

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL041422\
 Data File : VL038940.D
 Acq On : 15 Apr 2022 9:21
 Operator : SY/AP
 Sample : N2408-01
 Misc : 400mL/MSVOA L
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-2

Quant Time: Apr 28 06:33:08 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL040522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Apr 06 06:12:53 2022
 QLast Update : Wed Apr 06 06:12:53 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1153827	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	2950608	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.07	117	2618138	10.00	ppbv	-0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	2016268	10.15	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.50%

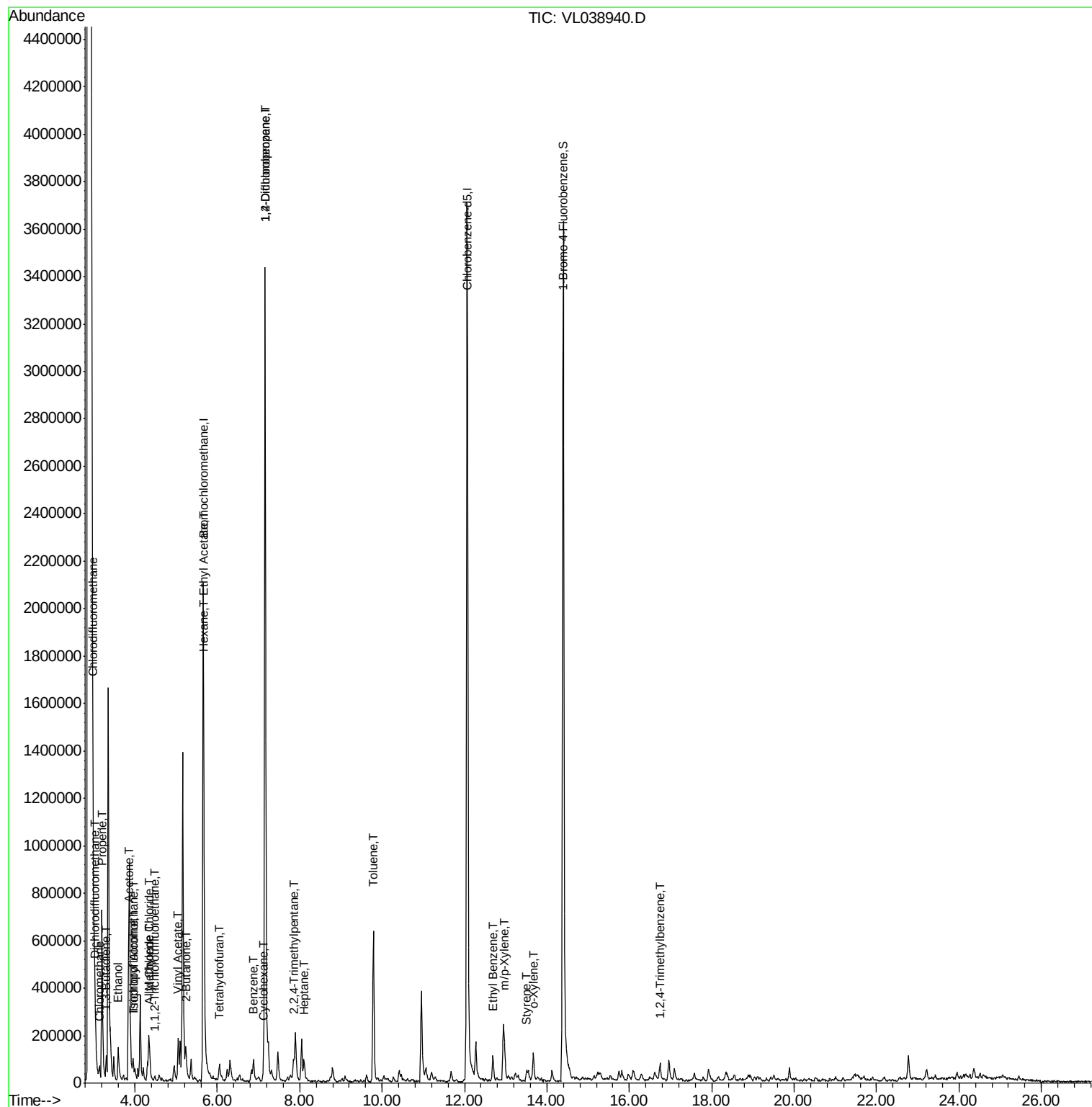
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.04	85	102725	0.628 ppbv	91
3) Chlorodifluoromethane	2.99	51	57207	0.406 ppbv #	91
4) Chloromethane	3.13	50	41943	0.575 ppbv	98
9) Propene	3.20	41	231909	3.113 ppbv	96
10) Heptane	8.10	43	41459	0.221 ppbv	88
11) Trichlorofluoromethane	3.95	101	29368	0.223 ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.48	101	3903	0.039 ppbv #	12
13) Ethanol	3.59	45	183281	40.481 ppbv #	100
15) Acetone	3.84	43	493411	4.295 ppbv #	74
16) 1,3-Butadiene	3.30	39	28309	0.431 ppbv #	21
19) Isopropyl Alcohol	3.96	45	54051	0.921 ppbv #	100
20) Methylene Chloride	4.34	84	71217	1.709 ppbv #	80
21) Allyl Chloride	4.37	41	9261	0.108 ppbv #	1
23) Vinyl Acetate	5.05	43	119796	1.071 ppbv #	61
25) Ethyl Acetate	5.67	43	170616	0.585 ppbv #	94
26) Hexane	5.68	57	134860	1.016 ppbv #	65
30) Cyclohexane	7.11	84	7430	0.064 ppbv #	1
34) 2-Butanone	5.23	43	142764	1.224 ppbv #	81
36) Benzene	6.88	78	76071	0.283 ppbv #	90
39) 1,2-Dichloropropane	7.16	63	728789	7.098 ppbv #	26
41) Tetrahydrofuran	6.05	42	42388	0.383 ppbv #	79
44) 2,2,4-Trimethylpentane	7.85	57	54596	0.120 ppbv #	43
53) Toluene	9.79	91	521822	1.684 ppbv	99
58) Ethyl Benzene	12.69	91	102497	0.262 ppbv	88
59) m/p-Xylene	12.97	91	84109	0.256 ppbv #	30
60) o-Xylene	13.67	91	57881	0.188 ppbv #	54
61) Styrene	13.51	104	8758	0.047 ppbv #	1
74) 1,2,4-Trimethylbenzene	16.74	105	41598	0.119 ppbv #	67

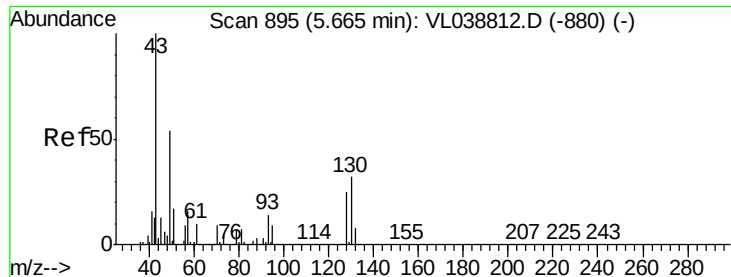
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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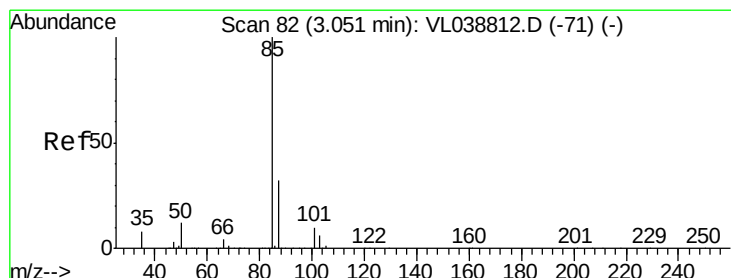
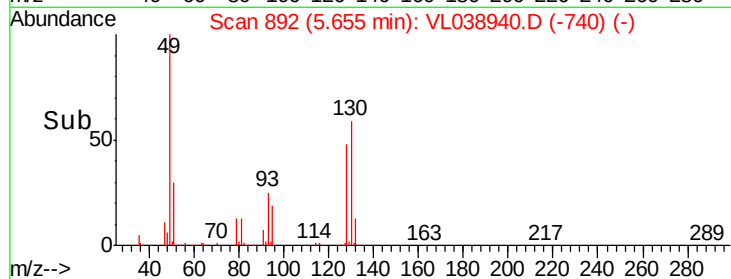
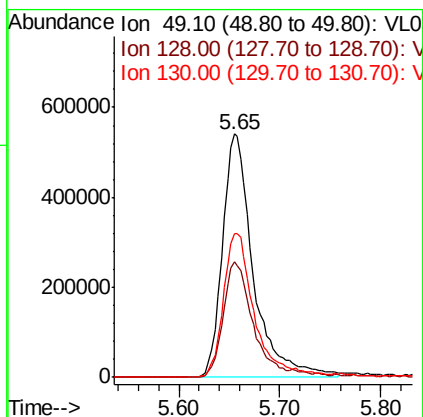
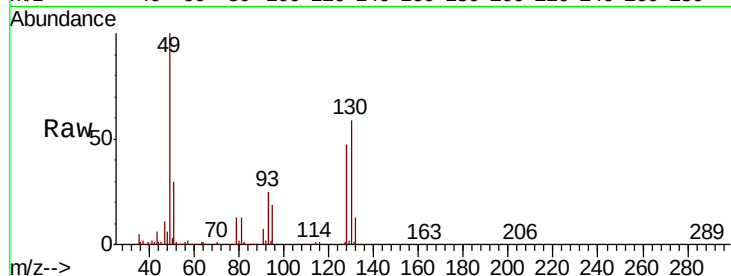
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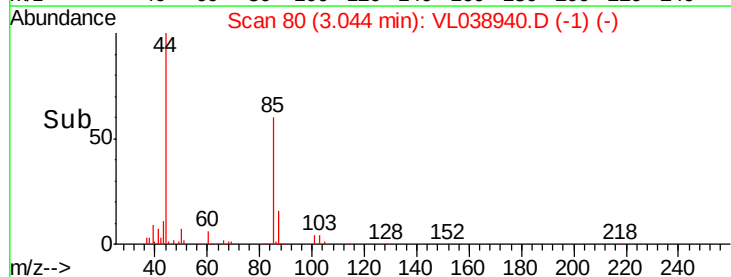
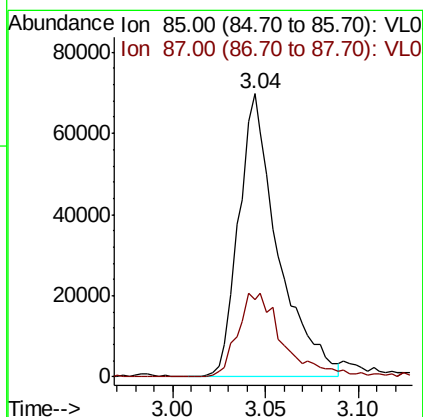
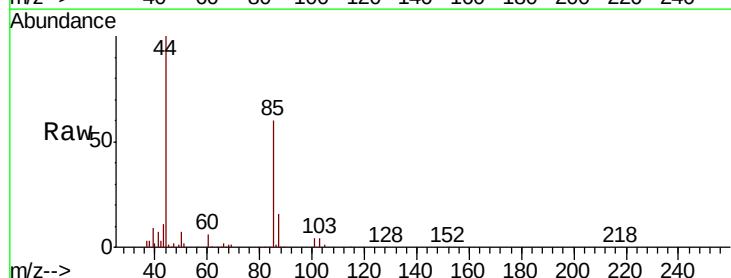
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.65
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 15 Apr 2022 9:21

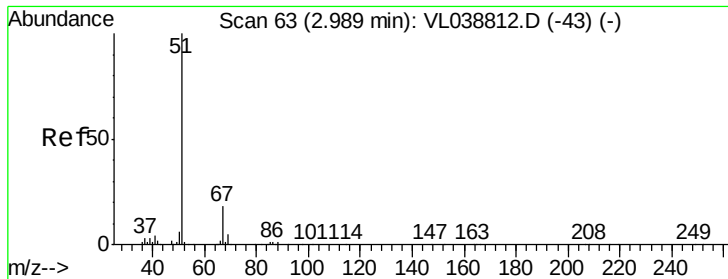
Tot Ion: 49 Resp: 1153827
 Ion Ratio Lower Upper
 49 100
 128 49.0 24.1 72.3
 130 61.2 30.9 92.8



#2
 Dichlorodifluoromethane
 Concen: 0.628 ppbv
 RT: 3.04 min Scan# 80
 Delta R.T. -0.01 min
 Lab File: VL038940.D
 Acq: 15 Apr 2022 9:21

Tgt Ion: 85 Resp: 102725
 Ion Ratio Lower Upper
 85 100
 87 27.2 25.9 38.9





#3

Chlorodifluoromethane

Concen: 0.406 ppbv

RT: 2.99 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

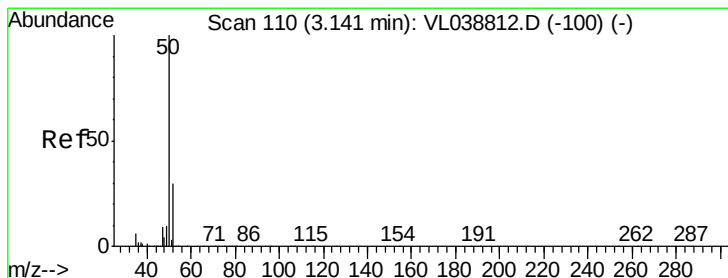
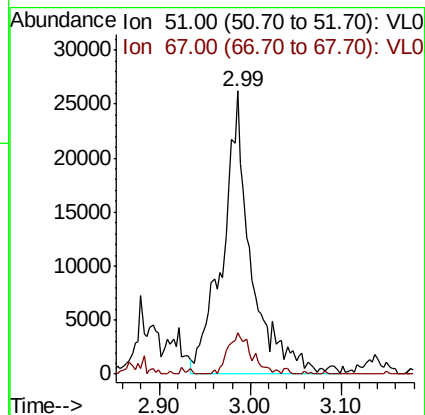
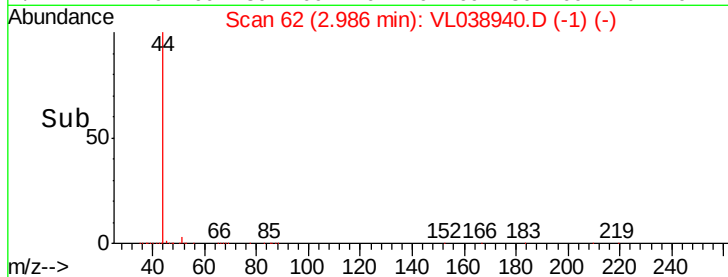
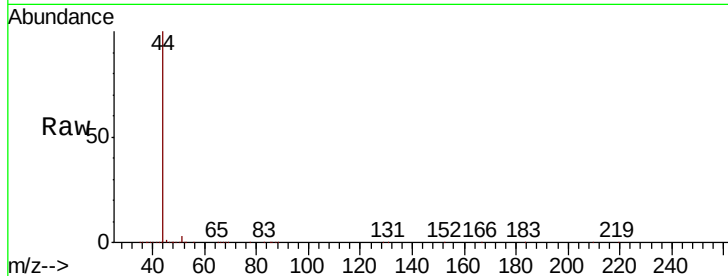
Acq: 15 Apr 2022 9:21

Tot Ion: 51 Resp: 57207

Ion Ratio Lower Upper

51 100

67 12.7 13.4 20.0#



#4

Chloromethane

Concen: 0.575 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.01 min

Lab File: VL038940.D

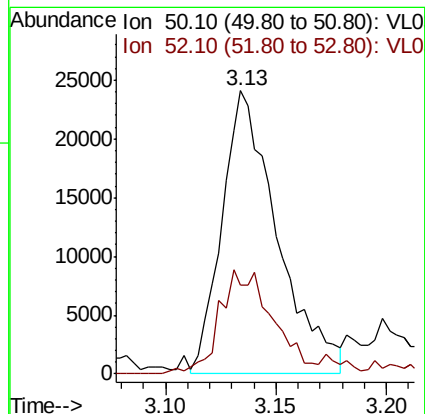
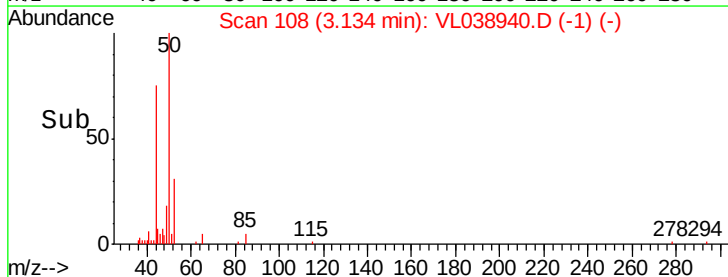
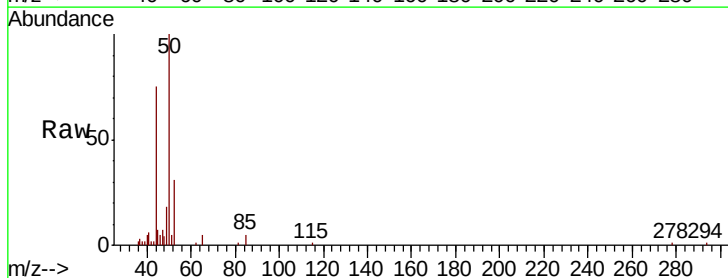
Acq: 15 Apr 2022 9:21

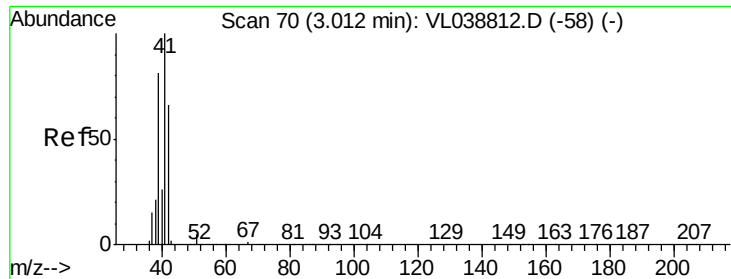
Tgt Ion: 50 Resp: 41943

Ion Ratio Lower Upper

50 100

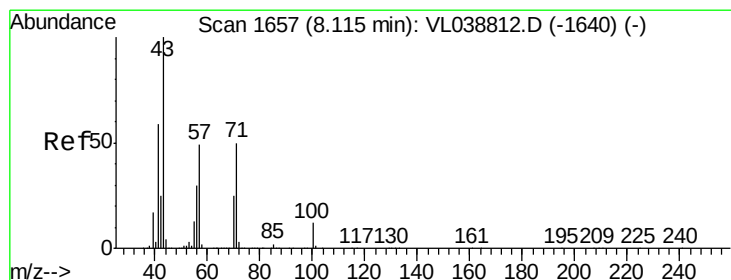
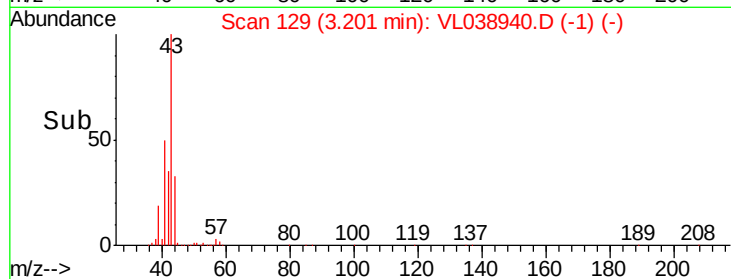
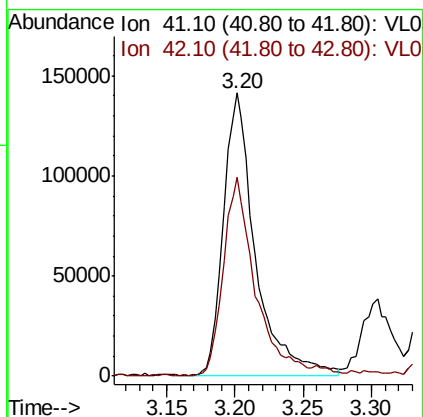
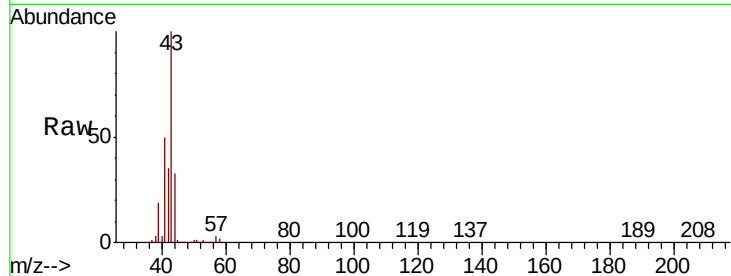
52 29.3 24.3 36.5





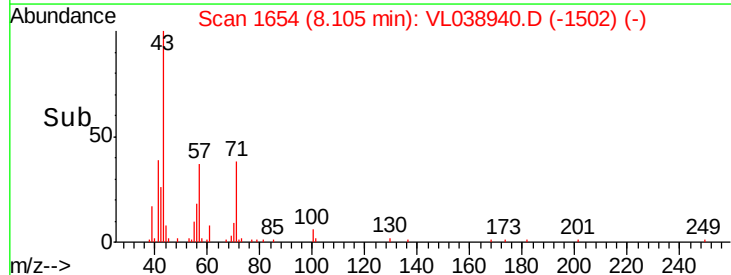
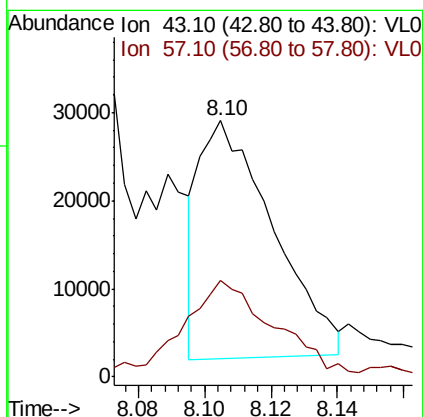
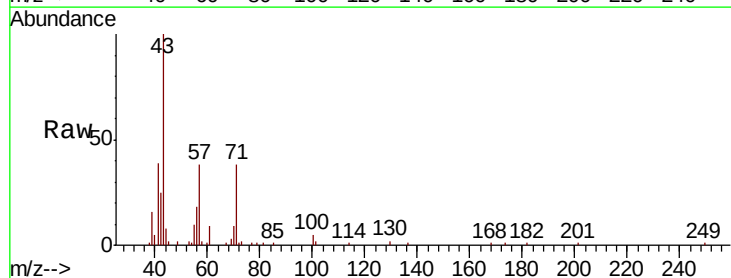
#9
 Propene
 Concen: 3.113 ppbv
 RT: 3.20
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 15 Apr 2022 9:21

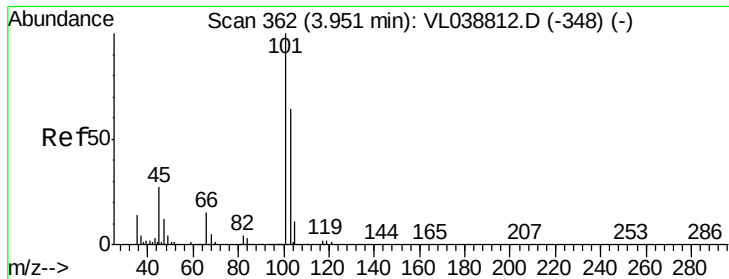
Tot Ion: 41 Resp: 231909
 Ion Ratio Lower Upper
 41 100
 42 71.4 54.2 81.4



#10
 Heptane
 Concen: 0.221 ppbv
 RT: 8.10 min Scan# 1654
 Delta R.T. -0.01 min
 Lab File: VL038940.D
 Acq: 15 Apr 2022 9:21

Tgt Ion: 43 Resp: 41459
 Ion Ratio Lower Upper
 43 100
 57 57.1 39.3 58.9





#11

Trichlorofluoromethane

Concen: 0.223 ppbv

RT: 3.95 Instrument: MSVOA_1

Delta R.T. AA-2

Lab File: ClientSampleId :

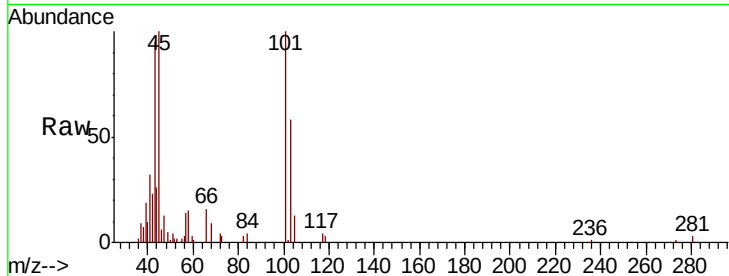
Acq: 15 Apr 2022 9:21

Tot Ion:101 Resp: 29368

Ion Ratio Lower Upper

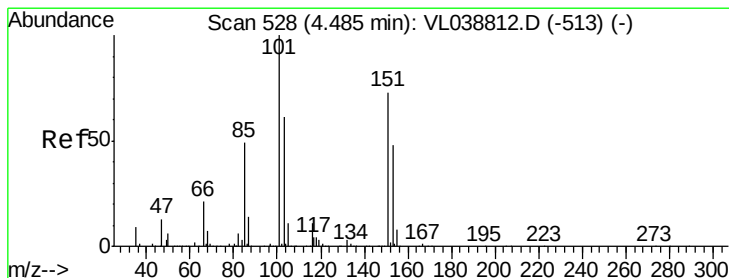
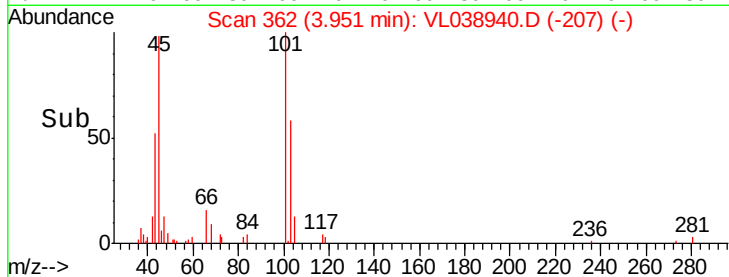
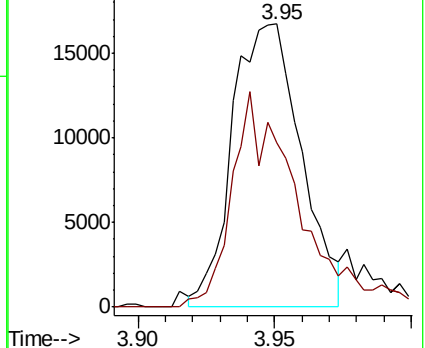
101 100

103 57.5 51.4 77.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.039 ppbv

RT: 4.48 min Scan# 526

Delta R.T. -0.01 min

Lab File: VL038940.D

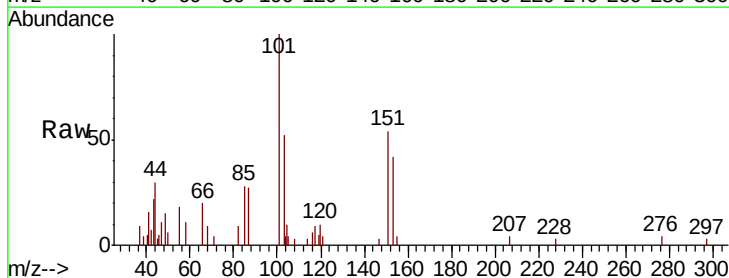
Acq: 15 Apr 2022 9:21

Tgt Ion:101 Resp: 3903

Ion Ratio Lower Upper

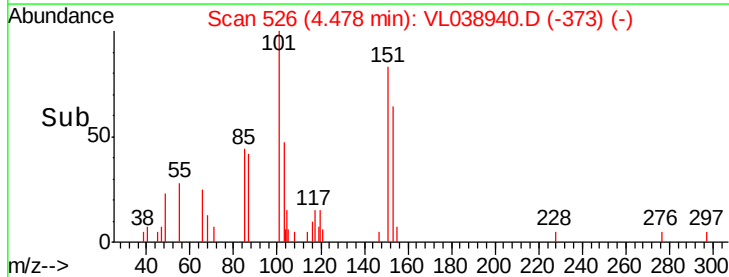
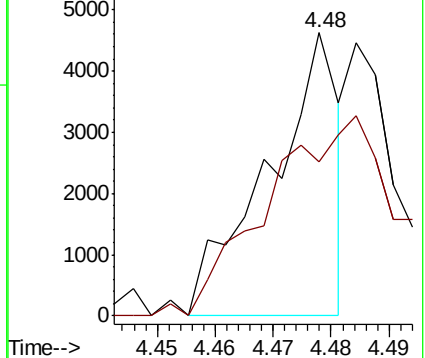
101 100

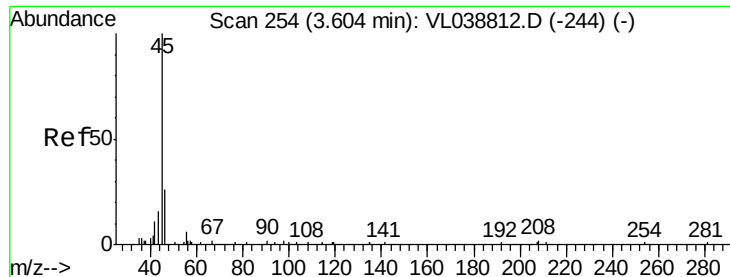
151 0.0 59.9 89.9#



Abundance Ion 101.00 (100.70 to 101.70): V

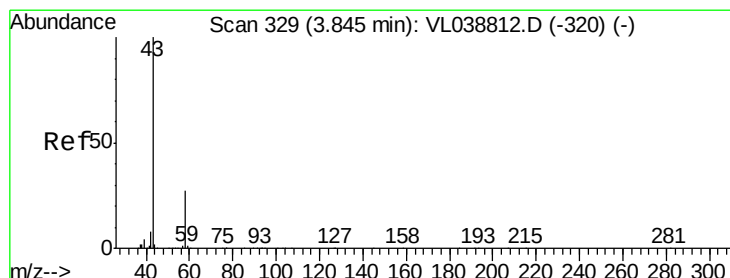
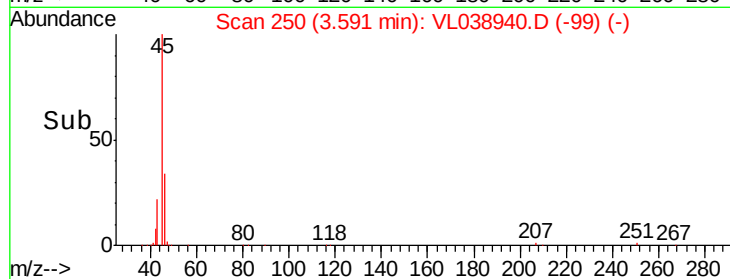
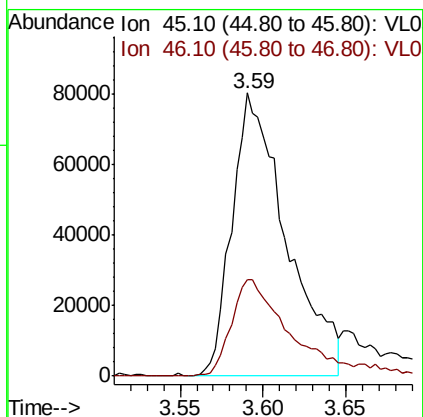
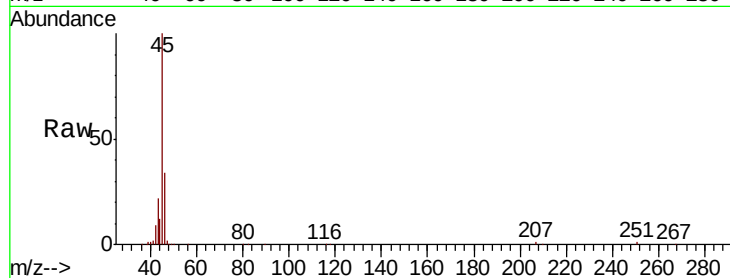
Ion 151.00 (150.70 to 151.70): V





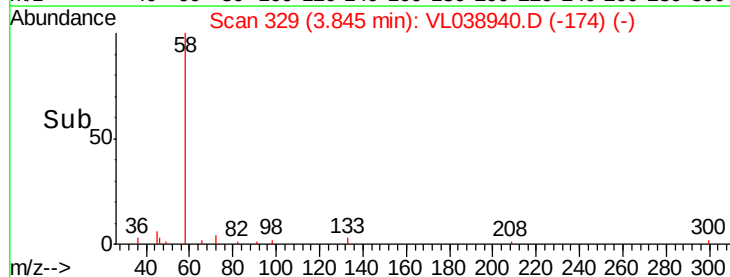
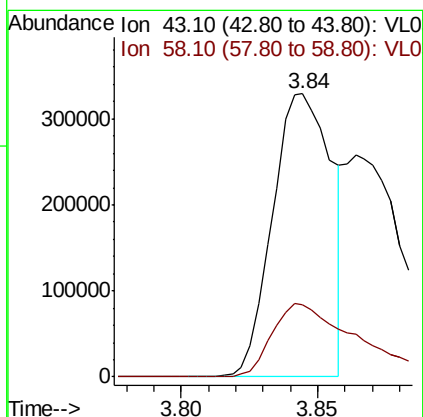
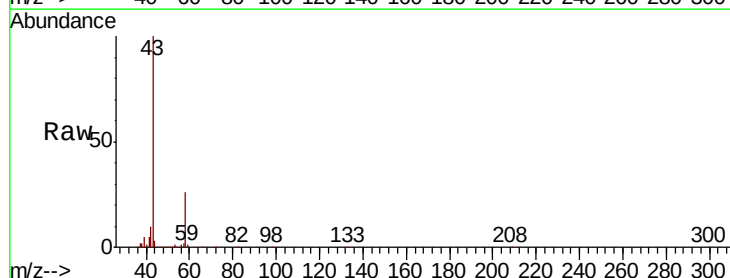
#13
 Ethanol
 Concen: 40.481 ppbv
 RT: 3.59
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 15 Apr 2022 9:21

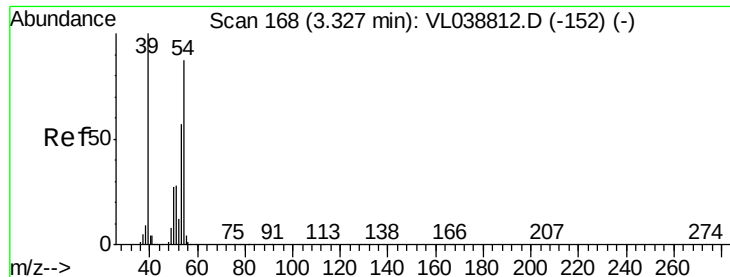
Tot Ion: 45 Resp: 183281
 Ion Ratio Lower Upper
 45 100
 46 39.1 0.0 0.0#



#15
 Acetone
 Concen: 4.295 ppbv
 RT: 3.84 min Scan# 329
 Delta R.T. -0.00 min
 Lab File: VL038940.D
 Acq: 15 Apr 2022 9:21

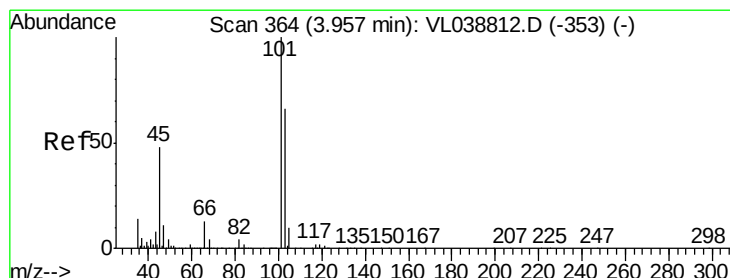
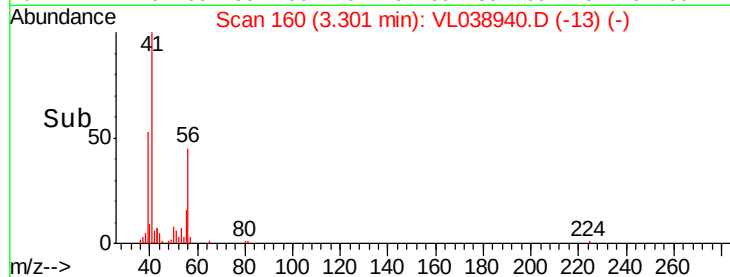
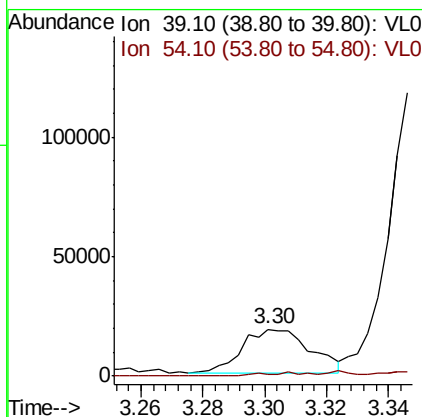
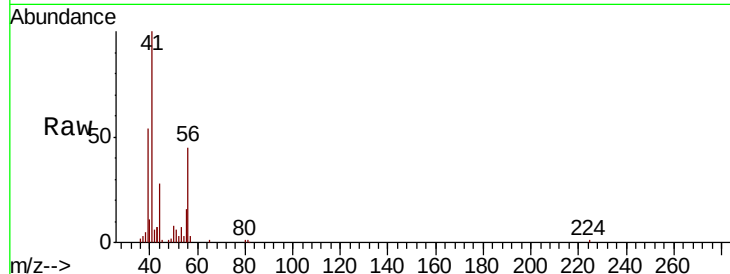
Tgt Ion: 43 Resp: 493411
 Ion Ratio Lower Upper
 43 100
 58 42.0 22.5 33.7#





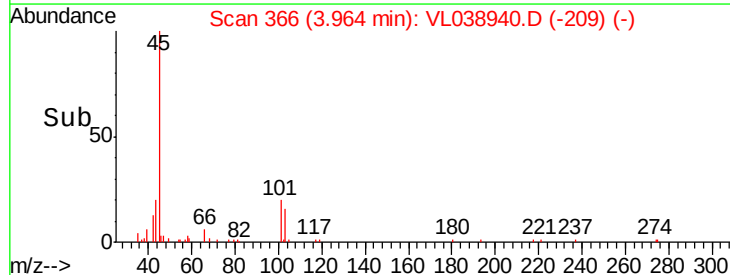
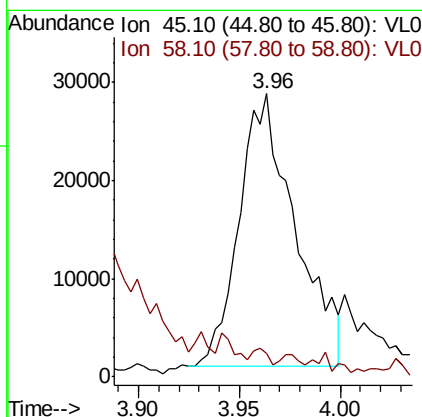
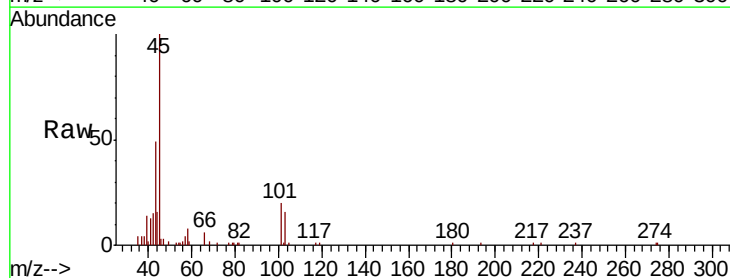
#16
 1,3-Butadiene
 Concen: 0.431 ppbv
 RT: 3.30
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 15 Apr 2022 9:21

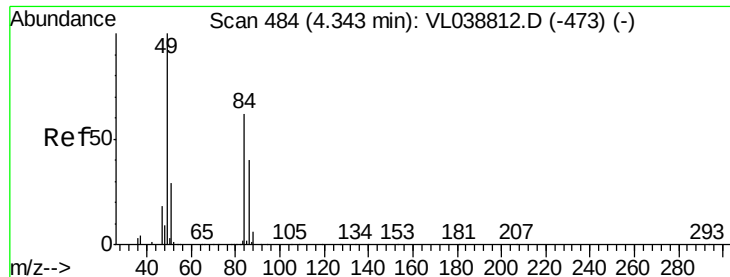
Tot Ion: 39 Resp: 28309
 Ion Ratio Lower Upper
 39 100
 54 10.9 64.8 97.2#



#19
 Isopropyl Alcohol
 Concen: 0.921 ppbv
 RT: 3.96 min Scan# 366
 Delta R.T. 0.01 min
 Lab File: VL038940.D
 Acq: 15 Apr 2022 9:21

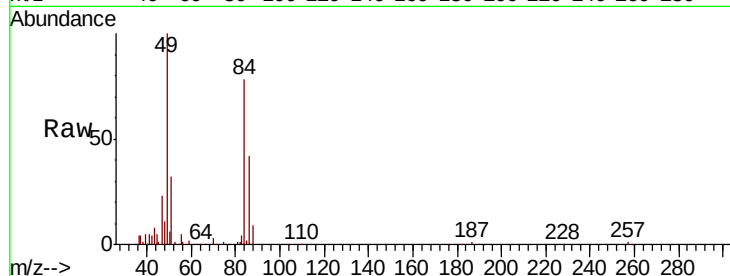
Tgt Ion: 45 Resp: 54051
 Ion Ratio Lower Upper
 45 100
 58 383.6 0.0 0.0#





#20
Methylene Chloride
Concen: 1.709 ppbv
RT: 4.34
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 15 Apr 2022 9:21

Tot Ion:	84	Resp:	71217
Ion	Ratio	Lower	Upper
84	100		
49	127.4	129.4	194.0#
51	40.0	37.4	56.2
86	53.3	51.4	77.2



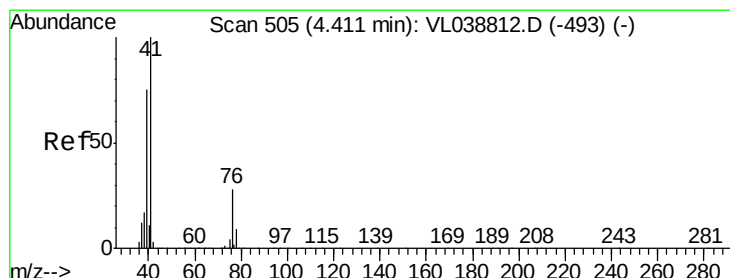
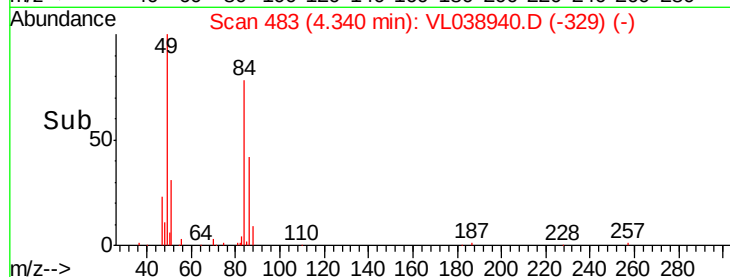
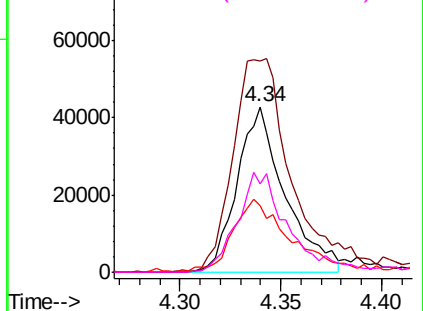
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

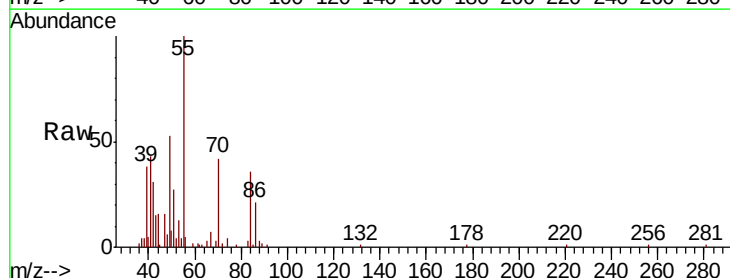
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21
Allyl Chloride
Concen: 0.108 ppbv
RT: 4.37 min Scan# 491
Delta R.T. -0.05 min
Lab File: VL038940.D
Acq: 15 Apr 2022 9:21

Tgt Ion:	41	Resp:	9261
Ion	Ratio	Lower	Upper
41	100		
76	0.0	23.7	35.5#
39	188.9	62.0	93.0#

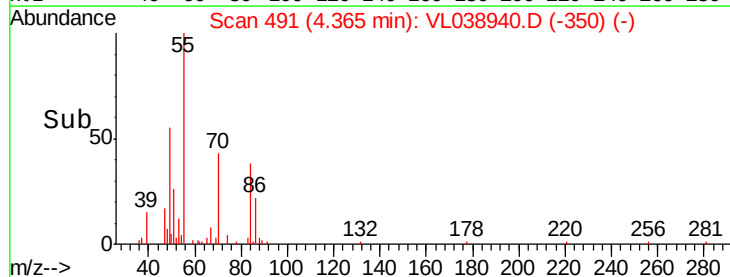
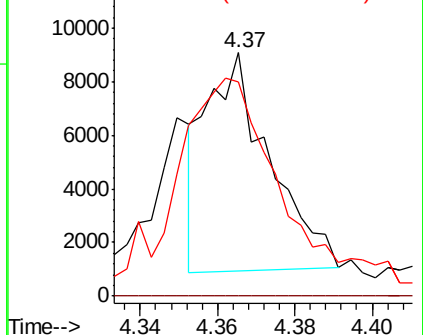


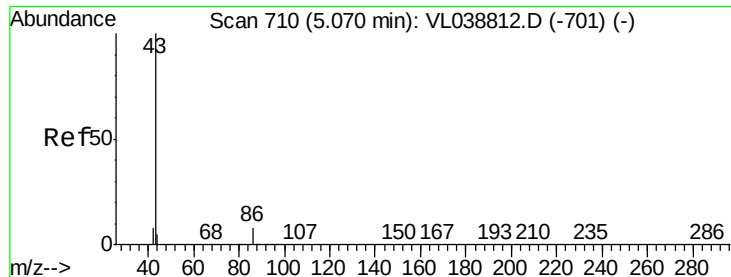
Abundance

Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 1.071 ppbv

RT: 5.05 Instrument:

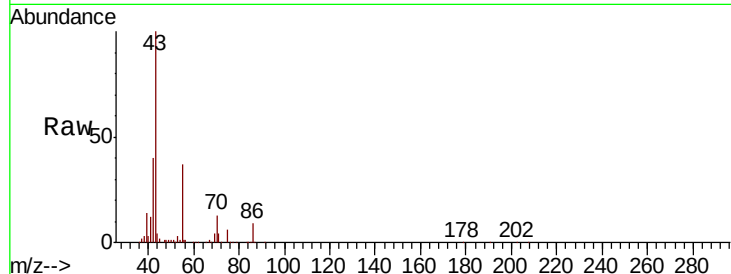
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 15 Apr 2022 9:21

Tot Ion: 43 Resp: 119796

Ion	Ratio	Lower	Upper
43	100		
86	8.6	5.8	8.6
42	38.9	7.8	11.6#
44	1.9	3.6	5.4#

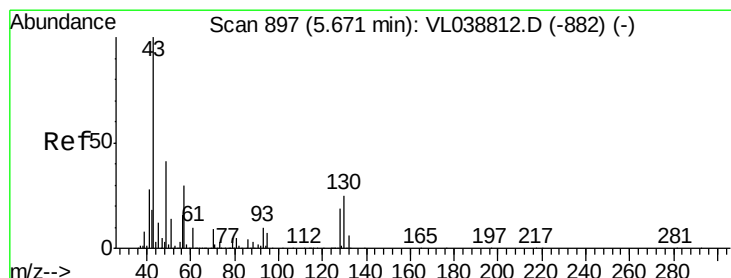
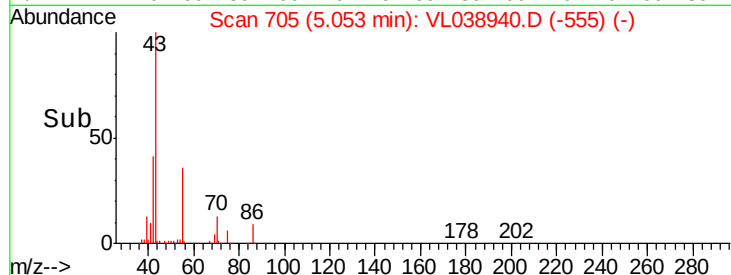
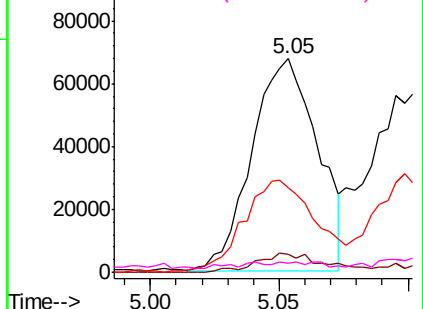


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.585 ppbv

RT: 5.67 min Scan# 898

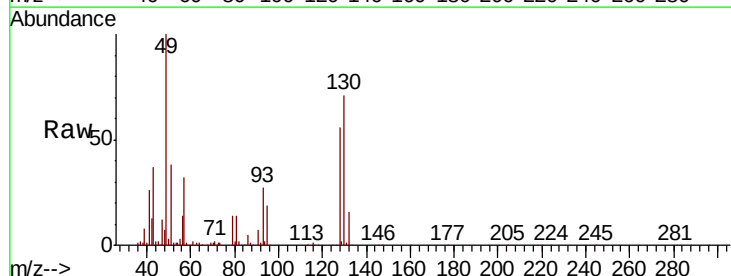
Delta R.T. 0.00 min

Lab File: VL038940.D

Acq: 15 Apr 2022 9:21

Tgt Ion: 43 Resp: 170616

Ion	Ratio	Lower	Upper
43	100		
45	8.8	8.4	12.6
61	6.4	7.9	11.9#
70	6.1	5.6	8.4

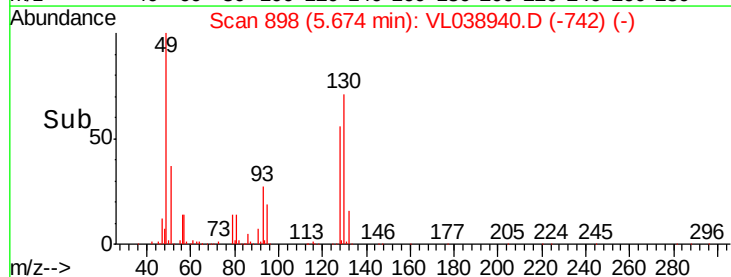
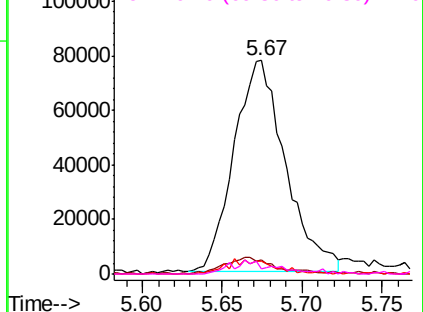


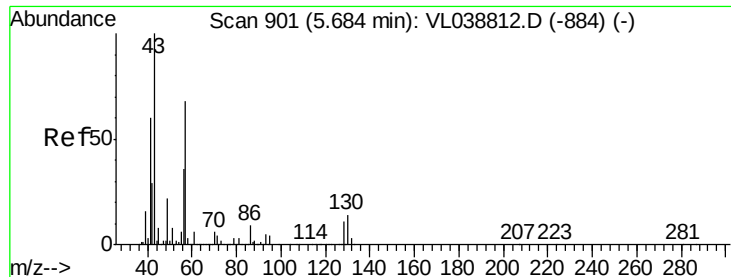
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

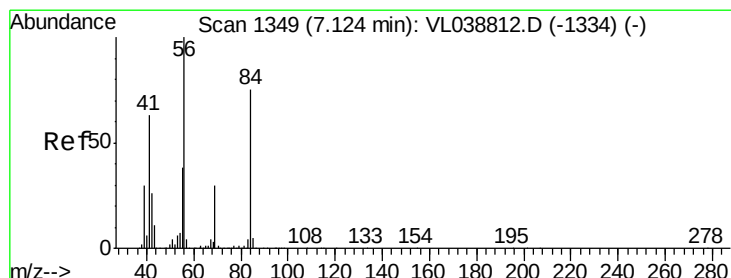
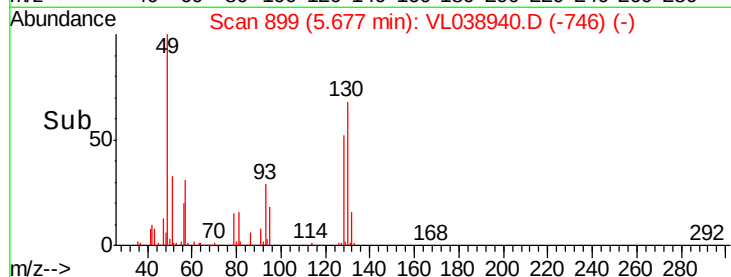
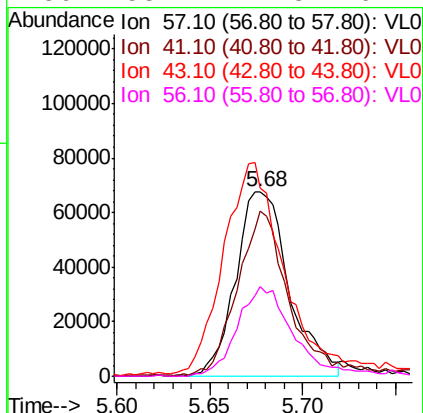
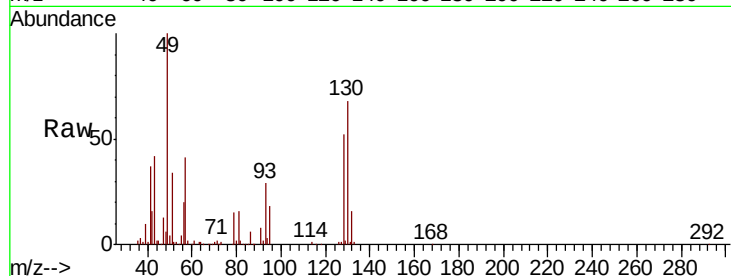
Ion 70.10 (69.80 to 70.80): VL0





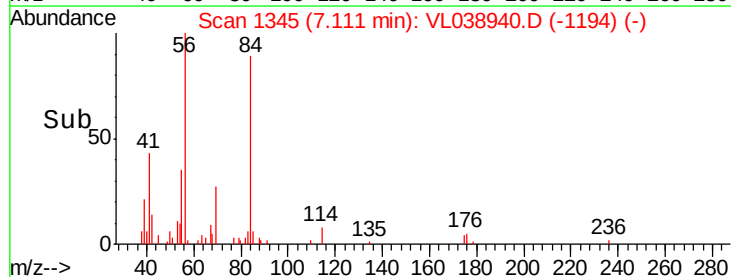
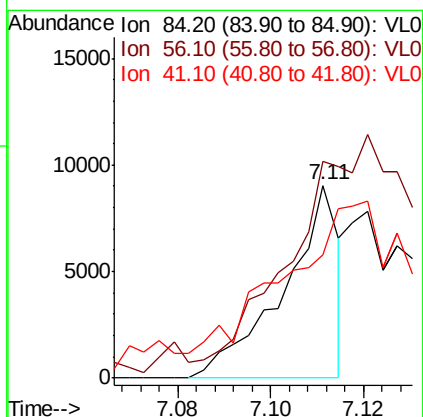
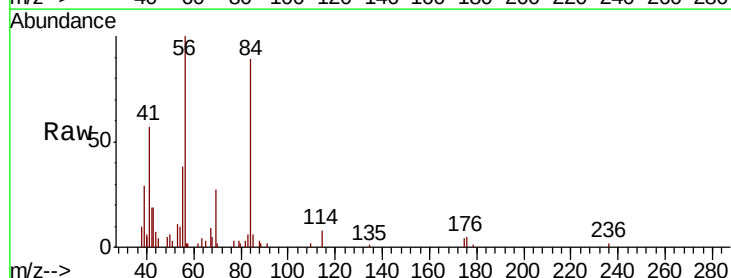
#26
Hexane
Concen: 1.016 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 15 Apr 2022 9:21

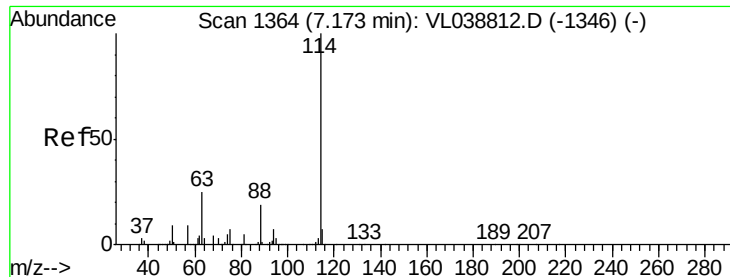
Tot Ion:	57	Resp:	134860
Ion	Ratio	Lower	Upper
57	100		
41	89.2	72.0	108.0
43	140.0	186.6	280.0#
56	53.7	42.8	64.2



#30
Cyclohexane
Concen: 0.064 ppbv
RT: 7.11 min Scan# 1345
Delta R.T. -0.01 min
Lab File: VL038940.D
Acq: 15 Apr 2022 9:21

Tgt Ion:	84	Resp:	7430
Ion	Ratio	Lower	Upper
84	100		
56	0.0	114.4	171.6#
41	0.0	69.0	103.4#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 Instrument: MSVOA_1

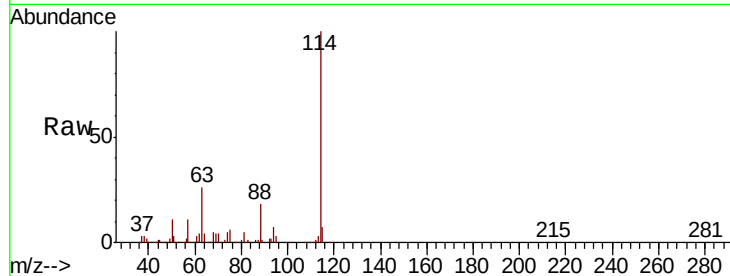
Delta R.T. ClientSampleId:

Lab File: AA-2

Acq: 15 Apr 2022 9:21

Tot Ion:114 Resp: 2950608

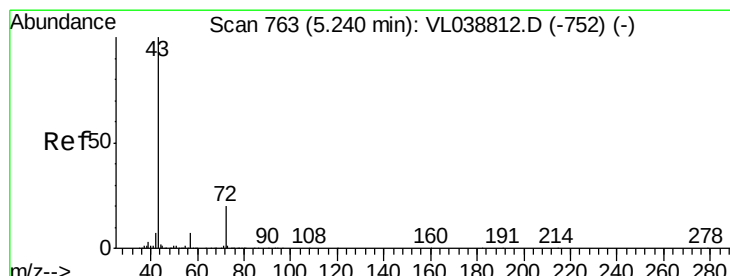
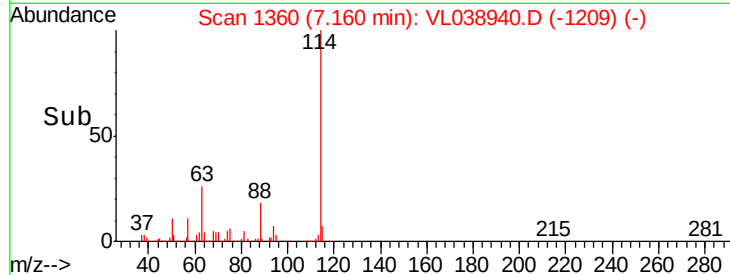
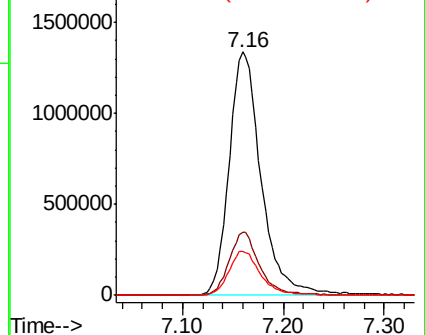
Ion	Ratio	Lower	Upper
114	100		
63	25.1	19.8	29.8
88	18.3	14.2	21.4



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 1.224 ppbv

RT: 5.23 min Scan# 761

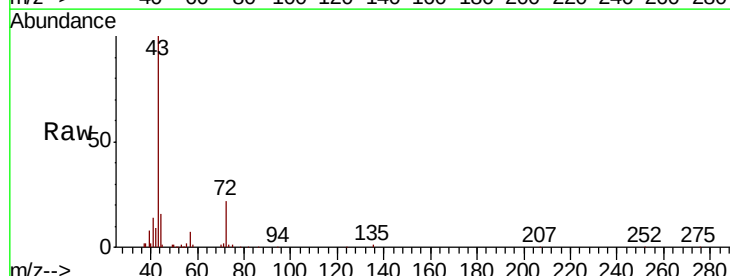
Delta R.T. -0.01 min

Lab File: VL038940.D

Acq: 15 Apr 2022 9:21

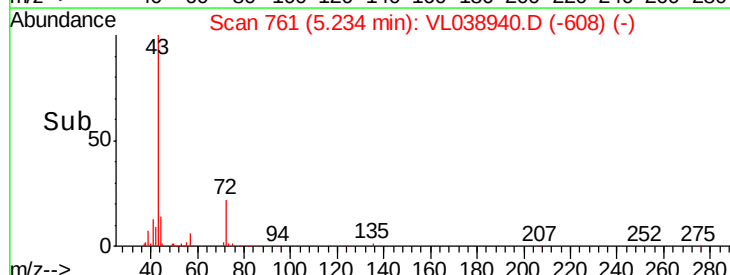
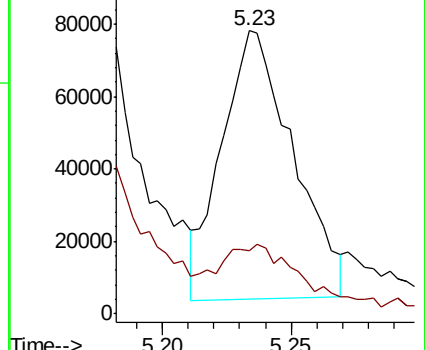
Tgt Ion: 43 Resp: 142764

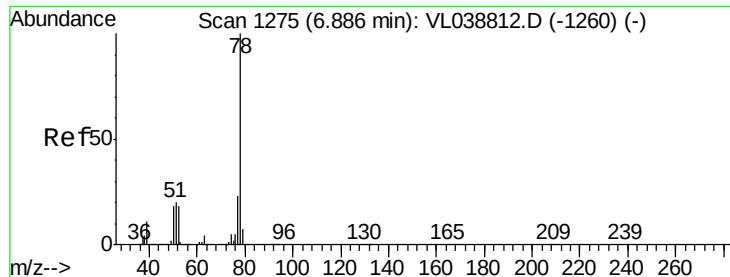
Ion	Ratio	Lower	Upper
43	100		
72	30.2	16.9	25.3



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.283 ppbv

RT: 6.88 Instrument: MSVOA_1

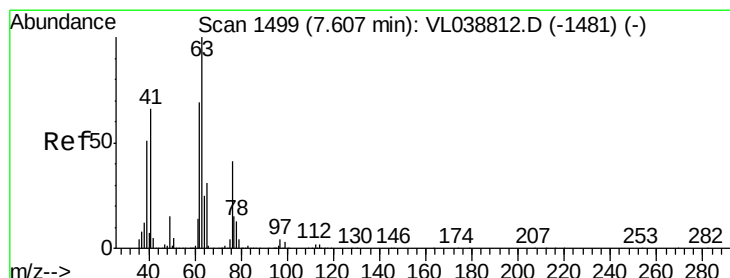
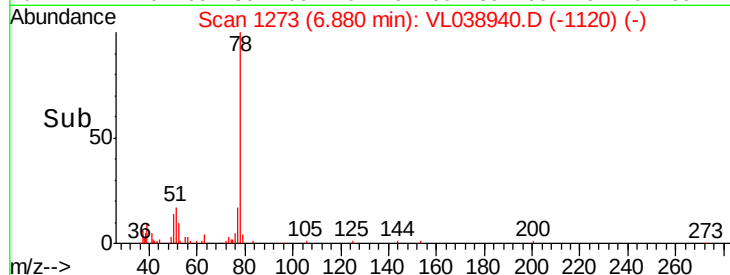
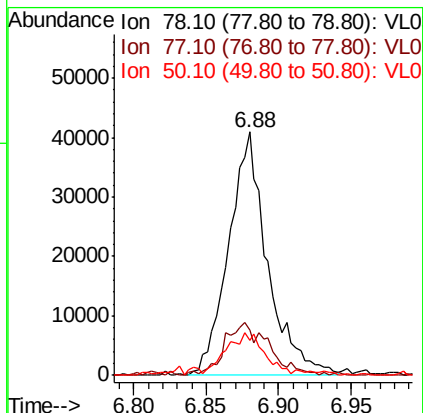
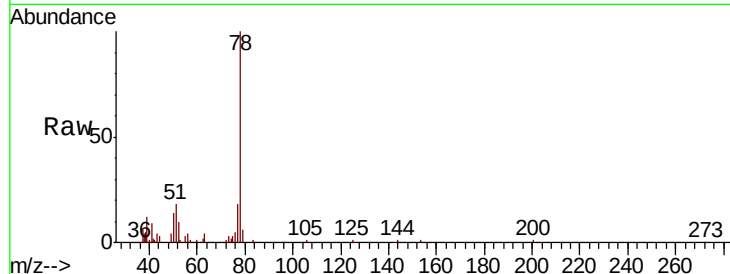
Delta R.T. ClientSampleId:

Lab File: AA-2

Acq: 15 Apr 2022 9:21

Tot Ion: 78 Resp: 76071

Ion	Ratio	Lower	Upper
78	100		
77	17.0	18.2	27.2#
50	14.4	14.0	21.0



#39

1,2-Dichloropropane

Concen: 7.098 ppbv

RT: 7.16 min Scan# 1361

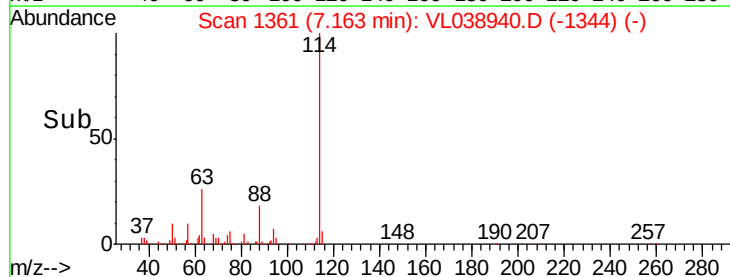
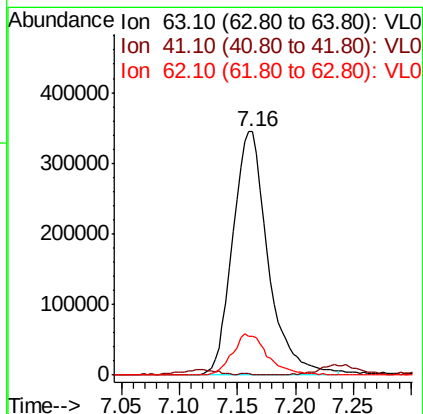
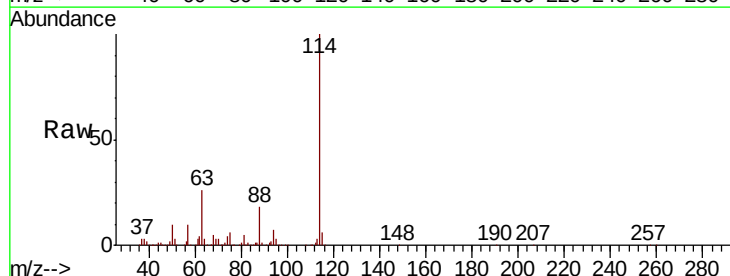
Delta R.T. -0.44 min

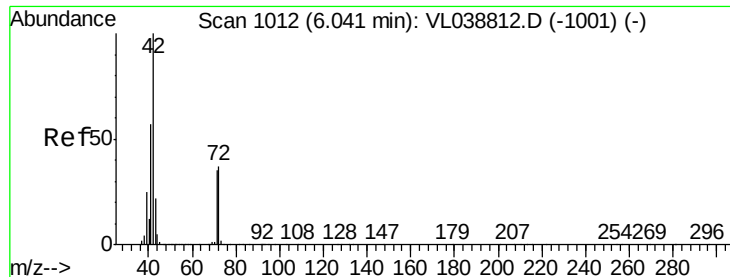
Lab File: VL038940.D

Acq: 15 Apr 2022 9:21

Tgt Ion: 63 Resp: 728789

Ion	Ratio	Lower	Upper
63	100		
41	0.0	53.0	79.6#
62	15.9	55.0	82.4#





#41

Tetrahydrofuran

Concen: 0.383 ppbv

RT: 6.05 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 15 Apr 2022 9:21

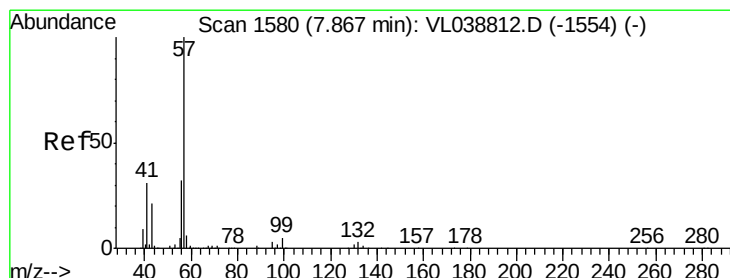
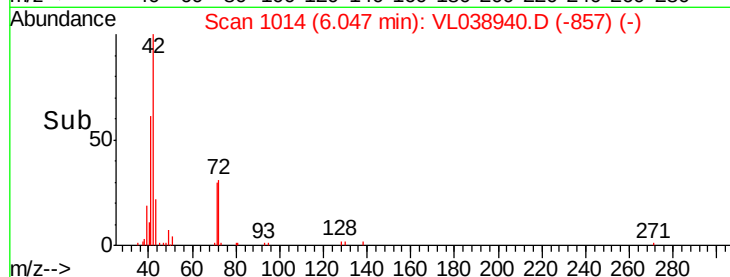
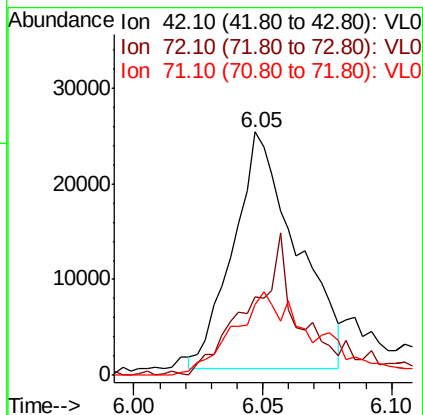
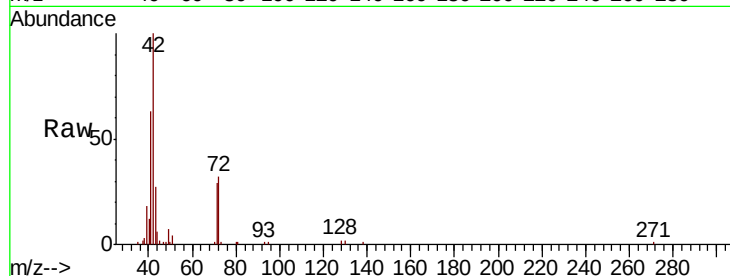
Tot Ion: 42 Resp: 42388

Ion Ratio Lower Upper

42 100

72 54.3 31.4 47.0#

71 48.0 30.2 45.4#



#44

2,2,4-Trimethylpentane

Concen: 0.120 ppbv

RT: 7.85 min Scan# 1575

Delta R.T. -0.02 min

Lab File: VL038940.D

Acq: 15 Apr 2022 9:21

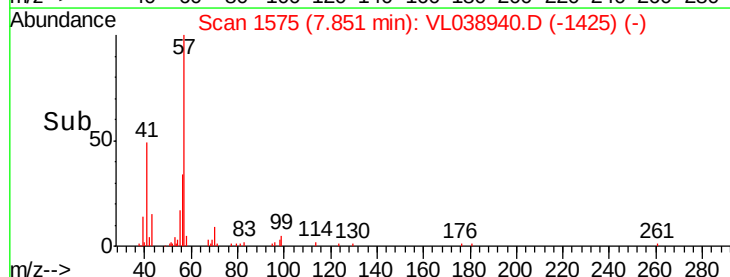
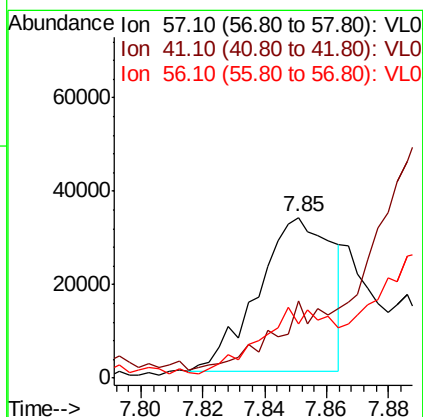
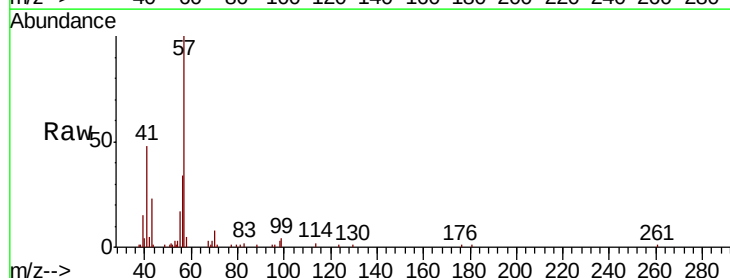
Tgt Ion: 57 Resp: 54596

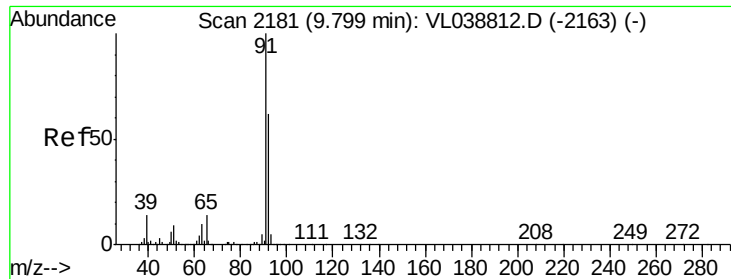
Ion Ratio Lower Upper

57 100

41 0.0 25.0 37.4#

56 0.0 25.3 37.9#





#53

Toluene

Concen: 1.684 ppbv

RT: 9.79 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

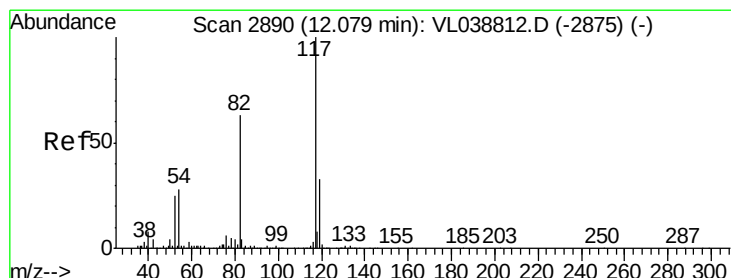
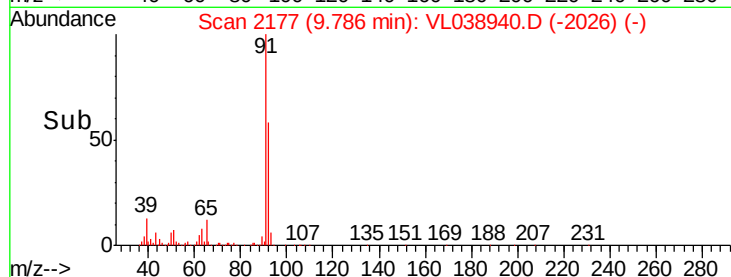
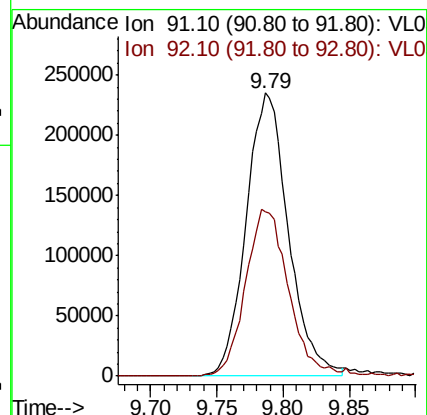
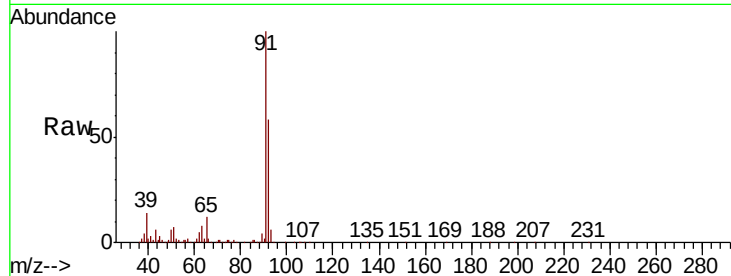
Acq: 15 Apr 2022 9:21

Tot Ion: 91 Resp: 521822

Ion Ratio Lower Upper

91 100

92 60.4 49.2 73.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. -0.01 min

Lab File: VL038940.D

Acq: 15 Apr 2022 9:21

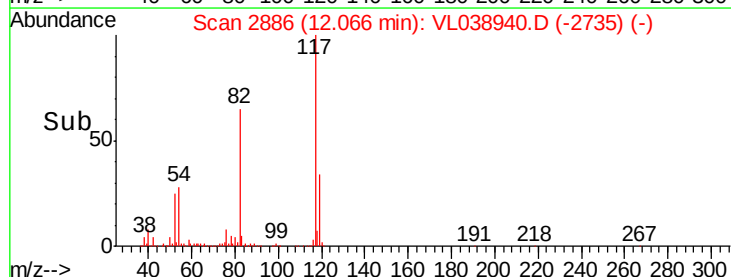
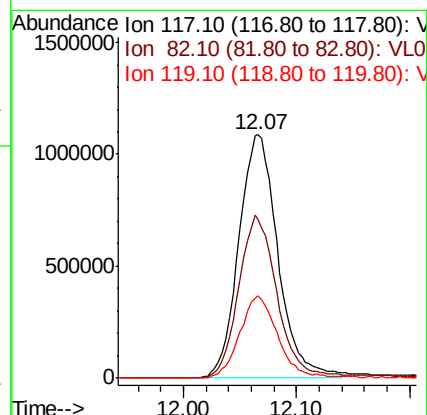
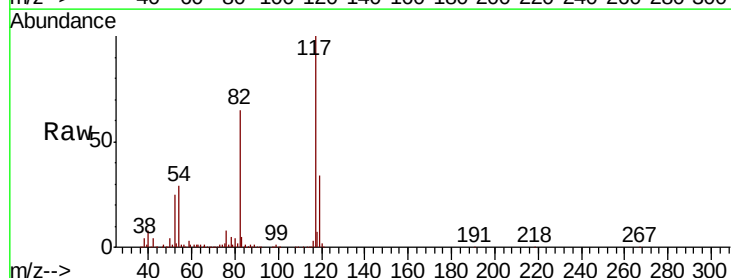
Tgt Ion: 117 Resp: 2618138

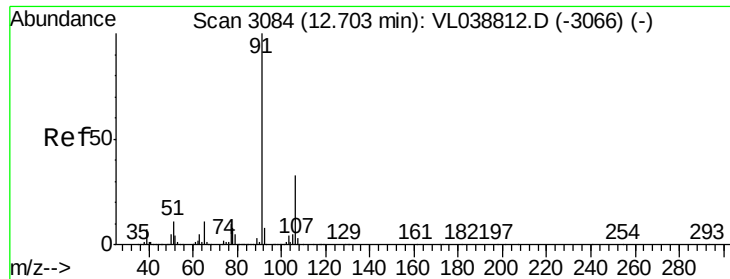
Ion Ratio Lower Upper

117 100

82 67.7 53.0 79.6

119 33.6 24.9 37.3





#58

Ethyl Benzene

Concen: 0.262 ppbv

RT: 12.69

Delta R.T. MSVOA_1

Lab File:

ClientSampleId: AA-2

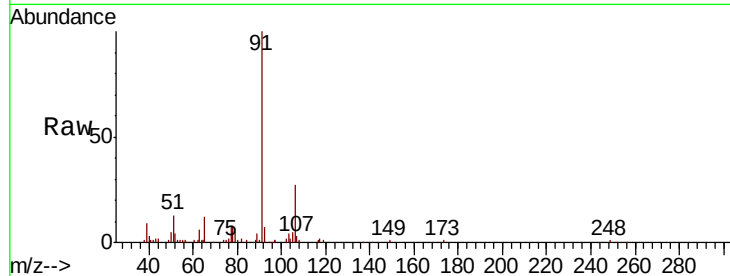
Acq: 15 Apr 2022 9:21

Tot Ion: 91 Resp: 102497

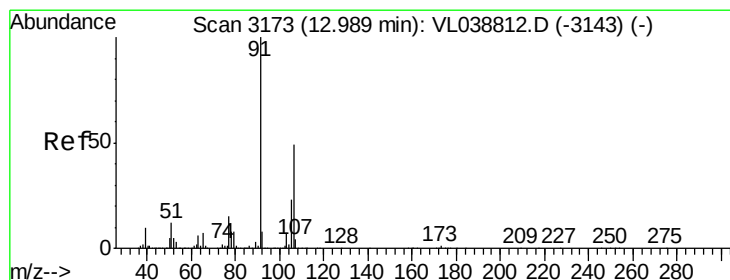
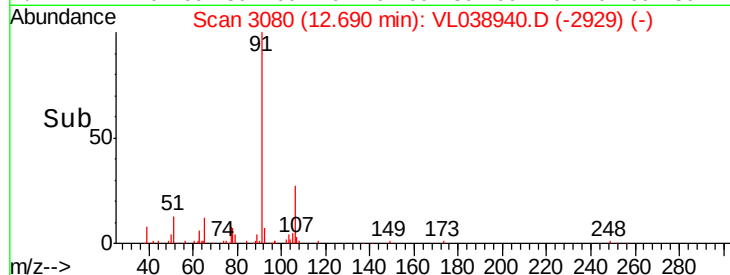
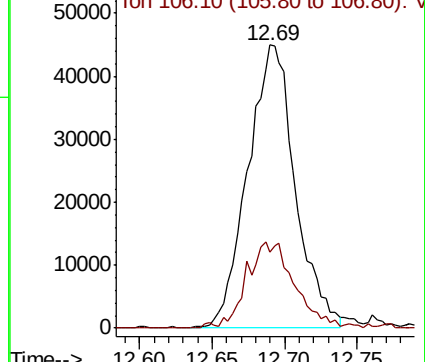
Ion Ratio Lower Upper

91 100

106 26.8 26.7 40.1



Abundance Ion 91.10 (90.80 to 91.80): VL0



#59

m/p-Xylene

Concen: 0.256 ppbv

RT: 12.97 min Scan# 3167

Delta R.T. -0.02 min

Lab File: VL038940.D

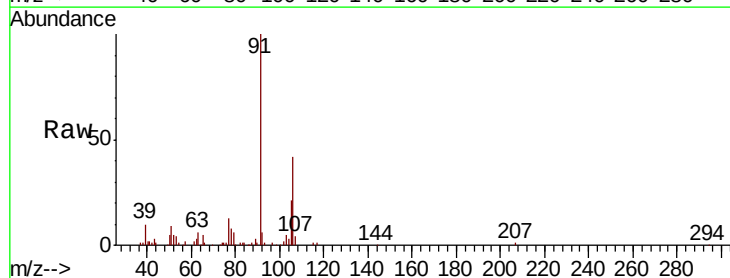
Acq: 15 Apr 2022 9:21

Tgt Ion: 91 Resp: 84109

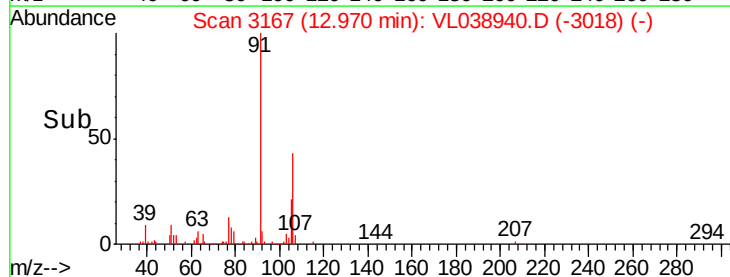
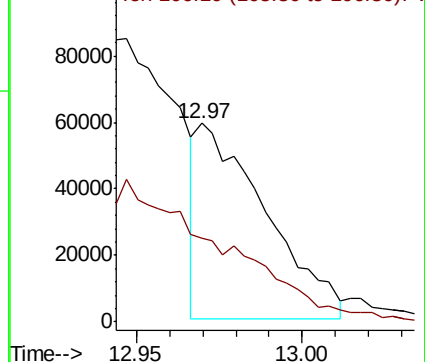
Ion Ratio Lower Upper

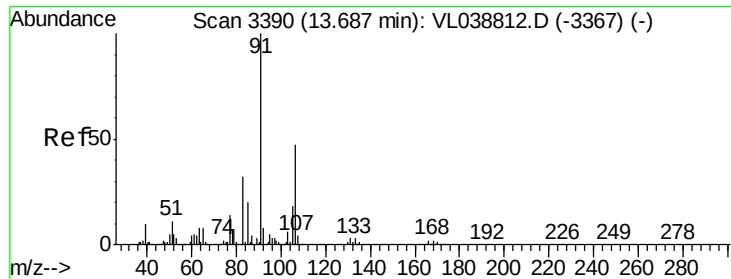
91 100

106 0.0 37.1 55.7#



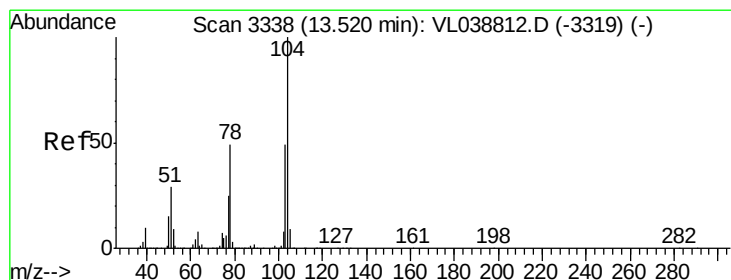
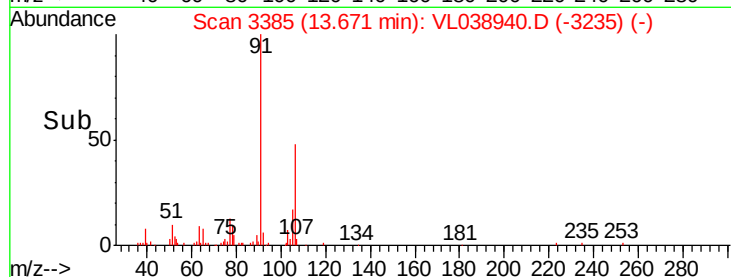
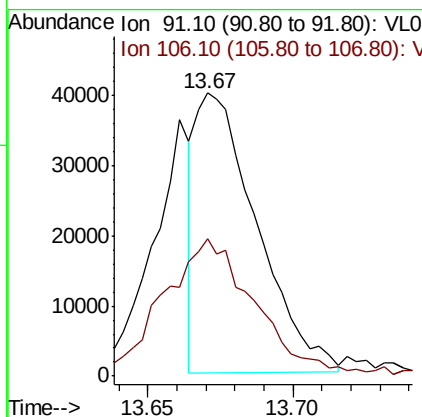
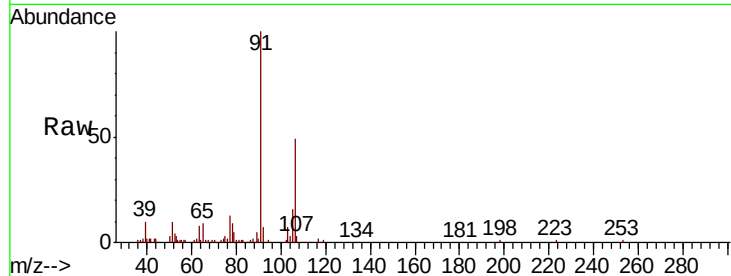
Abundance Ion 91.10 (90.80 to 91.80): VL0





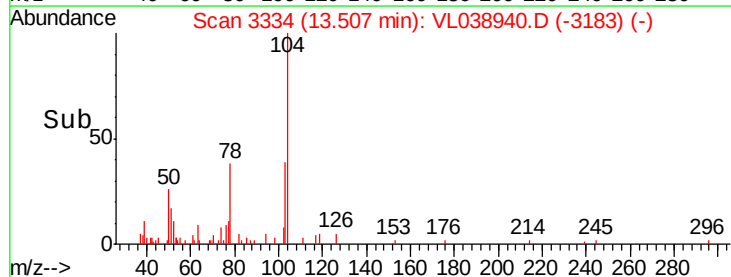
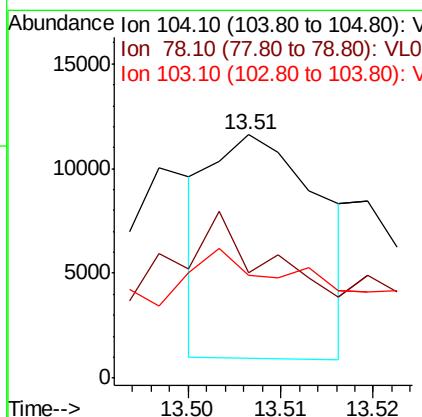
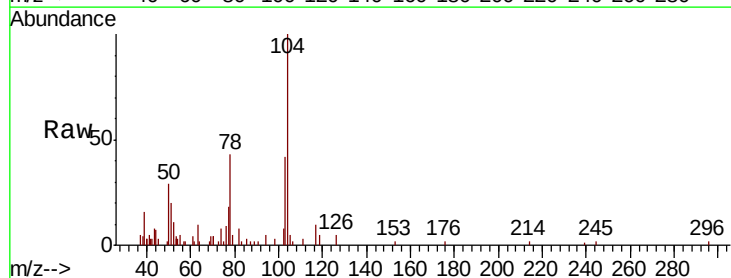
#60
o-Xylene
Concen: 0.188 ppbv
RT: 13.67
Delta R.T. MSVOA_L
Lab File: ClientSampled :
Acq: 15 Apr 2022 9:21

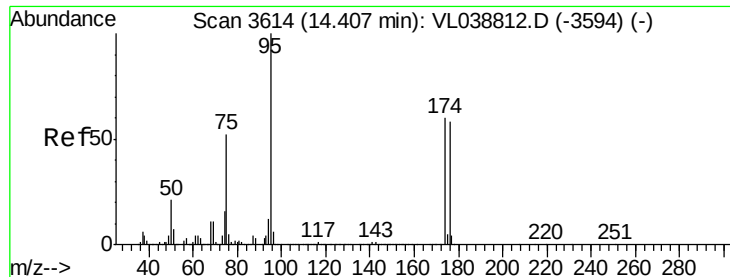
Tot Ion: 91 Resp: 57881
Ion Ratio Lower Upper
91 100
106 78.6 23.8 71.4#



#61
Styrene
Concen: 0.047 ppbv
RT: 13.51 min Scan# 3334
Delta R.T. -0.01 min
Lab File: VL038940.D
Acq: 15 Apr 2022 9:21

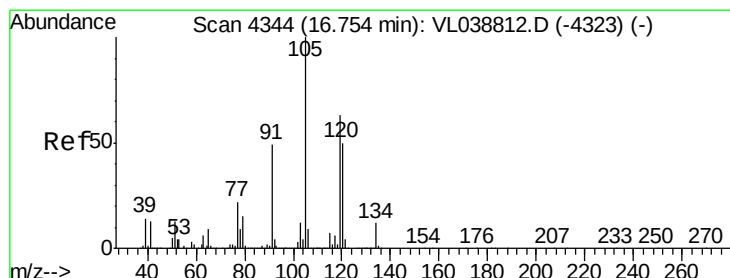
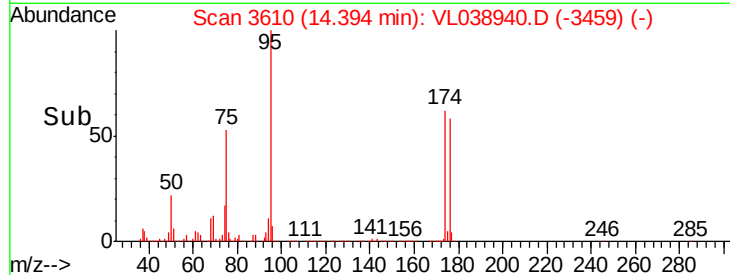
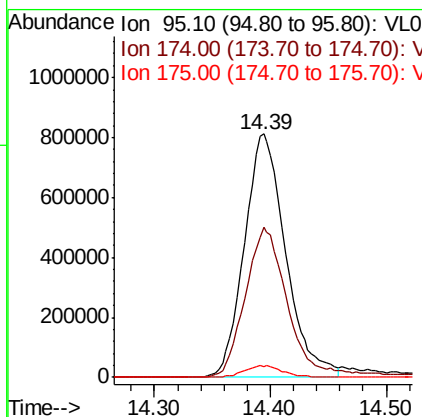
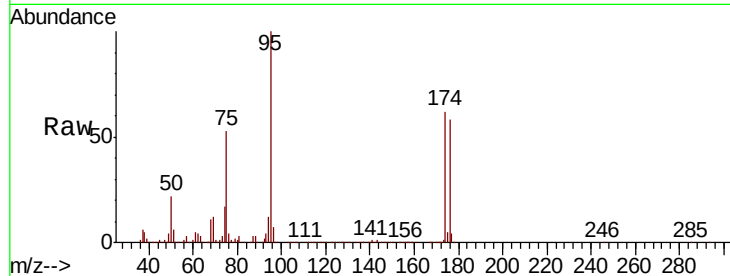
Tgt Ion:104 Resp: 8758
Ion Ratio Lower Upper
104 100
78 168.5 40.5 60.7#
103 158.3 39.0 58.4#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.153 ppbv
 RT: 14.39 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 15 Apr 2022 9:21

Tot Ion: 95 Resp: 2016268
 Ion Ratio Lower Upper
 95 100
 174 65.2 52.0 78.0
 175 4.9 4.0 6.0



#74
 1,2,4-Trimethylbenzene
 Concen: 0.119 ppbv
 RT: 16.74 min Scan# 4341
 Delta R.T. -0.01 min
 Lab File: VL038940.D
 Acq: 15 Apr 2022 9:21

Tgt Ion: 105 Resp: 41598
 Ion Ratio Lower Upper
 105 100
 120 43.9 39.8 59.8
 91 5.9 39.4 59.0#
 77 12.4 17.3 25.9#

