

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL111021\
 Data File : VL038014.D
 Acq On : 10 Nov 2021 18:06
 Operator : SY/AP
 Sample : M4598-04DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 11 03:43:44 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	5.65	49	1462855	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	4249396	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	3557010	10.00	ppbv	0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2603960	10.07	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.70%

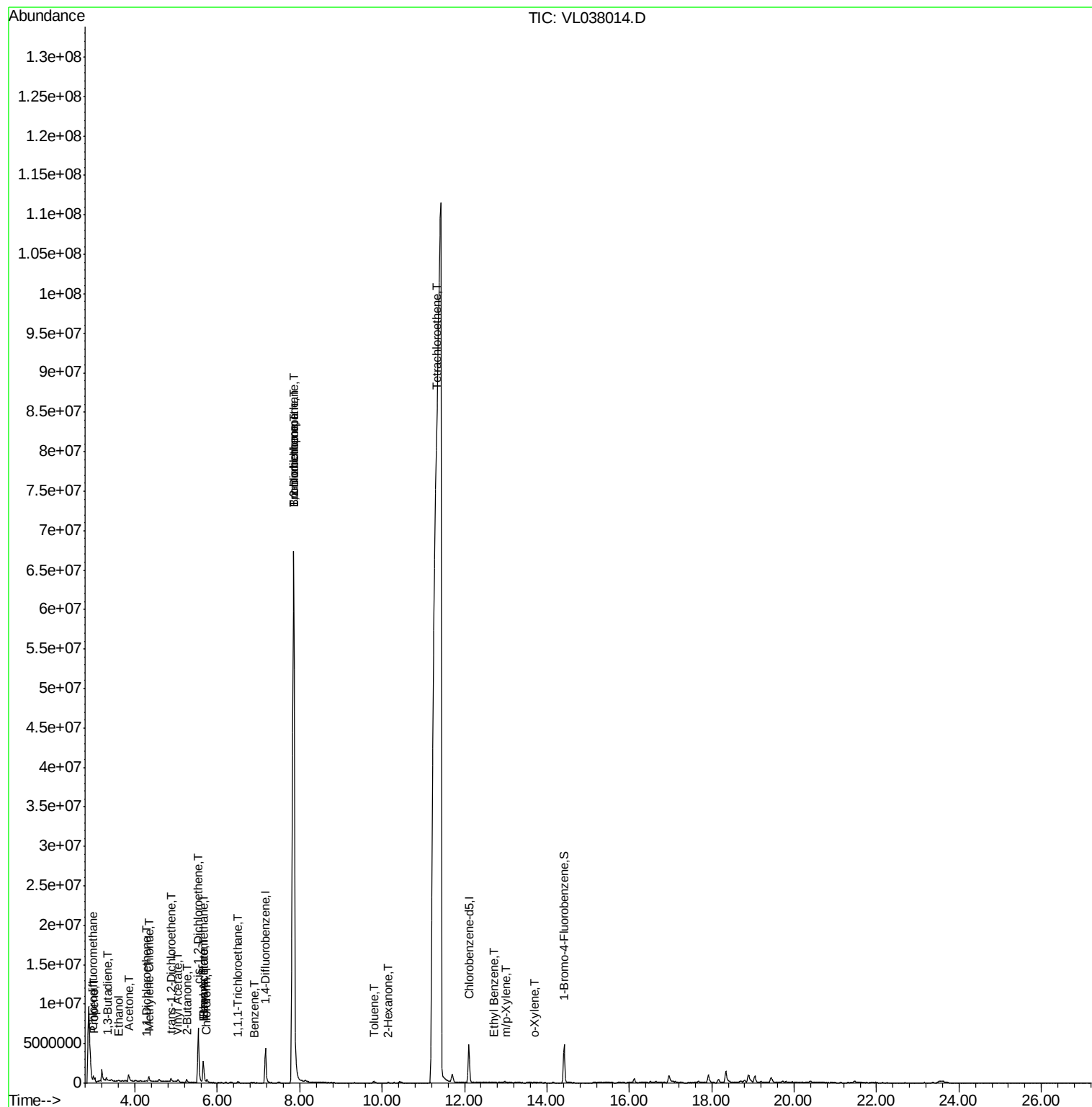
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.99	51	1322276	4.856	ppbv #	90
9) Propene	3.01	41	84477	0.865	ppbv	98
13) Ethanol	3.61	45	37717	3.829	ppbv #	32
15) Acetone	3.84	43	1048540	8.674	ppbv	93
16) 1,3-Butadiene	3.34	39	4110	0.043	ppbv #	10
18) 1,1-Dichloroethene	4.28	96	9664	0.131	ppbv	98
20) Methylene Chloride	4.34	84	227397	3.427	ppbv	90
22) trans-1,2-Dichloroethene	4.88	96	145865	1.994	ppbv #	92
23) Vinyl Acetate	5.05	43	132607	0.729	ppbv #	1
25) Ethyl Acetate	5.68	43	165622	0.461	ppbv #	77
26) Hexane	5.67	57	226029	1.329	ppbv #	47
29) Chloroform	5.74	83	266832	1.052	ppbv	98
31) cis-1,2-Dichloroethene	5.54	61	4760829	30.675	ppbv	98
32) 1,1,1-Trichloroethane	6.50	97	32950	0.132	ppbv #	8
34) 2-Butanone	5.25	43	551569	3.503	ppbv	99
36) Benzene	6.89	78	48675	0.141	ppbv	98
38) Trichloroethene	7.86	130	32811692	228.446	ppbv #	90
39) 1,2-Dichloropropane	7.85	63	165348	1.270	ppbv #	1
42) Bromodichloromethane	7.86	83	745289	2.996	ppbv #	97
51) 2-Hexanone	10.14	43	12839	0.147	ppbv #	30
52) Tetrachloroethene	11.31	164	43698116	332.871	ppbv	91
53) Toluene	9.80	91	103764	0.280	ppbv #	49
58) Ethyl Benzene	12.73	91	20743	0.048	ppbv	96
59) m/p-Xylene	13.01	91	25182	0.065	ppbv #	30
60) o-Xylene	13.70	91	44927	0.123	ppbv	76

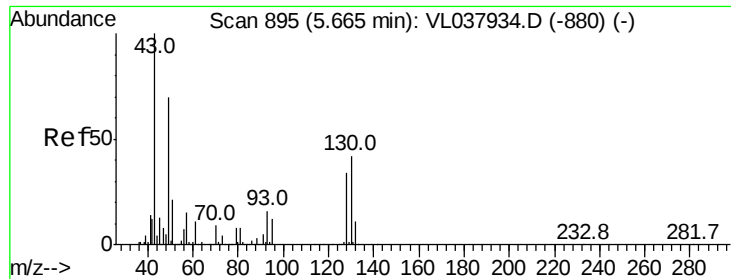
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue Nov 02 05:54:07 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 10 Nov 2021 18:00

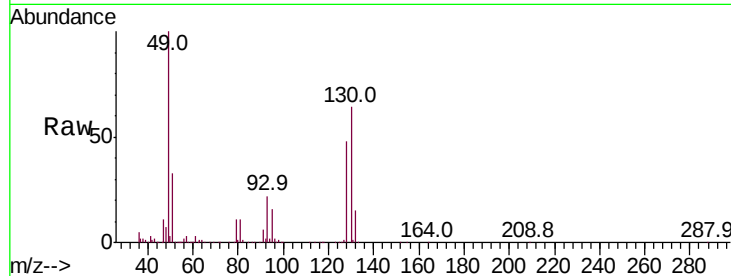
Tot Ion: 49 Resp: 1462855

Ion Ratio Lower Upper

49 100

128 51.3 27.0 81.0

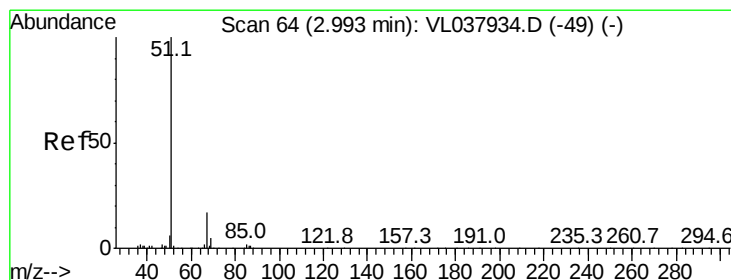
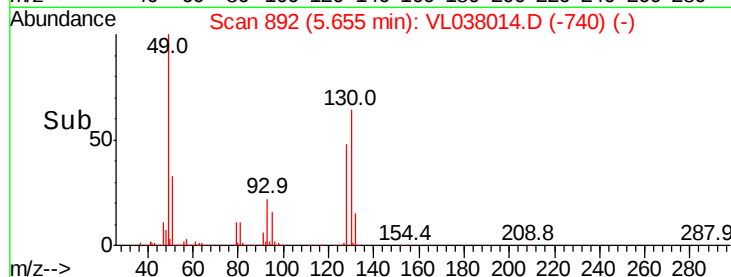
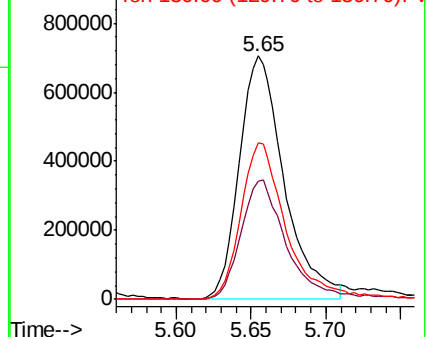
130 65.9 33.4 100.2



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



#3

Chlorodifluoromethane

Concen: 4.856 ppbv

RT: 2.99 min Scan# 62

Delta R.T. -0.01 min

Lab File: VL038014.D

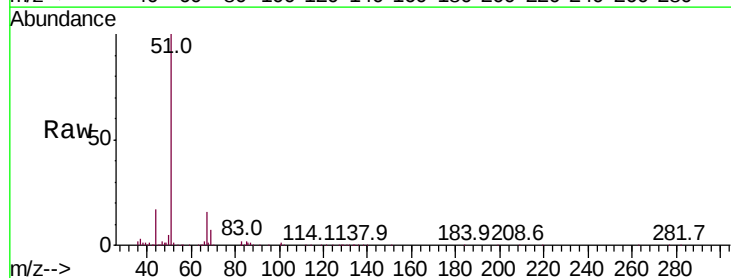
Acq: 10 Nov 2021 18:06

Tgt Ion: 51 Resp: 1322276

Ion Ratio Lower Upper

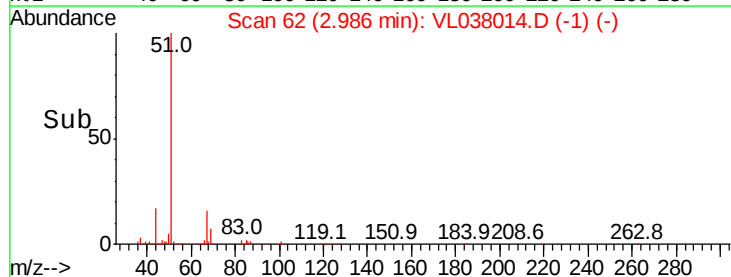
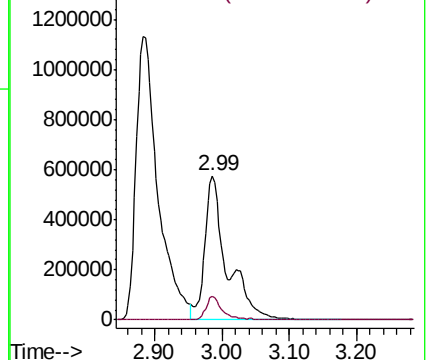
51 100

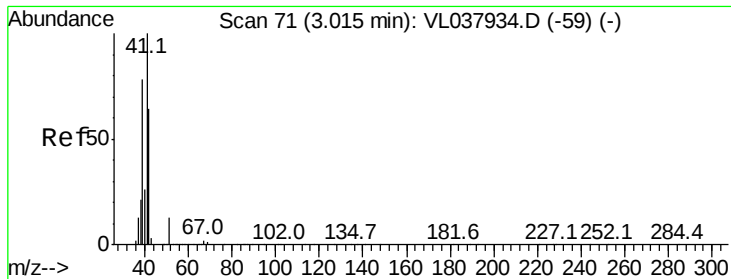
67 12.4 13.4 20.0#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#9

Propene

Concen: 0.865 ppbv

RT: 3.01 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

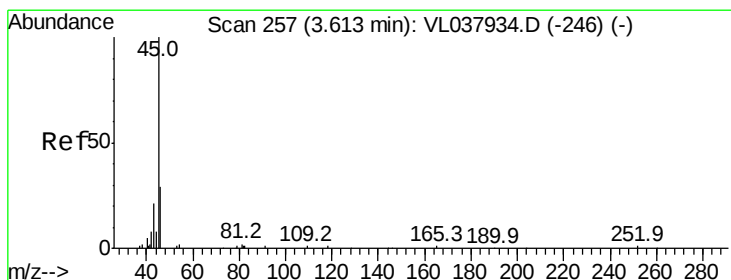
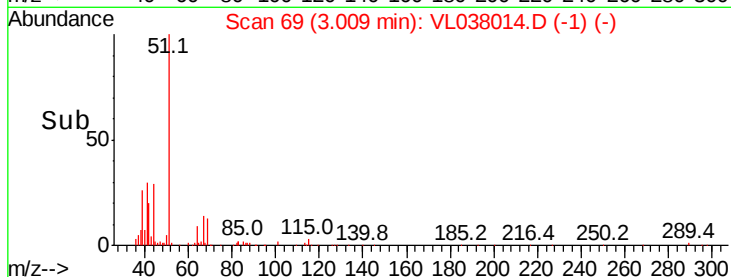
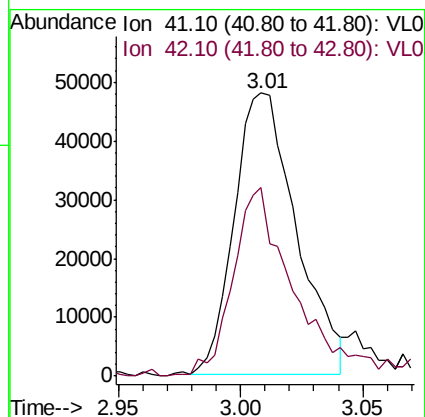
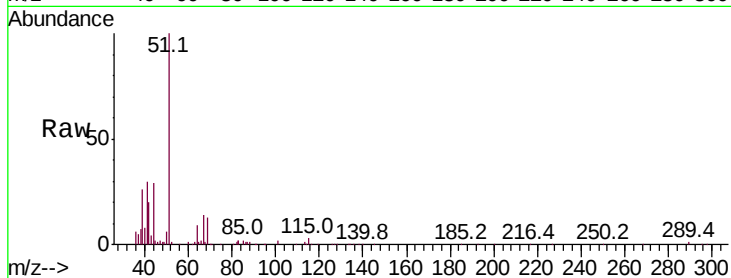
Acq: 10 Nov 2021 18:00

Tot Ion: 41 Resp: 84477

Ion Ratio Lower Upper

41 100

42 69.9 57.6 86.4



#13

Ethanol

Concen: 3.829 ppbv

RT: 3.61 min Scan# 255

Delta R.T. -0.01 min

Lab File: VL038014.D

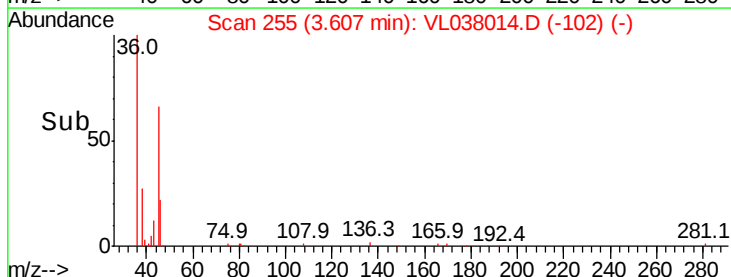
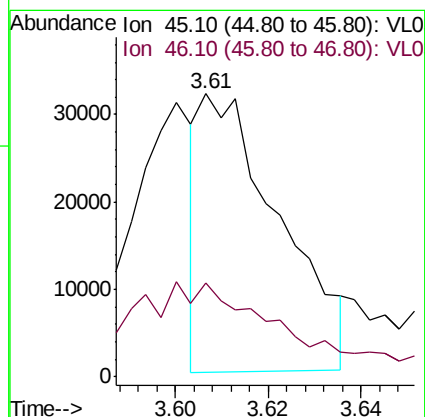
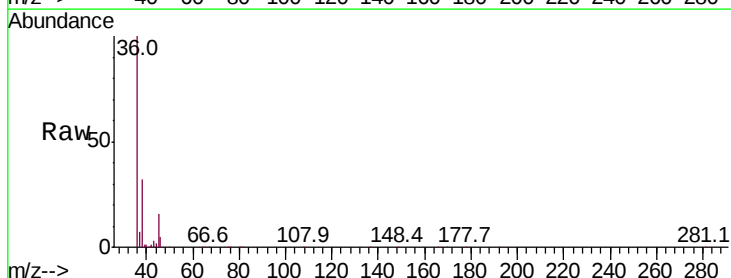
Acq: 10 Nov 2021 18:06

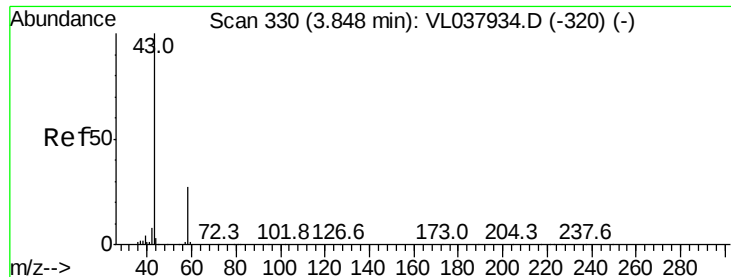
Tgt Ion: 45 Resp: 37717

Ion Ratio Lower Upper

45 100

46 0.0 17.4 69.8#





#15

Acetone

Concen: 8.674 ppbv

RT: 3.84 Instrument :

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

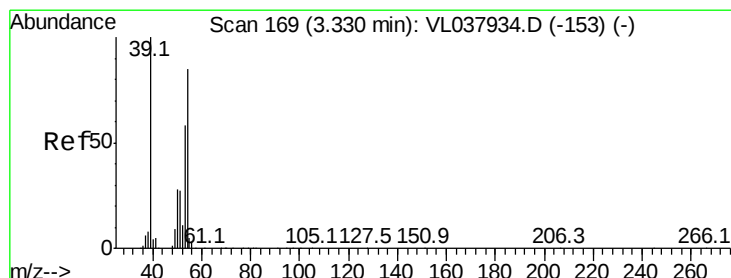
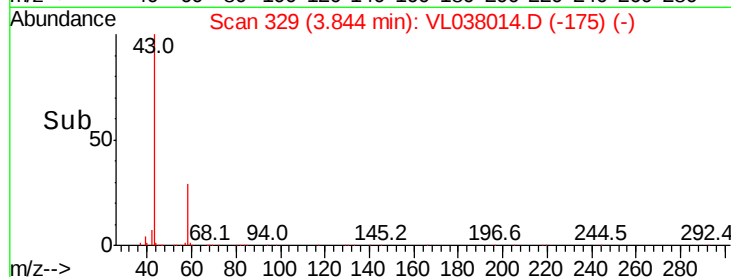
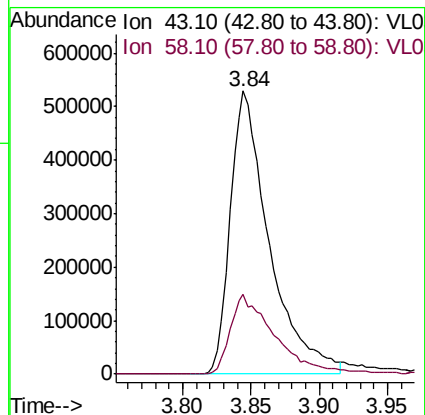
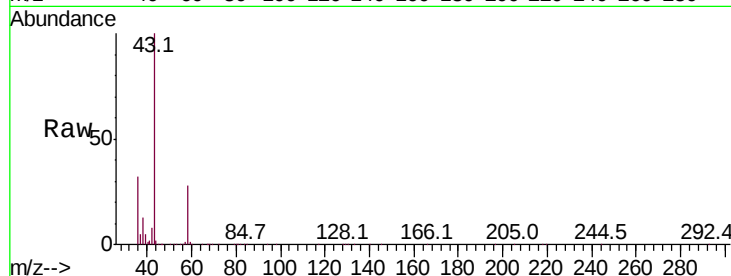
Acq: 10 Nov 2021 18:00

Tot Ion: 43 Resp: 1048540

Ion Ratio Lower Upper

43 100

58 32.7 23.3 34.9



#16

1,3-Butadiene

Concen: 0.043 ppbv

RT: 3.34 min Scan# 171

Delta R.T. 0.01 min

Lab File: VL038014.D

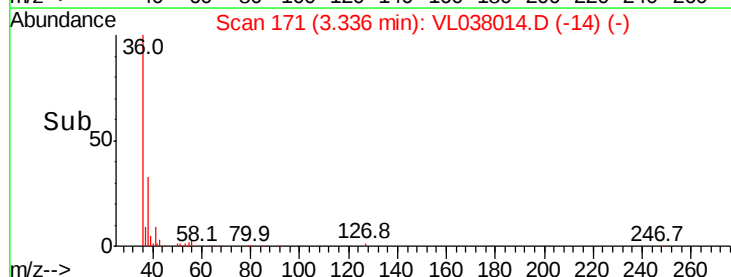
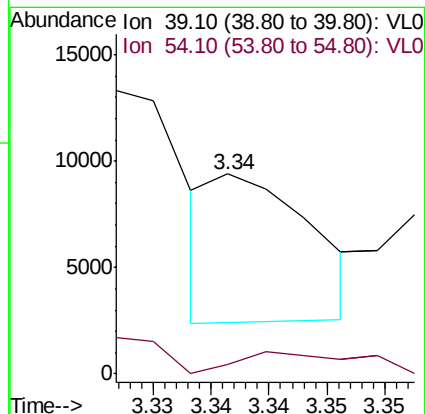
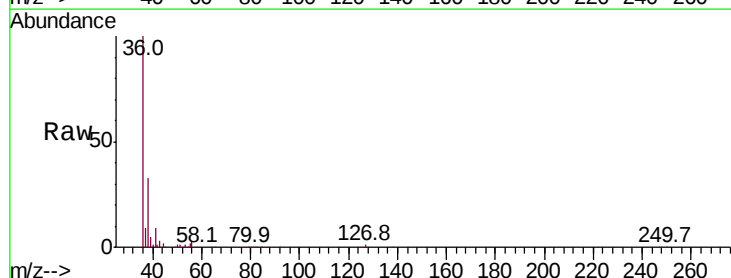
Acq: 10 Nov 2021 18:06

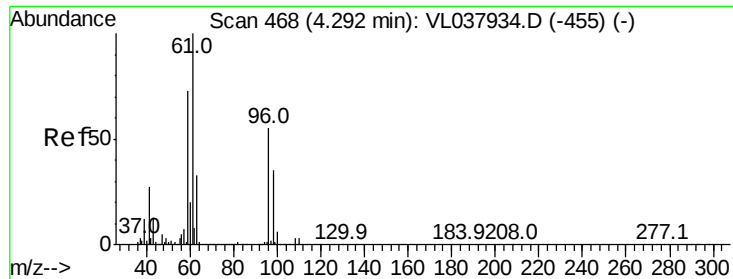
Tgt Ion: 39 Resp: 4110

Ion Ratio Lower Upper

39 100

54 0.0 62.6 93.8#





#18

1,1-Dichloroethene

Concen: 0.131 ppbv

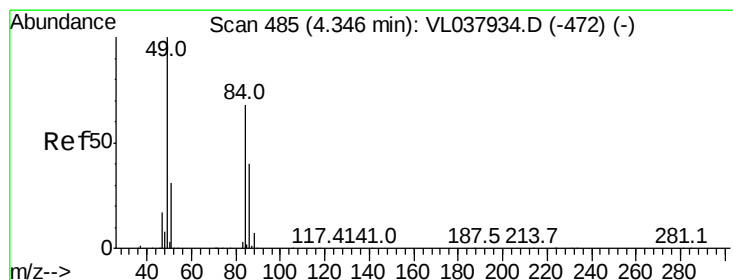
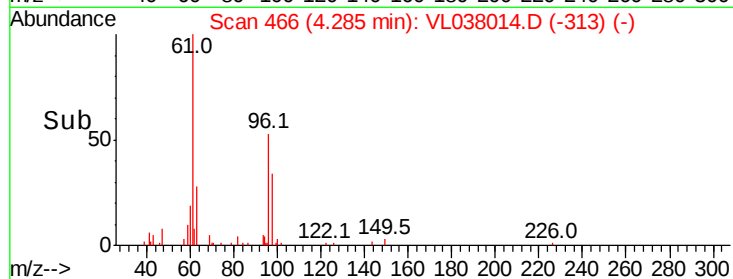
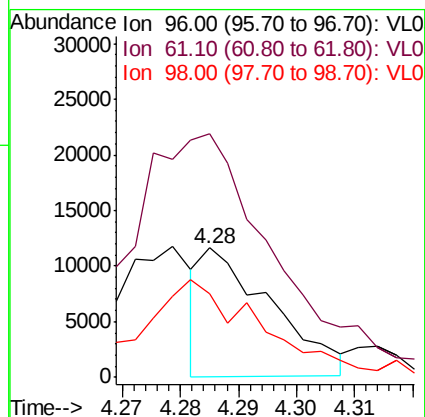
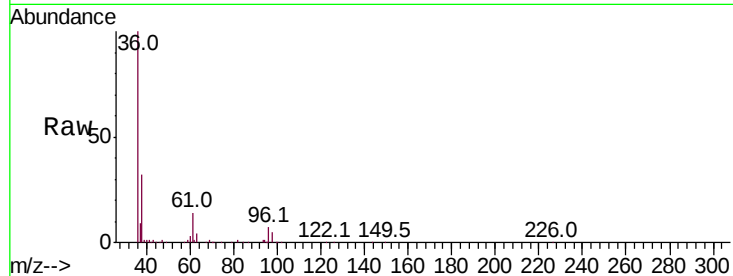
RT: 4.28 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File:

Acq: 10 Nov 2021 18:06

Tot Ion	96	Resp:	9664
Ion	Ratio	Lower	Upper
96	100		
61	176.1	144.3	216.5
98	62.5	50.5	75.7



#20

Methylene Chloride

Concen: 3.427 ppbv

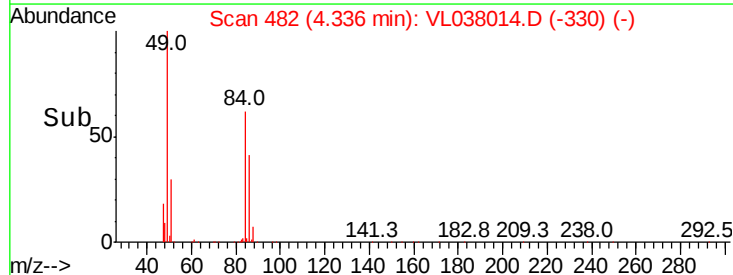
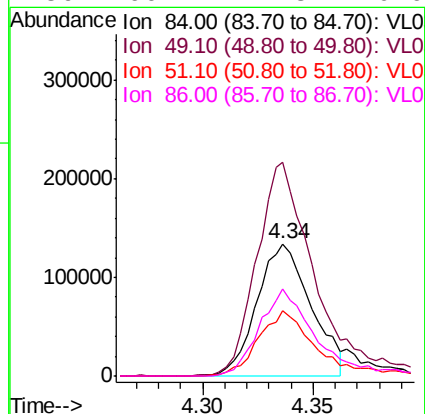
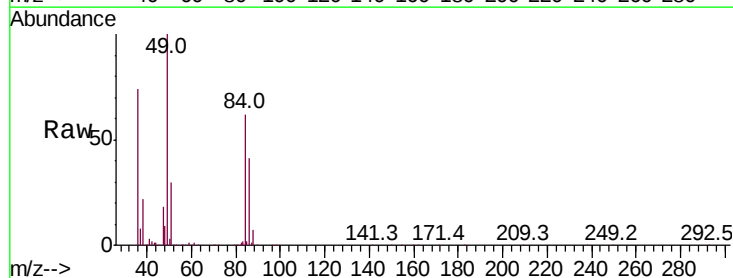
RT: 4.34 min Scan# 482

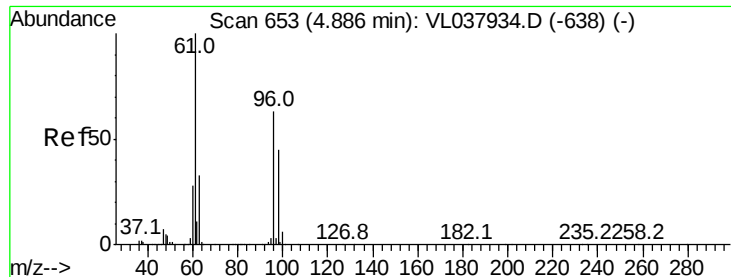
Delta R.T. -0.01 min

Lab File: VL038014.D

Acq: 10 Nov 2021 18:06

Tgt Ion	84	Resp:	227397
Ion	Ratio	Lower	Upper
84	100		
49	161.2	117.5	176.3
51	48.8	35.9	53.9
86	66.1	47.3	70.9





#22

trans-1,2-Dichloroethene

Concen: 1.994 ppbv

RT: 4.88 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 10 Nov 2021 18:00

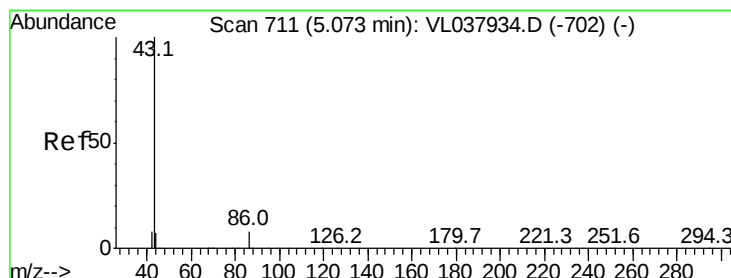
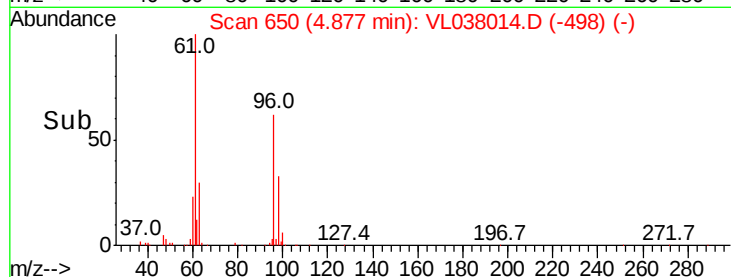
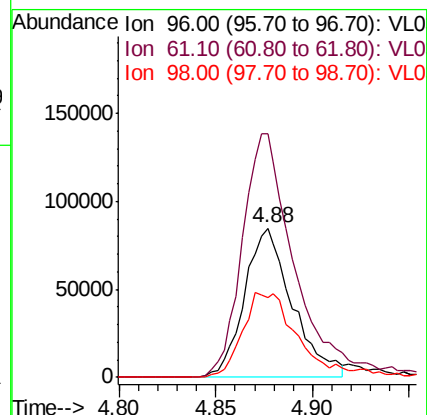
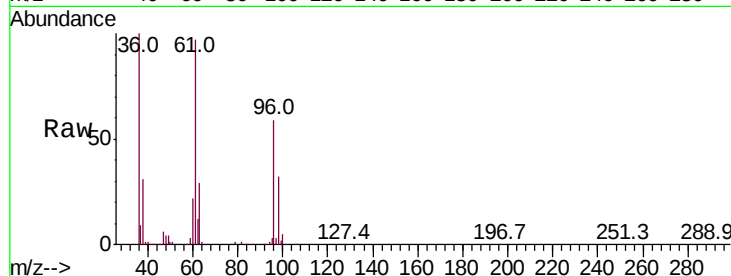
Tot Ion: 96 Resp: 145865

Ion Ratio Lower Upper

96 100

61 162.5 127.8 191.6

98 53.4 56.9 85.3#



#23

Vinyl Acetate

Concen: 0.729 ppbv

RT: 5.05 min Scan# 703

Delta R.T. -0.03 min

Lab File: VL038014.D

Acq: 10 Nov 2021 18:06

Tgt Ion: 43 Resp: 132607

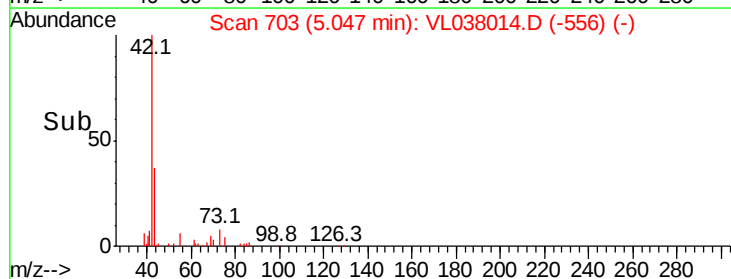
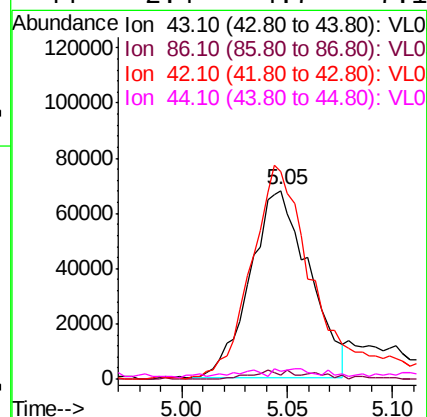
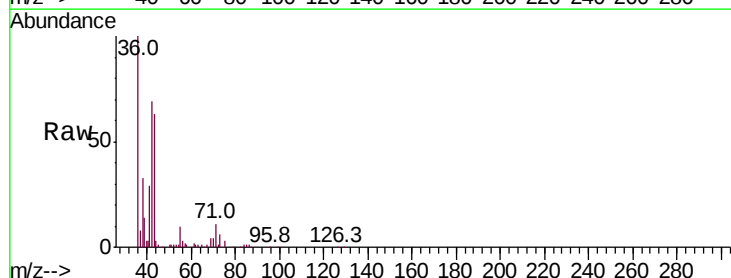
Ion Ratio Lower Upper

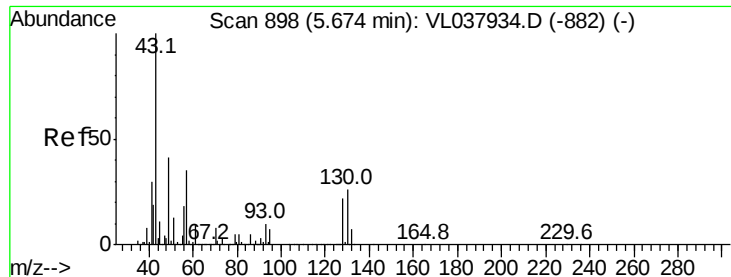
43 100

86 2.0 5.5 8.3#

42 109.1 7.4 11.2#

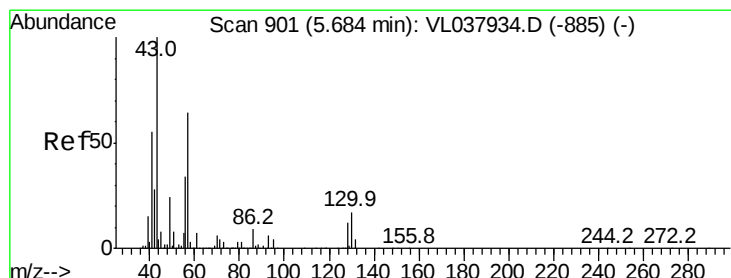
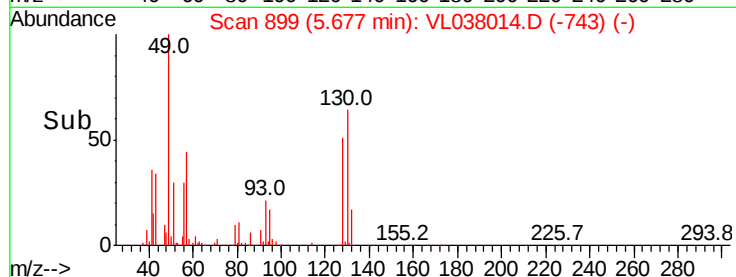
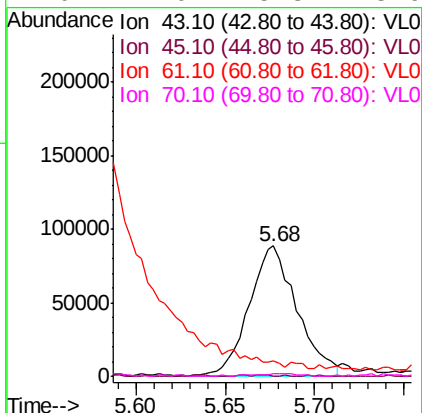
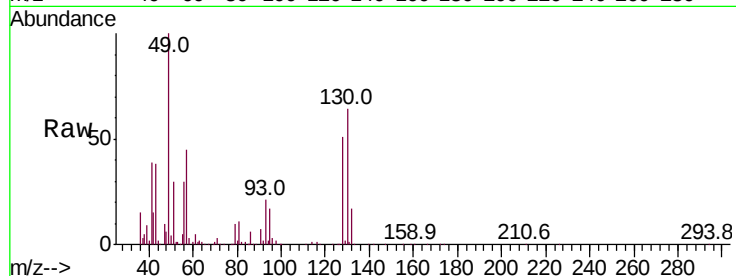
44 2.4 4.7 7.1#





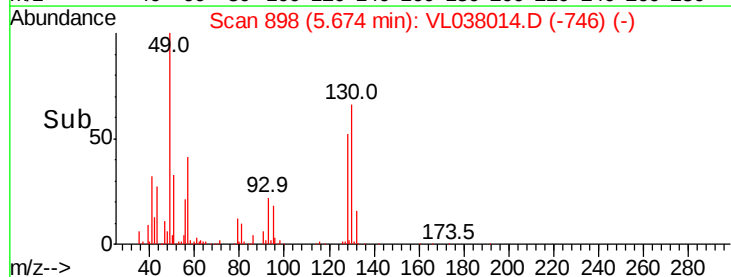
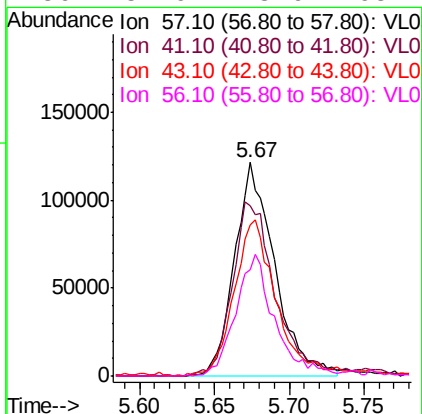
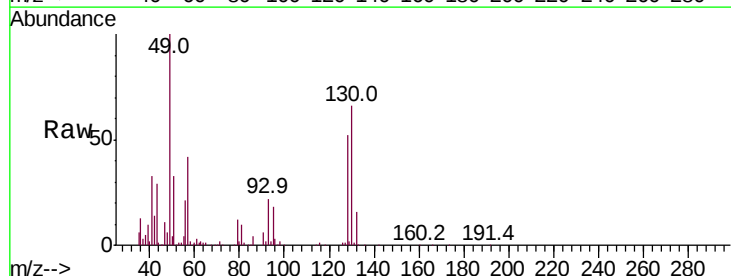
#25
Ethyl Acetate
Concen: 0.461 ppbv
RT: 5.68
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 10 Nov 2021 18:00

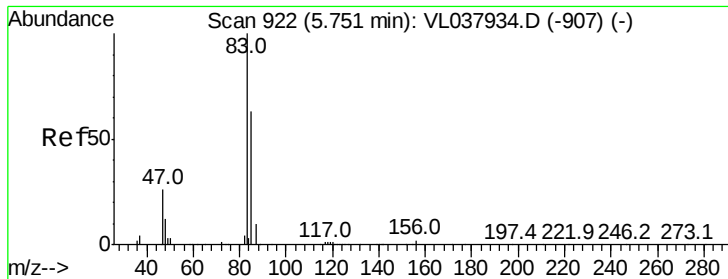
Tot Ion:	43	Resp:	165622
Ion	Ratio	Lower	Upper
43	100		
45	1.2	8.1	12.1#
61	0.0	8.1	12.1#
70	2.0	5.8	8.6#



#26
Hexane
Concen: 1.329 ppbv
RT: 5.67 min Scan# 898
Delta R.T.: -0.01 min
Lab File: VL038014.D
Acq: 10 Nov 2021 18:06

Tgt Ion:	57	Resp:	226029
Ion	Ratio	Lower	Upper
57	100		
41	92.1	71.0	106.6
43	79.2	173.0	259.6#
56	57.9	43.6	65.4





#29

Chloroform

Concen: 1.052 ppbv

RT: 5.74 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

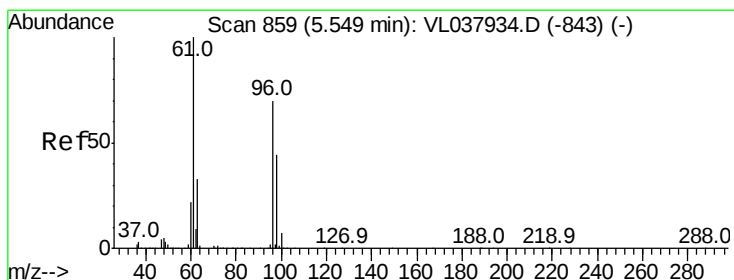
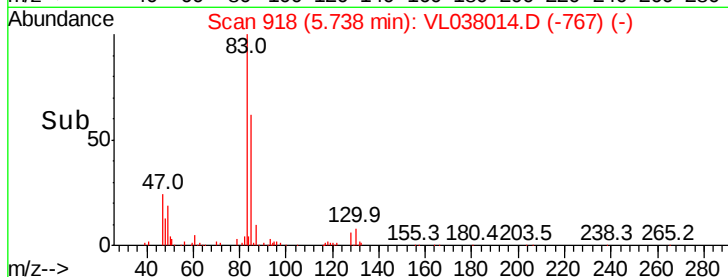
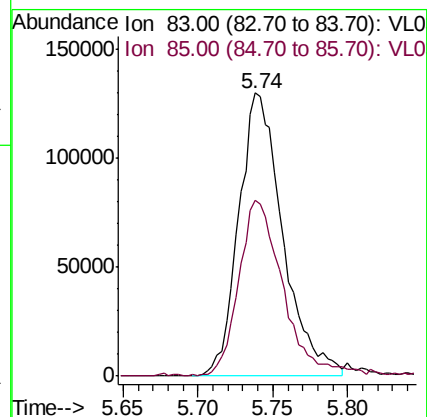
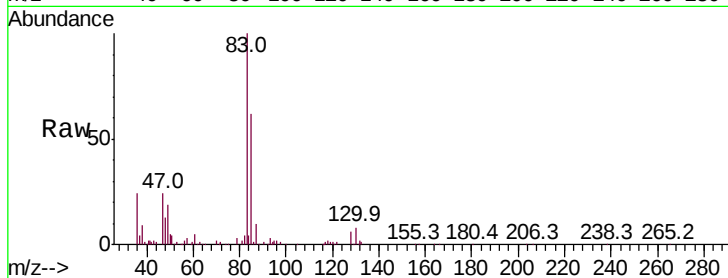
Acq: 10 Nov 2021 18:00

Tot Ion: 83 Resp: 266832

Ion Ratio Lower Upper

83 100

85 61.5 50.6 76.0



#31

cis-1,2-Dichloroethene

Concen: 30.675 ppbv

RT: 5.54 min Scan# 855

Delta R.T. -0.01 min

Lab File: VL038014.D

Acq: 10 Nov 2021 18:06

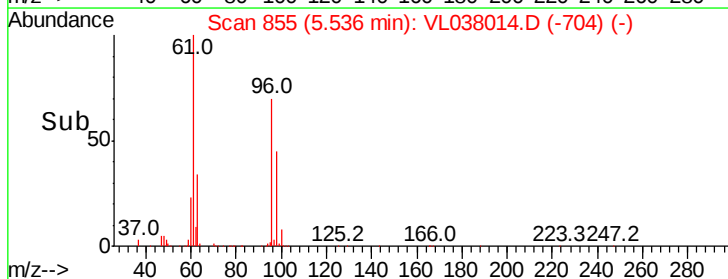
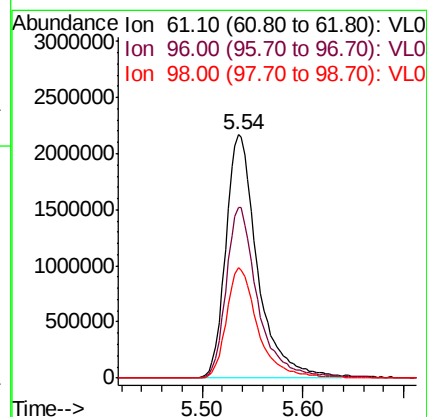
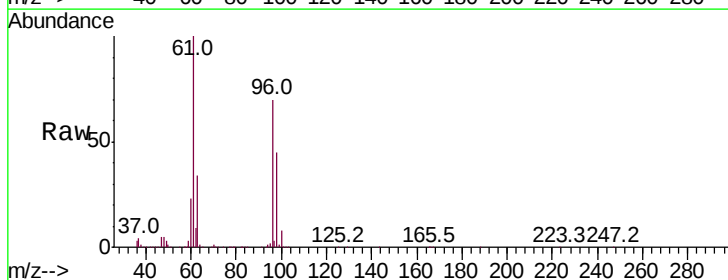
Tgt Ion: 61 Resp: 4760829

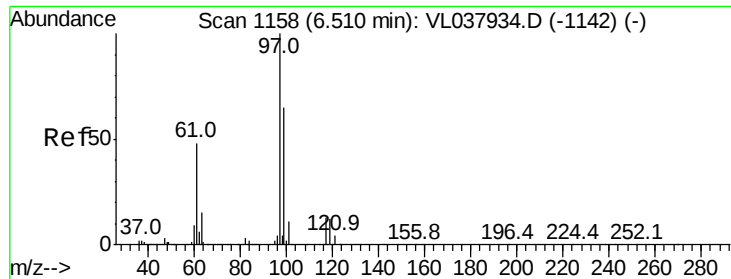
Ion Ratio Lower Upper

61 100

96 70.1 55.6 83.4

98 45.4 34.9 52.3





#32

1,1,1-Trichloroethane

Concen: 0.132 ppbv

RT: 6.50 Instrument: MSVOA_1

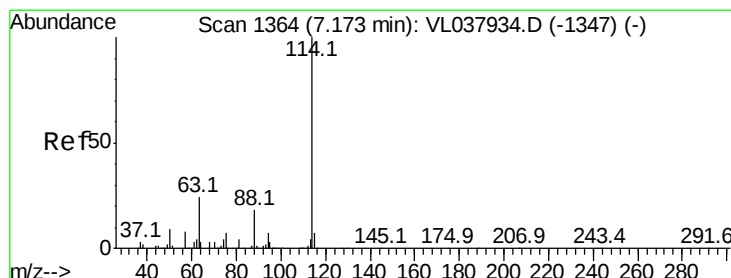
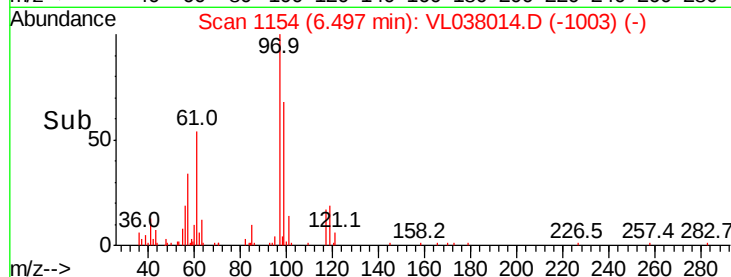
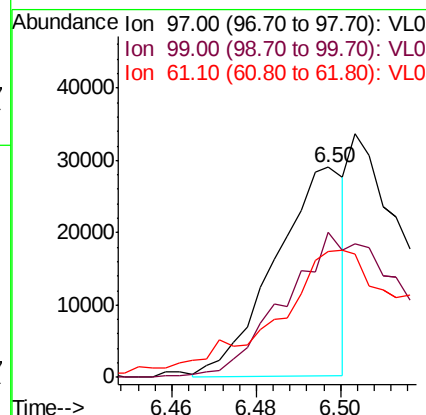
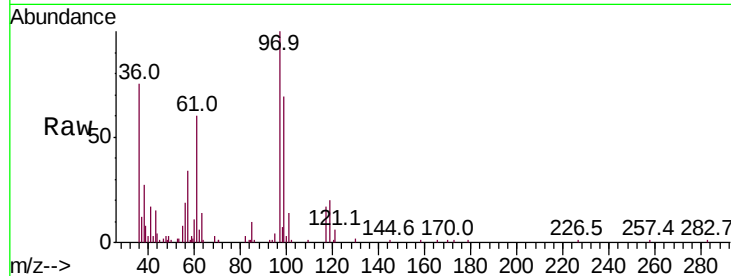
Delta R.T. ClientSampleId:

Lab File:

Acq: 10 Nov 2021 18:00

Tot Ion: 97 Resp: 32950

Ion	Ratio	Lower	Upper
97	100		
99	132.3	52.2	78.4#
61	119.9	39.8	59.6#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1363

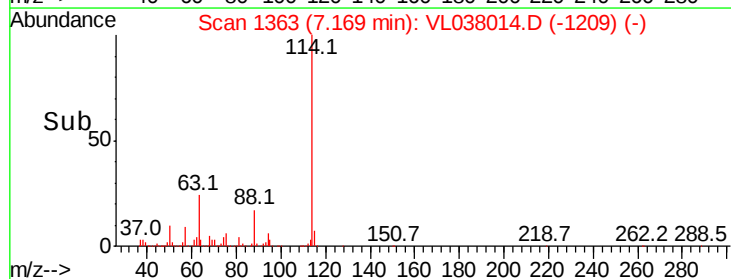
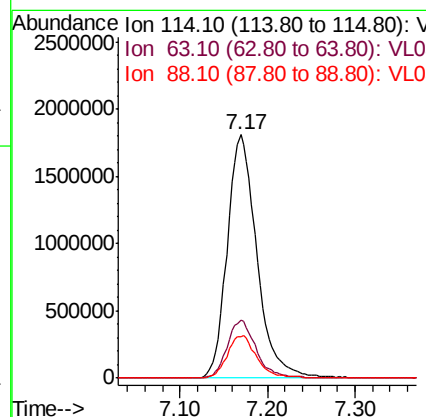
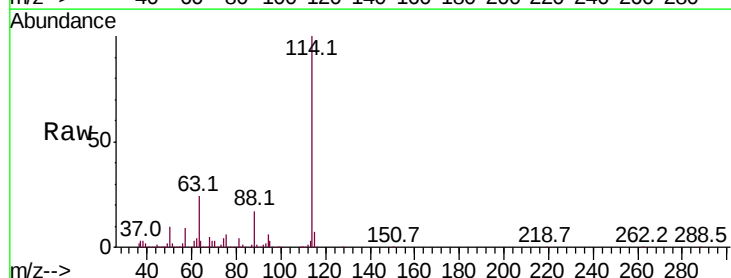
Delta R.T. -0.00 min

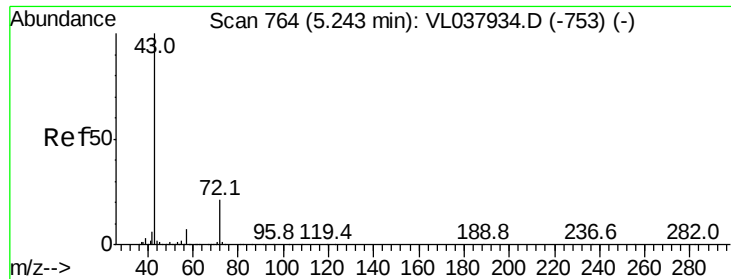
Lab File: VL038014.D

Acq: 10 Nov 2021 18:06

Tgt Ion: 114 Resp: 4249396

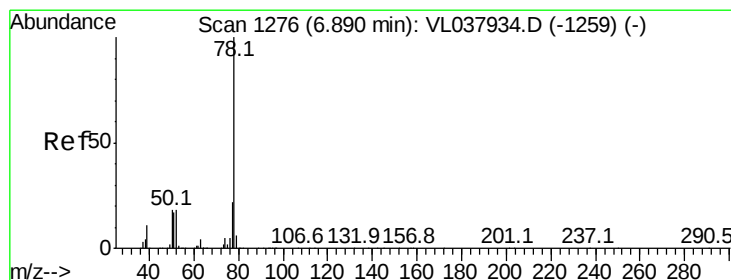
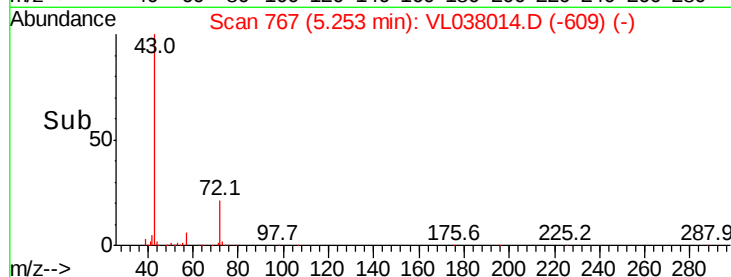
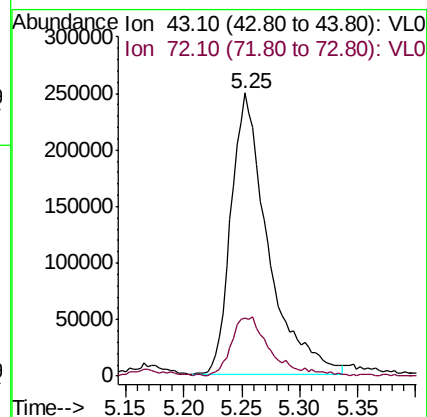
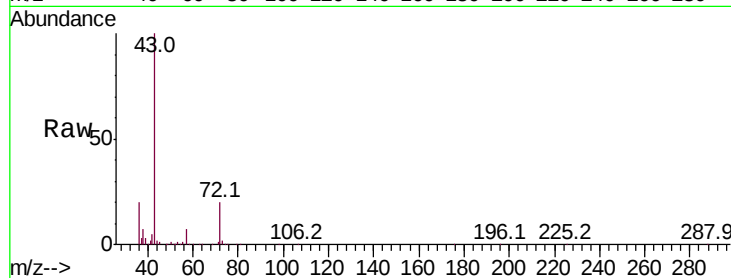
Ion	Ratio	Lower	Upper
114	100		
63	23.5	19.4	29.0
88	17.6	14.2	21.4





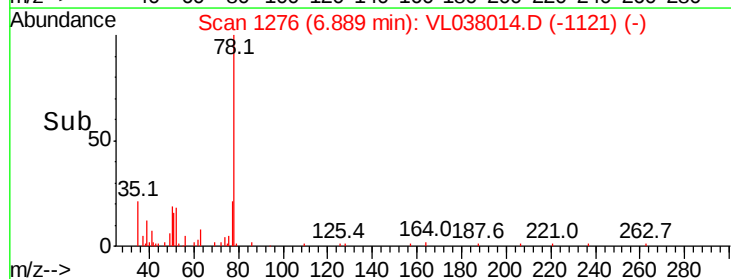
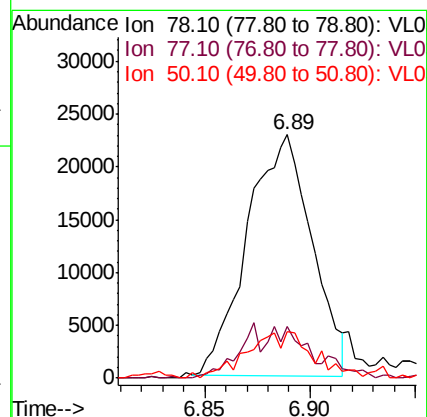
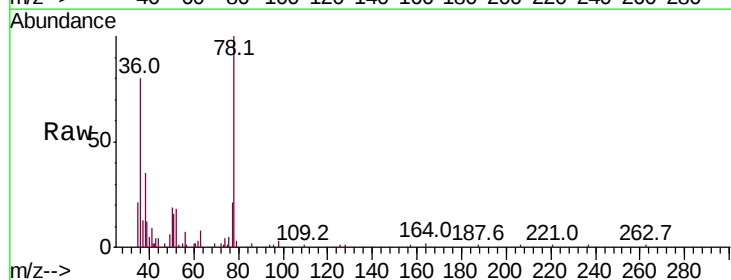
#34
2-Butanone
Concen: 3.503 ppbv
RT: 5.25
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 10 Nov 2021 18:00

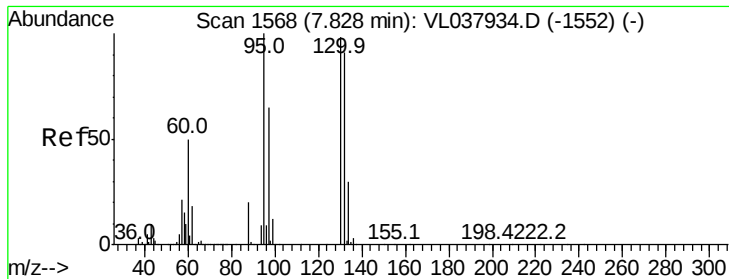
Tot Ion: 43 Resp: 551569
Ion Ratio Lower Upper
43 100
72 22.6 18.3 27.5



#36
Benzene
Concen: 0.141 ppbv
RT: 6.89 min Scan# 1276
Delta R.T. -0.00 min
Lab File: VL038014.D
Acq: 10 Nov 2021 18:06

Tgt Ion: 78 Resp: 48675
Ion Ratio Lower Upper
78 100
77 21.7 17.9 26.9
50 17.0 14.4 21.6





#38

Trichloroethene

Concen: 228.446 ppbv

RT: 7.86 Instrument:

Delta R.T. MSVOA_L

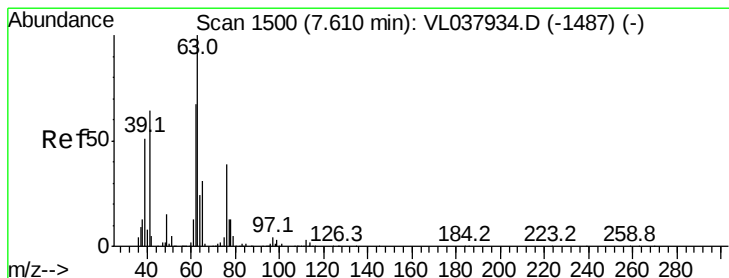
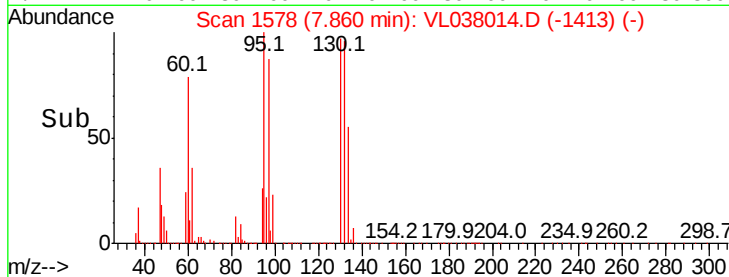
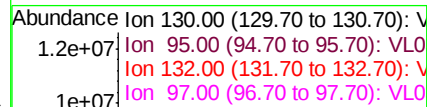
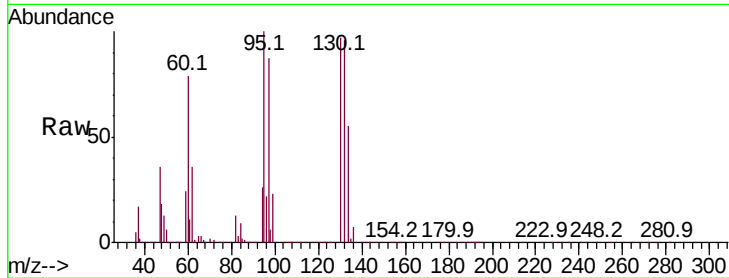
Lab File: ClientSampleId:

Acq: 10 Nov 2021 18:00

Tot Ion:130 Resp:32811692

Ion Ratio Lower Upper

130	100		
95	103.1	81.8	122.8
132	99.2	74.2	111.2
97	89.2	53.4	80.2#



#39

1,2-Dichloropropane

Concen: 1.270 ppbv

RT: 7.85 min Scan# 1575

Delta R.T. 0.24 min

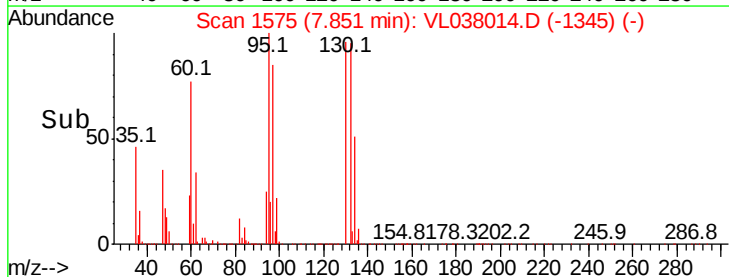
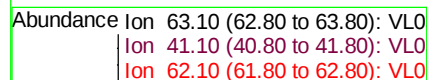
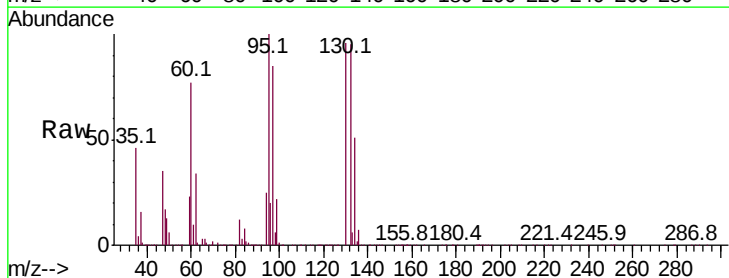
Lab File: VL038014.D

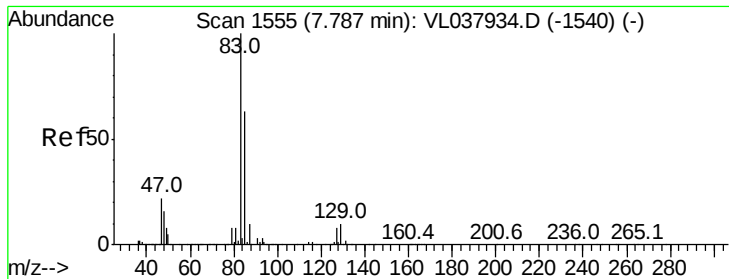
Acq: 10 Nov 2021 18:06

Tgt Ion: 63 Resp: 165348

Ion Ratio Lower Upper

63	100		
41	14.9	51.6	77.4#
62	3966.9	53.5	80.3#





#42

Bromodichloromethane

Concen: 2.996 ppbv

RT: 7.86 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 10 Nov 2021 18:00

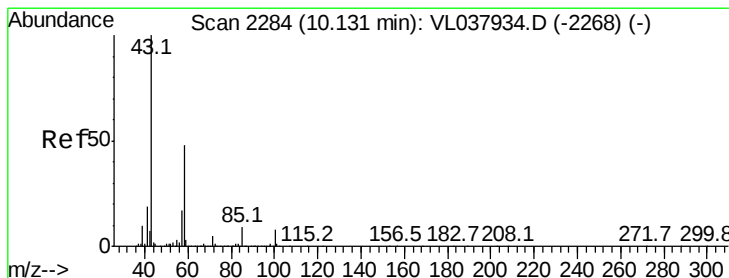
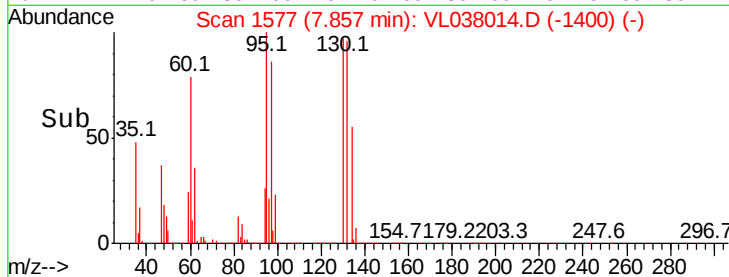
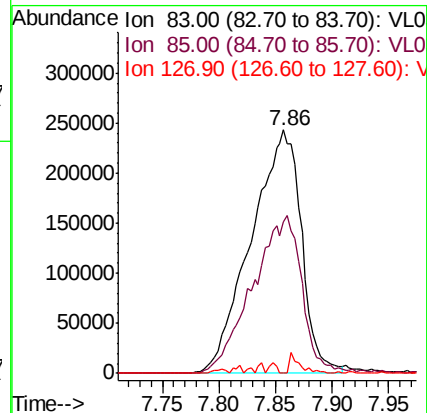
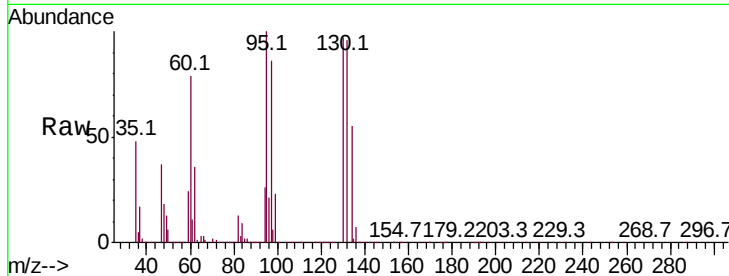
Tot Ion: 83 Resp: 745289

Ion Ratio Lower Upper

83 100

85 62.3 50.1 75.1

127 0.0 6.1 9.1#



#51

2-Hexanone

Concen: 0.147 ppbv

RT: 10.14 min Scan# 2286

Delta R.T. 0.01 min

Lab File: VL038014.D

Acq: 10 Nov 2021 18:06

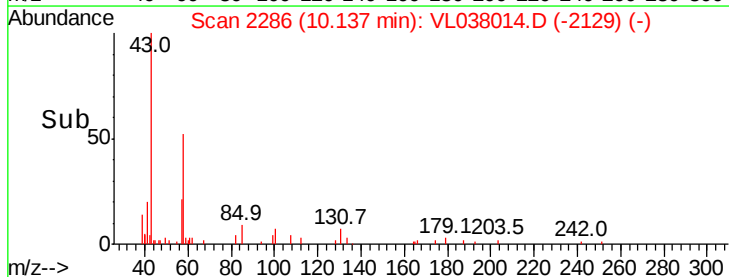
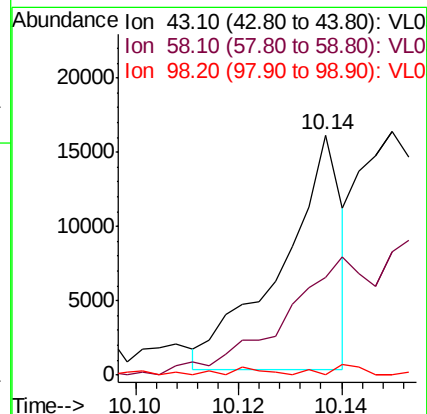
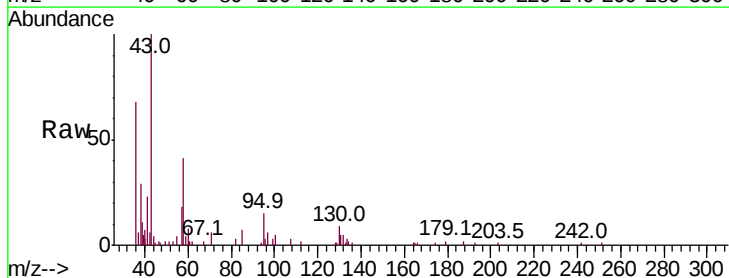
Tgt Ion: 43 Resp: 12839

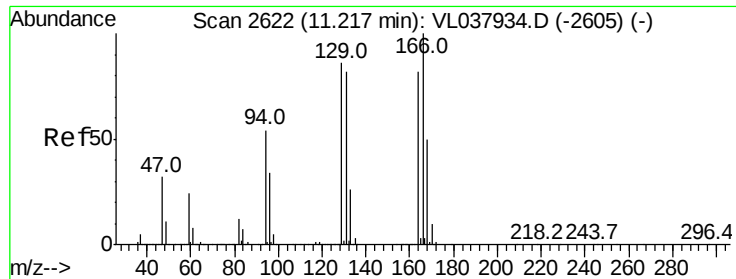
Ion Ratio Lower Upper

43 100

58 0.0 38.6 57.8#

98 0.0 1.0 1.4#





#52

Tetrachloroethene

Concen: 332.871 ppbv

RT: 11.31

Delta R.T. MSVOA_L

Lab File:

Acq: 10 Nov 2021 18:00

Tot Ion:164 Resp:43698116

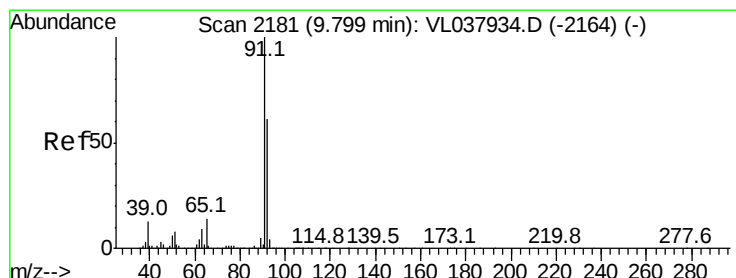
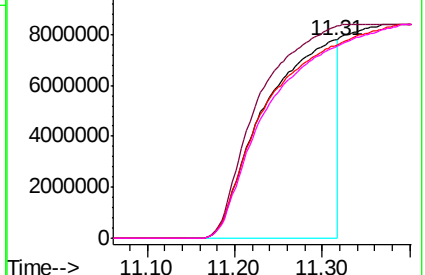
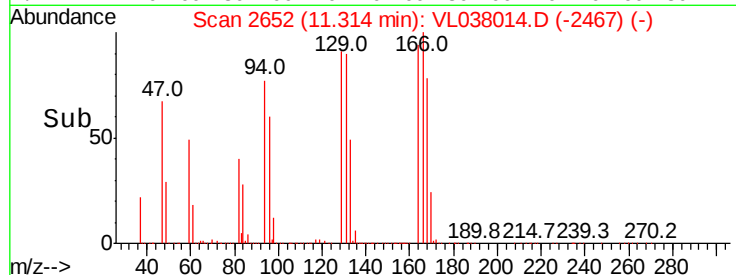
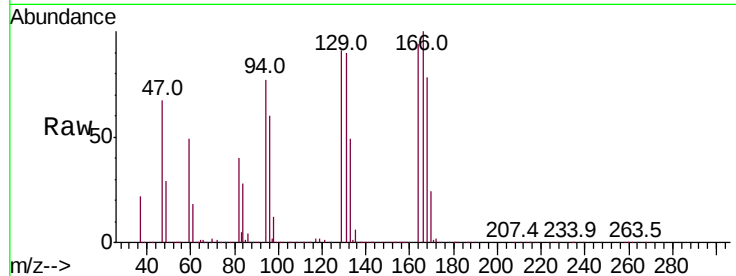
Ion Ratio Lower Upper

164 100

166 106.7 97.6 146.4

129 97.1 84.2 126.2

131 96.2 79.6 119.4



#53

Toluene

Concen: 0.280 ppbv

RT: 9.80 min Scan# 2180

Delta R.T. -0.00 min

Lab File: VL038014.D

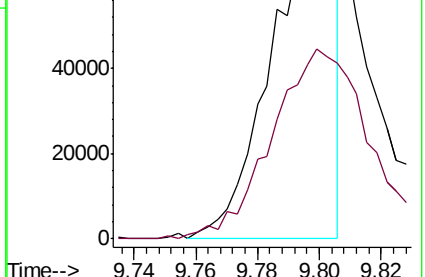
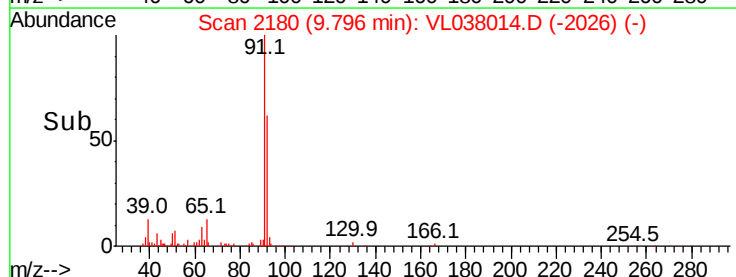
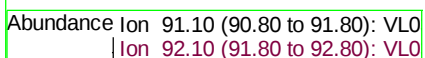
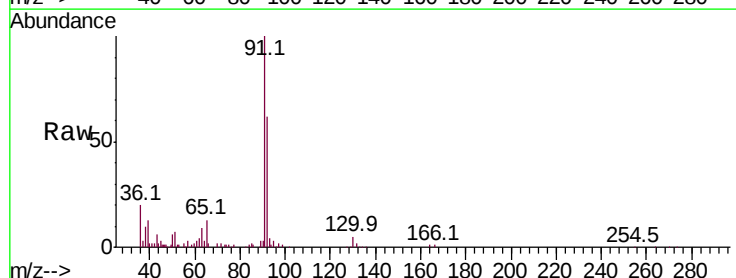
Acq: 10 Nov 2021 18:06

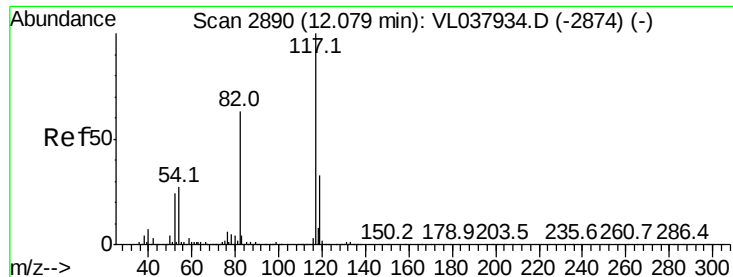
Tgt Ion: 91 Resp: 103764

Ion Ratio Lower Upper

91 100

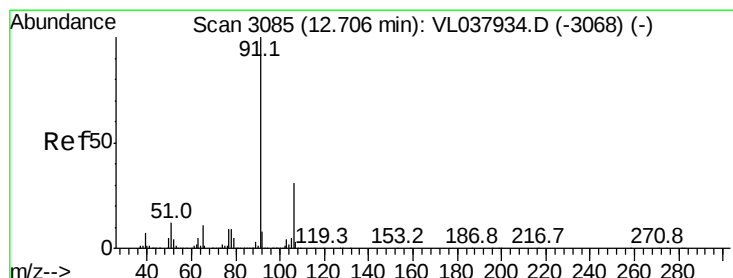
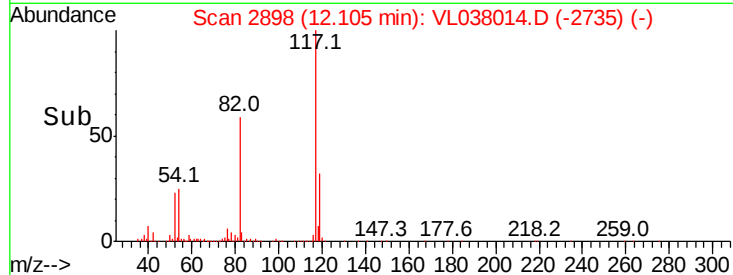
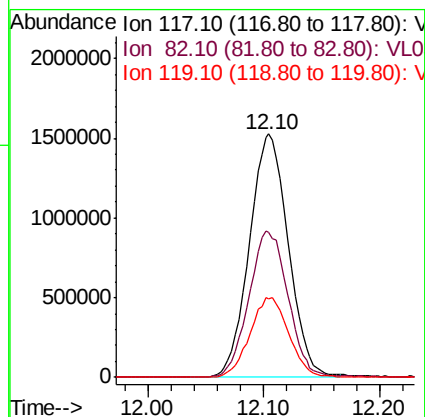
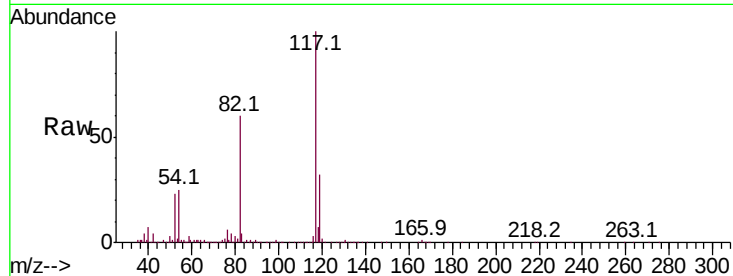
92 99.2 48.2 72.4#





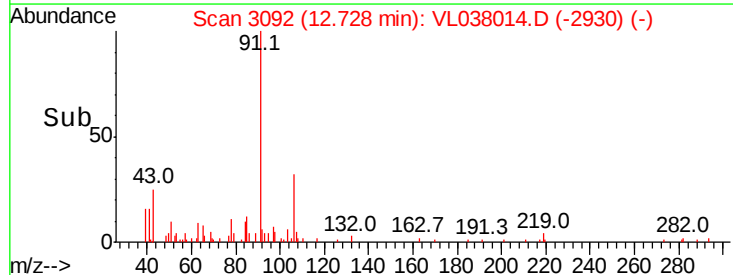
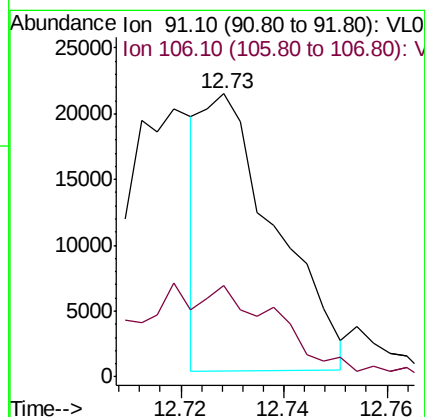
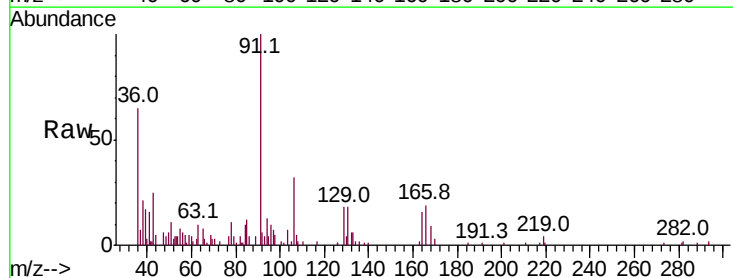
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 10 Nov 2021 18:00

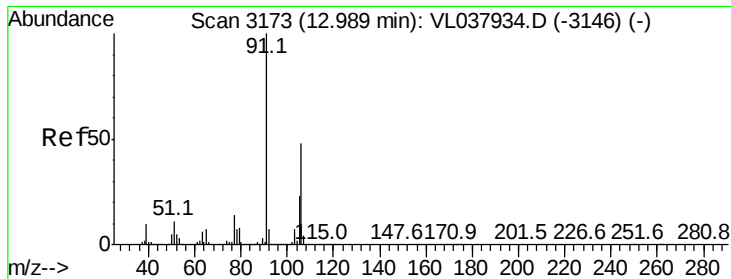
Tot Ion: 117 Resp: 3557010
Ion Ratio Lower Upper
117 100
82 61.2 51.0 76.6
119 33.1 26.9 40.3



#58
Ethyl Benzene
Concen: 0.048 ppbv
RT: 12.73 min Scan# 3092
Delta R.T. 0.02 min
Lab File: VL038014.D
Acq: 10 Nov 2021 18:06

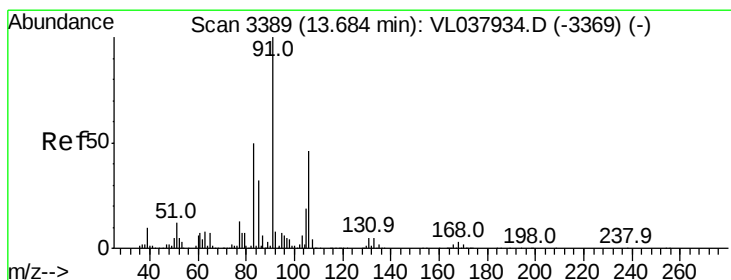
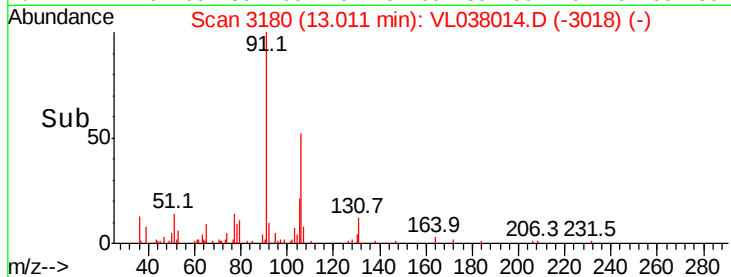
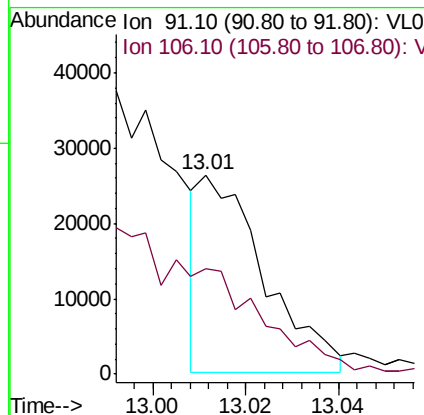
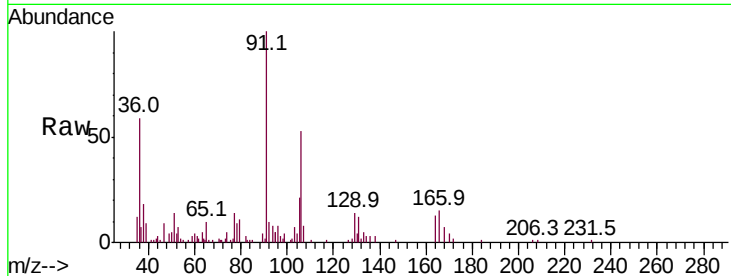
Tgt Ion: 91 Resp: 20743
Ion Ratio Lower Upper
91 100
106 29.1 25.1 37.7





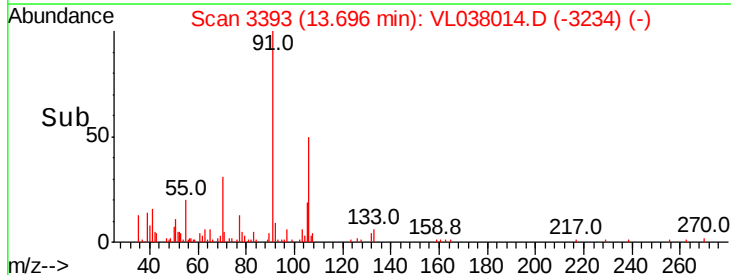
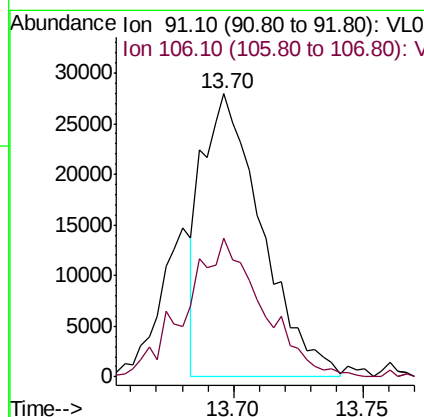
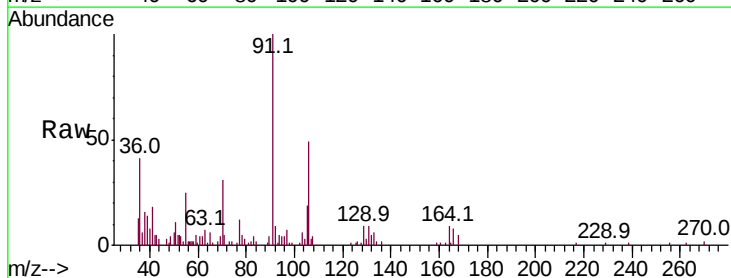
#59
m/p-Xylene
Concen: 0.065 ppbv
RT: 13.01 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 10 Nov 2021 18:00

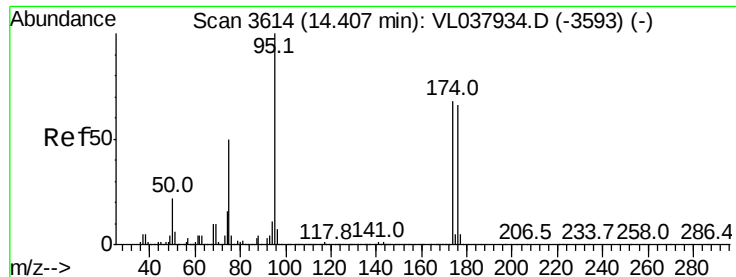
Tot Ion: 91 Resp: 25182
Ion Ratio Lower Upper
91 100
106 0.0 37.1 55.7#



#60
o-Xylene
Concen: 0.123 ppbv
RT: 13.70 min Scan# 3393
Delta R.T. 0.01 min
Lab File: VL038014.D
Acq: 10 Nov 2021 18:06

Tgt Ion: 91 Resp: 44927
Ion Ratio Lower Upper
91 100
106 63.1 23.5 70.6





#68

1-Bromo-4-Fluorobenzene

Concen: 10.071 ppbv

RT: 14.42

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 10 Nov 2021 18:00

Tot Ion: 95 Resp: 2603960

Ion Ratio Lower Upper

95 100

174 71.3 58.3 87.5

175 5.6 4.6 6.8

