

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110921\
 Data File : VL037994.D
 Acq On : 10 Nov 2021 00:45
 Operator : SY/AP
 Sample : M4555-07
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 10 04:50:22 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110121AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue 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	1285114	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	3661577	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3082346	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.41	95	2221411	9.91	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.10%	

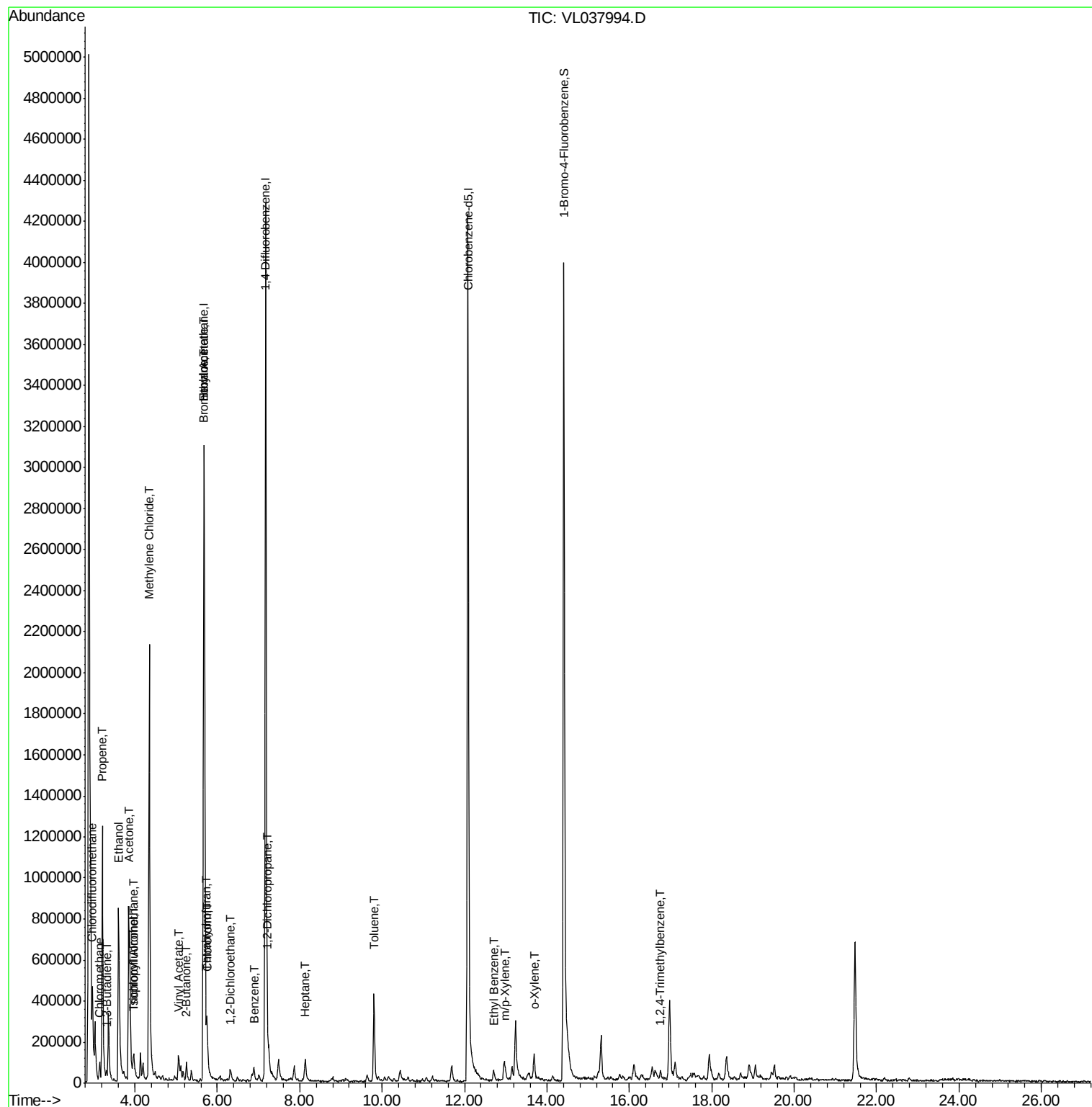
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.97	51	355745	1.487	ppbv #	69
4) Chloromethane	3.15	50	88150	0.970	ppbv	94
9) Propene	3.21	41	381430	4.447	ppbv	94
10) Heptane	8.12	43	7910	0.040	ppbv #	1
11) Trichlorofluoromethane	3.95	101	36942	0.205	ppbv	93
13) Ethanol	3.60	45	1118358	129.240	ppbv	92
15) Acetone	3.85	43	1193741	11.241	ppbv	94
16) 1,3-Butadiene	3.32	39	4558	0.054	ppbv #	76
19) Isopropyl Alcohol	3.97	45	94802	1.396	ppbv #	1
20) Methylene Chloride	4.35	84	888834	15.246	ppbv	94
23) Vinyl Acetate	5.07	43	50511	0.316	ppbv #	62
25) Ethyl Acetate	5.68	43	627322	1.989	ppbv #	79
26) Hexane	5.69	57	813796	5.446	ppbv #	47
29) Chloroform	5.75	83	151150	0.678	ppbv	97
34) 2-Butanone	5.25	43	101448	0.748	ppbv	93
36) Benzene	6.90	78	17762	0.060	ppbv #	94
37) 1,2-Dichloroethane	6.31	62	4358	0.031	ppbv #	77
39) 1,2-Dichloropropane	7.22	63	19121	0.170	ppbv #	32
41) Tetrahydrofuran	5.74	42	5203	0.078	ppbv #	68
53) Toluene	9.80	91	301567	0.943	ppbv	96
58) Ethyl Benzene	12.71	91	30065	0.080	ppbv	99
59) m/p-Xylene	12.99	91	24390	0.073	ppbv #	30
60) o-Xylene	13.68	91	44558	0.141	ppbv	83
74) 1,2,4-Trimethylbenzene	16.75	105	10894	0.031	ppbv #	53

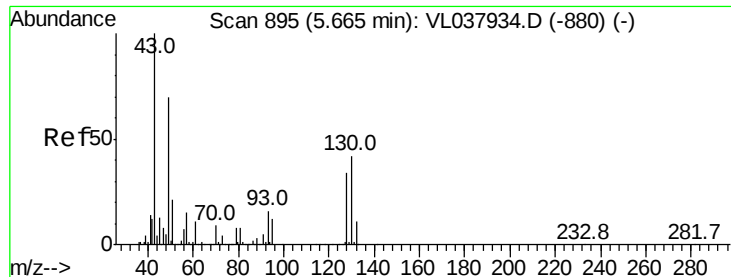
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 10 Nov 2021 00:45

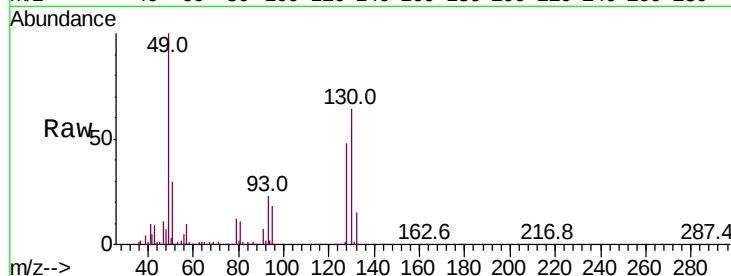
Tot Ion: 49 Resp: 1285114

Ion Ratio Lower Upper

49 100

128 53.1 27.0 81.0

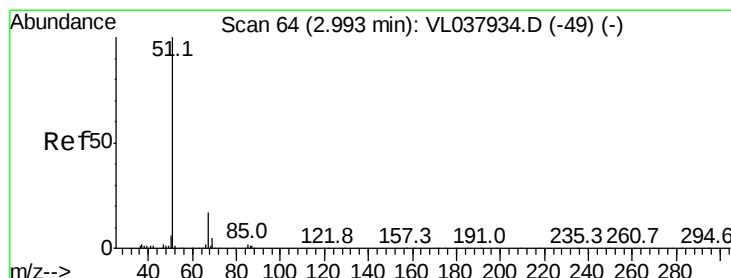
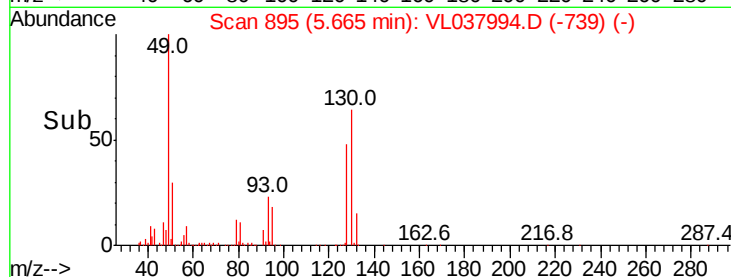
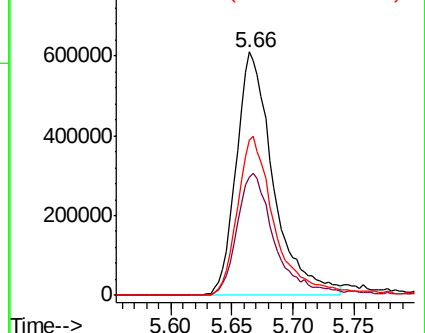
130 67.1 33.4 100.2



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



#3

Chlorodifluoromethane

Concen: 1.487 ppbv

RT: 2.97 min Scan# 57

Delta R.T. -0.02 min

Lab File: VL037994.D

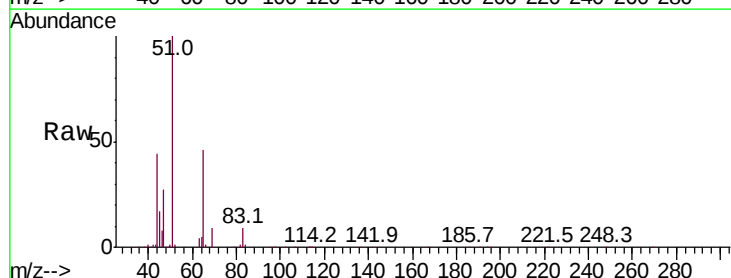
Acq: 10 Nov 2021 00:45

Tgt Ion: 51 Resp: 355745

Ion Ratio Lower Upper

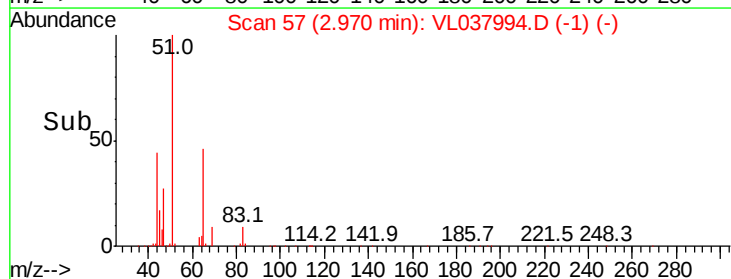
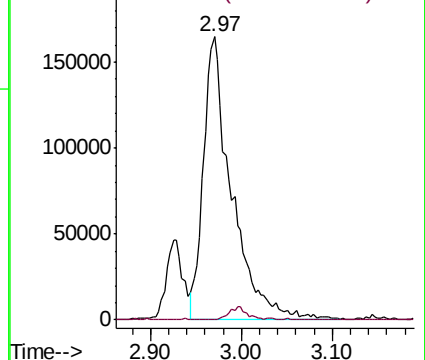
51 100

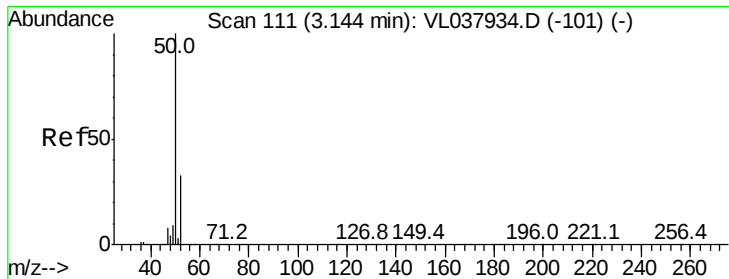
67 3.4 13.4 20.0#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.970 ppbv

RT: 3.15 Instrument:

Delta R.T. MSVOA_1

Lab File:

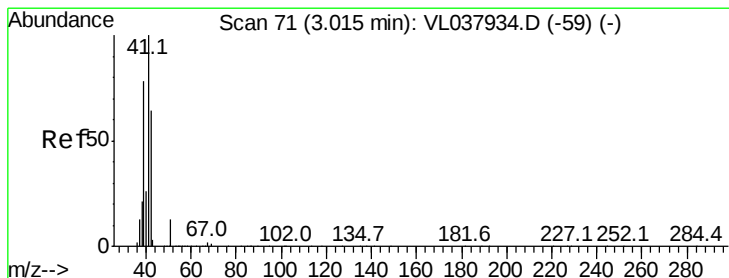
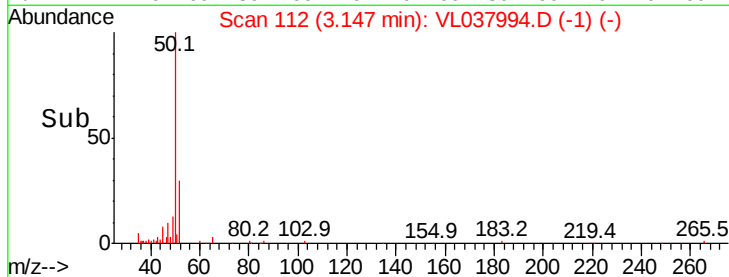
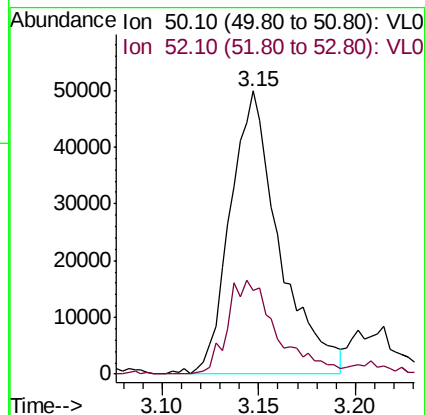
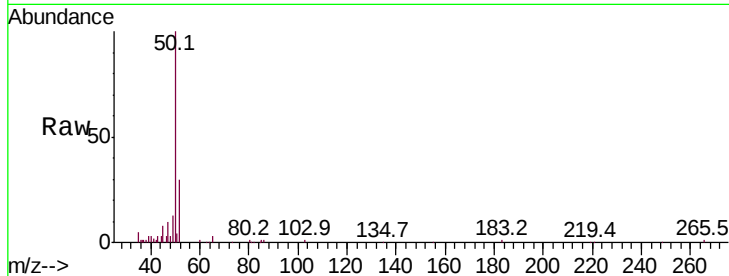
Acq: 10 Nov 2021 00:45

Tot Ion: 50 Resp: 88150

Ion Ratio Lower Upper

50 100

52 29.5 26.3 39.5



#9

Propene

Concen: 4.447 ppbv

RT: 3.21 min Scan# 131

Delta R.T. 0.19 min

Lab File: VL037994.D

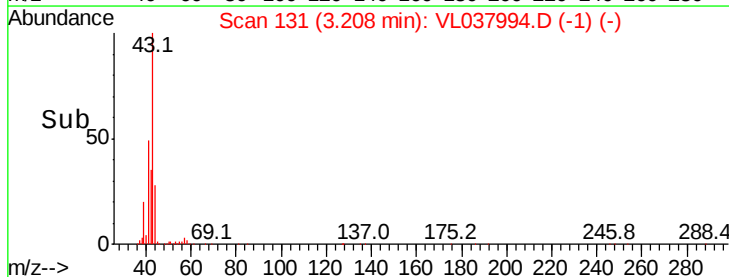
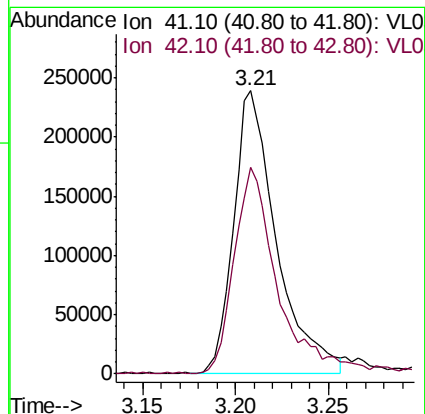
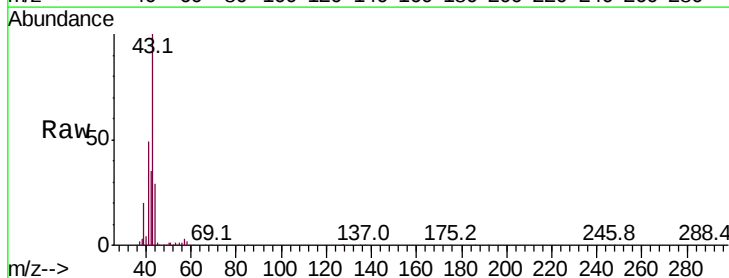
Acq: 10 Nov 2021 00:45

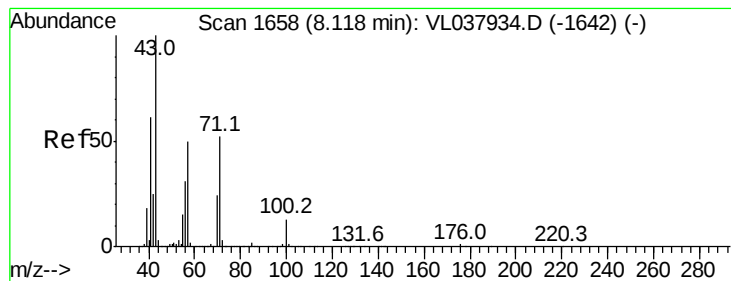
Tgt Ion: 41 Resp: 381430

Ion Ratio Lower Upper

41 100

42 77.3 57.6 86.4





#10

Heptane

Concen: 0.040 ppbv

RT: 8.12 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

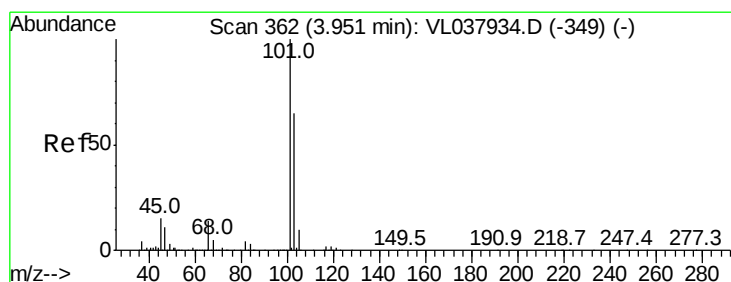
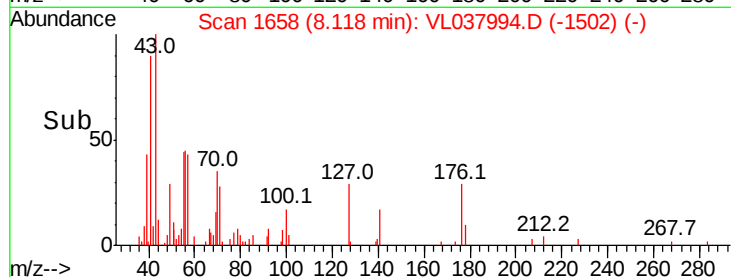
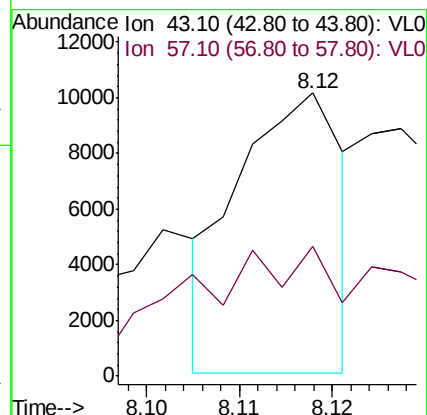
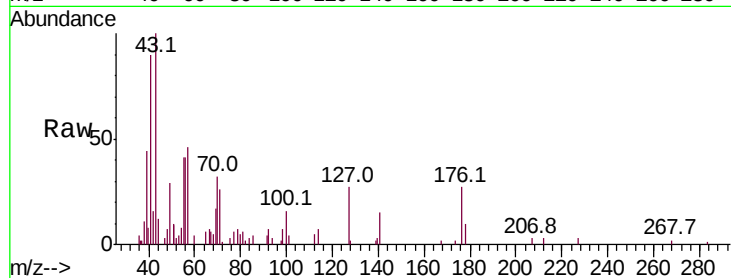
Acq: 10 Nov 2021 00:45

Tot Ion: 43 Resp: 7910

Ion Ratio Lower Upper

43 100

57 143.8 39.8 59.8#



#11

Trichlorofluoromethane

Concen: 0.205 ppbv

RT: 3.95 min Scan# 362

Delta R.T. 0.00 min

Lab File: VL037994.D

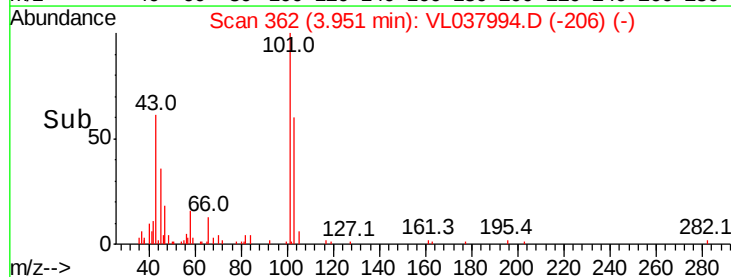
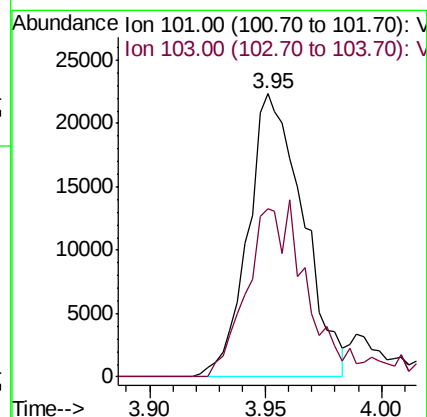
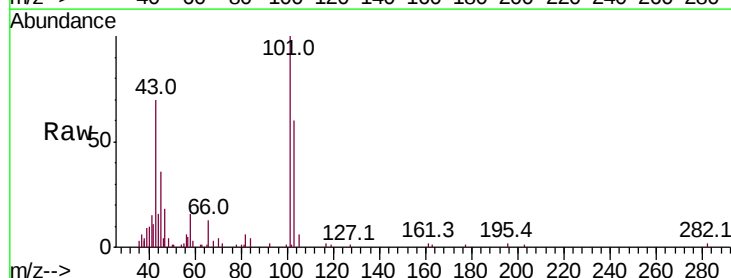
Acq: 10 Nov 2021 00:45

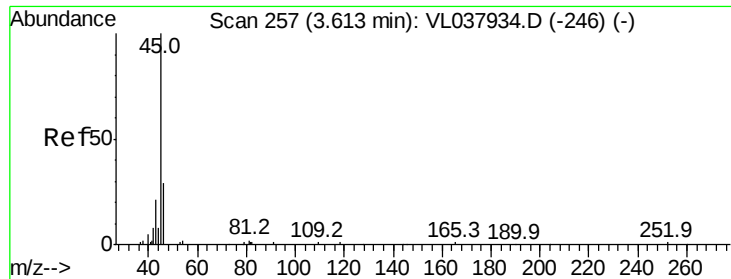
Tgt Ion:101 Resp: 36942

Ion Ratio Lower Upper

101 100

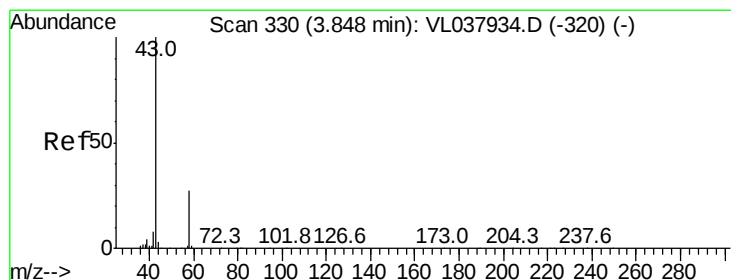
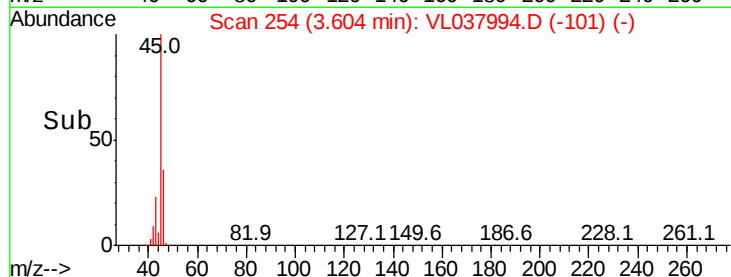
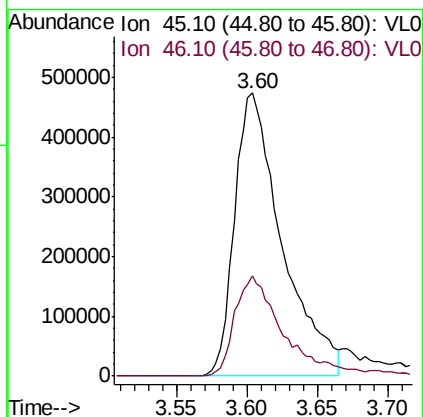
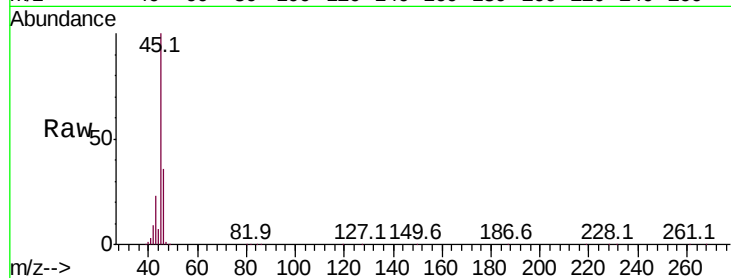
103 59.5 52.0 78.0





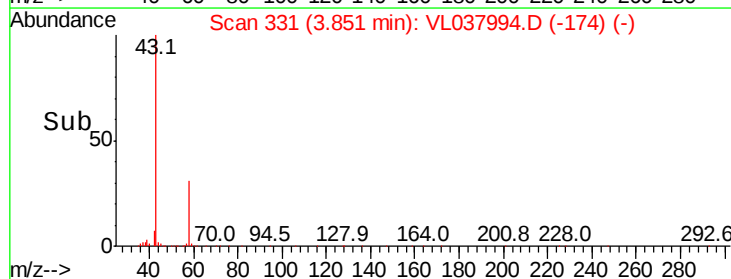
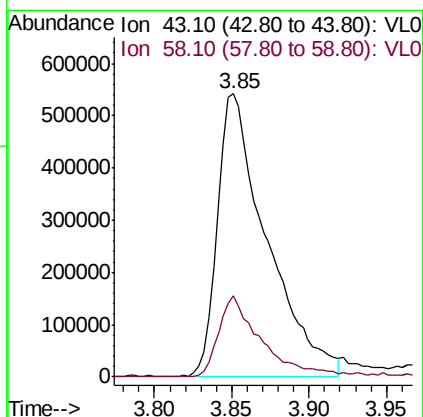
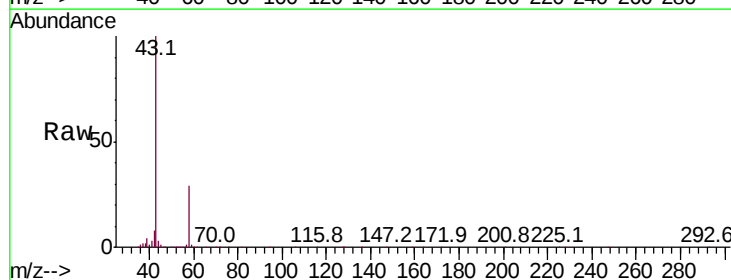
#13
Ethanol
Concen: 129.240 ppbv
RT: 3.60
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 10 Nov 2021 00:45

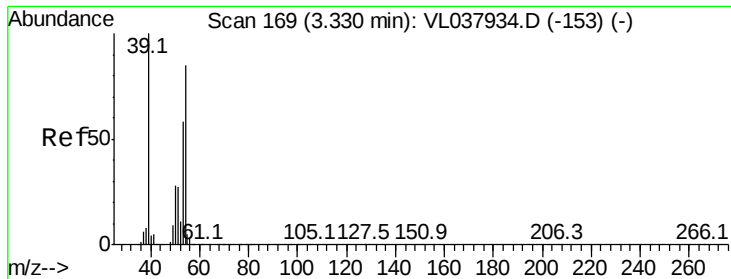
Tot Ion: 45 Resp: 1118358
Ion Ratio Lower Upper
45 100
46 38.4 17.4 69.8



#15
Acetone
Concen: 11.241 ppbv
RT: 3.85 min Scan# 331
Delta R.T. 0.00 min
Lab File: VL037994.D
Acq: 10 Nov 2021 00:45

Tgt Ion: 43 Resp: 1193741
Ion Ratio Lower Upper
43 100
58 25.8 23.3 34.9





#16

1,3-Butadiene

Concen: 0.054 ppbv

RT: 3.32

Instrument: MSVOA_1

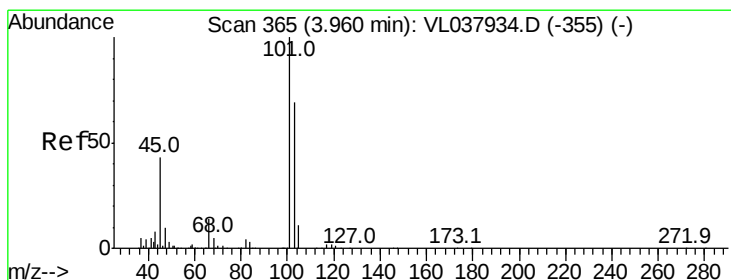
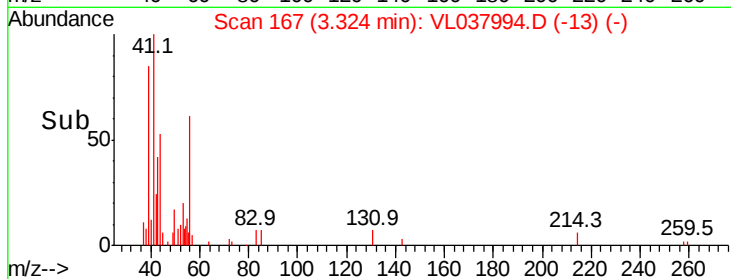
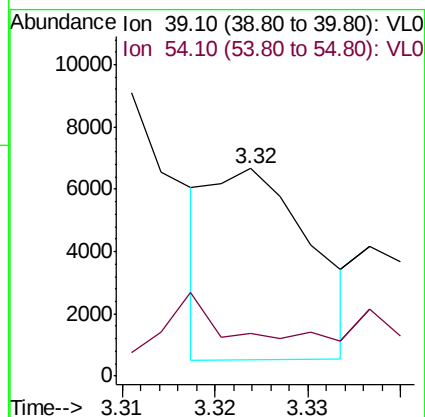
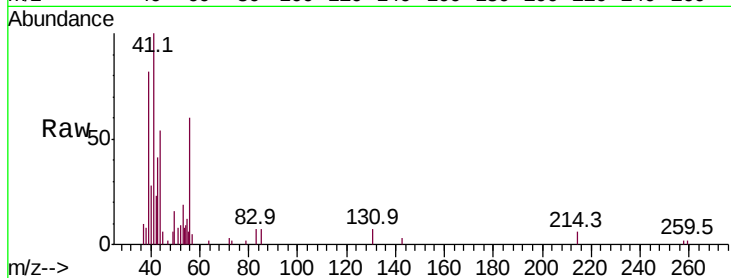
Delta R.T.

Lab File: ClientSampleId:

Acq: 10 Nov 2021 00:45

Tot Ion: 39 Resp: 4558

Ion	Ratio	Lower	Upper
39	100		
54	98.8	62.6	93.8#



#19

Isopropyl Alcohol

Concen: 1.396 ppbv

RT: 3.97 min Scan# 368

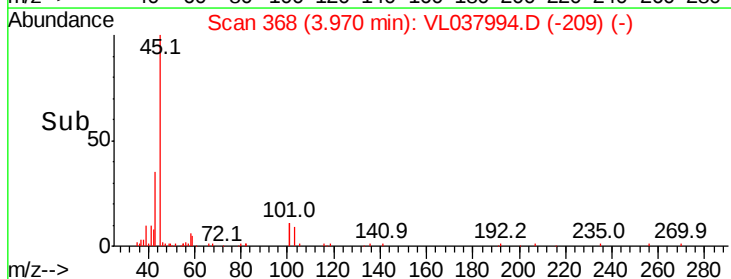
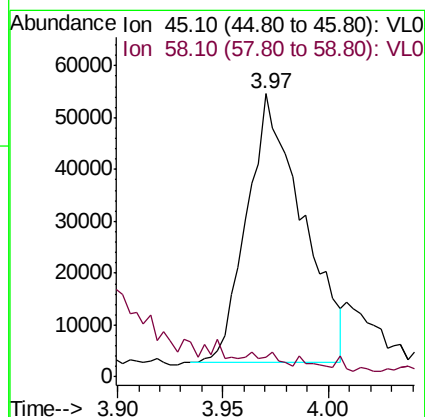
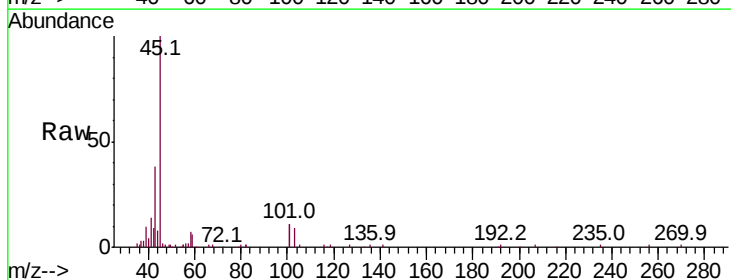
Delta R.T. 0.01 min

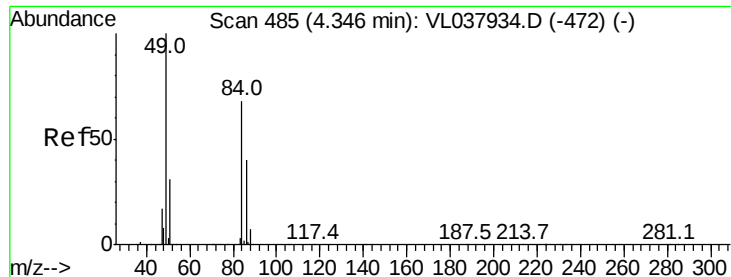
Lab File: VL037994.D

Acq: 10 Nov 2021 00:45

Tgt Ion: 45 Resp: 94802

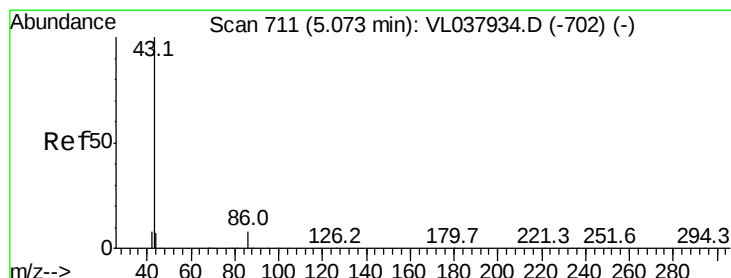
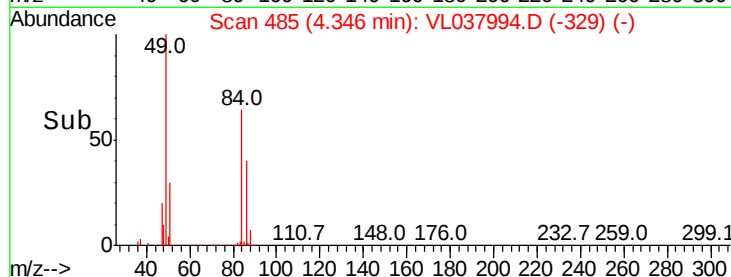
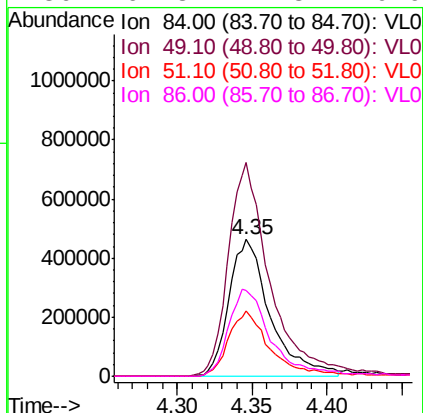
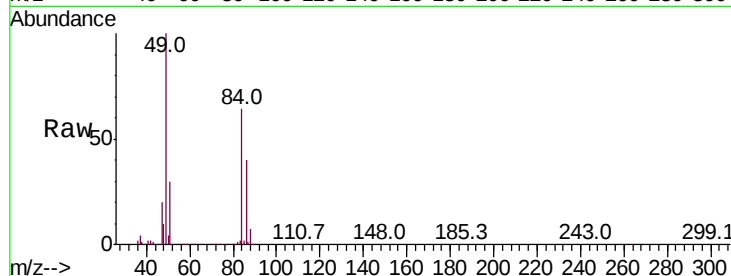
Ion	Ratio	Lower	Upper
45	100		
58	338.6	4.0	6.0#





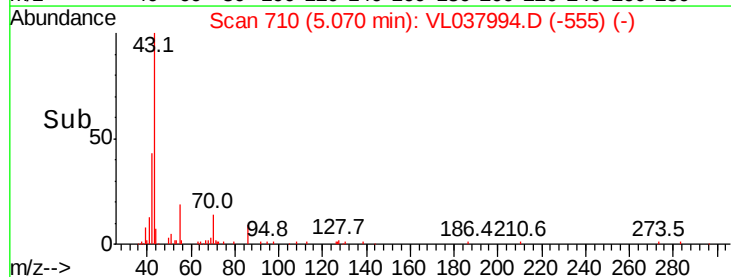
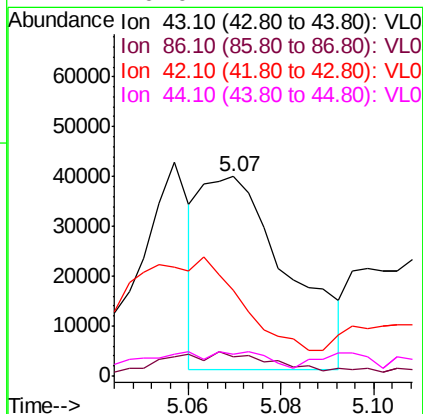
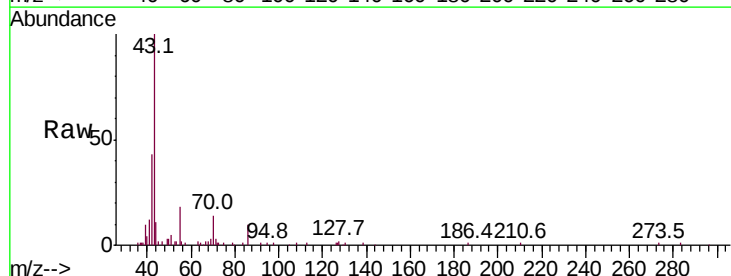
#20
Methvlene Chloride
Concen: 15.246 ppbv
RT: 4.35 Instrument : MSVOA_1
Delta R.T. :
Lab File: ClientSampleId :
Acq: 10 Nov 2021 00:45

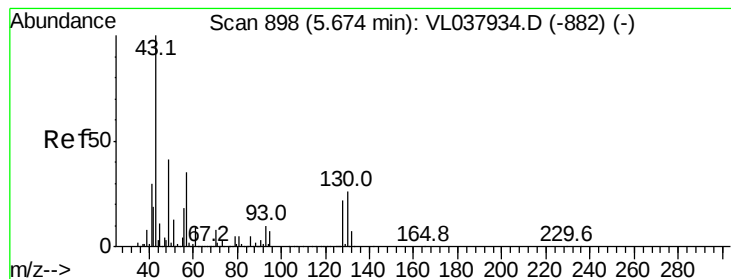
Tot Ion:	84	Resp:	888834
Ion	Ratio	Lower	Upper
84	100		
49	155.7	117.5	176.3
51	47.4	35.9	53.9
86	62.3	47.3	70.9



#23
Vinyl Acetate
Concen: 0.316 ppbv
RT: 5.07 min Scan# 710
Delta R.T. -0.00 min
Lab File: VL037994.D
Acq: 10 Nov 2021 00:45

Tgt Ion:	43	Resp:	50511
Ion	Ratio	Lower	Upper
43	100		
86	9.5	5.5	8.3#
42	36.2	7.4	11.2#
44	0.0	4.7	7.1#





#25

Ethyl Acetate

Concen: 1.989 ppbv

RT: 5.68 Instrument:

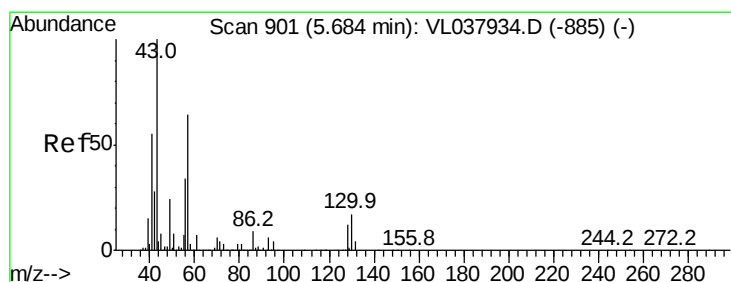
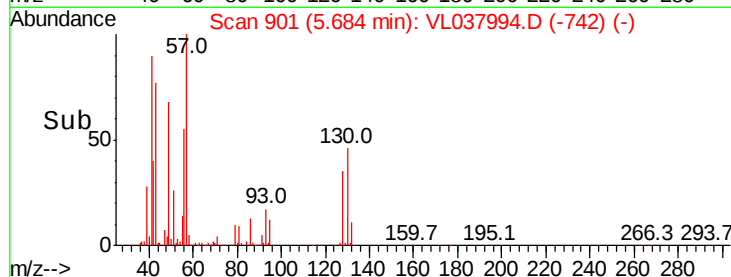
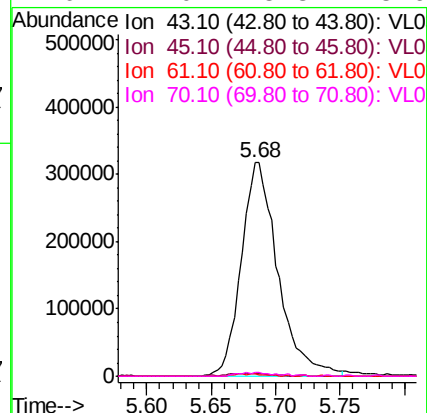
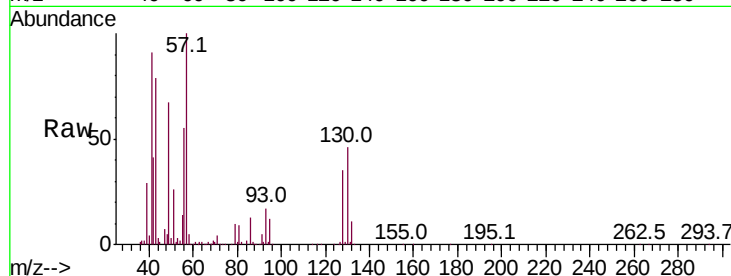
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 10 Nov 2021 00:45

Tot Ion: 43 Resp: 627322

Ion	Ratio	Lower	Upper
43	100		
45	1.7	8.1	12.1#
61	1.0	8.1	12.1#
70	2.0	5.8	8.6#



#26

Hexane

Concen: 5.446 ppbv

RT: 5.69 min Scan# 902

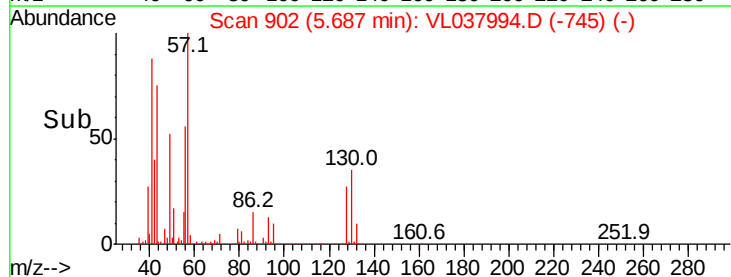
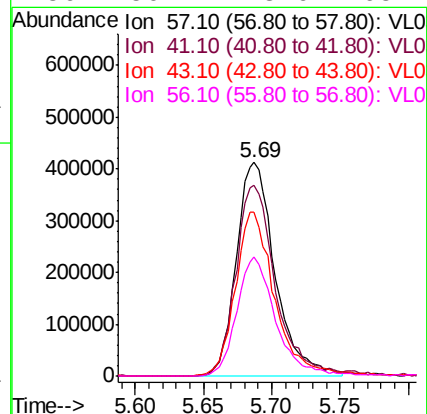
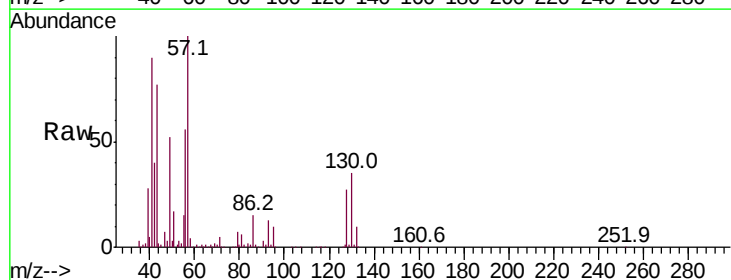
Delta R.T. 0.00 min

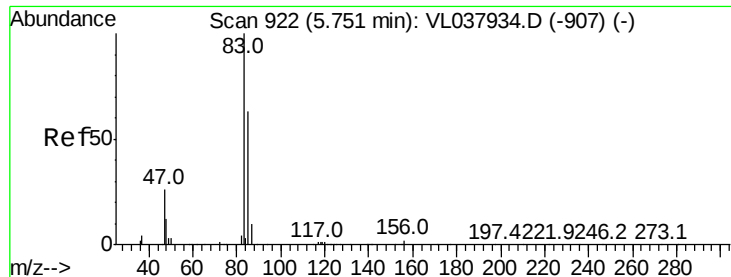
Lab File: VL037994.D

Acq: 10 Nov 2021 00:45

Tgt Ion: 57 Resp: 813796

Ion	Ratio	Lower	Upper
57	100		
41	92.8	71.0	106.6
43	79.1	173.0	259.6#
56	56.4	43.6	65.4





#29

Chloroform

Concen: 0.678 ppbv

RT: 5.75 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

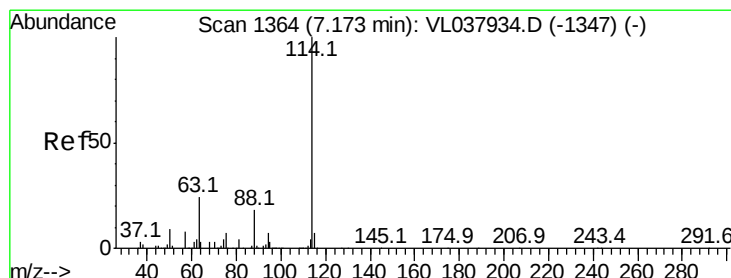
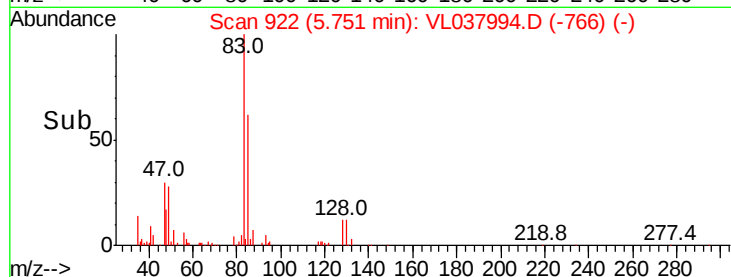
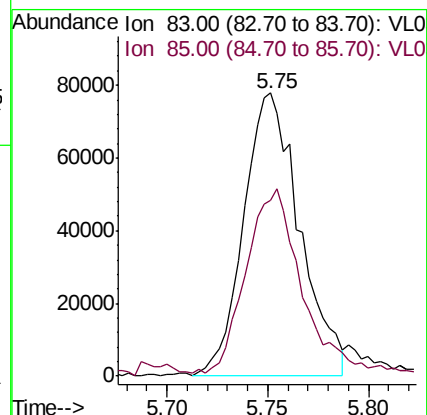
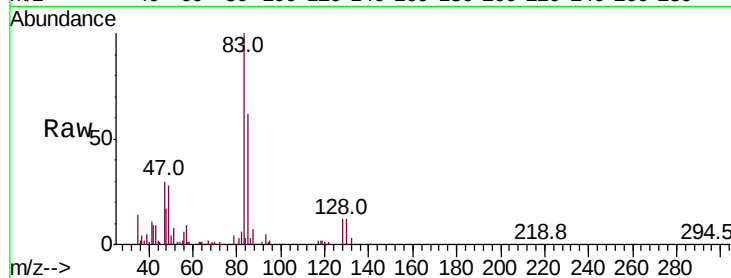
Acq: 10 Nov 2021 00:45

Tot Ion: 83 Resp: 151150

Ion Ratio Lower Upper

83 100

85 61.2 50.6 76.0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 min Scan# 1365

Delta R.T. 0.00 min

Lab File: VL037994.D

Acq: 10 Nov 2021 00:45

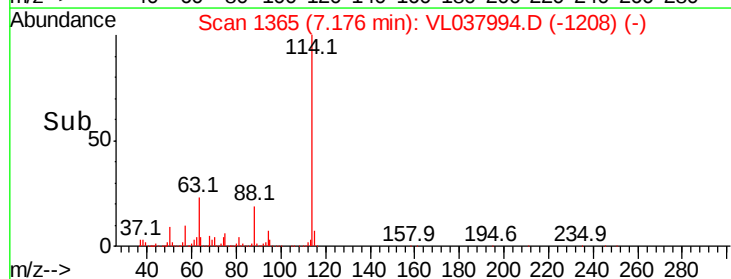
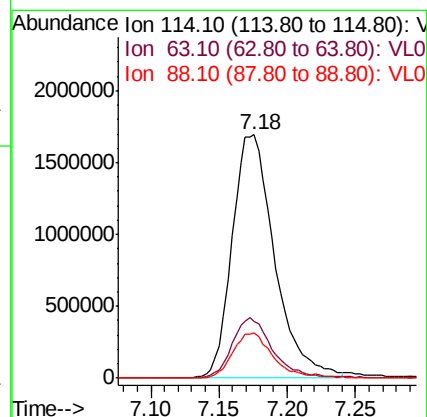
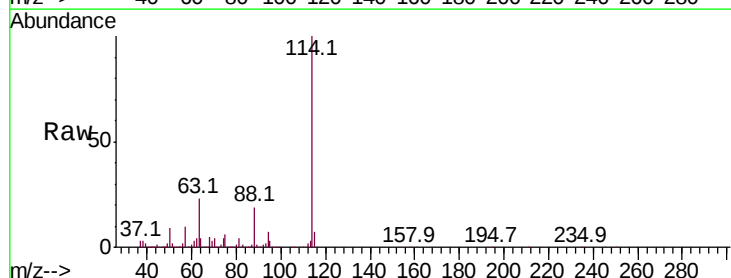
Tgt Ion: 114 Resp: 3661577

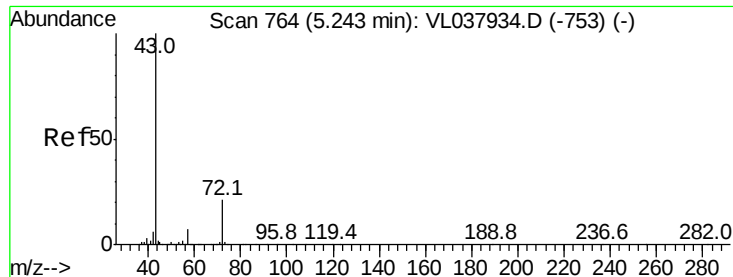
Ion Ratio Lower Upper

114 100

63 24.2 19.4 29.0

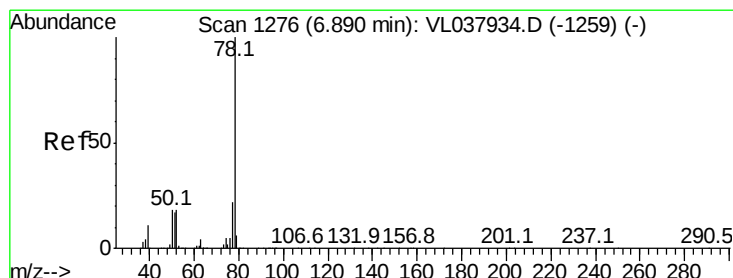
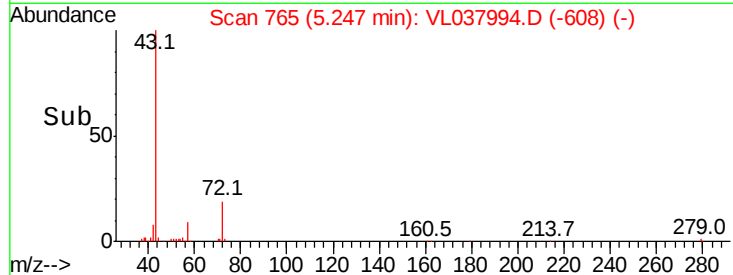
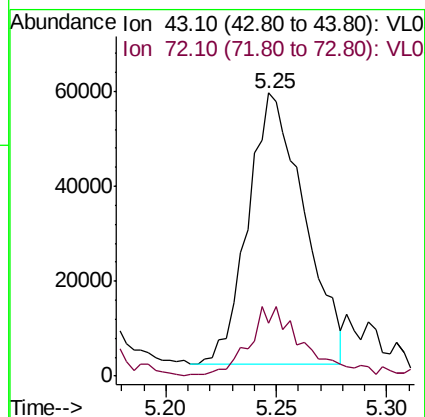
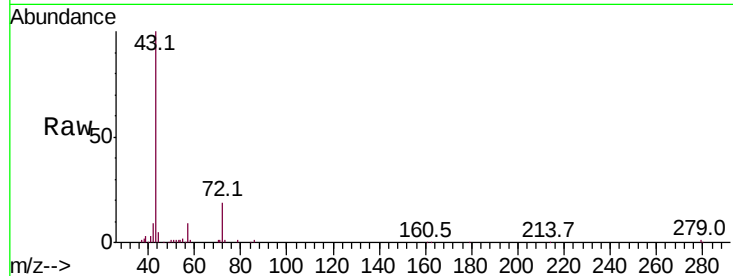
88 18.2 14.2 21.4





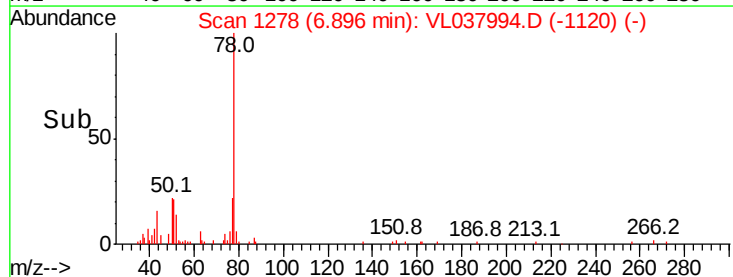
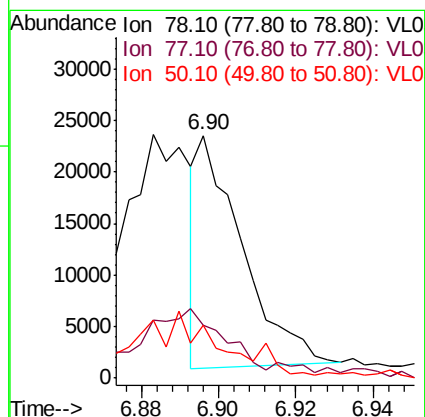
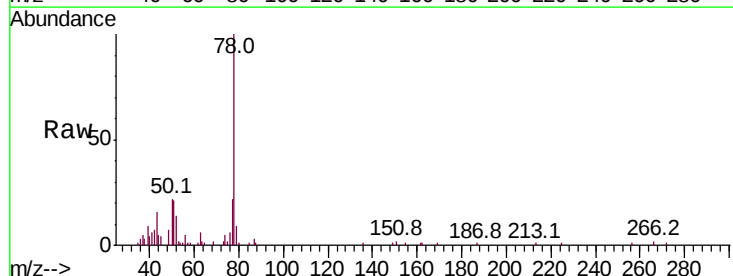
#34
2-Butanone
Concen: 0.748 ppbv
RT: 5.25
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 10 Nov 2021 00:45

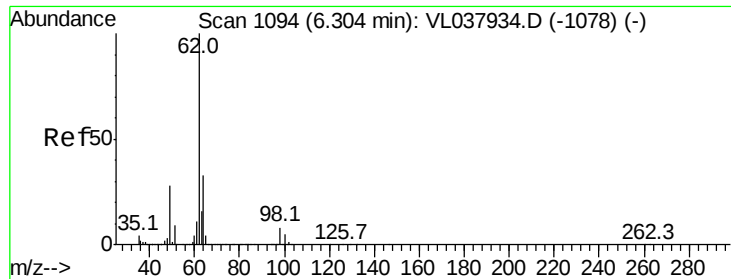
Tot Ion: 43 Resp: 101448
Ion Ratio Lower Upper
43 100
72 26.1 18.3 27.5



#36
Benzene
Concen: 0.060 ppbv
RT: 6.90 min Scan# 1278
Delta R.T. 0.01 min
Lab File: VL037994.D
Acq: 10 Nov 2021 00:45

Tgt Ion: 78 Resp: 17762
Ion Ratio Lower Upper
78 100
77 20.7 17.9 26.9
50 21.6 14.4 21.6#





#37

1,2-Dichloroethane

Concen: 0.031 ppbv

RT: 6.31 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

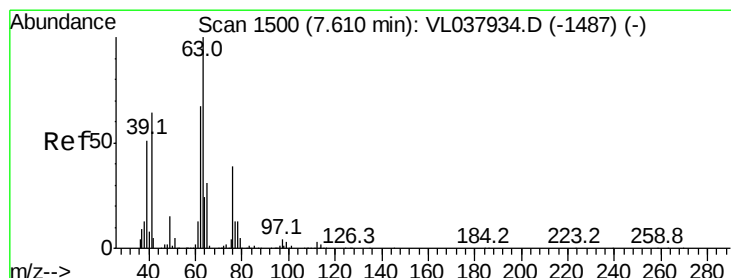
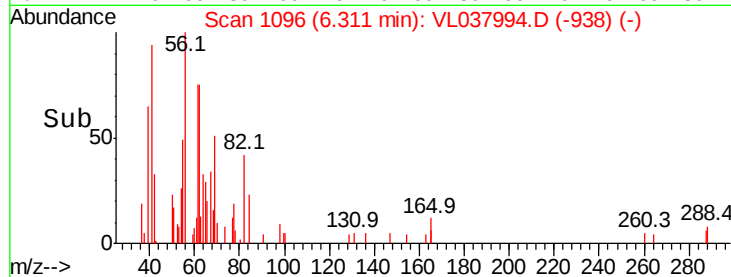
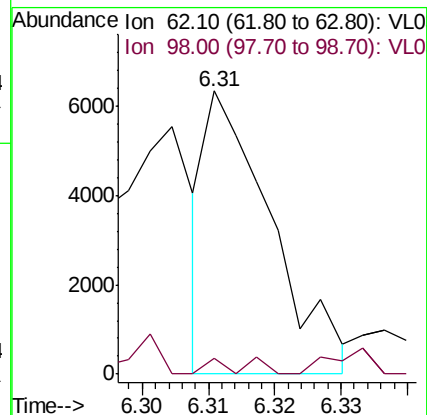
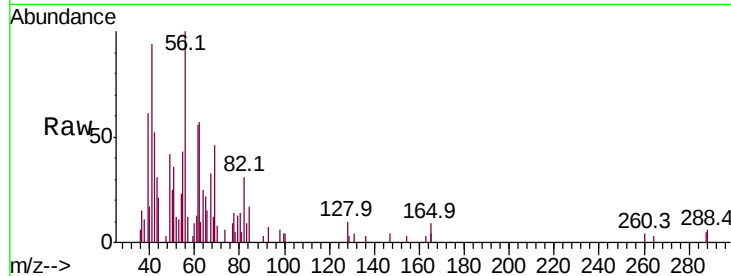
Acq: 10 Nov 2021 00:45

Tot Ion: 62 Resp: 4358

Ion Ratio Lower Upper

62 100

98 0.0 6.5 9.7#



#39

1,2-Dichloropropane

Concen: 0.170 ppbv

RT: 7.22 min Scan# 1379

Delta R.T. -0.39 min

Lab File: VL037994.D

Acq: 10 Nov 2021 00:45

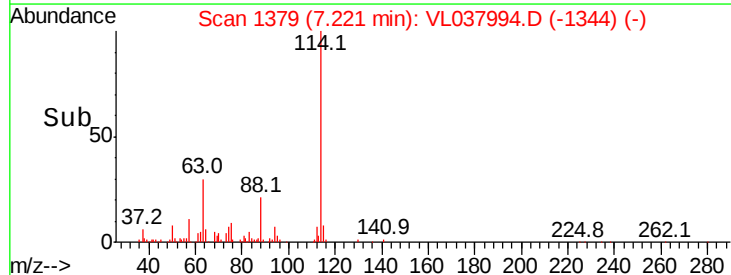
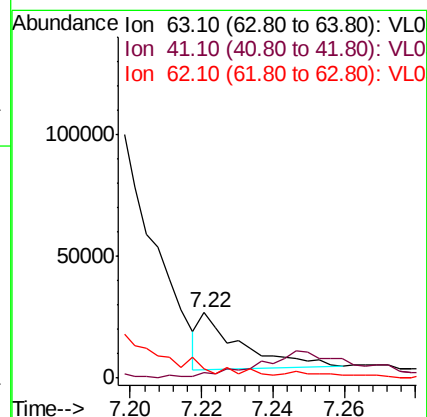
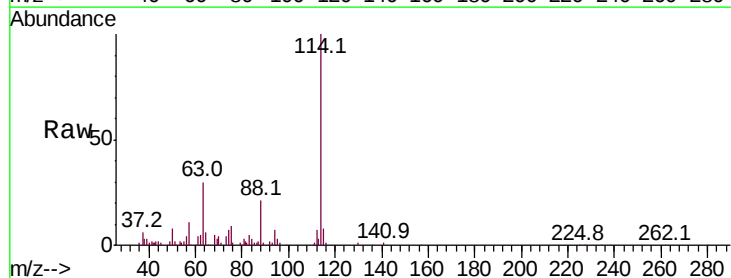
Tgt Ion: 63 Resp: 19121

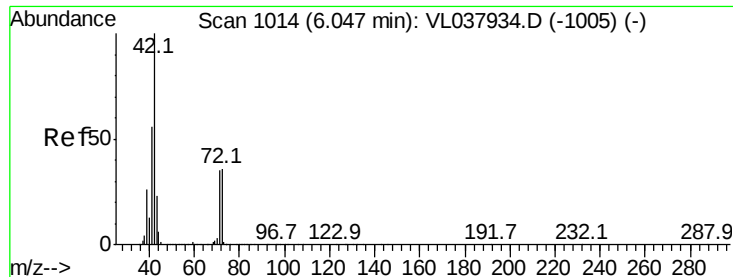
Ion Ratio Lower Upper

63 100

41 10.0 51.6 77.4#

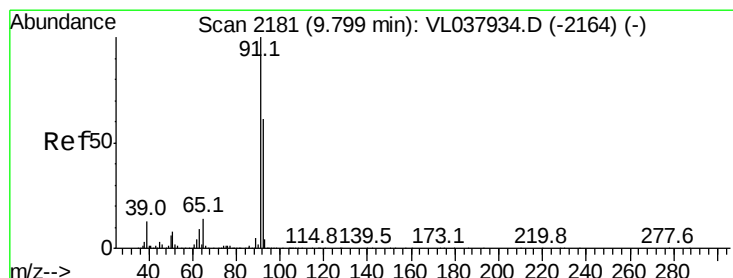
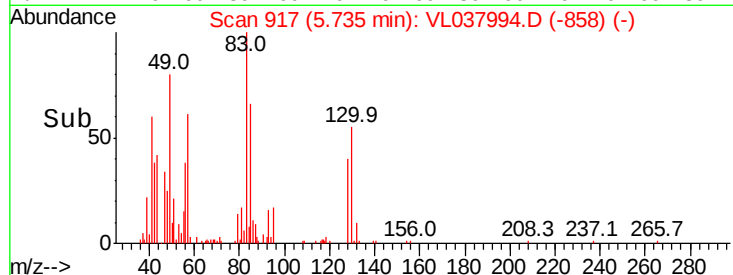
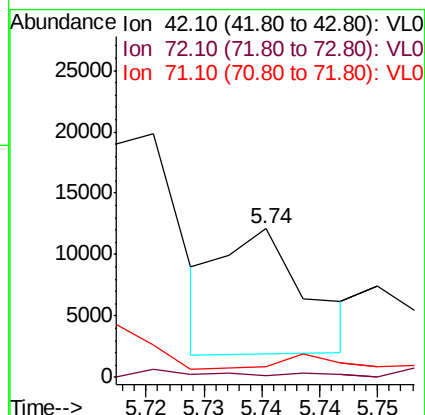
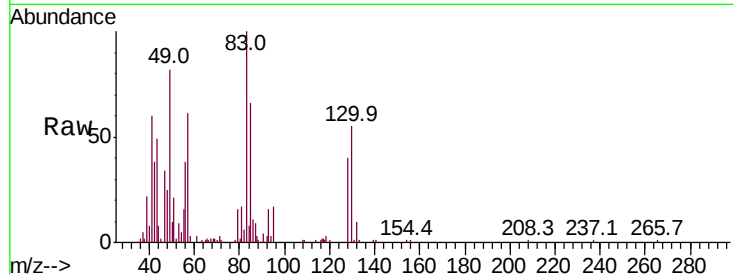
62 13.0 53.5 80.3#





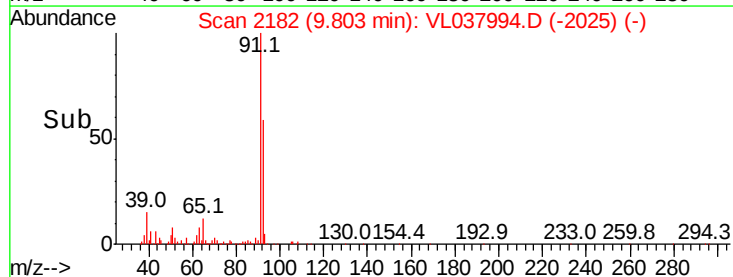
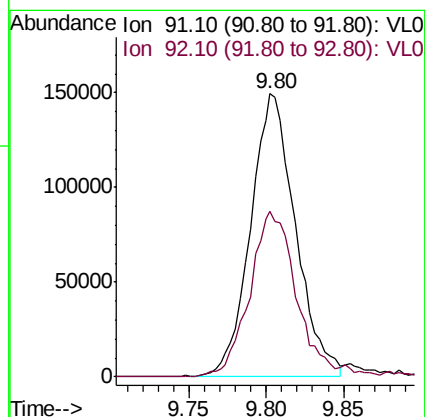
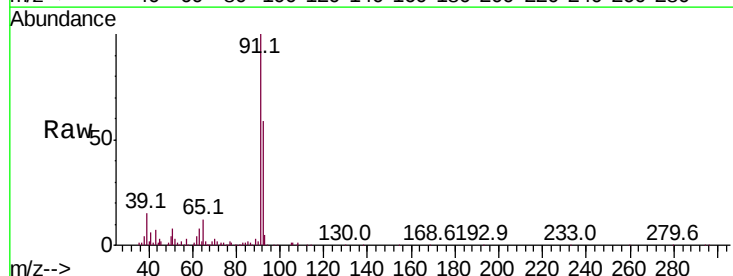
#41
Tetrahydrofuran
Concen: 0.078 ppbv
RT: 5.74 Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 10 Nov 2021 00:45

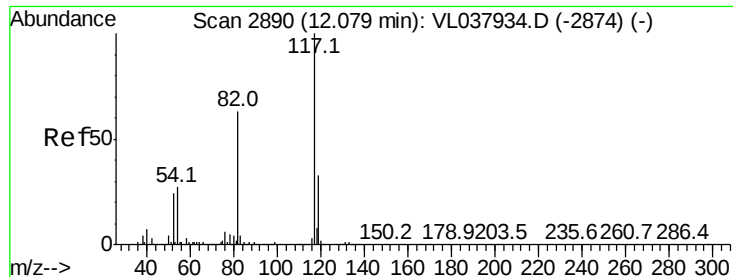
Tot Ion: 42 Resp: 5203
Ion Ratio Lower Upper
42 100
72 37.7 31.5 47.3
71 0.0 30.5 45.7#



#53
Toluene
Concen: 0.943 ppbv
RT: 9.80 min Scan# 2182
Delta R.T. 0.00 min
Lab File: VL037994.D
Acq: 10 Nov 2021 00:45

Tgt Ion: 91 Resp: 301567
Ion Ratio Lower Upper
91 100
92 63.1 48.2 72.4





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08

Delta R.T. MSVOA_L

Lab File:

Acq: 10 Nov 2021 00:45

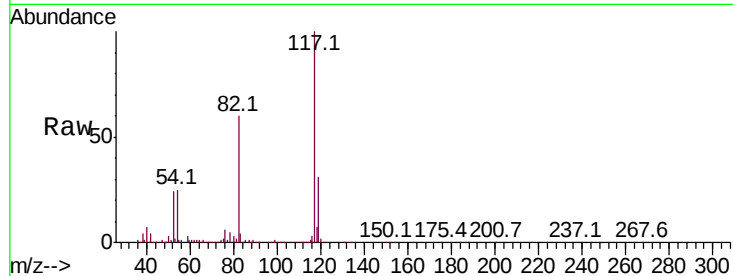
Tot Ion: 117 Resp: 3082346

Ion Ratio Lower Upper

117 100

82 64.4 51.0 76.6

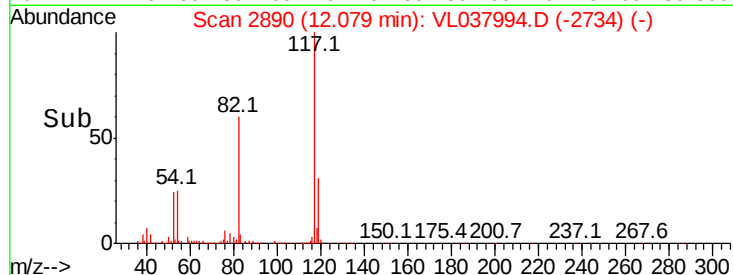
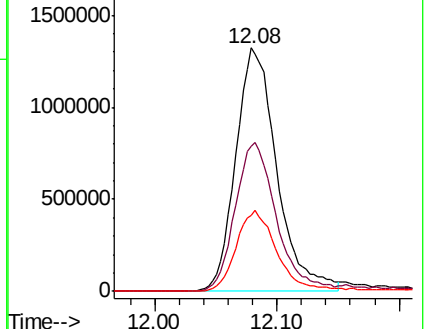
119 34.3 26.9 40.3



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: 0.080 ppbv

RT: 12.71 min Scan# 3086

Delta R.T. 0.00 min

Lab File: VL037994.D

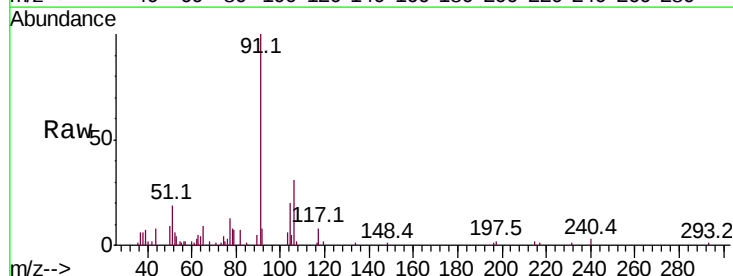
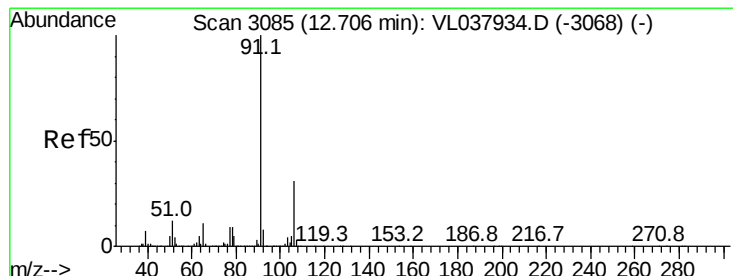
Acq: 10 Nov 2021 00:45

Tgt Ion: 91 Resp: 30065

Ion Ratio Lower Upper

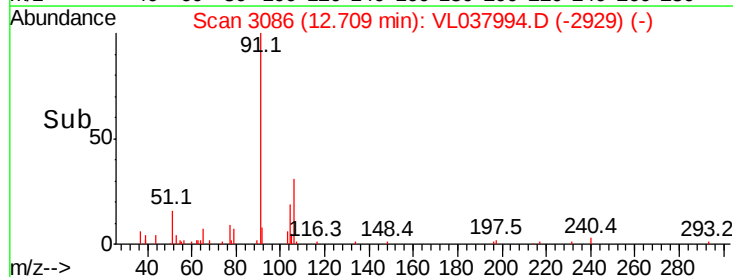
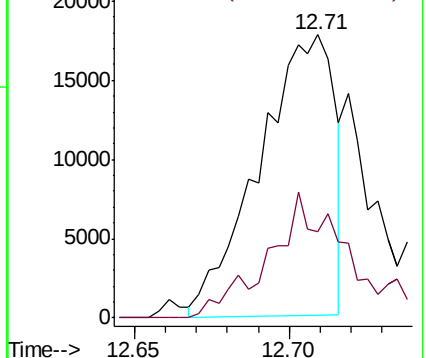
91 100

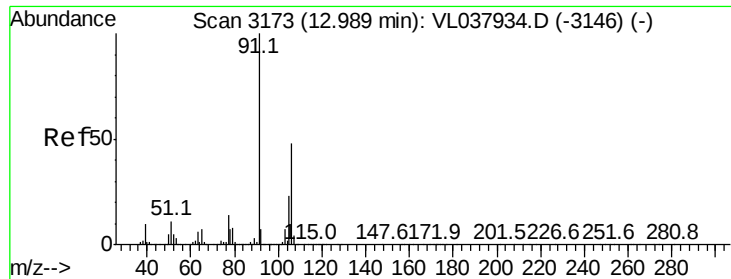
106 31.8 25.1 37.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

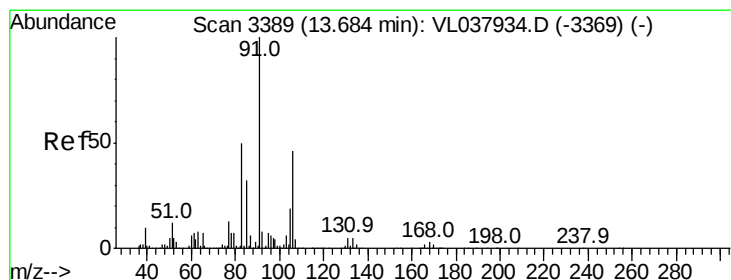
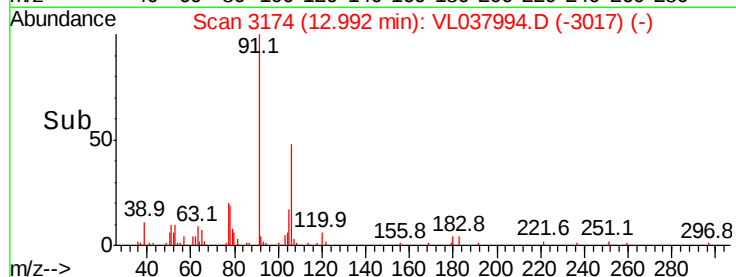
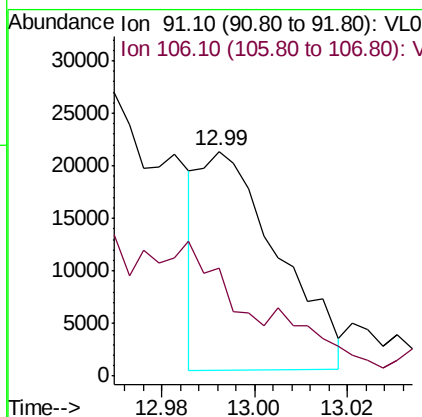
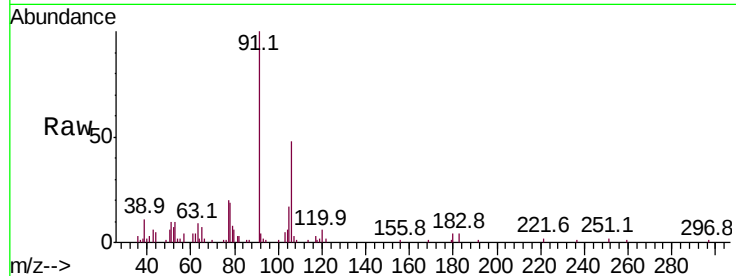
Ion 106.10 (105.80 to 106.80): V





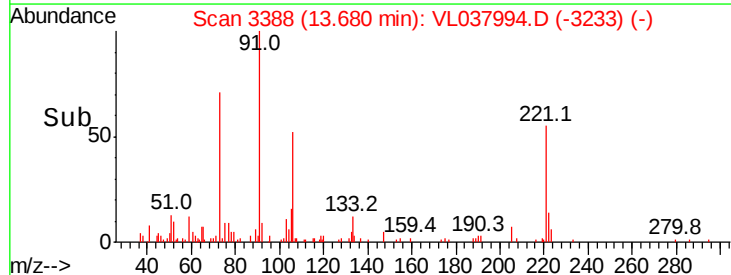
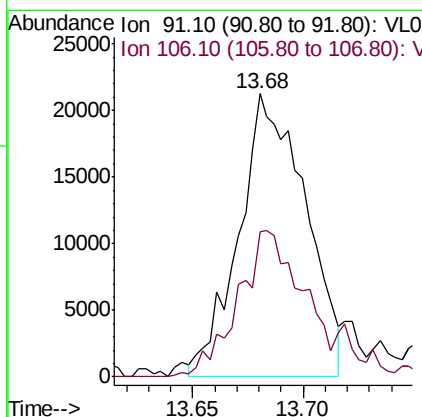
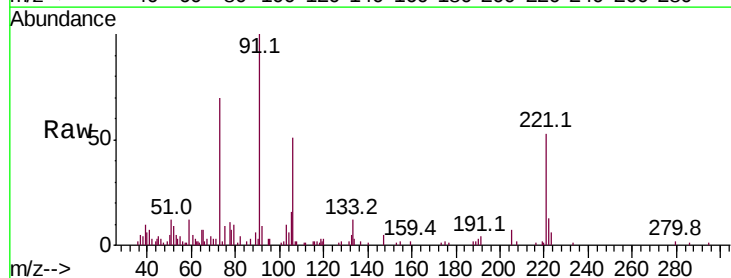
#59
m/p-Xylene
Concen: 0.073 ppbv
RT: 12.99 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 10 Nov 2021 00:45

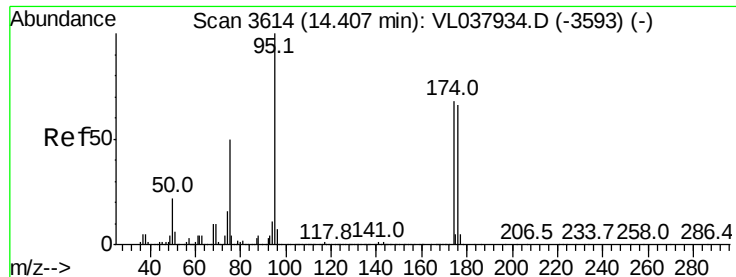
Tot Ion: 91 Resp: 24390
Ion Ratio Lower Upper
91 100
106 0.0 37.1 55.7#



#60
o-Xylene
Concen: 0.141 ppbv
RT: 13.68 min Scan# 3388
Delta R.T. -0.00 min
Lab File: VL037994.D
Acq: 10 Nov 2021 00:45

Tgt Ion: 91 Resp: 44558
Ion Ratio Lower Upper
91 100
106 58.3 23.5 70.6

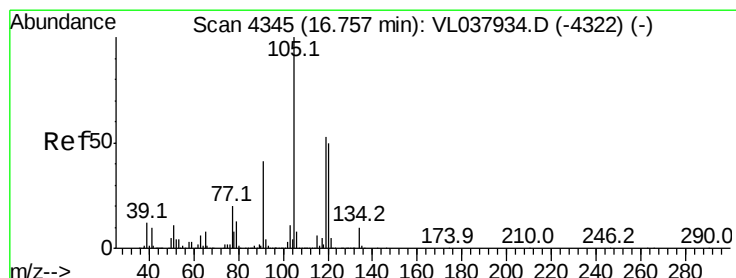
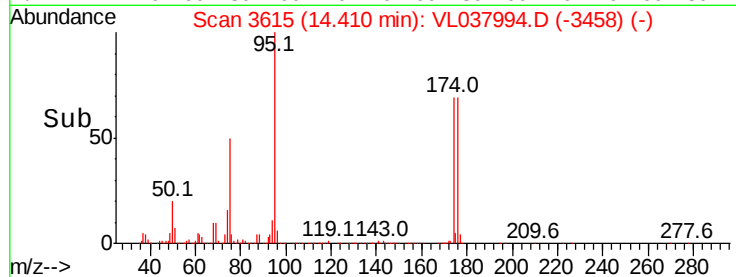
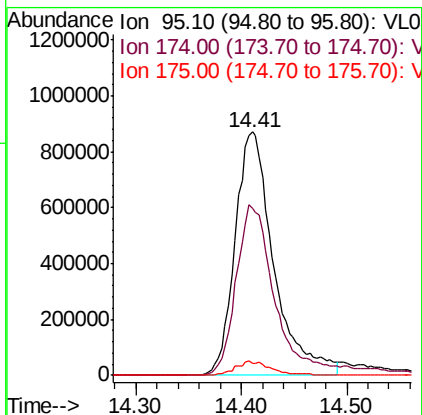
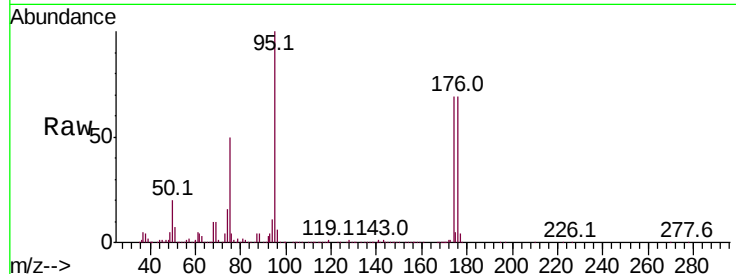




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.915 ppbv
 RT: 14.41 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 10 Nov 2021 00:45

Tot Ion: 95 Resp: 2221411

Ion	Ratio	Lower	Upper
95	100		
174	74.6	58.3	87.5
175	5.7	4.6	6.8



#74
 1,2,4-Trimethylbenzene
 Concen: 0.031 ppbv
 RT: 16.75 min Scan# 4344
 Delta R.T. -0.00 min
 Lab File: VL037994.D
 Acq: 10 Nov 2021 00:45

Tgt Ion: 105 Resp: 10894

Ion	Ratio	Lower	Upper
105	100		
120	20.0	40.0	60.0#
91	0.0	32.6	49.0#
77	11.0	15.8	23.8#

