

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110921\
 Data File : VL037988.D
 Acq On : 9 Nov 2021 20:48
 Operator : SY/AP
 Sample : M4555-04
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 10 04:49:07 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110121AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Nov 02 05:54:07 2021
 QLast Update : Tue Nov 02 05:54:07 2021
 Response via : Initial Calibration

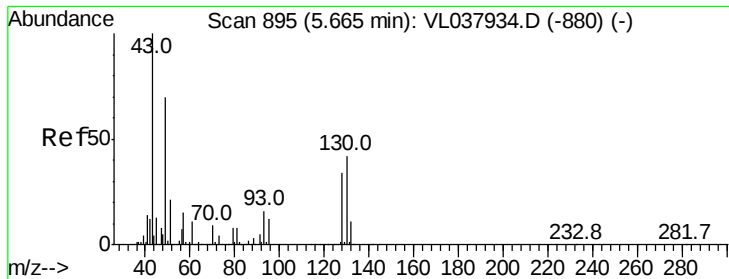
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1281075	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3654199	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3232596	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	2141023	9.11	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	91.10%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	45729	0.253 ppbv	93
3) Chlorodifluoromethane	2.99	51	94989	0.398 ppbv #	85
4) Chloromethane	3.14	50	46341	0.511 ppbv	96
9) Propene	3.02	41	68172	0.797 ppbv	91
10) Heptane	8.11	43	10337	0.052 ppbv #	28
12) 1,1,2-Trichlorotrifluoroet	4.48	101	6866	0.049 ppbv #	56
13) Ethanol	3.60	45	4528725	525.002 ppbv	91
15) Acetone	3.85	43	1296257	12.245 ppbv	99
16) 1,3-Butadiene	3.34	39	2971	0.036 ppbv #	10
17) tert-Butyl alcohol	4.29	59	316561	2.876 ppbv	98
19) Isopropyl Alcohol	3.97	45	2183039	32.248 ppbv #	92
20) Methylene Chloride	4.34	84	141817	2.440 ppbv	92
21) Allyl Chloride	4.34	41	4170	0.043 ppbv #	24
23) Vinyl Acetate	5.07	43	23824	0.149 ppbv #	84
25) Ethyl Acetate	5.68	43	209993	0.668 ppbv #	97
26) Hexane	5.68	57	118194	0.793 ppbv	85
34) 2-Butanone	5.24	43	86235	0.637 ppbv	91
36) Benzene	6.89	78	13405	0.045 ppbv #	71
39) 1,2-Dichloropropane	7.17	63	859051	7.672 ppbv #	28
53) Toluene	9.80	91	229270	0.719 ppbv	99
65) tert-Butylbenzene	16.98	119	541638	1.307 ppbv #	29
66) Benzyl Chloride	16.98	91	5489	0.253 ppbv #	66
74) 1,2,4-Trimethylbenzene	16.75	105	17431	0.047 ppbv #	73

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 9 Nov 2021 20:48

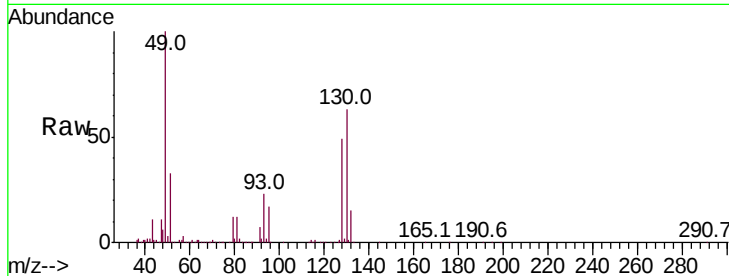
Tot Ion: 49 Resp: 1281075

Ion Ratio Lower Upper

49 100

128 52.1 27.0 81.0

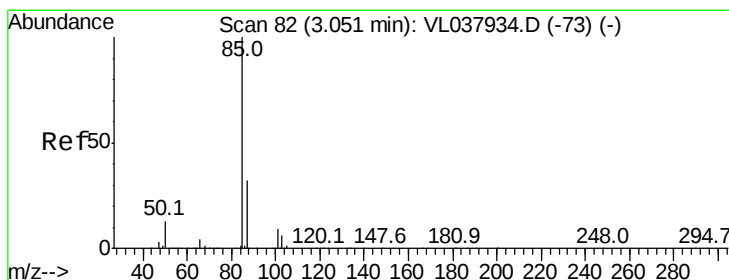
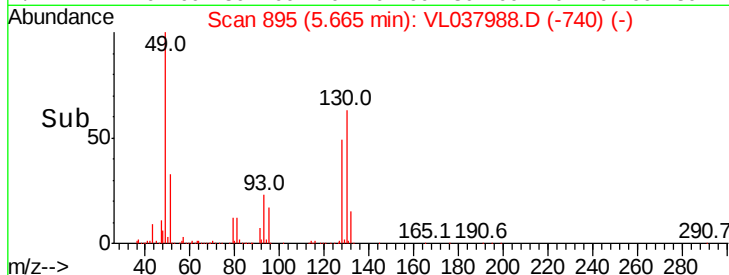
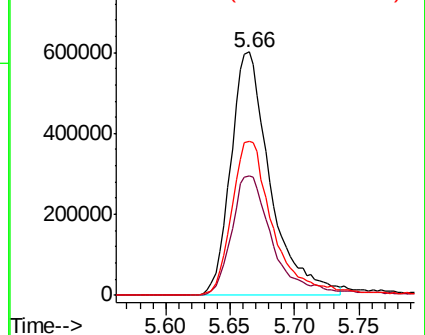
130 67.5 33.4 100.2



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: 0.253 ppbv

RT: 3.05 min Scan# 82

Delta R.T. -0.00 min

Lab File: VL037988.D

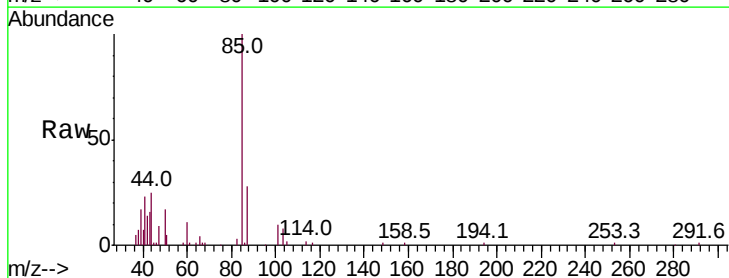
Acq: 9 Nov 2021 20:48

Tgt Ion: 85 Resp: 45729

Ion Ratio Lower Upper

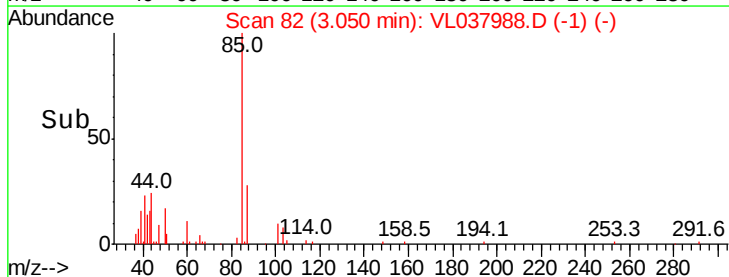
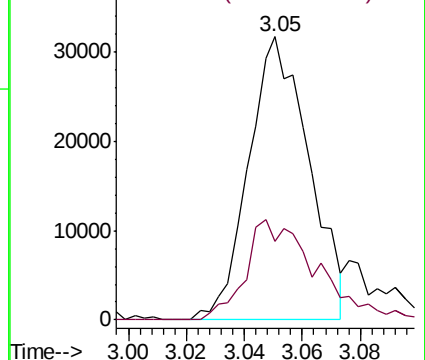
85 100

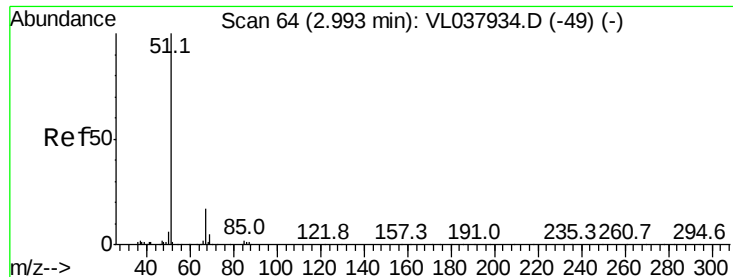
87 27.8 25.3 37.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

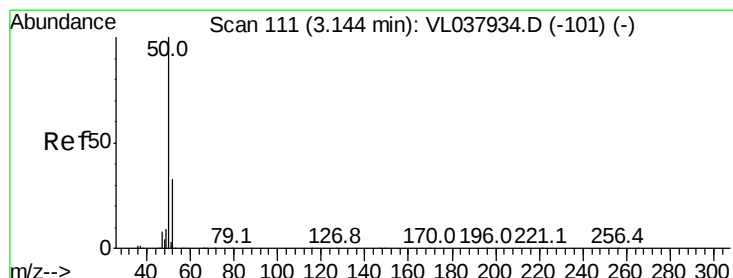
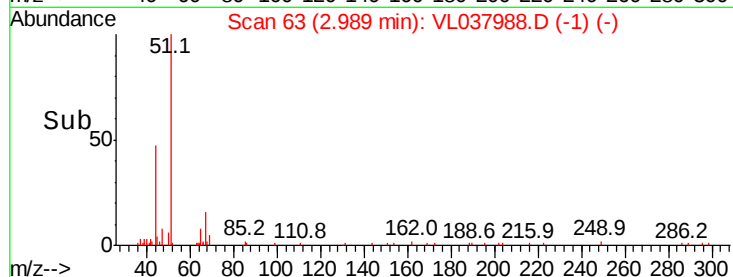
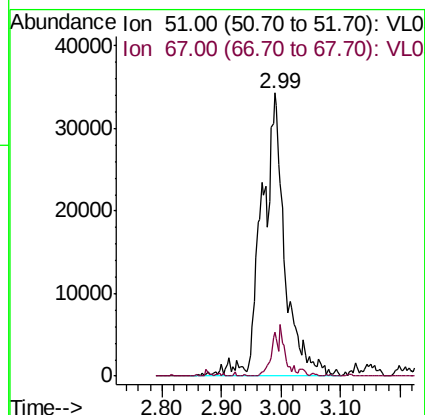
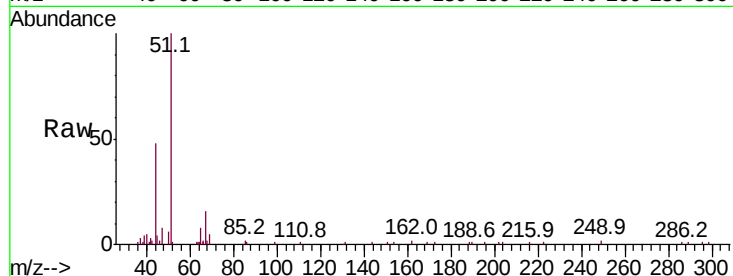
Ion 87.00 (86.70 to 87.70): VL0





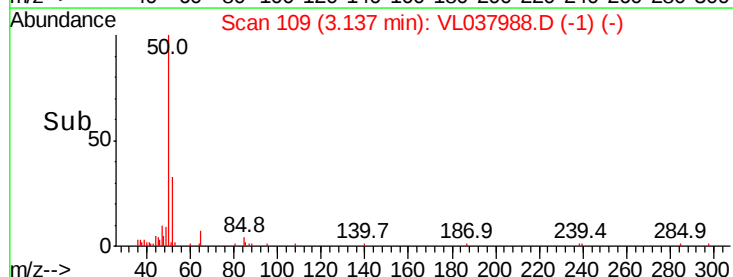
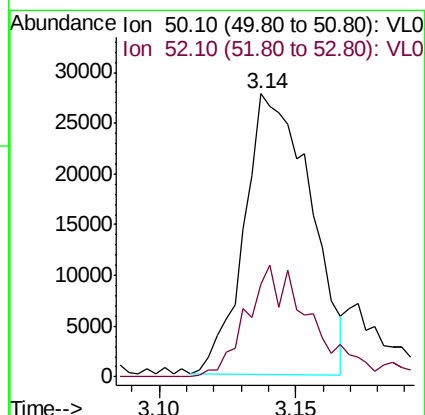
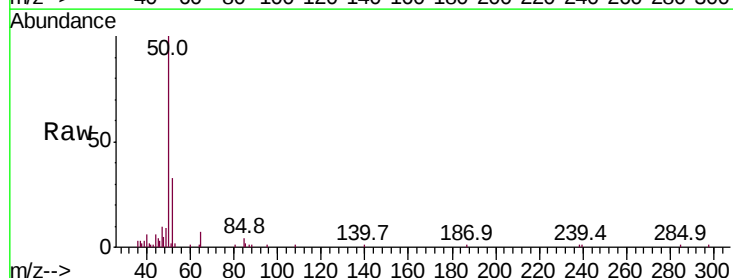
#3
Chlorodifluoromethane
Concen: 0.398 ppbv
RT: 2.99
Delta R.T. MSVOA.L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 20:48

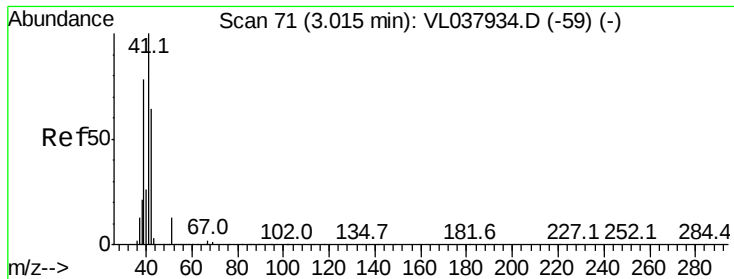
Tot Ion: 51 Resp: 94989
Ion Ratio Lower Upper
51 100
67 10.3 13.4 20.0#



#4
Chloromethane
Concen: 0.511 ppbv
RT: 3.14 min Scan# 109
Delta R.T. -0.01 min
Lab File: VL037988.D
Acq: 9 Nov 2021 20:48

Tgt Ion: 50 Resp: 46341
Ion Ratio Lower Upper
50 100
52 35.0 26.3 39.5





#9

Propene

Concen: 0.797 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

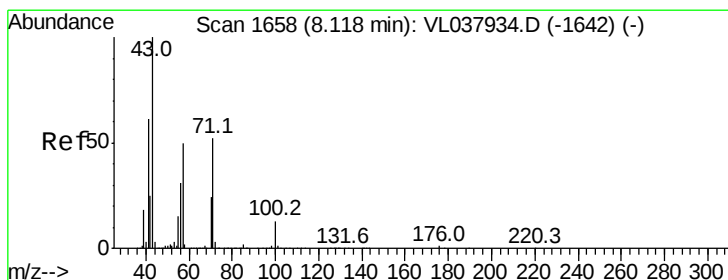
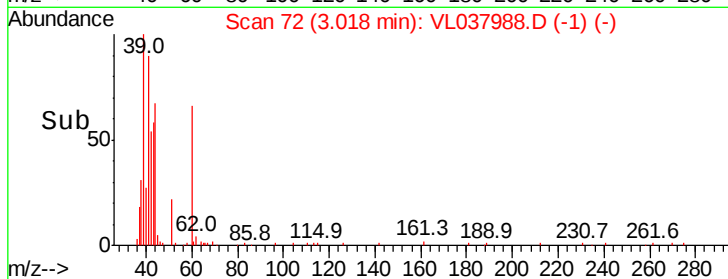
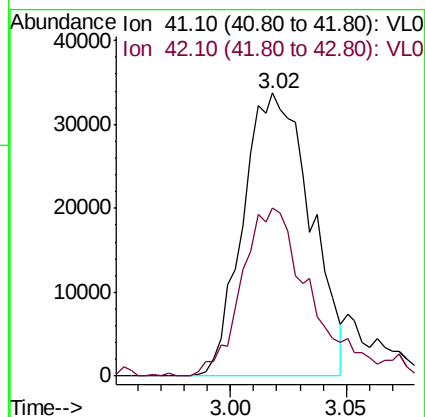
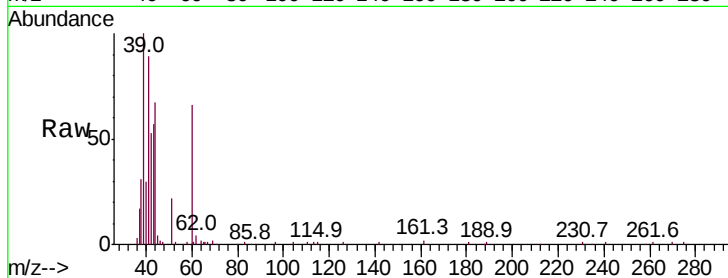
Acq: 9 Nov 2021 20:48

Tot Ion: 41 Resp: 68172

Ion Ratio Lower Upper

41 100

42 64.1 57.6 86.4



#10

Heptane

Concen: 0.052 ppbv

RT: 8.11 min Scan# 1657

Delta R.T. -0.00 min

Lab File: VL037988.D

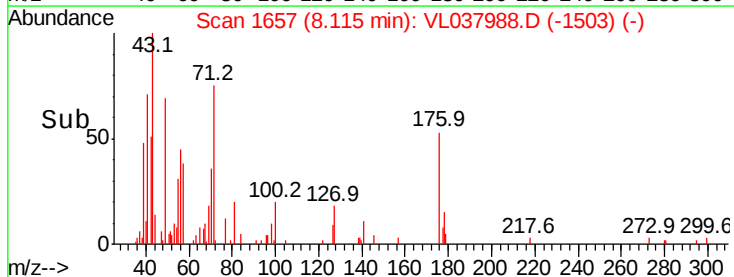
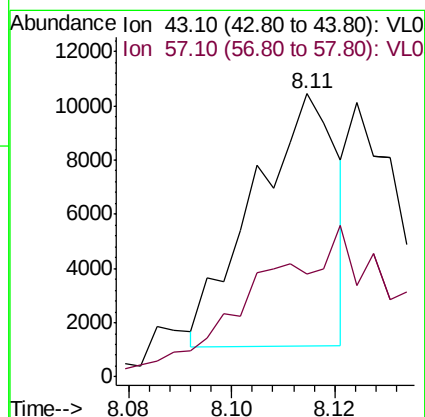
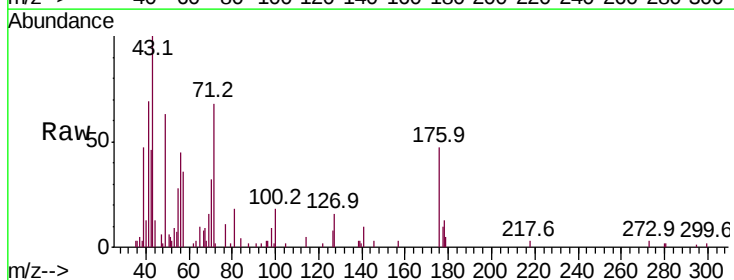
Acq: 9 Nov 2021 20:48

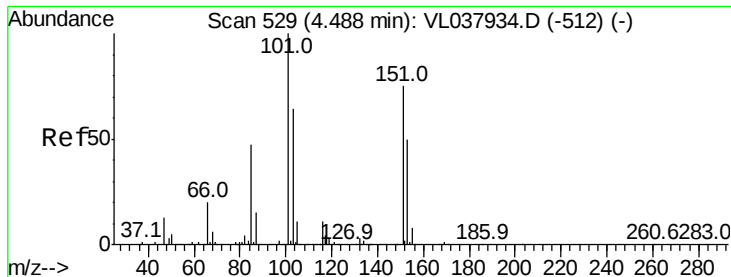
Tgt Ion: 43 Resp: 10337

Ion Ratio Lower Upper

43 100

57 0.0 39.8 59.8#





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.049 ppbv

RT: 4.48 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

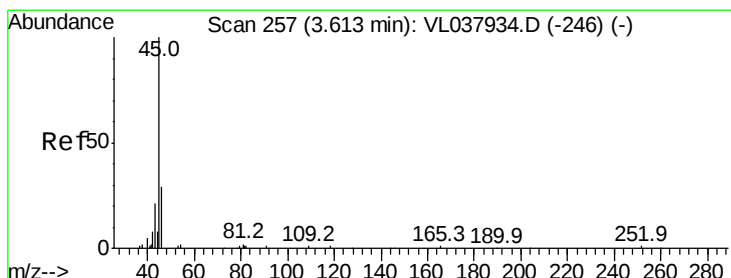
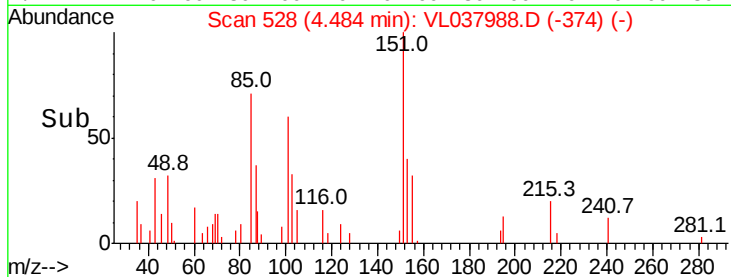
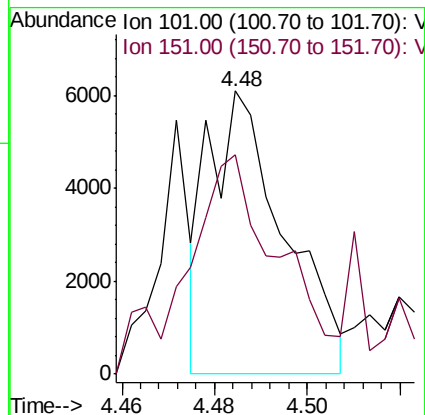
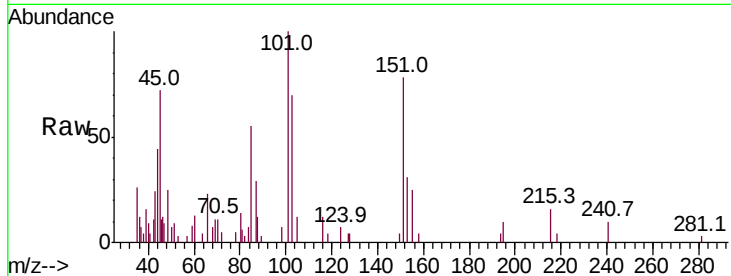
Acq: 9 Nov 2021 20:48

Tot Ion: 101 Resp: 6866

Ion Ratio Lower Upper

101 100

151 115.8 61.8 92.8#



#13

Ethanol

Concen: 525.002 ppbv

RT: 3.60 min Scan# 254

Delta R.T. -0.01 min

Lab File: VL037988.D

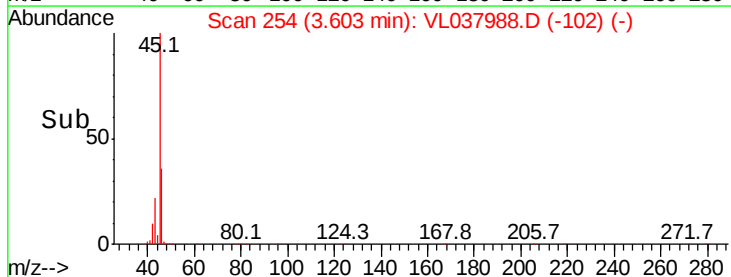
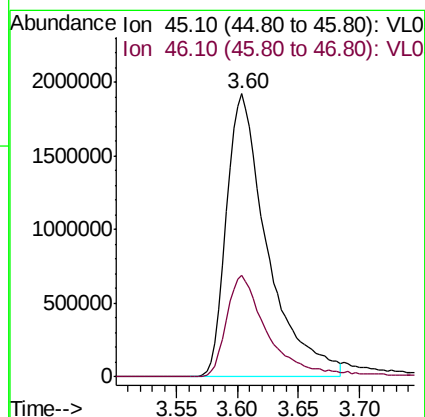
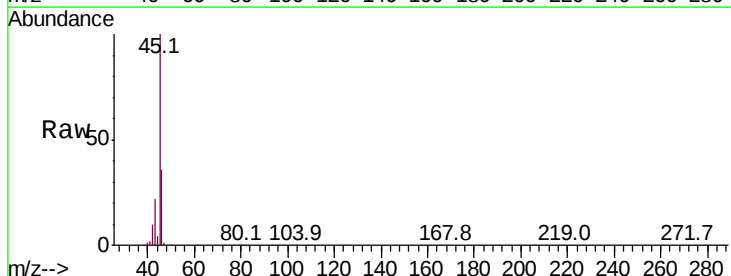
Acq: 9 Nov 2021 20:48

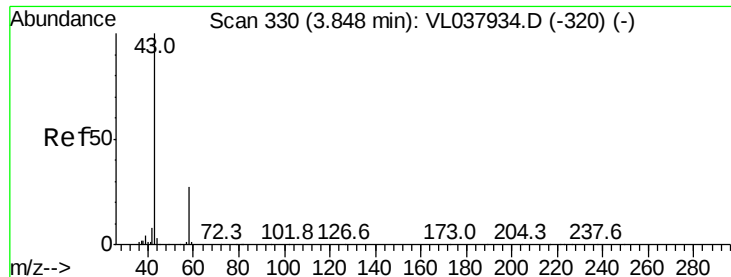
Tgt Ion: 45 Resp: 4528725

Ion Ratio Lower Upper

45 100

46 37.7 17.4 69.8





#15

Acetone

Concen: 12.245 ppbv

RT: 3.85 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

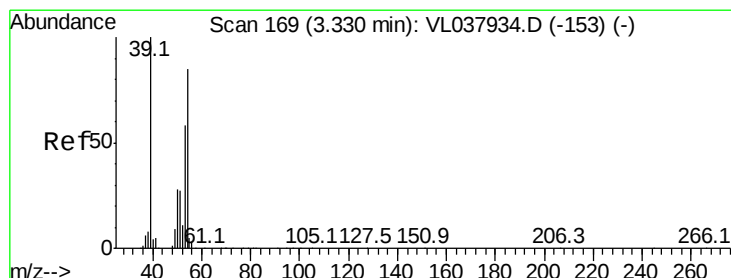
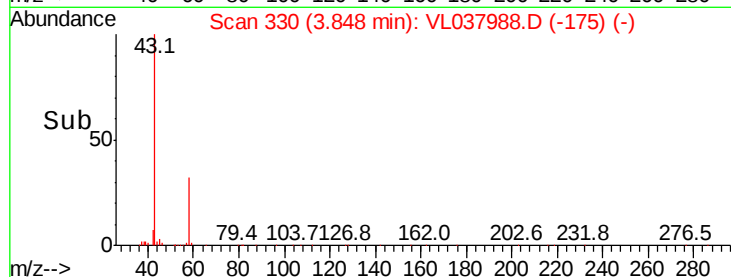
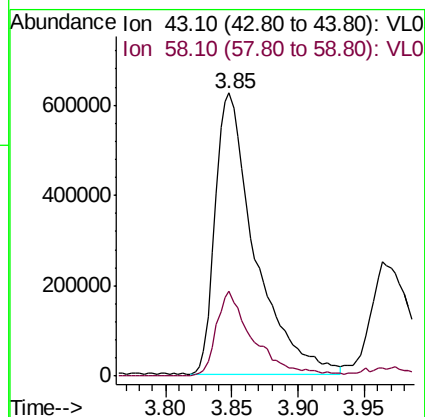
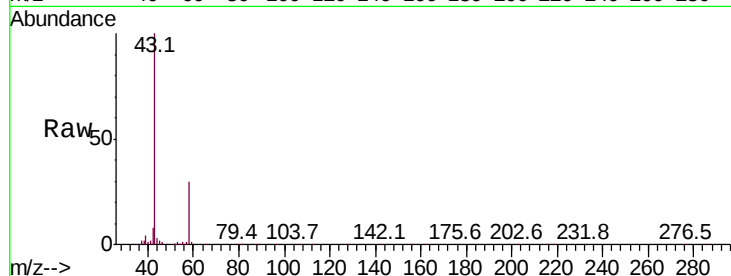
Acq: 9 Nov 2021 20:48

Tot Ion: 43 Resp: 1296257

Ion Ratio Lower Upper

43 100

58 28.5 23.3 34.9



#16

1,3-Butadiene

Concen: 0.036 ppbv

RT: 3.34 min Scan# 172

Delta R.T. 0.01 min

Lab File: VL037988.D

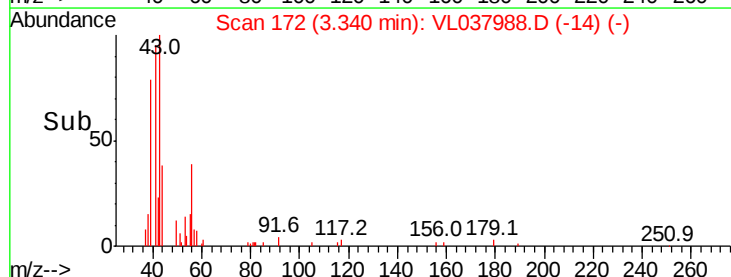
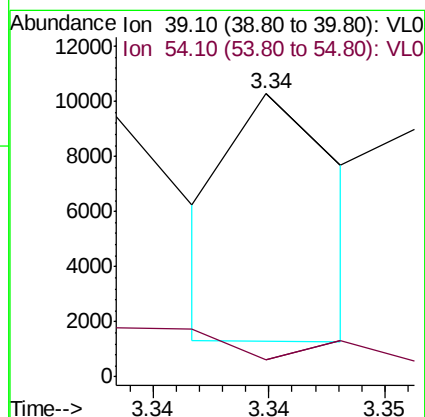
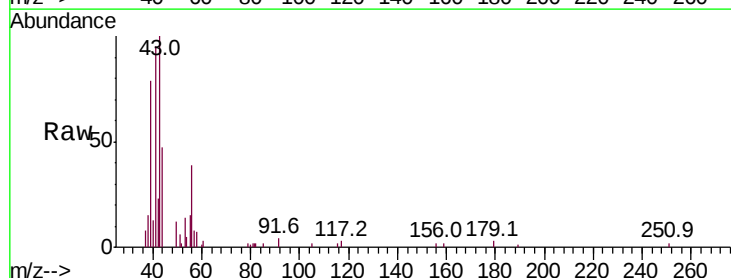
Acq: 9 Nov 2021 20:48

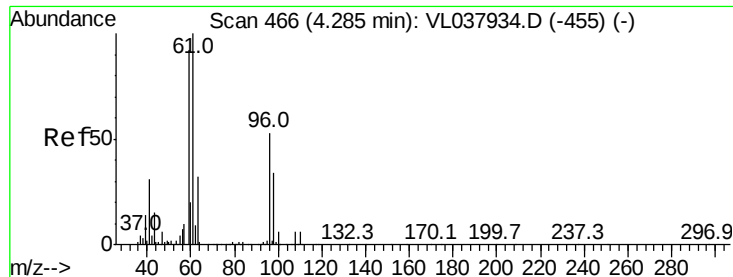
Tgt Ion: 39 Resp: 2971

Ion Ratio Lower Upper

39 100

54 0.0 62.6 93.8#





#17

tert-Butyl alcohol

Concen: 2.876 ppbv

RT: 4.29 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

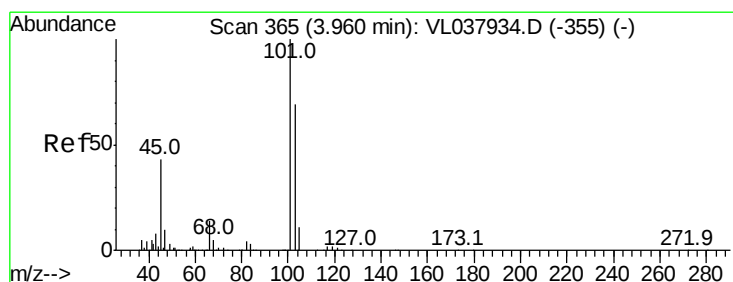
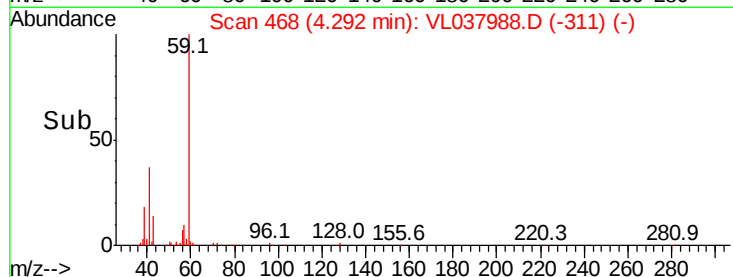
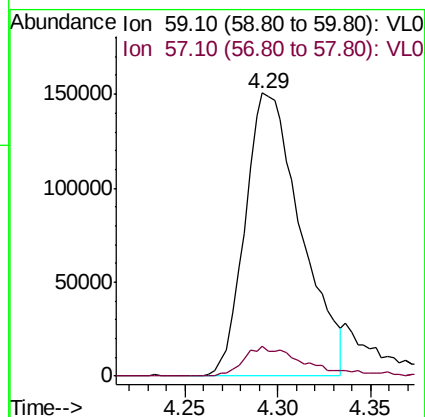
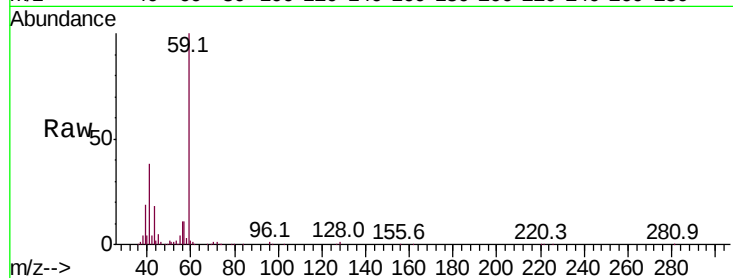
Acq: 9 Nov 2021 20:48

Tot Ion: 59 Resp: 316561

Ion Ratio Lower Upper

59 100

57 11.8 8.9 13.3



#19

Isopropyl Alcohol

Concen: 32.248 ppbv

RT: 3.97 min Scan# 367

Delta R.T. 0.01 min

Lab File: VL037988.D

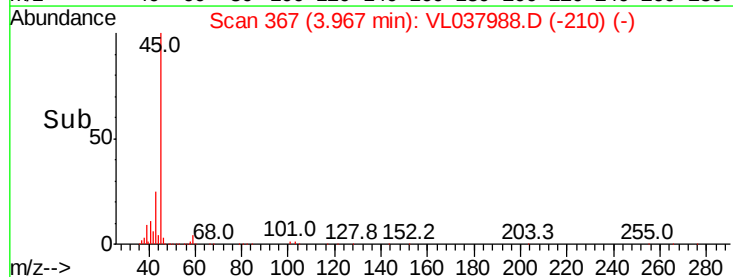
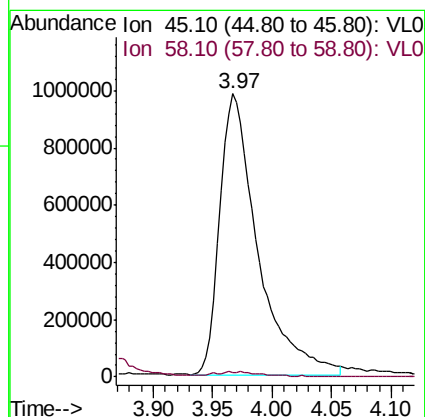
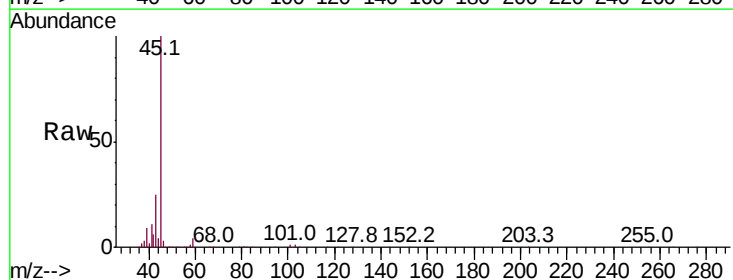
Acq: 9 Nov 2021 20:48

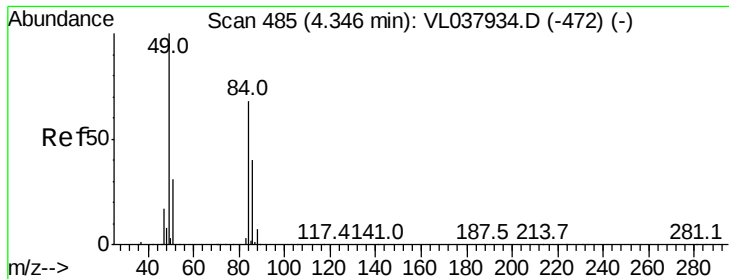
Tgt Ion: 45 Resp: 2183039

Ion Ratio Lower Upper

45 100

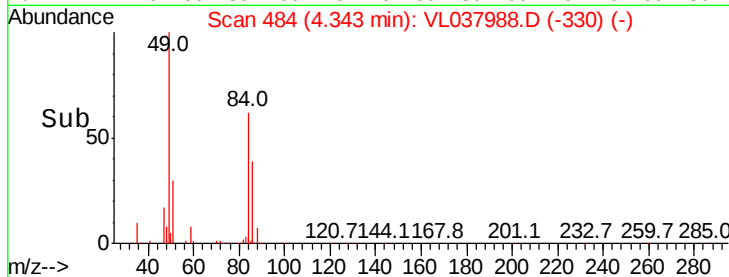
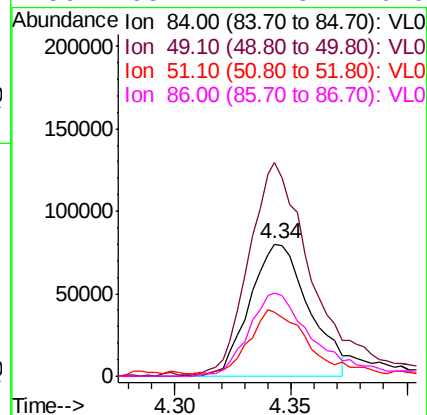
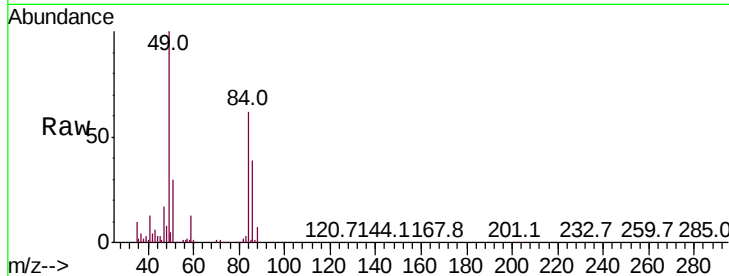
58 2.2 4.0 6.0#





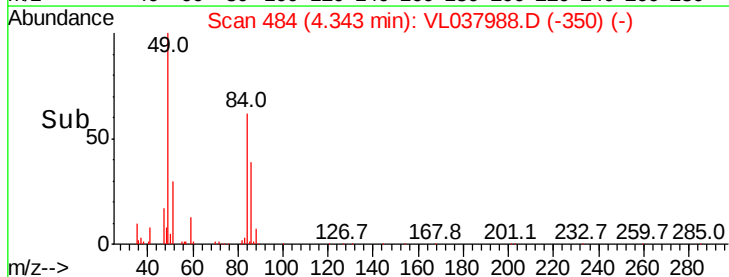
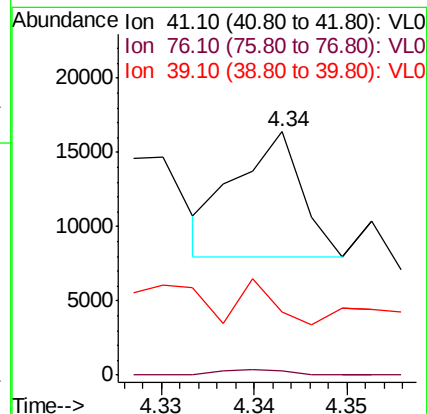
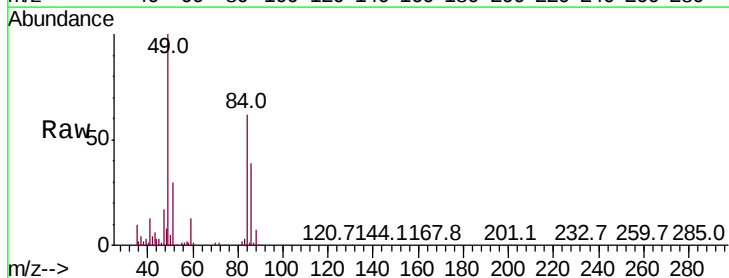
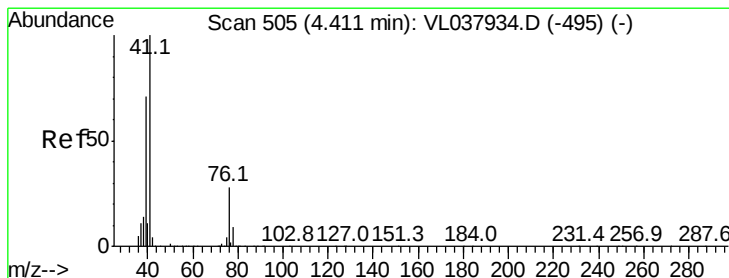
#20
Methylene Chloride
Concen: 2.440 ppbv
RT: 4.34 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 9 Nov 2021 20:48

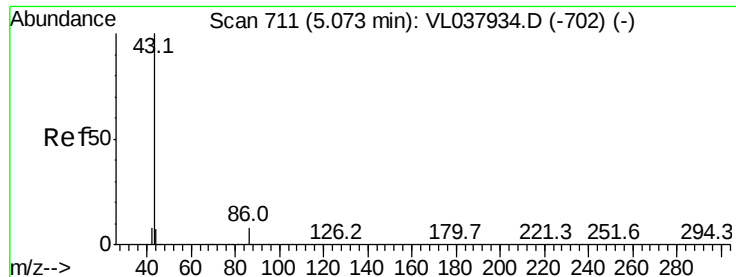
Tot Ion:	84	Resp:	141817
Ion	Ratio	Lower	Upper
84	100		
49	160.4	117.5	176.3
51	47.1	35.9	53.9
86	63.2	47.3	70.9



#21
Allyl Chloride
Concen: 0.043 ppbv
RT: 4.34 min Scan# 484
Delta R.T. -0.07 min
Lab File: VL037988.D
Acq: 9 Nov 2021 20:48

Tgt Ion:	41	Resp:	4170
Ion	Ratio	Lower	Upper
41	100		
76	4.3	23.6	35.4#
39	0.0	59.7	89.5#





#23

Vinyl Acetate

Concen: 0.149 ppbv

RT: 5.07 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 9 Nov 2021 20:48

Tot Ion: 43 Resp: 23824

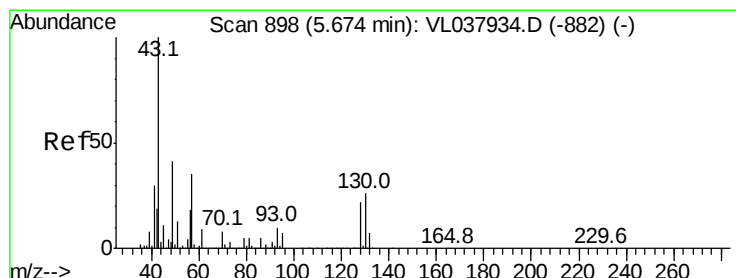
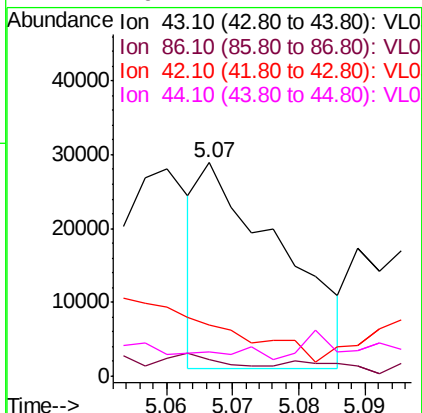
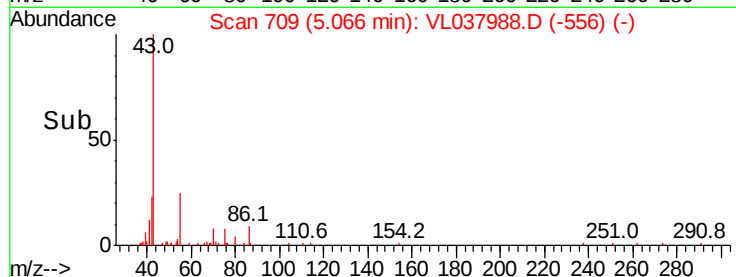
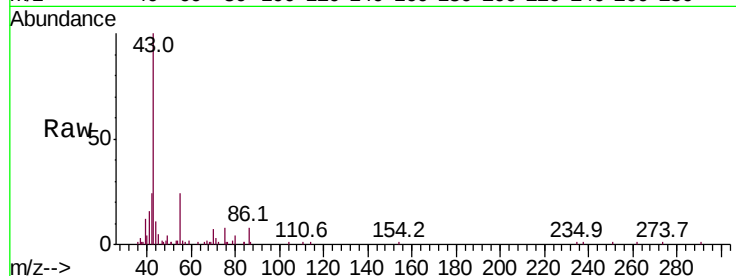
Ion Ratio Lower Upper

43 100

86 3.1 5.5 8.3#

42 16.2 7.4 11.2#

44 0.7 4.7 7.1#



#25

Ethyl Acetate

Concen: 0.668 ppbv

RT: 5.68 min Scan# 900

Delta R.T. 0.01 min

Lab File: VL037988.D

Acq: 9 Nov 2021 20:48

Tgt Ion: 43 Resp: 209993

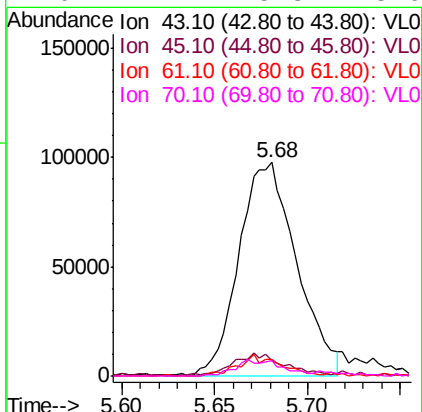
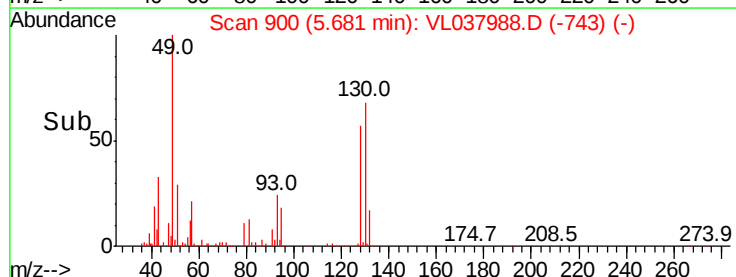
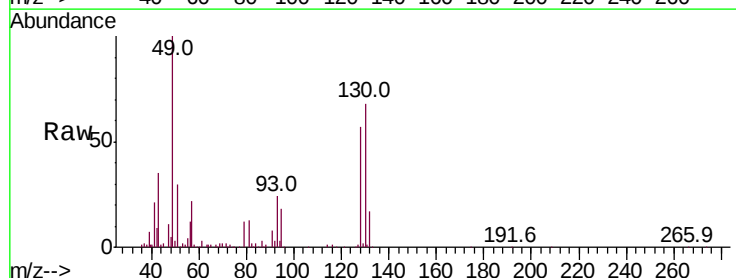
Ion Ratio Lower Upper

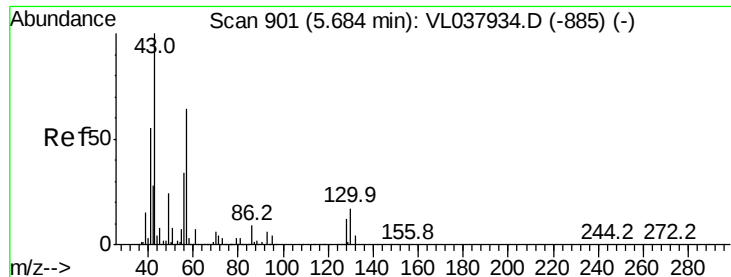
43 100

45 10.0 8.1 12.1

61 7.8 8.1 12.1#

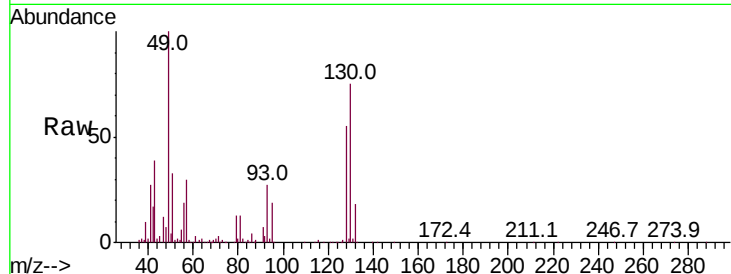
70 7.7 5.8 8.6



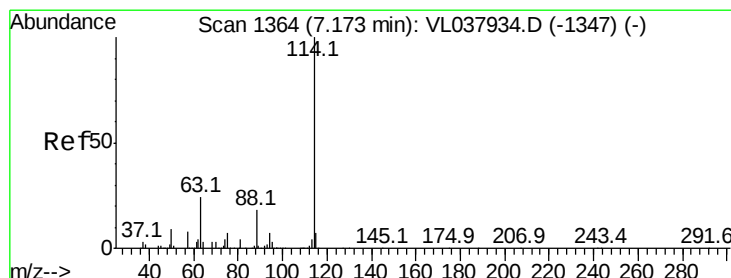
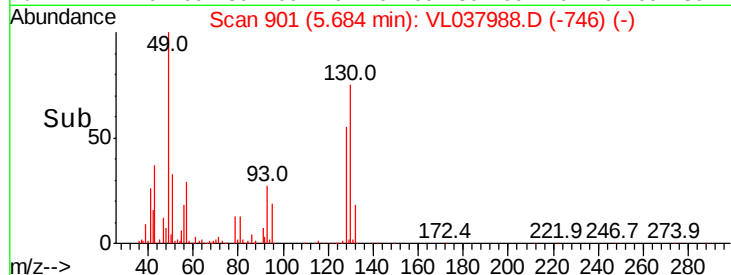
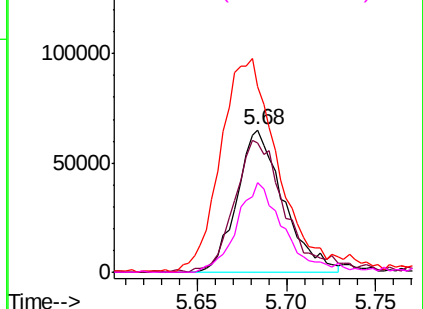


#26
Hexane
Concen: 0.793 ppbv
RT: 5.68
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 9 Nov 2021 20:48

Tot Ion:	57	Resp:	118194
Ion	Ratio	Lower	Upper
57	100		
41	105.5	71.0	106.6
43	193.8	173.0	259.6
56	64.2	43.6	65.4

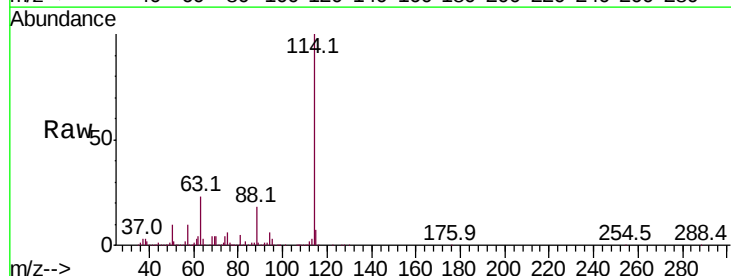


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

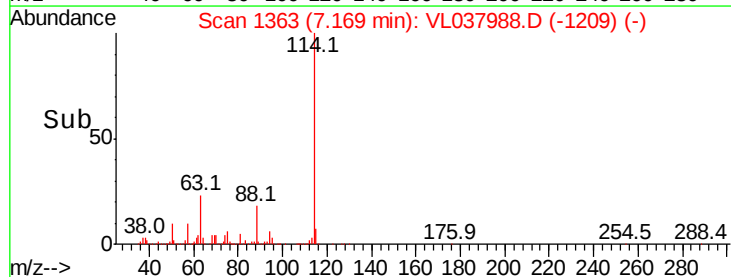
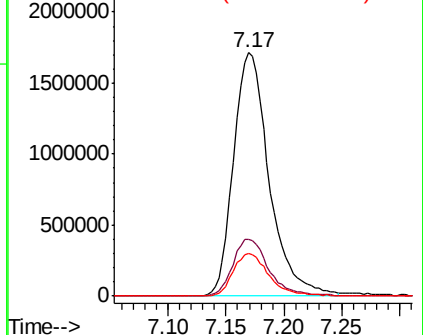


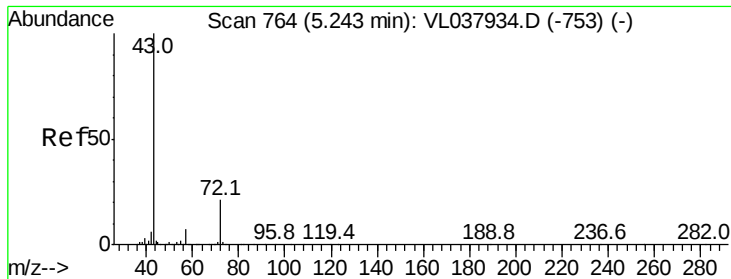
#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.00 min
Lab File: VL037988.D
Acq: 9 Nov 2021 20:48

Tgt Ion:	114	Resp:	3654199
Ion	Ratio	Lower	Upper
114	100		
63	23.9	19.4	29.0
88	17.9	14.2	21.4



Abundance Ion 114.10 (113.80 to 114.80): V
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0





#34

2-Butanone

Concen: 0.637 ppbv

RT: 5.24 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File:

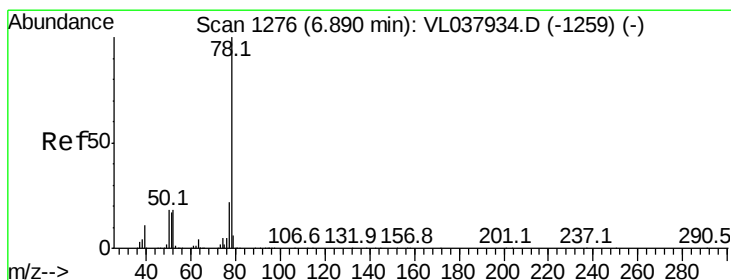
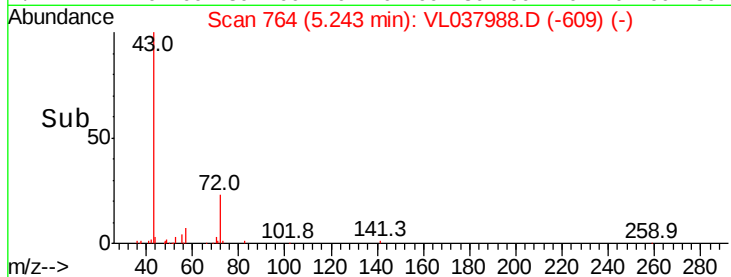
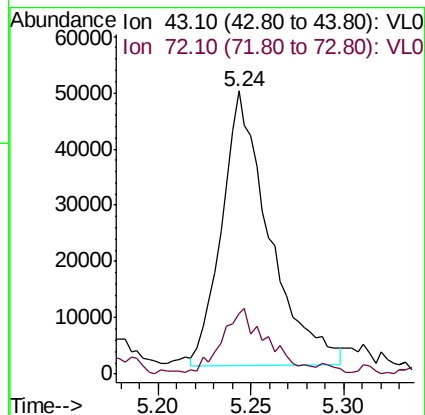
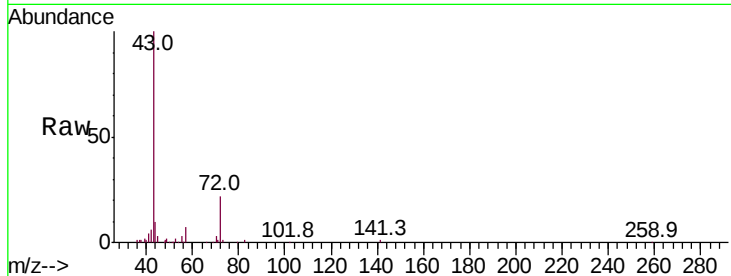
Acq: 9 Nov 2021 20:48

Tot Ion: 43 Resp: 86235

Ion Ratio Lower Upper

43 100

72 27.1 18.3 27.5



#36

Benzene

Concen: 0.045 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. -0.00 min

Lab File: VL037988.D

Acq: 9 Nov 2021 20:48

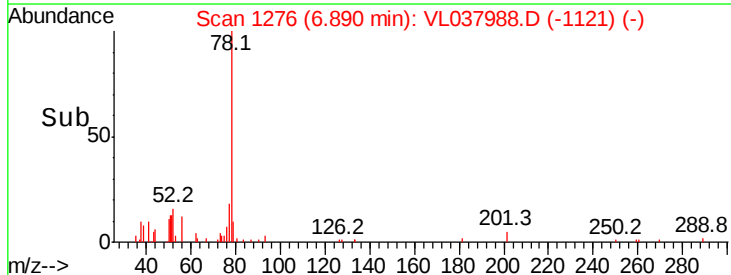
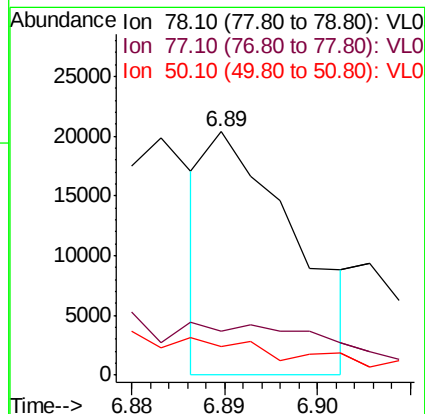
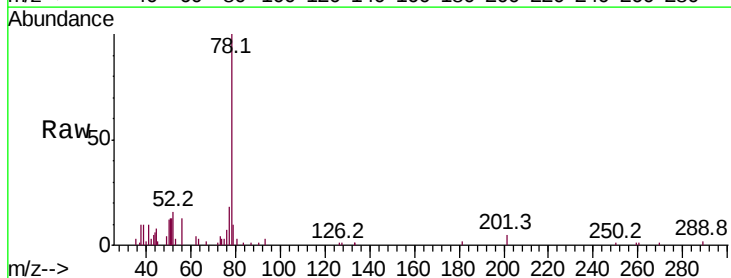
Tgt Ion: 78 Resp: 13405

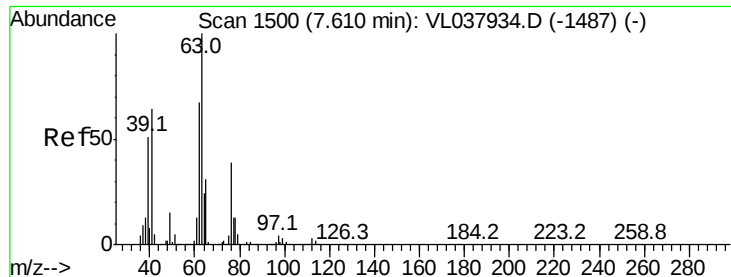
Ion Ratio Lower Upper

78 100

77 8.5 17.9 26.9#

50 5.3 14.4 21.6#





#39

1,2-Dichloropropane

Concen: 7.672 ppbv

RT: 7.17 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 9 Nov 2021 20:48

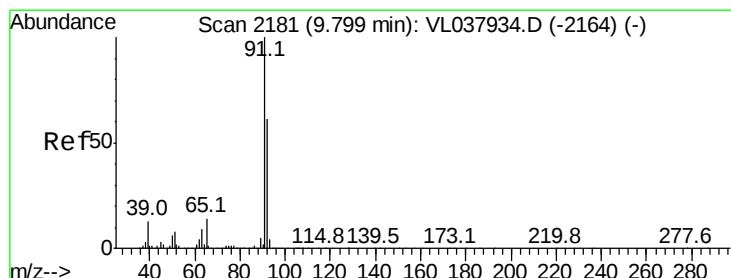
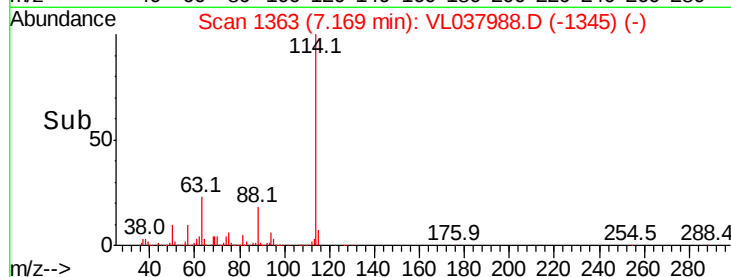
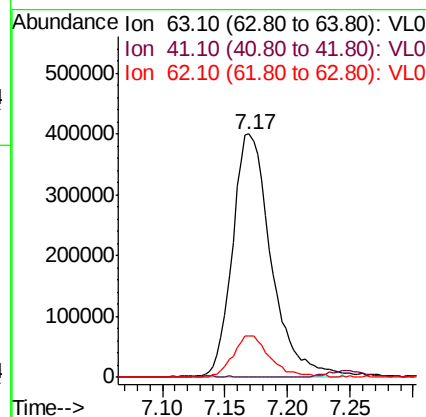
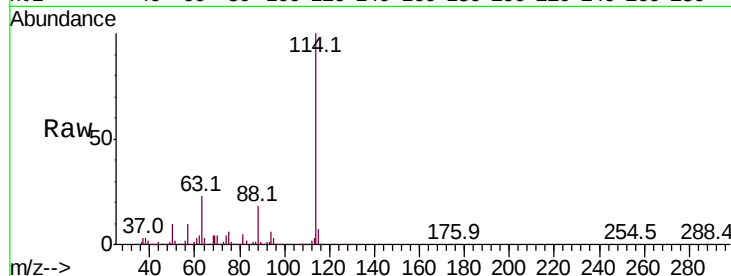
Tot Ion: 63 Resp: 859051

Ion Ratio Lower Upper

63 100

41 0.0 51.6 77.4#

62 16.9 53.5 80.3#



#53

Toluene

Concen: 0.719 ppbv

RT: 9.80 min Scan# 2180

Delta R.T. -0.00 min

Lab File: VL037988.D

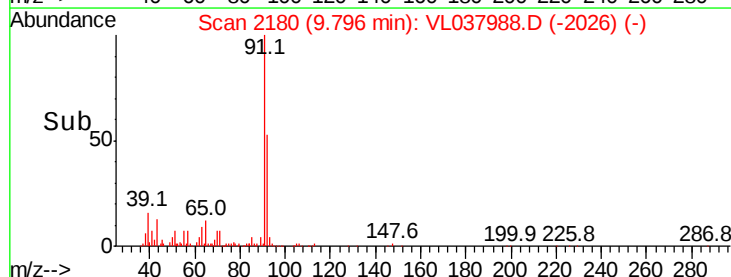
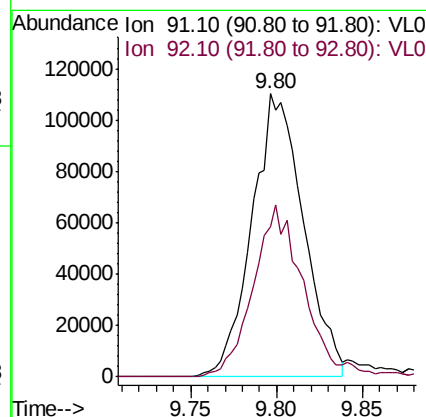
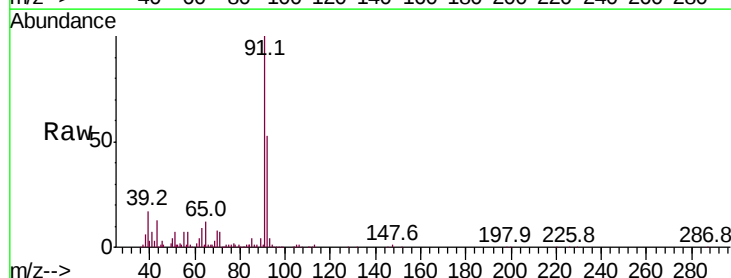
Acq: 9 Nov 2021 20:48

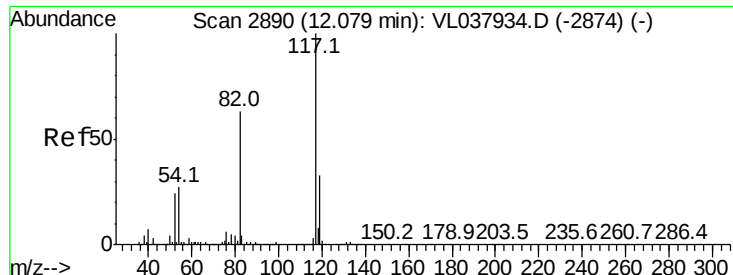
Tgt Ion: 91 Resp: 229270

Ion Ratio Lower Upper

91 100

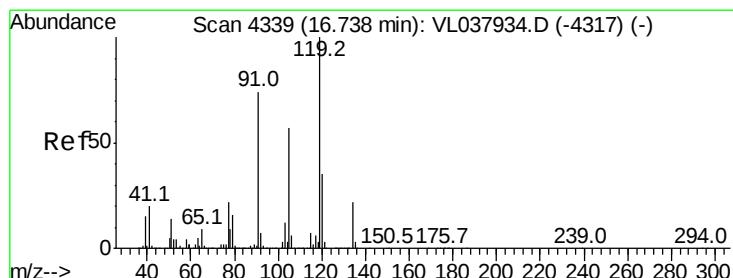
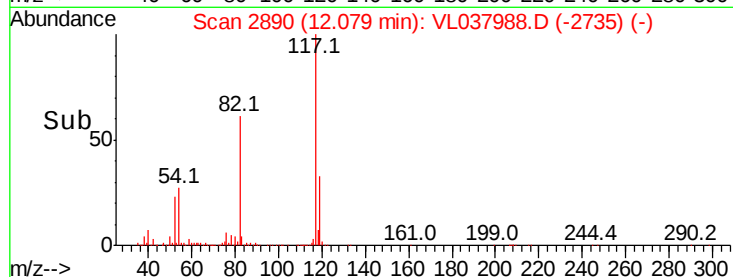
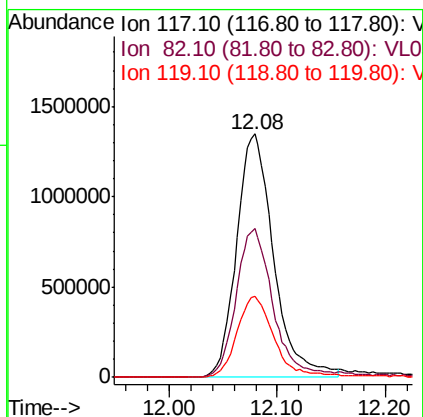
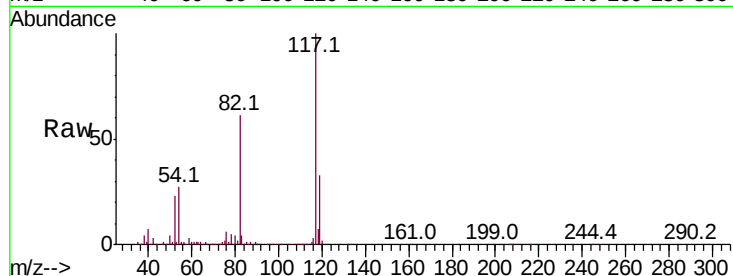
92 61.1 48.2 72.4





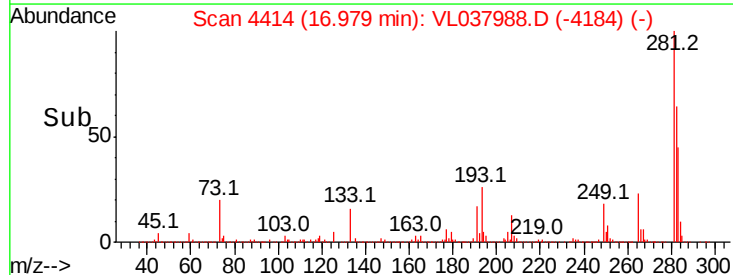
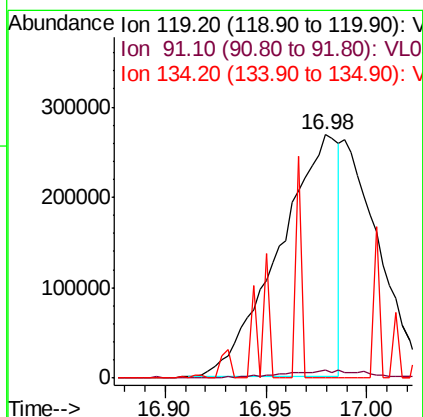
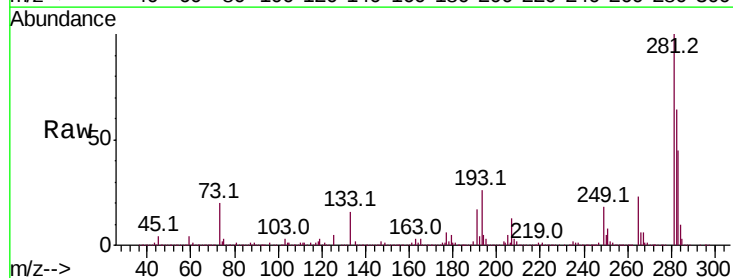
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 9 Nov 2021 20:48

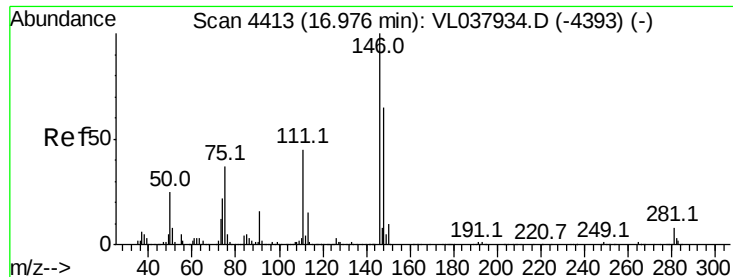
Tot Ion:117 Resp: 3232596
Ion Ratio Lower Upper
117 100
82 64.5 51.0 76.6
119 34.8 26.9 40.3



#65
tert-Butylbenzene
Concen: 1.307 ppbv
RT: 16.98 min Scan# 4414
Delta R.T. 0.24 min
Lab File: VL037988.D
Acq: 9 Nov 2021 20:48

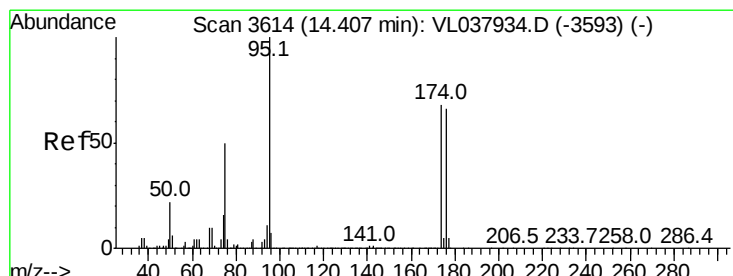
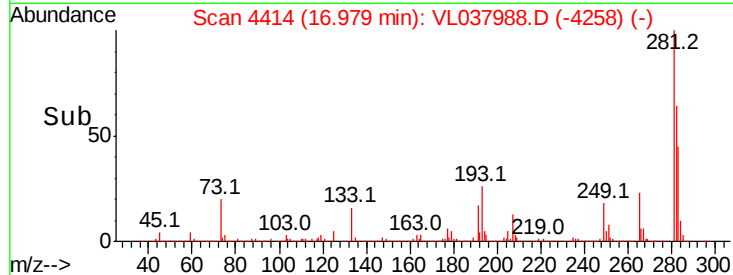
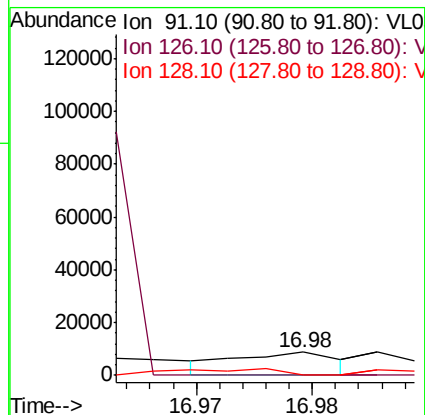
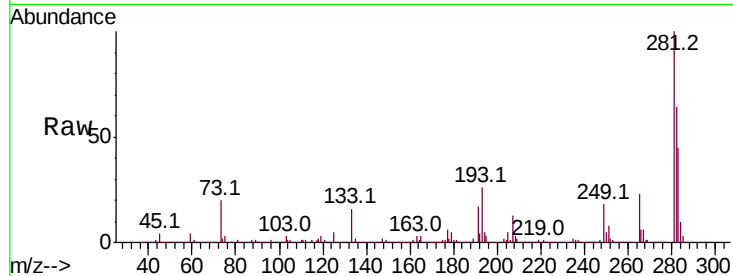
Tgt Ion:119 Resp: 541638
Ion Ratio Lower Upper
119 100
91 0.2 61.8 92.6#
134 19.7 16.6 25.0





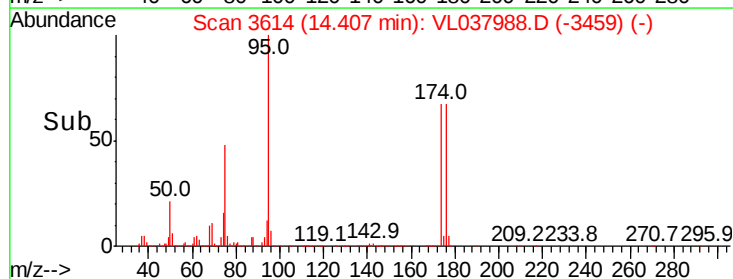
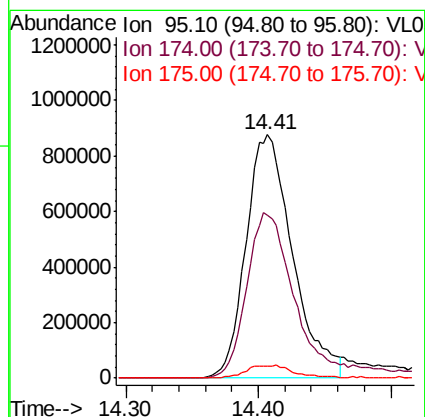
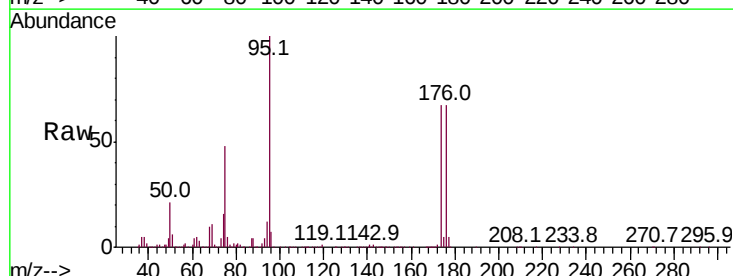
#66
Benzyl Chloride
Concen: 0.253 ppbv
RT: 16.98 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 20:48

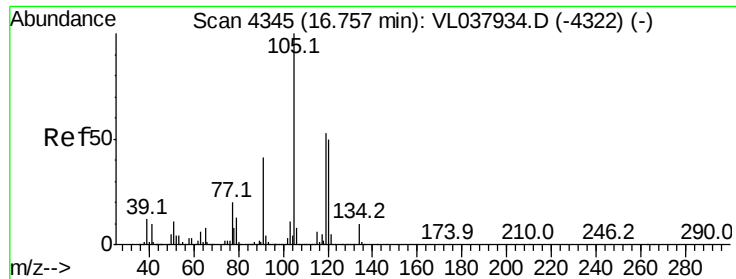
Tot Ion	91	Resp	5489
Ion	Ratio	Lower	Upper
91	100		
126	0.0	13.8	20.6#
128	0.0	5.1	7.7#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.112 ppbv
RT: 14.41 min Scan# 3614
Delta R.T. -0.00 min
Lab File: VL037988.D
Acq: 9 Nov 2021 20:48

Tgt Ion	95	Resp	2141023
Ion	Ratio	Lower	Upper
95	100		
174	76.5	58.3	87.5
175	5.4	4.6	6.8





#74

1,2,4-Trimethylbenzene

Concen: 0.047 ppbv

RT: 16.75 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 9 Nov 2021 20:48

Tot Ion:	105	Resp:	17431
Ion Ratio	Lower	Upper	
105	100		
120	42.7	40.0	60.0
91	10.0	32.6	49.0#
77	10.4	15.8	23.8#

