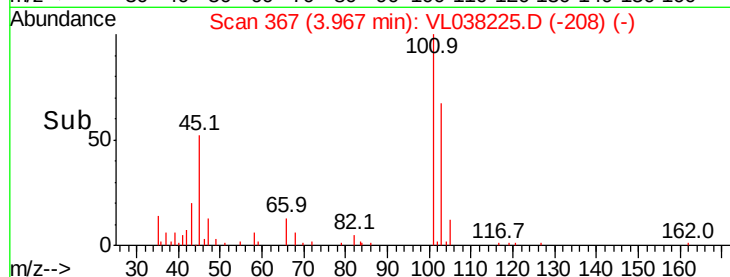
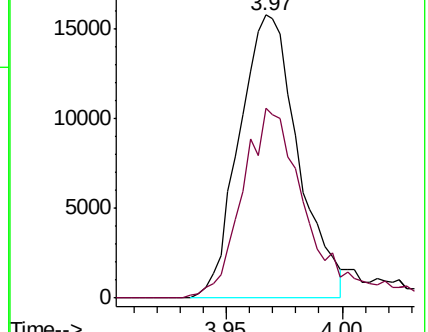
101 100

103 65.9 49.9 74.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.055 ppbv

RT: 4.51 min Scan# 535

Delta R.T. 0.02 min

Lab File: VL038225.D

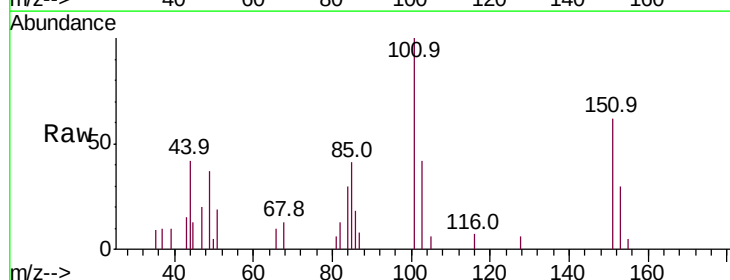
Acq: 21 Dec 2021 22:57

Tgt Ion:101 Resp: 4621

Ion Ratio Lower Upper

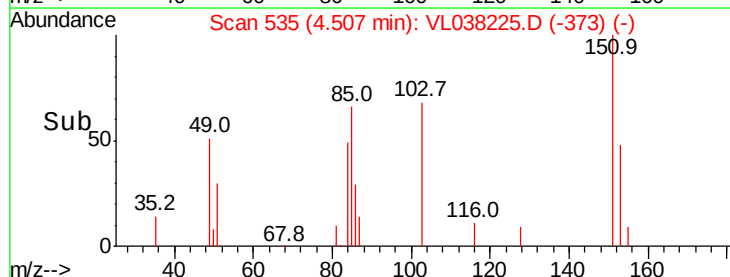
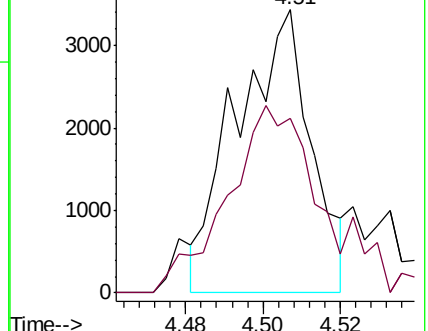
101 100

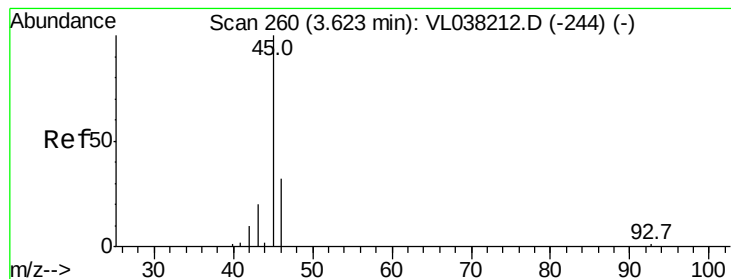
151 84.3 58.6 87.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 23.634 ppbv

RT: 3.62

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

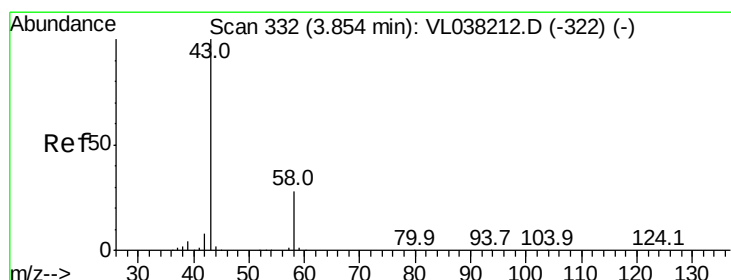
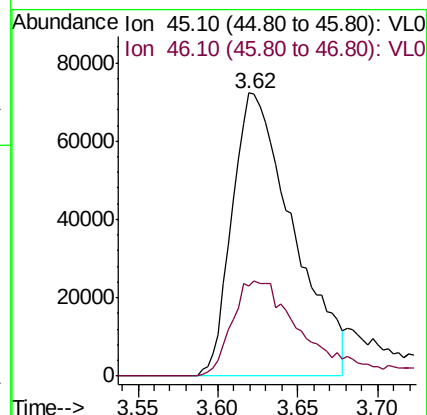
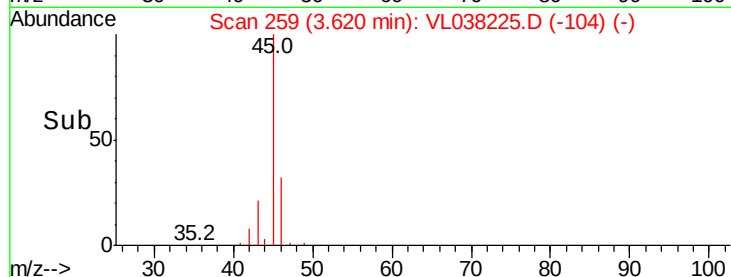
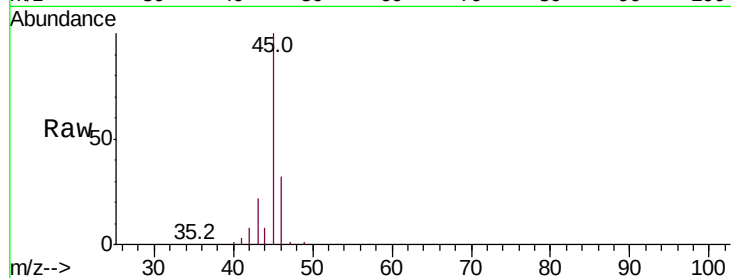
Acq: 21 Dec 2021 22:57

Tot Ion: 45 Resp: 188886

Ion Ratio Lower Upper

45 100

46 42.5 0.0 0.0#



#15

Acetone

Concen: 4.599 ppbv

RT: 3.87 min Scan# 337

Delta R.T. 0.02 min

Lab File: VL038225.D

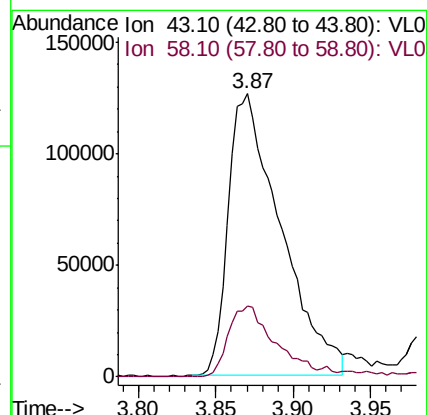
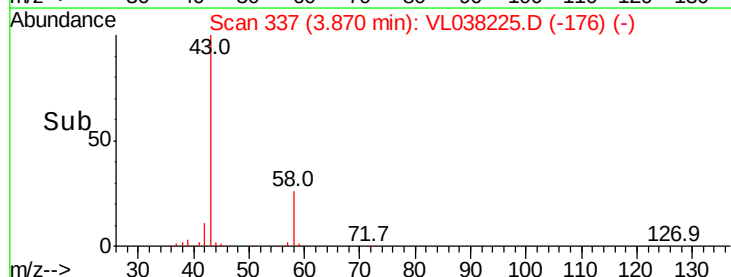
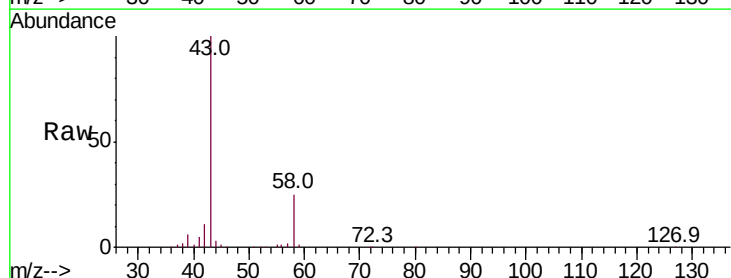
Acq: 21 Dec 2021 22:57

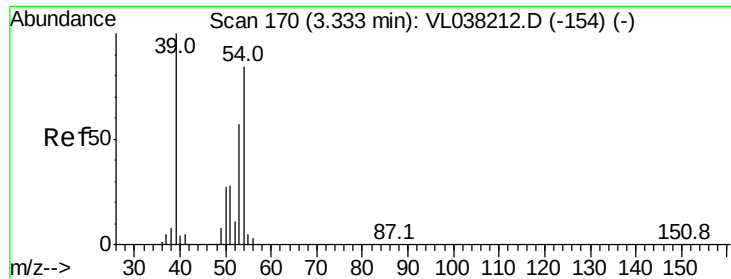
Tgt Ion: 43 Resp: 298201

Ion Ratio Lower Upper

43 100

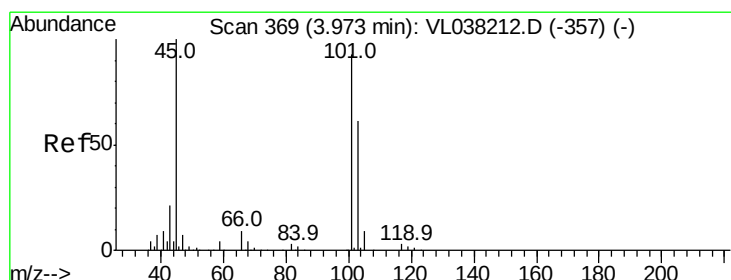
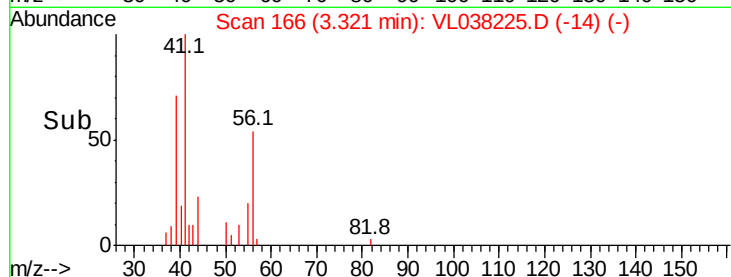
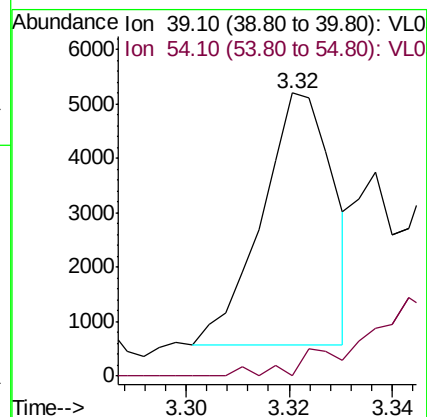
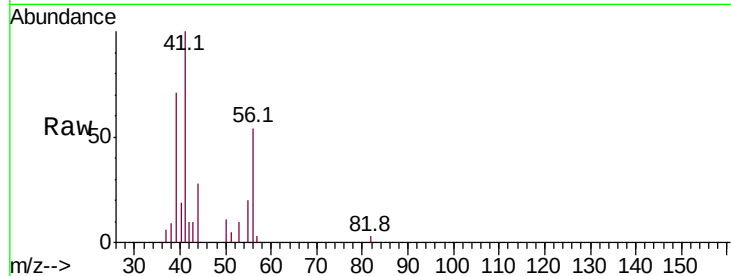
58 24.4 23.3 34.9





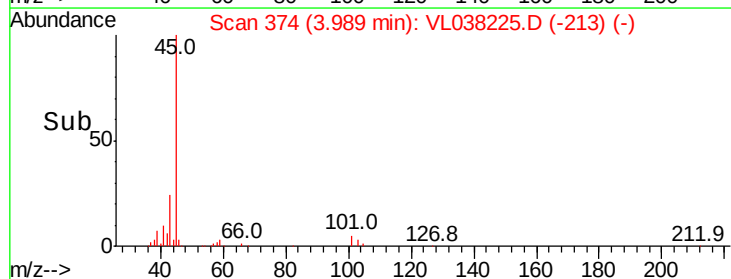
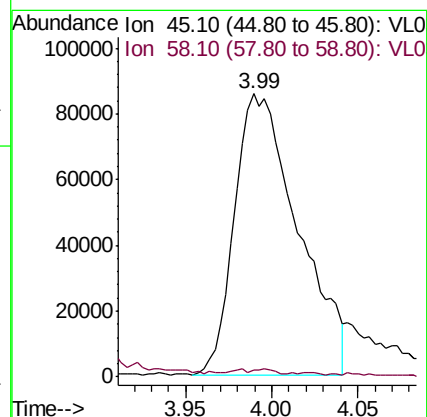
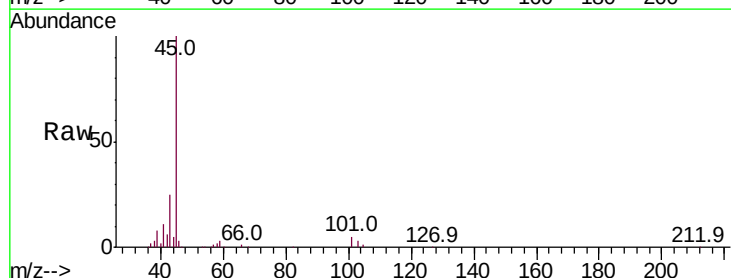
#16
 1,3-Butadiene
 Concen: 0.100 ppbv
 RT: 3.32
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 21 Dec 2021 22:57

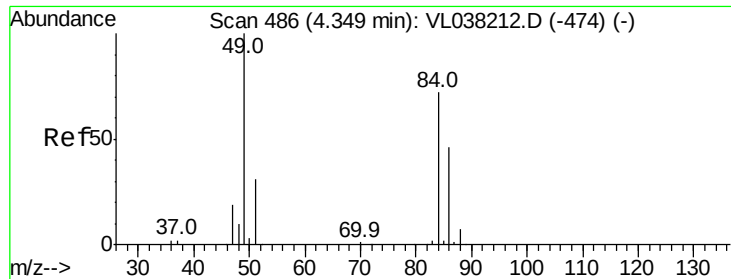
Tot Ion: 39 Resp: 4425
 Ion Ratio Lower Upper
 39 100
 54 71.4 62.9 94.3



#19
 Isopropyl Alcohol
 Concen: 5.419 ppbv
 RT: 3.99 min Scan# 374
 Delta R.T.: 0.02 min
 Lab File: VL038225.D
 Acq: 21 Dec 2021 22:57

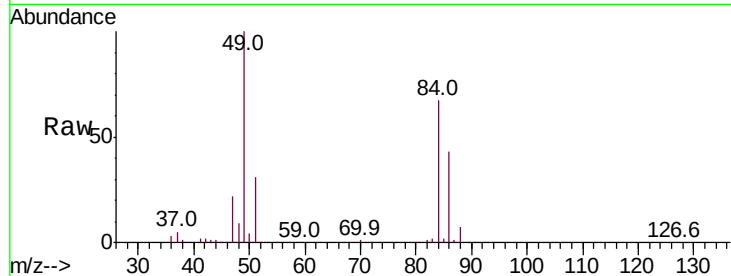
Tgt Ion: 45 Resp: 219153
 Ion Ratio Lower Upper
 45 100
 58 3.1 32.4 48.6#



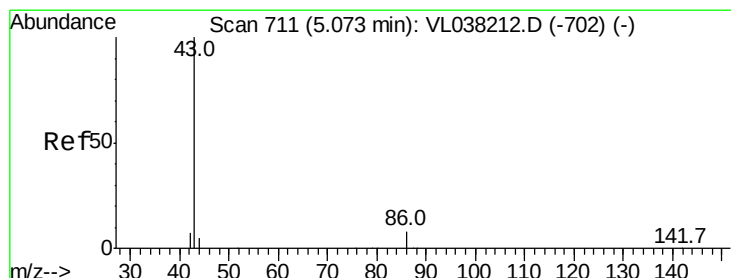
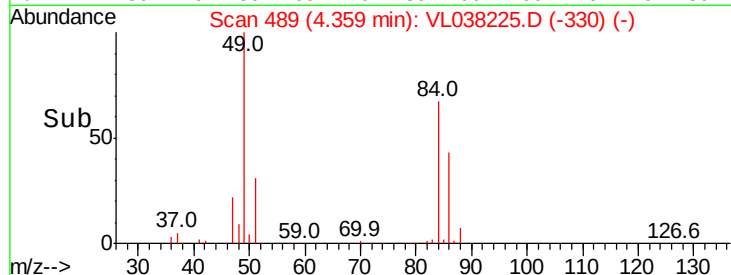
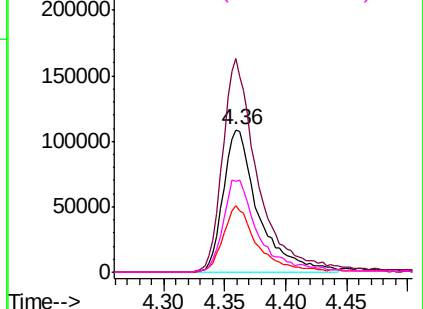


#20
Methvlene Chloride
Concen: 6.012 ppbv
RT: 4.36
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 21 Dec 2021 22:57

Tot Ion:	84	Resp:	220101
Ion	Ratio	Lower	Upper
84	100		
49	150.3	110.6	166.0
51	46.5	34.2	51.2
86	64.4	50.5	75.7

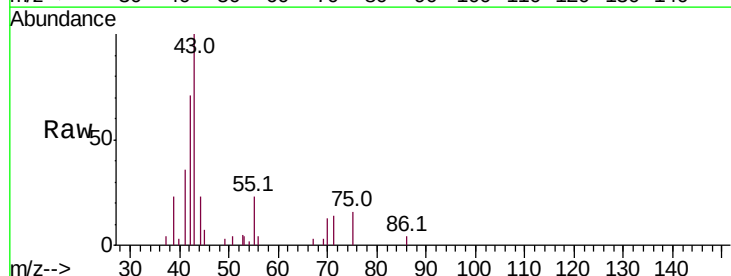


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

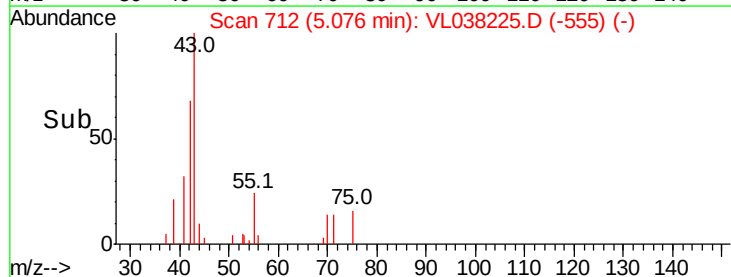
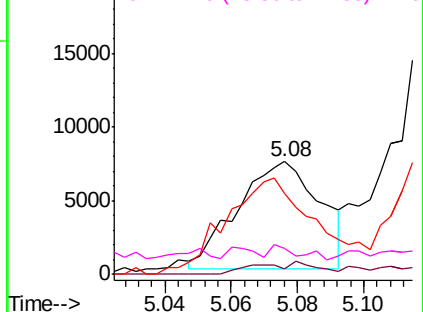


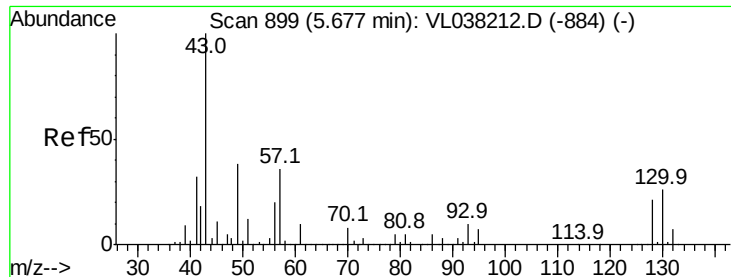
#23
Vinyl Acetate
Concen: 0.145 ppbv
RT: 5.08 min Scan# 712
Delta R.T. 0.00 min
Lab File: VL038225.D
Acq: 21 Dec 2021 22:57

Tgt Ion:	43	Resp:	12707
Ion	Ratio	Lower	Upper
43	100		
86	4.9	5.6	8.4#
42	69.3	7.0	10.4#
44	5.1	3.9	5.9



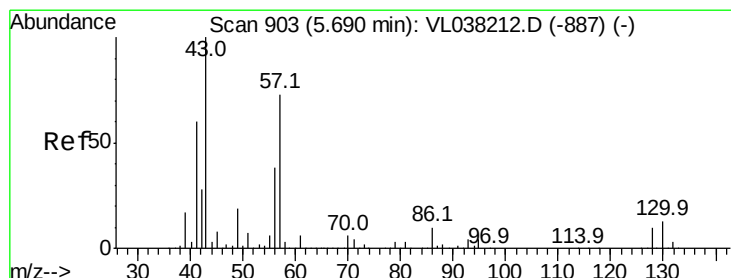
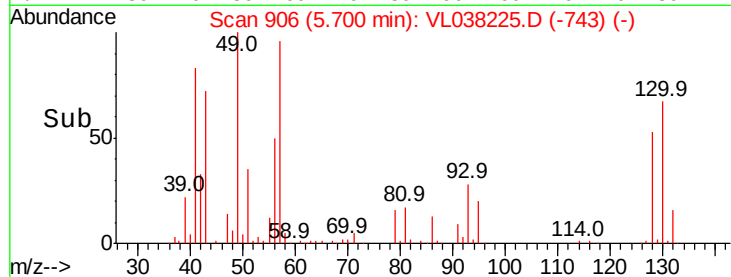
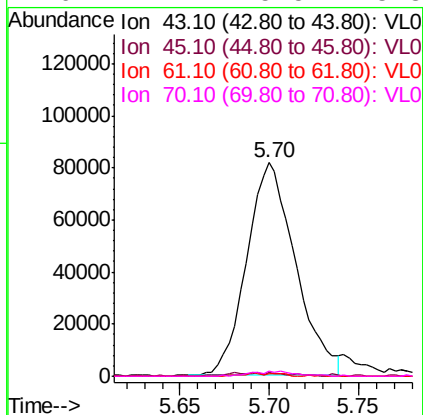
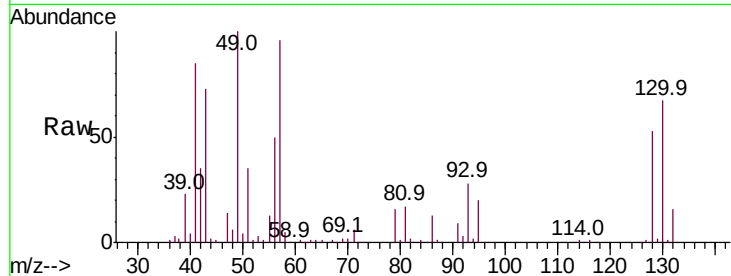
Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 86.10 (85.80 to 86.80): VL0
Ion 42.10 (41.80 to 42.80): VL0
Ion 44.10 (43.80 to 44.80): VL0





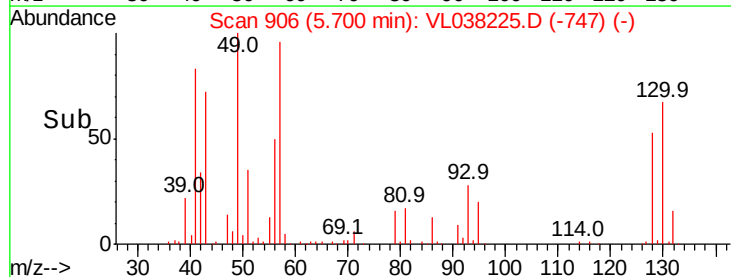
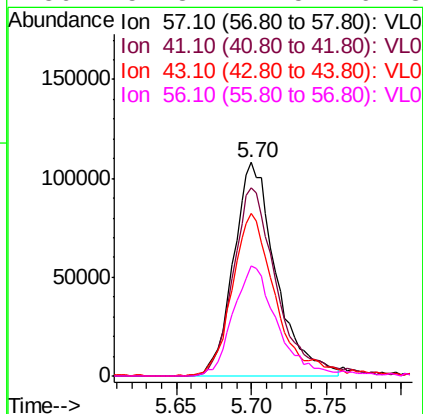
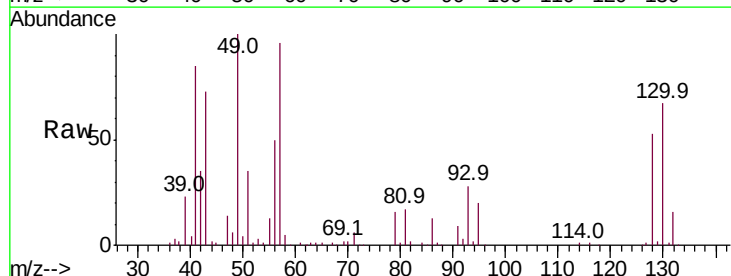
#25
Ethyl Acetate
Concen: 0.892 ppbv
RT: 5.70 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 21 Dec 2021 22:57

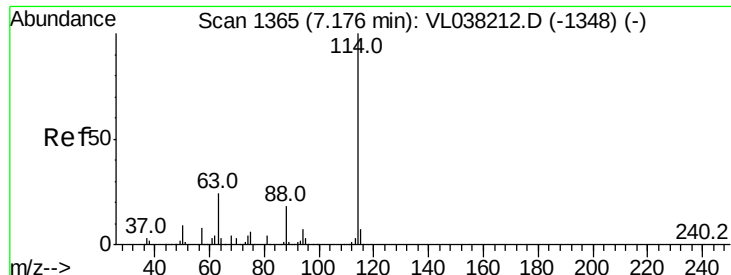
Tot Ion:	43	Resp:	156730
Ion	Ratio	Lower	Upper
43	100		
45	1.2	7.9	11.9#
61	0.0	8.1	12.1#
70	2.2	5.5	8.3#



#26
Hexane
Concen: 2.415 ppbv
RT: 5.70 min Scan# 906
Delta R.T.: 0.01 min
Lab File: VL038225.D
Acq: 21 Dec 2021 22:57

Tgt Ion:	57	Resp:	212831
Ion	Ratio	Lower	Upper
57	100		
41	91.7	69.0	103.6
43	79.3	171.2	256.8#
56	54.8	41.5	62.3





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19

Instrument: MSVOA_L

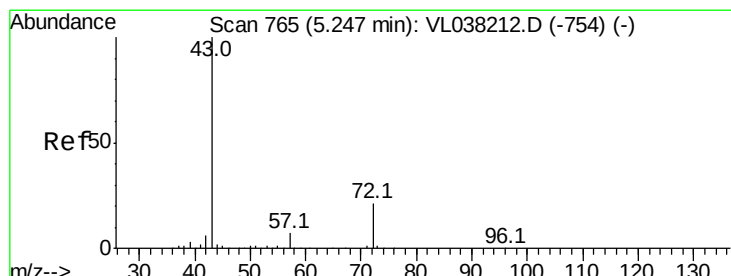
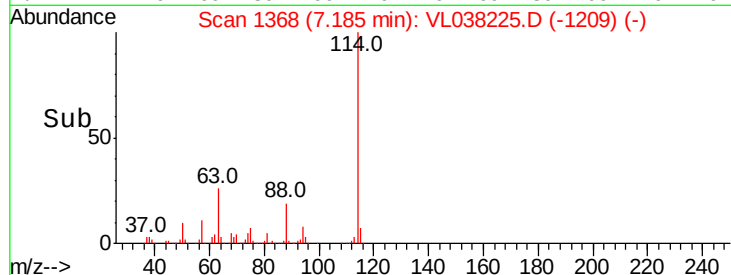
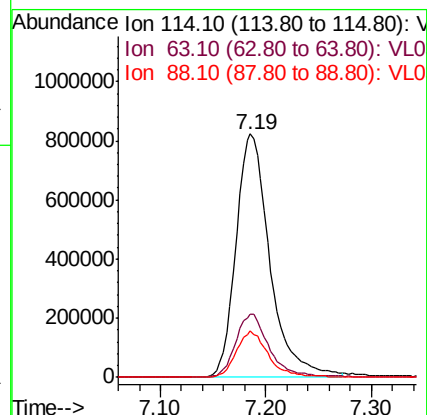
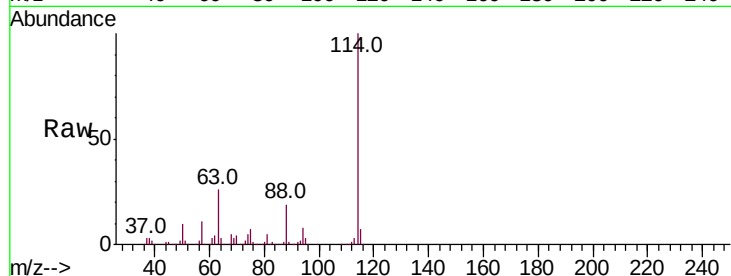
Delta R.T.

Lab File: ClientSampleId:

Acq: 21 Dec 2021 22:57

Tot Ion:114 Resp: 1833318

Ion	Ratio	Lower	Upper
114	100		
63	26.0	19.7	29.5
88	18.5	14.3	21.5



#34

2-Butanone

Concen: 0.543 ppbv

RT: 5.26 min Scan# 770

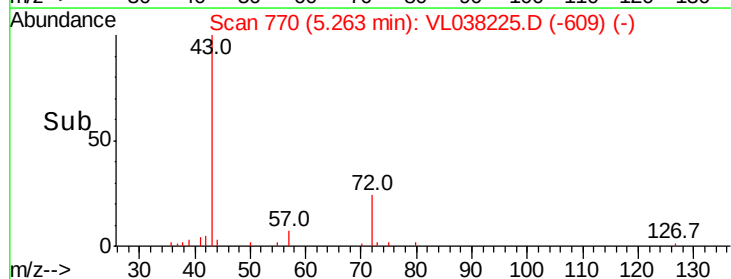
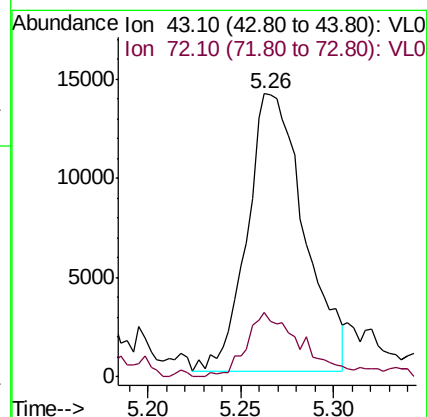
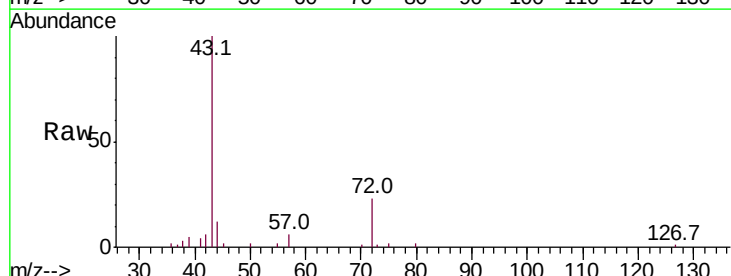
Delta R.T. 0.02 min

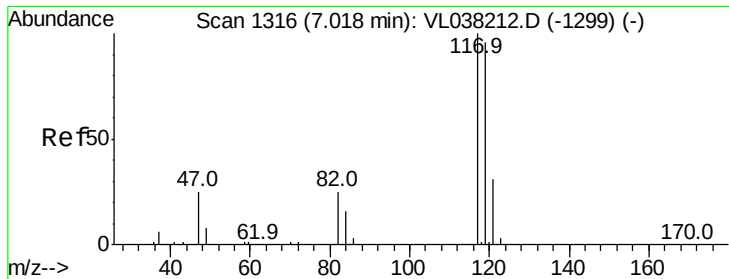
Lab File: VL038225.D

Acq: 21 Dec 2021 22:57

Tgt Ion: 43 Resp: 29944

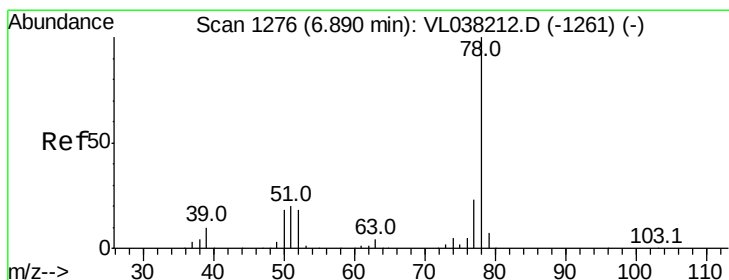
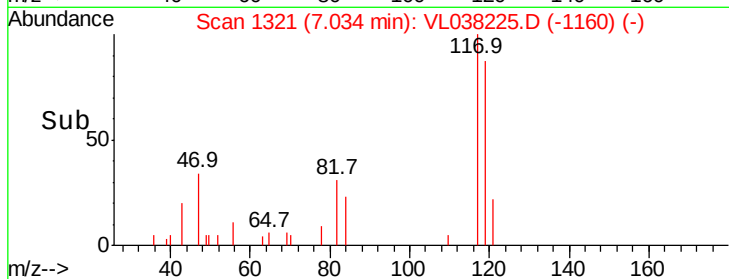
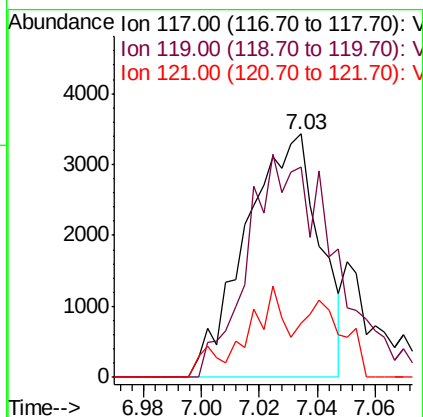
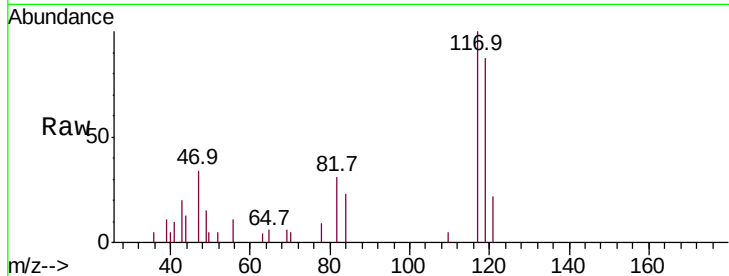
Ion	Ratio	Lower	Upper
43	100		
72	24.8	18.3	27.5





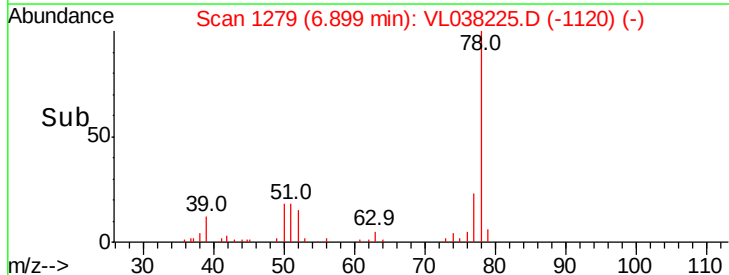
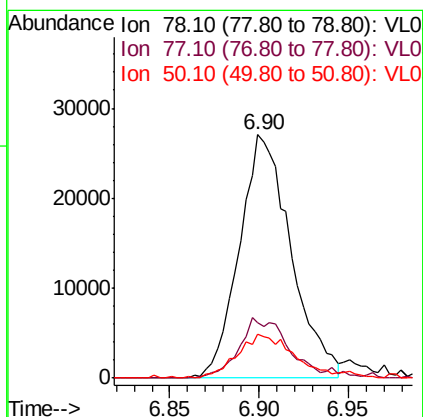
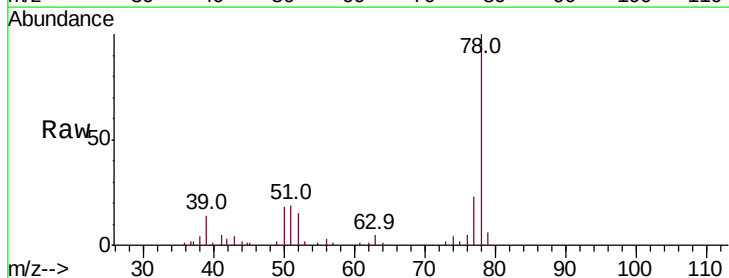
#35
Carbon Tetrachloride
Concen: 0.054 ppbv
RT: 7.03
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 21 Dec 2021 22:57

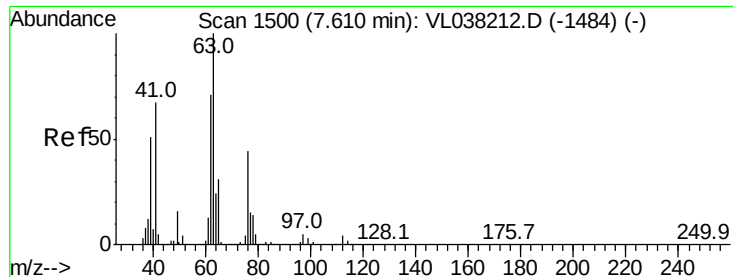
Tot Ion: 117 Resp: 6055
Ion Ratio Lower Upper
117 100
119 86.5 76.7 115.1
121 22.5 25.0 37.4#



#36
Benzene
Concen: 0.319 ppbv
RT: 6.90 min Scan# 1279
Delta R.T. 0.01 min
Lab File: VL038225.D
Acq: 21 Dec 2021 22:57

Tgt Ion: 78 Resp: 54594
Ion Ratio Lower Upper
78 100
77 22.6 18.2 27.4
50 17.2 14.3 21.5





#39

1,2-Dichloropropane

Concen: 7.127 ppbv

RT: 7.19 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 21 Dec 2021 22:57

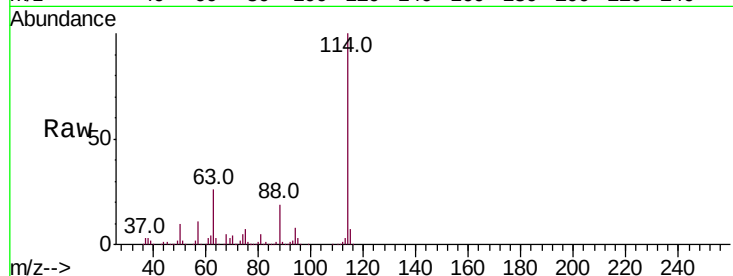
Tot Ion: 63 Resp: 469040

Ion Ratio Lower Upper

63 100

41 0.0 53.4 80.2#

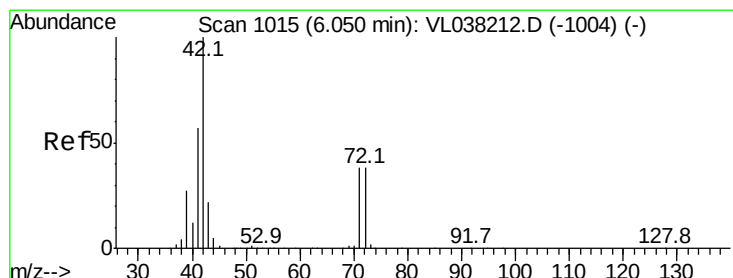
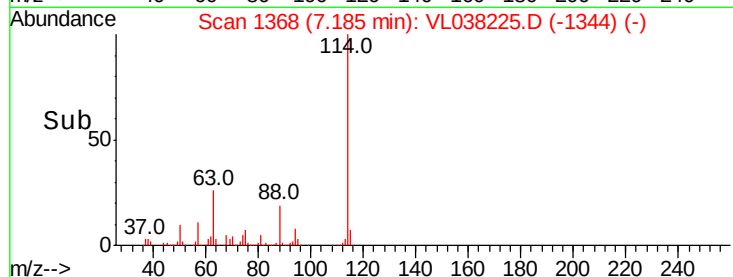
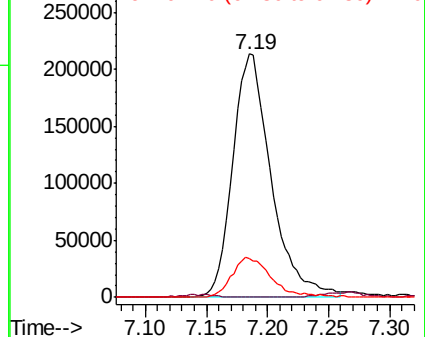
62 15.9 56.5 84.7#



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



#41

Tetrahydrofuran

Concen: 0.046 ppbv

RT: 6.07 min Scan# 1022

Delta R.T. 0.02 min

Lab File: VL038225.D

Acq: 21 Dec 2021 22:57

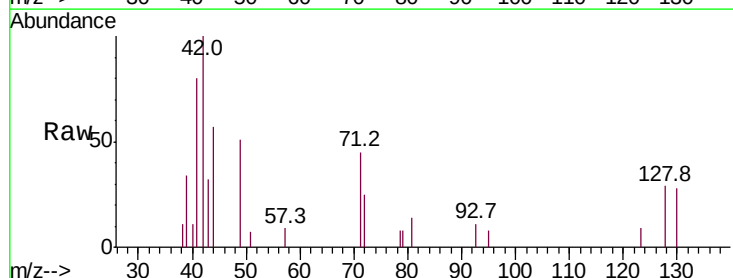
Tgt Ion: 42 Resp: 1843

Ion Ratio Lower Upper

42 100

72 0.0 31.4 47.0#

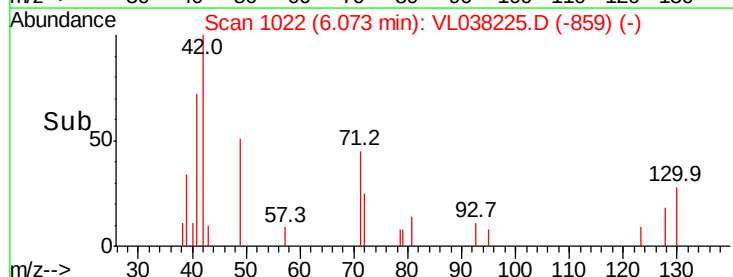
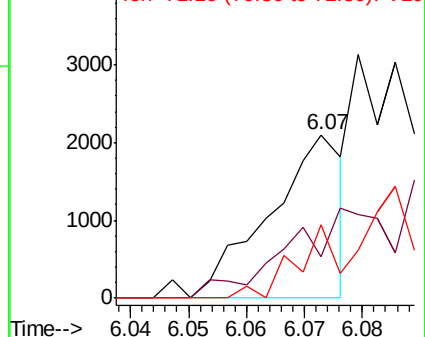
71 0.0 30.0 45.0#

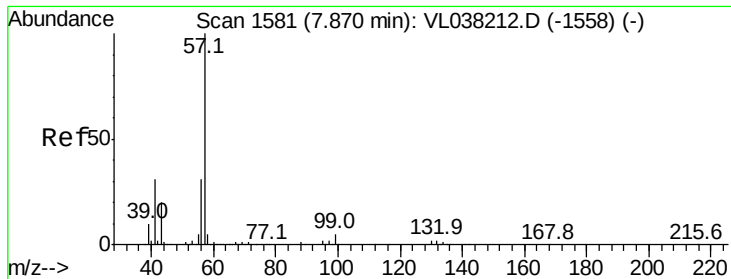


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.209 ppbv

RT: 7.88 Instrument:

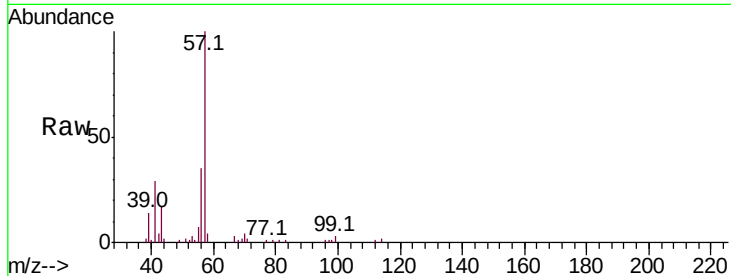
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

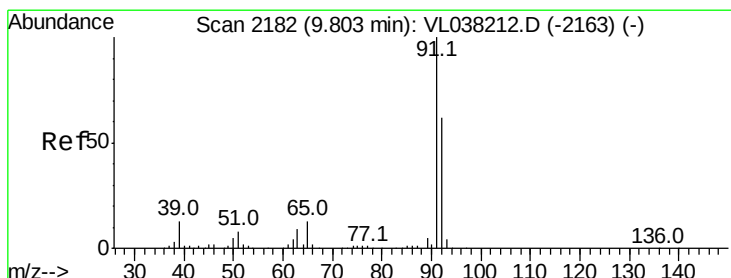
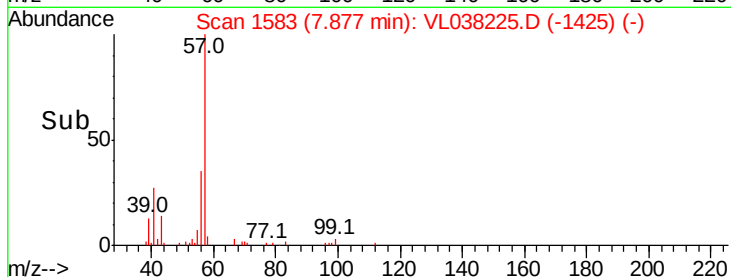
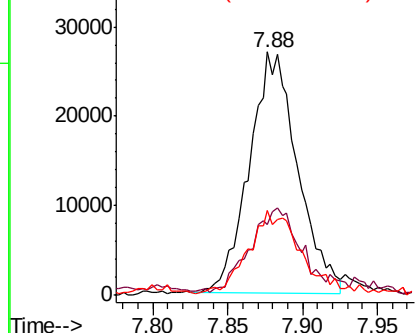
Acq: 21 Dec 2021 22:57

Tot Ion: 57 Resp: 60751

Ion	Ratio	Lower	Upper
57	100		
41	45.3	24.9	37.3#
56	41.0	24.8	37.2#



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#53

Toluene

Concen: 0.690 ppbv

RT: 9.81 min Scan# 2185

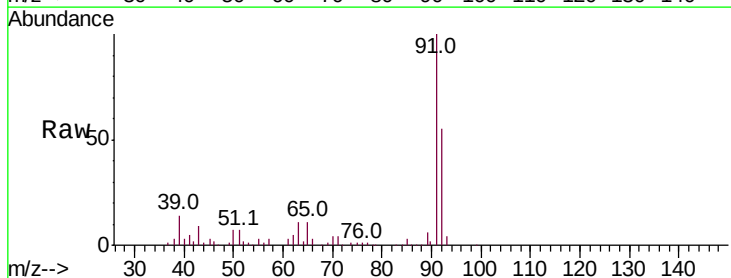
Delta R.T. 0.01 min

Lab File: VL038225.D

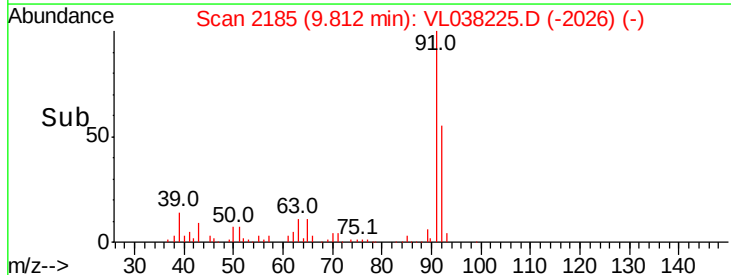
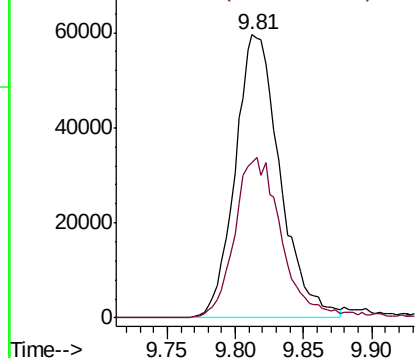
Acq: 21 Dec 2021 22:57

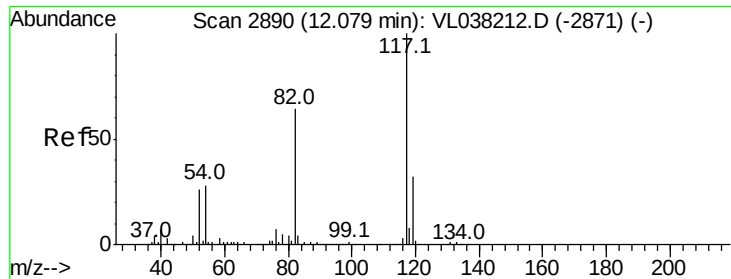
Tgt Ion: 91 Resp: 136110

Ion	Ratio	Lower	Upper
91	100		
92	60.4	48.9	73.3



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 21 Dec 2021 22:57

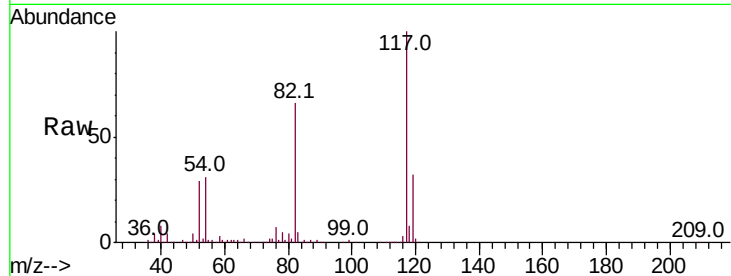
Tot Ion:117 Resp: 1555688

Ion Ratio Lower Upper

117 100

82 73.7 53.3 79.9

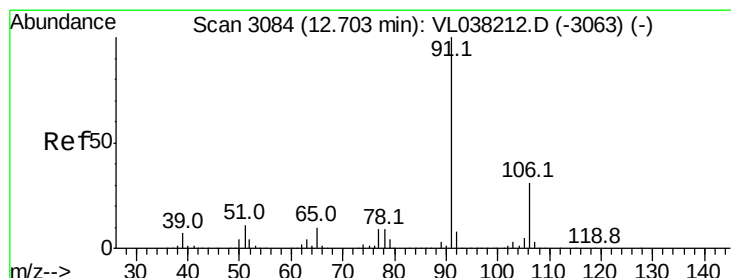
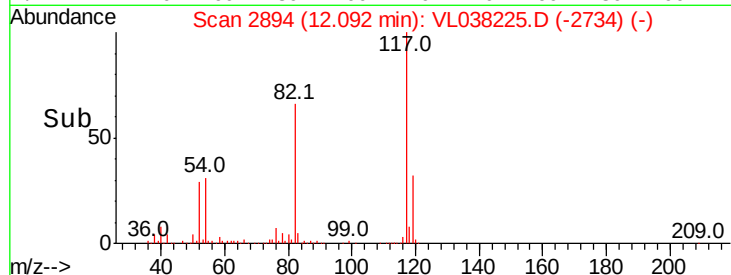
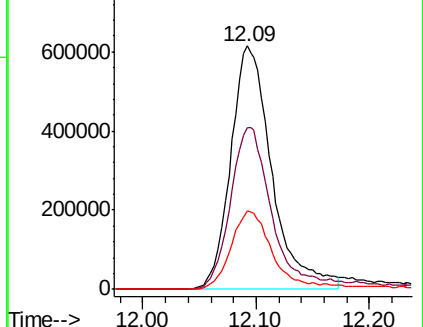
119 35.1 25.5 38.3



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.046 ppbv

RT: 12.71 min Scan# 3087

Delta R.T. 0.01 min

Lab File: VL038225.D

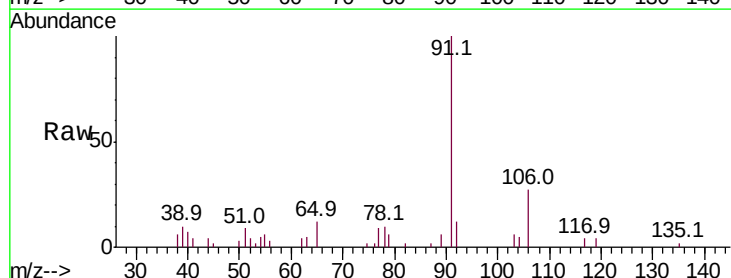
Acq: 21 Dec 2021 22:57

Tgt Ion: 91 Resp: 11056

Ion Ratio Lower Upper

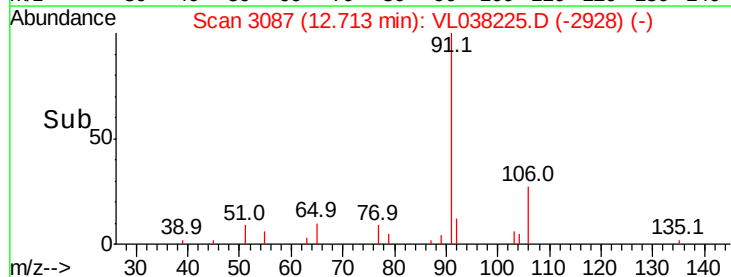
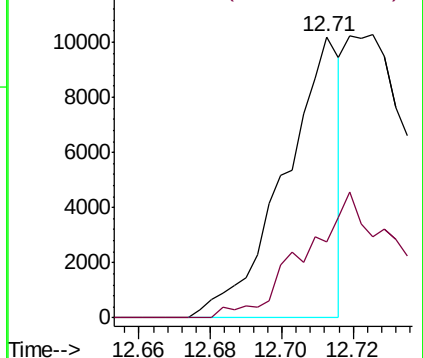
91 100

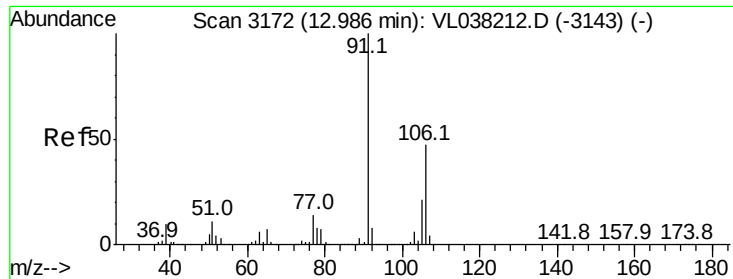
106 26.8 25.0 37.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

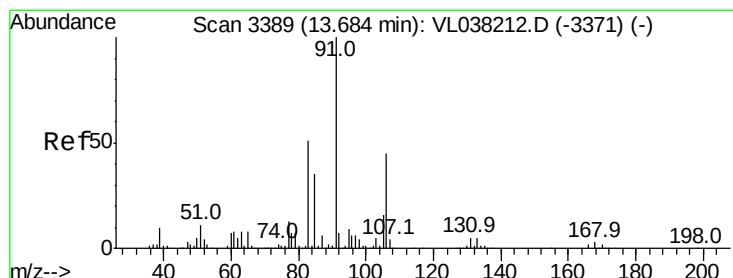
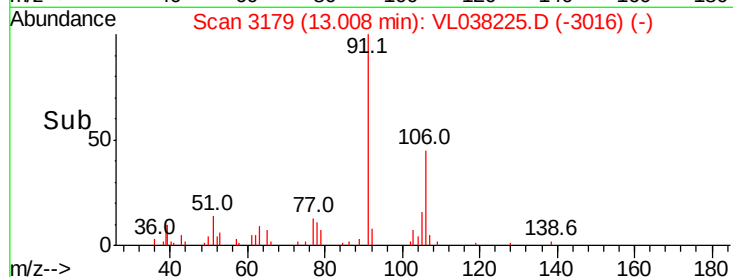
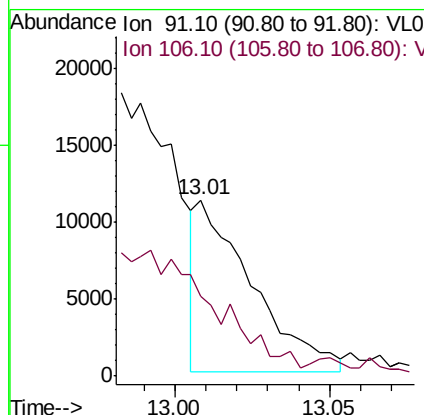
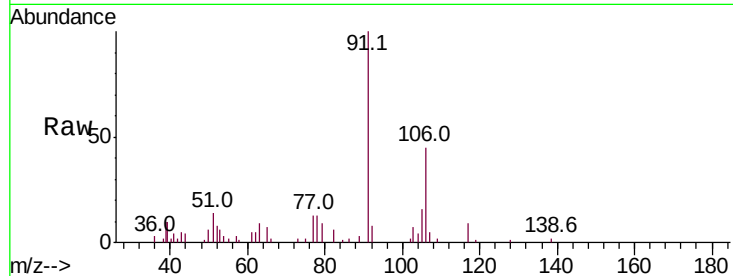
Ion 106.10 (105.80 to 106.80): V





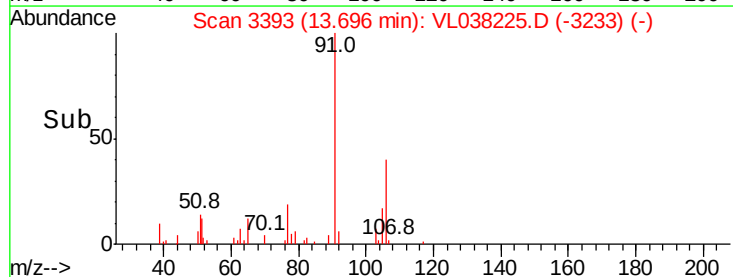
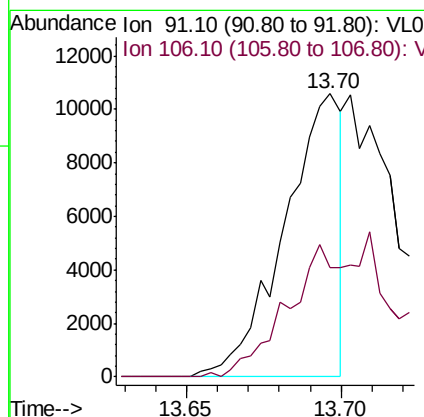
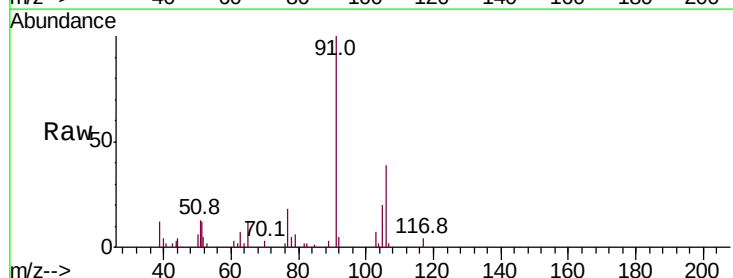
#59
m/p-Xylene
Concen: 0.068 ppbv
RT: 13.01 min
Delta R.T. MSVOA_L
Lab File: ClientSampled :
Acq: 21 Dec 2021 22:57

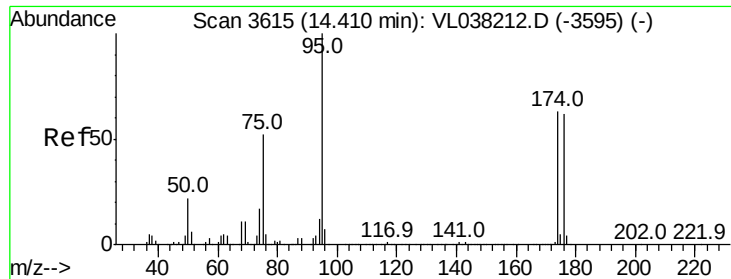
Tot Ion: 91 Resp: 13959
Ion Ratio Lower Upper
91 100
106 0.0 36.9 55.3#



#60
o-Xylene
Concen: 0.071 ppbv
RT: 13.70 min Scan# 3393
Delta R.T. 0.01 min
Lab File: VL038225.D
Acq: 21 Dec 2021 22:57

Tgt Ion: 91 Resp: 13499
Ion Ratio Lower Upper
91 100
106 0.0 23.5 70.5#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.324 ppbv

RT: 14.42

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 21 Dec 2021 22:57

Tot Ion: 95 Resp: 1237653

Ion Ratio Lower Upper

95 100

174 64.8 54.6 81.8

175 4.7 4.1 6.1

