

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032822\
 Data File : VL038786.D
 Acq On : 29 Mar 2022 00:59
 Operator : SY/AP
 Sample : N2136-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Quant Time: Mar 29 06:13:15 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	5.66	49	756858	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	1938033	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	1679605	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	1303958	10.13	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.30%

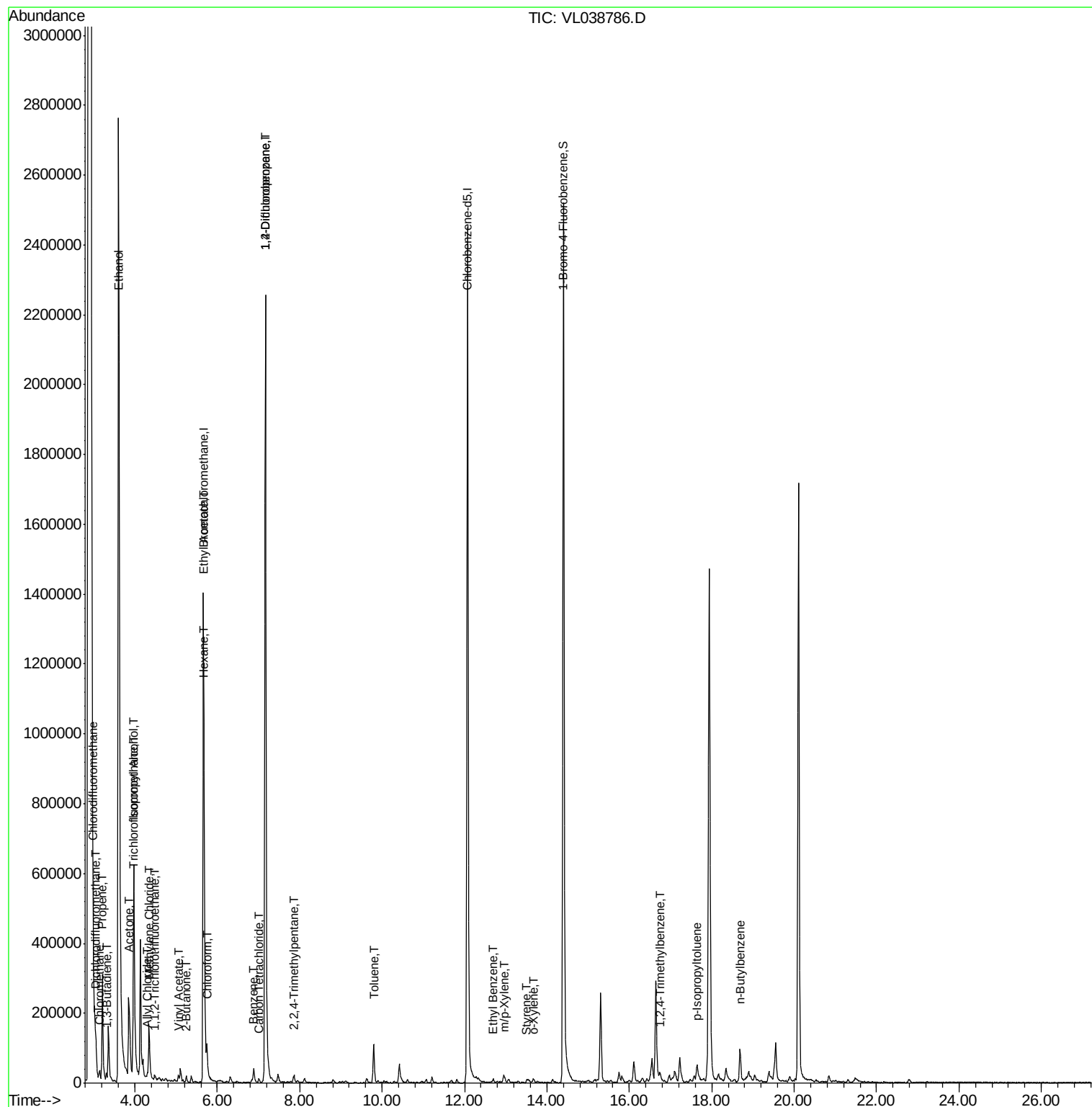
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	71773	0.705	ppbv	93
3) Chlorodifluoromethane	2.99	51	64474	0.807	ppbv #	84
4) Chloromethane	3.14	50	19218	0.438	ppbv	95
9) Propene	3.21	41	89967	2.331	ppbv	94
11) Trichlorofluoromethane	3.95	101	27298	0.304	ppbv	93
12) 1,1,2-Trichlorotrifluoroet	4.49	101	2966	0.043	ppbv #	10
13) Ethanol	3.60	45	4028954	946.411	ppbv	98
15) Acetone	3.85	43	300103	4.595	ppbv	96
16) 1,3-Butadiene	3.32	39	2308	0.062	ppbv #	44
19) Isopropyl Alcohol	3.97	45	813207	22.459	ppbv	98
20) Methylene Chloride	4.35	84	66846	2.430	ppbv	98
21) Allyl Chloride	4.29	41	2062	0.044	ppbv #	28
23) Vinyl Acetate	5.06	43	11125	0.176	ppbv #	47
25) Ethyl Acetate	5.68	43	28212	0.172	ppbv #	91
26) Hexane	5.68	57	45541	0.619	ppbv #	55
29) Chloroform	5.74	83	54704	0.464	ppbv	96
34) 2-Butanone	5.25	43	19070	0.249	ppbv #	86
35) Carbon Tetrachloride	7.01	117	4412	0.039	ppbv	90
36) Benzene	6.89	78	36253	0.242	ppbv #	90
39) 1,2-Dichloropropane	7.17	63	448739	7.674	ppbv #	28
44) 2,2,4-Trimethylpentane	7.86	57	7869	0.031	ppbv #	1
53) Toluene	9.80	91	83369	0.519	ppbv	100
58) Ethyl Benzene	12.70	91	8347	0.043	ppbv	99
59) m/p-Xylene	12.98	91	6368	0.037	ppbv #	30
60) o-Xylene	13.68	91	5077	0.031	ppbv #	58
61) Styrene	13.51	104	3788	0.043	ppbv #	76
69) p-Isopropyltoluene	17.64	119	34305	0.133	ppbv #	82
70) n-Butylbenzene	18.69	91	20716	0.078	ppbv	90
74) 1,2,4-Trimethylbenzene	16.75	105	6867	0.036	ppbv #	74

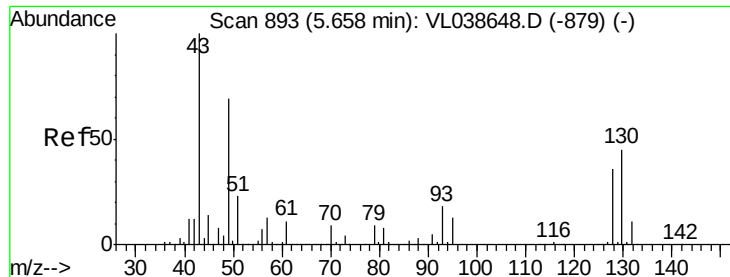
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 29 Mar 2022 00:59

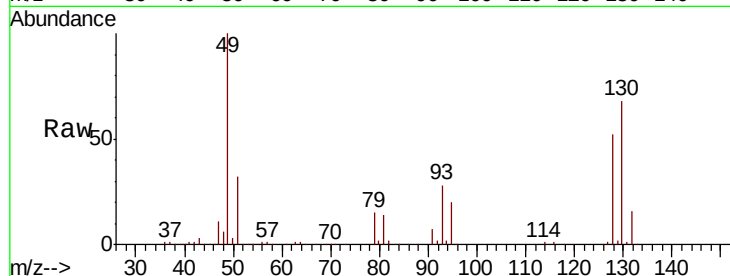
Tot Ion: 49 Resp: 756858

Ion Ratio Lower Upper

49 100

128 53.7 26.2 78.6

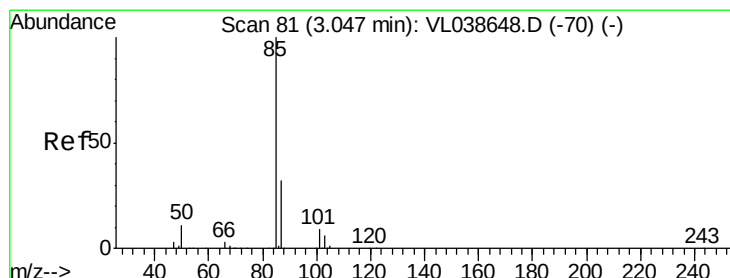
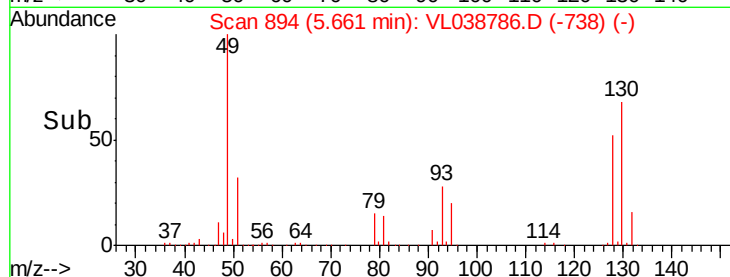
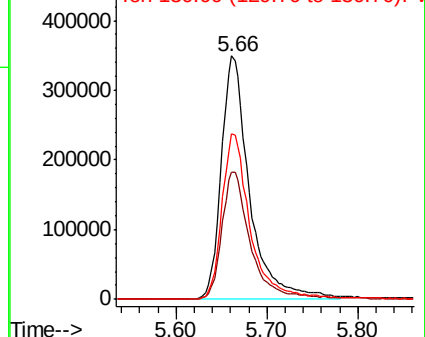
130 69.1 33.7 101.1



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.705 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.01 min

Lab File: VL038786.D

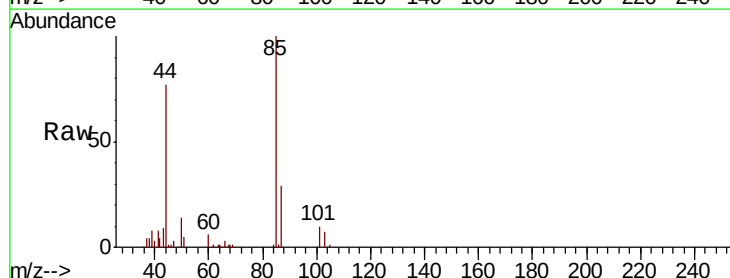
Acq: 29 Mar 2022 00:59

Tgt Ion: 85 Resp: 71773

Ion Ratio Lower Upper

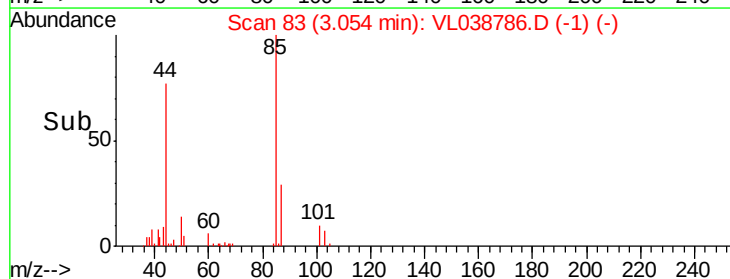
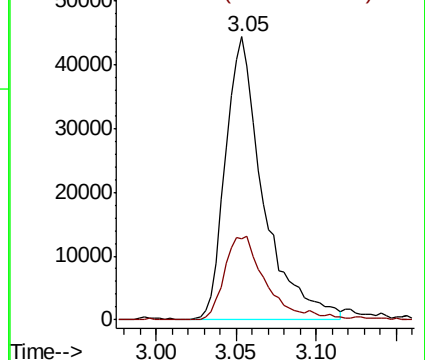
85 100

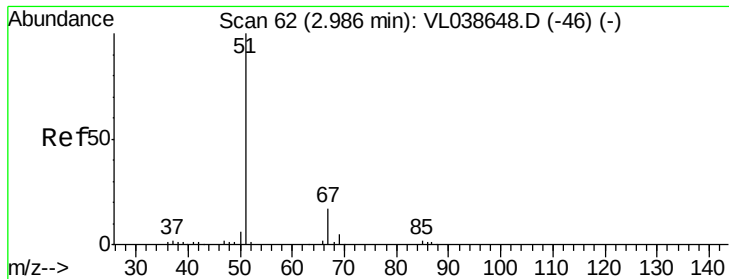
87 28.7 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.807 ppbv

RT: 2.99 Instrument: MSVOA_1

Delta R.T. ClientSampleId: A1

Lab File: VL038786.D

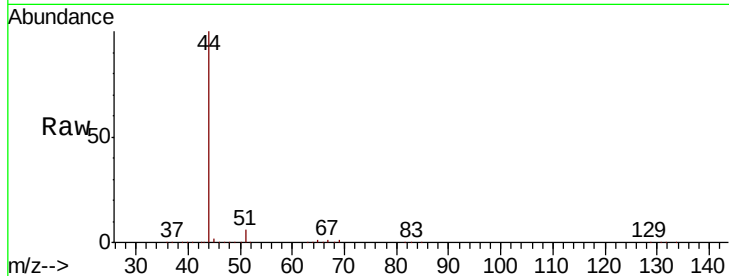
Acq: 29 Mar 2022 00:59

Tot Ion: 51 Resp: 64474

Ion Ratio Lower Upper

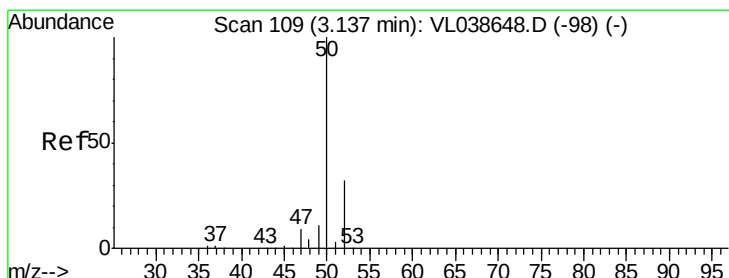
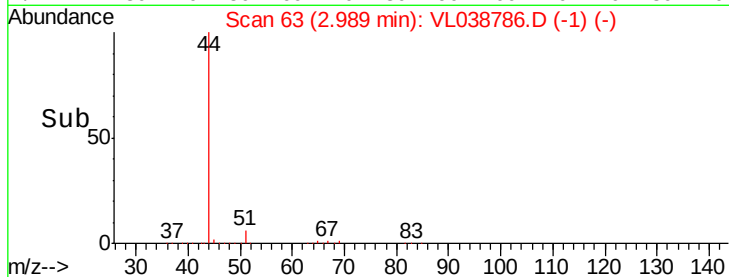
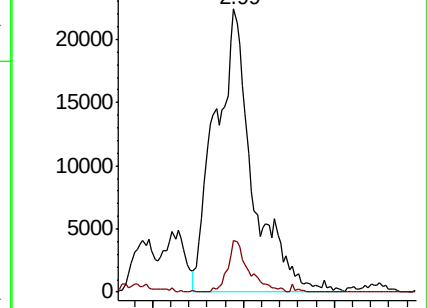
51 100

67 10.6 14.1 21.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.438 ppbv

RT: 3.14 min Scan# 111

Delta R.T. 0.01 min

Lab File: VL038786.D

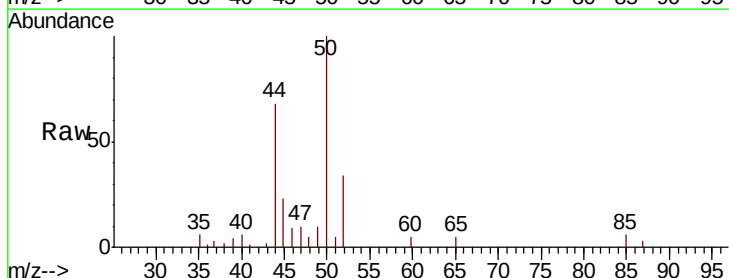
Acq: 29 Mar 2022 00:59

Tgt Ion: 50 Resp: 19218

Ion Ratio Lower Upper

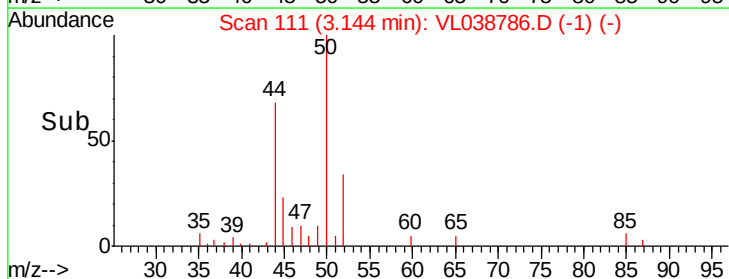
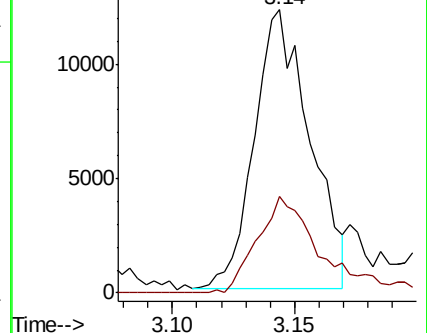
50 100

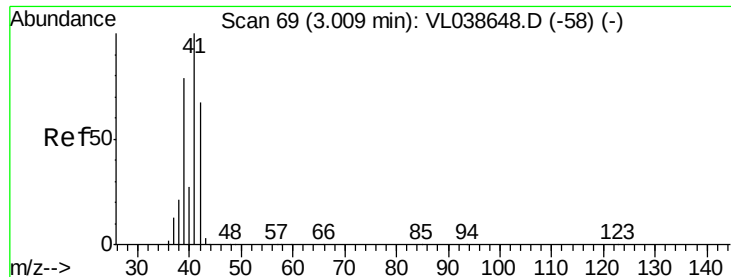
52 34.6 25.5 38.3



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 2.331 ppbv

RT: 3.21 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

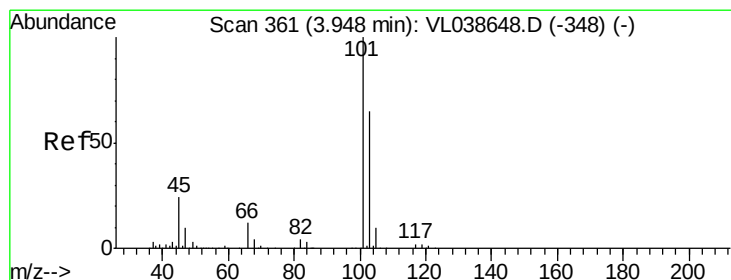
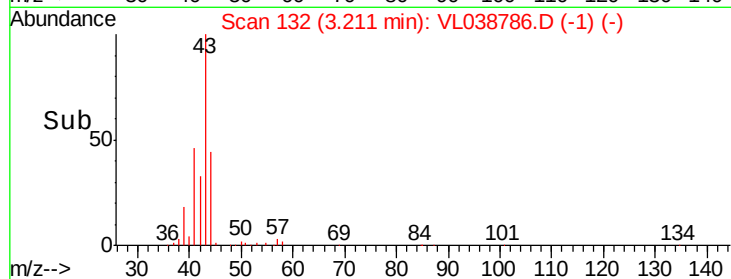
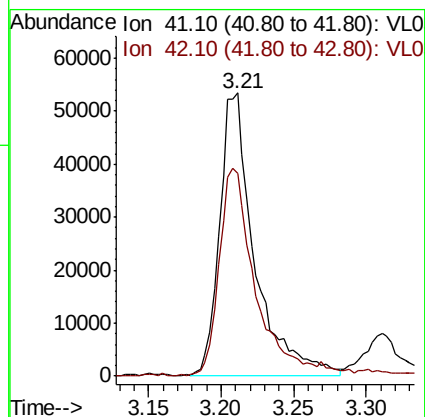
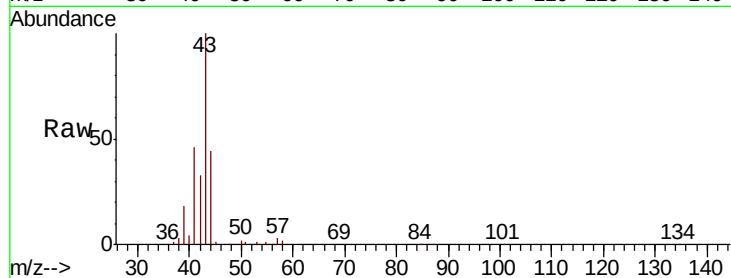
Acq: 29 Mar 2022 00:59

Tot Ion: 41 Resp: 89967

Ion Ratio Lower Upper

41 100

42 75.5 56.2 84.4



#11

Trichlorofluoromethane

Concen: 0.304 ppbv

RT: 3.95 min Scan# 362

Delta R.T. 0.00 min

Lab File: VL038786.D

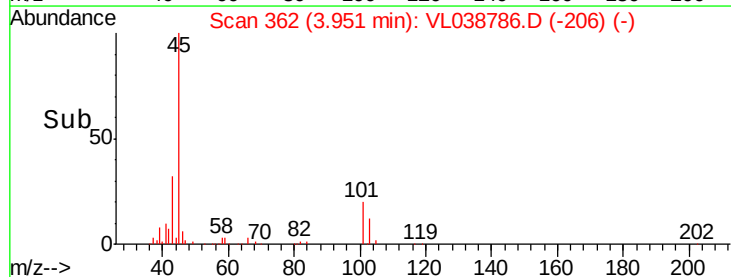
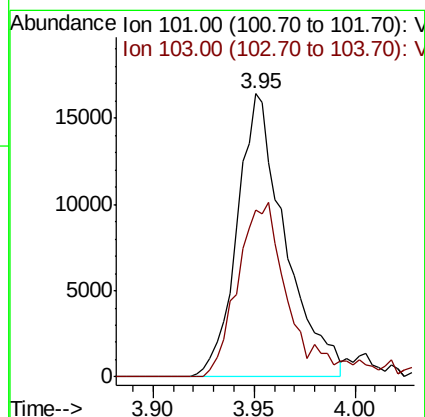
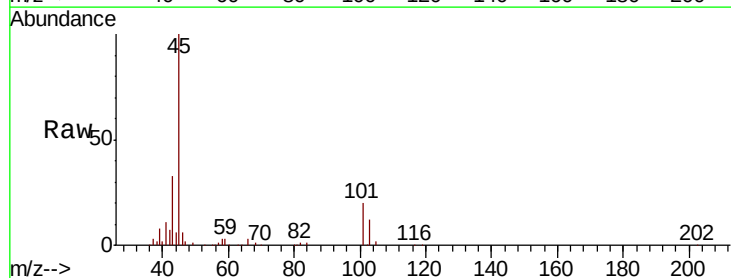
Acq: 29 Mar 2022 00:59

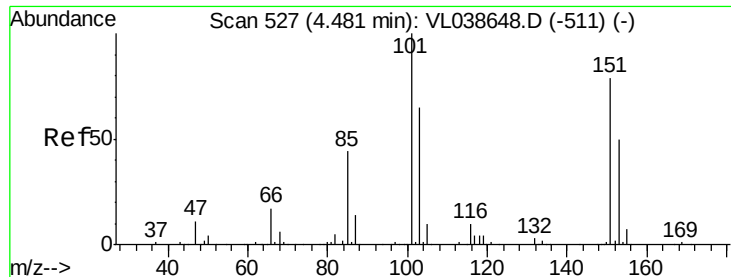
Tgt Ion: 101 Resp: 27298

Ion Ratio Lower Upper

101 100

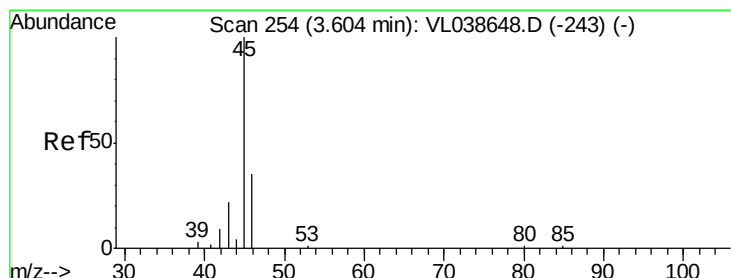
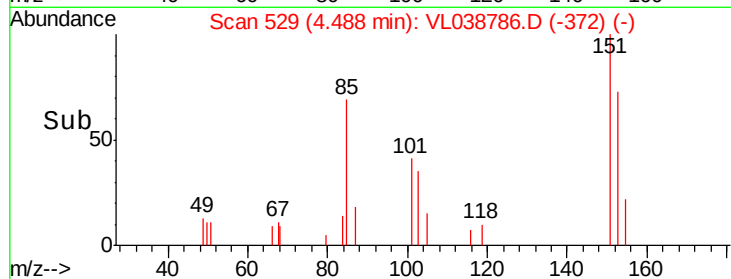
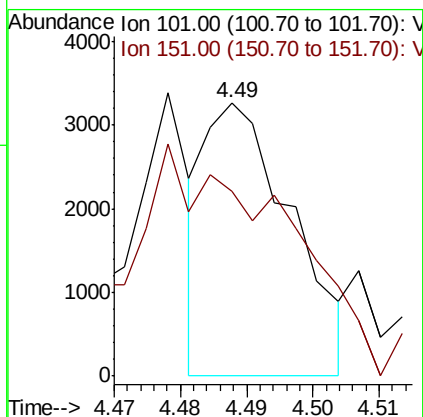
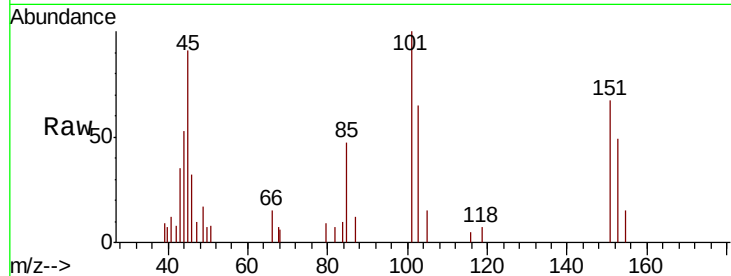
103 59.1 51.9 77.9





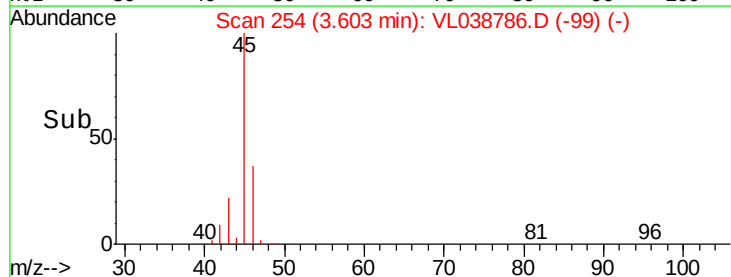
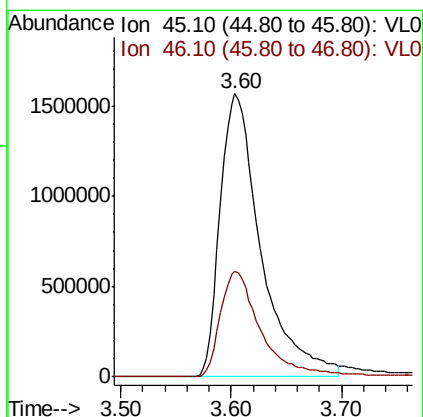
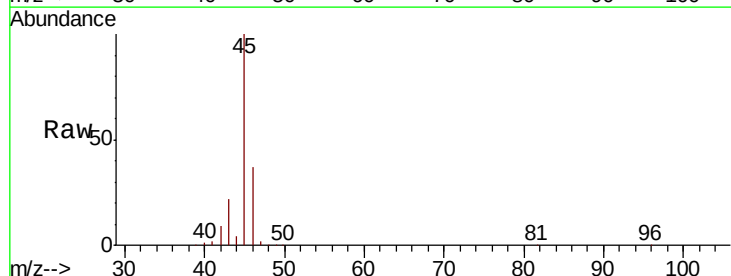
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.043 ppbv
 RT: 4.49
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Mar 2022 00:59

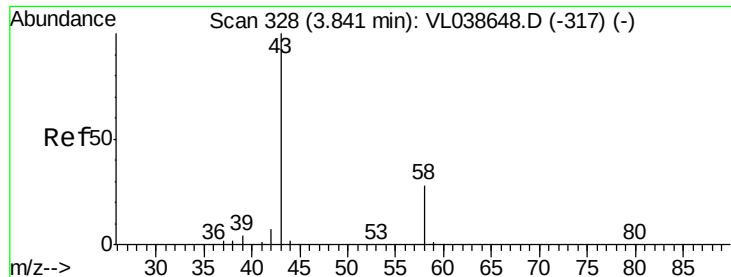
Tot Ion: 101 Resp: 2966
 Ion Ratio Lower Upper
 101 100
 151 0.0 62.9 94.3#



#13
 Ethanol
 Concen: 946.411 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T. -0.00 min
 Lab File: VL038786.D
 Acq: 29 Mar 2022 00:59

Tgt Ion: 45 Resp: 4028954
 Ion Ratio Lower Upper
 45 100
 46 38.8 15.1 60.5





#15

Acetone

Concen: 4.595 ppbv

RT: 3.85 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: A1

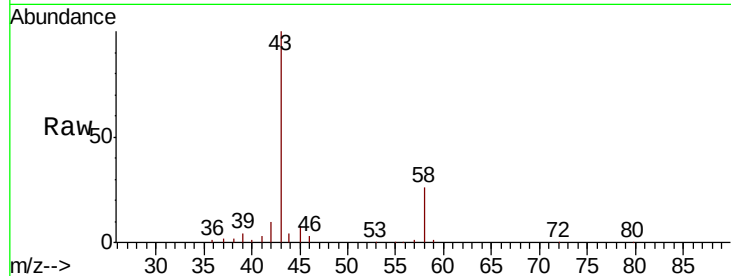
Acq: 29 Mar 2022 00:59

Tot Ion: 43 Resp: 300103

Ion Ratio Lower Upper

43 100

58 26.8 23.3 34.9



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

150000

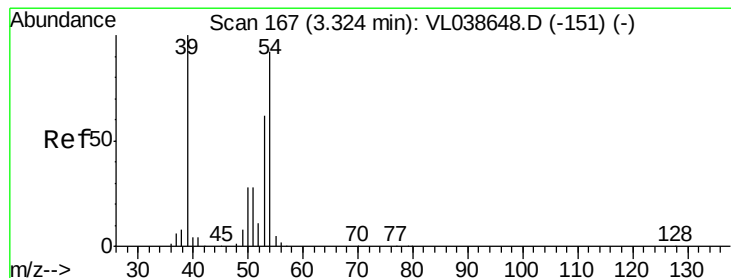
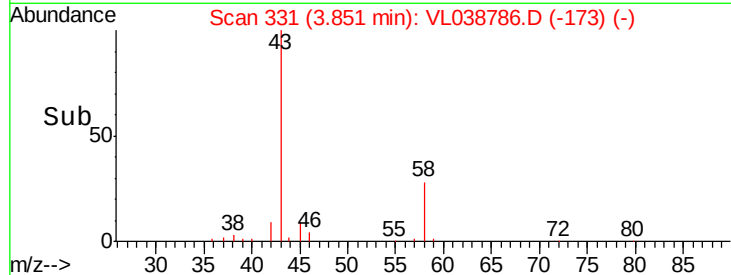
100000

50000

0

3.80 3.85 3.90 3.95

Time-->



#16

1,3-Butadiene

Concen: 0.062 ppbv

RT: 3.32 min Scan# 165

Delta R.T. -0.01 min

Lab File: VL038786.D

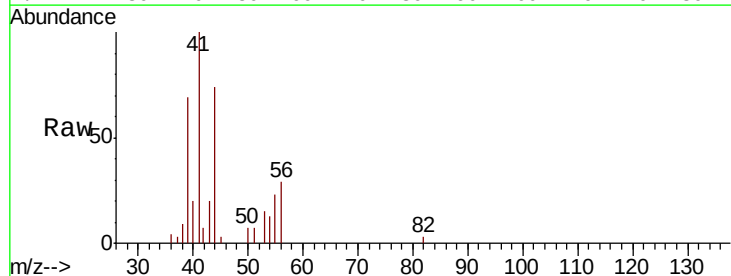
Acq: 29 Mar 2022 00:59

Tgt Ion: 39 Resp: 2308

Ion Ratio Lower Upper

39 100

54 138.0 69.1 103.7#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

5000

4000

3000

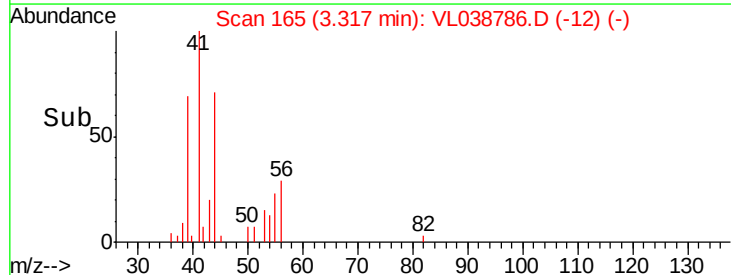
2000

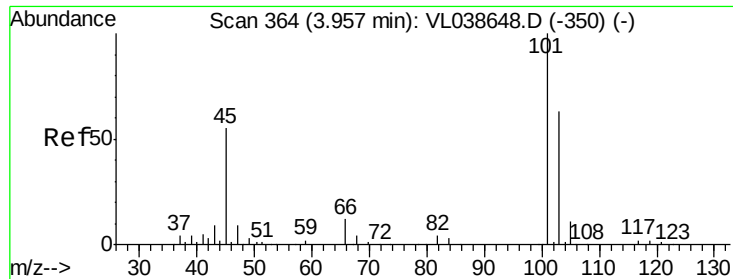
1000

0

3.31 3.32 3.33

Time-->





#19

Isopropyl Alcohol

Concen: 22.459 ppbv

RT: 3.97 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

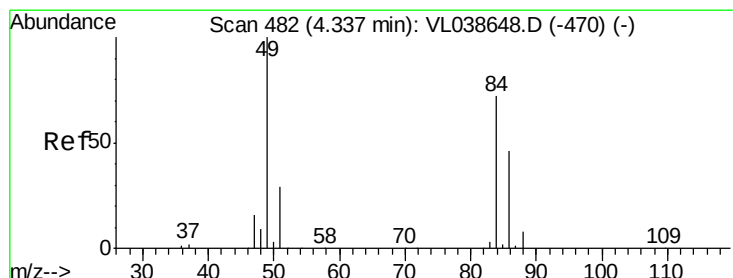
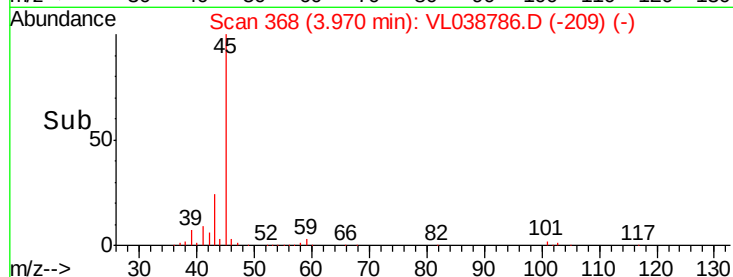
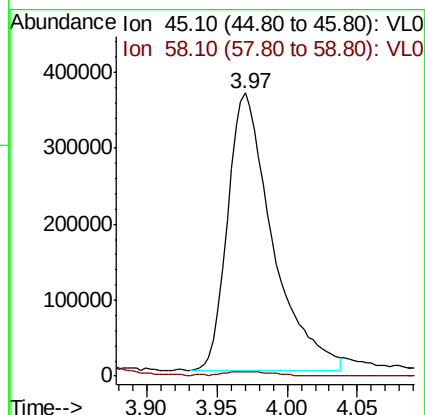
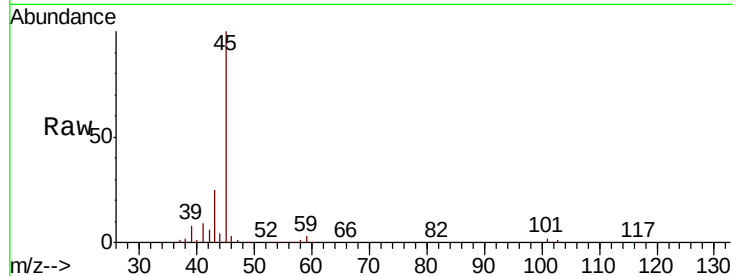
Acq: 29 Mar 2022 00:59

Tot Ion: 45 Resp: 813207

Ion Ratio Lower Upper

45 100

58 2.4 2.3 3.5



#20

Methylene Chloride

Concen: 2.430 ppbv

RT: 4.35 min Scan# 485

Delta R.T. 0.01 min

Lab File: VL038786.D

Acq: 29 Mar 2022 00:59

Tgt Ion: 84 Resp: 66846

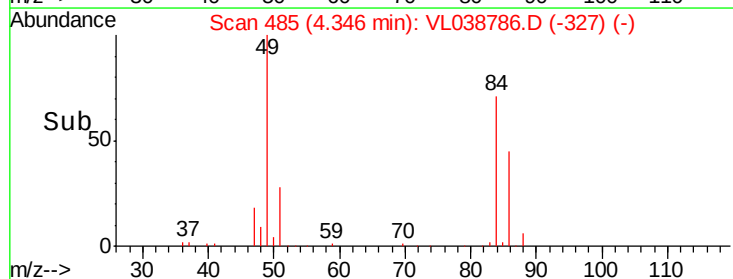
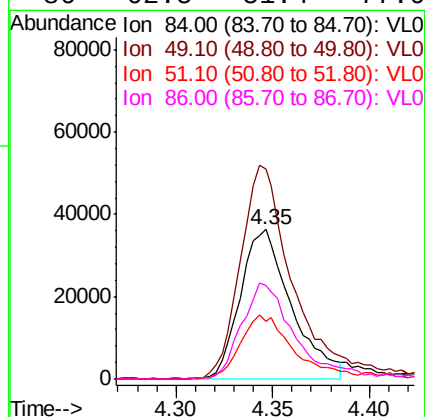
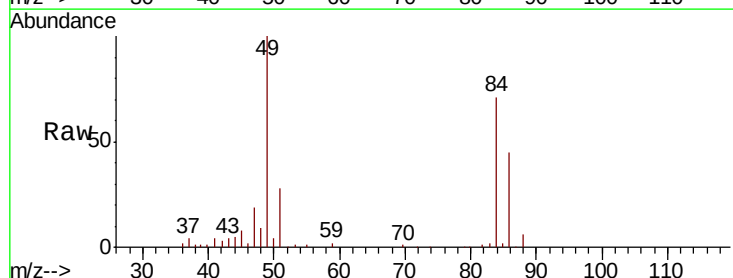
Ion Ratio Lower Upper

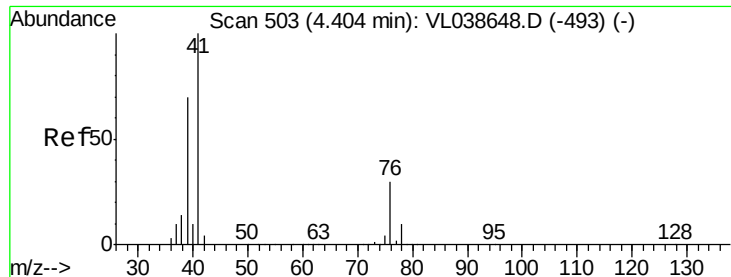
84 100

49 140.4 111.2 166.8

51 38.2 32.8 49.2

86 62.5 51.4 77.0





#21

Allvl Chloride

Concen: 0.044 ppbv

RT: 4.29 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 29 Mar 2022 00:59

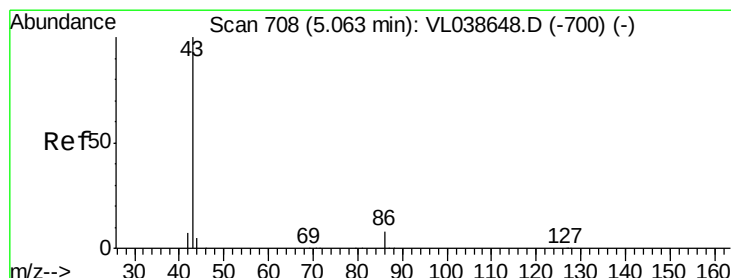
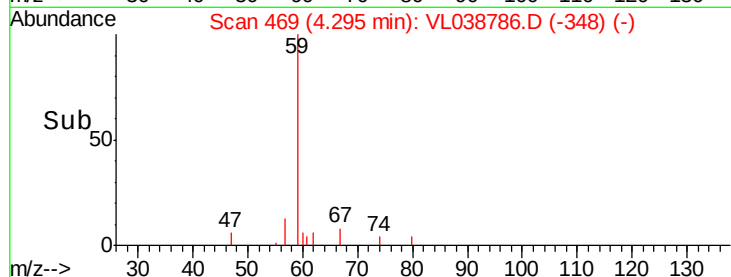
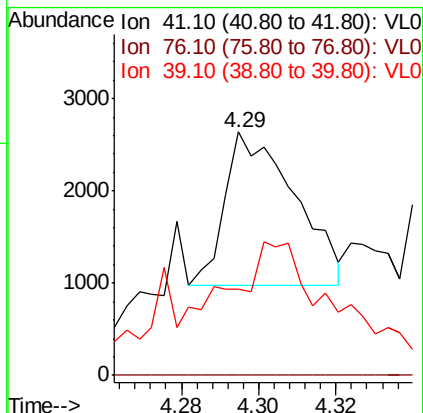
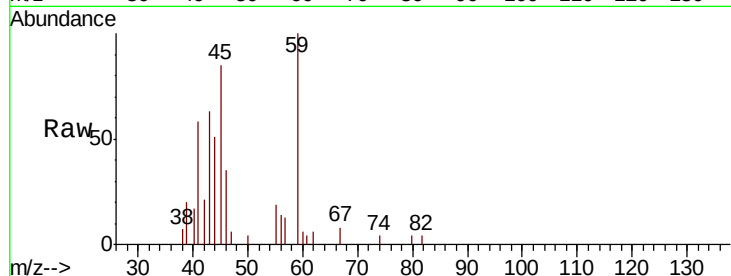
Tot Ion: 41 Resp: 2062

Ion Ratio Lower Upper

41 100

76 0.0 25.0 37.6#

39 136.1 56.6 85.0#



#23

Vinyl Acetate

Concen: 0.176 ppbv

RT: 5.06 min Scan# 707

Delta R.T. -0.00 min

Lab File: VL038786.D

Acq: 29 Mar 2022 00:59

Tgt Ion: 43 Resp: 11125

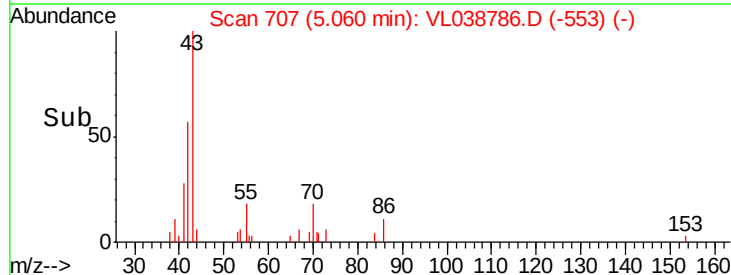
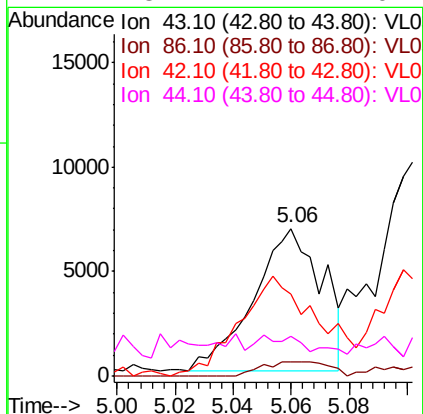
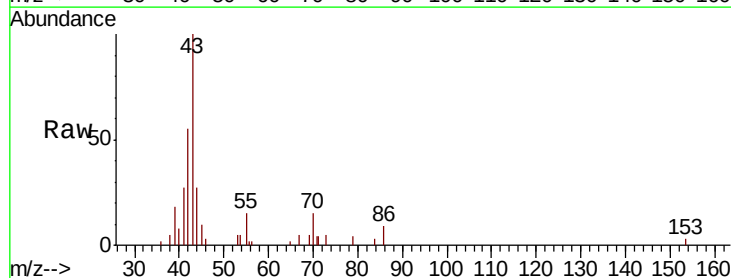
Ion Ratio Lower Upper

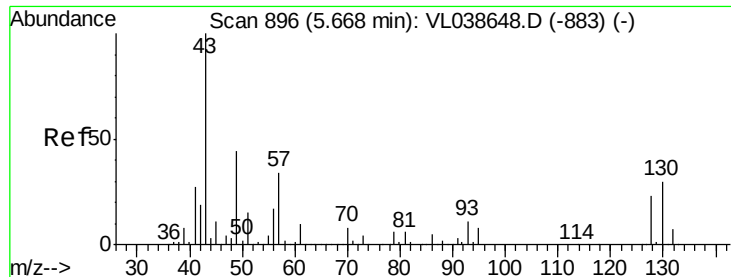
43 100

86 9.6 5.6 8.4#

42 50.4 6.8 10.2#

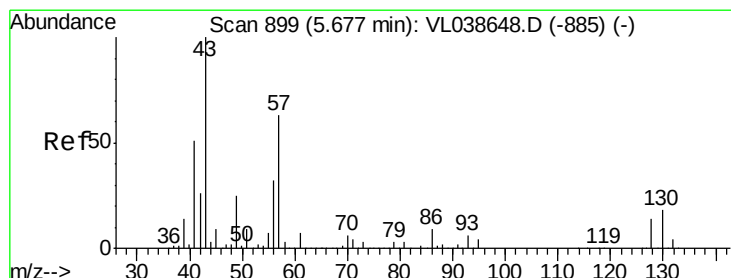
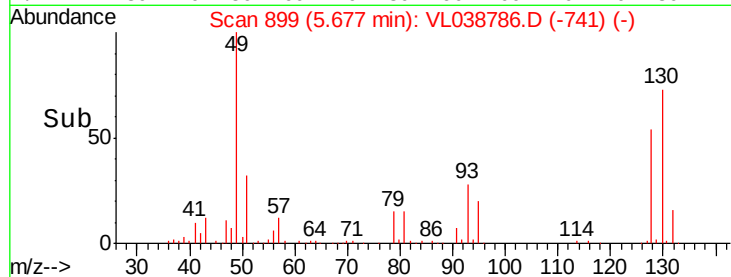
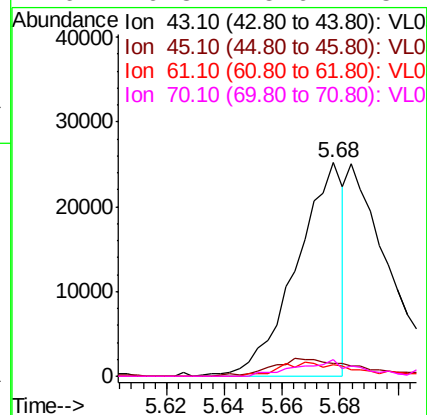
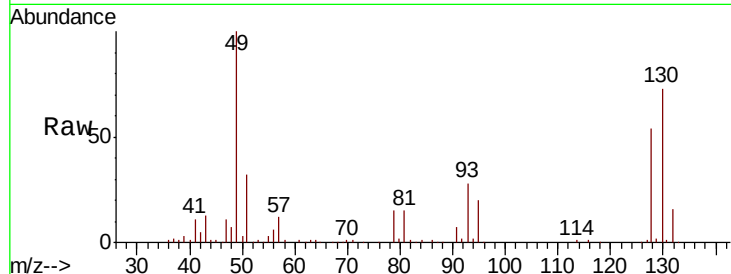
44 8.7 4.2 6.2#





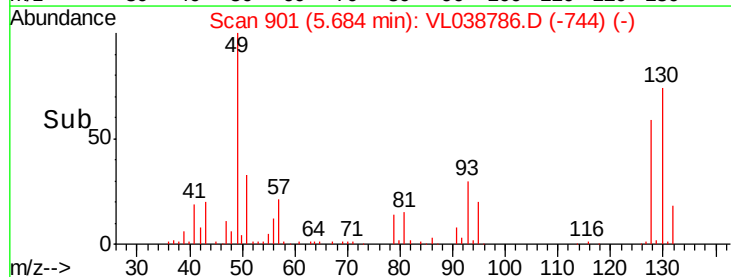
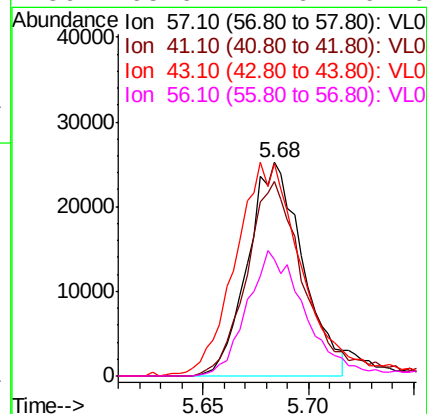
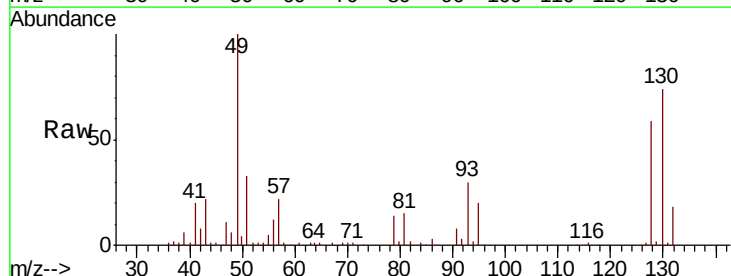
#25
Ethyl Acetate
Concen: 0.172 ppbv
RT: 5.68 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Mar 2022 00:59

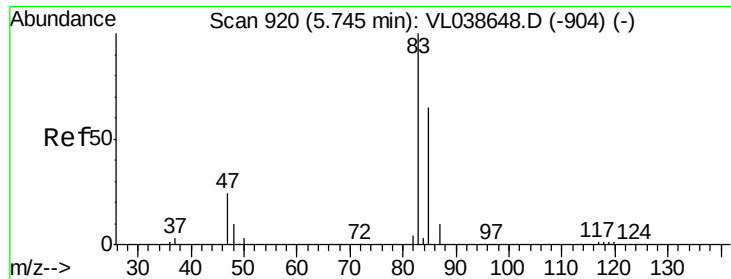
Tot Ion:	43	Resp:	28212
Ion	Ratio	Lower	Upper
43	100		
45	16.2	8.2	12.4#
61	10.6	8.3	12.5
70	10.8	5.6	8.4#



#26
Hexane
Concen: 0.619 ppbv
RT: 5.68 min Scan# 901
Delta R.T. 0.01 min
Lab File: VL038786.D
Acq: 29 Mar 2022 00:59

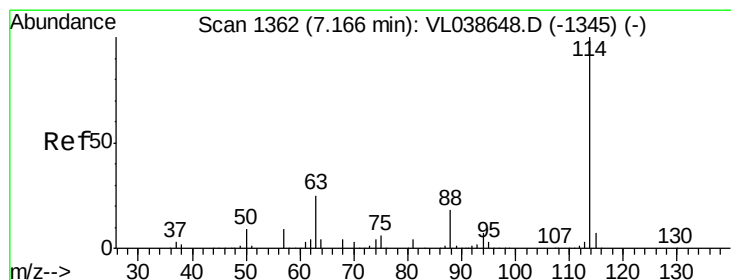
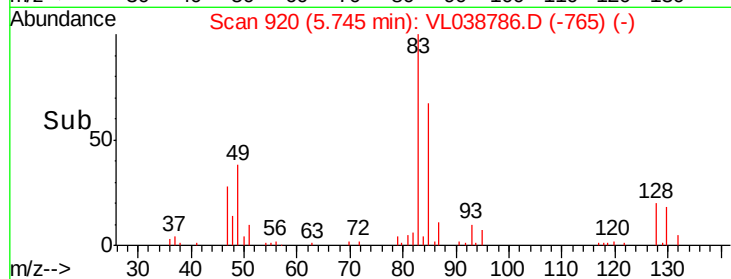
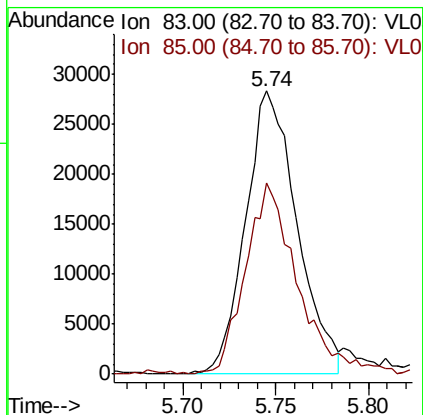
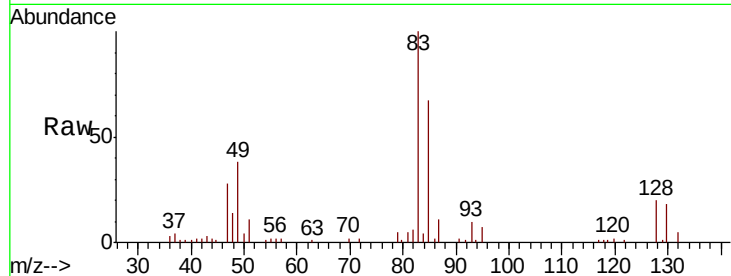
Tgt Ion:	57	Resp:	45541
Ion	Ratio	Lower	Upper
57	100		
41	100.2	67.0	100.4
43	127.3	184.2	276.2#
56	63.6	42.6	64.0





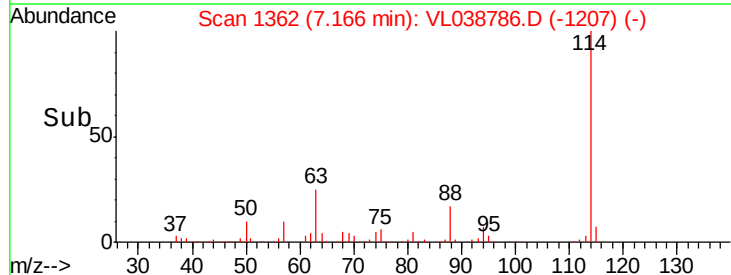
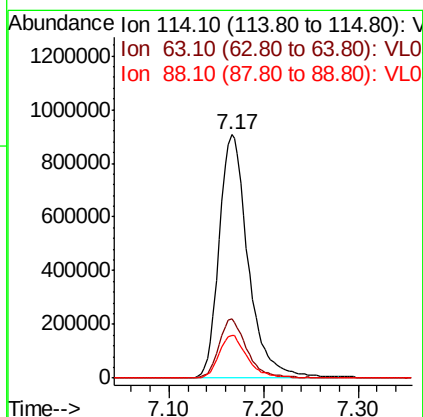
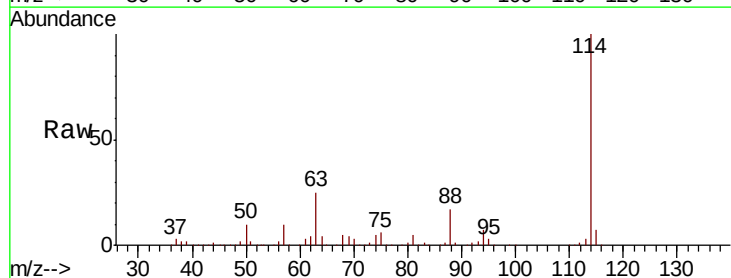
#29
 Chloroform
 Concen: 0.464 ppbv
 RT: 5.74
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Mar 2022 00:59

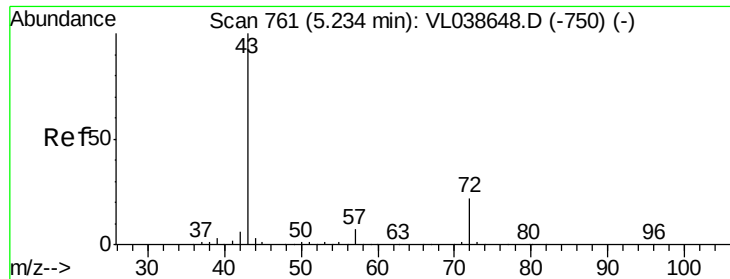
Tot Ion: 83 Resp: 54704
 Ion Ratio Lower Upper
 83 100
 85 67.4 51.7 77.5



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1362
 Delta R.T. -0.00 min
 Lab File: VL038786.D
 Acq: 29 Mar 2022 00:59

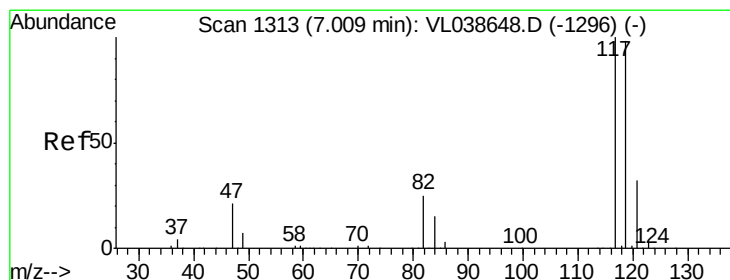
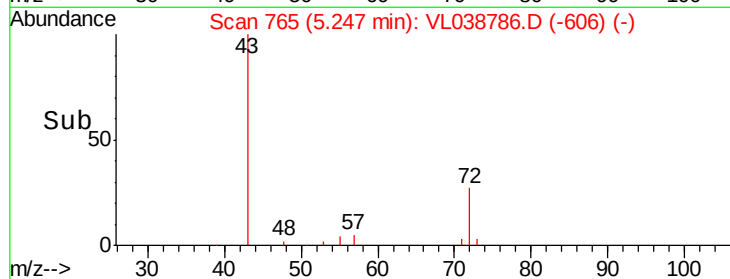
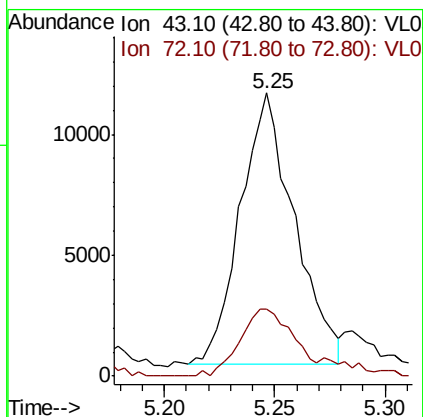
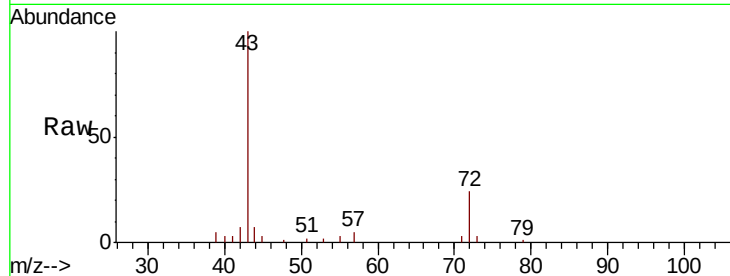
Tgt Ion: 114 Resp: 1938033
 Ion Ratio Lower Upper
 114 100
 63 23.5 19.4 29.0
 88 17.3 13.9 20.9





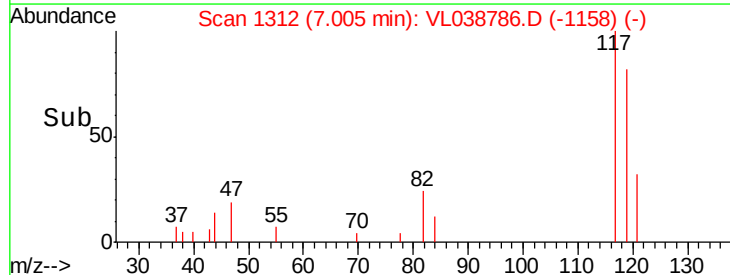
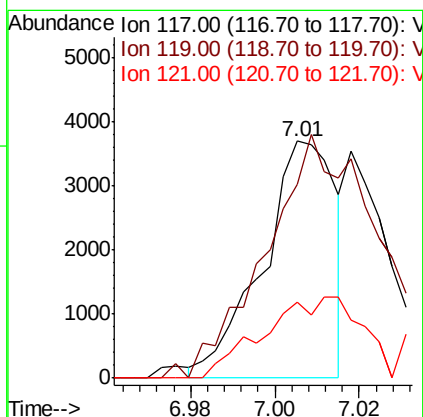
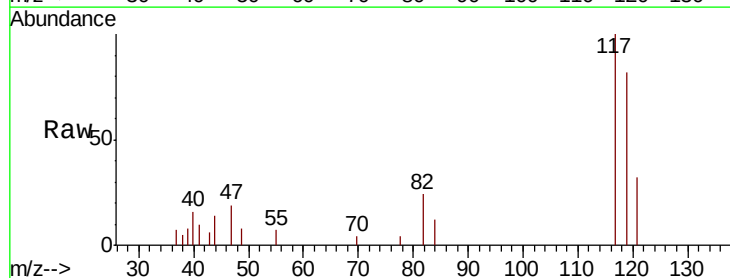
#34
2-Butanone
Concen: 0.249 ppbv
RT: 5.25
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Mar 2022 00:59

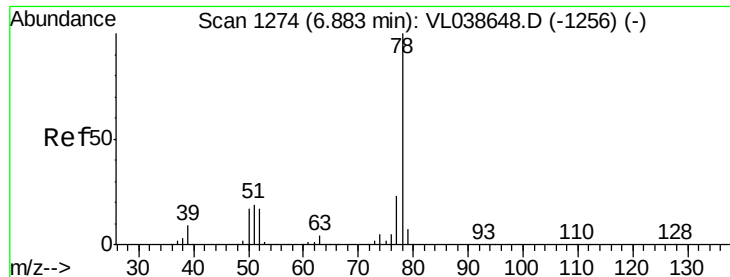
Tot Ion: 43 Resp: 19070
Ion Ratio Lower Upper
43 100
72 29.2 17.8 26.8#



#35
Carbon Tetrachloride
Concen: 0.039 ppbv
RT: 7.01 min Scan# 1312
Delta R.T. -0.00 min
Lab File: VL038786.D
Acq: 29 Mar 2022 00:59

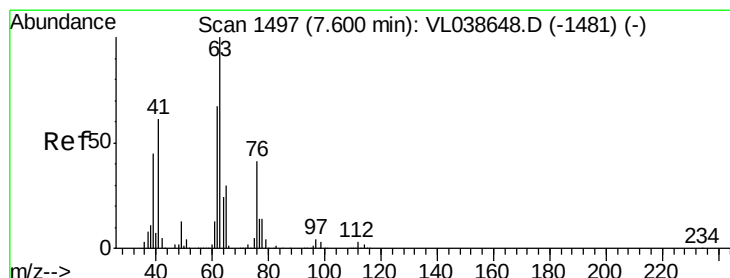
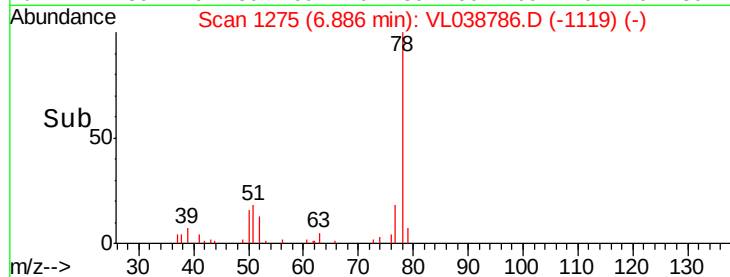
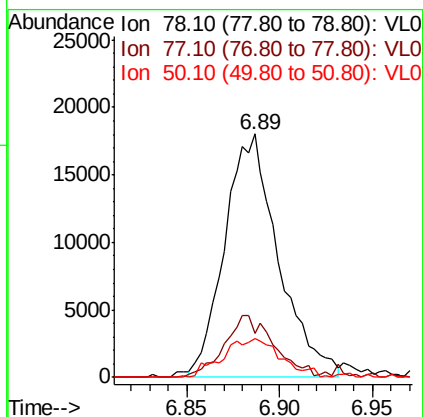
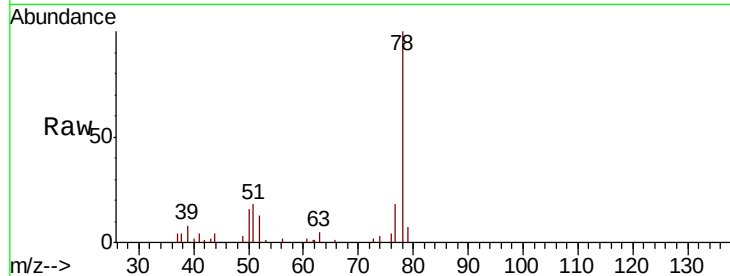
Tgt Ion: 117 Resp: 4412
Ion Ratio Lower Upper
117 100
119 85.6 78.1 117.1
121 33.3 25.8 38.6





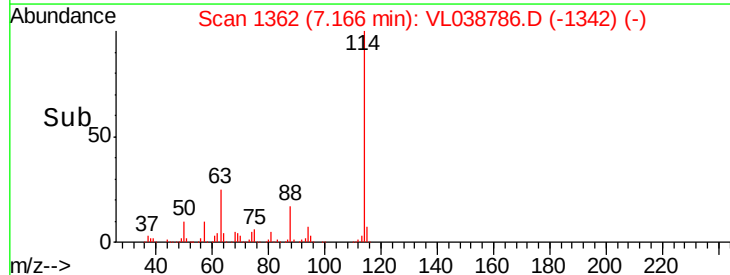
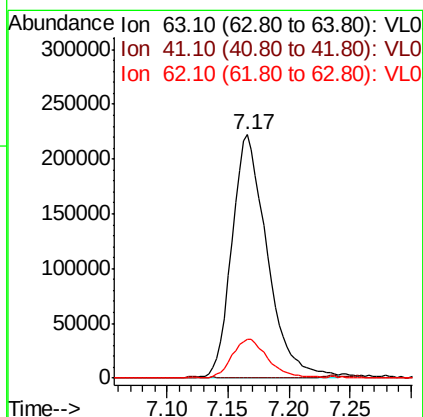
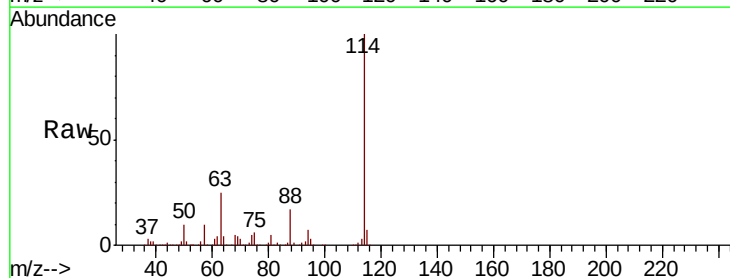
#36
Benzene
Concen: 0.242 ppbv
RT: 6.89
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Mar 2022 00:59

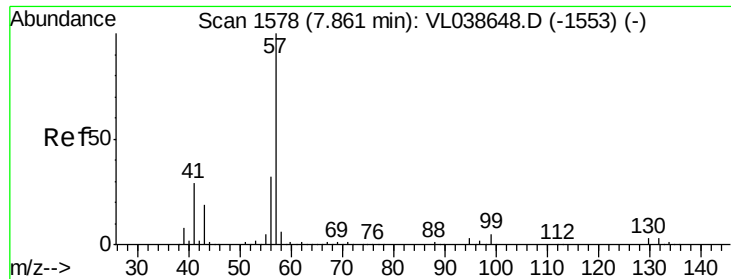
Tot Ion: 78 Resp: 36253
Ion Ratio Lower Upper
78 100
77 15.2 18.1 27.1#
50 15.2 13.6 20.4



#39
1,2-Dichloropropane
Concen: 7.674 ppbv
RT: 7.17 min Scan# 1362
Delta R.T. -0.43 min
Lab File: VL038786.D
Acq: 29 Mar 2022 00:59

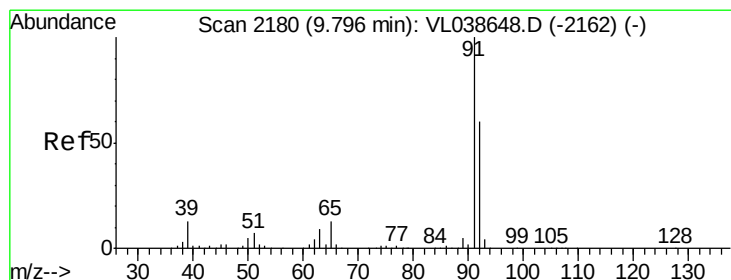
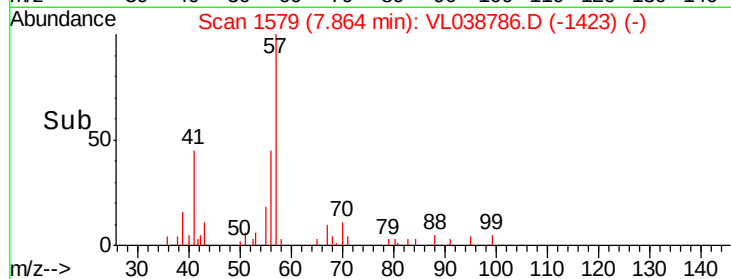
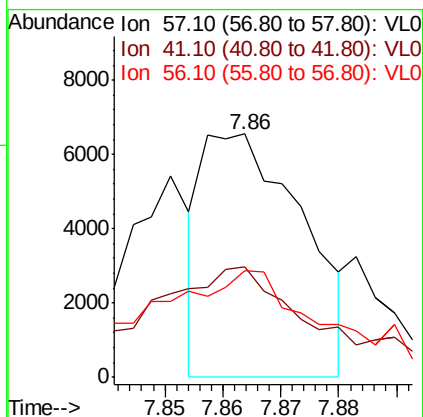
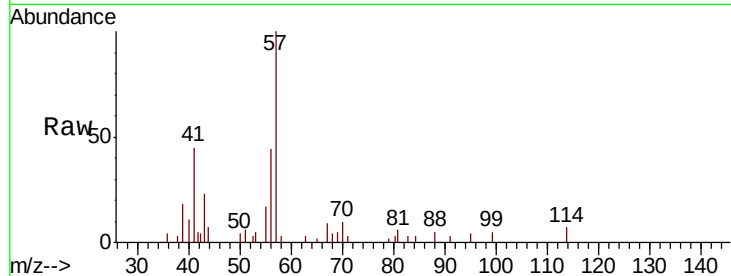
Tgt Ion: 63 Resp: 448739
Ion Ratio Lower Upper
63 100
41 0.0 49.0 73.6#
62 16.1 53.9 80.9#





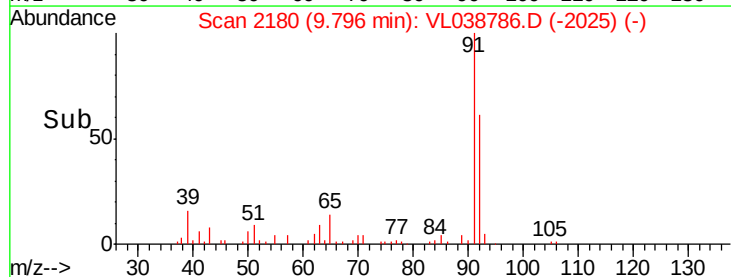
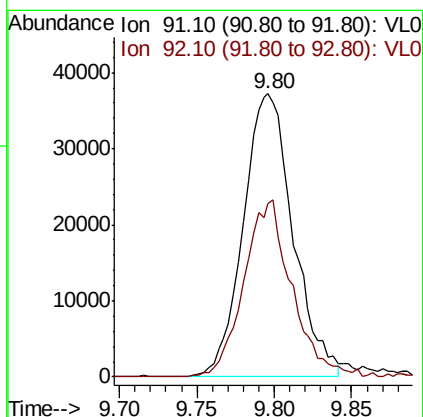
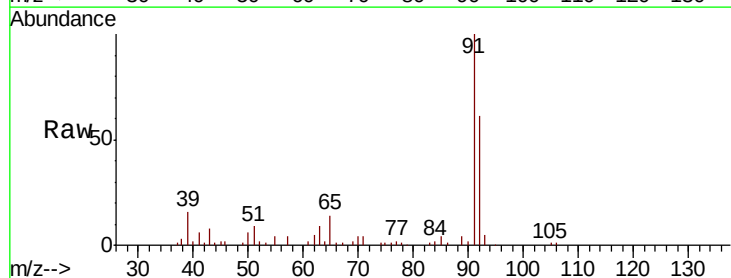
#44
 2,2,4-Trimethylpentane
 Concen: 0.031 ppbv
 RT: 7.86 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Mar 2022 00:59

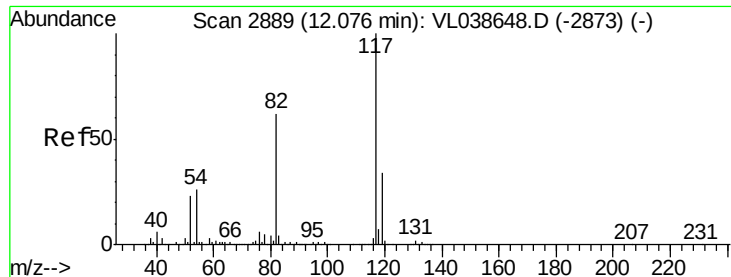
Tot Ion: 57 Resp: 7869
 Ion Ratio Lower Upper
 57 100
 41 111.6 23.0 34.4#
 56 93.3 25.3 37.9#



#53
 Toluene
 Concen: 0.519 ppbv
 RT: 9.80 min Scan# 2180
 Delta R.T. -0.00 min
 Lab File: VL038786.D
 Acq: 29 Mar 2022 00:59

Tgt Ion: 91 Resp: 83369
 Ion Ratio Lower Upper
 91 100
 92 60.6 48.7 73.1





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 29 Mar 2022 00:59

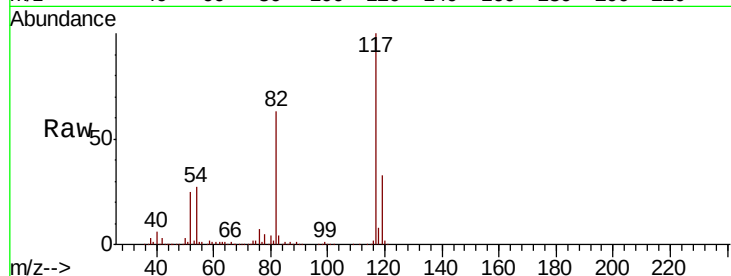
Tot Ion:117 Resp: 1679605

Ion Ratio Lower Upper

117 100

82 64.8 51.6 77.4

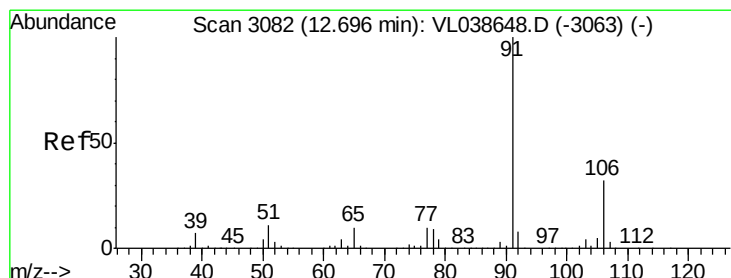
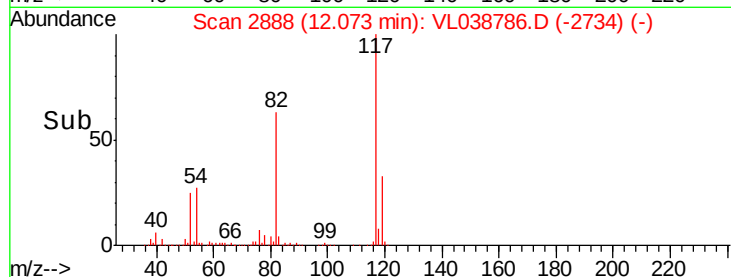
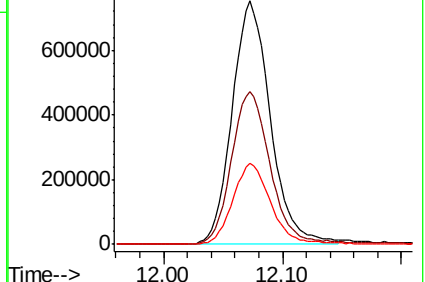
119 33.5 26.9 40.3



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: 0.043 ppbv

RT: 12.70 min Scan# 3082

Delta R.T. -0.00 min

Lab File: VL038786.D

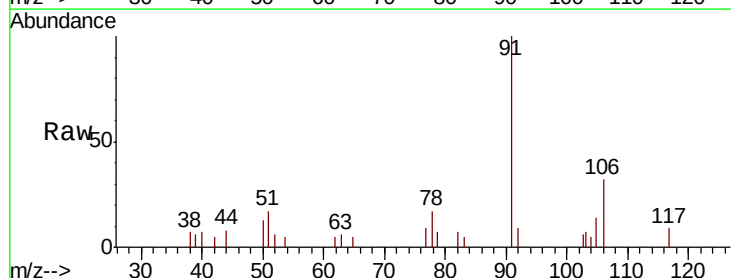
Acq: 29 Mar 2022 00:59

Tgt Ion: 91 Resp: 8347

Ion Ratio Lower Upper

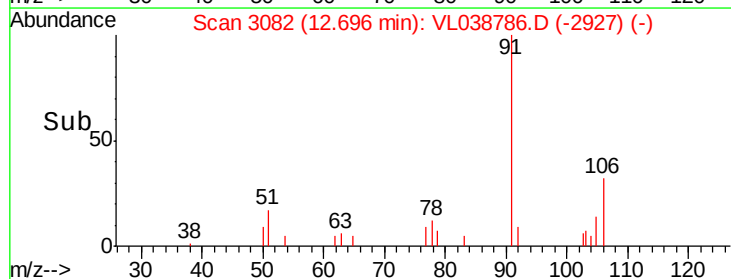
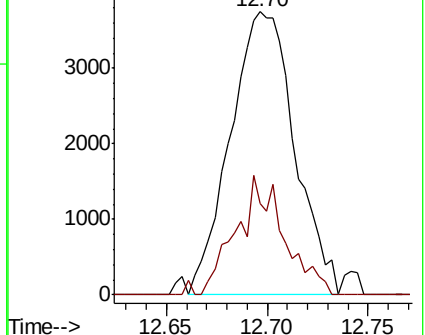
91 100

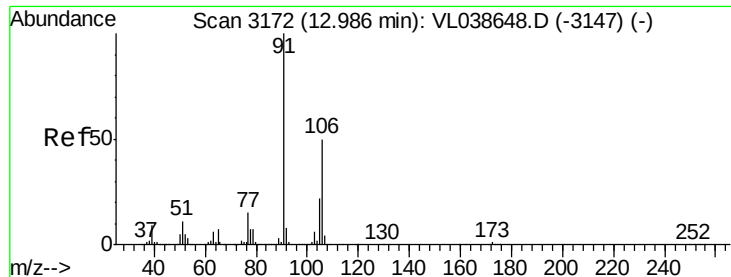
106 32.4 25.4 38.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

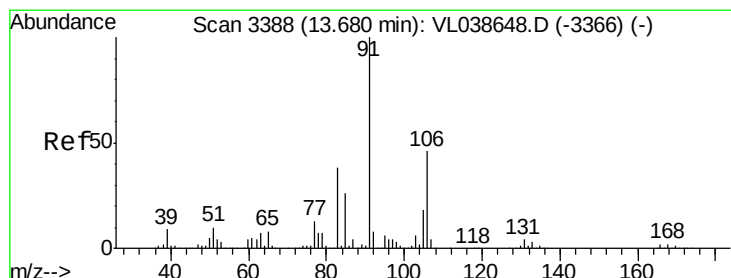
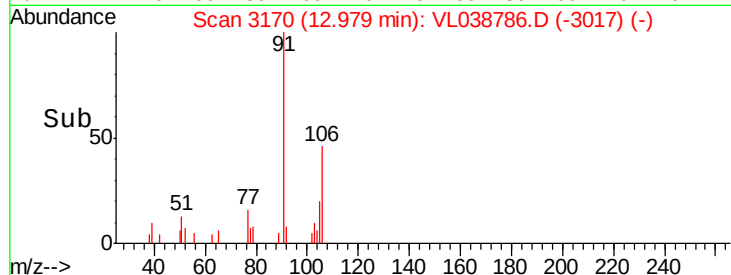
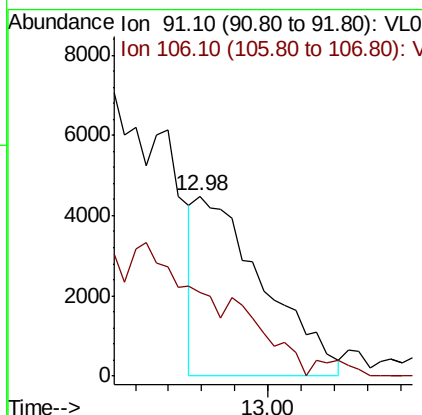
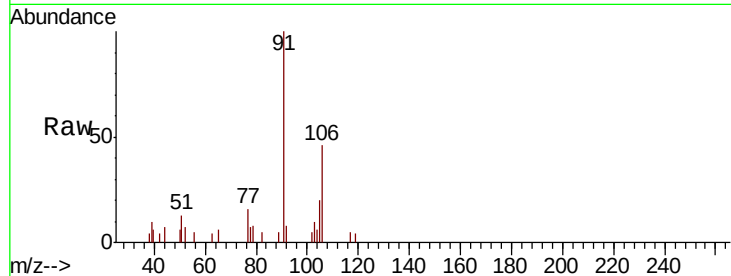
Ion 106.10 (105.80 to 106.80): V





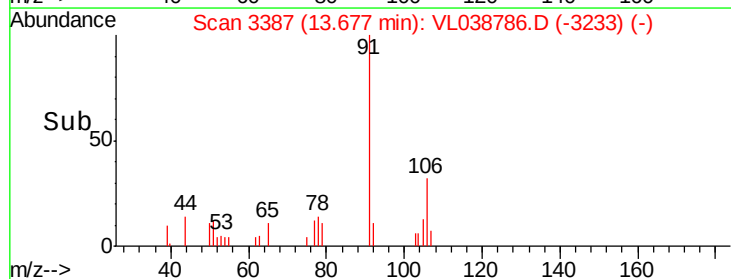
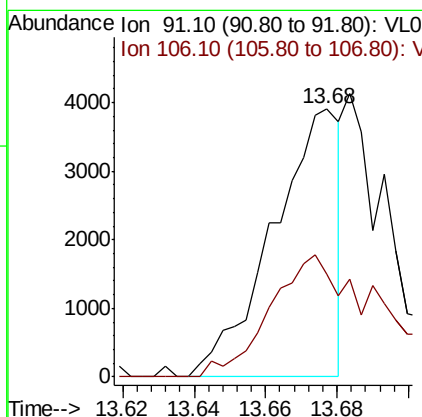
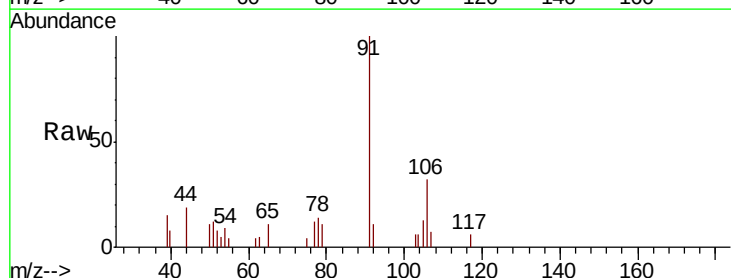
#59
m/p-Xylene
Concen: 0.037 ppbv
RT: 12.98 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 29 Mar 2022 00:59

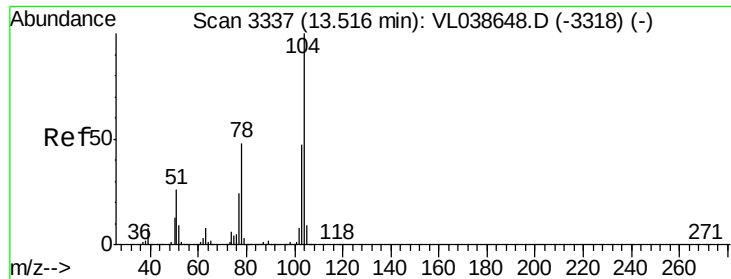
Tot Ion: 91 Resp: 6368
Ion Ratio Lower Upper
91 100
106 0.0 37.2 55.8#



#60
o-Xylene
Concen: 0.031 ppbv
RT: 13.68 min Scan# 3387
Delta R.T. -0.00 min
Lab File: VL038786.D
Acq: 29 Mar 2022 00:59

Tgt Ion: 91 Resp: 5077
Ion Ratio Lower Upper
91 100
106 75.3 23.5 70.5#





#61

Stvrene

Concen: 0.043 ppbv

RT: 13.51

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 29 Mar 2022 00:59

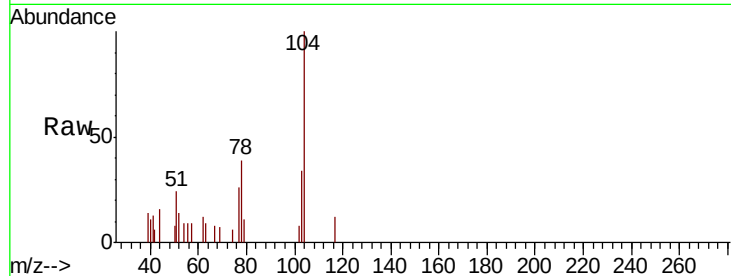
Tot Ion:104 Resp: 3788

Ion Ratio Lower Upper

104 100

78 71.1 39.0 58.4#

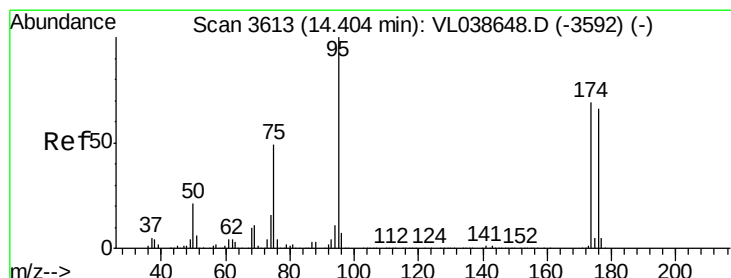
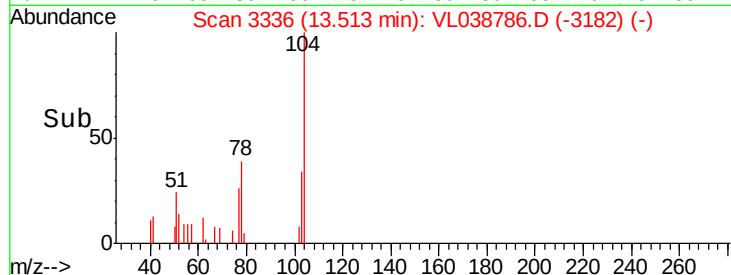
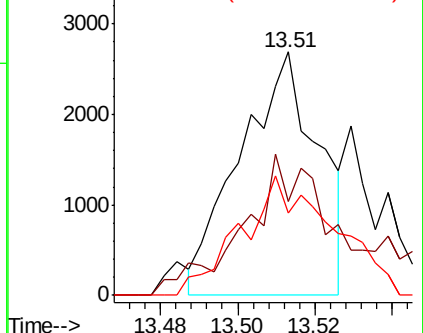
103 57.9 37.8 56.8#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.126 ppbv

RT: 14.40 min Scan# 3612

Delta R.T. -0.00 min

Lab File: VL038786.D

Acq: 29 Mar 2022 00:59

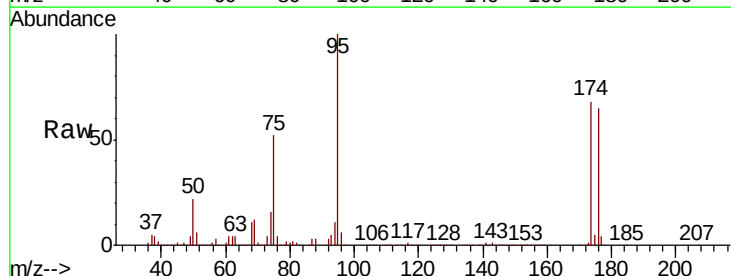
Tgt Ion: 95 Resp: 1303958

Ion Ratio Lower Upper

95 100

174 69.7 56.1 84.1

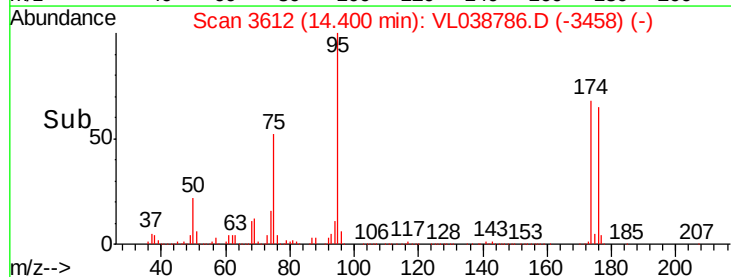
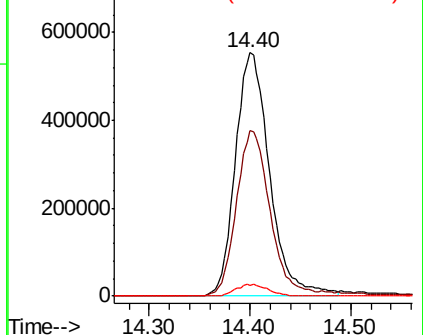
175 4.8 4.2 6.2

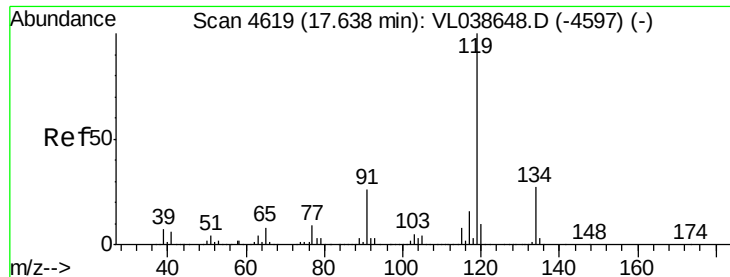


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#69

p-Isopropyltoluene

Concen: 0.133 ppbv

RT: 17.64

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 29 Mar 2022 00:59

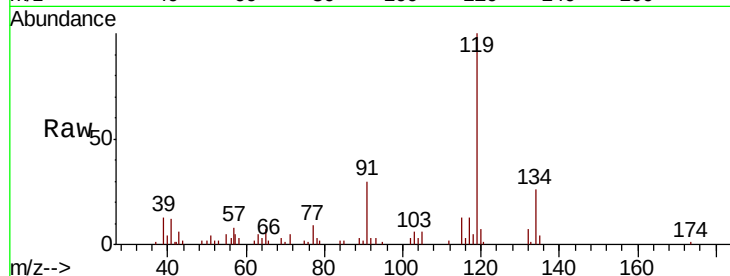
Tot Ion: 119 Resp: 34305

Ion Ratio Lower Upper

119 100

134 32.9 21.2 31.8#

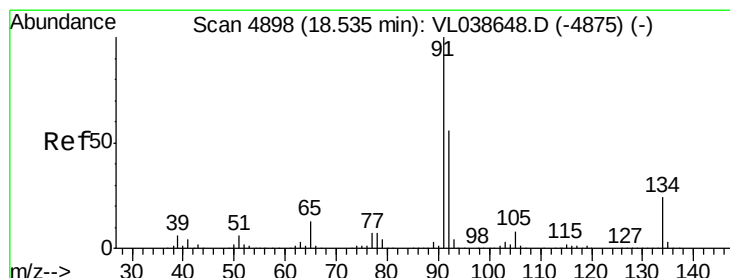
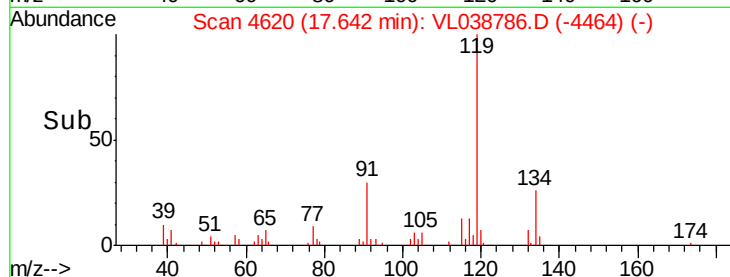
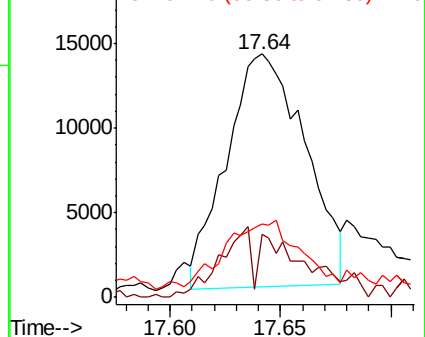
91 38.7 21.4 32.2#



Abundance Ion 119.10 (118.80 to 119.80): V

Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): V



#70

n-Butylbenzene

Concen: 0.078 ppbv

RT: 18.69 min Scan# 4945

Delta R.T. 0.15 min

Lab File: VL038786.D

Acq: 29 Mar 2022 00:59

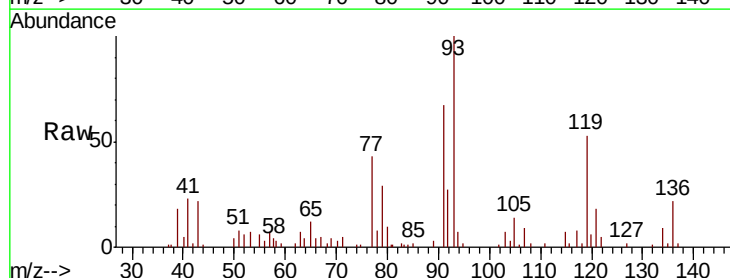
Tgt Ion: 91 Resp: 20716

Ion Ratio Lower Upper

91 100

92 47.1 43.9 65.9

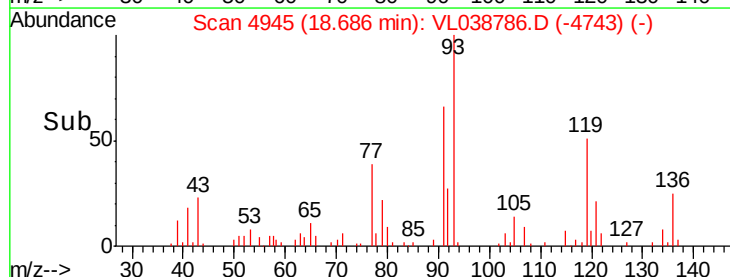
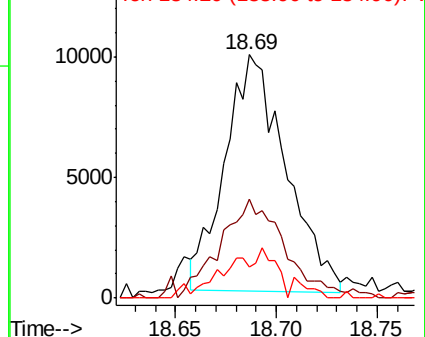
134 20.0 18.7 28.1

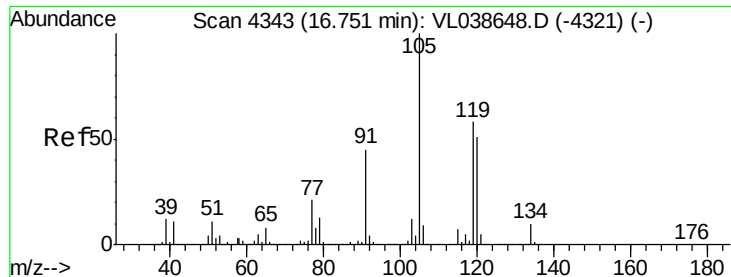


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

Ion 134.20 (133.90 to 134.90): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.036 ppbv
 RT: 16.75
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 29 Mar 2022 06:39

Tot Ion:	105	Resp:	6867
Ion	Ratio	Lower	Upper
105	100		
120	62.6	40.5	60.7#
91	19.6	35.9	53.9#
77	12.7	16.6	25.0#

