

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032822\
 Data File : VL038778.D
 Acq On : 28 Mar 2022 19:39
 Operator : SY/AP
 Sample : N2078-06
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 V-7

Quant Time: Mar 29 06:11:49 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 21 17:09:26 2022
 QLast Update : Mon Mar 21 17:09:26 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	773290	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	2051828	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	1782004	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.41	95	1359305	9.95	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.50%

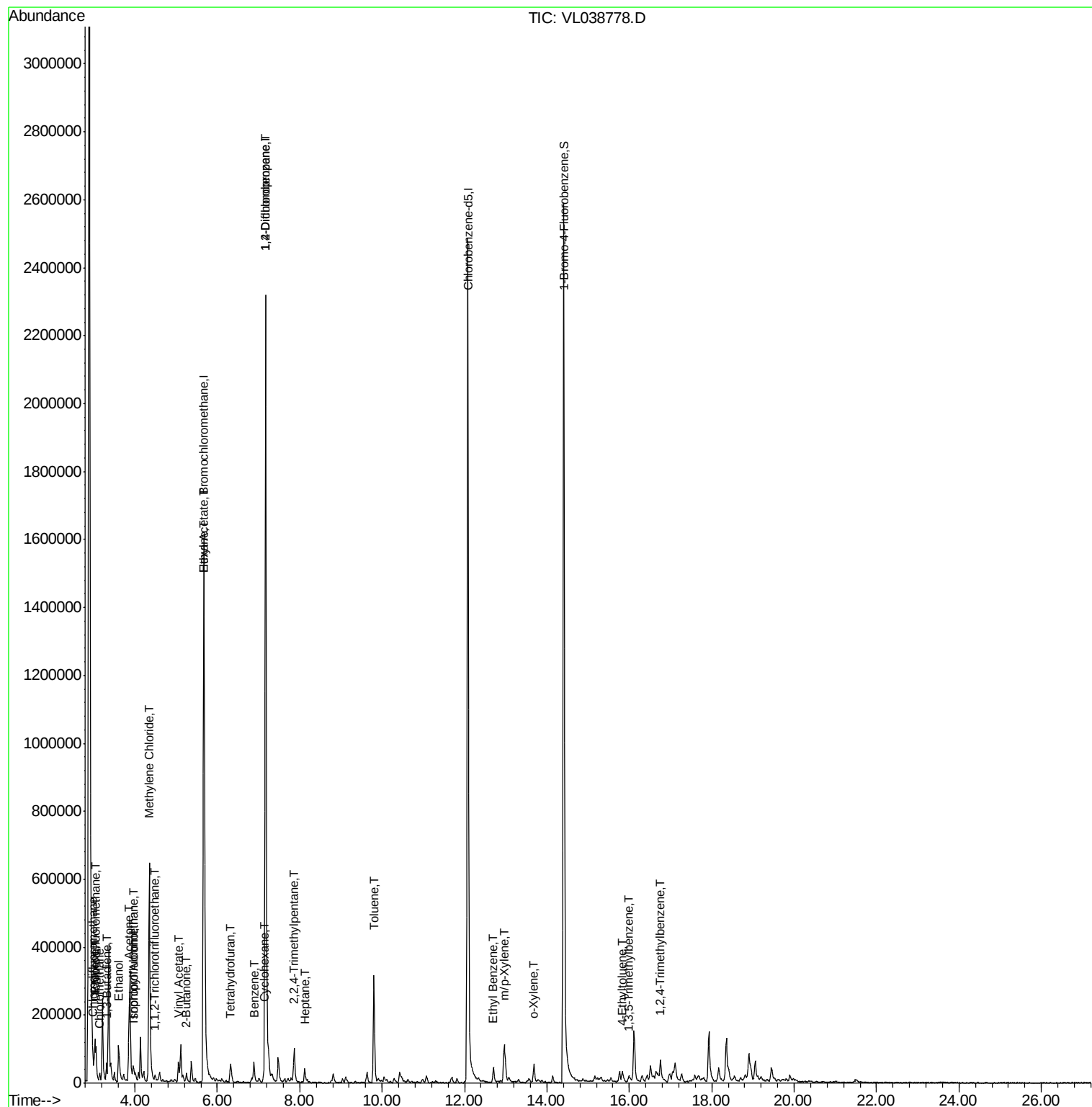
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	72517	0.698 ppbv	90
3) Chlorodifluoromethane	3.00	51	32624	0.399 ppbv #	92
4) Chloromethane	3.14	50	25080	0.559 ppbv	92
9) Propene	3.03	41	40087	1.017 ppbv	84
10) Heptane	8.11	43	13885	0.147 ppbv #	84
11) Trichlorofluoromethane	3.95	101	27653	0.301 ppbv	100
12) 1,1,2-Trichlorotrifluoroet	4.49	101	6749	0.096 ppbv	93
13) Ethanol	3.61	45	153723	35.343 ppbv	98
15) Acetone	3.85	43	171795	2.575 ppbv #	68
16) 1,3-Butadiene	3.31	39	17123	0.452 ppbv #	40
19) Isopropyl Alcohol	3.98	45	28196	0.762 ppbv #	1
20) Methylene Chloride	4.34	84	292559	10.410 ppbv	98
23) Vinyl Acetate	5.07	43	12794	0.198 ppbv #	38
25) Ethyl Acetate	5.69	43	165252	0.984 ppbv #	84
26) Hexane	5.69	57	230492	3.065 ppbv #	39
30) Cyclohexane	7.13	84	5656	0.087 ppbv #	1
34) 2-Butanone	5.25	43	29591	0.364 ppbv #	88
36) Benzene	6.89	78	53586	0.338 ppbv	95
39) 1,2-Dichloropropane	7.17	63	471476	7.616 ppbv #	29
41) Tetrahydrofuran	6.32	42	6344	0.105 ppbv #	35
44) 2,2,4-Trimethylpentane	7.87	57	87480	0.329 ppbv #	84
53) Toluene	9.80	91	255109	1.499 ppbv	96
58) Ethyl Benzene	12.70	91	25060	0.120 ppbv	97
59) m/p-Xylene	12.97	91	56824	0.312 ppbv #	30
60) o-Xylene	13.69	91	42487	0.246 ppbv	96
72) 4-Ethyltoluene	15.82	105	6286	0.031 ppbv #	40
73) 1,3,5-Trimethylbenzene	15.99	105	7822	0.042 ppbv	96
74) 1,2,4-Trimethylbenzene	16.75	105	45367	0.224 ppbv #	69

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

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 28 Mar 2022 19:39

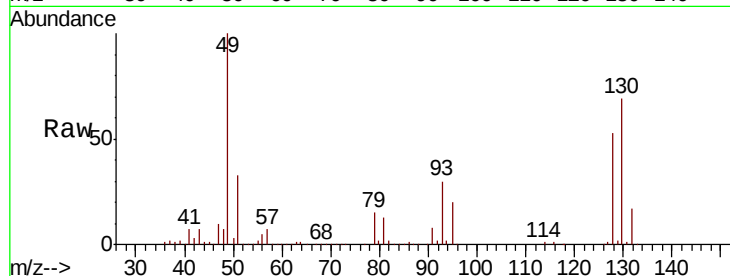
Tot Ion: 49 Resp: 773290

Ion Ratio Lower Upper

49 100

128 55.9 26.2 78.6

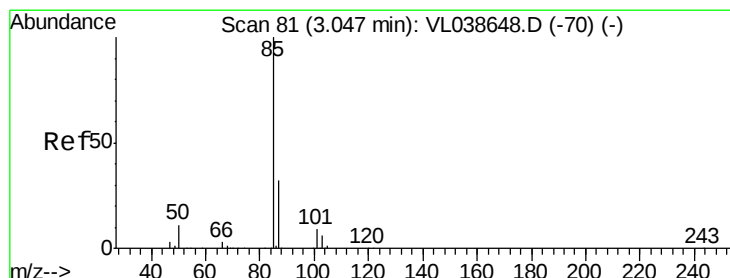
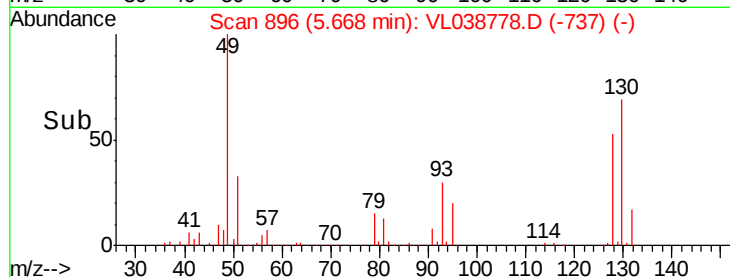
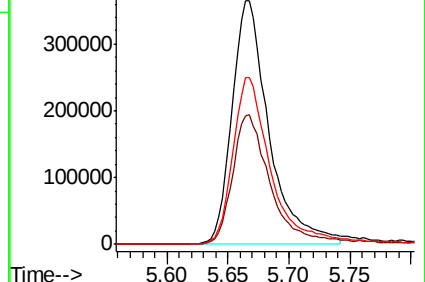
130 71.9 33.7 101.1



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: 0.698 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.01 min

Lab File: VL038778.D

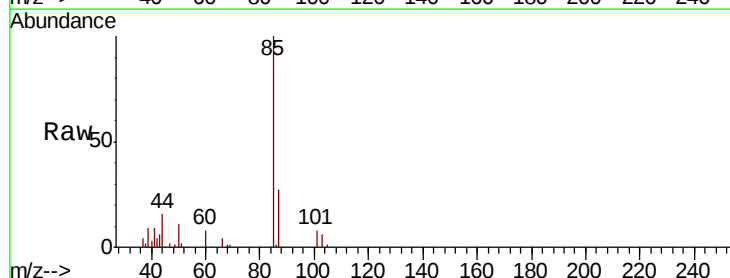
Acq: 28 Mar 2022 19:39

Tgt Ion: 85 Resp: 72517

Ion Ratio Lower Upper

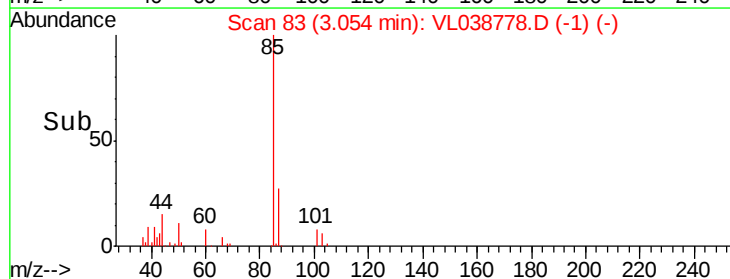
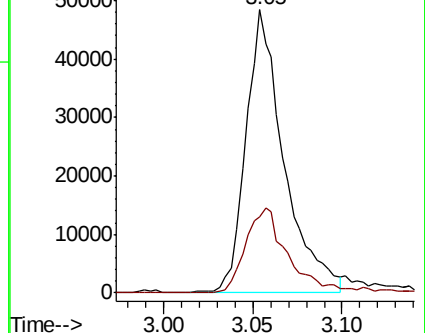
85 100

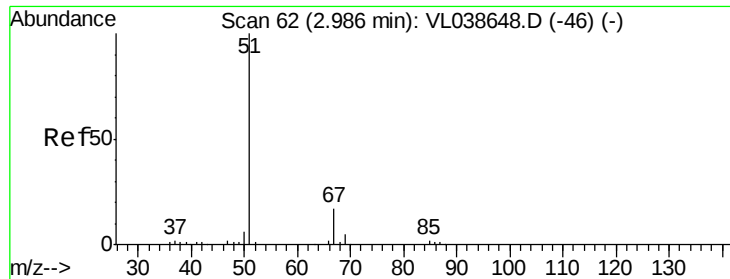
87 26.9 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

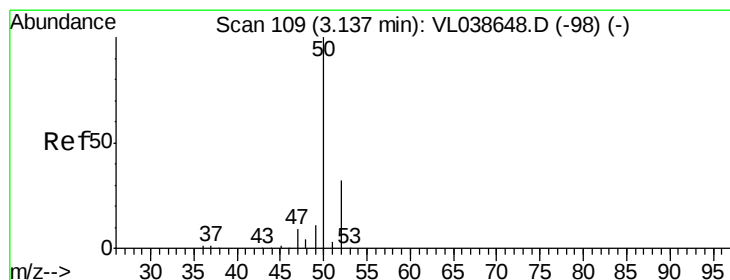
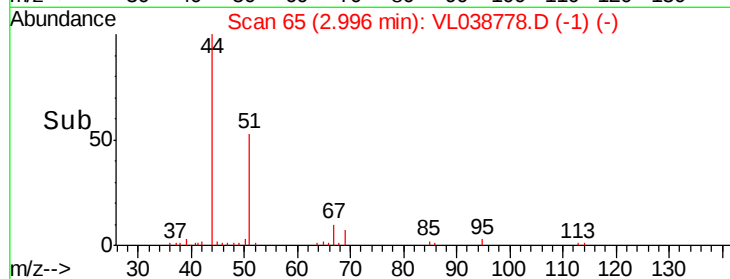
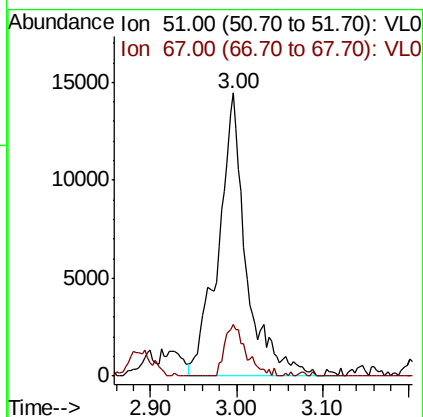
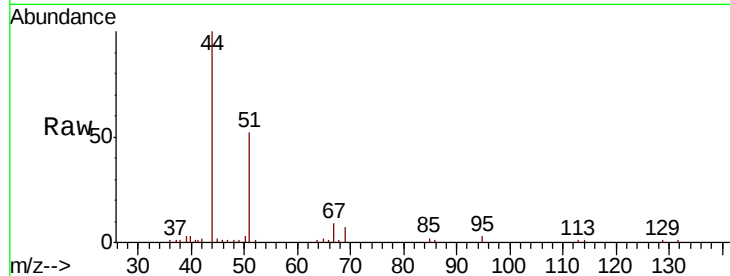
Ion 87.00 (86.70 to 87.70): VL0





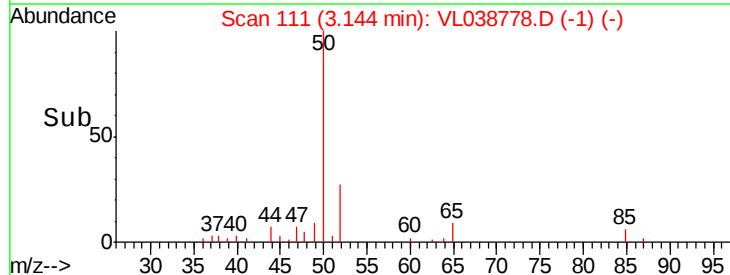
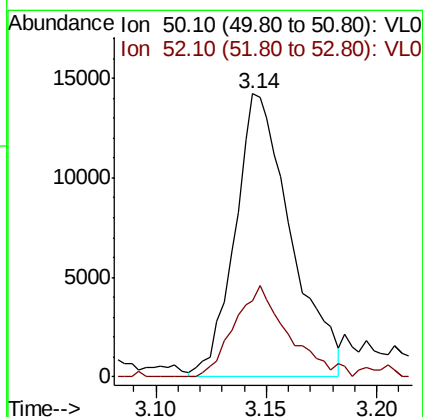
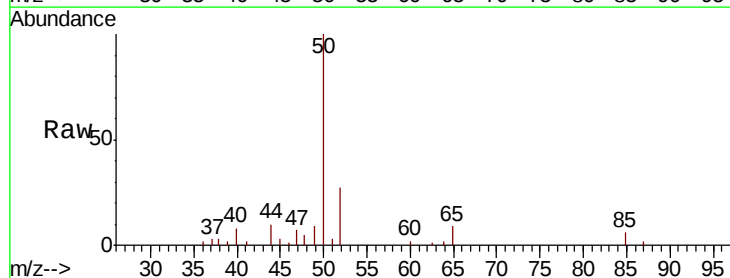
#3
Chlorodifluoromethane
Concen: 0.399 ppbv
RT: 3.00
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 28 Mar 2022 19:39

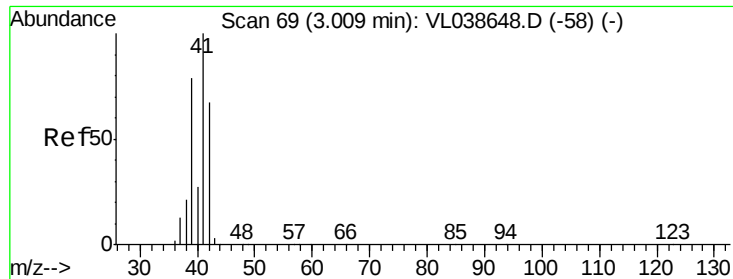
Tot Ion: 51 Resp: 32624
Ion Ratio Lower Upper
51 100
67 14.0 14.1 21.1#



#4
Chloromethane
Concen: 0.559 ppbv
RT: 3.14 min Scan# 111
Delta R.T. 0.01 min
Lab File: VL038778.D
Acq: 28 Mar 2022 19:39

Tgt Ion: 50 Resp: 25080
Ion Ratio Lower Upper
50 100
52 27.4 25.5 38.3





#9

Propene

Concen: 1.017 ppbv

RT: 3.03 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

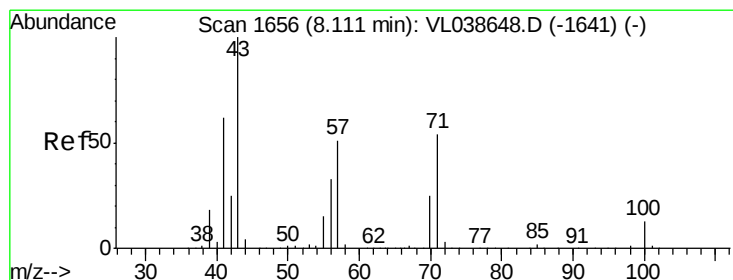
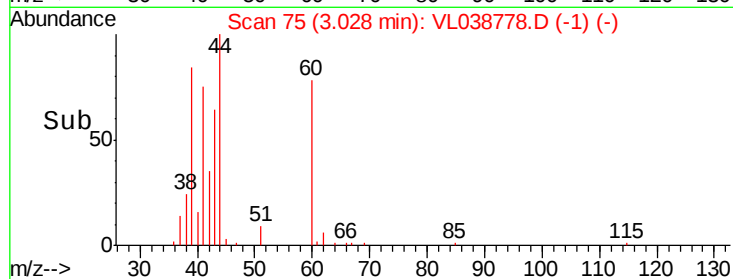
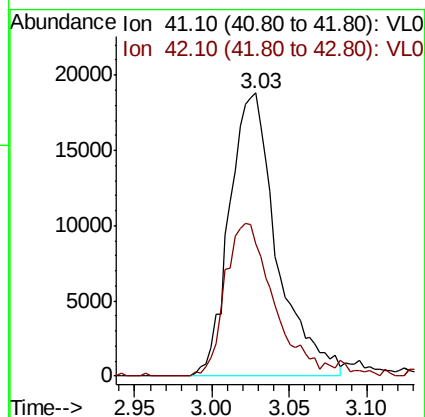
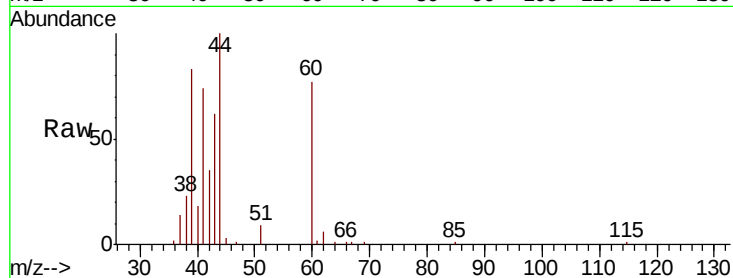
Acq: 28 Mar 2022 19:39

Tot Ion: 41 Resp: 40087

Ion Ratio Lower Upper

41 100

42 57.3 56.2 84.4



#10

Heptane

Concen: 0.147 ppbv

RT: 8.11 min Scan# 1657

Delta R.T. 0.00 min

Lab File: VL038778.D

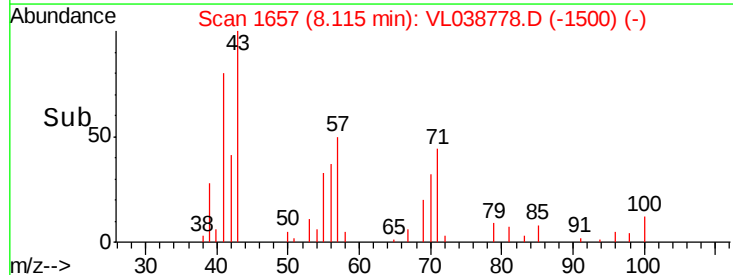
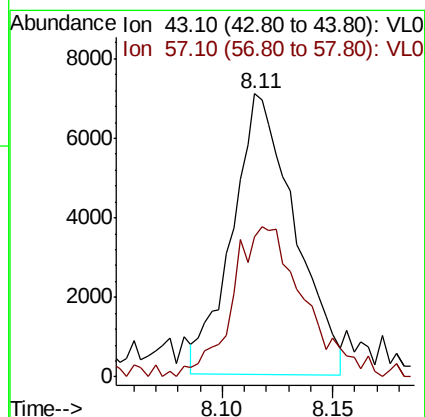
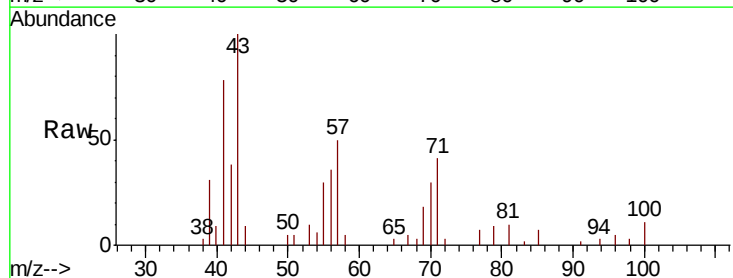
Acq: 28 Mar 2022 19:39

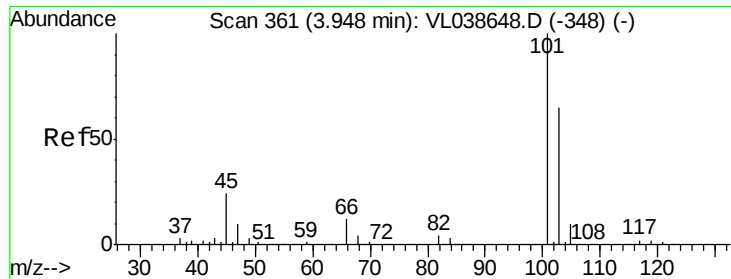
Tgt Ion: 43 Resp: 13885

Ion Ratio Lower Upper

43 100

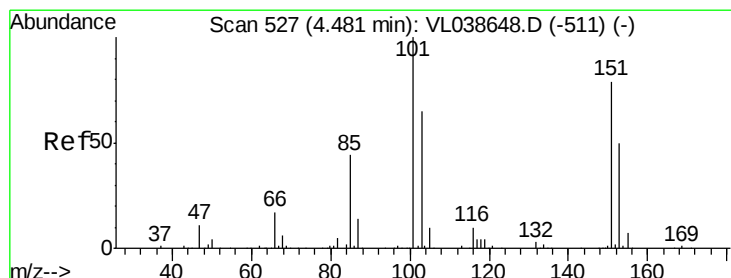
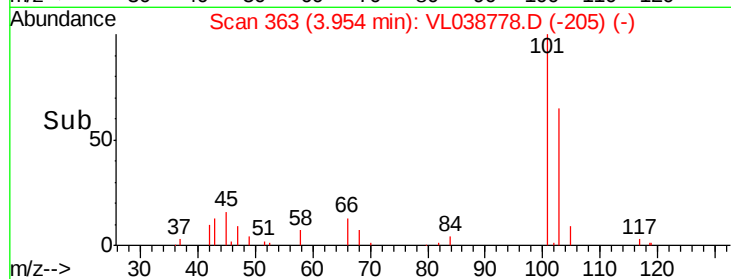
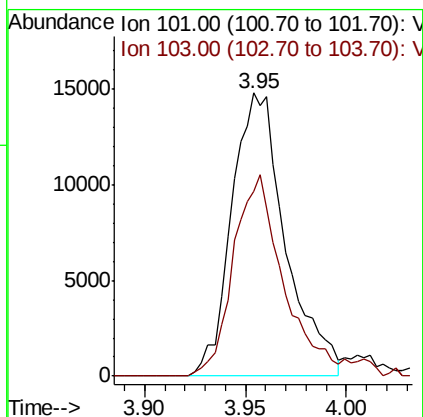
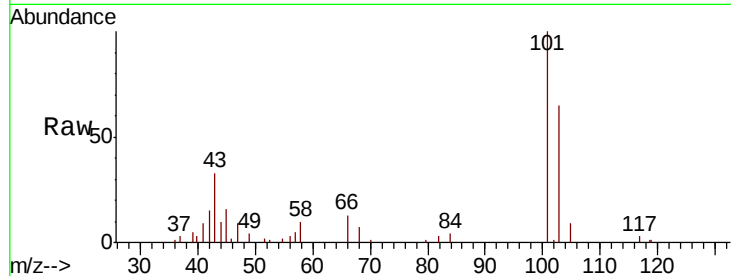
57 62.7 41.4 62.2#





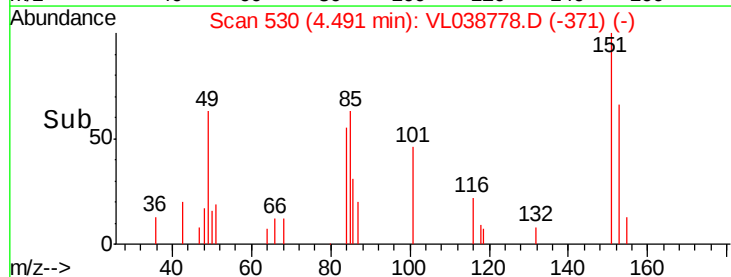
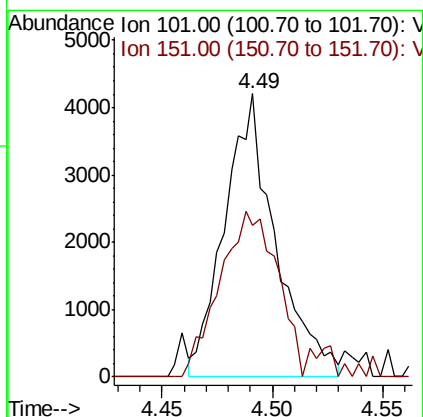
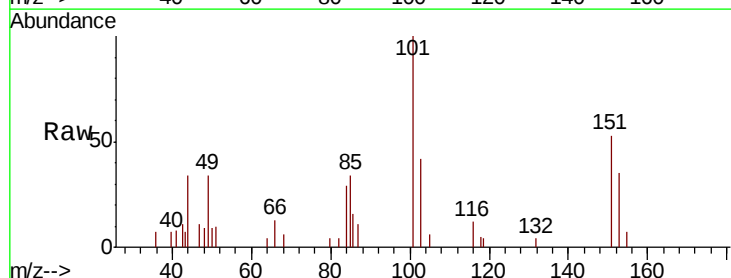
#11
 Trichlorofluoromethane
 Concen: 0.301 ppbv
 RT: 3.95
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 V-7
 Acq: 28 Mar 2022 19:39

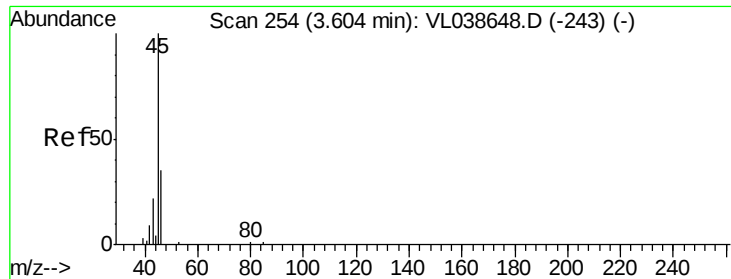
Tot Ion:101 Resp: 27653
 Ion Ratio Lower Upper
 101 100
 103 65.2 51.9 77.9



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.096 ppbv
 RT: 4.49 min Scan# 530
 Delta R.T. 0.01 min
 Lab File: VL038778.D
 Acq: 28 Mar 2022 19:39

Tgt Ion:101 Resp: 6749
 Ion Ratio Lower Upper
 101 100
 151 72.5 62.9 94.3





#13

Ethanol

Concen: 35.343 ppbv

RT: 3.61 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

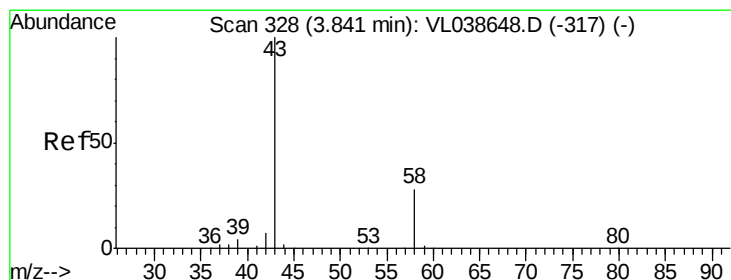
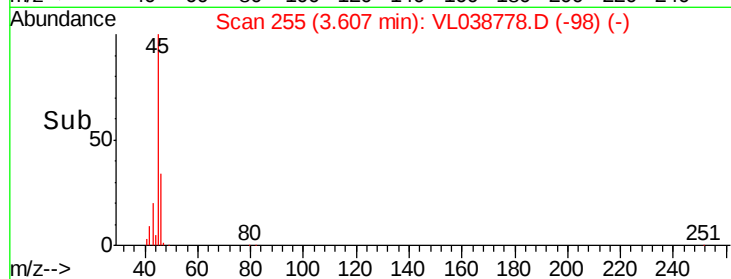
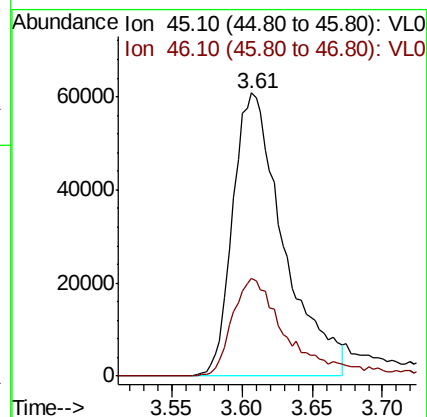
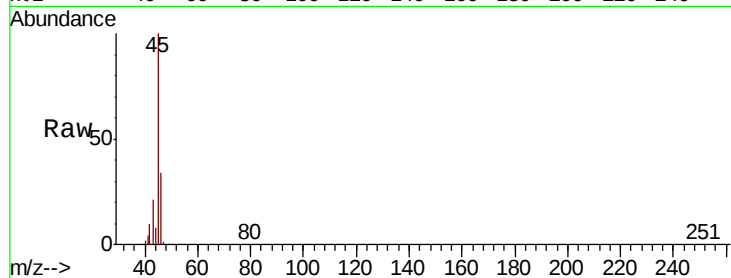
Acq: 28 Mar 2022 19:39

Tot Ion: 45 Resp: 153723

Ion Ratio Lower Upper

45 100

46 39.2 15.1 60.5



#15

Acetone

Concen: 2.575 ppbv

RT: 3.85 min Scan# 332

Delta R.T. 0.01 min

Lab File: VL038778.D

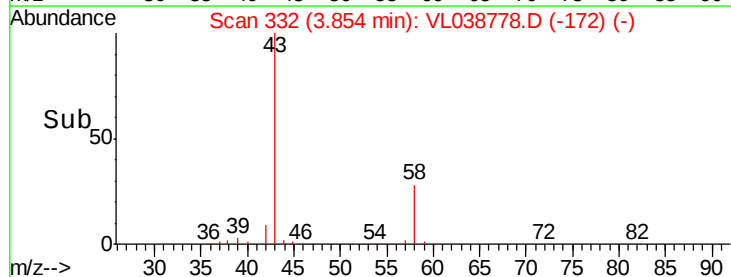
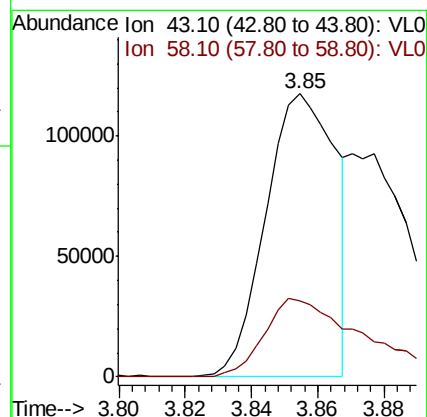
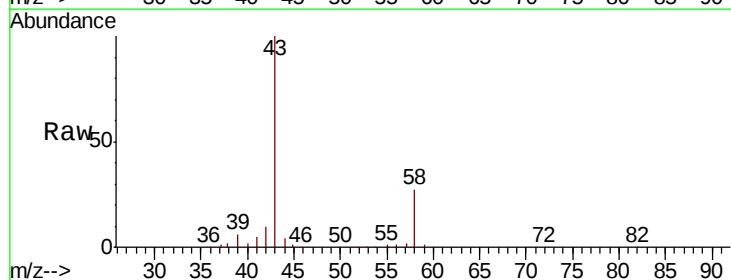
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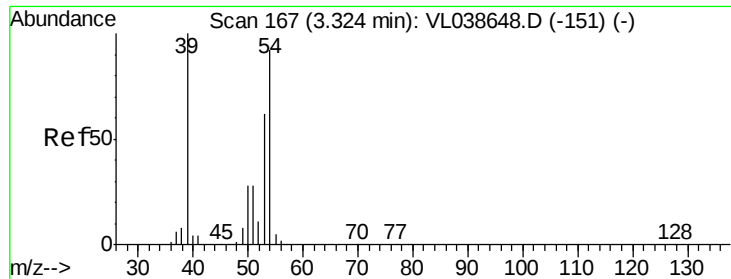
Tgt Ion: 43 Resp: 171795

Ion Ratio Lower Upper

43 100

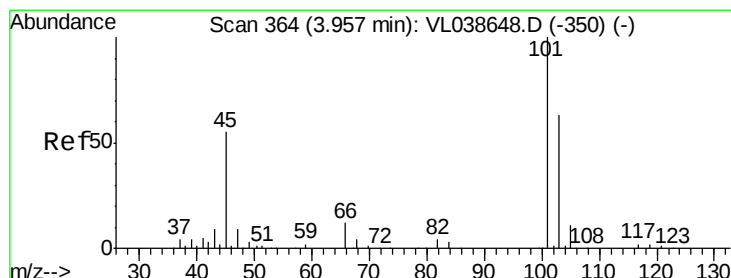
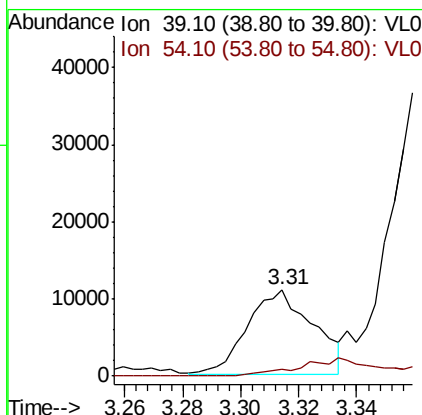
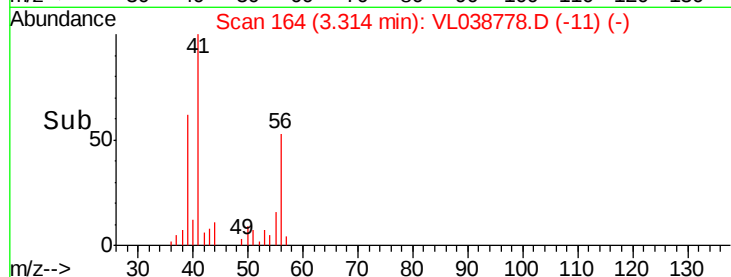
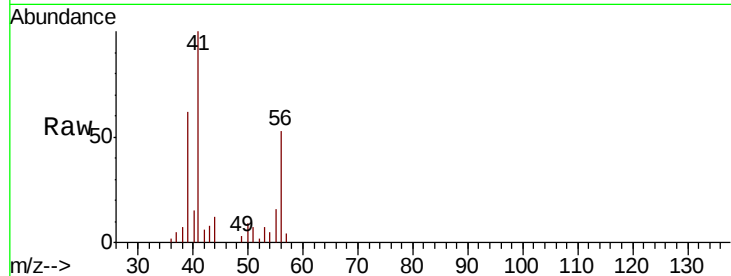
58 46.1 23.3 34.9#





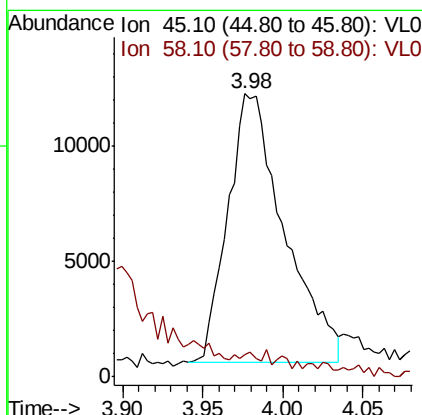
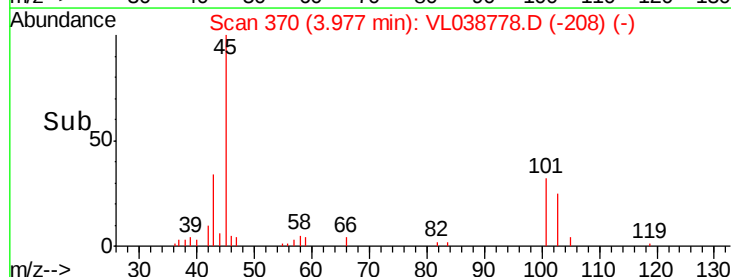
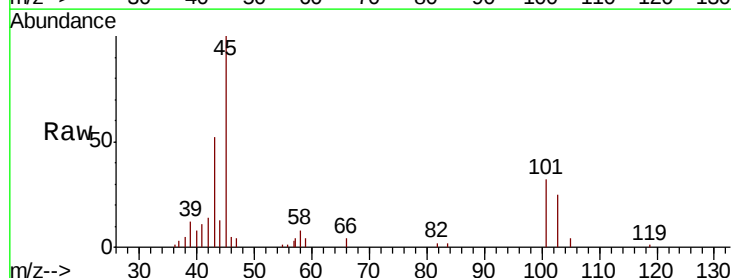
#16
 1,3-Butadiene
 Concen: 0.452 ppbv
 RT: 3.31
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 V-7
 Acq: 28 Mar 2022 19:39

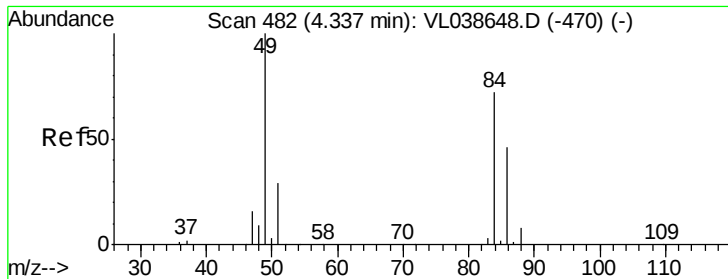
Tot Ion: 39 Resp: 17123
 Ion Ratio Lower Upper
 39 100
 54 31.2 69.1 103.7#



#19
 Isopropyl Alcohol
 Concen: 0.762 ppbv
 RT: 3.98 min Scan# 370
 Delta R.T. 0.02 min
 Lab File: VL038778.D
 Acq: 28 Mar 2022 19:39

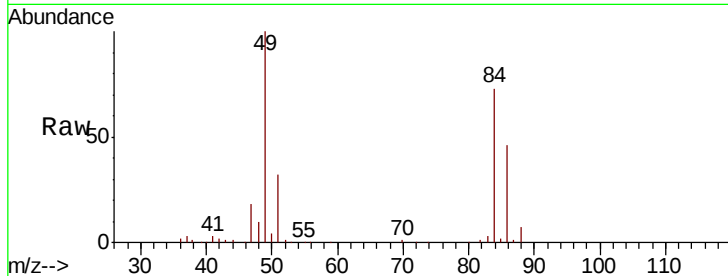
Tgt Ion: 45 Resp: 28196
 Ion Ratio Lower Upper
 45 100
 58 280.8 2.3 3.5#



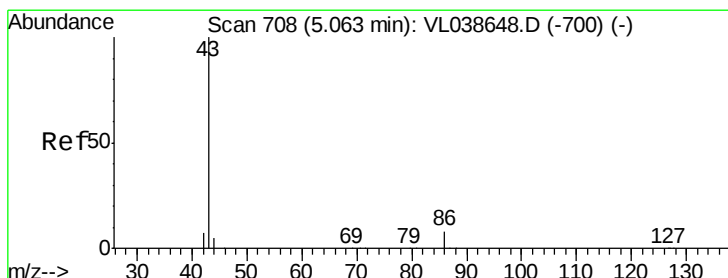
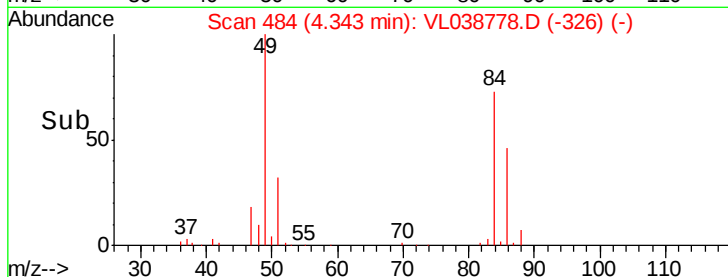
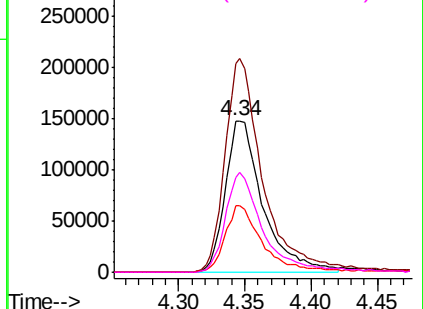


#20
Methvlene Chloride
Concen: 10.410 ppbv
RT: 4.34 Instrument: MSVOA_1
Delta R.T. ClientSampleId :
Lab File: V-7
Acq: 28 Mar 2022 19:39

Tot Ion:	84	Resp:	292559
Ion	Ratio	Lower	Upper
84	100		
49	137.6	111.2	166.8
51	43.3	32.8	49.2
86	62.9	51.4	77.0

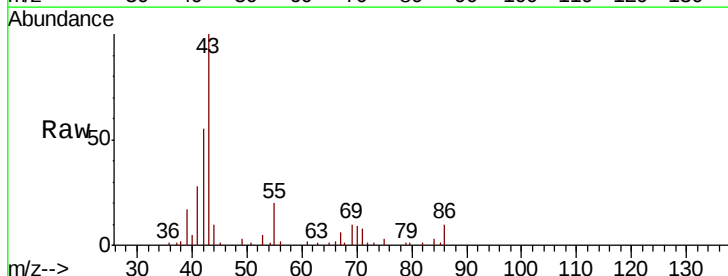


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

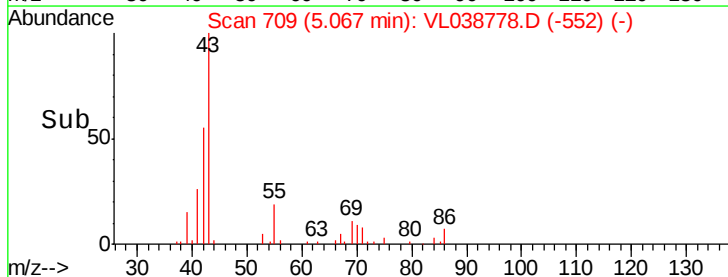
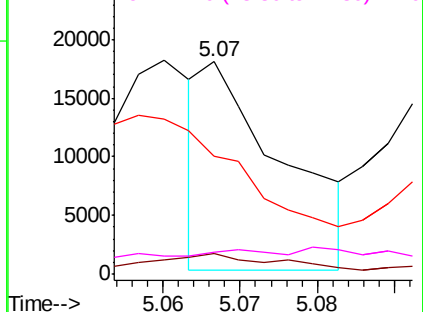


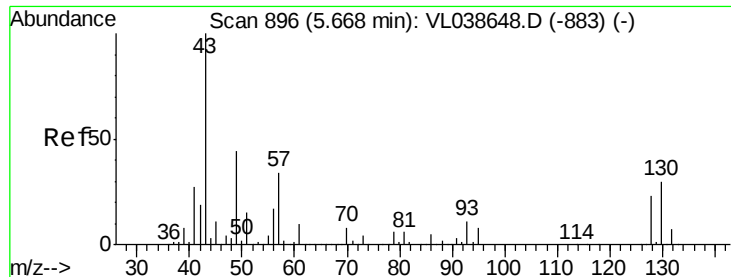
#23
Vinyl Acetate
Concen: 0.198 ppbv
RT: 5.07 min Scan# 709
Delta R.T. 0.00 min
Lab File: VL038778.D
Acq: 28 Mar 2022 19:39

Tgt Ion:	43	Resp:	12794
Ion	Ratio	Lower	Upper
43	100		
86	11.8	5.6	8.4#
42	57.5	6.8	10.2#
44	3.8	4.2	6.2#



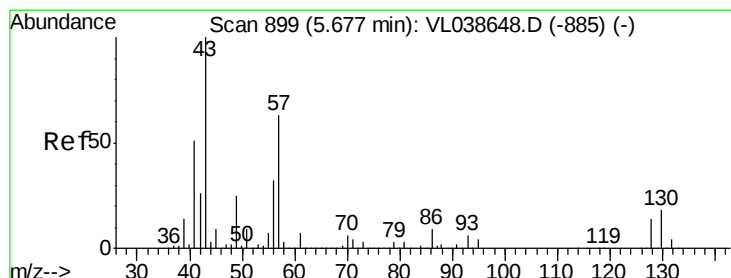
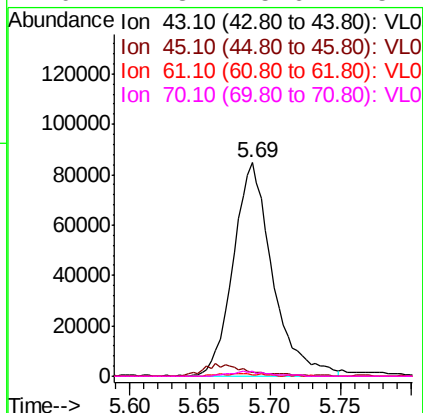
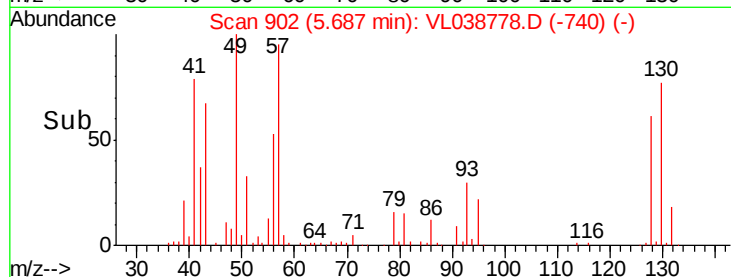
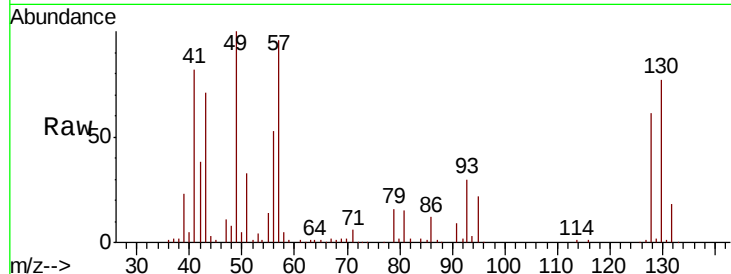
Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 86.10 (85.80 to 86.80): VL0
Ion 42.10 (41.80 to 42.80): VL0
Ion 44.10 (43.80 to 44.80): VL0





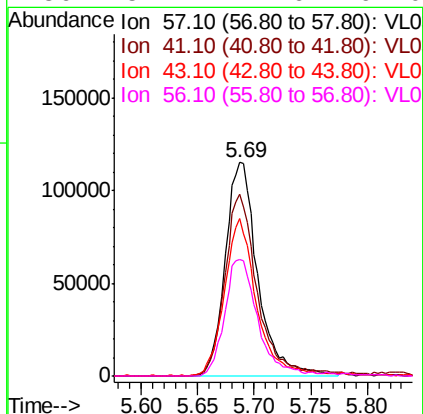
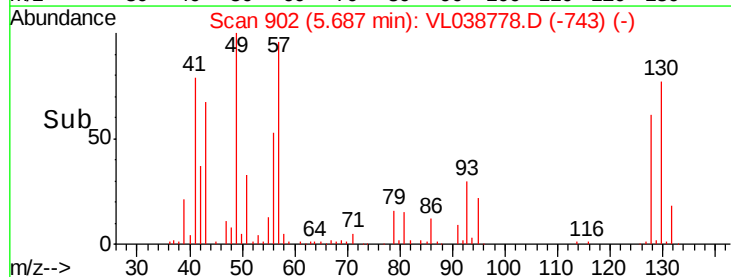
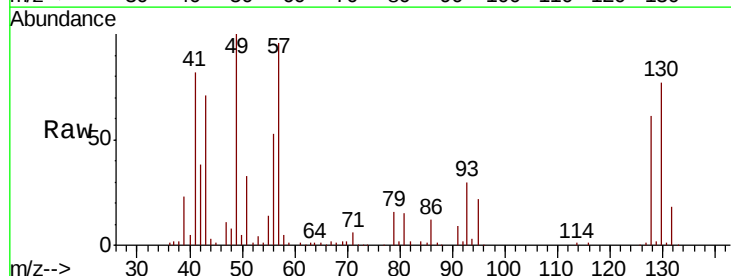
#25
Ethyl Acetate
Concen: 0.984 ppbv
RT: 5.69 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 28 Mar 2022 19:39

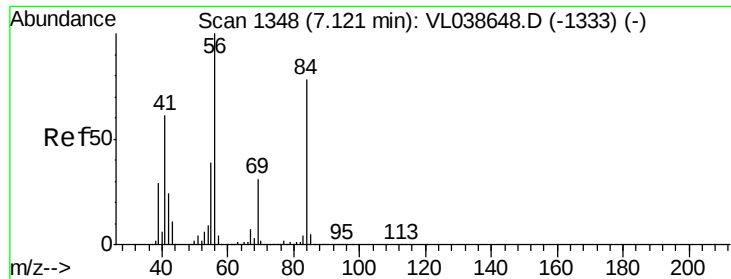
Tot Ion:	43	Resp:	165252
Ion	Ratio	Lower	Upper
43	100		
45	6.6	8.2	12.4#
61	1.6	8.3	12.5#
70	2.3	5.6	8.4#



#26
Hexane
Concen: 3.065 ppbv
RT: 5.69 min Scan# 902
Delta R.T.: 0.01 min
Lab File: VL038778.D
Acq: 28 Mar 2022 19:39

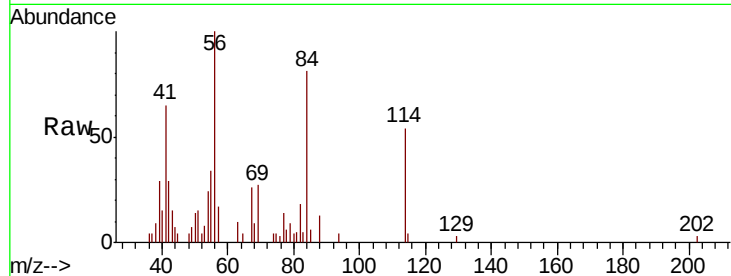
Tgt Ion:	57	Resp:	230492
Ion	Ratio	Lower	Upper
57	100		
41	86.6	67.0	100.4
43	74.3	184.2	276.2#
56	57.2	42.6	64.0





#30
Cvclohexane
Concen: 0.087 ppbv
RT: 7.13 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 28 Mar 2022 19:39

Tot Ion	84	Resp	5656
Ion	Ratio	Lower	Upper
84	100		
56	0.0	108.2	162.4#
41	164.6	61.8	92.6#

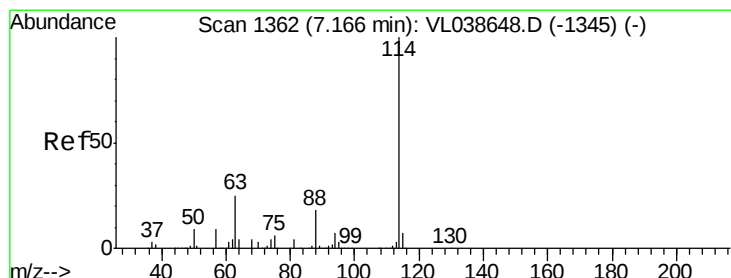
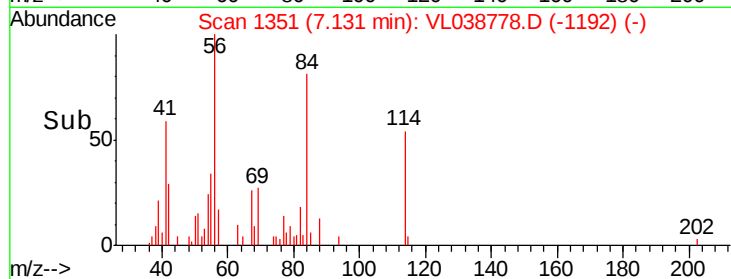
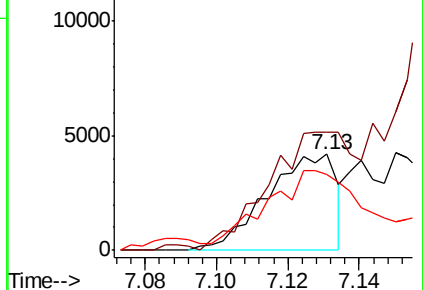


Abundance

Ion 84.20 (83.90 to 84.90): VL0

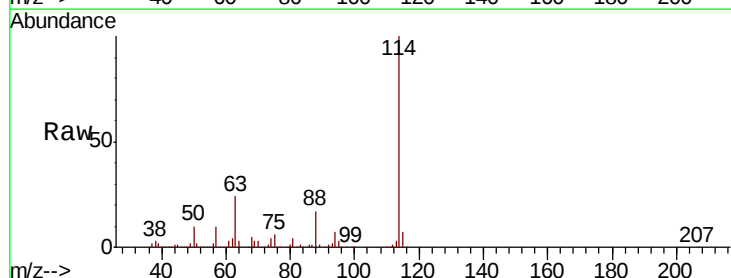
Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1364
Delta R.T.: 0.01 min
Lab File: VL038778.D
Acq: 28 Mar 2022 19:39

Tgt Ion	114	Resp	2051828
Ion	Ratio	Lower	Upper
114	100		
63	23.5	19.4	29.0
88	17.2	13.9	20.9

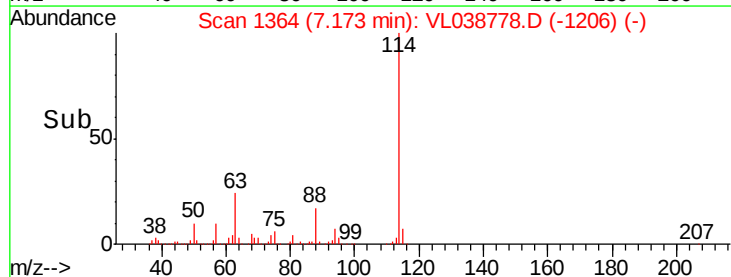
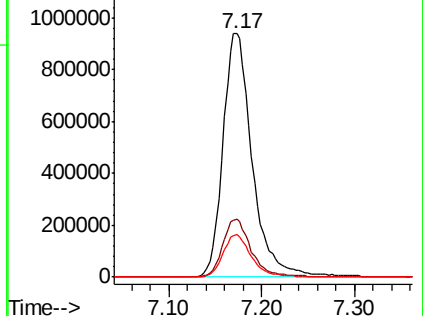


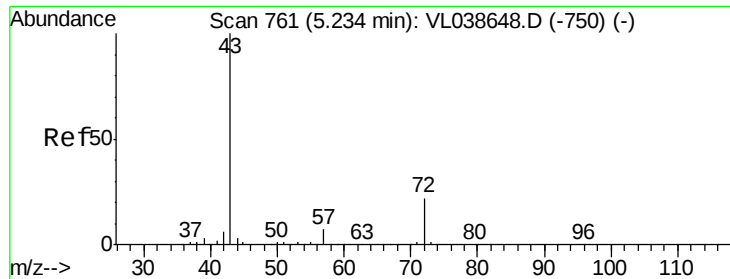
Abundance

Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

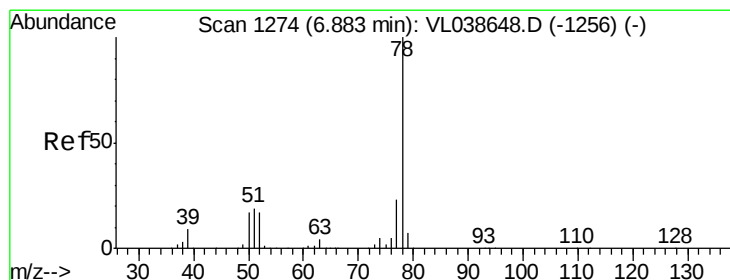
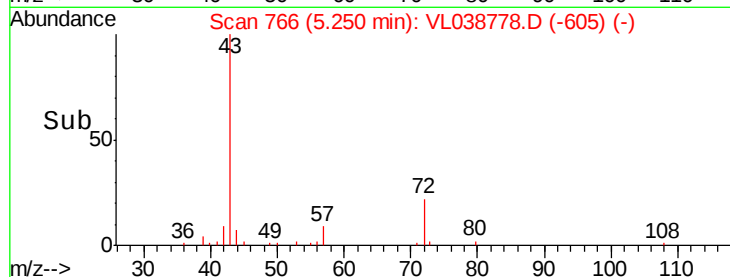
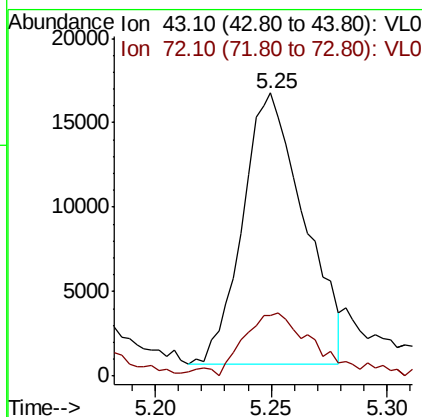
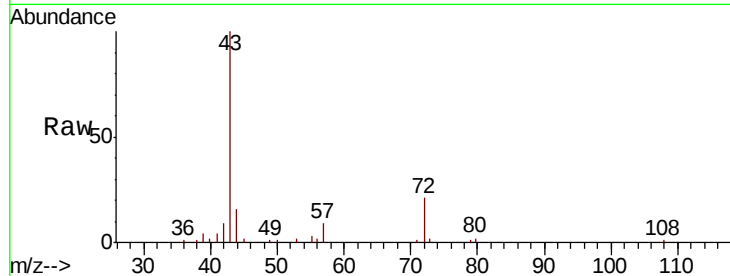
Ion 88.10 (87.80 to 88.80): VL0





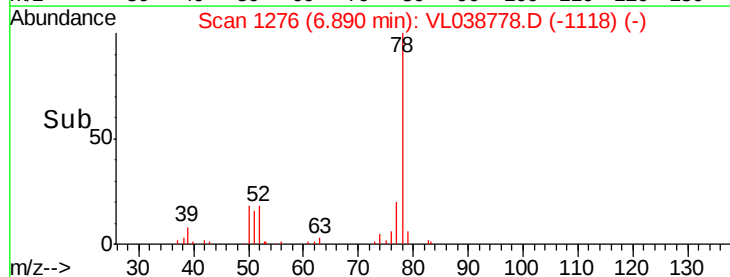
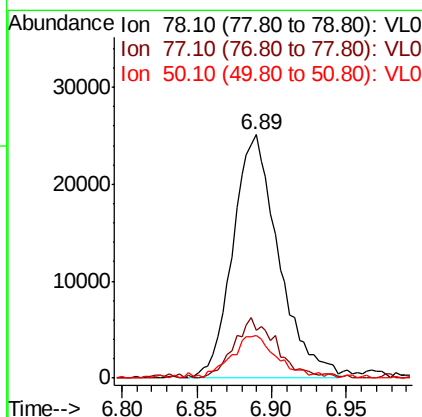
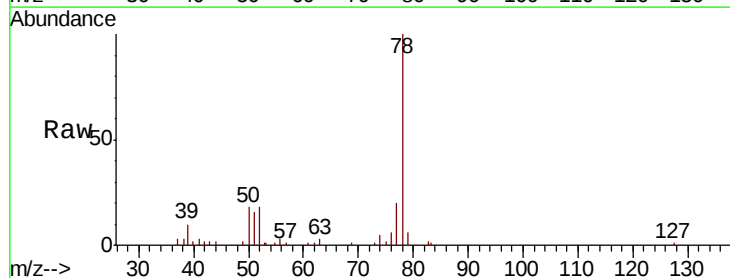
#34
 2-Butanone
 Concen: 0.364 ppbv
 RT: 5.25
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 28 Mar 2022 19:39

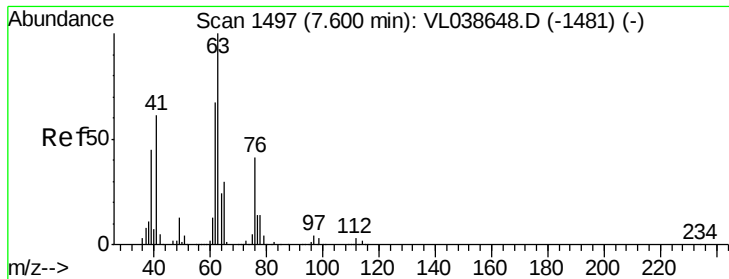
Tot Ion: 43 Resp: 29591
 Ion Ratio Lower Upper
 43 100
 72 28.2 17.8 26.8#



#36
 Benzene
 Concen: 0.338 ppbv
 RT: 6.89 min Scan# 1276
 Delta R.T. 0.01 min
 Lab File: VL038778.D
 Acq: 28 Mar 2022 19:39

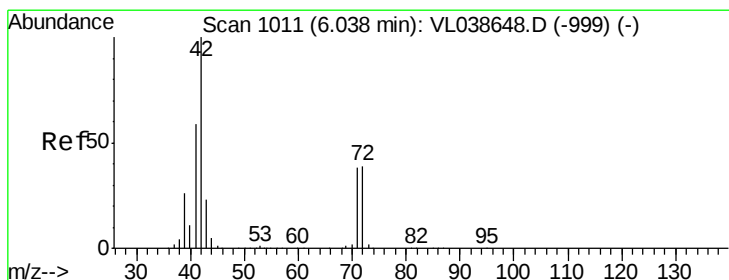
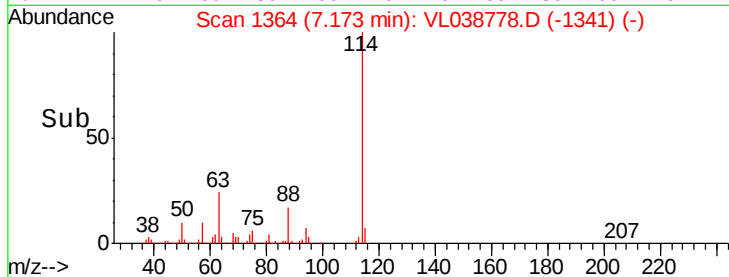
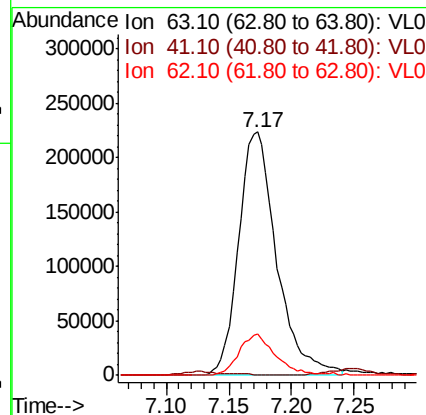
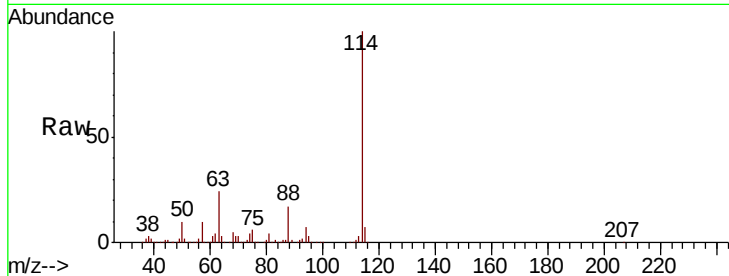
Tgt Ion: 78 Resp: 53586
 Ion Ratio Lower Upper
 78 100
 77 18.5 18.1 27.1
 50 17.6 13.6 20.4





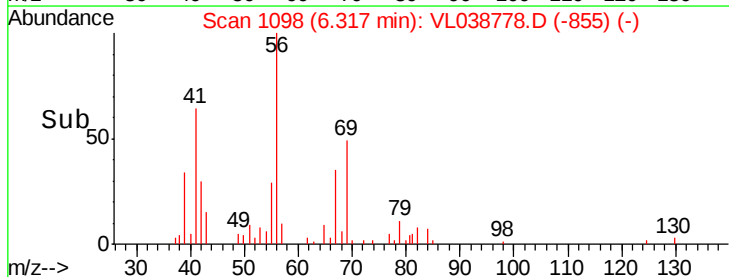
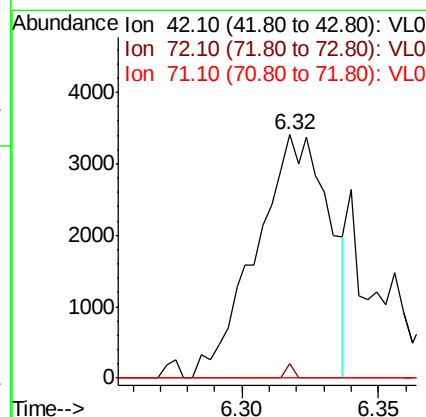
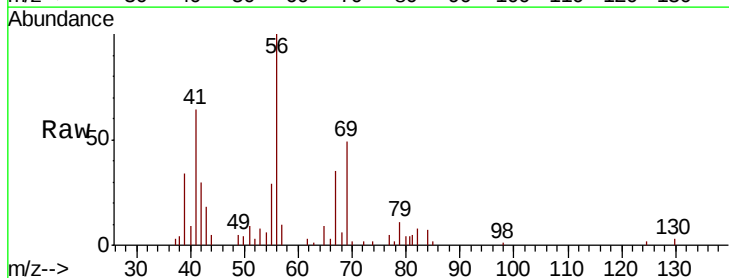
#39
 1,2-Dichloropropane
 Concen: 7.616 ppbv
 RT: 7.17
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 28 Mar 2022 19:39

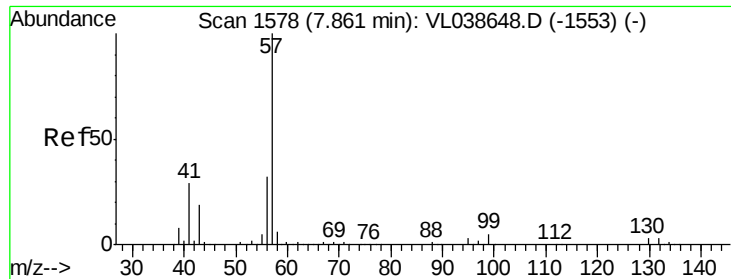
Tot Ion	Ratio	Lower	Upper
63	100		
41	0.0	49.0	73.6#
62	16.8	53.9	80.9#



#41
 Tetrahydrofuran
 Concen: 0.105 ppbv
 RT: 6.32 min Scan# 1098
 Delta R.T. 0.28 min
 Lab File: VL038778.D
 Acq: 28 Mar 2022 19:39

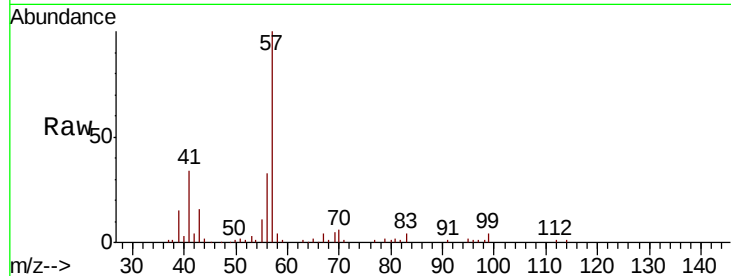
Tgt Ion	Ratio	Lower	Upper
42	100		
72	0.0	32.5	48.7#
71	0.0	31.4	47.2#



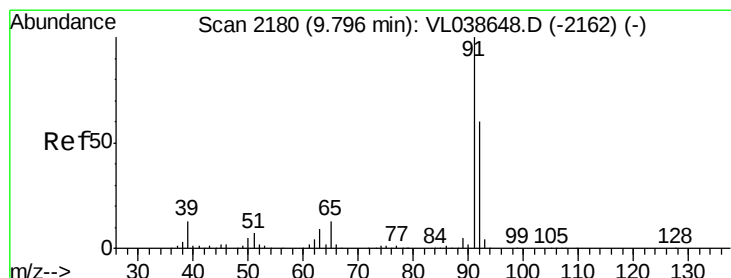
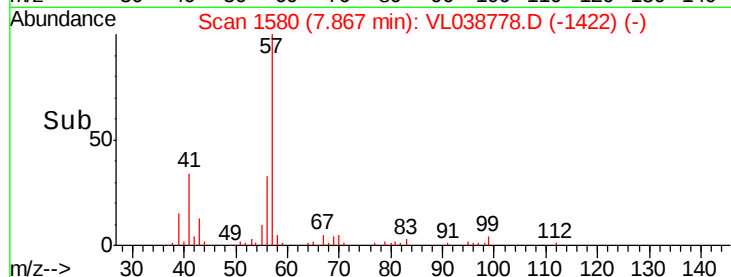
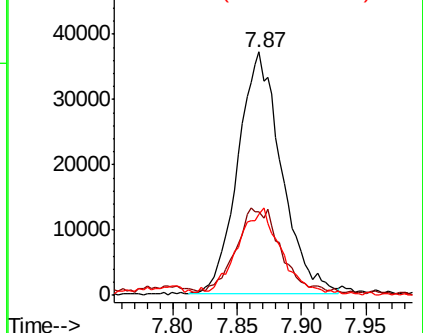


#44
 2,2,4-Trimethylpentane
 Concen: 0.329 ppbv
 RT: 7.87
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 28 Mar 2022 19:39

Tot Ion	57	Resp	87480
Ion Ratio	Lower	Upper	
57	100		
41	40.3	23.0	34.4#
56	37.5	25.3	37.9

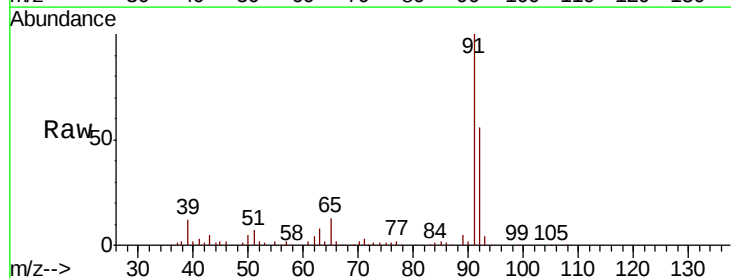


Abundance Ion 57.10 (56.80 to 57.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 56.10 (55.80 to 56.80): VL0

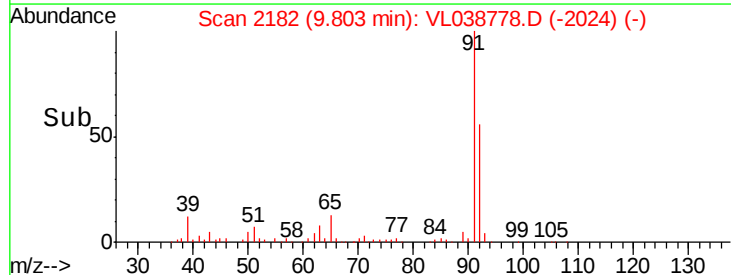
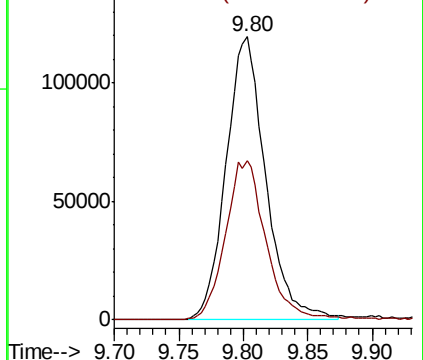


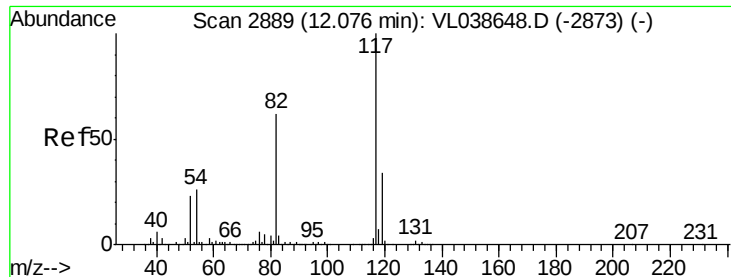
#53
 Toluene
 Concen: 1.499 ppbv
 RT: 9.80 min Scan# 2182
 Delta R.T. 0.01 min
 Lab File: VL038778.D
 Acq: 28 Mar 2022 19:39

Tgt Ion	91	Resp	255109
Ion Ratio	Lower	Upper	
91	100		
92	58.2	48.7	73.1



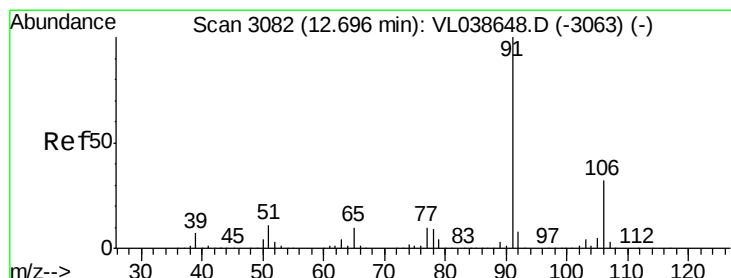
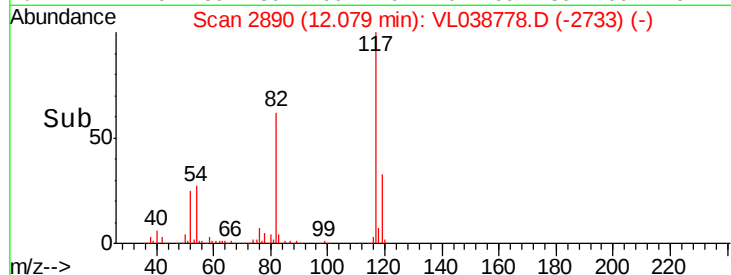
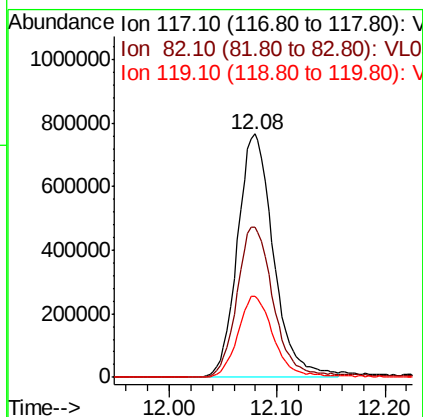
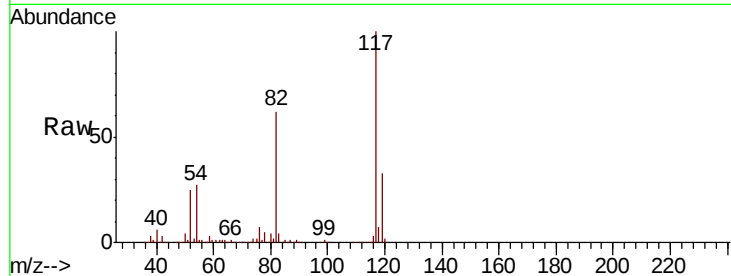
Abundance Ion 91.10 (90.80 to 91.80): VL0
 Ion 92.10 (91.80 to 92.80): VL0





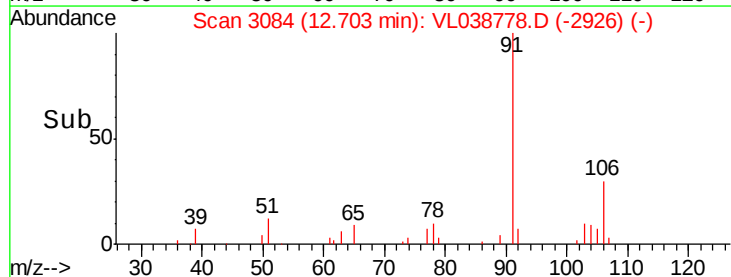
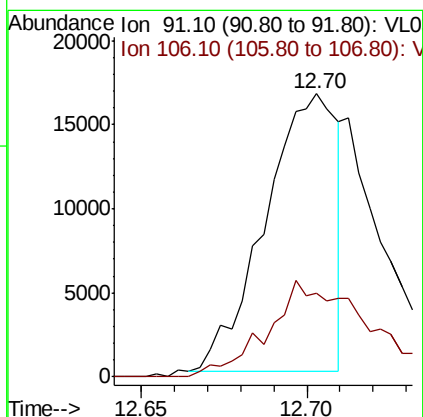
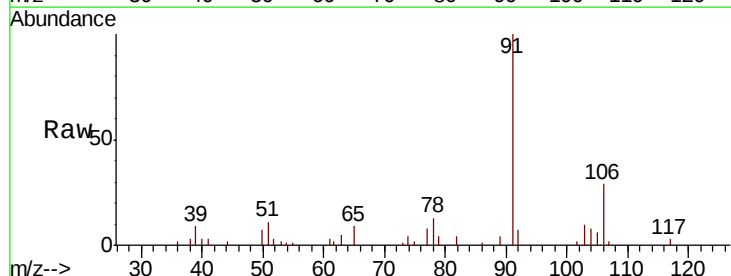
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 28 Mar 2022 19:39

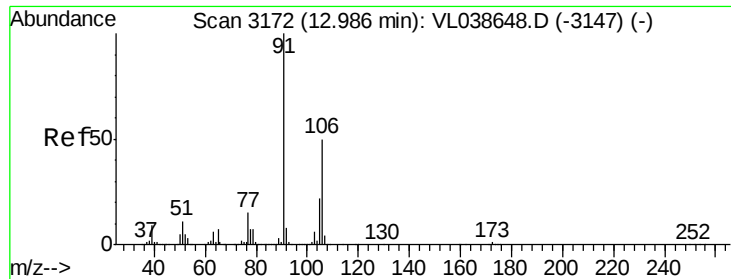
Tot Ion: 117 Resp: 1782004
Ion Ratio Lower Upper
117 100
82 64.9 51.6 77.4
119 33.8 26.9 40.3



#58
Ethyl Benzene
Concen: 0.120 ppbv
RT: 12.70 min Scan# 3084
Delta R.T. 0.01 min
Lab File: VL038778.D
Acq: 28 Mar 2022 19:39

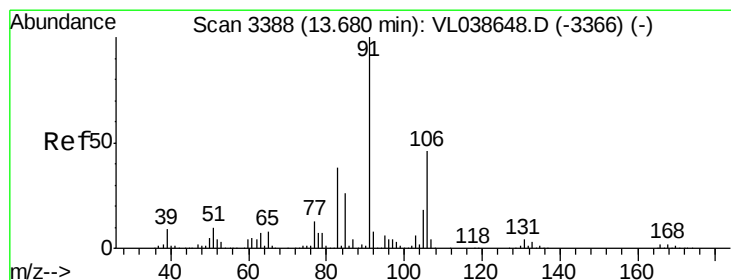
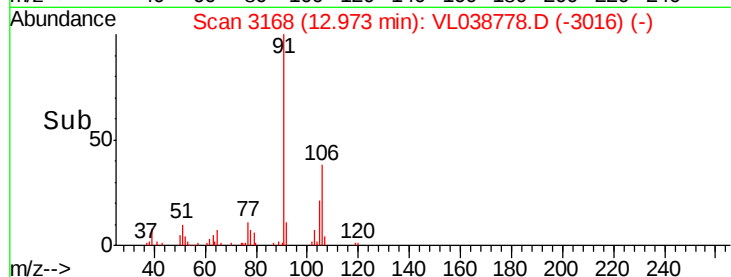
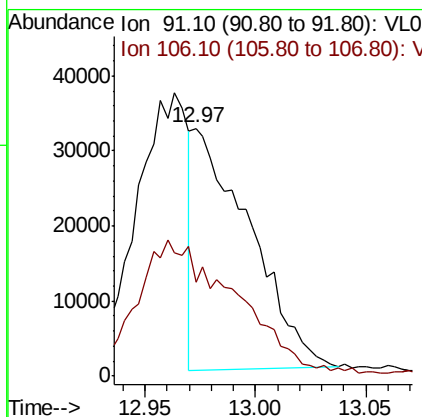
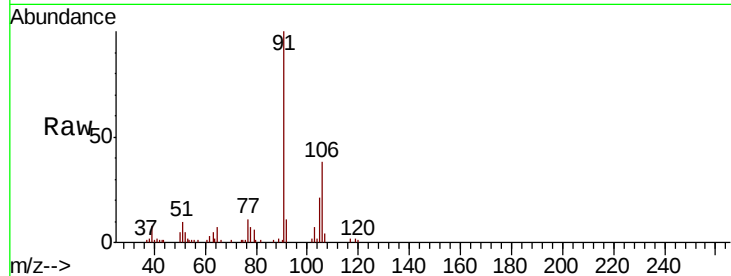
Tgt Ion: 91 Resp: 25060
Ion Ratio Lower Upper
91 100
106 30.0 25.4 38.0





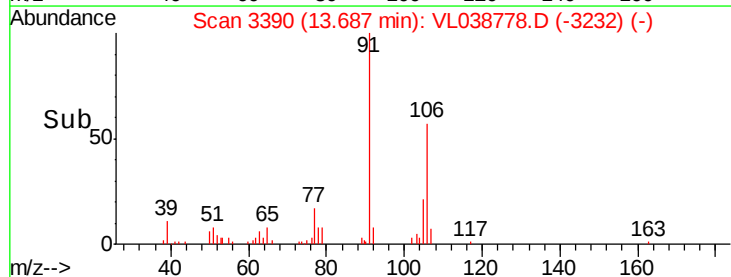
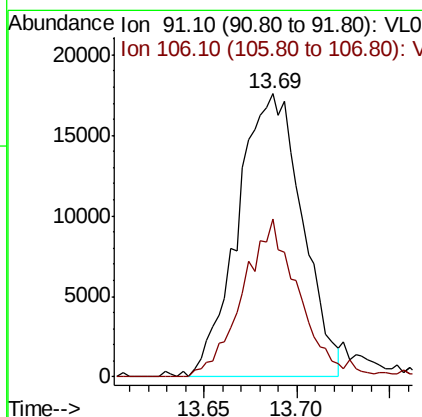
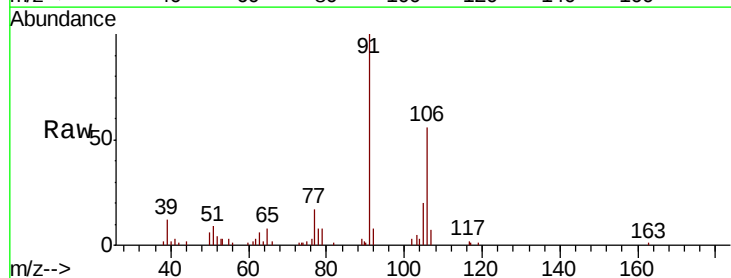
#59
m/p-Xylene
Concen: 0.312 ppbv
RT: 12.97 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 28 Mar 2022 19:39

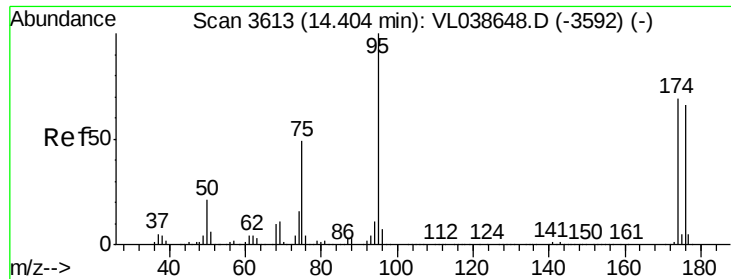
Tot Ion: 91 Resp: 56824
Ion Ratio Lower Upper
91 100
106 0.0 37.2 55.8#



#60
o-Xylene
Concen: 0.246 ppbv
RT: 13.69 min Scan# 3390
Delta R.T.: 0.01 min
Lab File: VL038778.D
Acq: 28 Mar 2022 19:39

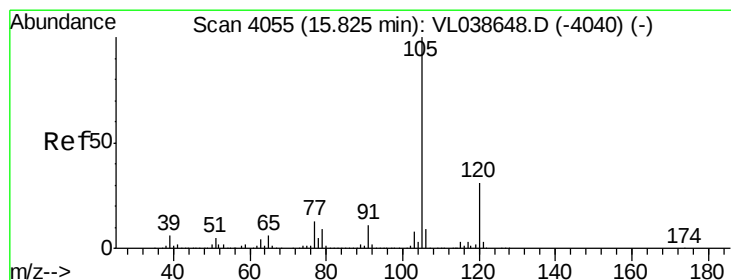
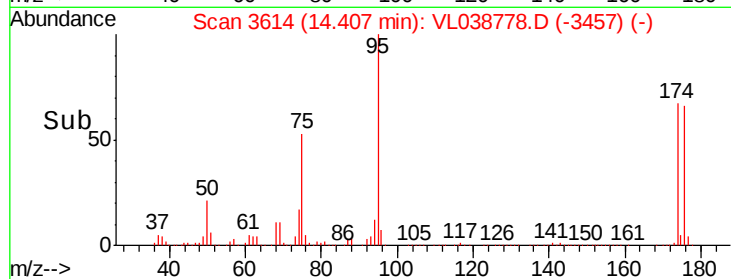
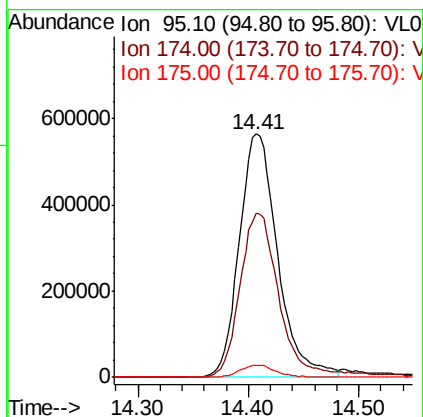
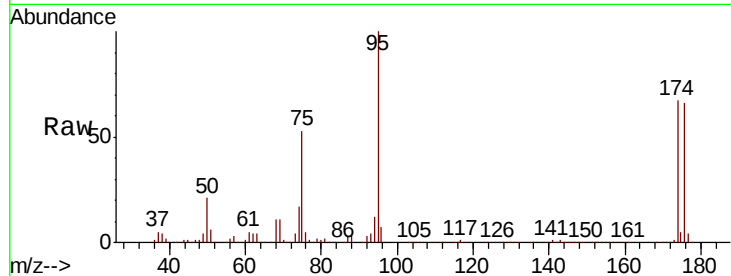
Tgt Ion: 91 Resp: 42487
Ion Ratio Lower Upper
91 100
106 49.5 23.5 70.5





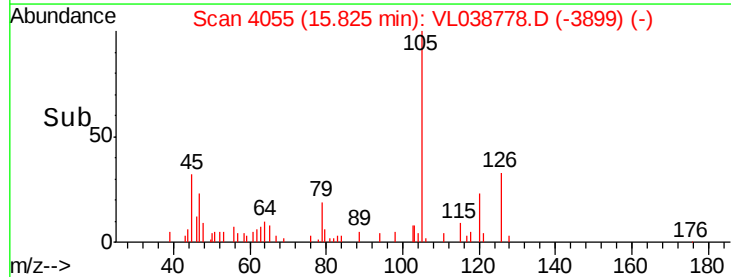
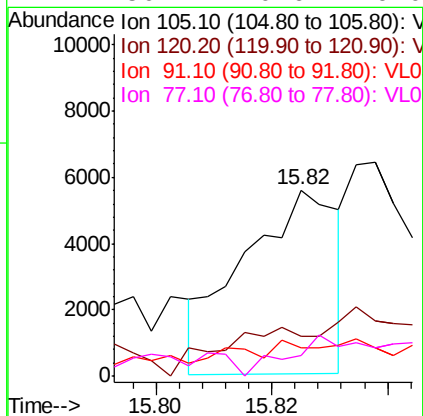
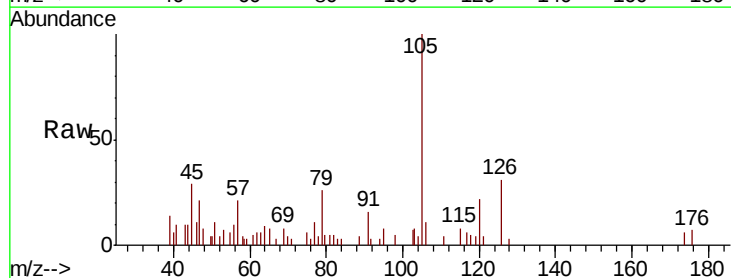
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.949 ppbv
 RT: 14.41 min
 Delta R.T.: 0.00 min
 Lab File: VL038648.D
 Acq: 28 Mar 2022 19:39

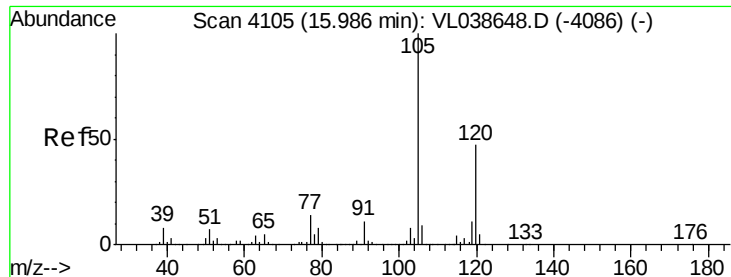
Tot Ion:	95	Resp:	1359305
Ion	Ratio	Lower	Upper
95	100		
174	71.2	56.1	84.1
175	4.9	4.2	6.2



#72
 4-Ethyltoluene
 Concen: 0.031 ppbv
 RT: 15.82 min Scan# 4055
 Delta R.T.: 0.00 min
 Lab File: VL038778.D
 Acq: 28 Mar 2022 19:39

Tgt Ion:	105	Resp:	6286
Ion	Ratio	Lower	Upper
105	100		
120	0.0	24.9	37.3#
91	0.0	9.8	14.6#
77	50.4	10.6	16.0#





#73

1,3,5-Trimethylbenzene

Concen: 0.042 ppbv

RT: 15.99

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

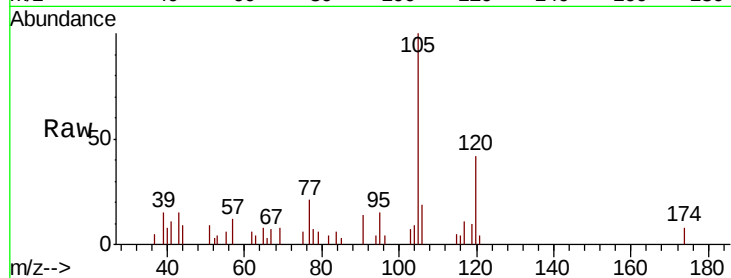
Acq: 28 Mar 2022 19:39

Tot Ion:105 Resp: 7822

Ion Ratio Lower Upper

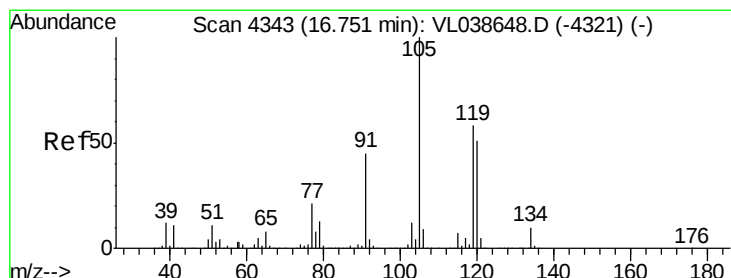
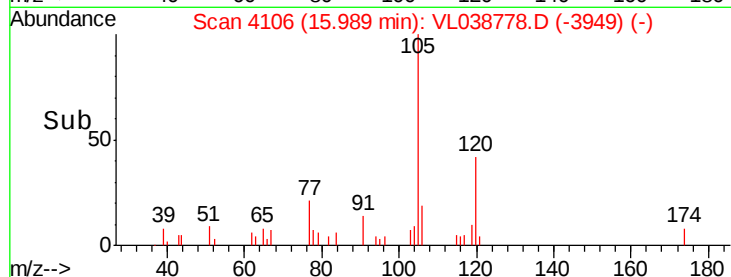
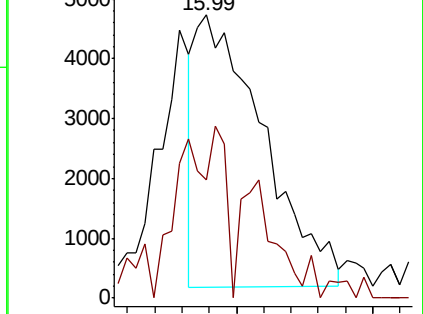
105 100

120 44.5 37.6 56.4



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.224 ppbv

RT: 16.75 min Scan# 4344

Delta R.T. 0.00 min

Lab File: VL038778.D

Acq: 28 Mar 2022 19:39

Tgt Ion:105 Resp: 45367

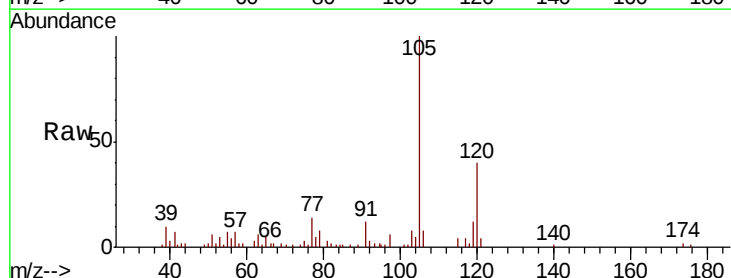
Ion Ratio Lower Upper

105 100

120 37.4 40.5 60.7#

91 10.8 35.9 53.9#

77 13.4 16.6 25.0#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

